

SPORT & EXERCISE PSYCHOLOGY
PROFESSIONAL DOCTORATE PORTFOLIO

LAURA DAWN SWETTENHAM

A portfolio submitted in partial fulfilment of the requirements of
Liverpool John Moores University for the degree of
Professional Doctorate in Sport and Exercise Psychology

March 2021

List of Contents

Practice Log of Training.....	6
Professional Standards.....	6
Consultancy.....	17
Research.....	29
Dissemination.....	36
Reflective Practice Diary.....	44
Professional Standards.....	45
Consultancy.....	70
Research.....	117
Dissemination.....	128
Consultancy Case Study One.....	141
Consultancy Case Study Two.....	166
Consultancy Case Study Three.....	189
Consultancy Contract Report.....	207
Teaching Case Study.....	215
Teaching Diary.....	235
Systematic Review.....	248
Empirical Paper One.....	280
Empirical Paper Two.....	331
Research Commentary.....	368
Reflective Commentary.....	380
Appendices.....	396

Abstract

This portfolio provides an insight into the development of a trainee sport and exercise psychologist from January 2018 – March 2021 during the professional doctorate in sport and exercise psychology at Liverpool John Moores University. The portfolio provides evidence, through a combination of consultancy, research, and reflective practice, of how the trainee successfully meets the competencies (professional standards, consultancy, research, and dissemination) documented in the British Psychological Society's (BPS) Stage 2 programme accreditation criteria and the Health and Care Professions Council Standards for approved programmes in Sport and Exercise Psychology.

The practice log tracks the trainee's work and experiences over this three year period. The reflective practice diary provides a window into her professional development by zooming into critical events as well as providing meta reflections on key topics and experiences to help tell a story about her journey. For example, highlighting struggles with confidence and imposter syndrome, key learning experiences within consultancy, and her evolving professional philosophy. The three applied case studies evidence the trainee's development as a practitioner through her evolving use of Acceptance and Commitment Therapy, and the use of Needs Supportive Communication (NSC) as she strove to become more client-led to suit the client's needs. The teaching case study explores the trainee's experience working within a new context and developing series of workshops in line with her professional philosophy and the needs of the client. The two empirical papers and the systematic review highlight the trainee's focus on bridging research and applied practice. Here, the trainee has explored the use of NSC within exercise referral practitioners, the use of Think Aloud as a reflective development tool for football coaches, and the relationship between basic psychological needs satisfaction and performance in athletes.

Declaration

No portion of the work referred to in this thesis has been submitted in support on an application for another degree or qualification of this or any other university or other institute of learning.

Acknowledgements

*To kind smiles on a Wednesday afternoon
Kind listening ears in a noisy room
To a new leaf on a weekend, working
Crisp sunny skies in the early morning
To a new day at the end of an era
As the sun shines out, it shines out the clearer*

-

I could not have completed this journey without all of the people and experiences that have supported and challenged me along the way.

In particular:

To Ian Swettenham, Dawn Swettenham, and Hannah Swettenham. The drive, intelligence, and kindness you all possess inspires me to be better every day. Without your love and guidance I would not be where I am now.

To Mathew Palmer for being my rock throughout this journey. Thank you for always making me laugh, especially on the low days.

To my lead supervisor and friend, Dr Amy Whitehead. Thank you for pushing me when I need it. I will be forever grateful for the guidance, support, and opportunities you have given me.

To Dr Paula Watson, Dr Martin Eubank, Dr Andy Hill, and Dr Laura Crabtree. I am so lucky to have such amazing supervisors and mentors. Thank you for your kindness, knowledge, and patience.

I am a better person and practitioner thanks to you all.

I hope our journeys together will continue.

Practice Log of Training

Professional Standards (including CPD)			
Location	Date(s)	Nature of the activity	Contact Hours
LJMU	18/01/18	Induction session at university	6
WFH	22/01/18	Starting to develop plan of practice and read through module guides	2
LJMU	1/02/18	Lectures	6
WFH	5/2/18	Get up to date with reflections and log book	7
LJMU	25/01/18	Meetings with Paula about exercise psychology experience and with martin about professional practice plan	3
WFH	26/01/18	Researched and booked onto a mindfulness for stress 8 week course	2
LJMU	29/01/18	Learnt about and developed Gantt chart for practice plan.	7
LJMU	08/02/18	Developed Gantt chart into a clearer version and formalised plan of training. Gained BPS membership. Met with Paula Watson	8
LJMU	12/02/18	Supervision meeting with Martin	2
WFH	16/02/18 – 28/02/18	Writing Gantt and started SWOT analysis and critical commentary	28
WFH	09/03/18	Changed Gantt chart based on meeting with Paula on the 8 th	7

Liverpool Dance Studio	11/02/18 – 27/03/18	8 week Mindfulness for stress reduction course	32
WFH	14/02/18	Reading for Systematic Review tutorial	2
LJMU	15/02	Reading for Systematic Review tutorial & Systematic Review and writing at D level Tutorial	6
Quaker Meeting House Liverpool	8/03/18	ACT workshop day 1	6
Quaker Meeting House Liverpool	9/03/18	ACT workshop day 2	6
WFH	14/03/18	Reflective writing on professional development	2
LJMU	15/03/18	Lectures. Learning about EndNote and how to reflect	6
LJMU	29/03/18	Supervision meeting with Paula and reflections afterwards	5
LJMU	06/04/18	Professional development interview for masters student.	1
LJMU	09/04/18	Radox mental health and wellbeing in racing.	6
LJMU	12/04/18	Lectures discussing professional philosophies.	6
WFH	20/04/18	Read little mindfulness workbook	7
WFH	23/04/18	Reading QSEP candidates case studies	5
WFH	24/04/18 – 25/04/18	Writing application for the GULP Campaign to be their lead evaluator	7
LJMU	26/04/18	Spend the day in university, discussing ethics and marketing of our consultancies.	7
LJMU	2/05/18	Meeting with martin discussing my progress so far.	2

LJMU	10/05/18	Prof doc lectures about entrepreneurship and ethics	7
LJMU	11/05/18	Power of Sport Conference	5
LJMU	24/05/18	Prof doc lectures on the process of consultancy and course representative meeting.	7
WFH	31/05/18 – 01/06/18	Writing reflections	14
LJMU	13/06/18	Attended the mindfulness and meditation research group.	1
London	27/6/18	DSEP Mental Health Treatment & Referral Conference.	8
LJMU	28/6/18	Joint cohort prof doc day.	6
WFH	04/07/18	Researching different types of meditation	3
WFH	05/07/18	Researched online ways to explain mindfulness to children	4
WFH	06/07/18	Building on my research on working with children from yesterday. Specifically how ACT can be used with children	4
LJMU	09/07/18	Supervisory meeting with Martin	1
WFH	09/07/18	Researched the brain house by Dan Siegel	4
WFH	17/07/18	Reflections	1
WFH	20/07/18	Research on how to develop a psychology PST programme for football academies.	4
WFH	26/07/18	Listening to a sport psych network podcasts and Russ Harris ACT podcast	5
WFH	01/08/18 - 19/10/18	Russ Harris ACT online course	96

WFH	09/08/18	Update log	2
WFH	15/08/18	Reflections	3
Liverpool	16/08/18	TASS session with Bernice on Goal setting	4
Liverpool	21/08/18	Met up with Ellie and she showed me how to use Mendeley and Rayyan	3
Liverpool	23/08/18	Second TASS session with Bernice, going through career values	3
LJMU	29/09/18	Supervisory meeting and meeting with PhD student	4
WFH	21/09/18	Reading about clinical psychology and mental health	6
WFH	25/09/18	Reading about relational frame theory	5
LJMU	27/09/18	Lectures	6
WFH	28/09/18	Spoke with a clinical sport psychologist about her pathway and views about sport psychologists working with athletes with mental health problems and reflected on outcomes.	7
WFH	1/09/18	Researching PETTLEP	2
LJMU	2/10/18	Supervision meeting and reflections	3
Staffordshire Uni	3/10/18	Staffordshire Performance Psychology Conference	6
WFH	4/10/18	Researching Spotlight and whether to attending the course. Emailed some sport psychologists to ask their view on the profiling. Reading on the dark side of mindfulness	5
LJMU	11/10/18	Lectures	7
LJMU	29/10/18	Supervision meeting with Martin discussing progress. Joined ACBS and explored their resources	6

Quaker Meeting House Liverpool	25-26/10/18	ACT two day intermediate workshop	28
WFH	1/11/18	Reading BPS DSEP journals	2
LJMU	13/12/18	Lectures discussing next years topics of study	6
LJMU	31/1/19	First lecture with all 3 cohorts.	6
LJMU	22/01/19	Meeting with Martin getting tips for how to work with clients, ethics around eating habits, transition programmes and systematic review	2
Rainford	26/01/19	Mike Rotheram workshop “sport psychology in the real world”.	6
LJMU	January – February 2019	3is teaching training	24
LJMU	31/01/19	Lecture on professional philosophy	6
WFH	4/02/19	Emailed martin placement contact details. Renewed professional liability insurance. Emailed Be Strong regarding work. Watched a youtube video of Jo Davis talking about starting her own SPC.	7
Mindflick Barn	13-14/02/19	Spotlight training course.	48
WFH	15/02/19	Applied for Blackburn rovers job	6
WFH	19/02/19	Updated my CV and applied to British gymnastics internship and waterloo rugby jobs	5
WFH	20/02/19	Listened to podcast listening to trainee development in Australia and what it’s like over there.	1
WFH	21/02/19	Listened to a great podcast with GB rowing sport psychologist.	2

WFH	25/02/19	Listened to a podcast with a skill acquisition coach.	2
WFH	26/02/19	Updated log	1
WFH	27/2/19	Organising teaching session for 3is qualification	1
LJMU	28/02/19	Lecture going over reflection, meta-reflection, ethics and research philosophy.	7
WFH	04/03/19	Prepared for interview for Waterloo Rugby role and had interview.	2
WFH	05/03/19	Reflected on SDT from a practitioner confidence/enjoyment/value perspective. Emailed Paula re ERS research and wrote Laura from, Cultiv8 Academy, my bio for their website.	7
WFH	08/03/19	Reflected on MA visit to the GP and medication. Created a formal ethical decision-making form and consulted BPS ethics. Wrote a reflection on this and completed an ethical decision-making form.	6
M&S Bank Arena	14/03/19	Tour around British Gymnastics event at M&S bank arena and watched the tournament. LJMU organised event.	6
LJMU	19/03/19	Meeting with Martin. Talking about ethical decision making, Blackburn rover's (BR) interview and my progress. Started work on BR interview presentation on my professional philosophy.	7
WFH	20/03/19	Created mindfulness poster for parents, registered for DSEP N.Hub workshops/day and LJMU psychology in football conference. Listened to mindfulness podcast, Theionot discussing use of mindfulness with GB sailing.	4
LJMU	21/03/19	Meeting with Amy discussing St Helens and BR interview.	3
WFH	25/03/19	Practiced and edited interview presentation and sent to Martin.	1

WFH	26/03/19	Edited and practiced (to death!) BR interview based on Martin & Amy's comments.	6
LJMU	28/03/19	Practiced interview presentation one last time! Met with Richard from 3 rd cohort to discuss exercise psychology and philosophy. Motivational interview workshop for half the day. Blackburn interview.	10
WFH	29/03/19	Wrote reflections on BR interview and on the offer! Applied for DBS with BR – celebrated!	3
WFH	01/03/19	Read steve ingham blog post “to the 15000” wrote thoughts to expand into a reflection. Started to update log, took DBS documents to Ewood Park.	3
WFH	02/03/19	Messaged Craig about St Helen's dates moving forward, updated log, completed reference form for BR, wrote reflections	3
WFH	2/04/19 – 5/04/19	Mindfulness Master for Tennis Course	55
WFH	30/04/19	Completed safe guarding for Blackburn Rovers. Started LJMU ethics training	4
LJMU	1/05/19	Spoke with MSc student about Blackburn Rovers and her experiences there on placement. Read paper on eating disorders. Continued ethics online training.	8
WFH	02/05/19	Complete ethics training, Took time to reflect on meeting MSc student and discussing Blackburn and work done at Bolton tennis Academy.	7
LJMU	09/05/19	Doctoral Academy Conference and supervision meeting with martin talking about BR and reflective research.	6
LJMU	10/05/19	The Power of Sport Conference	6
LJMU	23/05/19	Met with Danny Ransom and wrote reflections	5
LJMU	21/06/19	Reflective practice masterclass	5

WFH	26/07/19	Placement paperwork updated	3
Rainford	04/07/19	Mike Rotheram workshop discussing pressure testing and personality, spotlight, and reflections from his own work.	8
Premier League Offices London	05/07/19	Premier League Consultation Forum in London	8
LJMU	05/09/19	LJMU Football Psychology Conference and networking	8
LJMU	13/09/19	Meeting with Rob Morris to discuss BR and supervision and research.	6
Mindflick Barn	16/09/19	Spotlight refresher day	12
St George's Park	03/10/19	Injured 3 – PFA mental health conference	12
LJMU	28/11/19	Lectures and writing reflections on development	7
Solihull	02/12/19-04/12/19	DSEP conference, writing notes and reflections from conference	36
Quaker Meeting House Liverpool	11/12/19	Intermediate ACT Workshop with Strive2Thrive	8
LJMU	30/01/20	Lectures	7
Blackburn Rovers Academy	17/02/20	MIND mental health workshop	2
LJMU	27/02/20	Lectures and meeting with PhD student to discuss sport psychology	7
WFH	28/02/20	Reading Keegan's book and refining consultancy check list	5
WFH	24/03/20	Supervision meeting with Martin about COVID impacts on work	1
WFH	26/03/20	Lectures, Spotlight CPD	7

WFH	27/03/20	RULER emotional intelligence CPD	2
WFH	02/04/20	Lectures	2
WFH	03/04/20	Supervision meeting with Martin	1
WFH	08/04/20	Reflections on profession development	3
WFH	11/04/20	Read Nesti's psychology in football book	5
WFH	23/04/20	Lecture on REBT	2
WFH	28/04/20 - 28/05/20	Mike Rotheram Webinars: The Missing Chapter (10 x 1 hour webinars)	10
WFH	28/04/20	Reading on systems approach and organise reflections for portfolio	3
WFH	29/04/20, 14/05/20,	Motivational Interviewing & Beyond: Listening webinar, empathy webinar	4
WFH	06/05/20	Reading on case formulation	2
WFH	11/05/20	Kyle Edmund webinar with Cultiv8 Academy about journey to professional tennis	1
WFH	13/05/20	Write reflections on mindfulness practice	
WFH	28/05/20	Lecture	4
WFH	29/05/20, 01/06/20	Reflection on lockdown learning from webinars	5
WFH	01/06/20	Lecture on systems and football	2
WFH	02/06/20	Supervision meeting with Amy about TA various assignments on the doctorate	1
WFH	15/06/20	Reading research about psychology in esports	3

WFH	18/06/20	Meeting with another trainee working in esports	2
WFH	19/06/20	Premier League Webinars	2
WFH	30/06/20	Esports performance coaching webinar	1
WFH	01/07/20	Meeting about psychology in football with stage 2 candidate	1
WFH	02/07/20	Spotlight Strengths Webinar	1
WFH	03/09/20	Spotlight Teams Webinar	1
WFH	15/09/20	Reflect on experiences during COVID-19	3
WFH	01/10/20	Lectures	2
WFH	26/10/20	Progress meeting with PW and AW	1
WFH	05/11/20	Meetings with professional doctorate and stage 2 candidates	4
WFH	18/11/20	Supervision meeting with AW	1
WFH	30/11/20	Spotlight webinar	1
WFH	09/12/20	Add detail to reflections	8
WFH	16/12/20- 17/12/20	BPS conference	9
WFH	January – March 2021	Organise reflections	12
WFH	11/01/21	Supervision meeting with AW	1
WFH	21/01/21	Meeting with professional doctorate student	1

WFH	27/01/21	Esports journal club and catch up	3
WFH	08/02/21- 09/02/21	LJMU Symposium and Spotlight cognitive diversity webinar and reflections	12
			Total: 996

Consultancy					
Client details	Location	Date(s)	Nature of the activity	Contact Hours	Placement Host details (if applicable)
Chester FC manager	Chester FC	13/02/18	Meeting with CFC manager	2	Calum McIntyre
2 senior members of 1 st team	Chester FC	19/01/18	Workshop and player support	2	Calum McIntyre
Chester FC first team	Chester FC	20/01/18	Observation of league match and changing room talks	3	Calum McIntyre
Chester FC: NB, JJ	Chester FC	20/02/18	Catching up with players flagged by physiotherapist	7	Calum McIntyre
Couch to Marathon	Blackpool	22/02/18	Observations and conversations with members of Be Strong and Couch to Marathon. Carried out 5, 20 minute, one to one sessions.	7	Rick Wilson
First team	Chester FC	23/02	Intake consultancy with NB	1	Calum McIntyre
Runners on the Couch to Marathon initiative	Couch to Marathon	24/02	Helping with workshop delivery and one-off consultancy with 5 marathon runners	7	Rick Wilson
N/A	WFH	12/03/18	Mindfulness exercise PhD meeting and reading journals about ACT for chronic pain	7	N/A

Chronic Pain Patient	St Davids Village Hotel	13/03/18	Consultancy with GB	3	N/A
Be Strong	Blackburn	13/03/18	Observing and joining in with exercise sessions and seeing how one of their sessions runs.	4	Rick Wilson
Bolton Academy player (JP) and parents	Bolton Tennis Academy	20/03/18	Intake consultancy	1	Dr Laura Crabtree
Bolton Tennis Academy Training	Bolton tennis Academy	20/03/18	Shadowing sport psychologist	6	Dr Laura Crabtree
Chester FC	Chester FC ground	22/03/18	Player support	4	Calum McIntyre
Bolton Tennis Academy	Bolton Tennis Centre	27/03/18	Shadowing sport psychologist and provided support for players	6	Dr Laura Crabtree
JP Bolton Tennis Academy	Bolton Tennis Centre	28/03/18	Providing session summary to client	1	Dr Laura Crabtree
JP Bolton tennis Academy	Bolton Tennis Centre	5/04/18	Consultancy with support of another sport psychologist and writing reflections	8	Dr Laura Crabtree
JP Bolton tennis Academy	Bolton tennis centre	11/04/18	Observing JP tennis training and one-to-one consultancy	6	Dr Laura Crabtree

JP Bolton tennis Academy	WFH	30/04/18	Developing session for JP	2	Dr Laura Crabtree
Bolton Tennis Academy	Bolton tennis Centre	1/05/18	Shadowing sport psychologist	6	Dr Laura Crabtree
Bolton Tennis	Bolton	22/05/18	Mentoring from sport psychologist	4	Dr Laura Crabtree
Bolton Tennis Academy	WFH	06/06/18	Reflected on applied techniques that I have learnt since being at Bolton tennis academy	2	Dr Laura Crabtree
TH Tennis Player	Glan Aber TC	16/06/18	Intake	3	N/A
Bolton Tennis Academy Training	Bolton Tennis Academy	19/06/18	Shadowing sport psychologist and developing academy programme	4	Dr Laura Crabtree
LW tennis player	Robin Park	21/06/18	Prepared and delivered intake with a new tennis client	5	N/A
LW tennis player	Robin Park	2/07/18	Preparation for session and needs analysis.	5	N/A
TH tennis player	Glan Aber	7/07/18	Needs analysis with TH	3	N/A
LW tennis player	Robin Park	9/07/18	Preparation, consultancy, and reflection	5	N/A
TH tennis player	Glan Aber	12/07/18	Preparation, consultancy, and reflection	5	N/A
Chester Academy	Deva Stadium	19/07/18	Meeting the team and attending training	4	Calum McIntyre
LW tennis player	Robin Park	25/07/18	Preparation, consultancy, and reflection	3	N/A

Bolton Tennis Academy	Bolton Tennis Academy	31/07/18	Helped Laura to run 2 mini tennis workshops	6	Dr Laura Crabtree
LW tennis player	Robin Park	6/08/18	Preparation, consultancy, and reflection	5	N/A
TH tennis player and dad	Glan Aber	07/08/18 - 08/08/18	Preparation, consultancy, reflection	4	N/A
Chester Academy	Library	10/08/18	Preparing workshop	4	Calum McIntyre
LW tennis player	Robin Park	13/08/19	Preparation, consultancy, reflection	5	N/A
Chester Academy	Deva Stadium	14/08/18	Observed training and delivered workshops	5	Calum McIntyre
TH tennis player	Glan Aber	17/08/18	Preparation, consultancy, reflection	4	N/A
Chester Academy	Home	18/08/18	Developed goal setting worksheet and presentation	3	Calum McIntyre
LW tennis player	Robin park	20/08/18	Preparation, consultancy, reflection	5	N/A
Chester Academy	Deva Stadium	28/08/18	Goal setting workshop x 3	4	Calum McIntyre
TH tennis player	Home	28/08/18	Reassessing consultancy plan	3	N/A
LW tennis player	Robin park	10/09/18	Preparation, consultancy, reflection	5	N/A
Chester Academy	Deva Stadium	11/09/18	Developed and delivered workshop	4	Calum McIntyre
Chester Academy	Deva Stadium	13/09/18	Delivered two workshops to the second year academy team	3	Calum McIntyre

LW tennis player	Robin Park	19/09/18	Preparation, consultancy, reflection	4	N/A
JP tennis player	David Lloyd Chorley	21/09/18	First session with JP in 5 months, did a revised intake.	3	N/A
LW tennis player	Robin park	24/09/18	Spent the day planning for this session, looking more at expectations and functional tennis. Listened to more of the ACT in Context podcast to the session. Bumped into another client at Robin Park too and was updated on his progress.	4	N/A
Chester FC	Deva Stadium	2/10/18	Attended Chester FC match and spoke with the Academy coach about moving forward.	4	Calum McIntyre
JP tennis player	David Lloyd Chorley	05/10/18	Preparation, consultancy, reflection	4	N/A
JG footballer MA rower	18/10/18	Chester rowing & Chester Academy	Intake with Chester academy player First time meeting the high performance women's squad at Chester Grosvenor rowing club.	5	Calum McIntyre N/A
JG footballer MA, CB rower	Chester Rowing & Chester Academy	23/10/18	One to one with Chester academy player and intake with two rowers	5	Calum McIntyre N/A
MA, CB rowers	Chester Rowing	01/11/18	Needs analysis with two rowers and reflection	3	N/A
Bolton Tennis Academy	Bolton Tennis Academy	03/11/18	Helping Bolton Sport psychologist out with workshops for U11 and U8 age groups putting psychology onto the court.	8	Dr Laura Crabtree

MA rower	Chester Rowing	06/11/18	Preparation, consultancy, reflection	6	N/A
LW tennis player	Robin Park	07/11/18	First on court session with LW and consultancy	4	N/A
Various	WFH	20/12/18	Reviewed client notes and read research relating to cases	6	N/A
MA rower	Coffee Shop Chester	27/12/18	Consultancy, reflection, support via email	4	N/A
Chester Academy	Deva Stadium	10/01/19	Chester Academy consultancy and workshops	6	Calum McIntyre
MA, CB rowers	Chester Rowing	23/1/19	2 x consultancy and reflection	6	N/A
Chester Academy MA, CB rowers	Deva Stadium & Grosvenor Rowing Club	24/1/19	Chester academy consultancy and one-to-one with two rowers	6	Calum McIntyre N/A
Chester Academy	WFH	04/02/19	Planned for Chester Academy workshop on injury.	3	Calum McIntyre
Chester Academy MA, CB rowers	WFH	06/02/19	Preparation for Chester academy workshop. Planned for MA and CB consultancies	4	Calum McIntyre N/A
Chester Academy MA rower	Deva Stadium & Grosvenor Rowing Club	07/02/19	Workshops on injury delivered. Consultancy and reflection with MA	6	Calum McIntyre N/A

LW tennis player	Robin Park	11/02/19	Prepared for LW consultancy based on discussion with Martin and had a 1-1 with LW. Arranged 1-1 with JP and time on court with coach.	6	N/A
LW & JP tennis players	WFH	12/02/19	Updated LW & JP case notes based on my new templates. Started a performance profile for JR based on Mike Rotheram workshop and kept a template for future use.	3	N/A
LW tennis player	WFH	18/02/19	Prepared for LW consultancy	2	N/A
JP tennis player	WFH	19/02/19	Prepared for JP consultancy	1	N/A
TR tennis player	David Lloyd Chorley	20/2/19	JR consultancy on court using TA	6	N/A
MA rower	Chester Café Nero	21/02/19	Practiced and delivered spotlight debrief	2	N/A
	WFH	22/02/19	Made performance feedback form for JP based on his performance profile dial. Sent JP and coaches (with permission from JR) his finalised performance profile.	3	N/A
LW tennis player	Robin Park	25/02/19	Preparation, consultancy, reflection	1	N/A
St Helens Women's	Totally Wicked Stadium	27/02/19	St Helens rugby meal and networking	4	Craig Richards
Bolton Tennis Academy	Bolton Arena	2/03/19	Workshops with Laura at Bolton tennis academy.	6	Dr Laura Crabtree

LW tennis player	Robin Park	04/03/19	Preparation, consultancy, reflection	4	N/A
Chester Academy St Helens Women's	LJMU	04/03/19	Supervisory meeting with Amy discussing consultancy at St Helens and Chester academy. Then reflecting and planning	4	N/A
Chester Academy MA, CB rowers	Deva Stadium & Grosvenor Rowing Club	07/03/19	Workshops on transition with Chester Academy and meeting with academy manager. 1-1 with rowers at Chester rowing	5	Calum McIntyre N/A
Bolton tennis academy	Bolton Arena	12/03/19	Meeting with Bolton sport psychologist	2	Dr Laura Crabtree
MA Rower	Chester – Costa	15/03/19	Consultancy, reflection	5	N/A
MA Rower	Chester – Waitrose	21/03/19	Consultancy, reflection	5	N/A
LW Tennis player	Robin Park	25/03/19	Preparation, consultancy, reflection	4	N/A
St Helens Women's	Totally Wicked Stadium	27/03/19	Created and delivered Spotlight workshop for St Helen's women	3	Craig Richards
LW Tennis player	Robin Park	01/04/19	Preparation, consultancy, reflection	4	N/A
MA rower Chester Academy	Chester -Café Nero & Deva Stadium	10/04/19	Met with MA for a consultancy. Attended Chester academy match.	3	N/A Calum McIntyre

Blackburn Rovers Academy	Blackburn Rovers Academy	11/04/19	First day at Blackburn Rovers shadowing Andy (performance psychologist).	7	N/A
LW Tennis player	Robin Park	24/04/19	Consultancy and reflection	5	N/A
St Helens Women's	St Helens Training Ground	25/04/19	Delivering 2 nd Spotlight workshop around flexing performance preferences. Observed training and spoke with coaches.	5	Craig Richards
Blackburn Rovers Academy	Blackburn Rovers Academy	7/05/19 – 04/03/21	Working three days a week (apart from during furlough and part furlough during COVID-19) delivering psychology department KPIs (e.g., one-to-one consultancy with coaches and players, delivering workshops, profiling, observation of training)	1802	N/A
MA rower	Chester Grosvenor Rowing Club	15/05/19	MA consultancy, reflection, and providing resources based on conversations in session	4	N/A
LW tennis player	Robin Park	22/05/19	Preparation, consultancy, reflection	3	N/A
LW tennis player	Robin Park	5/06/19	Consultancy and review with parents	3	N/A
St Helens Women's	St Helens Totally Wicked Stadium	23/06/19	St Helen's women's match v Wigan	3	Craig Richards
St Helens Women's	St Helen's	18/07/19	Attending training	3	Craig Richards

St Helens Women's	St Helen's Totally wicked stadium	25/07/19	Attending training and talking with coaches.	3	Craig Richards
St Helens Women's	St Helen's totally wicked stadium	17/08/19	1-1 with one of the players, needs analysis, and attending training	3	Craig Richards
Cultiv8 Academy	Leeds tennis centre	18/08/19	Discussing work moving forward with Cultiv8 Academy.	8	Dr Laura Crabtree
MA rower	Chester Café Nero	29/08/19	Met with MA (rower) to catch up and discuss her moving clubs	2	N/A
MA rower	Chester Café Nero	5/09/19	1-1 with MA (rower) using spotlight to see how she can flex into different styles during performance	2	N/A
TH tennis player	Glan Aber tennis club	6/09/19	1-1 update and renewed needs analysis with TH	2	N/A
St Helens Women's	St Helen's Totally Wicked Stadium	19/09/19	Attending training and seeing player to discuss values.	3	Craig Richards
TH tennis player	Glan Aber Tennis Club	20/09/19	Updated TH case notes and delivered session. Presented the potential plan going forward.	2	N/A
HB tennis player	Cultiv8 Academy	17/10/19	Met up with Laura to discuss moving forward (coach programme, programme in schools, MSPE etc.) and met a new client at Widnes tennis academy	5	Dr Laura Crabtree

TH tennis player	WFH	17/10/19	Writing and planning case notes/progress for TH	2	N/A
HB tennis player	Widnes tennis centre	3/11/19	Observing HB in tournament	4	Dr Laura Crabtree
HB tennis player	Cultiv8 Academy	6/11/19	Write up observation notes for Laura.	2	Dr Laura Crabtree
Cultiv8 Academy	WFH	21/11/19	Reflections on working at Cultiv8 Academy	3	Dr Laura Crabtree
N/A	WFH	18/12/19	Planning outlines for case studies 1 and 2	2	N/A
St Helens Women's team	Training grounds	16/01/20	St Helens training	3	Craig Richards
Cultiv8 Academy	Leeds tennis centre	17/01/20-18/01/20	Cultiv8 academy planning and delivery of mindfulness sessions on court	12	Dr Laura Crabtree
St Helens Women's team	Training grounds	30/01/20	St Helens training	3	Craig Richards
Cultiv8 Academy	Widnes tennis centre	08/02/20	Planning, consultancy, observing tournament, reflection	3	Dr Laura Crabtree
St Helens Women's team	Training grounds	27/02/20	St Helens training	3	Craig Richards
Cultiv8 Academy	Leeds tennis centre	29/02/20	Cultiv8 Academy team meeting and seeing new facilities	5	Dr Laura Crabtree
Cultiv8 Academy	WFH	28/03/20	Meeting with Laura Crabtree about online consultancy during COVID	1	Dr Laura Crabtree

LW Tennis player	WFH	May – September 2020	Case study 1 write up	32	N/A
NVision Esports	WFH	June-August 2020	Consultancy work for NVision during Summer Split (1-1 support for player and coaches, meetings with management, observing training and matches)	84	N/A
MA rower	WFH	August 2020 – January 2021	Case study 2 write up	24	N/A
Blackburn Rovers Academy	WFH	August 2020 – January 2021	Case study 3 write up	28	N/A
NVision Esports	WFH	September – November 2020	Consultancy work for NVision during NLC Fall Open (1-1 support for player and coaches, meetings with management, observing training and matches)	28	N/A
				Total: 2454	

Research			
Location	Date(s)	Nature of the activity	Contact Hours
WFH	22/01/2018	brainstorming ideas for systematic review and research.	3
WFH	23/01/2018	Research mindfulness for systematic review	2
WFH	26/01/18	Continued research into mindfulness	4
WFH	1/03/18	Researching questions for systematic review	5
LJMU	6/03/18	Discussed EndNote with Stewart and gathered journals into endnote to consider systematic review questions	8
LJMU	28/03/18	Meeting with Amy about research paper	1
WFH	04/04/18	Making revisions for journal submission. Mostly reworking the introduction.	4
WFH	10/4/18	Reworked abstract to submit for conference presentation	1
WFH	19/04/18	Going back to my systematic review ideas and rethinking. Trying to find a topic that I am passionate about.	6
Liverpool	27/04/18	Meeting with Matthew to discuss the GULP campaign	2
WFH	23/05/18	Finalised reviewer comments for my MSc paper publication.	2
LJMU	23/05/18	Mindfulness and meditation research group and further reading	3
LJMU	30/05/18	Kat's PhD team meeting developing mindfulness intervention for PA. Further reading about mindfulness and PA	5
WFH	06/06/18	Reading through research on mental health in sport, still trying to think of a direction for my systematic review.	4

WFH	08/06/18	Back to the systematic review question... still struggling a lot to try and find something.	5
LJMU	12/06/18	Helped Amy Whitehead with the pilot for her research	2
WFH	13/06/18	Had comments back from reviewers about my MSc research paper. Had to reanalyse my CSAI-2 results in line with the revised version.	3
Liverpool	14/06/18	Had a meeting with the GULP team to talk about interview questions for coaches. Then met with paula to discuss this in more detail and get an idea for how to format the interview guide.	5
LJMU	25/06/28	2 nd part of the research for Amy Whiteheads's research.	2
LJMU	06/07/18	Read through Kat's most recent PhD update before meeting up and discussion the physical activity component for mindfulness programme	2
WFH	10/07/18	Checked references for my Think Aloud paper for review.	3
WFH	11/07/18	Looked though NHS exercise guidelines and other resources online to put together a document for Kat about what I thought could be included as the physical activity component in her PhD mindfulness for PA intervention.	3
Various	16/07/18 – 26/07/18	GULP interviews with coaches and teachers	14
GP Referral Wavertree	24/07/18	Interviewed one of the GP referral staff who has been trained in a Needs Supportive approach to one to one sessions for one of my research papers.	3
LJMU	24/07/18	Met up with Paula to discuss the GP referral research	1
LJMU	25/07/18	Read through comments on Kat's mindfulness workbook before going to the mindfulness research meeting and afterwards meeting with Kat and the rest of her PhD team to finalise the workbook and other areas such as recruitment and advertisement,	5

Offices/LJMU	27/07/18	GULP meeting and meeting with Kat to go over the mindfulness research	4
LJMU	13/08/18	Meeting with Paula and Laura T about coding for the GP Referral interview coding.	3
WFH	August – September 2018	GULP data analysis, and write up	72
WFH	September 18 – July 20	Exercise referral research data analysis and write up	137
LJMU	24/08/18	Meeting with Paula about GULP data and SPSS. Also finalised examples for the PA part of Kat's study and sent these to her.	6
LJMU	19/09/18	Coding meeting with LT and PW checking agreement and refining coding framework	3
WFH	20/09/18	Searching online for papers for systematic review.	3
LJMU	26/09/18	Coding meeting with Paula and Laura	2
WFH	16/10/18	Reading 'doing a systematic review' book	4
WFH	17/10/18	Research for systematic review topic	4
LJMU	5/11/18	ER Coding meeting with Paula and Laura	3
WFH	18/12/18	Started writing research proposal and reading around the literature for mindfulness intervention study	5
WFH	08/01/19	Worked through systematic review topic ideas. Finished initial theme generation for GP referral research paper.	5
WFH	09/01/19	Looked for some more flow and mindfulness papers and had a meeting with Paula about interview data for research paper.	3

WFH	17/01/19	Started writing my fNIRS mindfulness research proposal and started analysing ACT data (PAAQ and SDT questionnaires).	6
LJMU	18/01/19	Meeting with Paula about research and interview data. Began to amend my pen profiles. Spoke with PhD student about PAAQ	4
WFH	21/01/19	Finalised pen profiles and sent to Paula. Finished analysing ACT data. Started work on my systematic review	4
WFH	25/1/19	Finalised fNIRS Mindfulness research proposal	3
WFH	05/02/19	Reviewed comments from Amy on fNIRS mindfulness research	4
LJMU	12/02/19	Meeting with Amy about	2
LJMU	22/03/19	fNIRS cycling pilot and first trial.	5
LJMU	29/03/19	Meeting with Paula about ERS research.	2
WFH	3/04/19	Recoded ERS transcriptions	6
LJMU	04/04/19	fNIRS data collection	6
LJMU	24/04/19	Codebook check for PhD student's research in SDT in physical education. Meeting with Amy to discuss research.	6
LJMU	26/04/19	fNIRS cycling data collection. Interview on professional philosophy with MSc Student	5
LJMU	29/04/19	fNIRS data collection	4
LJMU	01/05/19	fNIRS data collection	2
WFH	03/05/19	Started work on reflective research, reading around the area and starting a rough proposal	3
LJMU	17/05/19 – 12/07/19	fNIRS data collection	24

WFH	2/08/19	TA cycling coding	9
LJMU	27/08/19	ER coding meeting	4
WFH	04/09/19	Start ethics form for 2 nd research paper. DWST coding	6
WFH	06/09/19	DWST coding	2
WFH	23/08/19	Ethics form for Blackburn rovers research	2
LJMU	10/01/20	Supervision meeting with Amy about research. Started ethics form for TA paper	5
LJMU	23/01/20	Supervision meeting with Martin	1
LJMU	07/02/20	Completing ethics form for TA paper	2
WFH	13/03/20	Meeting with lecturer about systematic review, planning systematic review process and writing reflections	6
WFH	23/03/20	Supervision meeting with Amy about replanning TA research due to COVID	1
WFH	28/03/20, 17/04/20	TA coach interviews	
WFH	09/04/20- 17/04/20	Systematic review protocol	8
WFH	16/04/20	Reading for TA football coaching research	3
WFH	17/04/18 – 19/04/18	Mindfulness research for Kat PhD, meeting with research team, and reading on mindfulness	12
WFH	20/04/20	Social media recruitment for COVID study	2
WFH	24/04/20	Transcribing interview from ACT workshop for potential use in teaching case study	2

WFH	27/04/20	Reading journals for TA paper and analysing data	3
WFH	29/04/20	Supervision meeting with Amy about TA research, supervision meeting with Paula about ER research	2
WFH	April – May 2020	Coding on NVivo for TA paper	10
WFH	30/04/20-01/05/20	Refine systematic review search strategy and protocol	11
WFH	06/05/20	Supervision meeting with Amy about TA research	1
WFH	11/05/20	Systematic review database searching,	3
WFH	12/05/20	Reading coaching literature for TA research	2
WFH	15/05/20	Supervision meeting with Amy about TA analysis	1
WFH	May – June 2020	Narrative analysis for COVID-19 research (including thematic analysis on NVivo and research team meetings, and write up)	56
WFH	22/05/20	Supervision meeting with Amy about TA analysis	1
WFH	09/06/20	Get help from PW about inter-rater reliability	2
WFH	10/06/20	Meeting with PW and SB about systematic review and refine inclusion and exclusion criteria	4
WFH	11/06/20	Systematic review search and upload to Rayyan	4
WFH	June 20	Sorting duplicates on Rayyan for systematic review	7
WFH	June-July 20	TA research write up	56
WFH	June – October 2020	Screening for systematic review	45

WFH	29/06/20	Meeting with Martin about IRR and progress	1
WFH	30/06/20	Meeting with SB about screening	1
WFH	06/07/20	Meeting with PW and SB about systematic review	1
WFH	July -	UK Coaching Think Aloud Research	20
WFH	18/08/20	Meeting PW about systematic review	1
WFH	15/09/20	Meeting PW about systematic review	1
WFH	21/09/20	Meeting PW about systematic review	1
WFH	24/09/20	Meeting AW about TA research	1
WFH	28/09/20	Meeting AW about TA research	1
WFH	September 2020 – February 2021	Systematic review write up and analysis	18
WFH	13/10/20	Meeting AW about TA research	1
WFH	06/11/20	Coding for TA tennis research	5
WFH	11/02/21	TA BPS research group meetings	1
WFH	24/02/21	Finalise research commentary	8
WFH	February 2021	Data collection for TA tennis coaching research	3
			Total: 775

Dissemination					
Client details	Location	Date(s)	Nature of the activity	Contact Hours	Placement Host details (if applicable)
N/A	WFH	22/01/18	Professional development/outreach. Developing social platform, Conversing with Bolton tennis centre sport psych and Paula at LJMU for potential opportunities	3	N/A
N/A	WFH	30/01/18	Develop website and blog	6	N/A
N/A	WFH	04/05/18	Preparing presentation for the power of sport conference	3	N/A
N/A	WFH	07/05/18	Finalised presentation for conferences and practiced	3	N/A
Be Strong	WFH	May – August 2018	Developing and delivering ACT workshops	35	Rick Wilson
N/A	WFH	14/05/18	Went to the EFL offices in Preston with GULP to present findings	5	N/A
Be Strong	LJMU	14/05/18	Supervision meeting with PW about ACT workshops	2	Rick Wilson
Cultiv8 Academy	WFH	02/08/18	Developed workshop	3	Dr Laura Crabtree
Chester Academy	N/A	WFH	Developed workshop for Chester FC	4	Calum McIntyre
N/A	WFH	14/09/18	Meeting with Kat and Paula about Mindfulness for PA taster session & edited PA section of the presentation	2	N/A
Mindfulness for PA	LJMU	17/09/18	Attended and delivered the physical activity component of a PhD students intervention study for the taster session as well as helping with various tasks.	3	

Mindfulness for PA	LJMU	October - November 2018	Helping to deliver MfPA course.	14	N/A
N/A	WFH	09/10/18	Edited and practiced the presentation of my research for Amy Whitehead's MSc session	3	N/A
N/A	LJMU	10/10/18	MSc presentation on my research. Meeting with Amy	2	N/A
N/A	LJMU	20/02/19	Wrote reflections on workshops and training courses.	2	N/A
N/A	LJMU	12/03/19	Prepared for MSc sport coaching lecture on spotlight, created worksheet handouts	3	N/A
N/A	LJMU	15/03/19	Delivering MSc Sport Coaching lecture on spotlight	2	N/A
Cultiv8 Academy	Bolton tennis centre	05/04/19	Discussed mindfulness course. Started drafting a mindfulness course for parents.	6	Dr Laura Crabtree
Cultiv8 Academy	WFH	08/04/19	Continued developing mindfulness course for parents	5	Dr Laura Crabtree
Cultiv8 Academy	WFH	09/04/19	Started mindfulness workbook for course. Recorded a breath meditation for the course.	4	Dr Laura Crabtree
St Helens Women's	LJMU	16/04/19	Met with Amy to discuss St Helens workshop. Finalised St Helens Preferences into FLEX & COPE map and worked more on the 2 nd Spotlight workshop for St Helens.	4	Craig Richards
Cultiv8 Academy	Bolton tennis centre	17/04/19	Developing spotlight for parents worksheet and presentation for Cultiv8 Academy	3	Dr Laura Crabtree

St Helens Women's	WFH	23/04/19	Finalised Spotlight St Helens workshop	4	Craig Richards
Cultiv8 Academy	WFH	26/04/19	Prepared workshop for introducing mindfulness to tennis parents	3	Dr Laura Crabtree
Cultiv8 Academy	Bolton tennis centre	29/04/19	Delivered Spotlight workshop for coaches at Bolton Tennis Academy	1	Dr Laura Crabtree
Cultiv8 Academy	Bolton tennis centre	30/04/19	Practice mindfulness intro workshop and then delivered at Bolton Tennis Academy to parents	4	Dr Laura Crabtree
Cultiv8 Academy	Bolton tennis centre	08/05/19	Spotlight workshop for parents	3	Dr Laura Crabtree
Cultiv8 Academy	WFH	06/06/19	Wrote ACT blog for Cultiv8 academy.	3	Dr Laura Crabtree
N/A	WFH	07/06/19	Wrote draft DSEP blog for ACT in sport. Met with Cassie (man city academy psych) to discuss spotlight workshops together and football.	7	N/A
Blackburn Rovers Academy	Brockhall Village	12/06/19	Developed teenage brain presentation	5	N/A
N/A	LJMU	23/07/19	Met with Amy to discuss conference presentation and research	1	N/A
N/A	WFH	28/07/19	Practiced for conference presentation	1	N/A

N/A	WFH	04/08/19	CRiC Coaching conference, presenting on my think aloud research	5	N/A
Bolton University	WFH	08/11/19-09/11/19	Prep for Bolton university lecture	8	N/A
Bolton University	Bolton University	14/11/19	ACT lecture Bolton University	4	N/A
Blackburn Rovers Academy	Brockhall Village	27/11/19	CONTROL workshop for U13/U14	1	N/A
St Helens Women's	WFH	13/12/19	Planning St Helens Workshop programme	2	Craig Richards
St Helens Women's	LJMU	19/12/1	Supervision meeting with Amy about St Helens programme	2	Craig Richards
St Helens Women's	WFH	16/01/20	Refined workshop programme for St Helens	2	Craig Richards
N/A	LJMU	23/01/20	Supervision meeting with Amy and delivering lecture for 3is course	5	N/A
N/A	Liverpool St Helens	25/01/20	Liverpool St Helens coaching workshop on TA and team values with supervisor	2	N/A
Blackburn Rovers Academy	Brockhall Village	11/02/20	ENGAGE workshop U15/U16	1	N/A
Blackburn Rovers Academy	IM Marsh	13/02/20	Supervision meeting about coach CPD workshops	2	N/A

Blackburn Rovers Academy	WFH	14/02/20	Update TA presentation for Blackburn Rovers	3	N/A
St Helens Women's	Training grounds	19/02/20-21/02/20	St Helens workshop prep and delivery on super strengths	4	Craig Richards
Blackburn Rovers Academy	Brockhall Village	03/03/20	TA coaching workshop	3	N/A
Blackburn Rovers Academy	IM Marsh	11/03/20	Supervision meeting about TA workshop and next steps	1	N/A
Cultiv8 Academy	WFH	03/04/20 - 18/04/20	Planning for Cultiv8 online workshop programme	10	Dr Laura Crabtree
N/A	WFH	06/04/20-13/04/20	Writing up 3is assignments and submission	18	N/A
N/A	WFH	20/05/20-30/07/20	Designing website	36	N/A
N/A	WFH	05/06/20	Meeting and writing plan for Myths in Coaching book chapter	3	N/A
N/A	WFH	08/06/20	Meeting with Amy about delivering for BASES webinar	1	N/A
NVision Esports	WFH	June- July 20	NVision workshop preparation and delivery	12	N/A
St Helens Women's	WFH	13/07/20-15/07/20	Planning for St Helens workshop on managing uncertainty and delivery	5	Craig Richards
NVision Esports	WFH	August 2020	Workshop feedback from NVision players and coaches	6	N/A

N/A	WFH	August 2020 – February 2021	Teaching Case Study	14	N/A
Blackburn Rovers Academy	WFH	13/08/20	U18s workshop Blackburn Rovers	1	N/A
Blackburn Rovers Academy	WFH	24/08/20	U16s workshop Blackburn Rovers	1	N/A
Blackburn Rovers Academy	WFH	21/09/20	U15s workshop Blackburn Rovers	1	N/A
N/A	WFH	30/09/20	Q&A with AW for her undergraduate students	1	N/A
N/A	WFH	19/10/20	Lecture with Amy for undergraduate students	1	N/A
NVision Esports	WFH	October – November 2020	NVision prep and delivery for workshops	10	N/A
N/A	WFH	20/10/20	Meeting with MSc students about esports	2	N/A
N/A	WFH	21/10/20	Slides for BASES TA webinar	1	N/A
Chester University	WFH	23/10/20- 28/10/20	Preparation and delivery for Chester University lecture on behaviour change theories	8	N/A
N/A	WFH	23/10/20- 23/10/20	Develop and record mindfulness lecture for AW	3	N/A
N/A	WFH	04/11/20	TA BASES webinar	1	N/A

Blackburn Rovers Academy	WFH	10/11/20	U14s & U15s webinar	1	N/A
	WFH	17/11/20-20/11/20	Presentation prep and delivery of workshop about TA for tennis coaches	8	Dr Laura Crabtree
	WFH	20/11/20	Presentation prep and delivery about professional philosophy to AW SEPAR candidates	3	
Blackburn Rovers Academy	WFH	23/11/20	U15s workshop	1	N/A
Cultiv8 Academy	WFH	25/11/20-27/22/20	Preparation and delivery of workshop about TA and autonomy supportive coaching	5	Dr Laura Crabtree
Akolyte	WFH	27/11/20	Guest on esports podcast	1	N/A
N/A	WFH	29/11/20-01/12/20	Prepare and record SDT lecture for AW undergraduate students	5	N/A
LJMU	WFH	January – March 2021	Designing lecture on LJMU foundation year module and delivery	24	N/A
N/A	WFH	January – March 2021	Teaching case study write up	22	N/A
Blackburn Rovers Academy	WFH	18/01/21	U15/U14s workshop Blackburn Rovers	1	N/A
N/A	WFH	January-February 2021	Teaching diary	10	N/A

Blackburn Rovers Academy	WFH	24/01/21	U12/U13 workshop Blackburn Rovers	1	N/A
Blackburn Rovers Academy	WFH	01/02/21	FDP workshop Blackburn Rovers	1	N/A
Blackburn Rovers Academy	WFH	08/02/21	U13-U15s workshop mental health week	1	N/A
Blackburn Rovers Academy	WFH	18/02/21	FDP workshop for club partners	1	N/A
N/A	WFH	25/02/21	TA BPS research group webinar for professional doctorate students	2	N/A
				Total: 416	

Reflective Practice Diary

Early on in my practice I was guided by Gibbs' (1988) reflective model. However, I felt that I was repeating myself a lot as I worked through each section of the cycle. I then explored Anderson's (1999) model of reflection. Though this gave me great ideas about what I should be asking myself, the process was long and focused too specifically on consulting experiences. I felt it did not allow me to reflect on CPD events or late night epiphanies! Most of my reflections are therefore written considering "What", "So What", and "Now What" based on Kolb's (1984) cycle of action and reflection. I felt this gave me the flexibility I needed once I understood the basics of reflection after exploring these other models.

References

- Kolb, D. A. (1984). Experience as the source of learning and development. *Upper Saddle River: Prentice Hall.*
- Anderson, A. G. (1999). *The development of a model to evaluate the effectiveness of applied sport psychology practice* (Doctoral dissertation, Coventry University).
- Gibbs, G. (1988) Learning by Doing: A guide to teaching and learning methods, Oxford: Further Education Unit, Oxford Polytechnic.

Professional Standards

1. My First Mental Health Ethical Consideration

25/01/18

One player hasn't been able to come in to training due to anxiety. I feel partially responsible for letting it get this far, though when I asked this player if he wanted to catch up and chat the answer was always be 'no that's OK'. After he didn't come in to training he was set up with a counsellor from the PFA to engage with a course of Cognitive Behavioural Therapy (CBT). He was then basically forced to talk to me after this by his coaches. I have some qualms with this as athletes will often feel more comfortable opening up to others, such their coach, over a psychologist (Maniar et al., 2001). But he said the CBT was going well. I really wish I'd recognised and referred this earlier, but what should I have done differently? I knew he had anxiety outside of football, but how do I know when it turns clinical? Is there a checklist I need to go through? We have been told in sessions to find a clinical psychologist to refer to and to understand the warning signs for mental health disorders. I do not know any clinical psychologists so this is something I need to explore to build my 'referral network' (Anderson et al., 1994). Debates with fellow trainees have discussed how we can ensure the clinical psychologist who we are referring the athlete to is the best fit. Moreover, what if the athlete is against clinical support, or cannot afford a private practitioner of which we have 'lined up' for them. Within this "referral network" there is therefore a need for a range of expertise and experience working with athletes and a range of fees to find one that suits the athlete (Van Raalte & Anderson et al., 2002). I will continue to explore what this referral network may look like and how I can build my own.

On reflection, I feel that if I was more embedded within the system I would have had small, informal conversations with the player and been able to recognise when his behaviour had changed. This could have allowed me to open a conversation about anxiety and even

explore an anxiety questionnaire if I was concerned about his mental health. Though, this linear progression won't be as simple as it sounds. There are still a lot of barriers to overcome such as the relationship with the athlete and whether they're comfortable opening up, whether their anxiety is not present at the football club and just at home, and whether I am around the player enough to recognise a change in behaviour. In the future, I want to be better prepared for events like this by building better relationships with people within the system so things such as this can be identified early on, either through my own recognition or through conversations with staff members.

After this I kept having regular meetings with him. I found that it was partly his identity that he was struggling with, not knowing if he wanted to push to get back in the team, or just go to a lower down team and be content and do what he wants in terms of eating and drinking – problems that have been following him around all season and that he has been judged on by the new manager. I felt overwhelmed with all of this. I had no idea how to help or how to fix things. I don't have anything in my tool box at all. What do I need to develop? What can I implement correctly with no knowledge or experience? After a conversation with my supervisor I was reminded that an intervention doesn't have to be using CBT or goal setting, it can simply be taking a person centred approach and giving the athlete a safe space to open up. This gave me some comfort, in that what I was doing was OK. However, I really want to add more to my so called "tool box". I want something I can fall back on, a therapeutic approach or technique that I can feel confidence in. I know this won't be the answer for everything, but perhaps it is a good place to start.

References

- Andersen, M. B., Denson, E. L., Brewer, B. W., & Van Raalte, J. L. (1994). Disorders of personality and mood in athletes: Recognition and referral. *Journal of Applied Sport Psychology*, 6,, 168-184 <https://doi.org/10.1080/10413209408406292>
- Maniar, S. D., Curry, L. A., Sommers-Flanagan, J., & Walsh, J. A. (2001). Student-athlete preferences in seeking help when confronted with sport performance problems. *The Sport Psychologist*, 15(2), 205-223. <https://doi.org/10.1123/tsp.15.2.205>
- Van Raalte, J. L., & Andersen, M. B. (2002). Referral processes in sport psychology. In J. L. Van Raalte & B. W. Brewer (Eds.), *Exploring sport and exercise psychology*, (3rd ed.). Washington, DC: APA.

2. Mindfulness and Loss of Self

Date: 27/02/18

I have experienced anxiety since my teenage years, mostly social anxiety, and I recognised this was negatively impacting my relationships, the interactions I had at university during seminars and lectures, and at the beginning of the professional doctorate it was impacting my ability to work with new groups of people and clients. I would push through this feeling, though it was becoming increasingly challenging and difficult to gain experience within the career I was pursuing. In January this year, I enrolled on a Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn, 2003) eight week course. What was interesting about this decision is that it was not intended to reduce my stress and anxiety but for me to explore mindfulness in the hopes of my being able to understand it better and apply it to my practice. I did not know the profound impact it would have on my life.

I am reflecting on this a couple of months down the line as I am starting to recognise impact the MBSR course has had upon my life. My experiences with mindfulness has allowed me to understand the human condition, in that we are predisposed to identify dangers within the environment, but that not all of these warnings are helpful. I was then able to understand why my thoughts were always worried about the future, stuck on the past and concerned about what others thought. I have cultivated the ability to step back and not to judge my experience, but to observe and be one with it. The acceptance that not everything will always be perfect has allowed me to develop more quickly by making more mistakes and putting myself on the line a little more. This is because I can now see that these thoughts and emotions are not necessarily me, but a product that my experiences and personality have created. But then what am “I”, where does that leave “me”, or “you”? These are questions I have been asking myself over the last couple of week as I have had experiences such as “self-loss” (Millière et al., 2018). My identity has been very tied with my reactions and my ways of thinking. Now I am able to detach from that I have been unsure of who I am anymore. Due to this, I am going to do a bit of soul searching and find out what is important to me. What’s next? What drives me? What’s the point to anything?

References

- Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, 8(2), 73.
- Millière, R., Carhart-Harris, R. L., Roseman, L., Trautwein, F. M., & Berkovich-Ohana, A. (2018). Psychedelics, meditation, and self-consciousness. *Frontiers in psychology*, 9, 1475. <https://doi.org/10.3389/fpsyg.2018.01475>

3. Mindfulness and Finding Meaning

12/03/18

After attending a Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn, 2003) course I decided to do some soul searching. Today I have started to piece together what is really important to me as a person and a practitioner. I have been exploring some approaches such as Acceptance and Commitment Therapy (ACT; Hayes et al., 2006) and have attended two workshops about ACT this week. What stood out to me is how ACT discusses having values to guide you. This is what I have been missing! As I lost myself and my usual reactions to the world around me as a result of mindfulness practice (Millière et al., 2018), I had nothing to guide me. Today I have been exploring my own values. I think these include aspects such as kindness, acceptance, flexibility, and learning. I hope this will create a clearer direction for my own life and the way I wanted to interact with the world around me.

I also think this is key to my practice. If I am to use mindfulness with clients, it is important that they have clarity in the direction they want to move in. When all of the thoughts and emotions are turned down, what do *you* want to do? What is *your* choice when you stop being pushed around by your internal events?

This experience is, and will continue to be, integral for my development as a practitioner as it has helped me to understand the ways humans view the world as well as how I view the world and make sense of it. For me, I make sense of it through the belief that we are all striving for balance and growth within the lives we live, or other traditions may call this integration or actualisation (Ryan, 1995; Rogers, 1963). If we can understand the workings of the mind and understand we must release control over uncontrollable externals (and that this means releasing control over our thoughts and emotions) we can find a place where we release the struggle with ourselves and instead strive towards fulfilment.

In the future, there are many more avenues I want to explore in terms of thoughts and feelings I still struggle against. One experience I recognise has not appeared to lessen after my experiences with mindfulness is anxiety around speaking up within a group of people. If I feel as though I should speak, or have something to say my heart rate increases and my call to action is pushed back within me. People I have worked with have spoken to me about this, and it of course makes me feel very uncomfortable as I know it is a weakness of mine. This is something I will strive to get better at, through accepting that these feelings may arise but do not have to cause inaction as I can realign with my values and purpose. Finally, I would like to explore more about consciousness and reality by furthering my meditation practice. I believe that by investing time in understanding myself will help me to be a better practitioner by cultivating the ability to identify my own biases and how they can impact my service delivery (Poczwadowski & Sherman, 2011).

References

- Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, 8(2), 73.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Millière, R., Carhart-Harris, R. L., Roseman, L., Trautwein, F. M., & Berkovich-Ohana, A. (2018). Psychedelics, meditation, and self-consciousness. *Frontiers in psychology*, 9, 1475. <https://doi.org/10.3389/fpsyg.2018.01475>
- Poczwadowski, A., & Sherman, C. P. (2011). Revisions to the sport psychology service delivery (SPSD) heuristic: Explorations with experienced consultants. *The Sport Psychologist*, 25, 511–531. <https://doi.org/10.1123/tsp.25.4.511>

Rogers, C. R. (1963). The actualizing tendency in relation to “motives” and to consciousness.

In M. R. Jones (Ed.), *Nebraska Symposium on Motivation* (Vol. 11, pp. 1–24).

Lincoln: University of Nebraska Press.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63(3), 397–427 <https://doi.org/10.1111/j.1467-6494.1995.tb00501.x>

4. Battling with Myself

Date: 04/10/18

I worry a lot about whether my personality is suited for this career. Especially since the personal qualities of the sport psychology practitioner have been found to impact effectiveness; with my primary consulting tool being myself and the relationships I build with my clients (Tod & Anderson, 2005). I am concerned about whether I am too quiet, not outspoken enough, not confident enough to survive within a sporting environment. This was something that was highlighted by a fellow professional doctorate student this week, who said I was very quiet and should speak my opinion more. I completely agree with her, and appreciated this support, but it still makes me feel rubbish and hits home even more as this is always something I’ve been concerned about. Further, I worry I am disadvantaged as my background is from pure psychology rather than sport, and my experience of sport is from a recreational/university team level. I often worry my passion is for psychology more than sport and whether this is a bad thing. I am comparing myself to the trainees on the doctorate and feel that they hold these characteristics and experiences that I do not.

Whilst experiencing these feelings this week, I attended Staffordshire University Conference for sport psychology where I was introduced to Spotlight Profiling (Ong, 2018). This allowed me to recognise that my personality is not fixed and that the weaknesses I am perceiving may in fact be my strengths overplayed. For example, being so concerned about

what other people think of me and being so focused on what might go wrong that it stunts my progress. By recognising where I overplay my strengths, I can adjust my behaviour and manage the stories my mind is telling me to “perform” better as a practitioner. This short workshop on Spotlight allowed me to see a light at the end of the tunnel. That, perhaps, I am suited to this career. If I can shift my thinking to be more optimistic and consider why my passion for psychology can be my strength I may find more confidence in the path I have chosen. My call to action is now to enrol on their next training course. I hope this will not just give me a tangible tool to use with clients, but teach me about myself and how I can be a better and more self-aware practitioner.

References

Ong, C. W. (2018). A statistical evaluation of the ‘Spotlight’ personality tool—A white paper.

Tod, D., & Andersen, M. B. (2005). Success in sport psych: Effective sport psychologists.

5. Spotlight Course

Date: 15/02/19

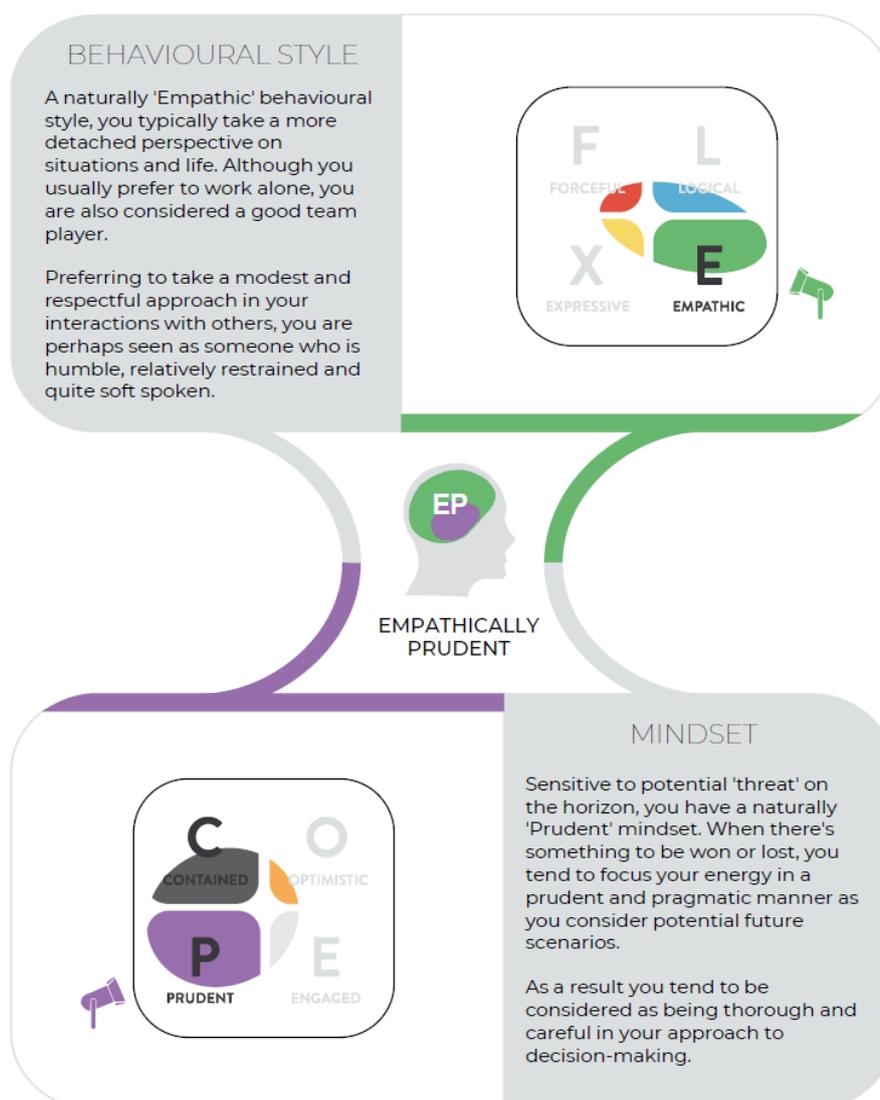
My first reaction following the two day Spotlight course is “This is amazing, this is what I need.” Spotlight (Ong, 2018) is not just a fantastic profiling tool to support the consultancy process, but a fantastic way for me to learn more about myself and accept myself as a person and a practitioner. I box myself into a category of someone who does not have the right style to “make it” in sport psychology. But, actually, meeting the other practitioners on this course and debriefing our profiles together has made me aware that we are all rather similar and hold the same concerns and vulnerabilities. There is immense power in sharing these vulnerabilities with our peers and engaging with regular peer support (Poczwadowski et al., 2004). I think the sessions at LJMU are dominated by big, loud personalities and this

made me feel like I was in the wrong place. But I am in the right place (along with all of my insecurities and quirks) and this Spotlight course and networking opportunity has revealed that to me.

I would like to reflect on some of the points that resonated with me in my profile (Figure 1). My performance preference is *empathically prudent*, which can be seen and described below. Initially, I saw this a bad thing (I am “prudent” after all) and thought this meant I was too soft and too negative.

Figure 1

My Spotlight Performance Preferences



However, I was able to see in the profile how my preferences brought me strengths such as “being diplomatic and thoughtful in my choice of words”, “seeing the best in people and giving them my full backing”, and “not getting carried away when things have gone well, remaining focussed on what’s coming next”. I am starting to believe that perhaps my references are suited to being a sport psychologist. Though, I recognise I will need to be flexible and adapt how I work with different people and across contexts (Fifer et al., 2008).

Finally, recognising my “blind spots” and my overplayed strengths (weaknesses!) allowed me to realise some of the setbacks I was experiencing. For example, “being too careful and failing to take positive action”, “with a desire to keep the peace and please others, I may overlook my own needs and viewpoints”, “as you are typically quite gentle and soft-spoken in your approach, you may fail to ask the challenging question that would benefit everyone”. This reminds me of when I am too worried about speaking my opinion in fear of being wrong or upsetting someone. I definitely recognise this with my clients, and whilst providing unconditional positive regard, fail to challenge them to help them to develop. As it says within my profile, by “helping others to such an extent that they fail to learn to help themselves”. I therefore need to begin to challenge myself to flex into a different preference when challenge is needed for the development of the client. This may involve stepping into a *forcefully optimistic* preference and “taking the risks that are needed in order to be successful”.

I can’t wait to use the tool with my clients and bring a fun and creative approach to my questioning and entire practice, whilst also using it to accept myself for where I am at and challenge myself to flex into different preferences to benefit myself and my clients. It’s given me confidence to work with teams and even to work with coaches, culture, and explore psychological safety (which before this course were all just words on paper to me). I’m going

to make an effort to keep in touch with the group of practitioners I met on the course, practice speaking my mind, and challenging others.

References

- Fifer, A., Henschen, K., Gould, D., & Ravizza, K. (2008). What works when working with athletes. *The Sport Psychologist*, 22(3), 356-377. <https://doi.org/10.1123/tsp.22.3.356>
- Ong, C. W. (2018). A statistical evaluation of the ‘Spotlight’ personality tool—A white paper.
- Poczwardowski, A., Sherman, C. P., & Ravizza, K. (2004). Professional philosophy in the sport psychology service delivery: Building on theory and practice. *The Sport Psychologist*, 18(4), 445-463. <https://doi.org/10.1123/tsp.18.4.445>

6. SDT From a Practitioner Development Perspective

Date: 05/03/19

I’ve notice a significant shift over the last few weeks in my confidence, enjoyment and ultimately motivation for my training as a sport psychologist. Maybe this is because I’ve been on some new courses, had some opportunities come my way, have been communicating with a larger network of people, and giving myself more of a voice. Someone in my class even said to me “you’ve changed Laura” (I think this meant in a positive way!). I was speaking up more, expressing my opinions, whilst feeling much more passionate and motivated about my work. Previously during professional doctorate sessions, I would be more of a sponge and simply absorb the experience and learning from those around me rather than actively contributing. I always put this down to my personality, being quiet and introverted, but perhaps it’s more to do with me not having enough experience or confidence in my knowledge to feel I had a well-formed opinion to verbalise.

I think this is since my practitioner “tool box” has started to grow. Practitioners have stated how this “tool-box” of random components did not serve their practice (McCormick et al., 2018). Whereas I have heard other practitioners during my Doctorate discussing the importance of building this tool-box to become an effective practitioner. For me, I do think this “tool-box” is important, though I think the key for it to be effective is in understanding how all of the components are connected and how they integrate with your own professional philosophy. As I am starting to understand my own philosophy and how the tools I have picked up along the way link with my practice, I feel my motivation, confidence, and value I place on my work is increasing.

Why is this? Why have I shifted so much over this last few weeks? Not too long ago I was reflecting on not knowing what to do, feeling unsatisfied, lost, feel self-doubt, and not able to speak my mind. What has caused this behaviour change? Today it hit me... Self-Determination Theory (SDT; Deci & Ryan, 2000) – obviously! Interestingly, I’d never linked this with SDT; a theory I’ve been educated in for years, but have never considered it in terms of my professional development. If we break this down into the three basic psychological needs I think this is where my motivation is being fuelled from: Autonomy - as my knowledge base has grown it has allowed me to make choices about where I want my work to go and how I want to be as a practitioner; relatedness - meeting people at workshops, being confident to ask questions, seek support, and share my views; competence - building my knowledge based by attending workshops, reading, listening to podcasts and drawing on other practitioners’ advice. I could also look at what types of regulatory style I am driven by in my practice (Ryan & Deci, 2017). I have always been very driven by the perspectives of other people as I have always wanted to be liked and valued by the people around me, to appear smart and knowledgeable so that I didn’t look ‘stupid’ or let people down. This can be seen in my Spotlight profile, where it states my inner voice is often “what if I let people

down?”. This can lead to my work being driven by external regulation, such as for the ‘reward’ of someone telling me I did a good job, or that what I have done has really helped them. Moreover, introjected regulation is often at the forefront, as I feel I have something to prove to people and show that I can “make it” as a sport psychologist. I have often felt that I *should* or *have* to do things to advance my practice, and often wonder whether other practitioners feel this way. For example, going into a new football club or seeing a new client and feeling that I *have* to in order to develop, which would lead to feelings of anxiety. Finally, as I feel I *have* to do a good job, it puts a lot of pressure on myself to be perfect straight away rather than allowing myself to fail and grow my practice. Though I still experience many of these feelings, I think have come to a place of acceptance with them so that they don’t impact my behaviours or consultancies. Therefore, I don’t think my motivation is truly integrated yet. I am shifting along the SDT continuum (Deci & Ryan, 2000) and am now experiencing more internal forms of regulation such as identified regulation, whereby I am seeing personal value in what I do and learn more about my own philosophy of practice. To bring myself closer to integrated regulation is said to be a transformation process which is achieved through self-reflection and reciprocal assimilation (Ryan & Deci 2004; 2006). By engaging in continued reflection and using peer networks and supervisory support, I hope I can continue to build towards integration.

References

- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- McCormick, A., Coyle, M., & Gibbs-Nicholls, S. (2018). Sharing good practice in sport and exercise psychology. *Sport & Exercise Psychology Review*, 14(1).

Ryan, R. M., & Deci, E. L. (2004). Autonomy is no illusion: Self-determination theory and the empirical study of authenticity, awareness, and will. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 449–479). New York: Guilford Press

Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of Personality*, 74(6), 1557–1586. <https://doi.org/10.1111/j.1467-6494.2006.00420.x>

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

7. I Don't Deserve to be Here

Date: 05/08/19

I feel so incredibly humbled, lucky, excited, and proud to have gain a position at Blackburn Rovers academy. I love the job, the people there and being given freedom and choice to implement the philosophy that resonates with me. However, over the last couple of weeks I have been felling utterly incompetent and like they didn't make the best choice. I also have a constant fear of getting something wrong. It's exhausting. Sometimes these feelings come up when I'm in contact with other sport psychologists. I was at a workshop yesterday and everyone has so many great things to say and contribute and I feel like I'm very content just listening and absorbing the information. But is that not very proactive or creative? People mention they know I have the role and congratulate me. Often people voice how difficult they are finding it to gain a paid role. And I feel bad. Almost a panic like I don't deserve this role, they surely deserve it more. Though, if I look back on the things I have achieved I have always put a lot of effort in, and I know my loved ones would say that I always do my best and work hard. So, why is there this feeling that I don't deserve this? I feel

as though there are so many sport psychologists training at the moment who work out of their skin. They deserve this role, not me.

As I was struggling with these experiences this week, I attended a Sport Psychology Consultation Forum at the Premier League offices with other academy Sport Psychologists. Here, we discussed the new audit process and what it means to be a sport psychologist for different people (parents, players, coaches etc.). The main thing I gained from this event was the opportunity to network with other like-minded people, working within similar setting and facing similar struggles. However, I felt like an imposter, as though I was simply pretending to be a sport psychologist in a room of professionals (Hings et al., 2020). I was very nervous before arriving. The night before worrying about whether I would be out of my depth. Would I have anything to contribute? Would all the other psychologists be way more experienced than me and therefore render my viewpoints unnecessary? However, as I arrived these thoughts were paused as I saw a familiar face and was able to have a good conversation with him. This helped me to feel more comfortable. Still, many of these sport psychologists have been in their jobs for years and have so much expertise. To be in a room with so many top-class sport psychologists was overwhelming if you took time to think about it (which I did!), but I think I handled myself well, made some good contacts and will build in skill and confidence from the experience. In a selfish way, I found it comforting to see in the literature that even qualified sport psychologists experience feelings of being a fraud. Although, it allowed me to recognise that this is a feeling I must befriend and accept along my journey whilst continuing to reflect on my experiences to mitigate these feelings (Cropley et al., 2016).

I think this is a really important experience for me to build confidence and to motivate myself so I can stand next to all of them one day and think “I’m a top notch sport psychologist too!”. Right now, I don’t think that at all. I feel like a trickle at the source of

river in a room of great lakes and oceans. I have an amazing opportunity and, if I engage with it, I will grow to a river (with some meanders along the way) and who knows, I could reach the ocean in the end. I was thinking on the train journey home that if I am stuck in thinking about how I don't deserve this role, I will never deserve it. I will be throwing away this opportunity through my own worry. I am worthy of this role. Other people think I am worthy. I must give myself this self-worth.

This experience really hit me with the fact that I have a fantastic opportunity that many people would love. I must grasp it with both hands and move through it with curiosity and wide eyes ready for learning; as this is all still a learning experience for me, I do not have to be the finished product and no one expects me to be. The areas I believe need attention here are my own perceptions of my self-worth and valuing the work that I already do and the knowledge I already hold. After reflecting on these feelings, I feel more aware of the experience I am likely to have when around others who do the same as me such as comparing ability and knowledge. I don't think these feelings will go away, but there are actions I can take to provide me with reassurance and balance. For example, not to feel like I have to work in isolation at Blackburn or hide my vulnerabilities, and to share these feelings with my supervisors and peer networks. Finally, I would like to remind myself that I would not have come this far from luck alone. Remember that. Yes, I am right at the source of your journey, but I have all of the resources and support that I need to allow me to fulfil my potential (not to put the pressure on or anything!).

References

Cropley, B., Baldock, L., Mellalieu, S. D., Neil, R., Wagstaff, C. R. D., & Wadey, R. (2016).

Coping with the demands of professional practice: Sport psychology consultants'

perspectives. *The Sport Psychologist*, 30(3), 290-302.

<https://doi.org/10.1123/tsp.2015-0125>

Hings, R. F., Wagstaff, C. R., Anderson, V., Gilmore, S., & Thelwell, R. C. (2020). Better preparing sports psychologists for the demands of applied practice: The emotional labor training gap. *Journal of Applied Sport Psychology*, 32(4), 335-356.

<https://doi.org/10.1080/10413200.2018.1560373>

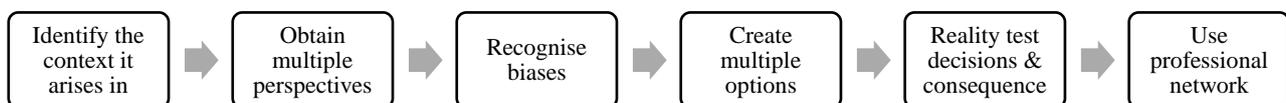
8. Identification and Decision Making for Mental Ill Health

Date: 29/05/20

This month, I have been attending a series of webinars for sport psychology practitioners. One session explore ethical decision making processes. The process presented is outlined in Figure 1. Though I have not had an opportunity to use this in practice yet, I believe it will allow me to approach ethical dilemmas with more competence. Especially since it is recommended that sport psychology consultants have a set of strategies, such as peer networking, to support the referral process (Gayman & Crossman, 2006).

Figure 1

An Ethical Decision Making Process



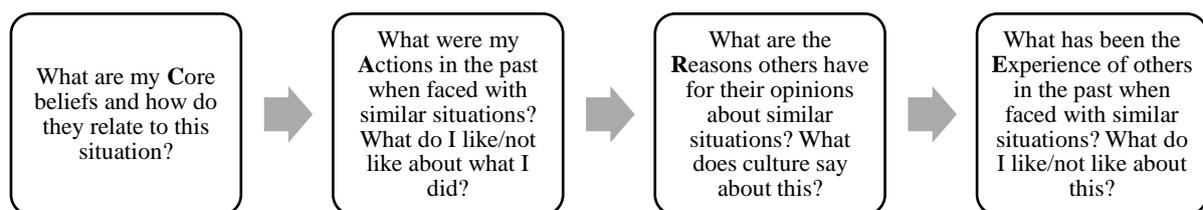
Something that still seems blurry for me is how we make the decision to refer at the end of this process. This can be based on our perception of competence in managing sub-clinical issues (Hartley, 2000) and the athlete's decision. Though others may advise that clinical referral and evaluation is safer (Hartley, 2020), particularly for a neophyte practitioner. But there are many other interacting factors we must consider, hence the need for a clear decision making process. For example, withdrawing sport psychology support may

cause more harm (Moesch et al., 2018) and referring too quickly can cause more harm than good (Knight et al., 2018). We may assume that not rushing and taking time to collect the data needed to make a strong decision regarding referral is important. Despite the automatic feeling that it's 'better safe than sorry' and to refer as quickly as possible. Assumptions of course can be dangerous, so each client should be assessed as an individual with their unique context taken into account.

The 'CARE' model of reflection (Figure 2) was also suggested by the practitioner running the webinar. Though I have struggled to find literature on this model, I can see it's benefit when managing ethical scenarios and drawing on past experiences. I personally resonate with exploring how past experiences may inform the current scenario, and the care that needs to be taken when working with many viewpoints from a multi-disciplinary team. Further, this reflective process will be able to support my concern stated above regarding how we know when to refer.

Figure 2

The CARE Model of Reflection



Finally, based on the learning from this workshop I have created a list of questions that I can explore when faced with an ethical dilemma (Figure 3), such as mental ill health. There are still questions within the selection below that I would like to explore further and I believe will develop along with my experience. For example, what are my context markers, how does this inform the need for referral, and do these markers change across individuals.

Figure 3

Questions to ask yourself in an ethical scenario

- Who is the client? (think confidentiality)
- What are the power dynamics? (consider the system, coach, staff etc.)
- How much time do I have to make this decision? (distant event horizon, threshold)
- What are individual and system biases? (be aware of stories and language)
- Who do I share information with? (who, what and how)
- When do I refer? What are my context markers?
- Where is my frame of mind?
- Intention, behaviour, impact

Key Points to Remember

- Know your own biases and personal preferences so you understand your decision-making processes, and potential blind spots.
- Remember you will get decisions wrong, it is therefore important to reflect and review decisions
- Always have a decision-making paper trail and be clear about your decisions

I have had a number of mental health ethical considerations to make during my doctorate process so far with a range of individuals: a semi-professional goalkeeper suffering anxiety, a physiotherapist with chronic pain and depression, a rower diagnosed with depression. I must admit, I do not think I displayed best practice in any of these cases. One that stands out the most was my work with a rower (see case study 3) where I was taken off guard by her depression diagnosis. Did I miss something? Could I have been doing a better job? Was I too veiled by her tough exterior and failed to realise that beneath everything she really was struggling? I pride myself on being a mental health advocate, but to notice when someone is suffering can be really difficult. Thankfully the relationship I had built with this rower was strong enough for her to share her diagnosis with me, with connectedness helping the athlete feel comfortable to open up (Anderson et al., 1994). Though I know this will not always be the case with clients. I am wary of confronting clients about a mental health concern in fear of being wrong or running the risk of offending them. Whereas, actually, it's vital to talk about it. I recognise that I need a better protocol for noticing clinical levels of depression and anxiety in order to provide my clients with the best service possible and I hope the processes

I have outlined above can help me in these situations. If I can have confidence in my process, I believe I will feel more comfortable to talk about difficult issues with clients.

References

- Andersen, M. B., Denson, E. L., Brewer, B. W., & Van Raalte, J. L. (1994). Disorders of personality and mood in athletes: Recognition and referral. *Journal of Applied Sport Psychology*, 6, 168-184 <https://doi.org/10.1080/10413209408406292>
- Gayman, A. M., & Crossman, J. (2006). Referral Practices: Are Sport Psychology Consultants Out of Their League?. *Athletic Insight: The Online Journal of Sport Psychology*, 8(1), 1-12.
- Hartley, C. (2020). Navigating Subclinical Sport Psychology as a Trainee: A Case Study of Acceptance and Commitment Therapy in Elite Youth Athletics. *Case Studies in Sport and Exercise Psychology*, 4(S1), S1-44. <https://doi.org/10.1123/cssep.2019-0043>
- Knight, C.J., Harwood, C.G., & Gould, D. (2018). *Sport psychology for young athletes*. Oxon, UK: Routledge
- Moesch, K., Kenttä, G., Kleinert, J., Quignon-Fleuret, C., Cecil, S., & Bertollo, M. (2018). FEPSAC position statement: Mental health disorders in elite athletes and models of service provision. *Psychology of Sport and Exercise*, 38, 61–71. <https://doi.org/10.1016/j.psychsport.2018.05.013>

9. Doing it Right: A Case Formulation Process

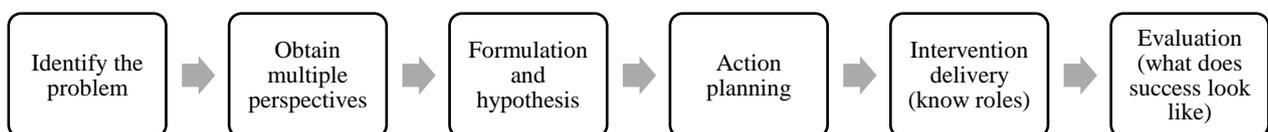
Date: 01/06/20

After attending a workshop a few days ago, I have recognise how poorly structured many of my processes are. I feel rather embarrassed reflecting on this, being over two years

into my professional doctorate. I feel that as applied practice becomes more of a habit, many of the vital processes that allow me to work effectively and ethically can become a second thought. This is a danger. I have also recognised that this increases my own anxiety and concerns about whether I am taking the best approach for the client. One of my problems is that I often feel I have to work in isolation and I fail to consult peers or even individuals within the performance environment about a case. I think this is due to feeling like I should be able to do things on my own, and partially a concern about what other people will think about my competence. Over the last month, I have been attending a series of workshops about applied sport psychology and one topic covered was case formulation. The process seen in Figure 1 was outlined during the most recent session and is based upon Bickley et al. (2016).

Figure 1

A Case Formulation Process



Here, I have recognised that I am falling into the trap of the blind man and the elephant. I can become trapped in my own unique and isolated perception, only recognising one part of the problem and running the risk of inaccurate formulation. If I was to consult with the people around me (e.g., sport psychology practitioners, coaches, sport science staff) we could facilitate a team formulation (Johnstone & Dallos, 2013) which may benefit the intervention decisions through generating new ways of thinking, managing risk, gathering key information in one place and more (Division of Clinical Psychology, 2011). This can all lead to the creation of a shared understanding to work more effectively (Bickley et al., 2016). Some alarm bells start ringing here as I consider whether this is ethical practice and if

consulting with others within the performance system means breaking the confidentiality of the athlete. Of course, this comes down to the agreement in place and making sure the athlete is comfortable with information being shared or not. Further, there is always potential to ask for a coach or a physiotherapist's opinion of an athlete without sharing confidential information. The workshop I am discussing here talks about not getting "locked in the box" and the importance of being able to share information within the performance system to best support the athlete.

Further, the workshop touched on understanding your formulation process so you are working with the "right" problem. Don't go straight to 1-1 work. Consider how can the environment be influenced and if it is the psychology or the technical skill that is lacking. I paraphrase an experience shared during this webinar from a sport psychologist which really resonated with me:

The coach asked me [sport psychologist] to work with a diver who wasn't making a dive during competition. I could have said, "yeah sure I'll work with them, no problem." Instead I decided to take a step back and look at the dive in training when there was no pressure. The athlete executed the dive about 25% of the time. There was a lot of inconsistency with the diver's skill level. So, is it psychological or does the teaching of that skill need to be refined? From what I saw, the skill needs to be refined. The course of action was therefore to get it right in training and then pressure test it in competition or artificially.

This illustrated how the practitioner was checking out different aspects of the so-called "elephant" and not just following one interpretation of the problem. It is vital to get multiple perspectives and not to act before a testable hypothesis is in place. Moreover, the person delivering the intervention does not have to be the sport psychology practitioner, other staff

members can have roles within the intervention delivery and these roles need to be clarified for the intervention. This is something that seemed very alien to me during the workshop, but makes complete sense! The sport psychologist does not own psychology. It must live within the system.

Now, I reflect on all of this, but of course it doesn't mean that knowledge transfers into action. Far from it. I have a lot of work to do to ensure this lives within my practice. I recognise this will (probably) never be perfect. An area I know I need to develop further is creating a plan to test the hypothesis, as this is something I currently do not feel confident with but know could have a massive impact on the direction of the intervention. I aim to move forward by seeing one-to-one support more like research, in that I am creating a hypothesis that is to be tested and monitored over time.

References

- Bickley, J., Rogers, A., Bell, J., & Thombs, M. (2016). Elephant spotting': the importance of developing a shared understanding to work more effectively with talented but challenging athletes. *Sport Exer. Psychol. Rev*, 12(1), 43-53.
- Division of Clinical Psychology. (2011). Good practice guidelines on the use of psychological formulation. Leicester, England: British Psychological Society.
- Johnstone, L., & Dallos, R. (2013). *Formulation in psychology and psychotherapy: Making sense of people's problems*. Routledge.

10. Anxiety Within Youth Football

Date: 16/11/20

This week, I have seen an increase in 1-1 work with the youth development phase (YDP). The YDP players receiving ongoing 1-1 support have all been due to anxiety, ranging

from mild to moderate. For one player in particular, I was concerned about overstepping my competency. This was because his mother informed me he had support from the Child and Adolescent Mental Health Service (CAHMS) for anxiety during the first lockdown. She told me he had seen an improvement but that he was starting to get “wobbly” again. Using the process outlined in a previous reflection (p. 61), as seen below, I was able to approach the situation prepared. This helped to release some of my own anxieties about the situation.

Initially, the player and I discussed his experiences with anxiety and any relating thoughts and feelings. He said these anxious thoughts and feelings came up when he wasn't busy doing something but also whilst he was running or playing outside with his friends. For me, this sounded as though the anxiety was generalised across multiple contexts, though it was a bit tricky to know due to the restrictions lockdown put on him visiting more contexts! We completed a GAD-7 questionnaire (Spitzer et al., 2006) together over zoom (which may pose its own ethical considerations; Watson et al., 2017; Price et al., 2020). The scores indicated moderate anxiety (12 out of 21). As the YDP players have not been attending the academy due to lockdown, it was difficult to gain multiple perspectives from coaches. Further, the player was not keen for his coaches to find out he was having this support in case it hindered his place in the squad. Since I had already gained his mother's perspective I felt this was suitable after discussing with my peer network.

Considering my own biases, I knew I would have an instinctive urge to help, but also engage in emotional thinking about what might go wrong. Additionally, moving forward I may become problem-sensitive rather than solutions-focused, which could hinder the player. These are biases within my own thinking and consultancy behaviours that I must watch out for. At this point, I felt I would be able to work with the player and support his ‘sub-clinical’ needs. I took a reality check on the options. To support to provide support to this player or to not provide support. It appeared the risk would be greater to not provide the player with

support, especially as his support from CAHMS was no longer ongoing. I was aware that I did not want to contradict the work he did with CAHMS and so found out what techniques they provided him, how he found them, and how we could integrate it into the work we did together. After gaining further support from the other sport psychologist at the academy, I made a decision to move forward with supporting this athlete.

Going through this process has brought me more confidence in managing an ethical dilemma surrounding mental health. I still have areas that I would like to refine such as obtaining multiple perspectives, and creating multiple options. I think with experience and continued peer support these aspects of my practice will continue to develop as I get more comfortable seeking support and understanding what the viable options look like.

References

- Price, D., Wagstaff, C. R., & Thelwell, R. C. (2020). Opportunities and Considerations of New Media and Technology in Sport Psychology Service Delivery. *Journal of Sport Psychology in Action*, 1-12. <https://doi.org/10.1080/21520704.2020.1846648>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, 166(10), 1092-1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Watson II, J. C., Way, W. C., & Hilliard, R. C. (2017). Ethical issues in sport psychology. *Current opinion in psychology*, 16, 143-147. <https://doi.org/10.1016/j.copsy.2017.05.008>

Consultancy

1. My First Experience as a Sport Psychologist

Date: 11/01/18

Going into the club for the first time was one of the most nerve wracking things I've had to do. My heart was pounding as I drove up to the club and I could hardly bring myself to get out of the car. Adding to my anxiety, I was not sure where to go to meet the team and did not know anyone very well. Despite these feelings, everyone was very welcoming, though I initially felt very nervous within the environment and did not feel confident to speak to any of the players. I took comfort in getting to know the sport science support staff, some of whom were also new to the club and spent most of my time with them observing training. This allowed my anxieties to ease as I felt more comfortable. The manager was pro sport science and psychology and was very kind and chatty to all staff and players. I spent time with the manager during training, and he was pointing out various players to me and how he felt I could be of help. This was fantastic for me, as I was very new to actually *doing* sport psychology. Considering how fearful I felt at the beginning of the day, I feel like it went well! I was able to connect with the sport science staff and discuss future directions with the manager. I still have a lot to venture into however. For example, being more confident to speak to the players and the coaching staff to continue to build relationships and find out what the needs of the team is. The manager was able to give me some ideas about what he felt would support the team, though this is mostly in the ways of one-to-one support. In order to make these one-to-ones happen I need to think practically about how this may work. If I am to go up to players at random asking if they'd like a one-to-one, this might be a bit strange! I know the players have gym sessions at a local leisure centre, and so I may suggest that one day each player receives a one-to-one intake with me. I have considered using psychometrics (e.g., Butler & Hardy, 1992) across the team to open up discussions in one-to-

one sessions (Weston et al., 2010). This could be shared with management and coaching staff, however I wonder about the ethics of this approach and the impact. One of my fears is that I do not know how to create a cohesive sport psychology programme. I have no idea what this is meant to look like. All I know really is how to approach an intake session, and the rest is a mystery! I am still very uncertain about what is to come, but by taking it a day at a time and having some aims, such as to find a practical way to talk to the players one-to-one, I hope I will learn and develop as I learn more about what it meant to be a sport psychologist.

References

Butler, R. J., & Hardy, L. (1992). The performance profile: Theory and application. *The sport psychologist*, 6(3), 253-264. <https://doi.org/10.1123/tsp.6.3.253>

Weston, N. J., Greenlees, I. A., & Thelwell, R. C. (2010). Applied sport psychology consultant perceptions of the usefulness and impacts of performance profiling. *International Journal of Sport Psychology*, 41(4), 360. <https://doi.org/10.1080/1612197X.2011.567107>

2. Getting to Know the Players

Dates: 20/01/18

After being at the club for a couple of weeks, myself and the manager were keen to increase my familiarity with the whole team and so arranged informal meetings with each of the players at the local leisure centre where the team trained. This was an opportunity to let the players get to know me and how I may be able to support them. Further, it will help me to get to know them and their backgrounds. I personally found this very useful as it took away the fear factor of talking to players, especially those older than I am. This is something that I struggled with during my first few weeks at the club. Additionally, it gave me confidence that the club were interested and willing to give sport psychology time. I felt these initial sessions

went well, and I felt more comfortable the more I did. After these initial sessions, the challenge was then keeping momentum with the psychology support. I had a couple of players asking about specific issues they faced, such as confidence, anxiety, and careers advice and this gave me a focus.

Despite this, I have been feeling like I am not doing enough at the club. I have been concerned that by not doing enough visible work the team will think I am a waste of space. I have therefore been feeling the need to provide something tangible. This is common within trainees' professional development (Rønnestad & Skovholt, 2003; Tod et al., 2009), but still a very raw and uncomfortable feeling to experience. I keep reminding myself that they probably don't know what I'm meant to be doing even more than I do! So, I have been taking each day and each week at a time getting more confident and giving myself small attainable goals to reach each time I go in. For example, "find more out about player x" or "have a conversation with x". I'm not trying to solve problems, just trying to find out more about players and gain more confidence.

References

- Rønnestad, M.H., & Skovholt, T.M. (2003). The journey of the counsellor and therapist: Research findings and perspectives on professional development. *Journal of Career Development, 30*, 5–44. <https://doi.org/10.1023/A:1025173508081>
- Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology, 21*(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>

3. Banter and Marriage Proposals

Date: 04/02/18

I can tell the players have been becoming more comfortable with me at Chester FC. However, I'm not sure this is in a professional sense as recently it has mostly been banter and marriage proposals. Though the spontaneous songs they sing about me are quite amusing, I don't feel this adds much to my role as a professional. I do wonder if their behaviour here is a good thing as it shows the players are comfortable with me. Does this build the athlete-practitioner relationship? Though, I also wonder if they are just making fun of me and if this behaviour hinders the professional relationship.

Another concern I have been having is if this is due to me being a young female within this male dominated environment. It has been stated that the female sport psychologist is at a disadvantage, for example the female sport psychologist can be placed in the role of the mother/girlfriend/sister substitute rather than as a professional (Yambor & Connelly, 1991). I want to try and rid this view of me as a young female who is just here for work experience. I would love it if they saw me as an asset to help them improve their performance. So far that hasn't happened, and let's be honest I have no idea what I'm doing anyway. This is an issue in itself, in that "believing you are an excellent consultant, is a major key to being effective" (Yambor & Connelly, 1991, p. 311) and arguably even more so for a female in a unfamiliar environment male dominated environment, where females have in the past been perceived as less knowledgeable (Matlin, 1987). I gain some comfort from the practitioner development literature, where other trainees experience concerns about their competency (Tod et al., 2009). Yambor and Connolly (1991) discuss how women must present themselves as knowledgeable and competent in a male setting. Though I hope some of the female stereotypes have shifted since the date of this paper, I am afraid that I will never be able to do this.

Moving forward with these feelings, I want to improve the professional perception of myself by gaining a better understanding of what the players need and then developing a series of workshops to support this. I hope this will bring some clarity to my role whilst also allowing the players autonomy. Further, I will continue to work with the few players that have shown interest to engage with further one-to-one work to grow my competencies within consultancy.

References

Matlin, M.W. (1987). *The psychology of women*. Chicago: Holt, Rinehart & Winston

Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology*, 21(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>

Yambor, J., & Connelly, D. (1991). Issues confronting female sport psychology consultants working with male student-athletes. *The Sport Psychologist*, 5(4), 304-312. <https://doi.org/10.1123/tsp.5.4.304>

4. New Management

Date: 23/02/18

In this reflection I will talk about my experiences over the first few weeks of having new management at Chester FC. After an unfortunate string of injured strikers and consequent losses (14 home games had gone by with no wins) our manager has been let go. I am fearful that I will be back to stage one again, with relationships with key stakeholders integral to effective practice (Gardner, 2016). It has been upsetting from a personal point of view when the manager was let go, despite it probably being the best choice for the team. We have now gained a new more experienced manager, who I was nervous to meet after lots of

talk about potential “old fashioned” managers in line for the position. However, he was very kind and personable and made me feel at ease and assured me my position at the club was safe and that he very much valued sport science staff within the team.

As I observed the new manager more I realised some of his choice of words weren't the best. For example, “this is the team I've inherited” and telling the players “you have no desire”. It was interesting as the days went on with the new manager and people seemed to slowly realise that not much, at least in terms of where we were in the table, was going to change. The players seemed more confident in the training sessions, but the manager kept reminding them they were all to ‘nice’ and that he had to work with what he had. As other neophyte practitioners at this stage of training, I had no idea what to do (Tod et al., 2009). On further reflection of this, the new manager in place has been making some positive steps from my perspective. He has run multiple sessions where the whole group can share things together, reasons why they are there, what they're striving towards. Trying to get everyone to see the bigger picture and that they are all after something they believe in. I thought this was a really positive step and brought the group closer. However, something was still missing because this never transpired into the locker room or on the pitch. Building team values and beliefs and cohesion needs to be more consistent and not just a one off. Further, the athletes and staff in the environment must identify with these values and prioritise them within the environment (Cotterill, 2012). I have very little experience with this and would love to learn what is involve in creating values that truly live and breath within a performance system, therefore I will explore the literature further and feedback to the manager if appropriate.

More recently, I had one of the worst experiences at Chester FC with the new manager whilst he was giving a team talk to the players and staff at the beginning of the day. The nutritionist had been proactive and got some gels and samples for the players to try and was telling them how to use them in the morning. The manager noted in this meeting that the

nutritionist had done well with this. He then looked at me, smiled, opened his eyes wide and didn't say anything. To me this meant "I know you haven't been doing much, but you're young so I'm not going to call you out in front of everyone". I felt so uncomfortable. Maybe this was just my own evaluation of the situation, but I'm pretty sure it's rather accurate. I have been doing one to one work with a couple of players but that was mostly it. I have been finding it difficult to find my place and after this meeting I felt totally embarrassed in front of the whole team. I haven't been seen to be doing enough. At the end of the meeting the manager asked if I wanted to say anything I just said something along the lines of "If anyone needs anything in terms of performance or wellbeing feel free to come and have a chat (which on reflection feels like a bad thing to say), and I will try to be more proactive myself to help you guys out as much as I can". At this point my anxiety was building, being put on the spot and everyone staring at me and it was horrible, I just wanted to get out of the room. I felt like an idiot, I felt useless and like I didn't know what to do to make my role meaningful. I don't know how to be a sport psychologist.

Eventually, after many chats from various people with my support system, I have decided to just jump in and do something (anything!!). No one is going to hold my hand and tell me what to do. I need to do something off my own back. I am going to speak with the players and see what they would be interested in exploring in terms of workshops. Particularly, I think I will aim to work with the younger players who have just come through from the academy as I start to build my own competencies. I hope this will help me to build relationships, gain buy-in for sport psychology, and be more visible. I am nervous about doing this, as I still feel like I don't have any applied skills. But the only way I am going to learn is by getting out there and doing something.

References

- Cotterill, S. (2012). *Team psychology in sports: Theory and practice*. Routledge.
- Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology*, 21(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>
- Gardner, F. L. (2016). Overcoming resistance from clients and stakeholders. *Psychology in professional sports and the performing arts: Challenges and strategies*, 38-50.

5. Steps Forward and Barriers to Consultancy

Date: 22/04/18

Last week when I went to Chester FC I saw three players. I arranged this through the physio, asking if she thought anyone would benefit from being seen. I felt confident going in this day. I had a purpose. I wasn't going in and hanging around wondering what I should be doing. I was meant to be there and players wanted to talk to me. This made a huge difference to my confidence and I felt like I was actually doing what I was meant to do as a sport psychologist. However, reflecting back on this I realise there are a lot of things I could have done differently. I think I was listening well, however I think I was very quick to jump on giving them something to "fix" the problem. I feel that this is partly due to the nature of the work I was doing was very practitioner-led (Keegan, 2015). Moreover, as it was coming to the end of the season I felt pressure to provide something tangible. In hindsight, taking a more client led approach may have been more appropriate here since rather than trying to teach new skills!

One barrier to my consultancy that I have recognised is the ability to arrange regular appointments with the footballers as there appeared to be a lack of time and space for

consultations (Kremer & Marchant, 2002). How do I manage this? Is this simply a case of being transparent, letting them know that changes aren't going to be made without continued meetings and practice of x approach? Is there a need for me to "sell" it to them in a way that makes them want to have regular meetings? For this I need confidence and belief in my own work so that I can sell it authentically and know that I can make a difference. This isn't something I have experienced yet. Actual tangible results that something that I have done has made a difference. I think it might take me a while to get to that point, but I hope when I do that I will find new value and belief in my work so that I can have the confidence promote the work that I do. When they start to see the difference, they will understand the value too. But if I just throw a couple of "quick fixes" at them, they aren't going to think a lot about sport psychology. I have been exploring other approaches that are not just "quick fixes", for example Acceptance and Commitment Therapy (ACT; Hayes et al., 2006), so that I am not just putting a plaster over problems but actually making a long lasting difference to someone's life. However, I have been too nervous and uncertain to apply this in practice yet.

Some action points for me after this reflection are to take a step forward and start applying techniques that move away from a quick-fix philosophy and instead engage with approaches which will support athletes through their careers and beyond (Nesti, 2004). Further, I would like to explore more client-led approaches to help me build a greater rapport with players, which can in turn create a greater openness and motivation for players to engage in work with me.

References

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>

Nesti, M. (2004). *Existential psychology and sport: Theory and application*. Routledge.

Keegan, R. (2015). *Being a sport psychologist*. Macmillan International Higher Education.

Kremer, P. J., & Marchant, D. B. (2002). Reflections and considerations of providing sport psychology services with professional football players. *Science and football IV*, 294-299.

6. Observations from Bolton Tennis Academy

Date: 5/06/18

Today I was shadowing the sport psychologist at Bolton Tennis Academy as she was coaching on court with players and their coaches. It scares me a bit as to how much of a coaching role she takes, but she is also a level 4 tennis coach even though she does not take this role on usually. She was working with a youth player on her backhand. Using very visual strategies, such as drawing a line and the skill being like dominos (if you knock the first one down then the rest will flow automatically). It was amazing how much she improved this girl's backhand and a big part about it was the psychology behind the visual aspects of learning to focus the player's attention as well as the psychologist's communication skills and rapport with the player.

The sport psychologist said her role was a coach that does psychology. As she actually has coaching qualifications I do worry that I might be lacking something within my own practice and will have to work extra hard in order to understand coaching and how to integrate psychology into training. I asked the sport psychologist afterwards where I would stand in implementing something like she did, as I am not a coach. She said working with the coaches to implement strategies like this would be a role I could take. This is something that scares me, as I tell myself that I would not have anything to add to a coach's knowledge and

am fearful of telling them something too obvious. Of course, this comes down to building relationships and working cooperatively with the coach and is something I hope to grow more confident in as I work more within performance environments.

Interestingly, there seems to be a lack of focus for trainee sport psychologists when it comes to working with coaches and lots of training on one-to-one consultancy. Why is this? I feel as though there are so many aspects of sport psychology that are not (or cannot) be taught within a seminar room. This is frustrating, but from this experience I have started to learn more about the different layers that come along with being a sport psychologist. I am starting to recognise that it is going to take a long time to develop all of these layers (e.g., one-to-one consultancy, working with coaches, working with the system, working with parents). This feels overwhelming and I am definitely experiencing the Dunning Kruger effect (Dunning, 2011), but the sooner I realise the things hopefully the sooner I can develop.

References

Dunning, D. (2011). The Dunning–Kruger effect: On being ignorant of one's own ignorance. In *Advances in experimental social psychology* (Vol. 44, pp. 247-296). Academic Press. <https://doi.org/10.1016/B978-0-12-385522-0.00005-6>

7. Getting on Court

Date: 7/10/18

Stuck. This is how I've been feeling with one of my clients for a while, a 12 year old tennis player. She gets it all, gets the skills from our Acceptance and Commitment Therapy (ACT; Hayes et al., 2006) work together, but I do not think she's putting it into practice. Is this my fault, or hers? I have an interesting connection with her as I see a lot of myself in her when I was younger. I therefore feel more pressure than usual to help her to see an

improvement in her mindset. These feelings may be a sign of countertransference (Winstone & Gervis, 2006) in that I resonate with a lot of her experiences from when I was a teenager (e.g., not getting along with people at school, being seen as ‘weird’). I therefore felt a lot of pressure to do a good job and support her in a way that I did not have. This could have negatively impacted upon the consultancy process, but through self-awareness and reflection I hope this was counteracted.

Despite this, I still experienced fear that what I am doing is not working. I know I need to move the practice onto the court to transfer her skills into the performance environment, but I am worried about what others (e.g., coaches, parents) will think in case I do something wrong. These feelings have all held me back from taking this step onto the court with the player. I’m definitely out of my comfort zone. So, it’s definitely a step I need to make. At the end of the day ACT is a behaviour therapy, and something I need to remind myself of! The skills need to transfer into committed action on the court. Listening to the ACT in context podcast reminded me of this and how even clinical psychologists using ACT get out of the clinic with their clients. So, I definitely should. And I did!

The session went well. I kept it simple, which was something I often find hard to do. I gave the coach rein to make choices about drills and we ended up collaborating about how we wanted the session to go. I put signs on the net saying “thinking” and “feeling” using the noting technique from ACT during the drills. During the on court session, we had regular discussions and progress seemed apparent. The coach was complementary about the difference it appeared to make to my client’s performance, but was aware this could have been due to my presence on the court. There is of course still work to do, but at least the coach is now involved and I can continue to support the client transferring what we have learnt together onto the court.

This is the best step I've ever made and made me feel confident, like I was making progress with my client, having fun, and being recognised by the coach. I'm proud that I finally took this step, as it's integral to being a sport psychologist and it will give me more confidence to do this in the future. One thing I did wonder was whether the client was being truthful about using the techniques on court. I feel something that could overcome this in the future is using Think Aloud (Whitehead et al., 2016) to capture the cognitions of the player and identify whether the techniques are being used or not.

References

- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Whitehead, A. E., Taylor, J. A., & Polman, R. C. (2016). Evidence for skill level differences in the thought processes of golfers during high and low pressure situations. *Frontiers in Psychology*, 6, 1974. <https://doi.org/10.3389/fpsyg.2015.01974>
- Winstone, W., & Gervis, M. (2006). Countertransference and the self-aware sport psychologist: Attitudes and patterns of professional practice. *The Sport Psychologist*, 20(4), 495-511. <https://doi.org/10.1123/tsp.20.4.495>

8. Getting Better at Feeling Awkward

Date: 10/09/19

Today I felt like the most awkward human being that ever existed. Due to a couple of reasons. The first being that my manager suggested I spend more time in the gym with the scholars to help build relationships. This is a great idea, apart from the fact I appear to be inept at starting a conversation. Particularly, whilst 17 year old boys are lifting weights or doing squats. Is it just me who thinks this is awkward? I am good at building relationships

one-to-one but in groups I struggle. This concerns me, as building relationships is a vital part of being an effective sport psychologist (Tod & Anderson, 2005). I found some comfort in these situations by talking to the strength and conditioning coaches, however this did not really help the aim of the activity (to build relationships with the players). Of course, to be seen is a massive help as people become more familiar with me just being around the academy they might feel comfortable to talk to me. In an attempt to find positives from this experience, I was able to have one conversation with a player where, naturally, we discussed Game of Thrones. This was when the gym had quietened down and it was easier to start a conversation. So, perhaps this is something I can remember for the future if it helps me to start conversations when less people are around.

The second experience, which was less awkward but more a recognition of my own weaknesses, was that my manager had also asked me to spend more time taking with the coaches and building relationships there. Again, another fantastic suggestion and he was obviously recognising the behaviours that felt unnatural or difficult for me! This was another concern for me, as research shows that aspects such as trust and friendship being important to an effective sport psychologist-coach consulting relationship (Sharp & Hodge, 2013). So, I found myself working up the courage to walk into the coaches office. Taking a few deep breaths. OK. Ready. Praying on the walk to the office that no one is there. Knocking on the door, going in. Thank goodness. No one is there. But why am I feeling this way? Why am I afraid to walk into a room full of coaches? Not knowing what to say, fear of being judged, being a generally socially anxious and awkward person? I decided to go onto the pitch and see if any coaches were out there. They were, and to my surprise I found it quite easy to have a conversation with one coach. Again, when there are less people around my anxieties release somewhat. It seems to be large groups of people that trigger fear and anxiety within me, and smaller groups I am able to be myself and engage in more meaningful conversations.

Today I learnt a lot about myself, or at least had some of my weaknesses reinforced to me. I think my dislike of being in a group of people is due to a fear of being judged or disliked. I have also recognised some things that might help me overcome these weaknesses. Whether it is waiting until the gym is quieter to have a few conversations with players, or spending more time on the pitch and having conversations with coaches when there are less people around. This is of course avoiding my weaknesses, and situations I find challenging. I know I must approach these fears head on to develop. With time, I plan to progressively challenge myself by putting myself in situations where there are lots of people around. To begin this, I have also decided to write on my to do list to go into the coaches office. I know this sounds silly, but if I have something on my to do list, I have to get that ticked off!

References

Sharp, L. A., & Hodge, K. (2013). Effective sport psychology consulting relationships: Two coach case studies. *The Sport Psychologist*, 27(4), 313-324.

<https://doi.org/10.1123/tsp.27.4.313>

Tod, D., & Andersen, M. B. (2005). *Success in sport psych: Effective sport psychologists*.

9. A Meta Reflection on Rejection and Feeling a Failure Consultancy

Date: 18/10/19

I was nervous before my intake with TH, a 10 year old tennis player, as his coach was telling me how TH's mother was not sold on sport psychology. I tried to approach the intake like I would any other and I think that it went well. Having the player's mother in the session was an added barrier as he kept looking to her for confirmation, but she was very good at giving him time to say what he thought before jumping in and answering for him, which I appreciated. After the intake, TH's coach messaged me and said they would like another

session. I was very pleased about this but a couple of days later she called me and said that she did not think it was the right time for him to see a sport psychologist as his mother was not committed to the sessions. This was because he did not want to take part in the sessions. I was thinking this was the best way to do it and tried to translate this to the coach, but she was very keen for her to be involved. I understand the mother needs to be involved to promote the knowledge and skills being given to the player, but her presence the whole time I would say is unnecessary. A couple of months later, the mother came back to me and decided the player would like further sessions as TH continued to have temper tantrums on court during training.

I felt I had some great sessions with the player over the next couple of months, for example discussing emotions using mood cards and exploring his thoughts and emotions during specific scenarios on court. One that stood out for me was when we developed his routines. I could tell he was enjoying the session as I got him to act out the routines with a tennis ball. It's interesting how as soon as you incorporate the tennis into it in some way they respond much more. We found however that TH was struggling to implement routines on the court. After consulting another sport psychologist, we discussed how the player needs to build up self awareness and control over his thoughts and emotions before implementing the routines. So, I decided to move forward building awareness through mindfulness practice to find acceptance of negative thoughts and emotions (Gardner & Moore, 2012) and progressive muscle relaxation as a means to release negative energy from the body and enhance mental state (Epelbaum, 2012). I felt this was going well and was clear for the player and his mother. Despite this, his mother didn't seem happy with the process and told me that TH was not practicing and decided to not have any more sessions.

I found this quite difficult as I felt I had done something wrong and not met expectations. Still being early on in my training I keep going over what I could have done differently. On reflection, I believe the needs analysis was strong, I gained feedback from the

coach and mother to steer the consultancy in the right direction throughout, I consulted another sport psychologist about the best course of action, and I created a clear process for the player and mother to see. Perhaps I was simply not the best fit for the player, did not choose techniques that suited the player, did not motivate the player to engage with the practice, or did not work enough on court trying to transfer the skills. Or, perhaps, it was lack of buy-in from the mother throughout that meant making any lasting change would have always been difficult. If I was to build a stronger relationship with the mother the consultancy process may not have been terminated (Wadsworth, 2019). I am not sure what the answer is, but I hope that this is an experience I can learn from. I am glad that I was able to work in line with my philosophy (Poczwadowski et al., 2004). In the future I think it will be useful to set clear expectations early on regarding outcomes and committed needed by the player and those surrounding him.

References

- Epelbaum, M. (2012). Improvements in Tennis Serve Accuracy Through Progressive Muscle Relaxation and Mental Imagery. *Canadian Young Scientist Journal*, 2012(1).
- Gardner, F. L., & Moore, Z. E. (2012). Mindfulness and acceptance models in sport psychology: A decade of basic and applied scientific advancements. *Canadian Psychology/Psychologie Canadienne*, 53(4), 309. <https://doi.org/10.1037/a0030220>
- Poczwadowski, A., Sherman, C.P., & Ravizza, K. (2004). Professional philosophy in the sport psychology service delivery: Building on theory and practice. *The Sport Psychologist*, 18(4), 445–463. <https://doi.org/10.1123/tsp.18.4.445>
- Wadsworth, N. (2019). Pressure to provide a solution: One-to-one support with an elite junior gymnast. *Case Studies in Sport and Exercise Psychology*, 3(1), 41-49. <https://doi.org/10.1123/cssep.2019-0007>

10. Behaviours and Values Development in Football

Date: 02/11/19

Since working at Blackburn I have felt I have the scope to practice working at a more systems level to create more impact, rather than just working with players on a 1-1 basis. However, I have no experience doing this and am unsure about what it looks like. A few ideas were sparked for me after attending the BPS conference in 2019, such as creating clarity around behavioural standards for athletes. This resonated with me and what was currently happening at the academy. Player feedback forms were completed by U12's – U18's at the academy. This addressed factors such as psychological safety, motivational climate, worries they face at the academy, and feedback on their coaches. When asked what they worry about at the academy they wrote, for example, "If I consistently play bad or have a few off games then the coaches won't like me and I may be at risk of getting released", "That if I have a bad phase I will get dropped", "The coaches think badly of me when I make mistakes". This reflects what is experienced by the players on a daily basis at the academy.

Today, I have taken a step forward and started discussions with the head-coach to explore whether creating a system to highlight the developmental behaviours that are desired by the academy would be of value. I have been nervous to do this in fear of being seen as not knowledgeable enough, but I know it is a step in the right direction that will help me to develop my work alongside coaches. The head-coach mentioned how the feedback from players was upsetting, as the academy verbalises a focus on "developing players" rather than a result driven culture. The academy drives the philosophy that mistakes are a vessel for learning and improvements, but from the feedback, the players are viewing mistakes as a negative rather than something to improve on. Additionally, we discussed how beliefs and behaviours of players, coaches, and staff do not always reflect this developmental ethos. Perhaps a reflection of knowledge not transferring into practice (Knowles et al., 2001). This

may be a reason why the behaviours and worries held by players are results focused and fearing failure. In order to truly create a developmental focus, it needs to be lived through value driven behaviours and reinforced by coaches and staff. The head-coach spoke about the undesirable behaviours identifiable in the U18's, as desirable behaviours aren't consistency reinforced within the age group. Consistency is integral and is often not seen across coaching staff and support staff.

The head-coach and I also discussed values and how these link to the developmental behaviours. Values have already been developed within the academy. However, they stand alone, and act only as empty words on the wall. As the values within the academy were already created by management staff, it is not possible to create more meaningful values for the players, staff, and overall culture. Therefore, we have to work with what we already have and work backwards through the process by creating meaning for the values already in place, rather than finding the meaning and creating values around them (Cotterill, 2012). By developing individual meaning and committed behaviour behind these academy values may be a way around this. My goal now is to go away and consider what this may look like in practice and how behaviours led by academy values can be promoted to support the development of players.

References

Cotterill, S. (2012). *Team psychology in sports: Theory and practice*. Routledge.

Knowles, Z., Gilbourne, D., Borrie, A., & Nevill, A. (2001). Developing the reflective sports coach: A study exploring the processes of reflective practice within a higher education coaching programme. *Reflective practice*, 2(2), 185-207.

<https://doi.org/10.1080/14623940123820>

11. Planning for Developmental Behavioural Intervention in Football

Date: 14/12/19

This week I have been working closely with the head coach to co-create a 'Performance Behaviour Chart' (Appendix 1). This great for me, as I have often worried that I don't work closely enough with the coaches. This could be a great way to build buy-in and relationships. Research shows factors perceived to influence the development of youth football academy players (Mills et al., 2012). Focusing in on this research we can see that most of the behaviours outlined in the chart are in line with the findings and map onto our own, culturally relevant behaviours with the support of the head coach (Figure 1). Though these are not direct comparisons to the literature, I believe it is vital to ensure the behaviours are culturally relevant and co-constructed to gain buy-in from the system and use language which was clear to staff and players.

Figure 1
Linking Academy Behaviours to the Literature

Mills et al., 2012		Academy Performance Behaviours	
Resilience	Confidence Optimistic Attitude Coping with Setbacks Coping with pressure	Reactions to Mistakes	Positive energy Strong mentality Puts mistakes behind them quickly
Goal-Directed Attributes	Desire/passion Determination Work-ethic Professional Attitude Focus	Hunger for the game	Brave Always wants the ball Plays with intensity and passion
Sport-Specific Attributes	Coachability Technical proficiency Athleticism Competitiveness Team-oriented	Coachability	Listens and ask questions Willing to try things and take risks Applies information from the coach
Intelligence	Sport Intelligence Social competence Emotional competence	Communication, respect	Encourages teammates Confronts issues maturely
Awareness	Self-awareness Awareness of others	Body language	Makes eye contact Stands up tall Respects others (staff and teammates)
Environmental Factors	Significant others Culture of game Chance Provisions	Off pitch development	Engages with extra work (performance analysis, gym programme, nutrition, psychology)

Moving forward, I plan to present the behaviour chart and its relevance to the academy values in a workshop with players from U15's – U16's as a pilot. In this workshop, I plan to introduce the players to the performance behaviour chart and ask for their feedback and whether they would like any alterations to be made. I hope this will give them a sense of autonomy over the process to increase their adherence to the process. Coaches from this age group will also receive a session with myself to help them understand and ultimately embed the learning into the environment. For example, asking the players “how did you show good communication today?”, “what can you do in this session to show hunger for the game?”, “instead of giving up after a mistakes, what could I see you doing instead?”. Additionally, coaches and staff will be asked to reinforce behaviours, or help to change behaviours, when they saw them, e.g. “you didn't give up then even after losing the ball, that shows great reaction to mistakes”, “you confronted that issue really maturely, that shows great communication skills”, or “I could see your body language change after making a mistake, what body language could you have used instead?”. What is reinforced formally and informally shows the players what they expect to receive for their behaviours and how they should be treated in return for their efforts (Kerr & Slocum, 2005) – or lack of!

There are however some issues that I am foreseeing with the application of this chart. For example, the coaches may be hasty to use the data from these behaviour charts to judge the players. This goes against the whole point of the chart, in that it is to allow the players to feel more comfortable about making mistakes and being open about their behaviours. Myself and the other psychologist were keen to remove the scoring completely from the chart, but in the act of co-creation it was highlighted that this was something the coaches wanted. I therefore need to consider when working to embed these behaviour charts into the academy (at least whilst these behaviour charts are getting off the ground), whether it would be beneficial for me to be in the coach-player feedback sessions to facilitate the conversation

and ensure a focus is not heavily on getting a perfect score, but development. If this first planned phase with the U15's and U16's is successful, I hope to introduce the chart throughout the various phases at the academy (tailoring the amount of behaviours for each age group) and educate the coaches about how they can support the players to be motivated to engage with these behaviours through techniques such as autonomy supportive coaching (Reynders et al., 2019; Webster et al., 2013).

References

- Kerr, J., & Slocum, J. W. (2005). Managing corporate culture through reward systems. *The Academy of Management Executive*, 19, 130-138.
<https://doi.org/10.5465/ame.2005.19417915>
- Mills, A., Butt, J., Maynard, I., & Harwood, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of sports sciences*, 30(15), 1593-1604. <https://doi.org/10.1080/02640414.2012.710753>
- Reynders, B., Vansteenkiste, M., Van Puyenbroeck, S., Aelterman, N., De Backer, M., Delrue, J., De Muynck, G., Fransen, K., Haerens, L., Broek, G. V. (2019). Coaching the coach: Intervention effects on need-supportive coaching behavior and athlete motivation and engagement. *Psychology of Sport and Exercise*, 43, 288-300.
<https://doi.org/10.1016/j.psychsport.2019.04.002f>
- Webster, C. A., Wellborn, B., Hunt, K., LaFleche, M., Cribbs, J., & Lineberger, B. (2013). MPOWER: An observation system for assessing coach autonomy support in high school varsity boys' soccer practices. *International Journal of Sports Science & Coaching*, 8(4), 741-754. <https://doi.org/10.1260/1747-9541.8.4.741>

12. My Professional Philosophy

Date: 15/06/20

As an overarching definition of my philosophy, I would say I am a humanistic, cognitive-behavioural sport psychologist. However, there are certainly aspects under the cognitive-behavioural umbrella that I do not feel align with my beliefs and values. As such, using Poczwadowski and Ravizza's (2004) hierarchical structure of professional philosophy, I will reflect on the different areas of my philosophy of practice more specifically, experiences which have allowed it to develop, and how I integrate them.

My core values are curiosity, kindness, and self-awareness. All of these values are twofold for me, in that I work to be curious, kind, and aware with myself but also with clients; and strive to support them to be curious, kind, and self-aware in what they do. In hindsight, I believe these values were developed within me through mindful meditation. Reading the literature on Mindfulness Based Stress Reduction (MBSR) later on in my practice, the course which I attended in the first year of the professional doctorate, I realised my values began to reflect the outcomes of mindfulness practice such as improving "*the quality of attending characterized by an attitude of acceptance, kindness, openness, patience... curiosity and non-evaluation*" (Carmody et al., 2009). This quote embodies many of the values and characteristics I aim to enter consultancy with and perhaps explains my strong preference towards third wave approaches.

Though I have explored many beliefs that uphold my practice, the ones that spark the most congruence for me are the following: humans are working to grow closer to their integrated selves; the client is the expert of themselves; the psychologist does not "own" psychology; awareness is the start of change; change is uncomfortable; and acceptance and change in behaviour is the key to change in cognition. I will discuss these beliefs throughout this reflection and link them with the consultancy process that I engage with.

Within my humanistic paradigm, my consultant role embodies a blend of certantism and construalism. During the professional doctorate, I have struggled to find congruence here, as I thought I wanted to be more construalist. However, I had to accept that ultimately the interventions I was prescribing were very certantist. For example, Acceptance and Commitment Therapy (ACT; Hayes et al., 2006) where I would prescribe the intervention to the client and design the sessions beforehand based on the needs analysis. This began to shift as I gained more experience in applied practice, and I reflect on this within my case study “Developing a Balanced Philosophy: Needs Supportive Communication and Spotlight Profiling with an Elite Rower” (pp. 166 – 188) and finding a sense of relief that “*practitioners’ consulting styles are rarely at either extreme*” of the constualist certantist continuum (Keegan, 2010 pg. 46). Within my philosophy I am able to integrate certantist interventions, but whilst providing the client with choice, being a facilitator, and being open to client solutions. I recognised that not all clients will want a client-led psychologist, especially when working with youth athletes who needed more guidance and vice versa when working with older athletes. The ability to be flexible and adaptable in consultancy is an important characteristic within sport psychologist practitioners (Fifer et al., 2008). I used to feel this was dangerous and I could risk flexing too far from my professional philosophy. I now recognise that if my philosophy is integrated and interventions or techniques are well formulated for each consultancy individually, flexibility can be attained to the benefit of the client and practitioner.

To summarise my intervention goals, with an individual client it would be to support and motivate the individual (as a person and an athlete/coach) to live a fulfilling life (in and out of their sport) in line with their values to bring them closer to their integrated self. When considering the system, my goals would be to support the system to be psychologically informed and to support they system and the people within it to become integrated towards a

shared mission in line with individual and team values. I would work towards these goals in a few different ways depending on the presenting problem, client, and context. The approaches I draw on are from Mindfulness and Acceptance approaches (Henriksen et al., 2019), Positive Psychology (Gordon & Gucciardi, 2011; Ludlam et al., 2016), and Self Determination Theory (Deci & Ryan, 2000; Ntoumanis et al., 2018). Though these approaches may appear disparate, or eclectic at first glance I believe I have come to a place of integration between them in order to support a range of clients and presenting problems (or lack thereof!).

After exploring mindfulness and finding great benefits for myself, I began looking for more ways in which to explore this third wave approach within the first year of my professional doctorate. ACT is reflected in a number of my core beliefs and values such as embodying curiosity within my practice and the way I communicate with the client, that change is uncomfortable, and that acceptance in internal events and change in behaviour is the key to change in cognition. With time I was able to approach ACT less rigidly, as I discuss within my case studies and reflections, and found success with this in my practice. However, I still felt like something was missing, as though I was a one trick pony! ACT would not work for everyone, and would not always be the best fit for the client. I have reflected in a previous case study about creating greater integration within my practice, and how I was often “questioning my heuristic bias, and the saying that ‘if all you have is a hammer, everything looks like a nail’ (my hammer being Acceptance and Commitment Therapy!)” (p. 169). I also recognised when I began work within a football academy that I was always looking for problems, but what if there are not any problems? What if I am creating these problems myself by always observing the client through a lens of ACT, looking for all my might for cognitive fusion and avoidance? One experience that truly reinforced my mindfulness and acceptance based practice was when a colleague of mine urged me to use Rational Emotive Behaviour Therapy (Turner, 2019) within a case I was

using ACT within. I took his advice, and made a complete mess of it. It felt confusing to me and the client and took me away from my values and beliefs. If your philosophy is well defined it will provide you with the direction forward. At this point, I did not feel confident with my philosophy, I was caught up in wanting to do the “right” thing and assumed this practitioner new what that was. This was a positive experience for me ultimately, as it allowed me to recognise within my practice that the “right” option for me is the “wrong” choice for another and vice versa. Though something was still missing... what if a client did have a “problem” per se, or struggles with thoughts, emotions and committed action? What would I do then?

Cue positive psychology. This is the approach that I feel I have the most to learn within and is still a little blurry within the sea of psychological theory and practice. I was introduced to positive psychology through a strengths based approach in the form of super strengths. I was lucky enough to view a practitioner using the super strengths boat metaphor and tool (Ludlam et al., 2016) in a consultancy session with a football player and his coach. I was excited by how much I felt it aligned with ACT in the acceptance of “acceptable weakness” reminding me of weaknesses or behaviour which are workable even if they are not gold standard. Further, when exploring behaviours that would “sink the boat” I felt this was a good area to then explore other interventions to explore the presenting problem. This could be ACT if there was cognitive fusion or a lack of values driven behaviours, or another positive psychology approach such as solutions focused therapy. When attending an ACT workshop after reading the book “pig wrestling” (Lindsay & Bawden, 2018), which is grounded within a solutions focused approach. I recognised a few of the questions use in both approaches were the same. For example, the miracle question is also used in ACT to explore committed action by asking the client “if this wasn’t a problem anymore, what would I see you doing differently?”. Though I wasn’t using a pure solutions focused approach, I believe

the techniques within it has enhanced my practice, the way that I question, and the level of autonomy I provide for my clients within ACT. This allowed me to understand how these two seemingly opposing approaches could be integrated. I feel this adds an extra dimension to my practice, in that I can now approach an intake using these new lenses and not simply looking to fit it into ACT. Further, if a client is looking for performance gains but not fusion with internal thoughts are identified, there is still scope for me to support them in enhancing and building self-awareness about strengths.

I have always held an interest in SDT and behaviour change and how I can use applied learnings from this theory to my practice. This began during my research on Needs Supportive Communication (NSC; Ntoumanis et al., 2018) within exercise referral practitioners. I began to realise the great benefits this could have within my own consultancy and how it allowed me to come back to really listening and understanding the client with curiosity to explore their perspectives and truly apply an intervention that they felt autonomy and competence over. This was the level of my use of SDT for a while, before I started exploring autonomy supportive coaching within football coaches and discussing the use of SDT to support intake and case formulation. I recognised the benefit in identifying areas of needs support and needs frustration within clients to inform the work that we do together. This added another lens to my work with clients and I felt integrated really nicely in that SDT's philosophy is based in organismic theory and related to individuals finding their true integrated or actualising tendencies (Ryan & Deci, 2017). For me, this resonated with ACT's aims to support individuals in living a fulfilling life in line with what is important to them (Hayes, 2001). Further, SDT's links to humanistic concepts of an actualising tendency (Rogers, 1963) and the importance "to be the self that one truly is" (Rogers, 1961) in that SDT highlights the importance of autonomy support within an individual's environment to help one thrive and grow closer to the integrative tendency (Ryan & Deci, 2008; Ryan, 1995).

These connections between theories and approaches has allowed me to draw on this knowledge in a more integrated fashion.

In a way of a basic summary of what this may look like in practice, my work with clients is to explore with curiosity and kindness what will help them to live a fulfilling life and reach their potential in and out of sport. By exploring the fulfilment of their basic psychological needs and any barriers they have towards acting in line with what matters to them I can begin to select an intervention. If barriers are identified, an ACT or solutions focused approach will be utilised to support the client in overcoming barriers. If needs frustration is identified, a more systems based approach may be explored, working with parents, coaches and support staff to support the athlete. My way of delivering interventions will be grounded within NSC, and creating a collaborative therapeutic alliance. If no barriers or presenting problems are identified, a strengths based approach may be used to explore to where the client can enhance what they already do.

Though I feel much more confident within my philosophy of practice, I still have a lot to explore. Coming to the end of my Professional Doctorate, I certainly feel as though I am just beginning to understand myself and my practice. I now feel I have a strong foundation which I can build on by exploring the literature further, exploring the nuances within the approaches I utilise, and putting this into practice within various contexts.

References

Carmody, J., Baer, R. A., Lykins, E., & Olendzki, N. (2009). An empirical study of the mechanisms of mindfulness in a mindfulness-based stress reduction program. *Journal of clinical psychology*, 65(6), 613-626. <https://doi.org/10.1002/jclp.20579>

- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Fifer, A., Henschen, K., Gould, D., & Ravizza, K. (2008). What works when working with athletes. *The Sport Psychologist*, 22(3), 356-377. <https://doi.org/10.1123/tsp.22.3.356>
- Gordon, S., & Gucciardi, D. F. (2011). A strengths-based approach to coaching mental toughness. *Journal of sport psychology in action*, 2(3), 143-155.
<https://doi.org/10.1080/21520704.2011.598222>
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Hayes, S.C, Barnes-Holmes, S. C. H. D., & Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. Springer Science & Business Media.
- Henriksen, K., Hansen, J., & Larsen, C. H. (2019). *Mindfulness and acceptance in sport: How to help athletes perform and thrive under pressure*. Routledge.
- Keegan, R. J. (2010). Teaching consulting philosophies to neophyte sport psychologists: Does it help, and how can we do it?. *Journal of Sport Psychology in Action*, 1(1), 42-52. <https://doi.org/10.1080/21520704.2010.518663>
- Lindsay, P., & Bawden, M. (2018). *Pig Wrestling: The Brilliantly Simple Way to Solve Any Problem... and Create the Change You Need*. Random House.
- Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A strengths-based consultancy approach in elite sport: Exploring super-strengths. *Journal of*

Applied Sport Psychology, 28(2), 216-233.

<https://doi.org/10.1080/10413200.2015.1105881>

Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.

Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.

Poczwadowski, A., Sherman, C. P., & Ravizza, K. (2004). Professional philosophy in the sport psychology service delivery: Building on theory and practice. *The Sport Psychologist*, 18(4), 445-463. <https://doi.org/10.1123/tsp.18.4.445>

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

Rogers, C. R. (1963). The actualizing tendency in relation to "motives" and to consciousness. In M. R. Jones (Ed.), *Nebraska Symposium on Motivation* (Vol. 11, pp. 1-24). Lincoln: University of Nebraska Press.

Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Boston: Houghton Mifflin.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63(3), 397-427 <https://doi.org/10.1111/j.1467-6494.1995.tb00501.x>

Ryan, R. M., & Deci, E. L. (2008). A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology*, 49(3), 186-193.

Turner, M. J. (2019). REBT in sport. In *Advances in REBT* (pp. 307-335). Springer, Cham.

13. Learn, Control, Perform: Creating Clarity for Clients

Date: 15/07/20

I'm starting to feel that the clients I work with have a lack of clarity in the consultancy process and this leads me to feeling anxiety as I feel I'm doing the client a disservice. This also makes me more likely to change my mind about intervention or throwing everything at it, meaning that I am not giving the client enough time to see a change. I have been asking myself "how can I deliver with clarity and in a way that motivated the client to strive towards change and growth?". I strove to develop a tangible way for clients to view the work that we do together in the hopes to increase their motivation for the work we do, whilst providing them with a greater understanding of the process. As the client-practitioner relationship and working alliance established between sport psychologist and client are largely influenced by the practitioner's theoretical orientation and professional philosophy (Shertzer & Stone, 1968; Weiss, 1991) I felt it was important to make sure my way of working was clear to the client. I believe this clarity could potentially enhance the therapeutic alliance in that they can let me know if there is something they are not comfortable with so we can explore different avenues. Linking to Self Determination Theory (Deci & Ryan, 2000), I feel this process could provide the client with more autonomy and increase feelings of relatedness as it will be presented as a collaborative process, which could increase the clients competence and their understanding of the potential steps to reach their goals.

So, this week I have been working on creating three pillars to guide the consultancy process. The three pillars are: Learn, Control, Perform. Learn is all about self-awareness within the client, whilst allowing me to build a relationship and understand their context and needs. At this pillar, we might explore how the brain works, their preferences and beliefs, identify their strengths and values perhaps through the use of profiling (e.g., Spotlight

Profiling; Ong, 2018), and explore psychometrics to begin the monitoring process where necessary. Control is linked with Stoicism, a branch of philosophy that I radiate towards within my practice, with its (classically overused) teaching to focus on what you can control! I link this to a third wave way of practice in that uncontrollable externals must be accepted in pursuit of what is meaningful to the client. Further, the heart of Stoicism holds that if an individual desires things outside of their control, or wants to avoid the inevitable, happiness will be fragile and dependant upon these uncertainties (Stephens & Feezell, 2004). As such, at this pillar we may also create a “game plan” for them to use during performance whereby focusing on the things they can control, and engage in homework or training to help them train the mind. Finally, Perform is about committed action and behaviours to help the client live a meaningful live in and out of their sport to get them closer to their integrated self. This pillar may also include the execution of strengths or solutions focused strategies determined by the client. Feedback and monitoring with the client and those around them (if suitable) will take place throughout the consultancy process. It’s important to note this process is not always linear. It will always start at ‘Learn’ but we may ‘dance around’ these pillars, much like in ACT and the hexaflex (Dempsey, 2019), depending on where the client find themselves and based on my understanding of the client. For example, if an intervention is not creating the desired impact I may shift from ‘control’ back to ‘learn’.

I hope this will be beneficial when initially meeting clients to provide a more tangible idea of the process for them and also to help them see their process throughout the consultancy relationship (though of course these stages are not completely linear). Though I feel this will help the clarity of my practice, I do worry if it will be too rigid and take away from the evolving work with a client as contexts and problems shift and evolve. I also wonder if it is too gimmicky through my own insecurities to produce something tangible for the client. Further, it will greatly depend on what the aim of the consultancy is as to whether this

will be effective. For example, if the aim is for increased wellbeing rather than performance then these pillars may not be as beneficial. I think there are ways that I can develop this to give it more flexibility across client aims, such as changing ‘Perform’ to ‘Commit’ or ‘Act’ to encompass wellbeing work as well as performance enhancement and supporting the client towards a fulfilling life. These are all things I will consider in my practice moving forward and I will refine this model as I gain experience and feedback from clients about the use of these pillars.

References

- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Dempsey, A. (2019). *Pediatric Health Conditions in Schools: A Clinician's Guide for Working with Children, Families, and Educators*, 177.
- Ong, C. W. (2018). A statistical evaluation of the ‘Spotlight’ personality tool—A white paper.
- Shertzer, B., & Stone, S.C. (1968). *Fundamentals of counseling*. Boston: Houghton Mifflin
- Stephens, W. O., & Feezell, R. (2004). The ideal of the stoic sportsman. *Journal of the Philosophy of Sport*, 31(2), 196-211. <https://doi.org/10.1080/00948705.2004.9714660>
- Weiss, M.R. (1991). Psychological skill development in children and adolescents. *The Sport Psychologist*, 5, 335-354

14. A Meta Reflection on Working in Esports

Date: 10/08/2020

When I first jumped into working in esports in June 2020, I felt very uncertain about what it should look like. Especially since I didn't know anyone working within the field, and when I asked others about this I tended to get funny looks! I felt very nervous talking with the team for the first time and was concerned about how I would be perceived due to a lack of knowledge about League of Legends (LoL) and the culture behind it. I was able to overcome some of these feelings by watching a performance coach webinar. The coach in question was from an organisational psychology background and was working in LoL. This gave me confidence and reinforced that I would have skills to provide within an esports context. For example: the coach discussed creating an environment where players are comfortable, which reminded me of psychological safety (Edmondson et al., 2018); addressing and overcoming negative behaviours that impact performance, which I have experience of from my one-to-one work; building motivation within a team, which I have knowledge of through Self-Determination Theory (Deci & Ryan, 2000); and creating connection within the team and ensure they are all moving in the right direction, reminding me of establishing meaningful values (Cotterill, 2012).

I was keen to spend time getting to know the players and LoL itself, but since the Summer Split (i.e., Summer Season) had already started and was only for the duration of seven weeks, I was required to implement psychology within the environment sooner than I would with other performance environments, such as football (Nesti, 2004). I was lucky the managers were willing to spend time introducing me to LoL and the performance demands on players which I could supplement with the emerging research base (e.g., Bányai et al., 2019; Cottrell et al., 2019; Poulus et al., 2020) Initially, I tried to use a more systems approach, or at least introduce it in that way, however this did not come to fruition as management and

coaching staff did not seem keen on this and kept reiterating the support was only need for the players. I understood this, and certainly did not want to be perceived as knocking the door down and forcing psychology into the system! My focus therefore shifted to a strengths and acceptance and commitment therapy based work with the players.

After the first week, I was receiving positive feedback from the players and coach which was fantastic. I feel like I have never had much of this from the other environments I have worked in so it made me feel great and really valued within the team even after just a short time. Interestingly, I felt more a part of the team than in football. I found this strange as all of the conversation is online and I had never seen any of their faces before, it was all voice communication. Perhaps it is because I was at the matches, at training, provided consistent one-to-one support, regular workshops, fit in better with the environment and quirks it held, or simply the fact that the team was smaller (five players and two coaches) meaning I could build a better connection with individuals.

As my time went on within the team I found myself worrying about my impact and what others thought about me. For example, I was unsure what the etiquette was like when joining voice channels during their training and was concerned about speaking when they were busy or stepping on anyone's toes. It is in those group situations when I wondering what to say and it is an issue I have in every area of life really being in a group and finding confidence to speak up, especially within a new environment. There also seemed to be some 'banter' about me being the only woman in the environment, for example people would say "thanks mum" after sessions and when I joined the voice channels sometimes say "we have to behave now, there's a girl in the room". This of course was all in good jest, but it does make me feel separated from the team in some ways. Despite this, I was able to build relationships through the one-to-one work and had some great feedback from player about this:

I just want to reiterate again how useful the solo sessions were for me because I've never really had any sort of like psychological sessions or counselling if you would and it was quite nice to just chat to someone who knew what they were talking about and help me out with the problems I was having so I guess I want to say like just thank you it was really really helpful for me. Not only for my performance in the team but also like I can take that into whatever I want to do after league. (Player 1)

Of course, with the positives came negatives and one player in particular was not convinced about the impact my work had on the team and suggested others were not being honest in their feedback. This is something I have discussed in my teaching case study. Realistically, we can not win them all and if five of the were positive about the support I provided especially being in a new environment and sport for the first time. In the future, I would love to grow my experience in esports and look to develop a more cohesive programme in the future and look at working at a systems level. Esports has already brought a lot of new experiences for me, such as being invited onto a podcast for the first time (which I was terrified about but had a great time!), being asked to contribute to an interview online, and be part of a league winning team. As psychology within esports is still young, there are so many opportunities for research, applied work, and even moulding the field to become more informed about what performance psychology looks like in esports. I'm not sure what I will focus on next, but I'm excited to explore esports further in the future, how my skills can apply to the field, and how the field can teach me.

References

- Bányai, F., Griffiths, M. D., Király, O., & Demetrovics, Z. (2019). The psychology of esports: A systematic literature review. *Journal of gambling studies*, 35(2), 351-365.
<https://doi.org/10.1007/s10899-018-9763-1>
- Cotterill, S. (2012). *Team psychology in sports: Theory and practice*. Routledge.

- Cottrell, C., McMillen, N., & Harris, B. S. (2019). Sport psychology in a virtual world: Considerations for practitioners working in eSports. *Journal of Sport Psychology in Action*, 10(2), 73-81. <https://doi.org/10.1080/21520704.2018.1518280>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.
- Poulus, D., Coulter, T. J., Trotter, M. G., & Polman, R. (2020). Stress and coping in esports and the influence of mental toughness. *Frontiers in psychology*, 11, 628.
<https://doi.org/10.3389/fpsyg.2020.00628>

15. An Esports Psychology Programme

Date: 20/11/2020

Following my work with NVision during their 2020, I feel I have a better understanding of the way the team is managed, it’s vision, and the skills which I could provide to enhance the team. These included things such as building team awareness through identifying strengths and values (Ludlam et al., 2016; Cotterill, 2012), dealing with anxiety and negative thoughts during performance (Leis & Lautenbach, 2020), and creating a psychologically safe environment (Edmondson et al., 2018). With this understanding I have been keen to create a more cohesive programme that lay within the day to day workings of the team in order to allow the messages to live within the environment and staff to have greater impact.

Today I have been discussing the programme with two other individuals working within esports; one trainee sport psychologist, and one PhD student. It was so beneficial

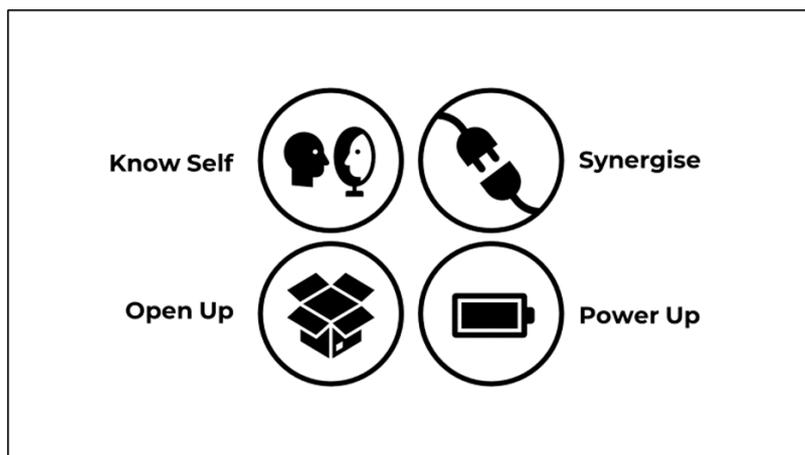
bouncing off them both, one with great applied knowledge and one who could provide you with the literature to back up your points and observations! A summary of the three aspects we discussed as vital for performance psychology within esports (of course based on our own philosophies, which were rather similar) can be seen in Figure 1:

Figure 1

A Summary of Peer Discussions Regarding Psychology Support in Esports

- 1) The Organisational Work (culture/values/routines)
 - Pre-season: Assess needs (pre-season questionnaire?)
 - Pre-season: Collectively decide goals, values, related behaviours
 - Pre-season: Need to be clear on roles, purpose of resources (e.g., Discord channels)
 - Pre-season onwards: Record and reinforce values (e.g., Henriksen 2015)
 - Use of meetings in-season, checking compliance to values
 - Post-season reflection
- 2) Performance Enhancement/ & Well-being Based work with Players
 - Set aside time for team-building
 - Providing workshops in line with team needs
 - Informed consent and integrating one-to-one consultancy
- 3) Working with Coaches & Staff
 - One-to-one work with coaches and staff (e.g. exploring self-awareness, philosophy, beliefs, approach to coaching, communication, reflection)
 - Providing feedback from observing scrimms
 - Supporting coaches and staff to integrate psychological principles into the environment

With this, I have been considering how I can make this more “sticky” and cohesive to present to the management and coaching team. Also, I wanted to feed in the aspects I felt were vital for my own philosophy (e.g., identifying values, identifying and sharing strengths, creating psychological safety). The purpose of this model was to integrate a cohesive psychological working model to support players to develop and thrive within the UKLC and beyond by creating a model to foster a psychologically safe and open culture based on enhancing strengths, clarifying values, and engaging in regular reflective practice as a team. Based on my own way of working and the discussion with my peers today, I have come up with four areas: Know Self, Synergise, Open Up, and Power Up (Figure 2).

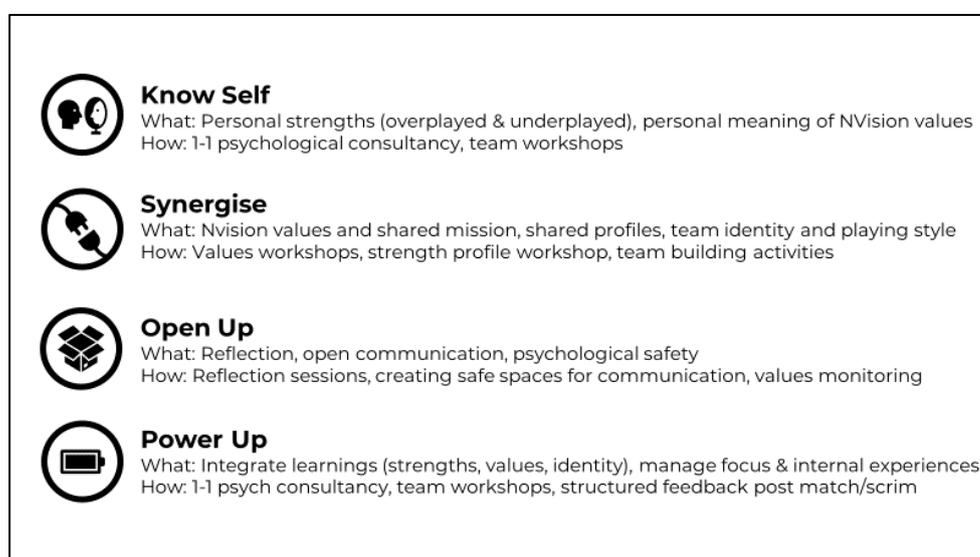
Figure 2*The Model*

Of course, the way these four areas look in practice will differ based on the initial needs analysis with the new roster, but overarchingly will follow a similar vein (Figure 2). The three vital components identified in the peer support group blend into all of the four areas I have presented. Know Self, occurs during the organisational work whilst building team values and clear roles within the team and coaching staff, and also the performance/wellbeing work with players to identify their own personal values and strengths; Synergise occurs during the organisational work through sharing strengths profiles and creating a team mission and purpose through close work with the coaching staff and reinforcing their togetherness through team building activities; Open Up is all about setting time aside to reflect as a team to encourage open communication and psychological safety (which will have been discussed with the team in a previous group session), this space will also allow myself and the coaches to monitor adherence to values and mission; Power Up, is transferring the values, strengths, learning from one-to-one work and workshops, and reflective sessions into the performance arena which can be done through one-to-one work, team sessions, or through the coaching staff. Finally, when working with coaches one-to-one I feel this will be a nice process to go through with them e.g. exploring themselves (Know Self), how they can connect with the

players and shared values (Synergise), getting them to open up in a safe space about any struggle (Open Up), and supporting them to implement psychology strategies into their coaching practice (Power Up). Finally, by monitoring this programme throughout the split I hope I can ensure that I am having impact and am not simply throwing an eclectic mix of concepts and approaches at the team. I do feel the approaches presented are integrated (Tod & Eubank, 2020) in line with my own philosophy and observations of the context in question.

Figure 2

The what and the how of the model



I am excited about a number of things from today. One being the fantastic peer network I am lucky to be a part of where information is freely shared which have given me confidence to be creative (Bryant & Terborg, 2008) and produce a cohesive model for the team. Another is that I have been able to create the skeleton of a programme that is in line with my own philosophy (and this makes me excited to go out and implement it!) and supports the needs of the team. I will face barriers implementing this, such as getting buy in from the coaching staff if there is a perception that this is “extra” work they have to do. There is, like in many sports, a perceived lack of time and so carving out time for regular reflective

sessions with the team and workshops may be difficult. Despite this, since a lot of the work will be done during pre-season I hope the time needed when the season starts will be viable.

References

- Bryant, S. E., & Terborg, J. R. (2008). Impact of peer mentor training on creating and sharing organizational knowledge. *Journal of Managerial Issues*, 11-29.
- Cotterill, S. (2012). *Team psychology in sports: Theory and practice*. Routledge.
- Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.
- Leis, O., & Lautenbach, F. (2020). Psychological and physiological stress in non-competitive and competitive esports settings: A systematic review. *Psychology of Sport and Exercise*, 101738. <https://doi.org/10.1016/j.psychsport.2020.101738>
- Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A strengths-based consultancy approach in elite sport: Exploring super-strengths. *Journal of Applied Sport Psychology*, 28(2), 216-233. <https://doi.org/10.1080/10413200.2015.1105881>
- Tod, D., & Eubank, M. (Eds.). (2020). *Applied Sport, Exercise, and Performance Psychology: Current Approaches to Helping Clients*. Routledge.

16. A Turtle in the Ocean: A Meta Reflection on the Development of my Philosophy

Date: 12/12/20

Throughout the three years of my Professional Doctorate, I have reflected a lot on myself as a person, my own personality, my believes, values, and how this feeds into my philosophy of practice. In March 2018, I reflected on how I felt that finding my philosophy of practice was like the metaphor from Buddhism about the turtle in the ocean, with a congruent philosophy of practice within this quote being “the human state” or reincarnation:

That is why the Fortunate One declared that the human state is so hard to attain: as likely as the turtle poking its neck through the hole of a yoke floating on the mighty ocean. (Shantideva, 1981 p. 20)

OK, so maybe I'm being a bit extreme with this! But this reflected the feeling at the beginning of my practice, a blind turtle trying to find a tiny yoke in a vast ocean to poke my head through for air. Where do I start? Who am I? What do I want? What do other people need? These questions all guided me towards my philosophy, and I started by turning within and developing myself as a person and enrolling on a Mindfulness-Based Stress Reduction (MBSR) 8 week course (Kabat-Zinn, 2003; Pizutti et al., 2019), which I have reflected on earlier within my portfolio (pp. 47 – 51) . This allowed me to manage my own emotions when delving into the world of applied practice, which I found very challenging initially, battling with my own anxieties as a neophyte practitioner but also managing the emotions and issues that clients may be facing. Training for neophyte practitioners in managing the emotional labour of applied practice has been found lacking (Hings et al., 2020) and so I feel lucky to have been able to gain this experience to help manage my own mental health early on in the Professional Doctorate process as well as manage myself as a “consultant-as-performer” (Poczwardowski, 2017) due to often feeling pressure to provide the best service to my clients.

I was able to compartmentalise the sea of psychological theory and approaches (though still too vast for my mind to comprehend) and recognise what aspects sparked interest and a feeling of belonging for me through that 8 week mindfulness course. Despite this, the sphere of sport psychology, and psychologists within it, have such passion for what they do within such a range of different areas that early on in my practice I felt very influenced by a powerful talk at a conference, or a thought provoking podcast or even a tweet! This made things a bit messy and eclectic. Every day was an obsession over a different

concept, or applied tool, but how did this fit in with who I was; who I am? I reflected on how this made me feel guilty, as though I was copying and pasting something from someone else's mind into my own practice. In February 2019 I recall reading Lindsay et al.'s (2007) paper titled "in pursuit of congruence" where he discusses a solutions focused approach. I reflected:

I felt that I couldn't use that approach or even consider it (for a moment) as it's just stealing what someone else is doing. I am very much feel I have to be different and unique and somehow find something on my own. (06/03/19)

Soon after this, I heard someone say on a podcast "we're all riding on other people's achievements". An obvious statement, but something that I was disregarding throughout my practice and putting immense pressure on myself to do something new and unique. This of course made life very difficult for myself. When I started to dig into the aspects of my philosophy that truly aligned with my beliefs and values, then I felt as though I had something meaningful. This created more congruence between myself as a person and a practitioner (Lindsay et al., 2007) . I think this is what I was searching for truly, not something unique but something that held meaning for me. When my mindset shifted to finding a meaningful path, a lot of my anxieties were released. This reflection on who I was as a practitioner and trying to find my place rather than what I felt other people expected me to be allowed me to find growth and understanding in who I was as a person and practitioner after intense moments of self-doubt and uncertainty (Anderson et al., 2004). My aim after this was to keep checking in with my values and whether my practice was congruent. However, I also felt it important to not box myself in and to take this opportunity during training to try new things and explore if they could be integrated into my evolving philosophy of practice. Further, over time I have become more confident at integrating various approaches and techniques in order to create something that does appear to be more unique!

References

- Andersen, M.B. (2000). Some basic questions about service. In M.B. Andersen (Ed.), *Doing sport psychology* (pp. xiii-xvii). Leeds, UK: Human Kinetics
- Hings, R. F., Wagstaff, C. R., Anderson, V., Gilmore, S., & Thelwell, R. C. (2020). Better preparing sports psychologists for the demands of applied practice: The emotional labor training gap. *Journal of Applied Sport Psychology*, 32(4), 335-356.
<https://doi.org/10.1080/10413200.2018.1560373>
- Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, 8(2), 73.
- Lindsay, P., Breckon, J. D., Thomas, O., & Maynard, I. W. (2007). In pursuit of congruence: A personal reflection on methods and philosophy in applied practice. *The Sport Psychologist*, 21(3), 335-352. <https://doi.org/10.1123/tsp.21.3.335>
- Pizutti, L. T., Carissimi, A., Valdivia, L. J., Ilgenfritz, C. A. V., Freitas, J. J., Sopezki, D., Demarzo, M. M. P., & Hidalgo, M. P. (2019). Evaluation of Breathworks' Mindfulness for Stress 8-week course: Effects on depressive symptoms, psychiatric symptoms, affects, self-compassion, and mindfulness facets in Brazilian health professionals. *Journal of clinical psychology*, 75(6), 970-984.
<https://doi.org/10.1002/jclp.22749>
- Poczwardowski, A. (2017). Deconstructing sport and performance psychology consultant: Expert, person, performer, and self-regulator. *International Journal of Sport and Exercise Psychology*. <https://doi.org/10.1080/1612197X.2017.1390484>
- Shantideva, A. (1981). *A Guide to the Bodhisattva's Way of Life*. Library of Tibetan Works.

17. Does My Philosophy Need to Change?

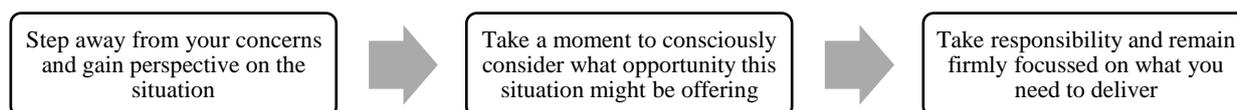
Date: 16/02/21

Today I recognised I was getting stuck using Acceptance and Commitment Therapy (ACT; Hayes et al., 2006) with a youth footballer. I was concerned the work we were doing was moving away from his needs. The footballer has very high perfectionism and adverse responses to failure and I could see him struggling with the concept of accepting uncomfortable thoughts and feelings. More than anything he wants these thoughts and feelings to go away. This made me feel uncomfortable, as it goes against my philosophy that we must accept uncomfortable thoughts and feelings as they arise in pursuit of what is important. However, I then started to question if I was simply doing a service to myself and not the client by picking this approach and whether I am avoiding uncomfortable feelings by not exploring with a different approach. Potentially jeopardising the progress of the client as I am choosing an approach I feel most comfortable with. Discussing this with one of my mentors, we highlighted that using ACT to manage perfectionism can be difficult as the underlying beliefs need to be challenged otherwise the client may continue with a very rigid approach in their thinking. Though they may be fantastic at committing to action in line with their values, this may in fact become unworkable as they act too rigidly in line with these behaviours. Despite this, I do feel ACT could be suited for this case. For example, instead of challenging beliefs I can get the client to recognise the stories that his mind is telling him and defuse from these thoughts. I believe this would be impactful with some clients, but it seems this footballer may see more success if he is able to challenge and change his belief system that everything always has to be perfect through approaches such as Rational Emotive Behaviour Therapy (REBT; Turner, 2019). Considering changing my approach in this consultancy brought up feelings of anxiety and I felt a lot of pressure to make the right choice. Using my Spotlight profile (Ong, 2018), I was able to recognise my weaknesses

under pressure and was able to use the short process in Figure 1 to help me make the right steps forward.

Figure 1

Personalised Three Step Process for Managing Pressure



My initial concerns were “I’m not good enough”, “I haven’t even done my chosen approach right”, “I don’t know what else to do”, “I don’t have the skills”, “Am I going to ever get this right?”. This made me feel quite anxious and stuck about what to do next. I took a step back and then discussed this with one of my mentors and was then able to see that perhaps this is an opportunity for me to venture into the unknown and try something new. I have previously rejected the opportunities to try REBT in feeling it goes against my philosophy and beliefs and in fear of getting it wrong. Though, I am now starting to reconsider some of these beliefs. Personally, ACT works for me and helps me manage my internal experiences. But this is selfish. Just because it works for me does not mean it will be the best fit for my client. If my philosophy is to allow the client to lead where possible, then I should either change my approach or refer the athlete if there are indications that what we are doing is not working. Moreover, as my main aim is to support the client to live a fulfilling life in and out of their sport then whatever means allows them this is viable if it fits in with my values and ethics. The issue is therefore my own knowledge and competency, but if I am so fearful of not knowing enough then I will never learn anything new!

This could be a critical moment which has emerged with my experience and reflective practice (Wadsworth et al., 2021). Within Wadsworth et al. (2021) an experienced practitioner stated: “you have to flex to the client, but I think the way I would describe it now,

compared to then, is that...whilst maintaining your own personal qualities and preferences, you have to flex to meet you clients' needs". I feel I need to find more ways in which to 'flex' that are still in line with my values as a practitioner and remind myself that my philosophy is always evolving (Tod et al., 2009) as I strive to find cohesion between my own personal and professional life. I will now go forward with REBT and explore this new approach whilst getting feedback from my mentor. I am excited to see if I can integrate this approach into my practice and hopefully allow me to provide a better service to my clients.

References

- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Ong, C. W. (2018). A statistical evaluation of the 'Spotlight' personality tool—A white paper.
- Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology*, 21(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>
- Turner, M. J. (2019). REBT in sport. In *Advances in REBT* (pp. 307-335). Springer, Cham.
- Wadsworth, N., McEwan, H., Lafferty, M., Eubank, M., & Tod, D. (2021). Stories of Critical Moments Contributing to the Development of Applied Sport Psychology Practitioners. *The Sport Psychologist*, 1(aop), 1-11. <https://doi.org/10.1123/tsp.2020-0085>

Research

1. Development of a Needs Supportive Coding Manual: A Meta Reflection

Date: 18/06/19

It has been over a year since I began discussions with my supervisor, Dr Paula Watson, about gathering fidelity data to explore the impact of needs supportive communication training for exercise referral practitioners. I must say, initially I was concerned about stepping into exercise psychology research. There seems to be a massive focus on sport psychology from everyone on the course, and I was a bit worried about what others may think. However, I have always been fascinated during Paula's sessions and wanted to ensure I could earn the title of a "sport and exercise psychologist"! Looking back now, I am very happy that I made the decision to explore exercise psychology. The benefits that I have experienced within my applied practice have been evident, with many layers of this research impacting the way I work, as well as the value I place upon exercise psychology. Further, the notion of being able to support the general population to live healthy and fulfilling lives, as well as more "elite" populations, I believe is integral to support the communities that we live within.

One layer of the benefits this research has brought me is the recognition that psychology can be delivered by anyone (e.g., the exercise referral practitioners). I believe this now makes up an integral part of who I am as a practitioner. As a sport and exercise psychologist, we can support the personal trainers, nutritionists, coaches, family members, peer support networks (and more) to implement behaviour change strategies in the environment. Prior to this I was very single minded about working directly with the individual and no one else. This of course impacts effectiveness and maintenance of wellbeing and performance, with working in a multidisciplinary team in a sporting environment being vital to effective information sharing and intervention delivery (Bickley et

al., 2016). I believe this same thinking can overlap into an exercise setting, though the teams may not be as extensive, there are still multiple people within the organisation or system that can be consulted and considered for intervention delivery and support. I now ask myself when planning an intervention “who is the best person to deliver this?” and consult those around me.

Another layer is the experience of designing and developing a coding framework to quantitatively measure the frequency of needs supporting and thwarting behaviours. This process was vigorous and took a long time to complete! We began the process in September 2018 and did not finalise the coding framework and manual until November 2019. This allowed me to recognise the nuances of various needs supportive and thwarting behaviours. Previously, I had only read about them in research and not seen what they may look like within practice and between personality styles of practitioners. By going through this process I am now much more adept at identifying needs supportive and thwarting behaviours in the people that I work with. This means I am better able to support their development. For example, previously I would not know how to work with a coach or what to observe of them during their sessions. I can now feedback and support coaches to enhance the performance and wellbeing of the athlete’s they work with through this needs supportive style. I am now exploring autonomy supportive coaching (Webster et al., 2013), to increase the transferability of skills.

A final layer to the learning from this research project, and the most important in my opinion, is how exploring needs supportive communication from a research perspective has had a massive impact on the way that I work and the language I use (Ntoumanis et al., 2018). During the research process, I was using the coding manual that we created to code instances of needs support or needs thwarting behaviours within exercise referral practitioners. This has been an amazing practice for my own applied practice and I now have

a greater awareness when I am utilising these behaviours in practice. I am now more aware when I ask a leading or closed question, and have recommitted myself to truly listening rather than entering the consultancy with a list of questions (which is what I often do!). I believe this can help my authenticity as a practitioner, which has been identified as a vital characteristic for a sport psychologist (Nesti et al., 2010). Though, I must be careful not to rely too much on the needs supportive behaviours as I may risk becoming robotic and afraid to be directive or challenge the client. My ability to challenge clients when they are skirting around a problem or telling me what they think I want to hear can become an issue, especially when I am relying on needs supportive communication. Initially, I felt this was due to the style of needs supportive communication. However, I think I have been viewing its use quite narrow-mindedly. By asking permission to challenge may allow me to maintain this supportive style. Further, if the relationship is strong enough, challenging the individual will not thwart their needs and could even enhance the relationship as deeper sharing of information could occur. I will continue to explore the use of this communication style in my practice and supporting others to use it within theirs, whilst checking in regularly with myself to ensure I am providing an authentic service to my clients.

References

- Bickley, J., Rogers, A., Bell, J., & Thombs, M. (2016). Elephant spotting': the importance of developing a shared understanding to work more effectively with talented but challenging athletes. *Sport Exer. Psychol. Rev*, 12(1), 43-53.
- Nesti, M. (2010). *Psychology in football: Working with elite and professional players*. Routledge.

- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.
- Webster, C. A., Wellborn, B., Hunt, K., LaFleche, M., Cribbs, J., & Lineberger, B. (2013). MPOWER: An observation system for assessing coach autonomy support in high school varsity boys' soccer practices. *International Journal of Sports Science & Coaching*, 8(4), 741-754. <https://doi.org/10.1260/1747-9541.8.4.741>

2. A Meta Reflection on my Think Aloud Research

Date: 19/06/20

I feel so privileged to have been working on various Think Aloud (TA; Whitehead et al., 2016; 2015) projects since starting my MSc in 2017 with my supervisor, Amy. It is exciting to feel a part of the development of the research base and to be able to discuss this progress with the people who are at the forefront of it. I haven't done this with any other type of research and it is exciting to see. It makes me feel like I would like to continue to engage with research in the future, and even makes me consider a role in a more academic position to allow me to do this. Though, the idea of "publish or perish" (De Rond & Miller, 2005) that sits within academia puts me off somewhat. It is certainly a luxury to be able to allow research questions to naturally reveal themselves to you, rather than feeling under pressure to get research published. Though, saying this, after doing more work with TA I have ideas coming out of my ears!

The work I have done within TA has allowed me to bridge the gap between research and practice and recognise that a "pracademic" role is perhaps what I am striving for in the future. The development of the TA programme at Blackburn Rovers has allowed me to experience glimpses of this. Though the research was cut short due to COVID-19,

interviewing the coaches about their initial perspectives of TA and the impact it can have on their development was really powerful. Getting this feedback and the coaches perceptions allowed me to feel more confident in using TA, in that the coaches all recognised the impact that it could have. Often I will put myself down and think “they don’t care about this” or “they won’t want to do this” when it comes to initiatives I try to implement within performance environments. However, having the research to back up what you are doing, understanding the research base to have answers to concerns coaches might have, and having experience of implementing TA within other contexts brings a lot of confidence to my own delivery. Which, in turn, probably has an impact on whether the coaches are interested or not! As all things within sport psychology, I suppose this is coming back down to experience. As I have started picking up bits of knowledge, linking them together, and integrating them within certain contexts, I feel more comfortable and confident to be able to make an impact. Whereas, when I did not understand the research as well and had little experience applying TA, I felt more apprehension about the process.

The future is exciting within this space, with more opportunities for TA research with esports and tennis. I really hope this can be a platform for me to work more with coaches in various sports, but especially tennis as I feel there is a lot of potential for TA here. I would love to connect my passion for tennis with the work I do from a professional perspective. Moreover, within esports a lot of the research is just starting to emerge with some researchers already exploring TA as a research and intervention tool within sport psychology. It will be exciting to see how this evolves and perhaps get involved with some research here myself!

References

De Rond, M., & Miller, A. N. (2005). Publish or perish: bane or boon of academic life?

Journal of Management Inquiry, 14(4), 321-329.

<https://doi.org/10.1177/1056492605276850>

Whitehead, A. E., Jones, H. S., Williams, E. L., Rowley, C., Quayle, L., Marchant, D., &

Polman, R. C. (2018). Investigating the relationship between cognitions, pacing

strategies and performance in 16.1 km cycling time trials using a think aloud protocol.

Psychology of Sport and Exercise, 34, 95-109.

<https://doi.org/10.1016/j.psychsport.2017.10.001>

Whitehead, A. E., Taylor, J. A., & Polman, R. C. (2015). Examination of the suitability of

collecting in event cognitive processes using Think Aloud protocol in golf. *Frontiers*

in psychology, 6, 1083. <https://doi.org/10.3389/fpsyg.2015.01083>

3. Thinking Through My Research Philosophy

Date: 03/02/21

This week, whilst making revisions on one of my research papers, I have started to consider my research philosophy more deeply. I am beginning to posit that my research philosophy is within the realm of critical realism (Bhaskar, 2008; Ronkainen & Wiltshire, 2019). Critical realism is guided by ontological realism (there is a single reality independent of human minds) and epistemological constructivism (knowledge is only partial, fallible, and co-constructed between participant and researcher). Something I have been considering, is whether I also align to other philosophies. For example, the combination of ontological relativism (multiple realities exist) and epistemological constructivism makes sense to me. The difference is perhaps a semantic one (or a philosophical one I suppose!). I believe that people put their own lens on the world, but what does this mean for reality? Does this mean

there are multiple realities? Is the lens of which a person sees the world through a reality? From their perspective, perhaps. But if we are thinking more broadly about the world (or perhaps the universe!) what really is reality? Are humans able to perceive a true reality? So, importantly, we need to understand what reality is before I can posit my stance on it. Interestingly, this has also been considered by other researchers, “*while critical realism rejects the idea of ‘multiple realities’, in the sense of independent and incommensurable worlds that are socially constructed by different individuals or societies, it is quite compatible with the idea that there are different valid perspectives on reality*” (Maxwell, 2012, p. 9).

Despite this compatibility, I wonder, if there are multiple realities, what would the point in research be? It would surely then be near impossible to form any conclusions or patterns from data as everyone is seeing a different reality. If we ask ourselves “if scientific experiment is possible, what must the ontology of the world be like?” and we may conclude that we are seeking a single reality and answers (or tendencies) about the world. Further, if we recognise that there is a single reality independent of human minds, we can start to draw conclusions. Critical realism is able to reach conclusions through retroductive reasoning, drawing causal tendencies from the data. This is arguably where constructivism falls short in that research guided by this can create fantastic insight about the world but when it is taken too far it denies the reality of the world; arguing that only stories exist. I would argue that my research does look for causal mechanisms that act as tendencies. For example, with my Think Aloud (TA) paper exploring perceptions of coaches on the use of TA as a reflective tool, we are suggesting that the use of TA can cause the development of the triad of knowledge within coaches. However, this is a tendency “perceived” by coaches and is not a universal law.

Though I am gaining a base understanding for my philosophical approach, I have a lot to learn! Particularly, how critical realism influences the methods used and questions asked

within research, with epistemological assumptions suggesting particular methodological choices (Blaikie, 2007). From my surface understanding, critical realism allows for qualitative and/or quantitative methodological approaches to be used in the mission to find “explanations for the way things act and how they are capable of doing so.” (Wynn & Williams, 2012, p. 795). Of course there are greater nuances and purpose behind the selection to methods from a critical realist perspective and I must say this is something I need to explore further.

References

- Bhaskar, R. (2008). *Dialectic: The pulse of freedom*. Routledge.
- Blaikie, N. (2007). *Approaches to social enquiry*. Cambridge: Polity Press.
- Maxwell, J. A. (2012). *A realist approach for qualitative research*. Sage
- Ronkainen, N. J., & Wiltshire, G. (2019). Rethinking validity in qualitative sport and exercise psychology research: A realist perspective. *International Journal of Sport and Exercise Psychology*, 1-16. <https://doi.org/10.1080/1612197X.2019.1637363>
- Wynn Jr, D., & Williams, C. K. (2012). Principles for conducting critical realist case study research in information systems. *MIS quarterly*, 787-810.

4. The Review Process

Date: 24/02/21

In November 2021 my supervisor and I submitted the study exploring perceptions of TA within a Category 1 football academy to *The International Journal of Sport Coaching*. First thoughts from myself were “I know nothing about coaching, surely we can’t submit

here?”, and, classically “I’m not sure this research is good enough”. To my surprise we were not straight out rejected and were asked to revise and resubmit.

A week ago, I received the reviewers’ comments. There were some positive comments with the response from the reviewers (which naturally I quickly overlooked as my negativity bias took over!; Rozin & Royzman, 2001), but quite a few comments really hit home and made me feel a bit embarrassed about what I had submitted. I felt overwhelmed by the amount of comments, and had to take a couple of days to digest the comments and to sit my emotions aside! When I began to tackle the comments, taking one at a time was all I could do. However, I often found myself going back and forth as I avoided comments that brought up feelings of frustration for me, or feelings of not being good enough.

One reviewer said that due to so many errors within the first paragraph they had “...stopped looking for and identifying problems with citations for the remainder of the document”. Obviously, one of the massive oversights from my part was simply setting out the paper in the format requested by the journal. Rookie error. My format was all over the place. For example, the text was justified, there was no title page, no running header, reference list incomplete. I could go on! Despite my embarrassing attempt of formatting the paper, I was somewhat please that at least it was just the way I had presented the research rather than the research itself. My biggest fears is not being good enough, or being perceived as stupid, and so I could not believe that I had done such a bad job at this rather simple part of the paper.

Finally, the discussion I had submitted was all over the place, with one reviewer stating: “*The discussion goes back and forth between general links between this study and the literature and links between this study and practical applications. It is confusing for readers*”. I have never been very good at structuring my work and struggled with this in my

case studies as well. I get an idea and just start writing and see what happens. This means this the reader is subject to figuring out what journey my mind was going on, which is not always a linear path! Further, confusion is exaggerated by my poor grammar and thoughtless dancing between tenses.

Going through the review process has shown me the reality of where I am at with my research and writing skills. Though the research I conduct has potential, there are many areas where this can improve. I think one of these areas is with the improved understanding of my research philosophy, which lies within critical realism (Bhaskar, 2008), and ensuring this is guiding my research throughout the process. Another is to think more thoroughly about the structure of my work rather than just diving in. Finally, it will be important for me in the future if I want to produce high quality research to spend time learning about how to write well and use correct grammar. This may mean going back to basics and gaining a more thorough understanding of how to write well, with the help of resources such as Cargill and O'Connor's (2013) book about writing research articles. This will not only improve the clarity of my writing but allow reading my work to be more enjoyable for the reader. I now await the response from the reviewers. If the paper is not accepted upon resubmission, then I have still gained a lot from the process. I have learned about where I can improve, and now have a really nice piece of work for my portfolio which hopefully follows a strong structure and does not cause too much confusion for the reader!

References

Bhaskar, R. (2008). *Dialectic: The pulse of freedom*. Routledge.

Cargill, M., & O'Connor, P. (2013). *Writing scientific research articles: Strategy and steps*.

John Wiley & Sons.

Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion.

Personality and social psychology review, 5(4), 296-320.

https://doi.org/10.1207/S15327957PSPR0504_2

Dissemination

1. Developing and Delivering an ACT Programme for Exercise Behaviour Change: A Meta Reflection

Date: 15/07/18

Be Strong is a health and lifestyle change initiative based in the North West of England. When the programme was delivered, I was at the beginning of my BPS Stage Two training and had some previous experience using Acceptance and Commitment Therapy (ACT; Hayes et al., 2006) including 1-1 consultancy with youth tennis players and completion of an ACT for beginners 2-day workshop. I did have experience of Mindfulness, but had never implemented taught these before. ACT was chosen to meet the needs to the clients once introduced to them in the induction (Page, 2009). My aims were to increase motivation for behaviour change through the use of ACT (Butryn et al., 2011). Due to my lack of experience delivering an ACT programme, I felt as though I was entering the unknown, and felt a lot of anxieties about delivering the programme. Despite these anxieties, the group of six females who took part in the series of workshops made me feel at ease and were very complementary about the work we did.

One particularly helpful finding from the induction, was how each client was very keen to change their eating habits as well as their exercise habits. Some of them even felt their exercise habits did not need to be changed significantly, but their relationship with food did. This concerned me as I do not know anything about nutrition. However, my supervisor and I discussed how behaviour change strategies for healthy eating still follow the same models and so if I can guide the clients to explore themselves and provide them with the tools to overcome thoughts, emotions and urges that may be related to their eating habits this would not be stepping over any ethical boundaries. Further, with the ethical principle of

“First Do No Harm” (Chadrura et al., 2017) and discussing my intentions being support and guide the clients towards a more meaningful life. Though this is not enough in all cases, we felt that the risk here was low.

The programme was developed around the ACT Hexaflex. I knew that I did not have enough knowledge and certainly enough applied skill to do this perfectly, but I knew it was the approach I wanted to use within my practice. So, I took a bit of a dive head first into developing a programme around this. Using the experiential exercises and metaphors from books and workshops I had experienced, I felt I would be able to create a comprehensive programme to support the needs of the clients and improve the relationship they had with exercise. On reflection, I feel that I was too rigid in my approach to this programme. Though following a framework has its advantages for me as an early career practitioner, it may have jeopardised the development of the individuals on the course. By including values identification earlier on within the programme would have allowed the clients to have a clear purpose moving through the course. Finally, I wish I added in more exercises specifically relating to exercise. I think this would have helped the learning to be embedded within the clients, especially since a lot of them did not practice the mindful exercise session for homework.

References

- Butryn, M. L., Forman, E., Hoffman, K., Shaw, J., & Juarascio, A. (2011). A pilot study of acceptance and commitment therapy for promotion of physical activity. *Journal of Physical Activity and Health, 8*(4), 516-522. <https://doi.org/10.1123/jpah.8.4.516>
- Charura, D., McFarlane, K., Walker, B., & Williams, G. A. (2017). Above all, do no harm: Towards more ethical ways of being and acting in psychological formulation. In *Clinical Psychology Forum*. The British Psychological Society.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>

Page, J. (2009). Delivering educational workshops for age-group rugby league players: Experiences of a trainee sport psychologist. *Applied Sport Psychology: A Case-Based Approach*, 139-160.

2. Qualitative versus Quantitative Workshop Feedback

Date: 08/09/18

Today I have been consider why the feedback I got following the Acceptance and Commitment Therapy (ACT; Hayes et al., 2016) was successful in the eyes of qualitative feedback, but not quantitative feedback. In the ACT workshop series for exercise behaviour change, I asked the clients to complete a feedback form answering the following questions: “How useful was the content of the group sessions for your own needs?”, “How would you rate the teaching of programme? Do you think it could be delivered in a more effective way?”, “What benefits, if any, did you get from attending the programme?”, “How could the programme be improved?”, and “Any further comments?”. One of the clients contacted the me privately to express other benefits that she experienced, which they were not able to express in the feedback forms provided. This made me feel fantastic that these benefits were apparent, though I also recognise the downside of feedback forms! The client indicated the broader benefits the programme provided, such as self-care and supporting others:

The sessions you did helped me greatly, and in more than just diet and exercise – it was more for me around self-care and looking after myself which I really benefited – which will have a direct impact on diet and exercise. I loved our sessions and I have started being a lot more mindful in my day to day life – I live in difficult

circumstances with my 24 year old son who is so very ill with depression – so I use the techniques to also help me look after me to stay afloat and resilient so I can support him.

Reflecting on this feedback and the feedback forms, I am pleased that the sessions have been taken so positively. Six weeks following, I ran a feedback session with the clients to get more in depth data. Unfortunately, only one of the eight clients attended. I was able to gain more feedback from this one client, and though they thoroughly enjoyed the sessions it didn't seem that behaviour change was apparent. They were keen to revise the techniques learned in the sessions and to try new exercise classes when their ankle injury had recovered. Despite the positives, I am concerned about the real impact of the sessions. I also speculate about why only one of the eight participants attending this free series of workshops did not attend the feedback session. Perhaps they have not been practicing the skills discussed, perhaps they felt guilt or shame for not practising, perhaps they simply did not care.

The final form of feedback I have collected is from questionnaires one week pre and six weeks post the ACT workshops. The questionnaires were to measure self-determined motivation using The Perceived Competence Scale (Williams et al., 1998) for exercise and healthy eating, The Treatment Self-Regulation Questionnaire (Levesque et al., 2007) for exercise and healthy eating, and the Physical Activity Acceptance Questionnaire (Butryn et al., 2015). Unfortunately, I did not see any results to brag about (and saw some that I feel quite sad about; Figure 1; Figure 2). The contrast of the qualitative and quantitative findings in this case also reflect how just because someone enjoyed the sessions and praised their delivery and content, does not lead to a significant change in a persons behaviour. I find this very upsetting, as I feel I have grown a connection with the women on this course and feel as though I have done them a disservice. Despite this, there were improvements in competence and a decrease in amotivation, though I feel guilty that they appear to be experiencing more

controlled motivation than previously. Of course, there are many things that could have impacted this, such as the impact of ACT on motivation in the first place, the relevance of the questionnaires I provided, and personal setbacks such as injury and mental health struggles.

Figure 1

Motivation Pre and Post Workshops

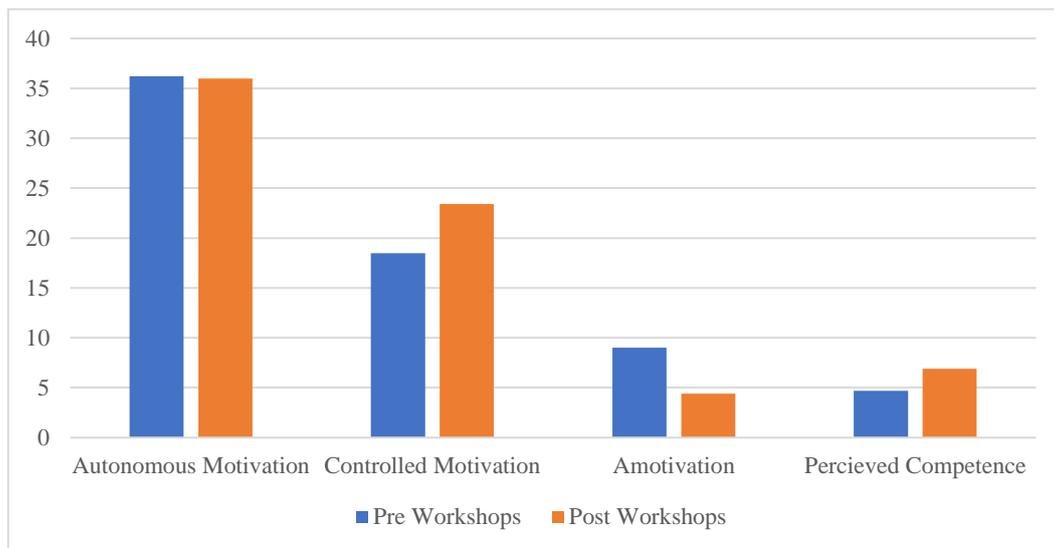
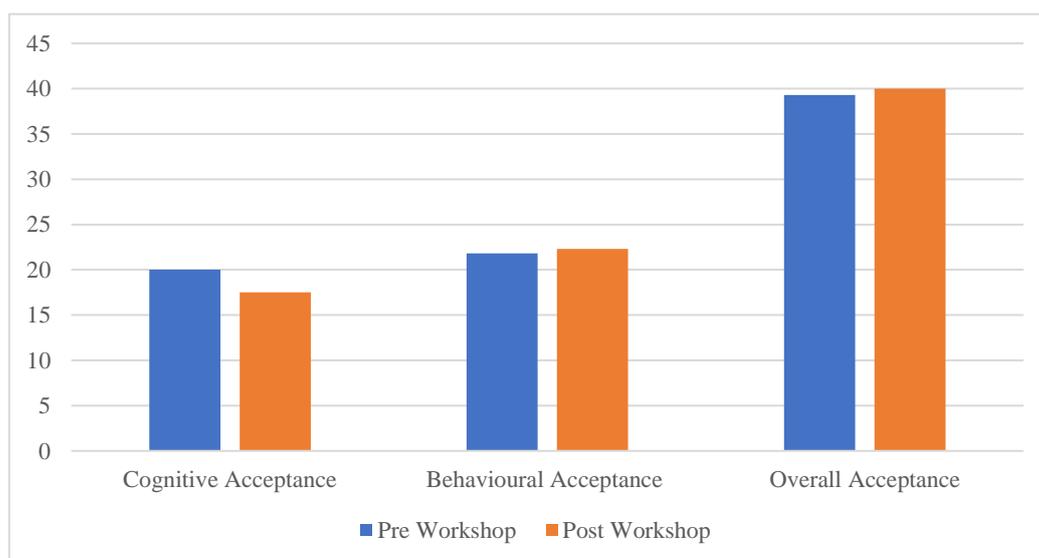


Figure 2

Physical Activity Acceptance Pre and Post Workshops



Moving forward, if I am to do similar course of workshops such as this I think it will be important to spend more 1-1 time with the clients individually. In this case, perhaps they would have been able to set more individualised action plans and committed action. Though the group discussions had a lot of depth and great sharing from those within the group, 1-1 sessions may have helped to reinforce the learning and make it more specific to their needs. Additionally, as I am still new to ACT, I will have to carefully revise the language and coherence of the lessons I am teaching to make sure it is relatable for the clients and support their respective behaviour change.

References

- Butryn, M. L., Arigo, D., Raggio, G. A., Kaufman, A. I., Kerrigan, S. G., & Forman, E. M. (2015). Measuring the ability to tolerate activity-related discomfort: initial validation of the physical activity acceptance questionnaire (PAAQ). *Journal of Physical Activity and Health, 12*(5), 717-726. <https://doi.org/10.1123/jpah.2013-0338>
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy, 44*(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Levesque, C. S., Williams, G. C., Elliot, D., Pickering, M. A., Bodenhamer, B., & Finley, P. J. (2007). Validating the theoretical structure of the Treatment Self-Regulation Questionnaire (TSRQ) across three different health behaviors. *Health education research, 22*(5), 691-702. <https://doi.org/10.1093/her/cy1148>
- Williams, G. C., Freedman, Z. R., & Deci, E. L. (1998). Supporting autonomy to motivate patients with diabetes for glucose control. *Diabetes care, 21*(10), 1644-1651. <https://doi.org/10.2337/diacare.21.10.1644>

3. Mindfulness Workshop for Tennis Parents

Date: 08/05/19

This was my first experience delivering a workshop to parents. I delivered an introduction to mindfulness and found this enjoyable, though I was aware to be careful when discussing how they might use it with their children as I realise I have no experience of parenting myself and did not want to come across as patronising. This was made somewhat easier as I was co-delivering with another sport psychologist who had two children and could therefore relate to the parents. For myself in terms of delivering to parents, I think it must be done in a very open way, verbalising that I am no parent and I am just there as a sort of “suggestion engine” taking things from what literature says and that they can put their own experience to that to see if it resonates with them and their parenting.

During the mindfulness session, the other psychologist ran over a little on time and so my introduction to mindfulness was rushed and I felt like it was awful. I thought the mindfulness audio I had recorded for the session was rubbish and awkward and that everyone probably hated it. To the extent that I couldn't even meditate to it during the session. I was very caught up with my thoughts there. I think though that this is normal, especially when listening to our own voice! To my surprise, a lot of the feedback about the mindfulness was very positive. People saw the benefit and could understand they needed the help to manage their thoughts and were keen to try it with their children. I need to be more confident in the way in which I work, otherwise I could just give up with things like this through a fear of getting it wrong.

This experience has shown me the benefits of working with parents as it is something I have not had the opportunity to do before. It is important to work alongside parents as they are an integral part of the athlete's development. If we can collaborate together then the outcome can be very beneficial for them and for the child's wellbeing and performance. In

the future, I am really interested in delivering an intervention to parents on needs supportive communication (Ntoumanis et al., 2018) and autonomous and controlling parenting styles (Álvarez et al., 2019). Further, I am going to explore the working with parents in sport model (Lafferty & Triggers, 2014), where they suggest a two stage model to enhance parents' knowledge and understanding of the sport, and to help parents understand how their own emotional reactions impact upon the athlete. I hope by learning more about model like this will enhance the work I do in the future with parents within a performance environment.

References

- Álvarez, O., Castillo, I., & Moreno-Pellicer, R. (2019). Transformational Parenting Style, Autonomy Support, and their Implications for Adolescent Athletes' Burnout. *Psychosocial Intervention*, 28(2), 91-100. <https://doi.org/10.5093/pi2019a7>
- Lafferty, M. E., & Triggs, C. (2014). The working with parents in sport model (WWPS-model): a practical guide for practitioners working with parents of elite young performers. *Journal of Sport Psychology in Action*, 5(2), 117-128. <https://doi.org/10.1080/21520704.2014.914113>
- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.

4. Delivering To Coaches

Date: 03/03/20

My second experience delivering a workshop to coaches was today with my supervisor when we delivered a session on Think Aloud (TA; Whitehead et al., 2016) to academy football coaches. Although this is an approach I knew well and I was delivering to

coaches I worked with I still felt nervous! I often worry that people will feel like they *have* to be in the session, and that they are not *really* that bothered. Of course, these are irrational thoughts and I think the session went well overall. The sections that stood out for me were getting the coaches onto the pitch to practice TA and the discussions that we had after the workshop with some coaches who stayed behind. This allowed me to experience what working with coaches from an applied perspective might look like, and it gave me confidence that people are interested. Maybe not everyone, but if you can support just one or two individuals then that is a win. As always, I must strive to overcome my concerns about what other people think, as from my experience these thoughts are usually proven wrong.

Working with coaches is something that I have been developing during the latter part of the Professional Doctorate. Partially due to my lack of knowledge and applied skills, lack of access to coaches within a performance system, and focusing mostly on work with athletes. My supervisor and mentors have taught me so much about working with coaches and this has really empowered me to do more work through and with coaches. Further, the more I learn about performance systems and creating impact I have recognised a massive need (and gap within my own practice) to work with coaches to support their development and also to support them to enhance their athletes' performance and wellbeing.

One of the main differences I have seen when delivering workshops to coaches compared to athletes is the engagement and follow through of the learnings after the session. Though I recognise the difference may simple be due to age rather than a coach/athlete divide. However, I can't say I have experienced the same engagement when working with semi-professional athletes either! So far, I feel my work is more valued when working with coaches. Partially because after the initial TA workshop, there has been greater interest in one-to-one work to support the coaches with TA and exploring their communication skills and coaching behaviours. I have an opportunity in the future to deliver a TA programme to

tennis coaches, and so I think this will be a great way to continue to develop my practice and dissemination into a coaching context. Specifically, I would like to explore how TA can support coaches to develop skills such as within autonomy supportive coaching (Gjesdal et al., 2019) by using observational frameworks whilst exploring TA audio from coaches, such as from Webster et al. (2016), to support behaviour change.

References

- Gjesdal, S., Wold, B., & Ommundsen, Y. (2019). Promoting additional activity in youth soccer: A half-longitudinal study on the influence of autonomy-supportive coaching and basic psychological need satisfaction. *Journal of sports sciences*, 37(3), 268-276. <https://doi.org/10.1080/02640414.2018.1495394>
- Webster, C. A., Wellborn, B., Hunt, K., LaFleche, M., Cribbs, J., & Lineberger, B. (2013). MPOWER: An observation system for assessing coach autonomy support in high school varsity boys' soccer practices. *International Journal of Sports Science & Coaching*, 8(4), 741-754. <https://doi.org/10.1260/1747-9541.8.4.741>
- Whitehead, A. E., Cropley, B., Huntley, T., Miles, A., Quayle, L., & Knowles, Z. (2016). 'Think aloud': Toward a framework to facilitate reflective practice amongst rugby league coaches. *International Sport Coaching Journal*, 3(3), 269-286. <https://doi.org/10.1123/iscj.2016-0021>

5. Promoting Services

Date: 08/11/20

Today I have been considering what the most effective and ethical way of promoting services is. When considering promotion of services, I sit in two minds. I have recognised that qualified sport psychologists rarely tend to advertise or promote their practice actively

online compared to unqualified practitioners. There are so many posts I have seen online recently promoting “mental coaching”, and even one “performance psychologist” in esports promoting his services through an online competition, the prize being a one-to-one session. To me this is diminishing the field and ultimately unethical. However, there are practitioners who promote their services in an ethical and successful way.

When I consider the differences between ethical and unethical promotion I think the main thing is what the practitioner is promising. What I would deem as unethical is when adverts are saying, “we can give you the mental edge”, or “are you having this very generic problem, we can help you overcome this generic problem and be the best!”. Moreover, I often see these posts targeting parents a lot “does your daughter have this issue? We have helped hundreds of athletes to overcome the same problem!”. I understand this helps to get people through the door and then perhaps a more tailored approach is taken, but it does not sit well with me and comes across as very Americanised and cringy. I feel as though it is diminishing what we do, or what we can do, by oversimplifying the field. But is this a problem? It is OK if a practitioner knows they can fix a specific problem and then advertises to find people with that exact problem to ensure they can be successful? Is that more ethical than getting anyone through the door of whom may have presenting problems that the practitioner cannot address? Perhaps. Though, if we look at the BPS guidelines (2009, p, 21), they state the psychologists must: “Be honest and accurate in advertising their professional services and products, in order to avoid encouraging unrealistic expectations or otherwise misleading the public.” Therefore the promise to get the “mental edge” and “be the best” seems to go against these guidelines.

Flipping to look at what my perception of ethical promotion looks like, for me this would be targeting specific populations (e.g., gyms or football clubs) directly to have a discussion about what their needs might be, and the promotion may be through more

professional means (e.g., writing blogs, through podcasts). So far, I have been on a podcast and been interviewed for a blog post which I feel are great ways to promote my work. I did struggle initially about whether to write where I worked on Twitter and LinkedIn, though I concluded that I feel it's too rigid and restrictive to not say where you work. When it comes to an individual client, I certainly think this should not be shared as it is breaching confidentiality agreements (Keegan, 2015). I have found that saying I work at Blackburn Rovers Academy opens up more opportunities as I feel it gives me more credibility. Of course, I do not want to be the person that name drops the organisations they work for as I know people who do this and it is not a good look!

I have also recently created a website. This is something I struggled with as I didn't want to put something out that was gimmicky, but still wanted something that was tangible for people visiting the site so they could see what the service may look like. I played with the idea of testimonials for a while, with the APA (2010) stating that advertisement or marketing must not contain "testimonials or endorsements from clients or vulnerable persons". I discussed this with a supervisor, who advised me this would be fine if from an organisation but not from an individual client. I therefore added these testimonials to my website, but I am in two minds still as to whether this is appropriate. Ultimately, we are a business and if we cannot rely on work coming to us through word of mouth and previous success then there is a greater need for things such as testimonials to prove your worth. Further, we are competing with practitioners who are not on accredited training routes who are great at promoting their work. If we fall behind with this, then we may be looked over. However, saying this I have currently have had no traction through my website! So, perhaps there is no point in having a website or testimonials? I think for me, the website will be useful in the future when I complete my doctorate and have more time to approach organisations and individual clients. They can then go to my website to get an idea of the work I do and my credibility.

As to my position on promotion, I feel as though I am at a happy medium between over promoting and not promoting at all. I am having to flex somewhat to promote myself, as this is something I've always found uncomfortable, but I do not think this makes my practice incongruent (McDougall et al., 2015). In the future, I would like to promote further but within my perception of what ethical promotion looks like as stated above. There are sport psychologists who do well of whom promote their services in a professional manner, and then there are sport psychologists who do not promote but may gain clients through their own track record. I would love to get to the position where I do not have to promote my services, but for now I recognise this is a business and promotion is necessary (if I am to make a living), but this can be done in a professional and ethical manner.

References

- American Psychological Association (2010). Ethics Principles of Psychologists and Code of Conduct. Washington DC: Author. Retrieved: <https://www.apa.org/ethics/code>
- British Psychological Society (2009). Code of Ethics and Conduct. Retrieved: <https://www.bps.org.uk/files/code-ethics-and-conduct-2009pdf>
- Keegan, R. (2015). Being a sport psychologist. Macmillan International Higher Education.
- McDougall, M., Nesti, M., & Richardson, D. (2015). The challenges of sport psychology delivery in elite and professional sport: reflections from experienced sport psychologists. *The Sport Psychologist*, 29(3), 265-277.
<https://doi.org/10.1123/tsp.2014-0081>

Consultancy Case Study One

The Non-Linear Path: A Third Wave Intervention in Youth Tennis

Abstract

This case study outlines my first application of Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) with a youth tennis player during the first year of my professional doctorate. The client was seeking support as she was not enjoying competing in tennis and felt she could not be herself, instead she would experience high cognitive fusion with unwanted internal events leading to unworkable behaviours on court. A wellbeing focus was taken, though the concepts learnt by the client to manage uncomfortable internal events were transferred into the performance environment. An introduction to ACT and my professional philosophical is outlined, along with an account of the non-linear decision-making process I encountered to implement the selected intervention. The ACT intervention is then recalled in detail, with holistic support and practitioner development reflected on. The impact of the intervention was assessed through psychometric questionnaires, behaviour tracking, and informal feedback from the client's parents and coach. This case shows the importance of holistic support for the client as a person and athlete and how the path to a successful intervention is not always linear; the process requires ongoing, honest reflection from the practitioner, which may bring up feelings of failure and imposter syndrome.

Keywords: Acceptance and Commitment Therapy, tennis, youth sport, adolescence

Context

At the time of the case, I was in the first year of my professional doctorate with experience working within football and youth tennis setting. As many neophyte practitioners experience, I struggled with anxieties with my ability to provide a high-quality psychological service and questioned my knowledge and skill level (Tod et al., 2011). This case study outlines my first long-term consultancy and the messy journey I embarked on to make an impact with my client and towards applying psychological approaches congruently with my philosophical approach.

The Client

My client, Olivia, was a 12-year-old youth tennis player at the time of the consultancy, competing regularly in tournaments across the North-West of England and training up to 3 times a week. Olivia was referred to me by another sport psychologist and put me in touch with Olivia's father who I had an initial phone conversation with. During my first phone conversation with Olivia's father, he seemed incredibly supportive and wishing for his daughter to "enjoy her tennis" rather than getting frustrated on the court and immediately started discussing Olivia's lack of "confidence" in herself and her tennis ability. My initial meeting with Olivia and her parents was to see whether I could provide the necessary support and to identify what their aims were for the consultancy. Intake questions were generated pre-intake and included questions from (Keegan, 2015) making sure to take a holistic view of the athlete and person through discussions of school, home life, friends, and general wellbeing. Consent was given by both Olivia and her parents when the decision was made to move forward with the consultancy. A contract was provided, outlining cost and nature of the consultancy which was to be flexible to the client's needs and meetings to be located at the client's tennis club. I discussed confidentiality with Olivia and her parents, and

we agreed that I would not share anything specific about the consultancy that Olivia did not want to, working with closed confidentiality.

Professional Philosophy & Approach

Third Wave psychological approaches, such as mindfulness and acceptance approaches, have been gaining more interest within sport psychology over the last couple of decades (Gardener & Moore, 2012) and were building the foundation to my professional philosophy; in line with my personal core beliefs and values (Poccardowski, et al., 2004). These beliefs and values include: all thoughts and feelings are temporary, we do not have to change or get rid of these thoughts to experience peak performance and wellbeing; the client and practitioner should work collaboratively, though the client should be given autonomy over the direction of the consultancy process where possible; and a wellbeing focus should be at the forefront of every consultancy, with the belief that wellbeing supports performance. Once reason I utilise mindfulness and acceptance approaches within my practice is that they are holistic approaches for athletes; developing various wellbeing and performance markers such as decreased competitive anxiety, worry, perfectionism (Sappington & Longshore, 2015), athlete burnout (Li et al., 2019), and increased flow (Noetel, 2019). I believe my theoretical paradigm lies within humanism in recognising the importance in seeing the world from the client's perspective and that each person is unique with free will to change (Rodgers, 1959). Finally, my approach allows for a blend of both certainism and construalism depending on the needs of the client.

Needs Analysis Process

Presenting Problem

The presenting problem started to become apparent in the first two meetings and revolved around Olivia's response to pressure during competition. Olivia did not enjoy

competing and experienced self-defeating thought patterns such as “I can’t do it” or “I’m rubbish”. Olivia excels in all other areas of life, from academic achievements at school to playing the guitar. Most things come easily to her, which could explain Olivia’s struggles relinquishing control over the situation. These characteristics show themselves in her behaviour on court, often being led to tears when frustrated by losing multiple points in a row in competitive matches. Olivia strongly indicated that her goals were to be “herself” more on the court and wants to have “fun” and be “positive”. Instead of this she is too “serious” and “nervous” on court. Furthermore, I was very aware of the word “confidence” being used and wanted to make sure my biases did not lead me down this route and to instead clean the problem to see what the underlying issue truly was (Lindsay et al., 2014). This was done by using the “miracle question” (de Shazer, 1985) in my initial meeting with Olivia: “Suppose you go to sleep tonight as usual and while you are asleep a miracle happens and the problem that brought you here today is solved. But you are asleep and do not know that it has been solved. What will be the first small signs that this miracle has happened, and that the problem has been solved?”. This identified that Olivia would be having fun on the court, talking with her friends, displaying positive body language, and hitting her shots with intensity.

The Ill-Informed to the Well-Informed Intervention

I began implementing pre-performance and service routines and cognitive behaviours approaches but quickly realised that I was throwing things at the client from all over the place and not giving anything time to settle or to work. I was getting caught up in giving something new every session and showing my worth rather than allowing the client to experience change. This is something reported by many neophyte practitioners, feeling the need to provide immediate tangible outcomes to prove the value of their work with clients (Rønnestad & Skovholt, 2003), and crucially it moved me away from my professional philosophy. Delving further into my decision-making process, I surmised that I had not

formulated a tangible hypothesis or plan. This made me feel extremely uncomfortable as a trainee sport psychologist, feeling like I had failed at the first hurdle. Instead of allowing these uncomfortable internal events consuming me as a practitioner, I decided to commit to exploring a clear hypothesis of the causes, mechanisms, and consequences of the clients presenting problems and plan of action (Keegan, 2015) in line with my philosophy of practice.

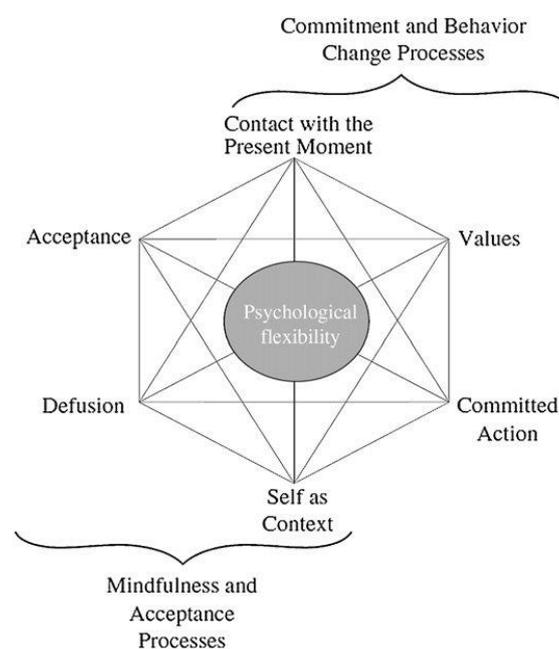
From the intake and needs analysis, I knew Olivia was struggling with negative stories her mind was telling her which were amplified during competition leading to unworkable behaviours such as storming off court due to a lack of knowledge and awareness of how to manage these uncomfortable events. One such approach to manage these presenting issues is Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) which is based on the scientific philosophy of functional contextualism, meaning the psychologist is interested in the function of a behaviour within a specific context rather than the form it takes, with the aim to provide a science more appropriate to the human condition (Hayes et al., 2012). When ACT is applied, the client and practitioner move through 6 key processes of the Hexaflex (Figure 1) in any given order, as all aspects are part of the same process termed psychological flexibility. These components include contact the present moment, acceptance of difficult cognitive events, cognitive defusion, self as context, committed action, and values identification. These 6 processes can be divided into two major groups. The 4 processes on the left (contact with the present moment, acceptance, defusion, and self-as-context) delineate acceptance and mindfulness skills. The 4 on the right (contact with present moment, values, committed action, self-as-context) delineate commitment and behaviour change skills (Hayes et al., 2004). The techniques used to implement these processes are one of the most flexible parts of ACT, meaning the application of ACT will look different for adults, children,

athletes, or individuals coping with psychotic symptoms depending on the areas they need to develop most.

Moving forward, I decided that an ACT approach would be the most appropriate to increase Olivia's awareness of her thoughts and emotions and to ultimately allow her to reach her goals of being "herself" more on the court, which resonated with me as values-driven behaviours. This is more congruent with my professional philosophy in contrast to cognitive behavioural therapy, or rational emotive behaviour therapy, as mindfulness and acceptance approaches do not try to change or challenge the individual's internal experiences and instead require a non-judging moment-to-moment awareness and acceptance of one's internal state; a focus on task-relevant external stimuli, rather than internal processes such as judgment and direct efforts at controlling internal states; and finally a values-driven commitment to behaviour, which is consistent and effortful, to support athletic endeavour (Gardner & Moore, 2012).

Figure 1

The ACT Hexaflex



I had completed various workshops within ACT but did not have much experience applying it with athletes. Due to this, my work started out quite rigid, something quite common for early career ACT practitioners, with the ability to “dance around the hexaflex” coming with the ability to switch to focus on different ACT processes when the client becomes stuck with an ACT process or skill (Dempsey, 2019). With time, I was able to adjust and become more flexible with the model, taking ACT processes on court into the athlete’s performance environment.

Behavioural goals and values were to be identified early on, considering what behaviours the client elicits at her best and when she is being herself on the court. If barriers to reaching these behaviours are identified, they will be overcome using various aspects of the ACT Hexaflex. I planned to educate the client about the brain and the ACT model before working our way flexibly around the ACT processes, providing the client with choice along the way as to which ACT process to focus on whilst using metaphors, experiential exercises, and mindfulness techniques to reach the desired behavioural goals. Homework tasks were to be set throughout, ranging from behavioural goals on court, to mindfulness meditation at home. At the end of the intervention a one-page summary will be provided for the client to encourage independent, ongoing practice which can be shared with coaches and parents.

Assessment

I asked Olivia to complete the Child and Adolescence Mindfulness Measure (CAMM; Greco et al., 2011; Kuby et al., 2015) before starting the ACT intervention. This allowed me to check ACT was an appropriate approach for the intervention. CAMM was chosen due to its validity with adolescents aged 10 – 17 and its assessment of present moment awareness, non-judgemental responses, and non-avoidant responses to thoughts and feelings (de Bruin et al., 2014). The CAMM includes 10 questions on a 5-point scale (0 = never true, 4 = always

true). At the first point of measurement, Olivia scored a total of 14 out of 40 on the CAMM indicating a low score for the concepts outlined above. This confirmed that an ACT approach would be beneficial to continue with to support Olivia in building aspects such as non-judgemental responses and present moment awareness. CAMM will be repeated towards the end of the intervention to assess impact. Progress was also monitored through behavioural goals and committed action towards values-driven behaviours throughout the various stages of the intervention. Additionally, Olivia's parents will be asked for informal feedback on a weekly basis and Olivia's coach will be asked for feedback where feasible. It is important to note that performance markers were not to be assessed, as the focus was on the wellbeing of the athlete.

The Intervention

Education

Building rapport and trust at this stage is integral (Sharp & Hodge, 2011) to allow for an effective consulting relationship to develop with the athlete to create positive change. This was done by learning more about Olivia in and out of her sport. I quickly noticed we were both fanatical about Star Wars. This gave me an in, and I decided to use this to support the education process – with Lego Star Wars figures. An adapted version of Dan Siegel's Upstairs and Downstairs brain model of dual processes was used to enhance understanding of the brain (Siegel & Bryson, 2012). The 'upstairs' brain (cerebral cortex) is more complex, with functions such as thinking, planning, and imagination to think critically and make good decisions. The 'downstairs' of the brain (limbic system) is the older part of the brain and includes the fight, flight, freeze response and other functions such as breathing (Siegel & Bryson, 2012). We discussed how the 'downstairs' brain may perceive a danger as hitting an unforced error or a double fault. This allowed the client to normalise her negative thinking as

part of the human condition; linking to the ACT philosophy that uncomfortable thoughts and feeling will arise as part of life, but we do not have to try to change or get rid of them.

Through ACT, awareness can be brought to internal events and when the ‘upstairs’ brain has gone offline. With this awareness, the individual can create space for the ‘upstairs’ brain to come back online. This can be cultivated through practices such as mindfulness to strengthen the connection between the limbic system and the cerebral cortex (Siegel, 2010).

ACT Introduction – The Choice Point

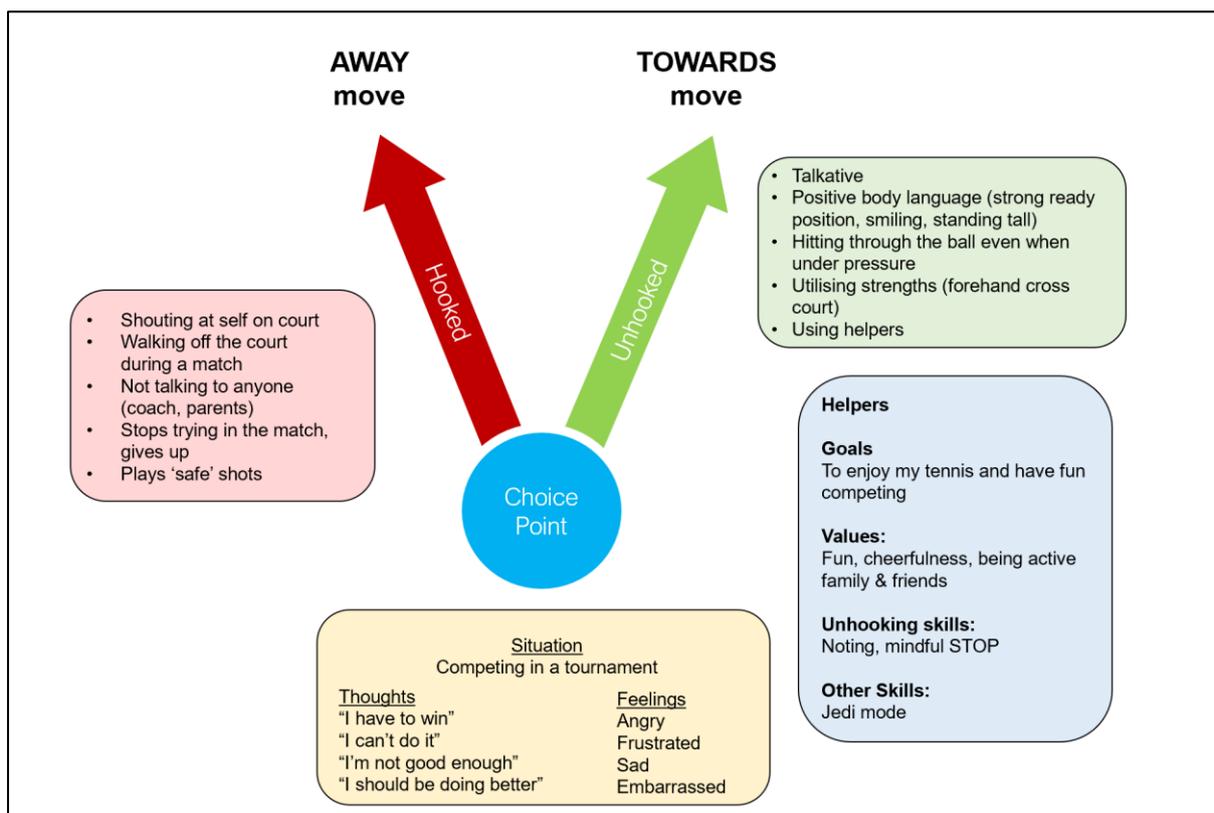
The Choice Point (Harris, 2018; Figure 2) is a tool that can be used for multiple purposes such as explaining the ACT model, set an agenda for a session, summarise a session, and to reinforce the ACT processes. Here, it was used to explain the ACT model to the client and to further explore the presenting problem, though it is important to note this exercise was referred to and reviewed throughout the consultation process. The scenario we discussed was competing in a tournament and the client identified thoughts and feelings she experienced during competition as well as ‘Away moves’ (avoidance-driven behaviours) and ‘Towards moves’ (values-driven behaviours). We then discussed how it can be easy to make “away moves” when we are experiencing uncomfortable thoughts and emotions but can use ‘Helpers’ such as goals, values, and unhooking skills to make the towards moves easier. These ‘Helpers’ were identified and developed throughout the consultancy. ‘Towards moves’ were agreed upon as the behavioural goals for the client which included: Talking, displaying positive body language, hitting through the ball even when under pressure, using strengths (forehand cross court), and using helpers.

Olivia experienced thoughts such as “I have to win”, “I can’t do it”, and “I’m not good enough”, and feelings of anger, frustration, and sadness. These internal events led to unworkable behaviours such as shouting at herself on court, not talking to people around her,

and giving up the match. The metaphor of clouds in the sky was introduced here, whereby the clouds in the sky are the thoughts and emotions, and the blue sky is our mind. Clouds may be white and fluffy or black and stormy (e.g. “I can’t do it”, “I’m not good enough”), but they will all come and go in their own time. Crucially, when there are lots of black clouds around, which represent unwanted thoughts and emotions, the blue sky is always there unchanging in the background. This lay the foundation for how we can view thoughts and emotions from a radically different point of view and simplified the abstract concept of *self-as-context*, in that we are the surface of which thoughts and emotions arise upon.

Figure 2

The Choice Point



Values

Values were outlined using the compass metaphor (Hayes et al., 2011) and were identified using the birthday party speech, adapted from Hayes and colleagues (2011). The client is asked to imagine it is their birthday, we used the client's 16th birthday, and her friends and family are giving speeches. The client was asked what she would like them to say about her, not what she thinks they will say. The client's core values identified through this exercise were fun, cheerfulness, being active, and friends and family. These values were then added to the choice point (Figure 2). Olivia recognised how becoming hooked by uncomfortable thoughts and feelings prevented her from acting in line with her values on court. Additionally, she recognised that when playing doubles, she did not experience the same hooks as she was fulfilling one of her values – friendship.

Contacting the Present Moment

Mindfulness practice is “open-hearted, moment to moment non-judgmental awareness” (Kabat-Zinn, 2005) and can be used formally and informally within ACT to contact the present moment. Three different processes have been identified as important mindfulness components (Birrer & Rothlin, 2017): (1) purposeful present-moment awareness, (2) metacognitive awareness, and (3) acceptance of what is in, and what arises, in consciousness. Olivia was keen to explore formal mindfulness, and to develop her understanding, we discussed what mindfulness is within the session and practiced a short breath meditation together using inquiry to explore the client's experience. Homework was then set for the client to practice for 10 minutes a day using a meditation app. Contacting the present moment was also used informally within the 1-1 sessions to check in with the client for example, “can I just get you to pause and notice how you are feeling?”. Additionally, as the client was an avid Star Wars fan, we used the notion of “Using the force” to sense the

different thoughts, feelings and sensations, akin to the practice of pretending to be a curious scientist used within mindfulness and acceptance approaches (Harris, 2009). This allowed the client to contact the present moment, and to be aware when the ‘downstairs brain’ (limbic system) was taking over.

Defusion & Acceptance

Defusion techniques are used within ACT to reduce cognitive fusion with thoughts, to create space for the individual to behave in line with what is important to them through values-driven behaviours, even with uncomfortable internal experiences present. Instead of using the word ‘defusion’, ‘unhooking’ was used to explain how we get hooked on thoughts and feelings. A common way to get ‘hooked’, is by fusion with the agenda of emotional control (e.g. I must get rid of this thought/feeling), this leads to unworkable behaviours outside of valued action. To elicit ‘towards moves’, we need to ‘unhook’ ourselves from the difficult thoughts and feelings to reduce their dominance over behaviour. This was explained to the client using the paper exercise (Harris, 2018). Here the client is asked to write their uncomfortable thoughts down on a piece of paper and to hold that piece of paper to their face. The client is then asked questions such as “what can you see?”, “could you play your best tennis like this?”, “could you hug your friend?”. The client realises all they can see is their unwanted thoughts, and they are not able to engage with life as they would wish. The client is then asked to slowly lower the paper and place it on their knee before being asked the same questions. The client can then see the world more clearly and engage with their valued behaviours. It is important to recognise the thoughts and feelings are still there, they have not gone away, but there is now more space to engage with life and values-driven behaviours.

The paper exercise introduces the notion of acceptance, which crucially replaces experiential avoidance (Hayes & Wilson, 1994). Acceptance was something we came back to

at multiple points throughout the consultancy as the client struggled to grasp it at the start. This is very normal for individuals using ACT as to accept uncomfortable thoughts and feelings can feel like you are giving up or letting unwanted internal events win. It was discussed how acceptance of difficult thoughts and feelings allows you to do what is important to you and live on and off court through valued behaviours. For example, Olivia storming off court during a difficult competition to avoid the difficult internal experiences moves her away from what matters to her. This was supported by metaphors such as what we resist persists that shows if we try to get rid of out uncomfortable thoughts or emotions it is like throwing a tennis ball against the wall, it does not go away, it comes straight back at us. This is what happens when we struggle with, or try to get rid of or change, uncomfortable thoughts and emotions.

The client was presented with several defusion techniques and engaged in these as experiential exercises, where the client would fuse with uncomfortable thoughts to practice defusion. I asked the client to choose which ones she felt created more space from uncomfortable thoughts. Olivia chose the “noting” technique, which is when the individual notices the thoughts or emotions by labelling them to sustain moment-to-moment awareness (Grossman & Van Dam, 2011). When the individual notices a thought they label it in their mind as “thinking”, and when they notice an emotion, they label it as “feeling”. This helps to create space from the thought content, making it easier to engage with values-driven behaviours. Olivia was asked to practice this at home twice a day, purposefully taking time to stop and notice thoughts and emotions. To practice the noting technique on court, I arranged with the client’s parents and coach to use the noting technique during drills. This involved tying two pieces of paper to the net, one saying “thinking” and the other “feeling”. After each point of the drill, Olivia would stop and notice whether she was “thinking” or “feeling” before engaging again with the drill.

Another *helper* was provided for Olivia called the *Mindful STOP*, encompassing the whole ACT model, which was developed as an informal practice for mindfulness-based stress reduction courses (Hazlett-Stevens & Oren, 2017). The *Mindful STOP* was a process for Olivia to go through when she felt hooked on uncomfortable thoughts or feelings: S = Stop what you are doing, T: Take a deep breath to contact the present, O = Observe your thoughts and feelings, P = Proceed in line with your values. I felt it was important she had a technique to cue the whole ACT process, especially during difficult times during performance when cognitive fusion may be high.

Committed Action

To elicit values-driven behaviours we came back to Star Wars and created *Jedi mode*. An image of a superhero or the athlete's best performance can be created to trigger workable behaviours within performance settings and as a twist on this, we took the idea of a Jedi. This would spark 'Towards moves' discussed on the choice point, such as hitting through the ball, using helpers etc. and acted to trigger values-driven behaviours.

After each session, we would collaboratively set homework as committed action for Olivia who scored them out of 10 for the likelihood of her carrying out the action (Harris, 2009). If this score were below 8, we would adjust the task to make it more achievable and slowly increase the task difficulty where necessary. These exercises included eliciting values-driven behaviours on court, or to practice using *helpers* such as *noting*, mindfulness and the *Mindful STOP* on and off the court.

Developing a Performance Plan for the Future

Throughout the consultancy I was creating and reviewing a one-page performance plan (Figure 3) for Olivia and the people around her, including techniques discussed and practiced throughout the consultancy, values-driven behaviours, helpers, reminders, and

recommendations. This was cocreated with the client to provide her with autonomy and make sure she felt competent with the different aspects to increase her motivation to engage with the performance plan, with autonomy and competency as key components to self-determined motivation and behavioural change (Ryan & Deci, 2008).

When creating the performance plan, Olivia and I cocreated a committed action reminder using the choice point to allow her to see her ‘towards’ and ‘away moves’ clearly. By having this within the performance plan, it will help Olivia to recognise when she is moving away from her values and what strategies she can use to support her in returning to values-driven behaviours. For example, if she was struggling with uncomfortable thoughts or emotions she can use the *Mindful STOP*; if she wants to continuously recognise her thoughts and emotions she can use *Noting*; if she wants to contact the present moment or enhance her performance state she can use *Jedi mode*. A limitation here was not being able to practice using the performance plan on court with the coach and client. This would have added an extra dimension of understanding and shaping the environment, however by having a performance plan to refer to supports the client in being independent apart from the sport psychologist (Sharp et al., 2014).

Monitoring and Evaluation

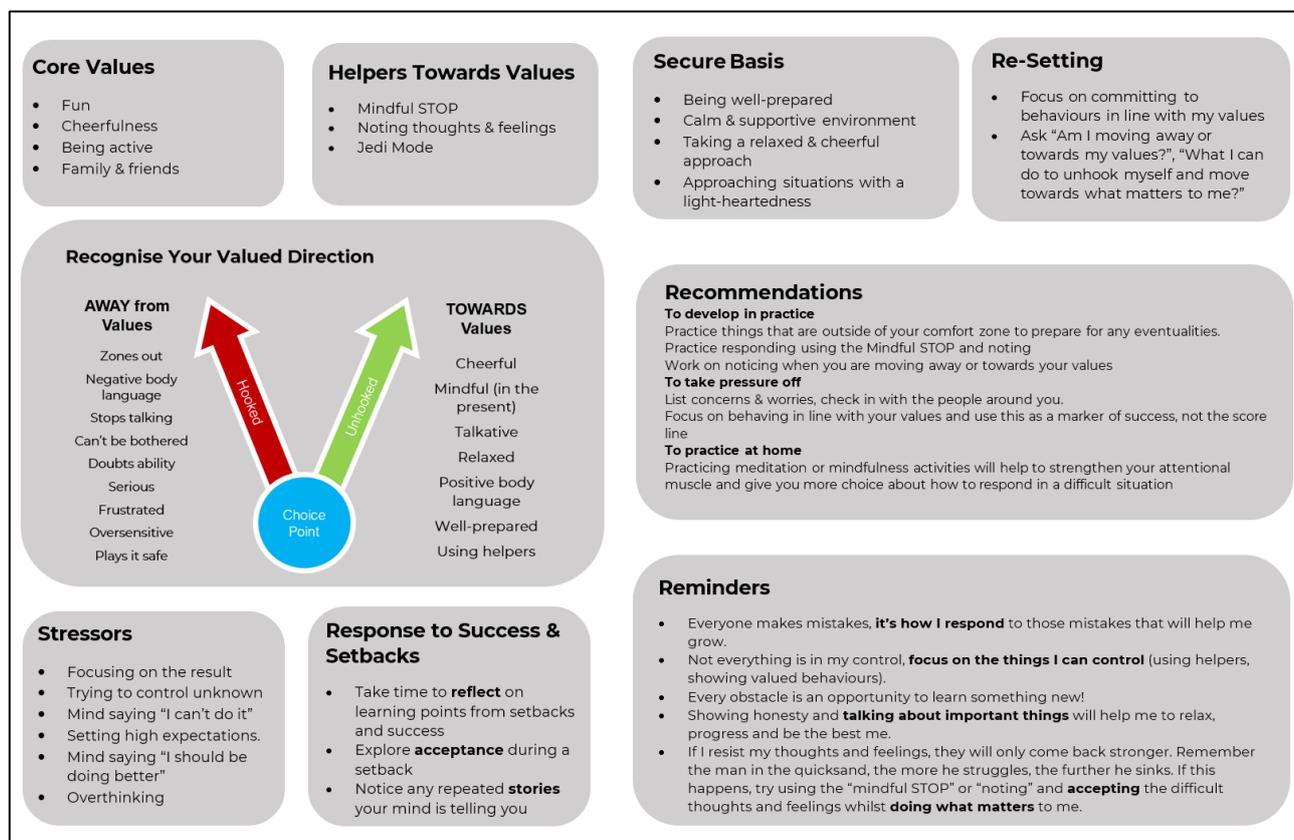
Monitoring

Questionnaire Data

At the end of the intervention, Olivia was asked to complete CAMM for a second time to assess improvements. At the beginning of the intervention, Olivia scored a total of 14 out of 40 on the CAMM and 28 out of 40 at the end of the intervention, with a higher score corresponding to higher levels of mindfulness, non-avoidance, and non-judgemental responses to thoughts and feelings. To highlight a few statements that Olivia improved the

Figure 3

Performance Plan



most in included: "I push away thoughts that I don't like", "I think that some of my feelings are bad and that I shouldn't have them", and "I tell myself that I shouldn't feel the way I'm feeling". This indicated she had learned to accept and sit with uncomfortable thoughts and emotions and view them non-judgementally.

Committed Action Tracking

Committed actions were discussed and monitored throughout, with the client scoring her adherence to these action out of 10. Adherence to behaviours was strong initially, but then the client started to disengage with some of the at home tasks. To manage this, actions were reviewed each session with barriers discussed and actions adapted to help Olivia overcome barriers. For example, if practicing meditation twice a day is too much, the goal

will shift to once a day. The table below illustrates a few examples of the committed actions monitored throughout the consultancy (Table 1).

Table 1

Committed Action Tracking Examples

Committed Action	Barrier to Action	Solution to Barrier	Predicted score	Actual Score
Practice noting once a day and accepting any uncomfortable thoughts or emotions	I forget to practice or cannot be bothered to after school	*Set an alarm on my phone for the morning, practice the technique then	10	4
			*10	9
			10	8
			10	8
Meditate twice a day for 10 minutes	Struggling to find time to do it two times a day on top of other school and sport commitments	*Change practice to once a day, and reconnect with values and why practicing is important (to have more fun on court)	10	10
			8	3
			*10	8
			10	9
When on court, practice noting	Struggling to remember to use the technique when on court	*Practice noting on court with psychologist, use reminders tied to the net saying “thinking” and “feeling”	9	4
			*10	10
			10	8
			10	8
Select two actions in line with your values to commit to in training	When I get frustrated, I find it difficult to do them	*Remember my <i>helpers</i> and if I notice myself getting frustrated commit to a <i>Mindful STOP</i>	9	5
			*9	9
			10	9
			10	10

*Note: Predicted scores and actual scores marked out of 10: 10 = fully committed to action, 0 = did not commit to action at all. * = behaviour adapted to overcome barrier(s)*

Anecdotal Feedback from Coach and Parents

Feedback was gained informally from Olivia’s coach and parents. Olivia’s coach felt the session working with the “thinking” and “feeling” reminders on the net made a significant difference to the response from Olivia to aspects such as unforced errors and poor line calls from the opponent. Olivia’s coach was however aware that this difference could have been due

to the presence of myself on the practice court and is something she was keen to develop further in the training sessions. Furthermore, Olivia's coach noticed how Olivia was using more 'Towards behaviours' during training sessions, supporting the application of behavioural goals.

From Olivia's parents, feedback mostly consisted of a focus around the benefits of Olivia having a safe space to talk about her thoughts and feelings within sport but also within her school life, they felt this allowed Olivia to speak her mind more at home and have a greater self-awareness on the court. There were some concerns about whether Olivia was practicing the techniques discussed within the sessions, which is why the committed action tracking was implemented. They found the performance plan useful, as it was a way in which they could continue to support Olivia in and out of her performance environment.

Evaluation

Effectiveness as practitioners should not be solely judged on performance improvements (Tod et al., 2007), with Anderson and colleagues (2002) suggesting four areas which should be considered when monitoring effectiveness of practice: quality of support, psychological skill and wellbeing, response to support, and performance. I believe the monitoring process outlined above shows how data from psychometrics were used to assess psychological skill and wellbeing, as well as informal feedback from the coach and parents to explore the quality of support and response to the support by Olivia. For example, when Olivia's parents questioned Olivia's commitment to practicing the techniques provided this was then responses to by the practitioner. The aims of the intervention were successful in allowing Olivia to be herself more and have fun with the sport she competes through creating greater present moment awareness and ability to defuse from difficult thoughts and feelings.

I believe a strength in this study is one that is difficult to measure on a psychometric, with the development of Olivia being confident to “talking about the important things”, ultimately improving well-being and fulfilment within life. A standout moment for me as a practitioner, which was difficult to reflect within the linear presentation of this case, stems from an unplanned conversation with Olivia. We were discussing how she did not speak up about the way she was feeling and does not “talk about things”. With this we created a mantra, “I talk about the important things”. This initially started off as Olivia did not have an interest to compete anymore within tennis but did not want to let down her parents. I felt this could give her confidence to speak about this rather than me going against confidentiality. The next week comes around and we have another session. She did talk to her parents about not wanting to play as much tennis and taking up another sport, equestrian. She also started another conversation with them where she spoke up about her new romantic relationship with a girl at school. On reflection, this spur of the moment mantra had brought confidence to Olivia off the court to discuss important aspects of her life with her family openly, which I do not believe would have happened without the foundation of rapport and a relationship with the client. As such, we can see the success of a sport psychologist’s work does not have to stem from performance markers, it can be that the individual has come closer to what matters to them in life.

Personal Reflections

This case study is something I have been unsure about completing, through a fear of judgement from others due to a messy consultation journey and anxieties of imposter syndrome and the quality of my own skills and knowledge (Hings et al., 2020). I also felt I did a disservice to the client, that I could have carried out a more efficient and effective consultancy for her. Having now completed this case study, I am glad that I decided to write it. It has heightened my reflective skills and allowed me to see how the consultation journey

was not as catastrophic as I first thought and to recognise the work of the sport psychologist must be holistic as you cannot separate person and performer. It has also brought me to a place of acceptance in that consultancy will not always follow a linear path. There are ups and downs, adjustments, and sometimes complete rehaults, but the important part is having the awareness that change needs to be made and not to think less of yourself because of this. With this, in the future I would like to focus on creating an intervention which engages more with the client's performance environment to support the translation of techniques and behaviours.

References

- Anderson, A.G., Miles, A., Mahoney, C., & Robinson, P. (2002). Evaluating the effectiveness of applied sport psychology practice: Making the case for a case study approach. *The Sport Psychologist*, 16(4), 432–453. doi:10.1123/tsp.16.4.432
- Birrer, D., & Rothlin, P. (2017). Riding the Third Wave: CBT and Mindfulness-Based Interventions in Sport Psychology. In J. Zizzi & M.B. Anderson (Eds.), *Being mindful in sport and exercise psychology*. Morgantown, WV: Fitness Information Technology
- de Bruin, E. I., Zijlstra, B. J., & Bögels, S. M. (2014). The meaning of mindfulness in children and adolescents: further validation of the Child and Adolescent Mindfulness Measure (CAMM) in two independent samples from the Netherlands. *Mindfulness*, 5(4), 422-430. DOI: 10.1007/s12671-013-0196-8
- de Shazer, S. (1985). *Keys to solution in brief therapy*. New York: W.W. Norton & Co
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology/Psychologie canadienne*, 49(3), 182. <https://doi.org/10.1037/a0012801>

- Dempsey, A. (2019). *Pediatric Health Conditions in Schools: A Clinician's Guide for Working with Children, Families, and Educators*, 177.
- Gardner, F. L., & Moore, Z. E. (2012). Mindfulness and acceptance models in sport psychology: A decade of basic and applied scientific advancements. *Canadian Psychology/Psychologie Canadienne*, 53(4), 309–318.
<https://doi.org/10.1037/a0030220>
- Greco, L. A., Baer, R. A., & Smith, G. T. (2011). Assessing mindfulness in children and adolescents: development and validation of the Child and Adolescent Mindfulness Measure (CAMM). *Psychological Assessment*, 23(3), 606-614. doi:10.1037/a0022819
- Grossman, P., & Van Dam, N. T. (2011). Mindfulness, by any other name...: trials and tribulations of sati in western psychology and science. *Contemporary Buddhism*, 12(1), 219-239. <https://doi.org/10.1080/14639947.2011.564841>
- Harris, R. (2009). The complete set of client handouts and worksheets from ACT books.
- Harris, R. (2018). *ACT questions and answers: A practitioner's guide to 150 common sticking points in acceptance and commitment therapy*. New Harbinger Publications.
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, 35, 639-665. doi: 10.1016/S0005-7894(04)80013-3
- Hayes, S. C., Follette, V. M., & Linehan, M. (Eds.). (2004). *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition*. Guilford Press.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2011). *Acceptance and commitment therapy: The process and practice of mindful change*. Guilford Press.

- Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York, NY: Guilford Press
- Hayes, S.C. & Wilson, K.G. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *The Behavior Analyst*, 17(2), 289
- Hayes, S.C. Strosahl, K.D. & Wilson, K.G. (2011). *Acceptance and commitment therapy: The process and practice of mindful change*. Guilford Press
- Hayes, S.C., Barnes-Holmes, D., & Wilson, K.G. (2012a). Contextual behavioral science: Creating a science more adequate to the challenge of the human condition. *Journal of Contextual Behavioral Science*, 1, 1–16.
- Hayes, S.C., Strosahl, K.D. & Wilson, K.G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. Guilford Press.
- Hazlett-Stevens, H., & Oren, Y. (2017). Effectiveness of mindfulness-based stress reduction bibliotherapy: A preliminary randomized controlled trial. *Journal of clinical psychology*, 73(6), 626-637. <https://doi.org/10.1002/jclp.22370>
- Henriksen, K., Hansen, J., & Larsen, C. H. (2019). *Mindfulness and acceptance in sport: How to help athletes perform and thrive under pressure*. Routledge.
- Hings, R. F., Wagstaff, C. R., Anderson, V., Gilmore, S., & Thelwell, R. C. (2020). Better preparing sports psychologists for the demands of applied practice: The emotional labor training gap. *Journal of Applied Sport Psychology*, 32(4), 335-356.
- Kabat-Zinn, J. (2005). *Coming to our senses: Healing ourselves and the world through mindfulness*. Hachette UK.

- Kaufman, K.A., & Glass, C.R. (2006). *Mindful Sport Performance Enhancement: A treatment manual for archers and golfers*. Unpublished manuscript, The Catholic University of America, Washington, DC.
- Keegan, R. (2015). *Being a sport psychologist*. Macmillan International Higher Education.
- Kuby, A. K., McLean, N., & Allen, K. (2015). Validation of the Child and Adolescent Mindfulness Measure (CAMM) with Non-Clinical Adolescents. *Mindfulness*, 6(6), 1448-1455. doi:10.1007/s12671-015-0418-3
- Li, C., Zhu, Y., Zhang, M., Gustafsson, H., & Chen, T. (2019). Mindfulness and athlete burnout: a systematic review and meta-analysis. *International Journal of Environmental Research and Public Health*, 16(3), 449–461.
<https://doi.org/10.3390/ijerph16030449>
- Lindsay, P., Pitt, T. & Thomas, O. (2014). Bewitched by our words: Wittgenstein, language-games, and the pictures that hold sport psychology captive. *Sport & Exercise Psychology Review*, 10, 41–54.
- Lindsay, P., Pitt, T., & Thomas, O. (2014). Bewitched by our words: Wittgenstein, language-games, and the pictures that hold sport psychology captive. *Sport & exercise psychology review*, 10(1), 41-54.
- Lindsay, P., Thomas, O. & Douglas, G. (2010). Exploring and transforming client generated metaphors in applied sport psychology. *The Sport Psychologist*, 24, 97–112
- Lutz, A., Slagter, H. A., Dunne, J. D., and Davidson, R. J. (2008). Attention regulation and monitoring in meditation. *Trends Cogn. Sci.* 12, 163–169.
<https://doi.org/10.1016/j.tics.2008.01.005>
- Masuda, A., Feinstein, A. B., Wendell, J. W., & Sheehan, S. T. (2010). Cognitive defusion versus thought distraction: A clinical rationale, training, and experiential exercise in

- altering psychological impacts of negative self-referential thoughts. *Behavior Modification*, 34(6), 520-538. <https://doi.org/10.1177/0145445510379632>
- Noetel, M., Ciarrochi, J., Van Zanden, B., & Lonsdale, C. (2019). Mindfulness and acceptance approaches to sporting performance enhancement: A systematic review. *International Review of Sport and Exercise Psychology*, 12(1), 139–175. <https://doi.org/10.1080/1750984X.2017.1387803>
- Poczwadowski, A., Sherman, C.P., & Ravizza, K. (2004). Professional Philosophy in the Sport Psychology Service Delivery: Building on Theory and Practice. *The Sport Psychologist*, 18, 445-463.
- Rønnestad, M.H., & Skovholt, T.M. (2003). The journey of the counsellor and therapist: Research findings and perspectives on professional development. *Journal of Career Development*, 30, 5–44. <https://doi.org/10.1023/A:1025173508081>
- Sappington, R., & Longshore, K. (2015). Systematically reviewing the efficacy of mindfulness-based interventions for enhanced athletic performance. *Journal of Clinical Sport Psychology*, 9(3), 232–262. <https://doi.org/10.1123/jcsp.2014-0017>
- Sharp, L. A., & Hodge, K. (2011). Sport psychology consulting effectiveness: The sport psychology consultant's perspective. *Journal of Applied Sport Psychology*, 23(3), 360-376. <https://doi.org/10.1080/10413200.2011.583619>
- Sharp, L. A., Hodge, K., & Danish, S. (2014). Sport psychology consulting at elite sport competitions. *Sport, Exercise, and Performance Psychology*, 3(2), 75. <https://doi.org/10.1037/spy0000011>
- Siegel, D. J. (2010). *Mindsight: The new science of personal transformation*. Bantam.

Siegel, D. J., & Bryson, T. P. (2012). *The whole-brain child: 12 revolutionary strategies to nurture your child's developing mind*. Bantam.

Tod, D., Andersen, M.B., & Marchant, D.B. (2011). Six years up: Applied sport psychologists surviving (and thriving) after graduation. *Journal of Applied Sport Psychology*, 23(1), 93–109. doi:10.1080/10413200.2010.534543

Törneke, N. (2017). *Metaphor in practice: A professional's guide to using the science of language in psychotherapy*. New Harbinger Publications

Consultancy Case Study Two

Developing a Balanced Philosophy: Needs Supportive Communication and Spotlight Profiling with an Elite Rower

Abstract

This case shows an account of my evolving philosophy, coming closer to integration between various approaches and consultancy styles. I find a balance between construalist and certaintist styles through the application of Needs Supportive Communication as a client-led approach and the use of Spotlight Profiling to explore strengths and performance preferences in a more practitioner-led approach. This case reflects on an ethical decision making process I went through regarding the client's mental health and the concerns I had about this not being the correct course of action. Finally, this case allowed me to question my heuristic bias and my overly reliant lens on mindfulness and acceptance approaches and theory when consulting. I believe my experiences within this case brought me closer to an authentic philosophy, and therefore has allowed me to be a more effective sport psychology practitioner.

Keywords: Self-Determination Theory, Needs Supportive Communication, rowing, mental health, ethical decision making

The Client and Contracting

Emily is a 24-year-old high performance rower on the brink of the GB development squad, training in the North West of England, and representing Wales at international regattas. She balances training with full-time work, training most evenings, and mornings before work. Emily was unable to train for 3 years due to an accident on her bike where she was run into by a car and experienced short-term memory loss. She found it difficult to stay away from training whilst injured and struggled with her weight during this time off but has recently been able to regain control over her weight with the help of one of her teammates. Emily comes across a strong-minded, driven individual with a passion to be the best out of everyone.

The consultancy relationship ran from October 2018 to August 2019. I was put in contact with Emily by another trainee sport psychologist who informed me that Emily's coach was looking for sport psychology support for the high-performance squad at the rowing club. Due to lack of time, this trainee sport psychologist could not commit to supporting all of the rowers, and so I provided one-to-one consultancy for two rowers at the club. One of these rowers was Emily, who wanted to utilise our psychology sessions to support her in the upcoming GB trials by using the sessions to talk about sport, work, home life, and to manage any issues as they arose. On contracting, the client agreed to monthly face-to-face meetings, flexible to the client and practitioner schedules, with a closed confidentiality agreement. Due to the limited face-to-face meetings, support was agreed to be available on weekdays between 9am-5pm to discuss any issues arising and provide feedback about progress via text messaging or phone calls.

The Practitioner & Philosophical Approach

This case was my first working outside of youth sport and exploring a high-performance environment. My knowledge of rowing was extremely limited and I was looking forward to learning more about the sport. I was one year into my professional doctorate during the consultancy and building on my use of third wave approaches. The year prior to working with Emily, I lost my focus on some of the foundational components of my practice, such as counselling skills and allowing the client to lead. I felt my focus was too heavily on the implementation of interventions, such as acceptance and mindfulness techniques, and providing the client with something tangible. I thought this could be hindering the athlete-practitioner relationship and the athlete's motivation to engage with the sport psychology support as I was too focused on giving answers rather than getting to truly know the client and providing them with autonomy. I began to consciously take a more client-led approach in the early stages of this case with Emily. This allowed me to gently shift what had become quite a strong certaintist approach along the continuum to become more construalist, with Keegan (2010, p.46) stating that "practitioners' consulting styles are rarely at either extreme" of this continuum. One framework I felt would help move me towards a more client-led approach was Self Determination Theory (SDT; Ryan & Deci, 2017), which I was conducting research in at the time. SDT aligns with my philosophy, in that the ultimate goal from my interventions is to support and motivate the individual (as a person and an athlete) to live a fulfilling life (in and out of their sport) in line with their values. Within SDT, this can be seen as guiding the individual towards integration and development as a "fully functioning person", akin to that of actualisation within humanistic practices (Ryan & Deci, 2017). Importantly, I believe a practitioner can deliver a practitioner-led intervention in a client-led manner without being eclectic. Once integration of these two supposedly opposing styles occurs, a balance between construalism and certaintism can be found. Furthermore, though

SDT is driven by empirical data and can link with a certainist approach, when applied in practice a construalist approach is urged through the use of techniques such as Needs Supportive Communication (NSC). The very thing that SDT is certainist about is that we should consult in a construalist manner! This further reinforces that these two styles can live alongside one another.

Needs Analysis and Case Formulation

The intake with Emily was formally arranged to understand her goals for the consultancy and discuss our way of working together through qualitative means using questions akin to that in Keegan (2015). After intake, my initial reaction was to go towards mindfulness and acceptance-based approaches as the client showed signs of cognitive fusion during our intake session, for example overthinking at night causing her to struggle sleeping. Due to this, I implemented a cognitive fusion questionnaire in our second session together to assess this more closely. We used this as a discussion tool and came to realise the fusion with thoughts did not lead to unworkable behaviours whilst rowing. Therefore, I decided ACT was not the right direction to take for this client. During this stage of the consultancy, I began heavily questioning my heuristic bias, and the saying that “if all you have is a hammer, everything looks like a nail” (my hammer being Acceptance and Commitment Therapy!). I took a step back in the consultancy and focused on exploring what Emily really wanted from our work together. After more discussions, Emily said she simply wanted somewhere to offload her thoughts and support her in the build up to GB trials. She identified key issues such as sleep, her previous cycling accident, and relationships with teammates. These presenting problems were not physically within the performance environment, but the client felt they were indirectly hindering her performance.

Emily already had comprehensive goals for the season as well as clear personal values, which helped to drive the needs analysis process. One issue I recognised during the intake and needs analysis was Emily's rigid drive for success, outcome focused goals, and high expectations of herself within her sport, working, and social life. This appeared to be impacting her sleep, eating, and exercise habits leading to decreased mental wellbeing and performance. At this early needs analysis stage I did not take into consideration the potentially clinical links with exercise dependency and eating disorders, and is something that could have been a serious error on my part as we will see later in the case study. Within my case formulation, I decided to proceed by focusing on the use of NSC within a sport setting (Ntoumanis et al., 2018). NSC is grounded in SDT (Deci & Ryan, 1985) which states the fulfilment of an individual's three basic psychological needs (BPN) of autonomy, competency, and relatedness (Ryan & Deci, 2000) can enhance psychological and physical wellbeing (Deci & Ryan, 2000). Further, SDT posits BPN satisfaction to be essential for optimal human functioning (Ryan & Deci, 2000). Within sport, research has found BPN satisfaction to increase wellbeing and vitality, with athletes who perceive lower BPN satisfaction feeling greater emotional and physical exhaustion from their sport (Aide et al., 2008). This approach will support the client to understand her own thoughts and rigid perceptions more clearly to allow her to make informed decisions about future behaviours to support wellbeing and performance. Moreover, a supportive and non-controlling environment can catalyse the integrative tendency (Ryan & Deci, 2017).

NSC is applicable across many fields such as teaching (Cheon, Reeve & Moon, 2012), physical activity (Hancox et al., 2015), and sport (Matosic et al., 2016). I adapted NSC behaviours from Ntoumanis and colleagues (2018) for sport psychology consultancy (Table 1). NSC includes multiple interacting motivational behaviour change techniques (MBCTs), such as providing a meaningful rationale, providing choice, and acknowledging and

respecting perspectives and feelings (Teixeira et al., 2020). NSC is “empathic, flexible, and patient, rather than taking-charge, pressuring, and urgent.” (Ntoumanis et al., 2018 pg.3) and allows motivation to be cultivated, supporting the individual towards positive behaviour change and wellbeing.

Table 1

Examples of needs supportive and needs thwarting behaviours (adapted from Ntoumanis et al., 2018)

Needs-Supportive Behaviours	Needs Thwarting Behaviours
1. Ask open questions to explore the client’s perspective	1. Use jargon, or technical terms that the client might not understand
2. Reflect back what the client has told you (e.g. acknowledging and negative or positive feelings)	2. Tell the client they “must” (not) or “should” (not) do something
3. Involve the client in setting their own action points, offering choices that are relevant to others’ goals and values	3. Trivializes and dismisses others’ input and views
4. Ask permission before raising sensitive issues or providing advice (outside of professional remit)	4. Uses a coercive, pressuring, or guilt-inducing communication to impose a preconceived way
5. Provides meaningful explanations for task-engagement	5. Uses intimidating behaviours (e.g., yelling, physical punishment)
6. Communicates perspective taking statements	6. Uses praise in an attempt to control others’ behaviours and feelings
7. Give the client space to ask questions or request clarification	7. Deprives others of opportunities to develop their potential
8. Offer praise/feedback that is meaningful and specific	8. Uses excessive monitoring and surveillance

Consultation Journey

The use of NSC will be discussed during key moments throughout the consultancy and how it was used to support the client (1) in the build up to GB trials, (2) during a training camp abroad, (3) during injury, (4) to implement learnings from spotlight profiling, and (5) with mental health and wellbeing challenges. Face-to-face meetings took place at the rowing

club, by the river side, and at local coffee shops. Support was also provided via text messaging.

Build up to GB Trials

During this period, issues identified were Emily's struggles with sleeping due to overthinking, lack of confidence, and self-doubt in her rowing. Conversations were guided by needs-supportive behaviours such as asking open questions to explore her perspective and reflecting to make sure the client felt listened to and understood. We then moved into an action planning phase, where I provided the client the opportunity to set her own behavioural goals to support the issues above. Moreover, I did not engage with needs-thwarting behaviours such as disregarding the clients perspective and prescribing goals for her. For example, with Emily's struggles sleeping, Emily decided to read before bed and practice mindful breathing when her thoughts were overwhelming. For these activities I gave support where necessary, providing expertise and guidance as suggested in similar approaches such as motivational interviewing (Mack et al., 2017) where advice is provided to support the client's readiness to change. Early in the consultancy, I would always ask Emily for permission before providing suggestions to embody NSC. Doing this was beneficial as it gave me confidence to provide advice without appearing insensitive or patronising towards Emily. As she was the first non-youth athlete I had worked with one-to-one, I was concerned about providing advice that was too obvious or low level, reflecting my own anxieties as a neophyte practitioner (Tod et al., 2011). I did however recognise myself asking less often as our relationship grew, which potentially allowed the client-practitioner relationship to become more authentic.

To explore Emily's lack of confidence and self-doubt I did not prescribe an intervention in a certainist fashion but instead created a space where Emily would feel

comfortable discussing these issues to allow her to make sense of them. This allowed Emily to express issues related to her childhood and family life, relationship with eating and exercise, and drive to be the best. Initially, this was a challenge for me as Emily was not used to opening up and sharing her emotions and experiences. This could have reflected her lack of relatedness satisfaction, as she mentioned strained relationships with her parents and a member of her rowing squad. I found with time and the right environment (moving out of the rowing club and into a coffee shop) Emily was happy to speak up and expressed the usefulness in these conversations in allowing her to reflect on her past and her achievements within rowing.

Supporting the Client Abroad

After success at GB trials, Emily was invited to her first training camp abroad where we kept in contact through text messaging. Here, Emily kept me updated on her progress and any concerns she had about being away from home. When discussing these experiences further with Emily, I used NSC skills such as reflection, and open questions to explore her perspective further and to support her to make decisions about her next course of action. One of Emily's first updates indicated she was performing to an extremely high standard, but still had areas to improve. One of these was her weight, which as I knew it was something she had struggled with in the past and would be important to follow up when she returned home:

...She's [GB Coach] really pleased with how camp is going so far... Goals going forward are: 17:50 5k, 2k in the 6:40s, 30' is second best to Oonagh (1:51.2) and better than all current squad and they really really like it... I need to lose weight - trials weight is OK for winter but need to be more like 83 for summer and still get the erg scores and then they'll be excited. (Emily)

On another occasion, Emily indicated that she was struggling away from home as one of her close friends and teammates, who was struggling with an injury at the time, was not there to support her. This led Emily to feeling lonely and exhausted at the training camp whilst being concerned for her friend. As there was limited contact with Emily at the training camp, I believed it was best to be there as a support mechanism to allow her to explore her thoughts in a safe space without trying to implement any psychological skills or interventions and to de-escalate, normalise and simplify the situation (Lindsay, 2008).

Returning Home and Facing Injury

During our next face-to-face meeting Emily discussed feeling pressured to compete for her home club but was wary of an injury that had developed after the GB camp. We discussed this and explored her potential options, again using the NSC to explore her perspective. Later that week, Emily messaged me about her decision to discuss this with her club coach and GB coach:

...I had a call from [GB coach] this morning. He basically said not to race this weekend – though ultimately it is my choice. He knows I have been having issues with a back injury and that is not ideal but still fine with them and something they can work with, what is not fine is if I take a massive unnecessary risk by racing and if anything were to happen they would have 0 sympathy or time for me at all is basically what he said... I've told [club coach] and hope he'll be ok with me dropping out. There has been so much pressure from the club to do it even though it's not the right thing for me to do. (Emily)

Unfortunately, due to Emily's injury she was not taken to the second GB camp. She tried to see a silver lining that she did not have to take time off work, but this was of course a difficult piece of news for Emily. During our next meeting we discussed her experience over

the last few months such as the GB trials, the elation of the GB development camp, struggles with her teammate, and her back injury. This informed the way we moved forward, with Emily and I framing this as an opportunity for her to learn more about herself and how she manages stressors in and out of her sport. To support this process Emily completed a Spotlight Profile to enhance self-awareness of her performance preferences.

Spotlight Profiling

Spotlight Profiling (Ong, 2018) is a psychometric tool developed by Mindflick® with the goal to broaden perceptions of personality within individuals and teams to allow for more flexible solutions and behaviours. Spotlight uses two models, behavioural style and mindset preferences (Figure 1), whilst exploring strengths and helping the client ‘flex’ into different performance preferences to create behaviour change. Due to this, I felt the approach aligned well with NSC and when integrated could enhance Emily’s motivation towards behaviour change to get closer to her strength sweet spot (Figure 2).

As Emily found it difficult to open up, I felt this tool would provide a springboard to open up these conversations, interestingly one of Emily’s weaknesses was “Finding it difficult to open up and express your feelings on a situation, despite having things to share”. A debrief was conducted where we discussed the theory behind Spotlight and the different performance preferences, comparing client and practitioner profiles throughout to embody a collaborative therapeutic style and display vulnerability back to the client. Linking this with SDT, I believed this would support relatedness between client and practitioner. From a philosophical perspective, SDT draws on ideas from organismic theory in that living things are striving towards mastery and self-regulation within their environment (Ryan & Deci, 2017). I believe the use of Spotlight allows the client to gain a greater understanding of themselves and ultimately come closer to integration and mental wellbeing.

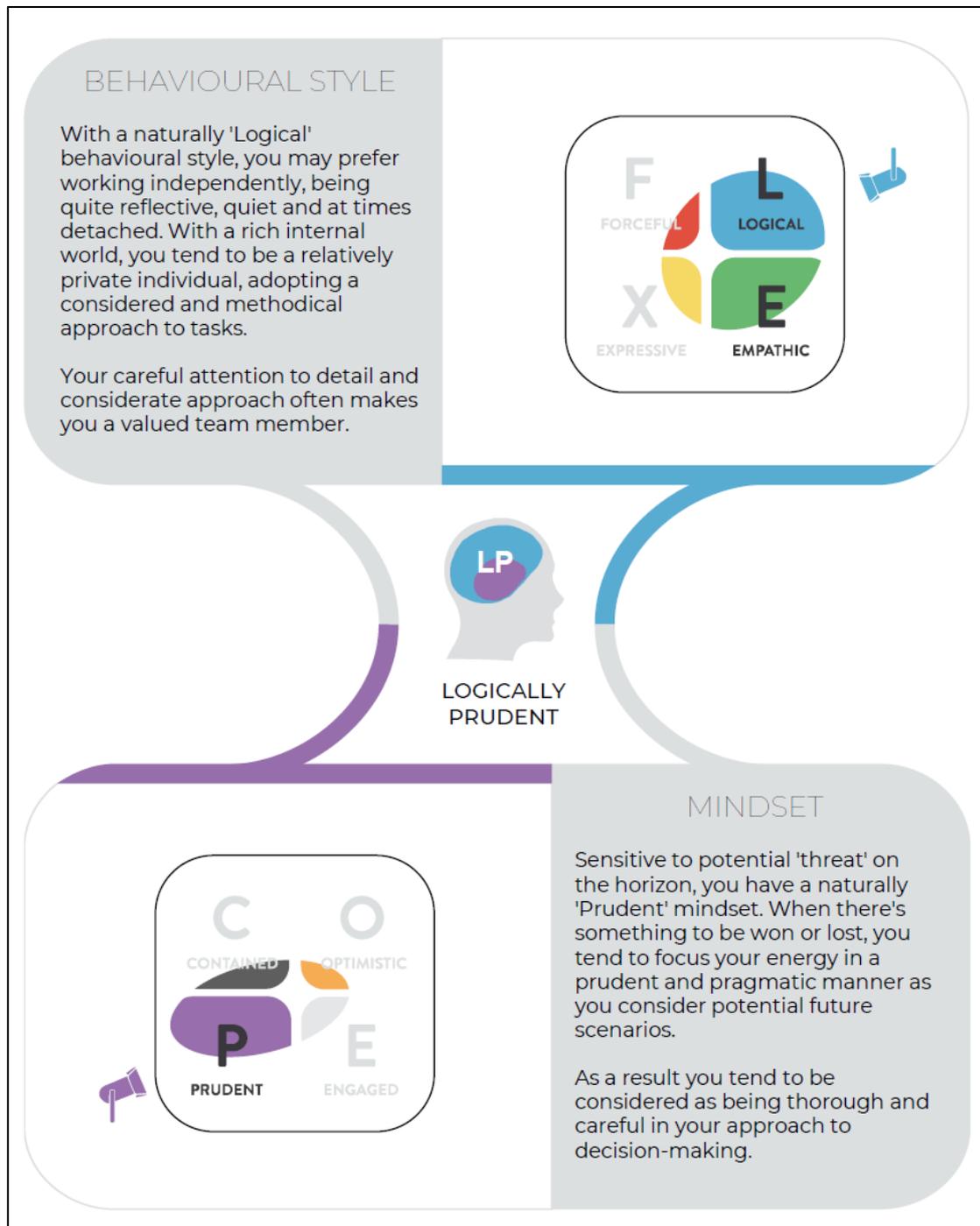
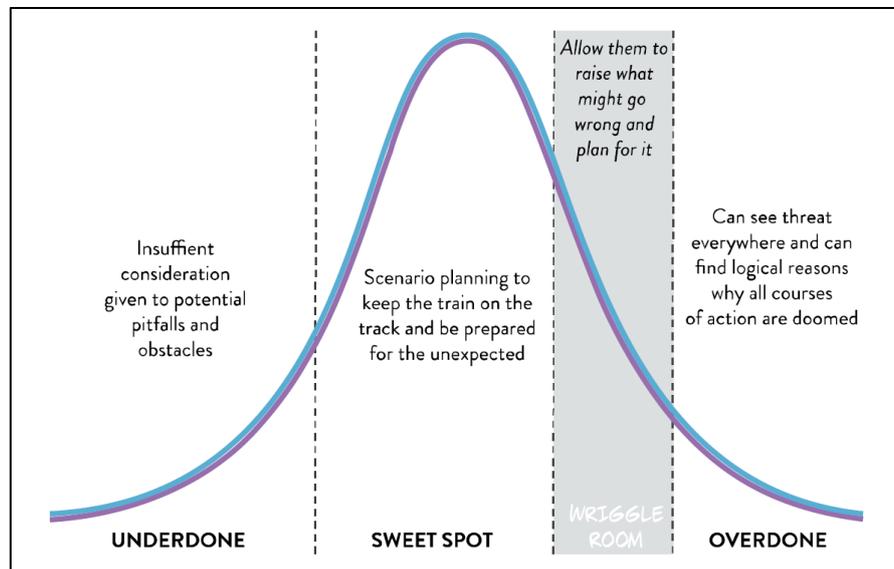
Figure 1*Emily's Performance Preferences*

Figure 2*Emily's Strength Profile*

We revisited Emily's profile at multiple time points, exploring challenges that Emily faced and viewing them from perspectives of other performance preferences. One key point of focus was Emily's struggles with one of her teammates. We recognised that Emily's strength to empathise and be loyal to others was being overplayed, leading her to neglect her own needs out of a sense of duty to others. A blind spot for Emily was "Your loyalty to others may sometimes hold you back from achieving your own goals". Emily discussed how this was happening during her trip abroad on the GB camp where she was so concerned about her teammate that her focus shifted away from her performance. We then identified a preference she may be able to 'flex' into to counteract her overplayed strength in situations like this. Emily decided to 'flex' into a more optimistic mindset and expressive behavioural style, for example, instead of asking herself "what are the risks?", and "how might I be letting people down?" she would ask herself "what are the rewards here?" and "what would I do if I had no boundaries, or no one to hold me back?". As well as this, we discussed simple self-care techniques due to Emily often neglecting her own needs for others. To set these self-care

behaviours I continued to use NSC, providing the client space to make her own choices and set her own action plans to ensure motivation towards the behaviours.

Consultancy Termination

The consultancy relationship came to an end when Emily moved away meaning one-to-one support was no longer applicable. Further, psychology support was available at the new rowing club she was attended which was more accessible for her. Despite this, Emily remained in touch and I clarified that I would be available to provide support if she ever required it in the future.

Ethical Considerations

As mentioned earlier, at the GB training camp Emily mentioned the need to lose weight for the Summer. This led to discussions in our face-to-face consultations about eating habits and feelings surrounding this for Emily. Emily discussed how she would go on lengthy runs if she felt she had eaten too much in one day and push herself to the point of exhaustion to keep her weight down. I felt uncomfortable with these topics as I had no experience working with athletes around eating and exercise habits. At this point in the consultancy, I wish I would have considered discussing clinical support to Emily but instead, using NSC, I looked to understand Emily's experiences further (with fear of labelling her with a mental health disorder) and I was able to point her towards some material about eating habits and disorders within elite athletes. To this Emily said:

I feel like the meticulous bit and being so rigid around food are things that normal people think 'wow, it must be amazing to be like that because you're an athlete'. But actually, it's not healthy and as you say, very fine line between that descending into a more unhealthy habit. (Emily)

Soon after this, Emily informed me she was going to see her GP as she was not sleeping well and wanted some blood tests. Instead, her GP prescribed anti-depressants, sleeping tablets and placed her on a waiting list for Cognitive Behavioural Therapy (CBT). As a trainee sport psychologist these issues were incredibly challenging; I had not experienced them before and I was uncertain about how to approach them. I also felt extreme feelings of guilt for not being the one to suggest referral, but I was grateful that we had built a strong enough professional relationship for Emily to discuss the details of her GP appointment. I then had to consider whether to terminate, continue, or alter my way of working with Emily. I was tempted to take an ACT approach here due to it's routes in clinical psychology, though I was acutely aware of the risks of applying contradicting thinking from other branches of psychology and this moving away from my competencies. I was also aware of the potential negative impacts on the client if my support was completely terminated (Moesch et al., 2018). I discussed these options with my supervisor to support the decision making process and concluded that, though I felt I could be giving more to support Emily (e.g., using an ACT approach), I did not want to risk confusing this with CBT. Given the NSC approach I was taking, I decided the benefits of continuing outweighed the risks, whereas if I had been taking an ACT approach I may have assessed the situation differently. As such, I decided to continue to take a holistic needs based-approach as I felt this posed the least risk to the client whilst still providing her with support.

On reflection, I think this was the best decision given the situation and my own competency level at the time. Nonetheless, I still felt I could have done more and focused more specially on the sub-clinical issues through an ACT or counselling based approach and monitored Emily's mental health more readily. One reason this may have been important to explore is that a course of CBT may simply pick the athlete out of the environment which is causing the harm before dropping them back into it. It is vital to consider whether clinical

support will enable the athlete to experience mental health within their performance environment, as a lack of understanding of a sporting environment may be present within the clinical practitioner (Roberts et al., 2016). However, in my early experience of practice I was very cautious about causing confusion and more harm than good. Moreover, I experienced lack of clarity regarding the best course of action, with the BPS Code of Ethics and Conduct (British Psychological Society, 2009) not stating best practice measures when, as in my instance, the sport psychologist has not identified the mental disorder in question and what support to provide when the athlete is waiting for their therapy (Wadsworth, 2020). My decision therefore was one of caution, and unfortunately may not have been the most beneficial one for the client

Monitoring and Feedback

Due to the focus of the consultancy being that of counselling and communication, a measurement of change in terms of psychometrics did not apply. Though the Basic Needs Satisfaction Scale was considered, the client and I decided it would be more beneficial to ask questions specific to the consultation journey. Furthermore, excessive monitoring and surveillance is considered as a needs thwarting behaviour (Ntoumanis et al., 2018) so it was vital to allow the client choice over the monitoring and evaluation process. As such, a feedback form was created to pinpoint specific aspects of the consultancy process and allow the client to open up about her perceptions of the support provided. Additionally, the sport psychologist consultation form (Partington & Orlick, 1987) was provided for the client to complete as we decided a lot of the work done was based on my own personal qualities as a practitioner rather than a specific prescribed intervention. Informal feedback was gathered from the client throughout the consultation regarding her progress, mental wellbeing, and issues within day-to-day life. This monitoring through text messages allowed me to have an

insight on a more regular basis about how Emily was progressing and supported future consultations.

Informal Monitoring

Informal feedback from the client throughout the consultancy allowed me to put some of my feelings of imposter syndrome at ease and to progress with the decided intervention with confidence as Emily stated she found these sessions useful even though she found it difficult to open up about some of the topics, with her stating: “I know it’s good to talk about these things but I find it quite difficult so thank you very much for everything”. Later on, Emily provided feedback about Spotlight profiling and how it was “really interesting”, specifically when relating the different preferences back to her relationship with one of her teammates and viewing weaknesses as over or underplayed strengths. After one of our face-to-face consultations, Emily indicated she was finding the work beneficial and seeing improvements, but she was still struggling with change due to injury and relationships within the squad. Towards the end of the consultancy I was seeing Emily less due to our schedules clashing. She was still experiencing ups and downs during her injury and experiencing negative thoughts about herself. Though she was looking forward to competing with Wales in the future and taking time off before the next season. This made me question whether I could have done more to support her in managing negative thoughts and feelings and was an area I would have liked to explore with her further if she was not moving away.

Sport Psychology Consultant Questionnaire

Emily completed The Sport Psychologist Consultant Evaluation form (Partington & Orlick, 1987) to gain an understanding of the quality of sport psychologist provision (Appendix 2). The client scored me on a scale of 0 – 10 on the presence of various characteristics with 0 being “not at all” and 10 being “yes, definitely”. Responses from the

client were positive, scoring 10 out of 10 on all aspects apart from “provided clear, practical, concrete strategies...” which scored a 9.9. Regarding how effective the consultant was for her and her team, Emily scored 5 out of 5 indicating “helped a lot”. When asked if Emily had any recommendation to improve the quality or effectiveness of the support provided Emily said:

I found the sessions with Laura structured, well planned and offered invaluable insight which undoubtedly benefitted my sporting performance no end. The only improvement would have been more frequent sessions - though we were constrained by work, sporting and academic commitments and made the most of the time we had.
(Emily)

General Feedback on Impact and Support

A feedback form was provided to the client to gain an insight into different aspects of the consultancy process, including positives, negatives, use of Spotlight, impact of the consultation, and client-practitioner relationship. The client feedback in its entirety can be found in Appendix 3.

Overall, Emily felt the experience was positive and provided her with guidance for progressing within her sport and in life and stated: “I faced a number of significant challenges in both my sporting and personal life and I have no doubt that I was able to deal with these in a more positive and constructive way as a result of our sessions.”. Emily felt the support helped her performance by identifying strengths, weaknesses and building coping strategies. She also recognised “the large overlap and complex interactions between sporting, work and personal life.” and how benefits were accrued in all of these areas. Emily found exploring her Spotlight Profile “incredibly rewarding”, allowing for increased self-awareness of her own traits and ability to take a different perspective on weaknesses as overplayed or underplayed strengths. Emily reflected on the professional qualities of myself as the sport psychologist

stating that as a practitioner I was “compassionate, open and inviting” and “an excellent communicator”. The therapeutic relationship was important for Emily, as she “knew that it was crucial that there was an open and trustworthy relationship” between us. Emily felt this was the element she would “struggle with the most”. But was able to overcome this barrier due to the relationship we built and felt “able to relax” and speak “truthfully” to support the consultancy process.

Gaining this more formal feedback from Emily once the consultancy terminated allowed me to understand the impact of the sessions further. I was able to support her by providing a safe and trustworthy sounding board to support with her performance as well as other areas of her life, with Emily stating: “I have no doubt it [the work we have done together] will continue to bring benefits in my sporting, personal and professional life going forward”.

Evaluation and Reflections

This case aimed to support Emily’s performance and wellbeing through the use of NSC. I felt this was effective, particularly in the early stages of the consultancy where Emily was hesitant to open up and be honest about the difficulties she was facing. This could make it difficult to create a practitioner-led intervention without the trust or relevant information from the client. The use of NSC here as “how” the consultancy was approached, allowed “what” was being delivered in a more practitioner-led manner to come to fruition. In this case, it was through a solutions focused, strengths based approach in the form of Spotlight profiling. Disclosing information about myself through sharing my own Spotlight profile allowed the client to feel more comfortable and reinforced the collaborative therapeutic relationship, removing any hierarchies present. Self-disclosure can have positive impacts on the consultancy process by creating a sense of trust, connection, being understood and ability

to identify with one another's experiences (Hanson, 2005). Despite this, it must be used with care as if used too frequently it can blur ethical boundaries (MacIntyre et al., 2014).

Emily's feedback suggests the form of communication used (along with the personal traits of myself as a practitioner) allowed a trusting relationship to be formed, potentially through the use of NSC to create feelings of relatedness, as well as the client-practitioner relationship being largely influenced by the practitioner's theoretical orientation and professional philosophy (Shertzer & Stone, 1968; Weiss, 1991). Moreover, research has found implementing a supportive communication style in teaching has increased the student-teacher relationship (Cheon et al., 2012). This was not the only means though, as after a few sessions with Emily, I recognised she was not so comfortable opening up about difficult issues at the rowing club. Exploring new locations, such as local coffee shops and walks along the river saw a shift in the topics that Emily was comfortable to talk about difficult topics such as depression, unworkable eating and exercise habits. Research has shown that aspects such as the sport psychologist's office location can have an impact on whether an athlete seeks out support (Martin et al., 2012), this is something I will certainly explore more in the future, as a formalised 1-1 setting may be uncomfortable for some athletes with a more relaxed space away from the performance environment being preferred and less threatening.

On reflection with my supervisor after this case, I have recognised many new lenses of which I can view the use of SDT and NSC within my practice. My use of NSC was only scraping the surface as I was focused merely on it being a means of communication, however it did appear to target areas of needs frustration within Emily to support her wellbeing, though I must admit this was not a completely conscious effort on my part! For example, when Emily's statements of "I need to lose weight... and then they'll be excited" and "There has been so much pressure from the club" reflected introjected pressure and could have been a cause of needs frustration for Emily. Referring back to my statement earlier, that "if all you

have is a hammer, everything looks like a nail” I recognise that when I enter an intake or needs analysis my lens of understanding is usually through that of ACT. Now, as I enter a consultancy process I will be able to recognise areas where clients may be experiencing needs frustration or needs support and where my work with them could accrue benefits through the development of BPN from the client-athlete relationship but also through the environment they find themselves within (e.g., working with coaches, parents, and support staff to support the client’s BPN). For example, with Emily advantages could have been apparent from working with Emily on her relationship with her coach, or with her coach directly if Emily allowed this to occur.

References

- Aide, J. W., Duda, J. L., & Ntoumanis, N. (2008). Autonomy support, basic need satisfaction and optimal functioning of adult male and female sport participants: A test of basic needs theory. *Motivation and Emotion*, 32, 189-199. <https://doi.org/10.1007/s11031-008-9095-z>
- British Psychological Society. (2009). Code of ethics and conduct. Retrieved from <http://www.bps.org.uk/what-we-do/ethics-standards/ethics-standards>
- Cheon, S. H., Reeve, J., & Moon, I. S. (2012). Experimentally based, longitudinally designed, teacher-focused intervention to help physical education teachers be more autonomy supportive toward their students. *Journal of Sport and Exercise Psychology*, 34(3), 365-396. <https://doi.org/10.1123/jsep.34.3.365>
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, 19(2), 109-134.

- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Hancox JE, Quested E, Thogersen-Ntoumani C, Ntoumanis N (2015). An intervention to train group exercise class instructors to adopt a motivationally adaptive communication style: A quasi- experimental study protocol. *Health Psychol Behav Med.* (3):190-203. <https://doi.org/10.1080/21642850.2015.1074075>
- Hanson, J. (2005). Should your lips be zipped? How therapist self-disclosure and non-disclosure affects clients. *Counselling and Psychotherapy Research*, 5(2), 96-104.
<https://doi.org/10.1080/17441690500226658>
- Keegan, R. (2015). *Being a sport psychologist*. Macmillan International Higher Education.
- Keegan, R. J. (2010). Teaching consulting philosophies to neophyte sport psychologists: Does it help, and how can we do it?. *Journal of Sport Psychology in Action*, 1(1), 42-52. <https://doi.org/10.1080/21520704.2010.518663>
- Lindsay, P. (2008). Supporting combat sports before and during the Olympic holding camp. *The Sport and Exercise Scientist*, 18, 18–19
- MacIntyre, T., Campbell, M., & Turner, M. (2014). From baptism to immersion: How wet should we get in consulting. *Sport & Exercise Psychology Review*, 10, 65-74.
- Mack, R., Breckon, J., Butt, J., & Maynard, I. (2017). Exploring the understanding and application of motivational interviewing in applied sport psychology. *The Sport Psychologist*, 31(4), 396-409. <https://doi.org/10.1123/tsp.2016-0125>

- Martin, S. B., Zakrajsek, R. A., & Wrisberg, C. A. (2012). Attitudes toward sport psychology and seeking assistance: Key factors and a proposed model. *Psychology of attitudes*, 1-33.
- Matosic, D., Ntoumanis, N., & Quested, E. (2016). Antecedents of need supportive and controlling interpersonal styles from a self-determination theory perspective: A review and implications for sport psychology research. In *Sport and exercise psychology research* (pp. 145-180). Academic Press. <https://doi.org/10.1016/B978-0-12-803634-1.00007-8>
- Moesch, K., Kenttä, G., Kleinert, J., Quignon-Fleuret, C., Cecil, S., & Bertollo, M. (2018). FEPSAC position statement: Mental health disorders in elite athletes and models of service provision. *Psychology of Sport and Exercise*, 38, 61–71. <https://doi.org/10.1016/j.psychsport.2018.05.013>
- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.
- Ong, C. W. (2018). A statistical evaluation of the ‘Spotlight’ personality tool—A white paper.
- Partington, J., & Orlick, T. (1987). The sport psychology consultant evaluation form. *The Sport Psychologist*, 1(4), 309-317. <https://doi.org/10.1123/tsp.1.4.309>
- Roberts, C.M., Faull, A.L., & Tod, D. (2016). Blurred lines: Performance enhancement, common mental disorders and referral in the UK athletic population. *Frontiers in Psychology*, 7(1), 1067. <https://doi.org/10.3389/fpsyg.2016.01067>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78

- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Shertzer, B., & Stone, S.C. (1968). *Fundamentals of counselling*. Boston: Houghton Mifflin
- Teixeira, P. J., Marques, M. M., Silva, M. N., Brunet, J., Duda, J., Haerens, L., ... & Michie, S. (2020). A Classification of Motivation and Behavior Change Techniques Used in Self-Determination Theory-Based Interventions in Health Contexts. *Motivation Science*. <https://doi.org/10.1037/mot0000172>
- Tod, D., & Bond, K. (2010). A longitudinal examination of a British neophyte sport psychologist's development. *The Sport Psychologist*, 24(1), 35-51. <https://doi.org/10.1123/tsp.24.1.35>
- Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology*, 21(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>
- Tod, D., Andersen, M.B., & Marchant, D.B. (2011). Six years up: Applied sport psychologists surviving (and thriving) after graduation. *Journal of Applied Sport Psychology*, 23(1), 93–109. <https://doi.org/10.1080/10413200.2010.534543>
- Wadsworth, N., Paszkowec, B., & Eubank, M. (2020). One-to-one support with a professional Rugby League Player: A case for referral?. *Case Studies in Sport and Exercise Psychology*, 4(S1), S1-1. <https://doi.org/10.1123/cssep.2019-0012>
- Weiss, M.R. (1991). Psychological skill development in children and adolescents. *The Sport Psychologist*, 5, 335-354 <https://doi.org/10.1123/tsp.5.4.335>

Consultancy Case Study Three

ACT-ing on Injury:

Increasing Psychological Flexibility and Adherence to Rehabilitation

Abstract

This case study outlines my use of Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) with an injured youth footballer. The client was struggling with uncomfortable thoughts and emotions concerning his injury, which impacted his adherence to his rehabilitation plan. I believe my use of ACT in this case, compared to my initial use of ACT with a youth tennis player early on in the Professional Doctorate, is much less rigid and applied in way which is more transferable to the athlete's context. Moreover, I felt more confident within my own philosophy of practice during this case which allowed the consultancy process to be clearer for myself and the athlete throughout. There were some obstacles faced along the way, such as the athlete's adherence to the techniques (e.g., mindfulness) to support the ACT process. This was resolved through the collaborative nature of the consultancy which I believe enhanced his motivation by providing the athlete with autonomy over the techniques and competence in eliciting them within his context (Deci & Ryan, 1985; 2000). Success of the intervention has been identified through monitoring of psychological flexibility (Bond et al., 2011), cognitive fusion (Gillanders et al., 2014), and informal feedback from the client's physiotherapists.

Keywords: Acceptance and Commitment Therapy, football, injury, youth sport, psychological flexibility

Context

The Client

The client, James, was a 17-year-old first year scholar at a category 1 football academy in the UK. At the time of the consultancy, James was living away from home for the first time at academy lodging and training 4 times a week with league matches every Saturday. My professional relationship with James began when coaches and support staff working closely with him started raising concerns to me. This included things such as, “he’s an overthinker”, “he asks too many questions”, “he takes too long to make decisions on the ball” and led to an initial needs analysis. However, as James was starting to break into the starting line-up he suffered a back injury. With this specific injury, pain is typically worse during sports and improves with rest, but the pain returns when they resume sport, meaning the injury went undiagnosed for a period of time before being identified as a pars stress fracture in his lower back due to overuse.

The goal identified for my work with James’ during his injury was to find an acceptance of his injury and the rehabilitation process to allow him to struggle less with overthinking and difficult feelings (e.g., frustration, boredom, lack of trust), engage in other activities to enhance his wellbeing and performance, and adhere to his rehabilitation programme. An open confidentiality was used in this case, put in place by the academy, and so James was always asked whether there was anything he did not want to be shared after consultations.

The Practitioner and Professional Philosophy

At the time of the consultancy I was in the 2nd year of my Professional Doctorate training and had been working at the football academy for 5 months. My beliefs and values as a practitioner are that people are capable of change if they are motivated to do so, everything

is connected and so a holistic approach must be taken, and the culture and environment shapes and supports psychological change. Furthermore, I see thoughts as mental events which do not have to be changed or removed, as what we resist persists. Instead, I take the perspective that it is part of the human condition to experience uncomfortable thoughts and feelings, which can be accepted in the pursuit of what is important in life through values-driven behaviours, reflecting that of the third wave approach Acceptance and Commitment Therapy (Hayes et al., 1999). This takes me towards a certainist approach with the prescription of interventions to support the presenting problem (Keegan, 2015); however, I shift along the certainist and construalist continuum depending on the client and their needs. My belief that work should be collaborative with the client means that I do not take a pure certainist approach, in that I will ask for the opinion of the client before intervening and throughout the work we do together, providing the client with options and autonomy to support their motivation towards behaviour change (Deci & Ryan, 2000).

Needs Analysis & Case Formulation

The needs analysis was carried out using a number of means: formal and informal conversations with James, informal conversations with physiotherapists and coaches, and drawing on past knowledge from my work with James in the previous month. Informal conversations with staff members often saw James labelled as an overthinker and they would wonder whether James was being “too soft” and if there was an issue at all. This meant James was in and out of training as this specific injury will go away when rested for a few days before reoccurring. The recurrence of the pain meant James was pulled out of training once more before having a full diagnosis. Though an important part of the diagnosis process, this back and forth was difficult for James. After triangulating with multiple people within James’ support system, such as his coaches, physiotherapists, and strength and conditioning coaches, a 1-1 was arranged with James.

In this session, James expressed that he was keen to engage with the sport psychology support for his injury after our initial sessions in the month prior. This led to a reanalysis of the consultancy due to the change in context, shifting from performance enhancement to injury management. Additionally, the 1-1 sessions provided James a space to open up and talk through his thoughts and concerns about life in and out of the academy. James discussed that his initial reaction to the injury was difficult as he was entering the unknown with no clear diagnosis. This led to frustration for James, and a lack of trust in the physiotherapy team as it took a month to diagnose the injury. This is common for athletes experiencing an injury, who report having thoughts that question the rehabilitation process and feelings of frustration as part of their reaction to rehabilitation (Clement et al., 2015). Additionally, as rest meant the pain subsided, and due to James' own drive and determination, he was doing more than he was capable of at the time of the injury (reported by the physiotherapy staff), jeopardising his rehabilitation programme. When this was discussed with James in a 1-1 session, he said he would do more than stated in his rehabilitation programme due to "boredom" and not wanting to get left behind the other players. From my previous work with James, I was aware of his rigidity towards thoughts of wanting to be the best and having to work harder than everyone else.

As this was my first time creating an intervention for an injured athlete, I took time to understand how my philosophy and experience with various approaches would support James' needs. After discussing the presenting problem with James and gaining the views of those working closely with him (e.g., physiotherapist, coaches) to gather information for the needs analysis, I was able to start hypothesising for the intervention (Bickley et al., 2016). I hypothesised that James was fused with a control agenda that he "has to work the hardest to be the best". This led to him to elicit unworkable behaviours, such as doubling the amount of repetitions indicated on the rehabilitation plan, making his injury worse. This deviation from

his rehabilitation programme was amplified by James' lack of trust towards the physiotherapy staff and thoughts of "what if they're not right?".

My initial thoughts were to develop psychological flexibility through an ACT approach due to his unworkable behaviours and cognitive fusion. Psychological flexibility can be defined as "the ability to contact the present moment more fully as a conscious human being, and to change or persist in behaviour such that one continues to behave in a way that is consistent with their pre-established and identified values." (Hayes et al., 1996) and is one of the main aims of ACT. To assess this further, psychological flexibility was measured using the Acceptance and Action Questionnaire-2 (AAQ-II; Bond et al., 2011) and the Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014).

On the AAQ-II James scored 20 out of a possible 49. A statement James marked as frequently true on the questionnaire was "Worries get in the way of my success". The AAQ-II was not developed as a tool to identify clinical disorders, however cut off points associated with certain disorders have been identified, with scores around 24 and 28 associated with depression and anxiety (Bond et al., 2011). This is a positive outcome for James as it suggests he is not experiencing clinical symptoms and is not a case for referral, but the score is high enough for work on psychological flexibility to be beneficial.

James scored 27 out of a possible 49 on the CFQ. When testing the CFQ, research showed a decrease in CFQ scoring from 28.10 to 24.98 after an ACT intervention (Gillanders et al., 2014). As the initial score was similar to James', I believe targeting defusion techniques could benefit James' current struggles with thoughts and emotions relating to his injury. Additionally, the same research by Gillanders et al., (2014) showed a mean score of 22.28 on the CFQ for the work stress sample and a score of 34.31 for the mixed mental health sample. This again indicated that James was not experiencing any clinical issues but was experiencing

some struggles with cognitive fusion. Due to these comparisons, I felt an ACT intervention could decrease his fusion with thoughts relating to his current situation and support his adherence to the rehabilitation plan. Here, an increase in psychological flexibility would be to create an acceptance of the injury and uncomfortable thoughts and emotions to help James engage with workable, values driven behaviours to support his recovery and wellbeing. Higher levels of psychological flexibility have been found to increase adherence and engagement to rehabilitation (DeGaetano et al., 2016), an integral goal to the consultancy process. Furthermore, research shows the use of mindfulness and acceptance approaches can reduce experiential avoidance of difficult states (Gallagher & Gardner, 2007). With James was showing signs of experiential avoidance through overtraining, paradoxically hindering his rehabilitation, I felt this was another indicator that ACT would be suited for the intervention choice.

The CFQ and AAQ-II will be repeated at the end of the intervention when signs of improvement are seen by myself, the client, and the physiotherapists. Additionally, progress throughout the intervention will be monitored through adherence to values-driven behaviours and informal feedback from the client and staff.

Intervention Planning

If individuals can take a radically different view of their experience and create space from their thoughts and emotions, it prevents internal events from becoming one's identity (Fletcher et al., 2010). When one can detach from unwanted internal events, space is created for values-driven behaviours as internal events are viewed as transitory events within a continuous stream of consciousness which is separate from the self. Values-driven behaviours are developed through values identification and committed action, whereby behavioural goals are set in line with the client's values and the acceptance that, in the pursuit of one's values,

uncomfortable thoughts and feelings may arise. I decided this would be done through the use of the 3R's process (recognise, reset, and refocus; Hansen & Haberl, 2019). This method was selected due to James' struggle in our previous consultations prior to the injury with mindfulness practice. The 3R's was instead a quick process that he could easily use during his rehab sessions and in the academy accommodation whilst sharing a room with other teammates.

The therapeutic relationship was outlined to James before beginning, in that we were to work collaboratively using the metaphor of two mountains, showing how we are both climbing up our own mountains but we can look over and to the other and recognise if there are any rough patches or difficulties ahead and warn one another of these. For me, this was particularly important to create autonomy for the client and support him in engaging in sustainable behaviour change (Ntoumanis et al., 2017).

Intervention Delivery

Functional Analysis

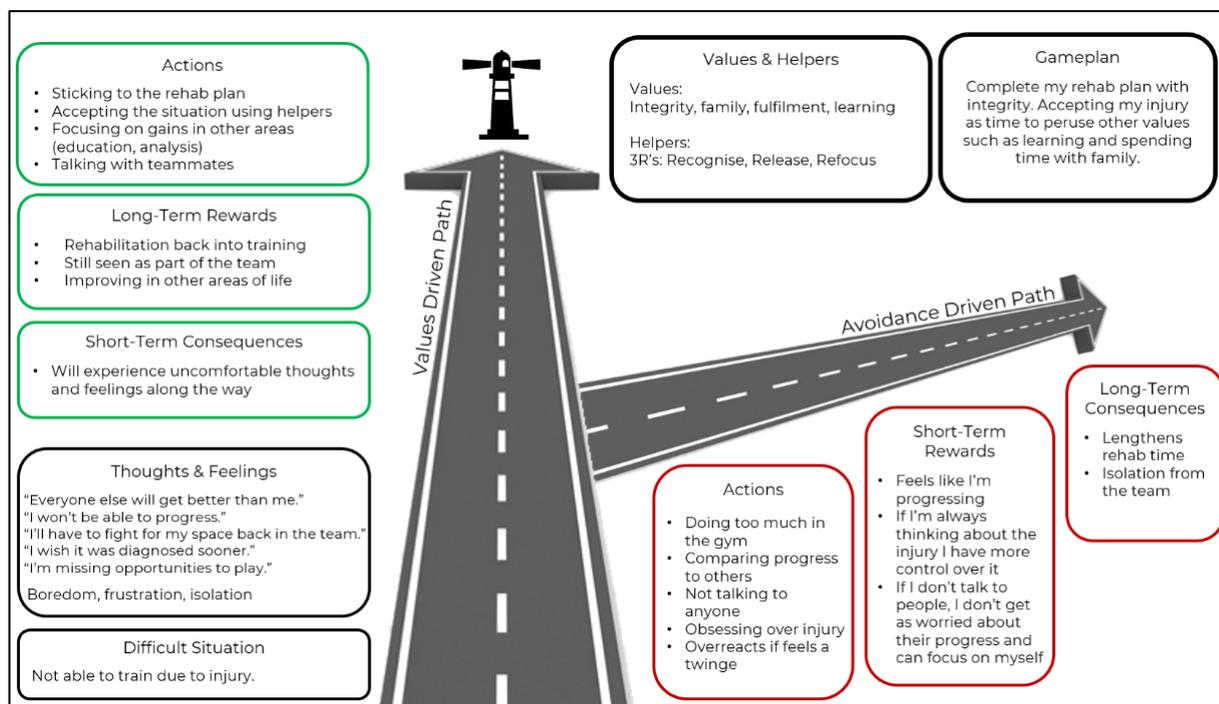
An adaptation of the ACT Matrix (Polk & Schoendorff, 2014) called The Sport Lifeline (SLL; Dahl et al., 2009) was used as a metaphor and conceptual framework to guide both James and I through the rehabilitation process and support psychological flexibility (Figure 1). We developed this collaboratively to bring awareness and understanding to behavioural responses to specific situations, which has been suggested to facilitate behaviour change (Polk & Schoendorff, 2014). Prior to James' injury, we identified his values using a values card sort. Here, he sorted his values into 3 piles; not important, somewhat important, and very important. His core values were identified as integrity, learning, family and fulfillment. These values were used within the SLL and acted as his purpose for committed action throughout the consultancy and were drawn on for the creation of his '*gameplan*'. For

James, this gameplan was to “Complete my rehab plan with integrity. Accepting my injury as time to persue other values such as learning and spending time with family.” The game plan was then alligned with specific actions for the client to commit to, including learning to use ‘*helpers*’ to defuse from difficult thoughts and feelings, adherence to the rehabilitation programme, and finding other areas to develop in (e.g. nutrition, analysis, education). This will encourage the client to change their agenda from avoidance, to one of defusion and acceptance. Additionally, understanding behavioural goals is integral for ACT as it is a behavioural therapy (Harris, 2018) and often clients can set emotional goals, focusing on the thoughts and feelings they want to avoid.

The SLL also outlines the thoughts and feelings James’ was experiecing as a result of being injured and entering the rehabilitation process, for example “I’m missing opportunities to play”, and “Everyone else will get better than me”, with feelings of boredom, frustration and isolation. Values-driven and avoidance-driven paths were then explored further with James, identifying the short-term and long-term consequences associate with both. This process allowed James to see that by engaging with values-driven behaviours, he will experience more beneficial long-term consequences such as a quicker rehabilitation process and connection with teammates.

Creative Hopelessness

ACT increases awareness of the *emotional control agenda* through *Creative hopelessness* where the individual opens up to the reality that avoiding or controlling difficult, painful, or unpleasant internal events gets in the way of living a fulfilling life (Hayes et al., 2001). Experiential avoidance is the attempt to escape or avoid, supress, or replace private events (thoughts, feelings, physical sensations), even when doing so reduces psychological harm (Hayes et al., 1996). To engage with experiential avoidance can lead to

Figure 1*The Sport Life Line*

various psychopathologies, increased stress, and arousal; this can lead to more self-focused avoidance strategies (Hayes et al., 2004).

To begin, education was provided to help James understand that through trying to control his unwanted thoughts and emotions through experiential avoidance leads to unworkable behaviours and poor long-term consequences as indicated through the SLL. James was fused with his own control agenda, that the harder he worked and the more rehab he did the quicker he would recover and thoughts of not progressing would lessen. I wanted to help him recognise that his attempts to escape difficult thoughts and feelings through experiential avoidance does not lead to better outcome. Ultimately this allowed James to see he is doing something (e.g. overtraining) and it is not working (e.g. not recovering as quickly as intended, isolated from the team). This increases the clients need for an alternative solution and helps their engagement with the consultancy process.

Recognise, Reset, Refocus

The 3R's process (Hansen & Haberl, 2019) was used with James throughout the intervention in various ways whilst linking back to the work of the SLL. Within this process, the client is introduced to key aspects of the ACT model in a quick, concise way using the 3R's: 'Register', register any thoughts, feelings, and sensations accept these and observe them as they arise; 'Release' take a deep breath and name the thought or feeling, when you exhale release the thought and feeling with it; and 'Refocus', create contact with your values and gameplan, make a decision to move towards your values and accept the short term discomfort of the situation for the long-term rewards. This process is reflective of the ACT Triflex of 'Be Present', 'Open Up', and 'Do What Matters' (Harris, 2009) and allows the client to anchor themselves in the present moment, recognise any uncomfortable thoughts or emotions, and defuse from them before committing to their values-driven path.

James decided to practice this process during his rehab in the gym and at home, recognising any uncomfortable thoughts that may arise. For example, in the gym when thoughts such as "I need to do more", or "I'm not tired yet, I can keep going" arise, instead of pushing himself further he would engage with his values-driven actions such as adhering to the rehabilitation plan or going to talk to a teammate. Outside of the gym, when James had a lot of free time, he would recognise when he felt boredom, which occurred often for him, and commit to a values-driven behaviour such as going to the nutritionist for extra support or spending more time on education to support his values of learning and fulfilment.

Reinforcing The Techniques

The 3R's process and commitment to values-driven behaviours were reinforced throughout the consultancy through various issues that arose for the client. This included

feelings of uncertainty and lack of trust regarding the rehabilitation process, trouble sleeping, and issues with teammates.

As it the process was longer than James expected to identify the underlying issue of James' injury, he was experiencing fusion with thoughts concerning the physiotherapists and the length of time he may be out of training for. To explore this, I got James to write these thoughts on separate post-it notes and lay them out on a table. Some of these thoughts included "everyone else will get better than me", "What if I don't fully recover?", "What if the rehab doesn't work?", "I was just starting to get picked for the team", and feelings such as "loneliness", "boredom", and "frustration". The 3R's process was then reinforced to apply to James' current situation, by bringing an awareness and acceptance to these thoughts and feelings.

James was experiencing issues with sleeping due to ruminating thoughts. This was often related to his family members and a concern for their health during the initial outbreak of COVID-19. Due to the holistic nature of ACT, the 3R's process transferred to James' struggles detaching from uncomfortable thoughts and feelings relating to his family members. With time, James found this process beneficial and helped him to create space from his thoughts when trying to sleep.

Another wellbeing issue arose, with James coming to me with feelings of loneliness and isolation from not being able to training alongside his teammates. We revisited this with the 3R's process and discussed action he could take that were inline with his values to help him feel more connected with his teammates, such as attending training sessions and socialising with his teammates in the academy lodging. Furthermore, James felt he was being treated differently by some of his teammates, and felt because of his goodhearted nature he was being taken advantage of by some of his teammates who were making him do extra jobs.

We carried out a 'control circle' exercise, stemming from stoic philosophy, to explore what James had control over and what were uncontrollable external events. This clarified how it is not within our control to change the behaviours of others, but we have full control of how we behave and respond to difficult situations and outlined actions he could take that did not contradict his values.

I believe these experiences show how the approach utilised can be applied to many areas of an athlete's life and support them with various wellbeing issues. Additionally, if this process is repeated with the athlete they can start to understand how to apply it independently, an important indicator of success from sport psychology practice (Sharp et al., 2014).

Recognising Progress

James began to find a place of acceptance with the diagnosis and was able to create space using the 3R's and allow him to continue with what was important to him. When he fed back to me that he was feeling a change in his thinking and this was supported by informal, corridor discussions with the physiotherapists about adherence to the rehabilitation plan, I decided to revisit the psychometric assessments completed at the beginning of the consultancy.

Monitoring of Work

Psychometrics

For the AAIQ (Bond et al., 2011), James saw a reduction from 20 out of 49 to 12 out of 49 suggesting a positive increase in psychological flexibility. Furthermore, James' CFQ reduced from 26 to 18 suggested a successful reduction in cognitive fusion. As stated previously, when testing the CFQ, research showed a decrease in CFQ scoring from 28.10 to

24.98 after an ACT intervention (Gillanders et al, 2014), providing further support for the success of the current intervention.

Values-Driven Behaviours

Values-driven behaviours were tracked informally through updates from the client, physiotherapists, and other support staff at the academy. The client indicated he was engaging with extra work from education, such as reading which I often saw him engaging with in the rehab room, and engaging with a refined nutrition plan. The physiotherapists indicated James was adhering better to his rehabilitation plan, particularly during the 4-week complete shutdown from any exercise soon after the diagnoses, which initially posed a concern for the physiotherapists and the client. Furthermore, James' coaches said he had been to see them more regularly to discuss previous clips and individual learning objectives that he could be progressing with during his rehabilitation.

Evaluation & Personal Reflections

Impact of Intervention

The goal of this intervention was to increase the client's adherence to his rehabilitation plan through reducing cognitive fusion and increasing psychological flexibility. This has been evident through psychometric assessments of cognitive fusion and psychological flexibility, as well as feedback from the client and academy staff about James' adherence to rehabilitation and other values-driven behaviours. Furthermore, the intervention has indicated transference of the 3R's applied for rehabilitation adherence to other holistic and wellbeing issues to support the client throughout his journey at the academy and in life.

Building a Professional Relationship

Research shows us that the therapeutic relationship is integral to the success of an intervention. Sharp and colleagues (2015) indicated that rapport, respect, trust, partnership, and a positive impact on the client are important factors that make up the sport psychologists consulting relationship. I believe the work that James and I had done previously at the academy supported this intervention and the therapeutic relationship as rapport and trust had already been built across a period of 6 months. Additionally, I believe the partnership we developed, whereby I provided James with autonomy to make his own decisions about the direction of the work, allowed him to be more motivated towards the tasks we set together and ultimately helped him to change his behaviour. This links with self-determination theory which states the fulfilment of the three basic needs of autonomy, competence, and relatedness will increase an individual's self-determined motivation and help to create lasting behaviour change (Deci & Ryan, 1985; 2000). For example, though it may look like a linear process, there was a few weeks of back and forth with the client as we worked together to find a technique that worked for him. This collaboration supported autonomy and relatedness, and the ability to alter and shift the task allowed James to find a technique he felt competent with. For example, we explored meditation and mindfulness initially by the request of the client, however he quickly found this was difficult to engage with whilst sharing a room with a teammate and requested a change to the intervention. Using the 3R's gave James the freedom and competence to implement the technique easily within the gym and academy lodging. Instead of prescribing a technique to the client, this collaborative partnership supported James in speaking up about his experience and progress with techniques that he was motivated to engage with.

End of work during COVID-19

After James' first 6 weeks of injury and minimal exercise, he got rescanned. Unfortunately, a full fracture was identified in his back which may never heal. Due to this,

James was instructed to do no exercise at all and to allow it to rest for another 6 weeks. James was given the option to stay home during this time, which he agreed to for one week and then see how progress went. This made it difficult for us to have contact time together, but we agreed to meet up when he was next in the academy. Then even more difficulty arose as the COVID-19 outbreak saw the academy close its doors. As a furlough scheme was implemented I was not allowed any contact with James during this period of time. Before being placed on furlough, I provided James with his own values-driven behaviours worksheet to allow him to keep on track of his behaviours as it would be easy for him to revert to overworking himself, especially since he previously struggled with feelings of “boredom” and “frustration”. Due to the previous success in reducing cognitive fusion and increasing psychological flexibility, I hope James will be able to continue this independently away from the academy. If future work is necessary when returning to training after the pandemic, a focus will be upon supporting James in his return to training, transferring the teachings of ACT onto the pitch where necessary to support this transition.

References

- Bickley, J., Rogers, A., Bell, J., & Thombs, M. (2016). Elephant spotting’: the importance of developing a shared understanding to work more effectively with talented but challenging athletes. *Sport Exer. Psychol. Rev*, 12(1), 43-53.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, 42, 676–688.
- <https://doi.org/10.1016/j.beth.2011.03.007>

- Clement, D., Arvinen-Barrow, M., & Fetty, T. (2015). Psychosocial responses during different phases of sport-injury rehabilitation: a qualitative study. *Journal of athletic training*, 50(1), 95-104. <https://doi.org/10.4085/1062-6050-49.3.52>
- Dahl, J., Plumb-Villardaga, J., Stewart, I., & Lundgren, T. (2009). *The art & science of valuing in psychotherapy: Helping clients discover, explore, and commit to valued action using acceptance and commitment therapy*. Oakland: New Harbinger.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, 19(2), 109-134.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- DeGaetano, J. J., Wolanin, A. T., Marks, D. R., & Eastin, S. M. (2016). The role of psychological flexibility in injury rehabilitation. *Journal of Clinical Sport Psychology*, 10(3), 192-205. <https://doi.org/10.1123/jcsp.2014-0023>
- Fletcher, L.B., Schoendorff, B. & Hayes, S.C. (2010). Searching for mindfulness in the brain: A process-oriented approach to examining the neural correlates of mindfulness. *Mindfulness*, 1, 41–63 <https://doi.org/10.1007/s12671-010-0006-5>
- Gallagher, B. V., & Gardner, F. L. (2007). An examination of the relationship between early maladaptive schemas, coping, and emotional response to athletic injury. *Journal of Clinical Sport Psychology*, 1(1), 47-67. <https://doi.org/10.1123/jcsp.1.1.47>
- Gillanders, D. T., Bolderston, H., Bond, F. W., Dempster, M., Flaxman, P. E., Campbell, L., Kerr, S., Tansey, L., Noel, P., Ferenbach, C., Masley, S., Roach, L., Lloyd, J., May, L., Clarke, S., Remington, B. (2014). The development and initial validation of the

cognitive fusion questionnaire. *Behavior therapy*, 45(1), 83-101.

<https://doi.org/10.1016/j.beth.2013.09.001>

Hansen, J., & Haberl, P. (2019) 'Helping Athletes be Present when Performing Under Pressure' in Henriksen, K., Hansen, J., & Larsen, C. H. *Mindfulness and acceptance in sport: How to help athletes perform and thrive under pressure*. Routledge. Pg. 47-58

Harris, R. (2009). *ACT made simple: A quick-start guide to ACT basics and beyond*.

Oakland, CA: New Harbinger.

Harris, R. (2018). *ACT questions and answers: A practitioner's guide to 150 common sticking points in acceptance and commitment therapy*. New Harbinger Publications.

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, 35, 639-665.

[https://doi.org/10.1016/S0005-7894\(04\)80013-3](https://doi.org/10.1016/S0005-7894(04)80013-3)

Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York, NY: Guilford Press

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996).

Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of consulting and clinical psychology*, 64(6),

1152. <https://doi.org/10.1037/0022-006X.64.6.1152>

Hayes, S.C, Barnes-Holmes, S. C. H. D., & Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. Springer Science & Business Media.

- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.
- Schoendorff, B., Webster, M., & Polk, K. (2014). Under the hood: Basic processes underlying the matrix. *The ACT matrix: A new approach to building psychological flexibility across settings and populations*, 15-40.
- Sharp, L. A., Hodge, K., & Danish, S. (2014). Sport psychology consulting at elite sport competitions. *Sport, Exercise, and Performance Psychology*, 3(2), 75.
<https://doi.org/10.1037/spy0000011>
- Sharp, L. A., Hodge, K., & Danish, S. (2015). Ultimately it comes down to the relationship: Experienced consultants' views of effective sport psychology consulting. *The Sport Psychologist*, 29(4), 358-370. <https://doi.org/10.1123/tsp.2014-0130>

Consultancy Contract Report

This report is to evidence negotiated contracting and key performance indicators (KPIs) for my role at Blackburn Rovers, and the evaluation of these KPIs a year prior to my employment at the academy. The report includes the following items:

Items Included	Page Number
Contract provided by the employer	208 - 209
Key Performance Indicators agreed upon with management	209 – 210
Feedback on Service Provision	210 – 213
Individual Staff Development Plan	213 - 214

Contract Provided by the Employer

The Blackburn Rovers Football & Athletic Ltd

Registered Office: Ewood Park | Blackburn | Lancashire | BB2 4JF | Registered No. 53482 England
Telephone: 01254 372001 | Fax: 01254 671042
Website: www.rovers.co.uk | VAT Registration No. 174 3569 42

3rd April 2019

PRIVATE & CONFIDENTIAL

Laura Swettenham
203 Princeton Place
Liverpool
L8 6SQ

Dear Laura

Offer of Employment

I am delighted to offer you the role of **Part Time Academy Psychologist** with Blackburn Rovers Football & Athletic Club on the terms detailed below.

This offer is subject to a DBS result and references being obtained that satisfy the company, and it is the final decision of Blackburn Rovers Football & Athletic Club to determine if such references and DBS result meet with our requirements. It also conditional upon you completing the relevant Medial Questionnaire and providing document(s) confirming your right to work in the UK as is our requirement under the Immigration Asylum and Nationality Act 2006.

The following terms which will apply to this employment are confirmed as follows.

1. You will be employed by Blackburn Rovers Football & Athletic Club on the organisation's normal terms and conditions of employment.
2. Your normal place of work will be Blackburn Rovers Academy, BB6 8BA. However, flexibility regarding location is required.
3. Your rate of pay will be £12,285 per annum payable monthly in arrears by bank transfer on or around the 25th of each month.
4. Your paid holiday will be based on a pro rata annual entitlement of 33 days which includes recognised bank and public holidays. The Company's holiday year runs from the 1st July to the 30th June.
5. The Company has an auto enrolment approved pension scheme to which you will be assessed.
6. Your contracted hours will be 22.5 hours per week to be worked in agreement with your Head of Department. This may include evening and weekend work.
7. If you have a second job which is not with Blackburn Rovers FC or are self-employed, you must obtain permission from the Club.



The Blackburn Rovers Football & Athletic Ltd

Registered Office: Ewood Park | Blackburn | Lancashire | BB2 4JF | Registered No. 53482 England
 Telephone: 01254 372001 | Fax: 01254 671042
 Website: www.rovers.co.uk | VAT Registration No. 174 3569 42

8. The date you will commence employment will be confirmed once the relevant recruitment checks have been completed.
9. This post requires you to be subjected to a DBS check. Failure to submit to this or unsatisfactory results may lead to your dismissal.
10. You will be employed initially on a six-month probationary period. During this period your employment may be terminated with one week's notice on either side. Thereafter your notice period will be 1 month.

Other terms relating to sickness, grievance and discipline will be available for you to sign on acceptance of this offer.

Please complete all enclosed forms and return to Faye Billington in the HR Department as soon as possible.

Please sign and return our Privacy Notice to confirm you have read and understood the information set out in this policy.

Congratulations on your new role and I wish you a long and successful career with us.

Yours sincerely

Mike Cheston
Finance Director
Blackburn Rovers Football & Athletic Ltd

Key Performance Indicators

The Psychology department KPIs were highlighted to me when I began my work at Blackburn Rovers Academy. These KPIs were designed to meet the requirements on the Elite Player Performance Plan (Premier League, 2012) for a Category 1 academy. These KPIs were reviewed regularly in meetings between psychology staff and sport science management. The KPIs were:

1. Clearly Outlined Psychological age specific curriculum
2. Minimum Educational Player PDP x 3, YDP x 3, FDP x 1/Parent x 3/Coach x 3

3. Routine assessment with informed programming x 1 per year YDP, PDP
4. Program Effectiveness Evaluation via KPIs/Case Studies and Player/Coach Feedback
5. Mental Health Pathway - Case By Case

Further to departmental KPIs were my individual KPIs. Initially these were flexible as my role evolved at the academy, but included to lead the psychology programme for the Youth Development Phase and Foundation Development Phase, and to maintain up to date notes and qualifications.

Feedback on Service Provision

Feedback on the service provision was provided in a number of ways: KPI feedback from the head performance psychologist; end user feedback from two coaches; and an end of year performance review from the head of sport science.

Departmental KPI Feedback

Feedback on my fulfilment of the departmental KPIs was provided at the end of the 2020 season by the head performance psychologist:

KPI	How has LS fulfilled this KPI?	How has this impacted the end user?	How could LS improve this KPI in the future?
Clearly Outlined psychological age specific curriculum	Laura has contributed to both the content and the delivery of the age-specific curriculum	Her group intervention using the RULER model has provided the younger age groups with a greater level of emotional literacy	Continuing contributions of the same level as previous ones will only further enhance the age-specific curriculum
Minimum Educational Player PDP x 3, YDP x 3, FDP x 1/Parent x 3/Coach x 3	Laura has delivered numerous educational workshops (both online and in person) for both the YDP and FDP phases in line with her role	Educational content has provided players with practical and transferable skills around a range of psychological topics in line with our programme	Due to limitations imposed by covid-19, not all intended parent education has been delivered. Laura is currently seeking to take the intended in person sessions online.
Routine assessment with informed programming x 1 per year YDP, PDP	Laura has facilitated the psychological profiling process for both YDP and PDP athletes, with a range of players subsequently debriefed.	This has created greater awareness of self for the end user and has informed the delivery of coaching interventions.	Due to current restrictions, the full amount of scheduled debriefs were not able to be completed. This is an area that the programme as a whole is looking to address, and Laura would play a key part in its delivery.
Program Effectiveness Evaluation via	Laura has been instrumental in the mid-season review process and in us adhering to	This has allowed our psychology programme to	Completion of case studies as evidence of impact are currently being undertaken. Laura could be

KPIs/Case Studies and Player/Coach Feedback	all audit criteria and KPIs. Case studies are ongoing.	assess effective intervention delivery.	more proactive in seeking coach feedback.
Mental Health Pathway - Case By Case	Laura has ensured her practice is aligned to our mental health pathway, sharing case formulations to monitor for player wellbeing issues, alongside delivering our screening process.	Players' wellbeing is monitored holistically throughout the season, with interventions put in place where appropriate in line with our pathway.	Laura has provided detailed formulations around players and monitored effectively. She has also proactively delivered wellbeing sessions. The next step would perhaps to look to facilitate more safe spaces for player discussions now restrictions are slowly being lifted.

Feedback from End Users

Feedback from end users highlights how the sport psychology provision has supported both coaches and players:

Since Laura started working with us, our psychology programme for both our players and coaches has really developed. Her work across all areas has impacted greatly on the performances of both players and staff by increasing self awareness, giving challenge but offering expert support and guidance. She quickly built excellent working relationships and this has enabled her to do this. (Coach 1)

Feedback has recognised the sport psychology support as valued, though I need to recognise this myself to grow in confidence, particularly when working with coaches:

Laura has now firmly established herself as part of the team and proved herself to be a valuable asset. I do feel she would benefit from being more confident in her abilities as a practitioner, particularly when working with coaches in group settings, understanding that other people recognise and value her expertise. (Coach 2)

End of Year Performance Review

Following my first season at Blackburn Rover Academy, I had an end of year performance review with my line manager (head of sport science). Here, we discussed how I was performing within my role, meeting expected competencies, and went through my

individual staff development plan. Key takeaways for me, to manage my time at the academy more effectively to have more impact (e.g., get better at planning workshops and one-to-one consultancies around limited player time) and increase visibility and contact time with player (e.g., spending more time in the gym). Finally, the review reinforced my development over the last year, my ability to meet the departmental KPIs, and novel contribution to the academy psychology programme.

END OF YEAR PERFORMANCE REVIEW
2019/2020 SEASON
PRIVATE & CONFIDENTIAL

Competencies	Comments on behaviours
Professionalism – implements a professional approach to their work to achieve the highest standards	Laura is always consciences and professional in all she does and a fantastic ambassador for the academy
Communication / Adopts a multi-disciplinary approach – Demonstrates the ability to work with other staff/departments and communicates effectively across the Academy	Over the last twelve months Laura has developed considerably as she has become more confident in her role. She communicates well across the academy and always works in MDT manner
Key job responsibilities – Implements the key responsibilities from their job description to ensure the Academy operates at the highest of standards	Laura implements all her KPIs. Now that Laura has grown into her role at the academy, the challenge for Laura is to be proactive and take ownership. Driving forward and implementing any highlighted initiatives to ensure the academy operates at the highest standard. Clear evidence (Think Aloud, RULER) of this has been seen pre lockdown and hopefully Laura can build on this into the future.
Working with Academy Players – Demonstrates the ability to work with all Academy players to enable them to excel to be the best they can possibly be.	Laura has an excellent ability to work across the phases.
Personal Development – Strives to continue to develop themselves and keep up to date with relevant qualifications / CPD	Laura is always looking to improve herself and those around her. Evidence by not only her post grad study but also attending numerous CPD events over the last 12 months.
PMA / Working with data – Demonstrates a high level of efficiency and competency in logging specific data / sessions / games as required by the Academy	Laura logs all required data/events as required for her role
Interaction with parents / external bodies etc. – Demonstrates the ability to interact in a confident /professional manner with parents and external bodies	Laura's ability to interact with parents and external bodies is very good always adopt a professional and confident manner
Innovative – Demonstrates an ability to bring new ideas into their work to develop their department further – whilst sharing good practice with others	The last twelve months has seen Laura become very innovative within her practice this can be seen from the RULER, Think Aloud initiatives she has introduced to the program. I hope she can build on this over the next year and look to drive the department forward again

APPRAISEE'S OVERALL COMMENTS

After working at the academy for just over a year, I have noticed a difference in my own confidence and value I place on my work. This is largely due to the fantastic support I have had from Russ and Andy who always support and encourage me to put my ideas into action, along with the other staff members at the academy being open to psychological support. I still have a lot to learn in terms of working efficiently with coaches and staff across the phases, especially with the challenges that COVID will bring for the upcoming season, but with more confidence to take ownership and stronger relationships with the coaching staff I feel this will be possible. I'm always thankful for my role at the academy and I am excited to see some of the ideas I was developing last season come into fruition along with the new psychology department strategy.

APPRAISER'S OVERALL SUMMARY OF PERFORMANCE & AGREED OBJECTIVES (at 12 months)

Laura has developed over the last twelve months in confidence and experience to become an integral member of the department, making significant contributions to the program of work. The last twelve months has seen her take ownership and drive the psychological provision across the phases. She has made a significant contribution to the department and I foresee her over the next year building on this. Laura's strengths lie in her ability to work across the phases and communicate well with all internal and external stakeholders.

Individual Staff Development Plan

To support my continued development, an individual development plan was completed by myself and the head of sport science. This outlines my overall performance, personal skills, personal development, and an action plan for the upcoming months.

Laura Swettenham (March 2020)

INDIVIDUAL STAFF DEVELOPMENT PLAN

INDIVIDUAL KPI'S	
1. Maintain up-to-date notes and qualifications	
2. Working in line with the academy psychology program lead the YDP & FDP program of work	
3. Produce Case Study – in conjunction with Prof Doc	

RATING: 1 = Poor 2 = Average 3 = Good 4 = Excellent

PERFORMANCE			
	INITIAL RATING	AGREED RATING	NOTES
Performance in relation to specific role, responsibilities and KPI's	3	3	Over last two months developing role well and integrated a number of projects which have significantly impacted the current and potentially future program across the academy
Performance across the Academy in relation to inter disciplinary approach	3	3	
Maximised opportunities to deliver successful outcomes	3	3	Significant improvement over last few months due to being more comfortable in role
Performance of key core values in relation to your daily performance	4	4	

PERSONAL SKILLS			
	INITIAL RATING	AGREED RATING	NOTES
Effective communication within own department and across the Academy	4	4	To look a further opportunities for face to face meetings with AH/RW and players FDP – Ruler (Emotional Intelligence project)
Effective planning & organisation linked to your own role	3	3	
Effective in the management of your own time to maximise results and outcomes	2	2	
Innovative and forward thinking in your approach to enhance your performance	3	3	

PERSONAL DEVELOPMENT			
	INITIAL RATING	AGREED RATING	NOTES
Maximised CPD / Training opportunities for own personal development	3	3	
Updated required qualifications in line with required regulations of external stakeholders	3	3	

PROGRESSION TO MAXIMISE POTENTIAL (ACTION PLAN)			
ACTION POINT	DESCRIPTION	REVIEW DATE	BY WHO
1.	Increasing visibility contact time face to face with PDP and U15/U16s	June 2020	LS
2.	Case Study – Identification of need and needs analysis at appropriate – JF	June 2020	LS
3.	Development of Performance Behaviour Chart	June 2020	LS
4.	x 1 CPD event	June 2020	LS

References

Premier League (2012). Elite Player Performance Plan. London: Premier League

Teaching Case Study

A Teaching Case Study in Professional League of Legends

Abstract

The team in the current case study are a professional League of Legends (LoL) team within the UK League Championship. The team is comprised of two managers, one coach, one performance analyst, and five players. Five workshops were delivered over the course of four weeks. The aim of the workshops were to: develop team synergy through psychological safety (Edmondson, 2018), bring awareness to strengths and weaknesses of players through a strengths based approach (Ludlam et al., 2016), and to support the players to perform under pressure. The workshop titles were: introduction to performance psychology, overcooked and undercooked strengths, safety and strengths, the performance brain, and playing under pressure. One-to-one work was blended into the workshop programme to ensure an individualised approach to teaching was taken to enhance their learning (Cross et al., 2006). Feedback from interviews with players, coach, and performance analyst highlight perceived benefits, negatives, and suggestions for improvements.

Keywords: esports, League of Legends, strengths, psychological safety, team cohesion

Context

League of Legends

Electronic sports, otherwise known as esports, is a professional video gaming industry which has been rapidly emerging across the world. Esports has been defined as: “A form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the esports system are mediated by human-computer interfaces.” (Hamari & Sjoblom, 2017, p. 213). Numerous performance challenges have been identified within the esports literature, including concentration, communication, motivation, emotional regulation, team cohesion, and anger management (Murphy, 2009).

One of the most popular esports in the world is League of legends (LoL), a massive online battle arena (MOBA) which saw a five-million-dollar prize pool in the 2016 World Championships (Himmelstein et al., 2021). Within the LoL MOBA there are two bases, one for each team of 5, if you are able to destroy the ‘Nexus’ in the opposing team’s base by completing objectives across the map and navigating your lanes successfully your team will be victorious (Figure 1). Each player within the team will select a unique character (called champions), out of the 150-champion pool, to play as. Each player has a separate role within the team: top lane, jungle (an area between the bases and lanes), mid lane (middle lane), bot lane (bottom lane), and support. For each role, a different skill set is required, for example some roles are tasked in dealing high damage, whereas others focus on healing ability and farming to boost their team’s abilities (Himmelstein et al., 2021). Teams must communicate effectively with each other during the match to reach their desired objectives, with matches lasting between 30 and 45 minutes on average.

Figure 1*League of Legends Map***The Team**

The team in the current case study are a professional esports team within the UK League Championship (UKLC). The team is comprised of two managers, one coach, one performance analyst, and five players. The age of the players ranged from 17 to 21. In the UKLC, the season is comprised of two splits (spring and summer). The workshops were delivered over the 4-week Summer split, where eight teams compete, meeting each team twice throughout the split. The top four teams then enter playoffs, with the bottom two teams facing relegation and the top two teams entering a best of five games head to head with all games played consecutively. The two top teams after playoffs are entered into the Telia Masters, where the top European national teams go head to head for the opportunity to qualify for the NLC summer relegation.

Unlike the top teams within Europe and across the world who work together in gaming houses alongside coaches and support staff, the UK scene is much smaller and tends to run remotely. With each player and staff member training and competing/working from home and connecting together through Discord; software where communities can communicate over voice, video, and text. This is an important consideration for the sport psychology practitioner with the need to create an engaging and interactive teaching programme to promote learning via online technologies.

The Practitioner

At the time of the workshop programme, I was in the third year of my professional doctorate. I had never worked within esports, LoL, or even provided sport psychology support remotely using online platforms. Esports is a world I always wanted to explore and see whether the skills I picked up within tradition sport could be transferred. During COVID-19, I was seeking something new to challenge myself and develop as a practitioners, as my consultancy work had drastically reduced during this time. I did not previously have much experience being the sole sport psychologist within a team and had often been following someone else's lead. Due to this, I was really excited (and nervous!) to be able to take ownership over this project. As my philosophy of practice was more refined at this point in the doctorate, I felt confident to take on this role and show myself that I am capable of developing a programme such as this.

Needs Analysis

Initial discussions with the management identified. This was inline with previous research identifying psychological challenges faced within esports (Murphy, 2009; Smith et al., 2019). Additionally, as this roster had never previously competed with each other, there was a need to create team cohesion and synergy. Further to this, the first workshop

introducing the players to sport psychology provided the players and coaches with the space to offer suggestions about topics. The team echoed the importance of team synergy and understanding their own strengths and weaknesses. Therefore, the initial aims were to develop team cohesion and awareness to support the synergy and understanding between players and to pin point strengths and weaknesses of the players. The needs analysis continues throughout the split. As my relationships grew with the players and staff, new topics were identified as important to the team which were added to the workshop programme. For example, the team reaching the playoffs lead to a focus on managing thoughts and emotions before and during high pressure matches.

Developing the Programme

Based on the needs analysis, I decided to work towards creating a psychologically safe environment (Edmondson, 2018) to enhance the synergy of the team. I hoped this would allow players and staff to call each other out and support each other in and out of a match scenario. Further, research shows enhance team performance as a result of psychological safety (Jha, 2019). To support the team's self-awareness of their strengths and weaknesses, a strengths-based approach (Ludlam et al., 2016) was taken alongside building psychological safety and introduced within the workshops. Strengths profiles will be created during one-to-one sessions to enhance the learning from the workshops and ensure that the players individual characterises and experiences and taken into full account. Additionally, these profiles are to be shared with the whole team within a workshop to further enhance psychological safety and understanding of each others strengths and weaknesses. As the team evolve through the split, two workshops will explore how the mind works under pressure and provide techniques to enhance performance. It is important to note here that the workshop topics evolved throughout the split as the needs of players fluctuated and changed with context (e.g., reaching the playoffs). The coach and performance analyst were to be present

for all of the workshops and provide feedback and input where necessary. Importantly, the coach and analyst will then be able to promote the teachings and the language used within the workshops into the performance environment to support learning.

Pedagogical Underpinning

I was acutely aware that I was not an expert in LoL. This meant it was vital for me to draw on the experiences of the players and staff members, so I took a student-centred approach (O'Neill & McMahon, 2005). This meant the content of the workshops evolved over time in line with the needs of the players, with the ability to respond flexibly as an important aspect to adult teaching (Shi, 2017). Here, I will worked assuming the players are not empty vessels but bring their own unique experiences to the sessions. This works inline with an experiential approach (Dewey, 1938) to teaching where adults are said to learn best, especially if the subject matter is of immediate use (Power & Holland, 2018) and has relevance to them as an individual (Cross et al., 2006). Due to this, I wanted to make the concepts as applied as possible and involve the coach and analyst so the teachings were experienced within the day-to-day workings of the team. Further to this, as the players are not empty vessels, their learning is very individual. By integrating one-to-one sessions to supplement the workshop content, I can ensure their learning is individualised by delving deeper into their lived experiences.

Delivering the Programme

Procedure

Over the 4-week Summer Split, five 30 to 40 minute workshops were delivered to the team with coaching staff present with one workshop per week, apart from one week where there were two workshops. Myself and the coaching staff felt it was important for them to be present to allow them to promote the teachings from the workshops into their day-to-day

coaching, allowing psychology to live within the environment. The workshop schedule was as follows: introduction to performance psychology (week 1), overcooked and undercooked strengths (week 2), safety and strengths (week 3), the performance brain (week 4), and playing under pressure (week 4). After the super strengths profiling session on week 2, one-to-one sessions were arranged with each player. I would have reflective sessions with the coach every week to gain feedback and discuss how he could embed the teachings into the performance setting.

Due to the online nature of the delivery, I wanted to make the sessions interactive where possible. Though this is something I only got to grips with a couple of workshops in as I reflected on my delivery. Interactivity was included through the use of [meni.com](#), questionnaires to discuss during the session, and sharing of strengths profiles to promote discussion.

Workshop Delivery

Introduction to Sport Psychology

As none of the players had received sport psychology support before, this workshop was to introduce myself and how I work as well as getting to know the players. Taking a student-centred approach, a large part of this workshop was gaining ideas from the players about topics they would like to be covered. Specifically, I posed the question to the players “what stops you from being your best?” to generate discussion and potential areas to target in the future workshops. From this, the players reinforced the importance of team synergy, as well as identifying their strengths and weaknesses in game.

Overcooked and Undercooked Strengths

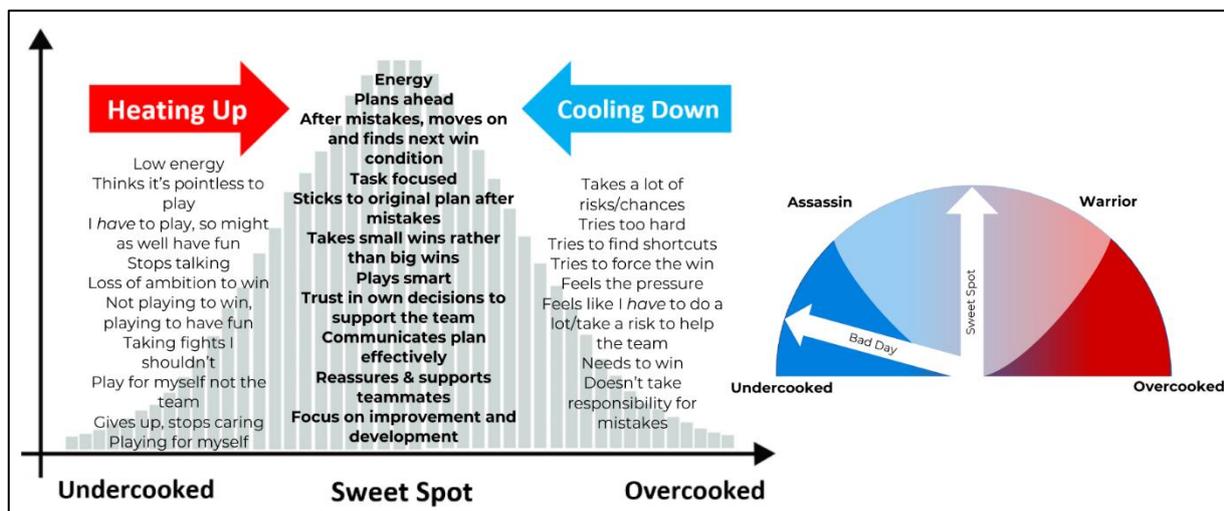
During the second workshop, I discussed strengths and weaknesses with the players. Specifically, how weaknesses are often strengths in disguise (i.e., undercooked or overcooked

strengths). I outlined the anatomy of strengths, adapted from research on character strengths (Niemiec, 2019) and Spotlight profiling (Ong, 2018): undercooked (e.g., players it safe, afraid of making mistakes; the player is not using their strengths), sweet spot (e.g., plays aggressively and smart; the player is optimally using their strengths), and overdone (e.g., playing high risk when the game needs safety; the player is using their strength within the wrong context). I then handed over to the players and asked them how this related back to them or whether they could think of examples of their opponents within these areas. The players discussed the phenomena of *tilt* a lot here, which originates from poker, and is a suboptimal state of mind where the individual loses control, impacting decision making, and leading to negative emotions such as anger or frustration (Wei et al., 2016). Some have likened *tilt* within esports to *road rage* (White & Romano, 2020). The players discussed how when they were experiencing *tilt* they were *overcooked*. Finally, I discussed how everyone will have a different *sweet spot*, in that some players will like to play with higher energy and some lower. This was presented as an “assassin” or a “warrior” mindset. I posed a number of tasks to the players at the end of the session, such as to identify when they are in their *sweet spot* or *undercooked* during training and whether they perform best in an assassin or warrior mindset.

As previously stated, to supplement the strengths focus of the intervention and to allow the learning from the workshops to be individualised for each player, one-to-one sessions were arranged with each player to create a personal strengths profile (Figure 2). To do this, I shared my screen with the player on discord and we worked through each of the components of strengths as stated above. which would be shared with the whole team (with the permission of each player) in the next workshop to support psychological safety, synergy, and self-awareness.

Figure 2

An example of a player's strengths profile



Strengths and Safety

Prior to this workshop, I sent a psychological safety questionnaire (Edmondson, 2018) to each player individually (Appendix 4). I clarified that their individual answers would not be shared with the team, but a collective team score would be calculated and shared in the next workshop. I was pleased to see that the psychological safety of the team was high, and presented these findings to the players within this workshop along with the differences between a team with high and low psychological safety. With this, I was able to reinforce that they were within a team where they could share their view freely without a fear of judgement. Following this, I sent the players the full team strength profiles, and gave them 10 minutes to explore the profiles, asking them to do this with an open mind and non-judgemental attitude.

After this 10 minutes, I opened the floor for discussions about what they had observed about the profiles. For some, it was nice to see that everyone gets *overcooked* at times and they are not alone, other mentioned how it allowed them to have a better awareness of each player's strengths and what this might mean for how they like to be communicated with.

Interestingly, during the one-to-ones developing the strengths profile, one player struggled to identify his *overcooked* behaviours as he believed this did not exist due to his positive nature. Due to his adamance, we left this in the session and decided to pick it up another time. Within this workshop, a discussion emerged where players and coaches were helping him to explore his *overcooked* preferences.

To end the workshop, I introduced a new component to strengths. This was *wriggle room* (e.g., the player will sometimes get decision wrong; here the player needs understand and support from teammates to help them get back to their sweet spot). I felt it was important to reinforce this within this workshop, as the players can work together to support each other if they recognise their teammate is getting close to overcooked or undercooked. By discussing psychological safety alongside these profiles, I hoped the team could start to develop a safe environment where they can call each other out when they are moving away from their *sweet spot* to best support each others' performance.

To ensure that these profiles were brought to life within training and matches, I had follow up meetings with the coach and analyst to help them use the language and feedback to players about where they are with their strengths. Additionally, the coach encouraged the players to use this language with one enough during communication in game to help each other stay in their sweet spots where possible and not to *tilt* one another. Further, within a match where a loss emerged due to issues in draft with one player, myself and the coach were able to open up discussions about how he was *undercooked* and I was then able to supplement this with one-to-one support.

The Performance Brain

Following a fantastic run of wins in the season, the team was getting closer to playoffs and the pressure was building. Feedback from the coach and players saw the need to explore

performing under pressure. Here, we discussed the brain as a threat detector and that, when in high pressure situations such as being behind in a match or experiencing high expectations, our threat detector (or limbic system) can be triggered meaning we enter fight or flight mode (Appendix 5). To relate this to LoL, I discussed how this can otherwise be known as *tilt*. This can lead to decreases in performance and see and increase in *overcooked* or *undercooked* behaviours. Discussions were then opened with team about how they felt about the upcoming opportunity to reach playoffs and any pressures or expectations they had upon themselves of the team, and what scenarios in game were likely to trigger their threat response. To ensure this session was not all about pressure and expectations, we finished by reflecting on their progress so far. For example, what they have learnt throughout the split about how they manage high pressure situations.

Playing Under Pressure

In the same week, another workshop was delivered to provide techniques to help the players manage pressure. The technique that was focused on was 3R's (recognise, release, refocus) based on an Acceptance and Commitment Therapy technique used in sport (Hansen & Haberl, 2019). I adapted this so it linked with the language of the strengths profiles. The slides for this can be seen in Appendix 6. Finally, menti.com was used within this workshop to explore pre and post game performance behaviours (Appendix 7 & 8). This was done to link with the 3R's, so that when refocusing pre or post game, the players knew what behaviours they could commit to. The downside to menti.com was that some of the answer lacked details. To amend this, I asked the team questions, getting them to elaborate on what they put. For example, one player said pre-game to be in a "good mood", I therefore asked "what does it look like when you're in a good mood?", "what would I see you doing?" to draw out specific behaviour they can commit to. Post workshop, I had a discussion with the

coach and performance analyse to support them to use the 3R's during training and help the team to manage negative thoughts or emotions that may arise.

Feedback and Programme Evaluation

Post-split interviews were conducted to evaluate the programmes effectiveness from the perspective of the players and the coaching staff. These interviews were conducted four to five week prior to the final workshop delivery following a semi-structured interview guide created by the practitioner (Appendix 9). This delay was due to the team winning the UKLC Summer split and gaining a position at Telia Masters!

Player Interviews

Psychological Safety

The players discussed feeling safe to speak up within the team and able to bring up issues if they arose in the game, reflecting a psychologically safe environment:

If someone had an issue with something happening I think they were more like, more willing to bring it up if there was something they didn't agree with in game or something like that, they'd be more happy to bring it up. (Player 4)

It [the workshops] helped me feel more safe, helped everyone to bond together and just like helped glue people in the team. Like we're understood how everyone wants to play and how they feel in game. (Player 3)

Team Synergy

Player 4 praised the workshops for helping the team to play together and felt the outcome of the split would have been different without the psychology programme:

I will praise the fact that it did really really help us like play together. I think this split would have been a lot different if we didn't have all those chats. Because we know how to play the game, we can learn all of that but it's like getting in the correct mindset and putting priorities into focus is the hardest part and you did help with that. (Player 3)

Another player discussed that the workshops allowed them to understand that everyone is seeing the game from a different perspective. This in turn helped them to work as a team rather than five individuals:

I think if you know how someone is thinking about the game it becomes a lot easier to work with them. Just because like if you know what someone's thinking you can like change how you view the game or meet in the middle somewhere and actually form a team rather than five people just doing their own thing. But I think it definitely changed how we played. (Player 1)

Awareness of Strengths

Players 1 felt the work on strengths helped them to understand each other's perspective on the game and be more sympathetic towards their teammates when they were *overcooked* or *undercooked* rather than getting frustrated at one another:

We would find it easier to recognise when people weren't performing at their best and it was like more, like, sympathetic and willing to just sort of help rather than getting annoyed at someone for underperforming. (Player 4)

One player discussed the benefits on an individual level, and how the awareness of how he worked as an individual allowed him to play better:

Because it [workshops on strengths] helped us to get an understanding of how we functioned as individuals and helped people be more mindful when they're playing the game it's like it gives them something to focus on like and like play better. (Player 3)

Resetting and Managing Nerves

Regarding the sessions on playing under pressure, player 2 reflected on how it helped other team members to manage their nerves to enhance their performance:

...how to reset and what to do when getting nervous I think it helped some of the team members like, I'm not sure if for example [player name] struggled a lot with being nervous in the start and then when he figured that out we just won all the games so it was really important I think. (Player 2)

Teaching and Engagement

Player 3 and Player 1 felt the workshops were relevant to them. Due to this, and by gaining input from the players during the sessions, they found the workshops engaging:

I thought it was engaging. Like, you had points and then you asked everyone like how they think this related to them. (Player 3)

Players praise the use of menti.com to get everyone to contribute to the discussions. Player 2 highlighted that this would have been useful earlier in the workshop programme, as often only two or three players would directly answer questions:

The recent one where there was that website [menti.com] and you had to type in certain things and it would appear on the screen... so when everyone could contribute and you could see everyone's opinion on the matter, I like those ones. (Player 4)

You did ask a lot of questions which is really good to help keep something interesting but maybe try to get the answer from everyone sometimes like you did with the erm when we all had to write [menti.com]. (Player 2)

Negatives and Suggestions for Improvement

One player mentioned how the programme would have been better if it was their from the beginning of the split and that the programme made little difference to team:

It makes a much bigger difference if it was there from the start. At least from the way I perceived people from when we started having the sessions and to after made almost no difference (Player 5)

Another player suggested linking the teachings from the workshop back to LoL in a more obvious way with the support of the coach:

If there's a way to link back the psychological aspects into an example that's league related...maybe work with [the coach] like 10 minutes before the session to find an example to make the link to league more obvious in a way. (Player 1)

Coaching Staff Interviews

Team Synergy

Team synergy was discussed as an improvement due to the workshops. The performance analyst reflected that before the workshops there were a lot of egos trying to complete. The workshops allowed them to get a better understanding of themselves and their teammates, helping them to come together as a team:

it really got them thinking about themselves and other in a team aspect and being able to break it down to make them realise that not everything is about them and I really liked that because I think at the very start we sort of struggled before you came in

because there were too many egos trying to talk like no one really gave anybody time to listen and then one you came in I could see like the communication shift and that's what I really liked because that's when they actually came together as a team.

(Analyst)

Improved Coaching

An improvement that perhaps was not an explicit aim of the workshop programme, was improved coaching. The coach felt the workshops allowed him to have the language to discuss aspects of the game with the players, helping him to relate to the players more.

You [the coach] don't know the phrases or you don't know they erm way of explaining it or the references so being able to have that as a coach, who doesn't necessarily have that erm background it was easy for me to, if they players were hyping up or undercooked or something like that I could reflect on those words and they would know exactly what that meant. (Coach)

Further, being aware of the strengths profiles of each individual player, the coach was able to identify issues more quickly and resolve these. One example provided by the coach was how he could keep one player in his *sweet spot* by controlling the players champion pool during draft:

I was able to keep him away from that overcooked, undercooked situation by controlling his champion pool and doing the job for him, so all he had to do was focus on his teammates really and that turned him into a monster. (Coach)

Suggestions for Improvements

Due to me contacting the organisation as pre-season was ending, the psychology support was not their from the beginning. This would be important to resolve in the future:

For an esports team it's so important for you to be there from roughly week 1, or 1 week for the head coach and players to bond and then go into the second week and bring on the support staff (Coach)

The coach suggested for me to have more fun with the work and enjoy myself. I think this is due to my quiet nature (perhaps my bad small talk!) and nerves about speaking up within a group:

Have some fun with it too, my only feedback is to have fun and enjoy yourself.

(Coach)

Practitioner Reflections

The aims of this workshop series was to increase team synergy, increase awareness of strengths and weaknesses, and to help the players manage uncomfortable thoughts and emotions when under pressure. Based on the feedback from the players and coaches, these aims were reached. With praise the strengths profiles being praised, along with benefits of the togetherness and understanding themselves. Despite this, there were of course some rather glaring negatives presented to me by one of the players on the team. He felt the session were somewhat of a "chore" and did not impact the way they played. This player also told me that if the other players said anything otherwise then they were not being honest. This was quite difficult to hear, especially since I often doubt the impact of my work. However, I felt the feedback from the other players was authentic and so I will not disregard what they have said. I suppose you cannot win them all! This one player did however praise the one-to-one sessions we had away from the workshops. So, perhaps this shows the importance of not solely delivering workshops. Using a blended approach of one-to-one work and workshops is important to support individual preferences and needs of team members.

Some other improvements that were suggested included working with team in the pre-season. Since I contacted the team when the summer split had already begun meant I missed pre-season. In the future, I will ensure that my support is there from the beginning. Further, the coach told me to enjoy myself more and have fun with it. I am often nervous when in groups of people and this appears to have continued from real life into an online setting! I hope that as I gain more confidence I will be able to speak up and be more authentic within the performance environment. Other suggestions were provided by players, for example creating more of a link to the game in the workshops. I felt I did this through getting the players to discuss their own experiences around the topics, however I recognise that this can be brought to life further by me or the coaches providing specific examples.

In the future, I plan to adjust the design of the strength profiles. I feel they are quite cluttered in the form I presented them in and would provide clarity to the players if this was refined and focused on one or two key strengths. Finally, I believe I could have taken the experiential approach to teaching a step further. Due to my lack of knowledge about the performance environment, I was nervous to provide much input during training sessions or prior to matches directly to the players. Instead, I worked more with the coach to reflect with him and input advice related to what we had been discussed within the workshops. In some ways, this was the best approach in the given situation and echoes a more systems based approach. However, I do feel I could have been more active within the training sessions to further embed psychology.

As my first step into the esports world and working remotely during the COVID-19 pandemic, this was certainly a learning curve for me and my role as a trainee sport psychologist. Although it is difficult to assess the impact that a sport psychologist has had upon the performance of the team, I do feel as though the development of team synergy and self-awareness supported the team to reach the playoffs and win the UKLC! I have never been

a sport psychologist to a winning team before, and so this has really reinforced that I can do good with my work and I am very proud to have been a small part of the team.

References

- Cross, V., Caladine, L., Morris, J., Hilton, R., Bristow, H., & Moore, A. (2006). *The practice-based educator: a reflective tool for CPD and accreditation*. John Wiley & Sons.
- Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.
- Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.
- Hamari, J., & Sjöblom, M. (2017). What is eSports and why do people watch it?. Internet research.
- Hansen, J., & Haberl, P. (2019) 'Helping Athletes be Present when Performing Under Pressure' in Henriksen, K., Hansen, J., & Larsen, C. H. *Mindfulness and acceptance in sport: How to help athletes perform and thrive under pressure*. Routledge. Pg. 47-58
- Himmelstein, D., Liu, Y., & Shapiro, J. L. (2021). An exploration of mental skills among competitive league of legend players. In *Research Anthology on Rehabilitation Practices and Therapy* (pp. 1607-1629). IGI Global.
- Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A strengths-based consultancy approach in elite sport: Exploring super-strengths. *Journal of Applied Sport Psychology*, 28(2), 216-233.
<https://doi.org/10.1080/10413200.2015.1105881>
- Murphy, S. (2009). Video games, competition and exercise: A new opportunity for sport psychologists? *The Sport Psychologist*, 23(4), 487–503

- Niemiec, R. M. (2019). Finding the golden mean: the overuse, underuse, and optimal use of character strengths. *Counselling Psychology Quarterly*, 32(3-4), 453-471.
<https://doi.org/10.1080/09515070.2019.1617674>
- O'Neill, G., & McMahon, T. (2005). Student-centred learning: What does it mean for students and lecturers. In: *Emerging issues in the practice of university learning and teaching I*. Dublin: AISHE.
- Ong, C. W. (2018). A statistical evaluation of the 'Spotlight' personality tool—A white paper.
- Power, A., & Holland, L. (2018). Are students 'empty vessels', or can previous experience enhance future practice?. *British Journal of Midwifery*, 26(2), 125-127.
<https://doi.org/10.12968/bjom.2018.26.2.125>
- Shi, H. (2017). Planning Effective Educational Programs for Adult Learners. *World Journal of Education*, 7(3), 79-83.
- Smith, M. J., Birch, P. D., & Bright, D. (2019). Identifying stressors and coping strategies of elite esports competitors. *International Journal of Gaming and Computer-Mediated Simulations (IJGCMS)*, 11(2), 22-39. DOI: 10.4018/IJGCMS.2019040102
- Wei, X., Palomaki, J., Yan, J., & Robinson, P. (2016). The science and detection of tilting. In *Proceedings of the 2016 ACM on International Conference on Multimedia Retrieval* (pp. 79-86).
- White, A., & Romano, D. (2020). Scalable Psychological Momentum Estimation in Esports. ACM.

Teaching Diary

Evolving Delivery within Football Academies

Early on in my practice, I approached workshops in a very “lecturey” style. I would have information I wanted to relay to the athletes, perhaps with some skills practice at the end. However, I did not create the opportunity for the athletes to explore why the techniques or topics were personally important for them, such as within a student-centred approach (Cross et al., 2006). I was assuming the athletes I was delivering to were empty vessels. Further, I was forgetting the athlete is the expert of their own context and themselves. I was stepping into a role that was too practitioner led for my liking. I reflected on this with my peers and supervisor, who helped to point me in the right direction. Nonetheless, I was still feeling stuck. Only with experience, getting things wrong, feeling embarrassed and undervalued did I learn to deliver workshops that I felt had value. This was due to my experiences at Blackburn Rovers, Bolton Tennis Academy, and gaining feedback from qualified sport psychologists about my workshops. These experiences allowed me to see that people are not empty vessels (Knowles, 1998). People come along with their own experiences which learning can build upon (Boud et al., 1993; Dewey, 1938). Employing a more experiential approach in my workshops allowed for a more fulfilling teaching (and hopefully learning) experience. I will provide reflections of this development below, starting with my work at Chester FC Academy and my development at Blackburn Rovers Academy.

Falling into the “Lecturing” Trap

Date: September 2018

I felt rather apprehensive about my first workshops at Chester FC Academy. Working with teenage boys who I cannot even remember the names of, teaching them about things that

I am not sure they will be interested in. After talking to members on the professional doctorate I have realised that many people have also felt this way and find classroom settings are not going to provide a successful environment for learning for these athletes. So, I need to change what I'm doing to fit in with their culture and build on their expertise. My problem here however, is that I do not feel comfortable in their environment. I do not feel comfortable working with big groups and I do not think I will be able to control a group of teenage footballers on the football pitch. So where do I go now? I asked the players and the coaches in an initial needs assessment about any presenting problems or any content they thought would be useful for the sessions in a triangulation process (Page, 2009). Unfortunately, no one knew what they wanted and so I felt a bit stuck. In hindsight, I should have taken time to observe the environment and provide options to the coaches but when I attempted to do this my attempts were ignored. I was beginning to feel isolated within the environment but did not want to give up before I had even started.

After going through a reflective cycle (Gibbs, 1998), experiencing a range of thoughts such as "I'll just do what I believe in", "who cares what I'm doing, they aren't going to listen anyway", "why am I bothering to do this", "I don't belong in this sort of work" "I'll just do six workshops and get out" etc. I have come to a point where I know I need to learn to embrace an environment that I feel uncomfortable with and do not particularly want to be in. My personality struggles in these environments and strives much more in one to one work. I have never been particularly comfortable within large groups of people and this has brought up a lot of social anxiety for me in the past. Stepping into the role of the sport psychologist, there is a requirement to be comfortable with groups of people and building relationships. I have always perceived working with groups, or speaking in front of groups of people, as out of my comfort zone. It is something I have actively avoided. For me, one-to-one conversations feel much easier to engage with as there are less variables! There are less

people to judge me or dislike me. Nevertheless, I think this will be a great opportunity for me to develop new skills and gain confidence in an area I feel lost in. I believe I can find a way to fit in to this environment, and potentially enjoy it, but I feel unsure about how to carry this out and progress. I hope that, with time, I become more comfortable within the environment. With familiarity of the players and coaches I hope some of my insecurities will be put at ease.

The aim of this series of workshops, after going around in circles during the needs analysis, was simply to introduce the scholars to sport psychology and the various mental skills that can support their performance. One of the sessions focused on managing pressure and performance demands (Appendix 10). I felt it would be a good time to introduce mindfulness as way to manage uncomfortable thoughts and feelings that may come alongside the pressures of performance. Mistake or not? I'm not sure, but at least I was acting in line with my own philosophy and not just talking about things I do not even believe in. I think this reflects a lack of congruence between my philosophy and my practice and was making me feel undervalued and unfulfilled (Lindsay et al., 2018). The meditation was difficult at first, but eventually they did it in the first group without laughing. In the second group two people had to leave because they kept laughing, but a few people took something from it. I think that is all I can ask for. I am aware it is not for everyone. But was it the right decision to do this or was it just selfish?

From these experiences, I have recognised there is not necessarily an issue in my content, but the way in which I am delivering it. For example, the players had no real input about the topics, the techniques taught did not transfer onto the pitch, and the coaches did not buy in to the sessions. Further, the content was provided in a lecturing style and I recognised I should have allowed the players to explore the topics from a personal perspective through experiential learning (Dewey, 1938). Moving forward, I will ensure to engage with a

thorough needs analysis, build relationships, and understand the environment before feeling pressured to provide a series of workshops.

Planting Seeds & Having Fun

Date: November 2019

After gaining the role at Blackburn Rovers, I was able to get some great advice from the psychologist there about creating impactful workshops. This included not trying to teach the players everything about a topic in one go, making it fun with interactive activities, and to see the workshop as planting seeds for future work with the players. One key thing I learnt was not to feel pressured to do workshops all the time. Workshops within a classroom setting can be overkill, and there is very little point in doing them if the teachings are not transferred into the environment.

One positive about working at Blackburn Rovers Academy was the clear psychology programme. Here, I am required to provide workshops to players and coaches in line with Psychological Characteristics for Developing Excellence (PCDEs; MacNamara, 2011), or as we call it CORE. This stands for Control, Others, Response, and Engage. In one 'Control' workshop (Appendix 11), I got the players to engage with a cognitive defusion task using post-it notes and wordsearches. The players had to write down their thoughts and emotions onto the post it notes, scrunch them up, and throw them at the person doing the wordsearch. The player completing the wordsearch then has to either catch, dodge, or accept the post it notes. Of course, those that simply accepted getting hit by the post it notes performed better at the wordsearch. This injected some fun into the session (though it took a while to clean up!). I feel that I am getting better at being less serious and allowing the players to have fun as they learn about psychology. I hope this encourages them to engage with psychology in the future or to seek support when they need it.

One difficulty I still have with workshops is making sure they are transferred into the performance environment. Looking at Kolb's (1984) learning model, this transfer into the performance environment may be seen during the "active experimentation" phase. In order to do this and to truly embed learning on the pitch, I must build stronger relationships with the coaches and support staff. Unfortunately, I do not feel as though I have this perfected. However, I have recognised that some of the younger coaches are interested in how they can integrate the teachings from the workshops into their sessions. So, I can see myself developing a more experiential teaching style but there is still a way to go.

Moving Forward

Date: January 2020

Despite knowing *what* needs to change does not mean you know *how* to change it, or that it will change any time soon. I believe building relationships is what I am missing to really make impact, as this will help for the teachings to filter into experience. This is something I am keen to develop in the future to support the *how*. Buy in from the coaches and the players is integral to get anything to stick and create meaningful improvement. Throughout the professional doctorate, I have been lucky enough to shadow a sport psychologist within a tennis academy and see how she integrated psychology almost seamlessly onto the court. As she was a tennis coach, she was able to deliver drills with the players whilst getting them to practice routines, identify emotions, and use self-talk. She would also have different stations on different courts. For example, one court the players would be practicing mindfulness, the next court they would be playing out a tie-break with scenarios such as "you can only serve and volley", and another where they are filling out reflective worksheets. This felt like the epitome of experiential learning and opened my mind to what sport psychology can look like when it is integrated within a system. In January 2020,

I have been able to support this sport psychologist to deliver workshops on the court in this way. I have a way to go embed this within my practice, such as at Blackburn, but I believe that by building relationships with coaches and allowing psychology to be hand in hand with the performance environment will enhance the content I deliver. In a way, the word “workshop” restricted my interpretation of what this looks like in practice. I thought workshops should be in a classroom with a presentation. In reality, the closer we can get these “workshops” to the performance environment the greater transfer of skills we will see.

Lecturing Experience

I have always been interested in gaining lecturing experiences, and is something I could see myself doing in the future as a career. I did not venture into lecturing much until my second year on the professional doctorate. In 2019, I was excited to develop these skills on the 3is course at LJMU. Since then, I have had some great opportunities to lecture thanks to my supervisor, including developing part of a module for a foundation degree at LJMU. I faced various challenges during my development in lecturing, such as delivering online, asking the right questions to engage students, and lecturing to students on a range of courses and not just sport psychology. I will discuss these experiences below and how I have drawn on Self-Determination Theory (SDT; Deci & Ryan, 2000) to enhance my lecturing delivery.

3is

Date: March 2019

Going through the 3is process allowed me to consider the vital elements of lecturing to students and the guidelines and values held by the Staff and Educational Development Association (SEDA; MacDonald & Wisdom, 2002) and UK professional standards framework for teaching (UKPSF; Smith et al., 2013). I am keen to be a lecturer one day, as so

it was important for me to complete this training. I highly valued the opportunity to observe my supervisor lecturing as well as gaining feedback on one of my own lectures.

Observing my supervisor

When observing the lecture, I witnessed how they very skilfully asked students questions when they were stuck and did not simply provide them with the correct answer, allowing them to engage in a deeper learning process themselves. Additionally, I noticed in my observation how the lecturer would look for someone new to answer the question when one student was answering all of the questions. This helped to spread the thinking to the rest of the class. I recognised how comfortable the students felt around each other to speak and share their thoughts. This indicated the students felt psychologically safe within the learning environment, which has been found to reinforce learning (Higgins et al., 2012). In my own session I noticed how this was more difficult and I thought how it could come down to relationships with the students as well as creating a supportive environment, so they need not hide their thoughts and questions. Developing a supportive environment takes time. However, once achieved, the volume of learning and motivation increases.

The behaviours I observed resonate with SDT (Deci & Ryan, 2000). A teacher can teach all they like, but if the student does not have the motivation to learn then no impact will be made. By integrating theories such as SDT to teaching will help to increase student motivation and ultimately learning and achievement (Reeve, 2002). This is something I strive to develop in the future to create a motivational learning climate.

Supervisory Feedback on Observed Session

Overall a very competent delivery, which the students enjoyed. Some areas of development to consider: Set the workshop/session/lecture outcomes/objectives from the start so that the class know what is going to be covered. This can then be reiterated

at the end so that student know how they have developed their knowledge throughout the session. Sometimes very open ended questions were asked, which meant that the class didn't respond, don't be afraid to select specific people or tables and ask them to feedback. When you open a question up to the whole group, sometimes students are shy to contribute but if you specifically ask tables or groups and move around the room 1) everyone gets to contribute and 2) you are more likely to get the class to open up to your questions.

I often miss the objectives when opening a workshop or lecture and this was picked up during my observed workshop. I think it is integral that is included so students can get an idea about the format of the session. Often, I miss this because I feel I am rushing or trying to relax into the session. By planning and preparing material beforehand, this should reduce the likelihood of these nerves taking over and make the learning outcomes and session aims clearer for students. Moreover, my habit of asking open ended questions stems from my active listening training and applied practice where I have been told to ask open ended questions so as not to assume anything. I believe this is something I will be able to adjust as I change contexts and I am excited to take these lessons into the future and gain opportunities to practice.

Developing and Delivering a Module at LJMU

Date: February 2021

When developing this module at LJMU I realised how much I have shifted to being an applied practitioner! At the start of my diary I discussing being too “lecturey” whereas when putting together the lectures for this module I recognise I am now too applied! I’m always thinking about how this relates to the person listening, how they can put the information into practice, and how I can implement a practical task or experiential activity to

engage those listening. Though I need to be careful that I provide enough research to back up the points I am making, I think what I have learnt from delivering workshops improves my lecturing and helps to keep the students engaged through a more experiential learning process (Dewey, 1938). Further, I believe my applied experience that I am bringing into lecturing relates to the research about how to make dissemination stick. Cook and Landrum (2013) discuss how to make messages stick. It is as simple as S.U.C.C.E.S.s: Simple, Unexpected, Concrete; Credible; Emotional; and Stories. This process is something I am going to practice within the lectures to engage the students and embed learning.

I have been given free reign when designing the content for the psychology section of this module entitled “Behaviours in Sport and Physical Activity” to foundation year students. The lecture titles are: The Role of Psychology in Sport, Exercise, and Behaviour Change; Psychological Barriers Towards Participation and Behaviour Change; Extrinsic and Intrinsic Behaviours; Self-Determination Theory – A Theory of Human Motivation; Self-Determination Theory – A Theory of Human Motivation; The Stages of Change Model; and Linking Psychology and Sociology. An excerpt of one of the lectures can be seen in Appendix 12.

The students were from a range of courses such as nutrition, sport science, science in football, sport psychology, coaching, and physical education and felt out of my depth. I was aware of the challenge to make the content engaging and relevant for all of the students. Another challenge was that this was to be delivered during the third national lockdown of COVID-19 as so everything was delivered via Zoom. To support my delivery, I used breakout rooms and menti.com to keep sessions interactive. Additionally, I am implementing my knowledge of SDT to support the motivation of the students. For example, providing students with multiple options for weekly tasks, and getting them to engage with their own purpose for attending the course. I was also able to implement the feedback I was given on

my 3is, such as asking more direct questions and providing clear aims and objects for the sessions.

I recognise this is simply scraping the surface of what it means to be a good teacher or lecturer, but I do feel passionate about providing students with a positive learning experience. I hope students will feel motivated to engage within the learning environment, ask questions, provide input, and feedback. Finally, I have found an appreciation for the experiences I have gained delivering workshops in sport. This has enhanced my skills whilst lecturing and helped my fear of approaching what I have previously perceived as a scary and nerve wracking scenario (i.e., lecturing!).

What is Teaching?

To end my diary, I now reflect on the question “what is teaching?”. I think back to my time at The University of York and how the lectures seemed to consist of page after page of psychological studies and their findings. However, I became frustrated that there was very little information about the application of these findings. I recall the word “applied” in front of a course being seen as lesser than a course without it! “Oh, you’re doing applied psychology and not *psychology*?”. This was also a view I held throughout my A-Levels and BSc. The grades required always seemed to be lower for applied psychology. I am still not sure why. My experiences now of applied practice has shifted my teaching style and philosophy in that I believe what I teach needs to have a link into the real world. Since 1999 when I started Reception in my hometown of Chester, I have not had any amount of time out of education. No gap year, no trying out a job before coming back for further education, just sitting behind a desk listening to teachers and lectures. This might sound fantastic (and I am amazingly thankful and lucky to have been able to do this), but I had no idea what to do with all of this information. From animal psychology to the psychology of politics and sleep I had

no idea what to do. Only when I stepped out into the real world after my MSc I realised I had not got a clue. I did not feel like I was cut out for applied practice. I wanted to run back to the comforts of my desk and ask someone to lecture at me.

So, for me it is all about preparing students, athletes, professionals, the general population about how they can “apply” the things we explore into their own life. Whether this is how to get the best out of your performance, how to live a life of purpose and meaning, or simply how SDT might help you to be a better practitioner and what it may look like in practice. An experiential teaching style can support this. Teaching is not just presenting and relaying information. It is about providing people with a spring board to explore their own interests and build on their experiences so they can thrive within the real world. Therefore, I teach during 1-1 consultancies, I teach during group interventions, I teach when lecturing. Teaching is not just one way. It is about recognising the needs of the people in front of you, what they have already from their own experiences, and tailoring your approach to support them. For the purpose of this teaching diary, teaching is more formalised and often within a classroom, but in life teaching is everywhere.

Closing Reflection

Throughout my experience teaching and disseminating practical and theoretical sport and exercise psychology content, I have recognised my fears, faced them, and developed a sense of acceptance in these feelings when presenting. I have recognised most of this fear comes from wanting to be good enough, and being concerned about what other people will think about me. At times, I have also felt at home when teaching. Though this has been within some settings more so than others. For example, when lecturing to groups of students or at conferences I feel more of a sense of relatedness and value than when providing workshops for youth athletes. I wonder whether this is due to my own perceptions of

believing students and professionals within sport and exercise psychology will be more interested in what I am discussing. Or, is it due to my lack of knowledge about particular sporting contexts and being more comfortable within academia. Whatever this is, I find immense value in both now that I have started to use SDT and an experiential style within my teaching. I now love the opportunity to be creative within an applied sport setting, but love coming back to the theory and presenting this to students and sport psychology professionals. I think, ultimately, when you grow a passion for a topic and become closer to intrinsic motivation yourself, it does not matter a whole lot who you are delivering to as we find our own personal purpose as a practitioner (and teacher).

References

- Boud, D., Cohen, R., & Walker, D. (1993). *Using experience for learning*. Buckingham, England: Open University Press.
- Cook, B. G., Cook, L., & Landrum, T. J. (2013). Moving research into practice: Can we make dissemination stick?. *Exceptional Children*, 79(2), 163-180.
- Cross, V., Caladine, L., Morris, J., Hilton, R., Bristow, H., & Moore, A. (2006). *The practice-based educator: a reflective tool for CPD and accreditation*. John Wiley & Sons.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.
- Higgins, M., Ishimaru, A., Holcombe, R., & Fowler, A. (2012). Examining organizational learning in schools: The role of psychological safety, experimentation, and leadership that reinforces learning. *Journal of Educational Change*, 13(1), 67-94.
<https://doi.org/10.1007/s10833-011-9167-9>

- Knowles M S (1998) *The Adult Learner*. Butterworth-Heinmann: London
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall.
- Lindsay, P., Breckon, J. D., Thomas, O., & Maynard, I. W. (2007). In pursuit of congruence: A personal reflection on methods and philosophy in applied practice. *The Sport Psychologist*, 21(3), 335-352. <https://doi.org/10.1123/tsp.21.3.335>Teac
- Macdonald, R. and Wisdom, J. (2002) *Academic and Educational Development: Research, Evaluation and Changing Practice in Higher Education (Staff & educational development series)* SEDA.
- MacNamara, Á. (2011). Psychological characteristics of developing excellence. *Performance psychology*, 47-64.
- Page, J. (2009). Delivering educational workshops for age-group rugby league players: Experiences of a trainee sport psychologist. *Applied Sport Psychology: A Case-Based Approach*, 139-160.
- Reeve, J. (2002). Self-determination theory applied to educational settings. *Handbook of self-determination research*, 2, 183-204.
- Smith, H., Deepwell, F., & Shrives, L. (2013). Measuring the impact of the UK professional standards framework for teaching and supporting learning (UKPSF).

Systematic Review

A Systematic Review to Explore the Relationship Between Basic Psychological Needs Satisfaction and Performance in Competitive Athletes

Abstract

The performance driven nature of sport means that coaches and support staff are often under pressure to create tangible performance outcomes. At the elite level, a balance of challenge and support is needed for athletes to thrive (Hardy & Woodman, 2012). The challenge here is therefore how mental health and performance can be achieved at the same time, and whether this is viable within a high performance environment. Basic Psychological Needs (BPN) satisfaction may be able to bridge this gap, with research supporting its impact on wellbeing (Ryan & Deci, 2000) and performance (Cerasoli et al., 2016) within other settings. The consensus is however lacking within competitive sport settings. This review therefore aims to explore the relationship between BPN satisfaction and performance within competitive athletes. A systematic review was carried out to identify studies that explore BPN satisfaction and performance within athletes over the age of 18 participating in competitive sport. PRISMA guidelines informed the search strategy. Whilst heterogeneity between studies limited the conclusions that could be drawn, results indicated a potential relationship between the satisfaction of some BPN and performance within competitive athletes. Further high quality research is needed to explore BPN satisfaction alongside performance measures.

Keywords: Self Determination Theory, Basic Psychological Needs Theory, Needs Satisfaction, athletes, performance

Note: LS = Laura Swettenham; PMW = Dr Paula Watson; SB = Dr Sarah Birtwistle

The performance driven nature of sport means that coaches and support staff are often under pressure to create tangible performance outcomes. The immense mental and physical demands put upon athletes to perform can have a detrimental impact on their engagement, performance levels, and wellbeing; whilst contributing to negative outcomes such as overtraining and burnout (Gould, 1993). It is therefore paramount the athlete's environment is tailored to support their needs of wellbeing and performance. Research within athlete safe guarding, care, and abuse indicates that athletes are often seen to have to make great sacrifices and often urged to win at all costs. One athlete from Kavaghan et al. (2017) stated: "In my sport, it's like man up and get on with it... You know just deal with it and get on with it rather than talk about it. That's sport...". This can be dangerous to the wellbeing of athletes at an elite level, who need a balance of challenge and support to thrive (Hardy & Woodman, 2012). As such, there is a need to understand how mental health and performance can be achieved at the same time, and whether this is viable within a high performance environment.

Self Determination Theory (SDT; Deci & Ryan, 1985; 2000) is a theory of human motivation and discusses motivation on a continuum of self-determination. At one end of the continuum, there is self-determined or autonomous motivation (engaging in a task freely for self-endorsed reasons), with the greatest self-determined motivation being that of intrinsic motivation (engaging in a task due to interest and enjoyment). On the opposite end of the continuum is non-self-determined or controlled forms of motivation (engaging in a task due to external influences) and amotivation (no reason, motive, or intention for action; Deci & Ryan, 2000; Ntoumanis et al., 2004; Ryan & Deci, 2017). Within sport, autonomous forms of motivation, compared to controlled forms, have been found to result in greater adaptive outcomes such as effort, persistence, performance, and mental health (Vallerand, 2007). SDT recognises the three basic psychological needs (BPN) of autonomy (i.e., a sense of choice and ownership over your own behaviour), competence (i.e., feeling capable of meeting the

demands of the behaviour successfully), and relatedness (i.e., feeling valued and connected to significant others) (Edmunds et al., 2008). SDT postulates that the fulfilment of the three BPN will increase self-determined, autonomous motivation (Hancox et al., 2018) and the thwarting of the three BPN may lead to greater controlled motivation (Van den Berghe et al., 2013). A psychological need can be seen as psychological nutrient; essential for individuals' adjustment, integrity, and growth (Ryan, 1995; Vansteenkiste et al., 2020). Positives associated with fulfilling the three BPN include self-control (Muraven, 2008), flow states (Bakker et al., 2011), self-determined motivation (Fenton et al., 2014), and achievement (Cheon et al., 2015).

SDT (Deci & Ryan, 1985) is well known for its impact on psychological health and wellbeing (Ryan & Deci, 2000), however it is often given a lukewarm welcome within performance environments (Cerasoli et al., 2016). This is due to SDT's impact often being discussed regarding wellbeing, meaning SDT is often ignored or seen as secondary to other more tangible performance criteria within organisational settings (Locke & Latham, 1990). Additionally, the use of autonomy supportive coaching, which is guided by SDT, has been reported by some coaches as being "too soft" to handle disruptive behaviour (Delrue et al., 2019). In order to promote SDT within sport, the narrative is required to shift from that of a "soft" approach to one of support and challenge to promote performance and wellbeing. BPN satisfaction predicts self-determined and intrinsic motivation (Deci & Ryan, 2000), which has been found to support behaviours such as increased engagement (Ryan & Deci, 2000), goal achievement (Smith et al., 2007), and creativity (Gerhart & Fang, 2015; Minh-Duc & Huu-Lam, 2019). All of which may be able to positively impact sporting performance. Further, as performance and wellbeing have been found to be positive interrelated (Lyubomirsky et al., 2005), the researcher believes it is theoretically possible for BPN satisfaction to support the performance of competitive athletes.

BPN satisfaction can be impacted by factors within an athlete's environment, for example their relationship with others, which can either thwart or facilitate the three BPN. The use of interpersonal communication styles offers adolescent athletes the opportunity to express their feelings, values, and priorities. This ultimately has a positive influence on their development as an athlete (Ryan & Deci, 2000; Vansteenkiste et al., 2010). Less research is conducted to explore whether this continues past developmental stages and into elite sport, and whether benefits of fulfilling the three BPN continue to accrue when coaching elite athletes compared to novices engaging in leisure activities (Cheon et al., 2015). However, research does show goals which are pursued for controlled motives are unrelated to effort and goal attainment, as well as being negatively related to athlete-wellbeing (Smith et al., 2007). This provides an example of how fulfilling BPN through autonomy support could be used with an athlete to enhance wellbeing and performance; suggesting that by creating goals collaboratively, in an autonomy supportive style, allows athletes to be more successful (Bartholomew et al., 2009).

A previous systematic review (Cerasoli et al., 2016) has explored the influence of the fulfilment of BPN on performance in an array of contexts including work, school, exercise, and sport. However, sport (particularly competitive sport) was not a large focus of the review. With the articles from a sporting context within Cerasoli et al. (2016) mostly focusing on youth athletes, or coaches. Cerasoli et al. (2016) found autonomy, competence, and relatedness predicted performance within a range of contexts. They also found the impact of needs satisfaction on performance to be moderated by incentive salience. Specifically, needs satisfaction matters less to performance when incentives are directly salient, and matters more when incentives are indirectly salient. Within sport, this suggests salient incentives and rewards (e.g., competition, imposed goals, appraisals of performance by others) can increase performance. However, research shows that salient incentives and rewards can negate

intrinsic motivation and needs satisfaction (Deci et al., 1999; Locke & Latham, 1990), we therefore may see increased performance alongside decreased wellbeing. Many of these salient incentives are part and parcel of organised sport and elite sport, which arguably lends itself to a more controlling environment (Conroy & Coatsworth, 2007) and so it is challenging to remove all of these factors in order to promote intrinsic motivation and needs satisfaction. The contextual characteristics the sporting environment holds can therefore be seen as controlling and opposing to that of autonomy and needs satisfaction. Webster et al. (2013) suggested we should view autonomy along a continuum of low to high levels of support. As such, to promote BPN satisfaction within an elite environment we first must understand the relationship of BPN satisfaction and performance within competitive sport. Keeping in mind, to promote needs satisfaction and intrinsic motivation the environment must first learn how barriers can be removed to promote autonomy, competence, and relatedness. For example, providing informational rewards can foster intrinsic motivation as opposed to controlling rewards or incentives (Ryan and Deci, 2000; Tshube et al., 2012), supporting wellbeing and performance. As such, there is a need to focus on competitive athletes to investigate BPN satisfaction as a potential avenue to support performance alongside wellbeing within competitive sport.

This review aims to explore (a) whether there is a relationship between total BPN satisfaction and athletic performance, and (b) whether there is a relationship between each individual psychological need (autonomy, competence, relatedness) and athletic performance. If a positive relationship is found, practical implications such as autonomy supportive coaching and use of needs supportive communication amongst performance staff and support systems could promote athletic success. It is important to note, this review's focus on performance is not to overshadow mental health and wellbeing. Performance is at the forefront of this review in order to investigate the use of approaches embedded within SDT

and BPN theory (which already have a large base of literature supporting their positive impact on mental wellbeing) in performance driven, elite environments to bring a balance of performance and wellbeing.

Methods

Data Sources and Search Strategies

A systematic search was conducted using the databases SPORTDiscuss, PsychINFO, PsycArticles and Web of Science. Google Scholar was used for forwards and backwards searching on the final papers meeting search criteria. Search terms and their abbreviations were entered into the search field using Boolean operations. The search terms were separated into three categories: sporting activities, self-determination theory, and performance. These categories were separated by “AND”. For sporting activities, the terms included all sporting activities recognised by the sport councils, separated by “OR”, as well as the terms: athlete, player, and sport. Terms relating to self-determination theory were separated by “OR” and included: self-determination theory, basic needs satisfaction, basic psychological needs, autonomy, relatedness, competency, interpersonal coaching, needs thwarting, needs frustration, needs support, and motivation. Terms relating to performance were separated by “OR” and included: performance, speed, strength, result, goal, flow, power, rank, score, accuracy, technical, tactical, physiological, function, distance, duration, achievement, medal, win, loss, champion, skill, self-evaluation, and engagement. After evaluating the preliminary search results, the following terms were excluded from the search, using “NOT”, due to a high volume of results irrelevant to the systematic review aim: physical education, medicine, and music.

Inclusion and Exclusion Criteria

Papers were included if they: (1) recruited competitive athletes as participants, from club to international level, who were 18 years of age or over, male or female; (2) collected measurements for all or any combination of basic needs satisfaction; (3) collected measurements for objective or subjective performance; (4) had a quantitative, correlational, experimental or longitudinal study design; and (6) were published in English.

Papers were excluded if they: (1) recruited injured athletes; (2) if the study was qualitative in design or a systematic review.

Screening and Data Extraction

Screening took place using Rayyan online web application, which was used to keep track of included, excluded and duplicate articles. The first author (LS) screened all titles and abstracts for inclusion and exclusion criteria, with the second author (SB) screening 10% at random. This allowed the research team to ascertain whether an article was eligible, not eligible, or might be eligible (Van Tulder et al, 2003). In the full-text analysis stage, the first author (LS) screened all remaining articles, with the second author (SB) screening 10% at random. Any discrepancies between researchers were discussed and decided upon between the first and second reviewer. For five articles, the first and second reviewer were unsure whether the required criteria was met, and so the third reviewer (PMW) was included in discussions to help make the final decisions. The first author (LS) then extracted the following data for the included papers: (1) authors and year of publication, (2) study design, (3) country of origin, (4) sample size and gender, (5) age, (6) sport, (7) competitive level, (7) measures used, (8) main findings relating to basic needs satisfaction and performance, and (9) guiding theory. For studies that described statistically significant outcomes, a p-value $<.05$ was considered significant.

Quality Assessment

The Effective Public Health Practice Project (EPHPP) quality assessment tool was used to assess study quality of papers included in this review. The EPHPP has shown good interrater agreement for overall quality grade (Armijo-Olivo et al., 2012) and can be used to assess quality across a variety of quantitative study designs (Thomas et al., 2004). The included studies were rated across the following components: (1) selection bias, (2) study design, (3) confounders, (4) blinding, (5) data collection methods, and (6) withdrawals and dropouts. They were given a score of 1 (“strong”), 2 (“moderate”), or 3 (“weak”) for each component. Then, the component scores were converted into a total global rating, based on the EPHPP guidelines. Studies with no “weak” component ratings were scored as “strong”, studies with one “weak” component rating were scored as “moderate”, and studies with two or more “weak” component ratings were scored as “weak”. Quality assessment was conducted by the first reviewer (LS), with the third reviewer (PMW) acting as a critical friend. There was a disagreement with component A Q2 regarding selection bias, and it was agreed upon that this question was “not applicable” to the studies included in the review. All quality assessments were then revised according to this, though the overall quality ratings of all studies remained the same.

Results

Study Characteristics

Figure 1 provides a PRISMA Flow Diagram of the screening process. As of March 20th 2020, the search yielded 7408 articles, After removing duplicates, 5786 articles remained and were reviewed based on title and abstract using Rayyan. Of those articles, 144 were retained for full-text analysis. 5 of these articles were retained, with 139 articles removed due

to not meeting inclusion criteria. The study characteristics of the retained articles are depicted in Table 1.

Figure 1

PRISMA Flow Diagram of Study Selection

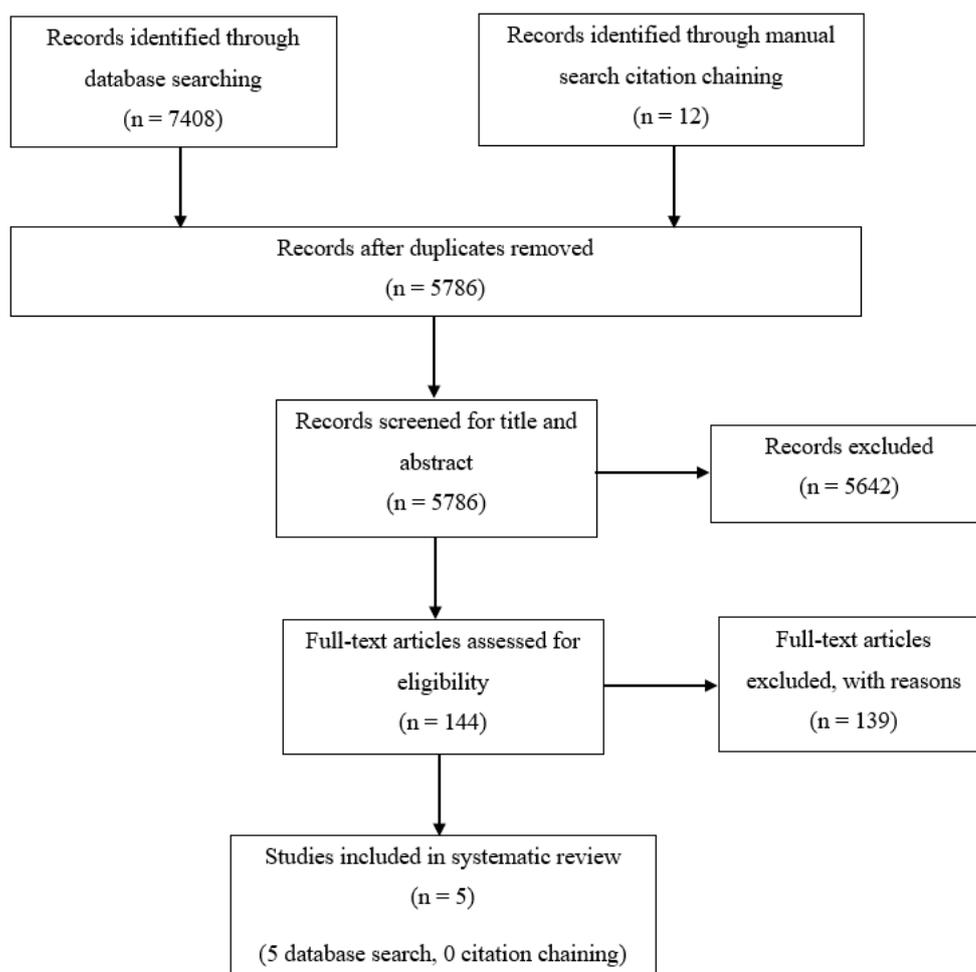


Table 1*Characteristics of Included Studies*

Author (year)	Design	Country of Origin	Sample Characteristics				Measures	Main Findings	Quality
			N (% female)	Age (years)	Sport	Competitive Level			
Karimi & Besharat (2010)	CS	Tehran, Iran	132 (35%)	M = 22.35 SD = 2.28	92 team, 42 individual		A: Sociotropy-Autonomy Scale P: Sport Achievement Scale	Autonomy was a predictor of sport achievement within individual sport athletes ($p = .000$), but not team sport athletes ($p = .903$).	Weak
Kowal & Fortier (1999)	CS	Ottawa, USA	203 (48%)	M = 36.4	Swimming 1-20 years experience ($M = 4.1$)	Masters level	A: Autonomy perceptions in life contexts scale C: Perceived Competence Scale for Children (adapted) R: Perceived Relatedness Scale (adapted) P: FSS (Flow Variables: Challenge-skill balance, action-awareness merging, clear goals, un-ambiguous feedback, concentration on task on hand, sense of control, loss of self- consciousness, transformation of time, autotelic experience)	Flow was significantly and positively associated with perceptions of relatedness ($r = .53, p < .01$), competence ($r = .46, p < .01$), and autonomy ($r = .19, p < .01$) Perceptions of autonomy was significantly and positively associated with six of nine flow variables (challenge skill balance ($p < .01$), clear goals ($p < .01$), unambiguous feedback ($p < .05$), concentration on the task at hand ($p < .01$) sense of control ($p < .01$), and autotelic experience ($p < .05$). Perceived competence and relatedness were more positively related to eight of the nine FSS subscales than perceived autonomy. The only exception was Transformation of Time, which did not adhere to this pattern.	Weak
Kowal & Fortier (2000)	Two Waved	Ottawa, USA	104 (43%)	M = 38.2	Swimming	Masters level	A: Autonomy perceptions in life contexts scale (adapted)	<i>Flow</i> Neither situational or contextual perceptions of	Weak

Author (year)	Design	Country of Origin	Sample Characteristics				Measures	Main Findings	Quality
			N (% female)	Age (years)	Sport	Competitive Level			
	Time Lagged			Range = 18 - 64					
						<p>R: PRS/Need to Belong Scale (adapted)</p> <p>C: Perceived competence Adapted</p> <p>P: Situational Perceptions of success</p> <p>P: FSS</p> <p>(Flow Variables: Challenge-skill balance, action-awareness merging, clear goals, un-ambiguous feedback, concentration on task on hand, sense of control, loss of self-consciousness, transformation of time, autotelic experience)</p>	<p>autonomy were significantly correlated with flow ($p > .05$).</p> <p>Situational and contextual perceptions of relatedness and competence were significantly correlated with flow ($p < .01$).</p> <p>Athletes in the high incidence of flow group reported significantly higher levels of perceived relatedness ($p < .001$), and competence ($p < .001$), but not autonomy ($p = .068$).</p> <p><i>Perceptions of Success</i></p> <p>Situational and contextual perceptions of autonomy were not significantly correlated with situational or contextual perceptions success ($p > .05$).</p> <p>Situational perceptions of relatedness were significantly associated with situational ($p < .01$) and contextual ($p < .05$) perceptions of success.</p> <p>Contextual perceptions of relatedness were significantly associated with contextual ($p < .01$) and situational ($p < .01$) perceptions of success.</p> <p>Situational perceptions of competence were significantly associated with situational ($p < .01$) and contextual perceptions of success ($p < .05$).</p> <p>Contextual perceptions of competence were significantly associated with contextual ($p < .01$) but not situational perceptions of success ($p > .05$).</p>		

Author (year)	Design	Country of Origin	Sample Characteristics				Measures	Main Findings	Quality
			N (% female)	Age (years)	Sport	Competitive Level			
Mikicin (2007)	CS	Warsaw, Poland	28 (43%)	Range = 18 - 22	Swimmers	N/A	<p>C: AMPET</p> <p>P: FSS</p> <p>(Flow variables: Concentrating and focusing, clear goals, action awareness merging, intrinsically rewarding, balance between ability level and challenge, control, loss of self-consciousness, feedback, and distorted sense of time)</p>	Competence of motor ability was significantly associated with 5 out of 9 flow variables (intrinsically rewarding ($p < .01$), control ($p < .05$), feedback ($p < .05$), distorted sense of time ($p < .05$), and action awareness merging ($p < .01$))	Weak
Sheldon et al. (2013)	CS	Missouri, USA	68 (32%)	Range = 19-22	Basketball	Recreational Basketball league	<p>BNS: BMPN</p> <p>P: Objective game performance (one point shots taken (foul) and % made, three point shots taken and % made, two point shots taken and % made, and total points)</p>	<p>Pre game autonomy satisfaction was significantly associated with 2 of 7 performance markers (2 points taken ($p < .05$) and percent of 2 ($p < .01$))</p> <p>Pre games competence satisfaction was significantly associated with 3 of 7 performance markers (3 points taken ($p < .01$), percent of 3 ($p < .01$), and total points ($p < .05$))</p> <p>Pre game relatedness satisfaction was significantly associated with 2 of 7 performance markers (foul ($p < .05$), percent of fouls ($p < .05$), and total points ($p < .05$))</p>	Weak

Design: CS = cross-sectional study

Measures: A = Autonomy Satisfaction; C = Competence Satisfaction; R = Relatedness Satisfaction; P = Performance Measure; SS = Flow State Scale; PRS = Perceived Relatedness Scale; BMPN = The Balanced Measure of Psychological Needs ; AMPET = Achievement Motivation in Physical Education Test

Five studies were included within the review (Table 1). Two studies belonged to the same research group (Kowal & Fortier, 1999; 2000) and measured autonomy, competence, and relatedness alongside flow within swimmers. Kowal and Fortier (2000) also took a performance measure of perceived success. One other study measured flow as a performance measure and competence within swimmers (Mikicin, 2007). Karimi and Besharat (2010) studied individual and team athletes (though sport was not specified) and measured autonomy, and sport achievement as a performance measure. Finally, Sheldon et al. (2013) measured objective performance outcomes within basketball players (e.g., shots taken), and autonomy, competence, and relatedness. All studies had weak quality according to EPHP. Articles were reviewed for measures of autonomy, competence, and relatedness individually and for total BPS satisfaction. However, the studies reviewed only reported the three needs individually, and so no overall measures are reported here. The descriptive results are split into three sections to present the results for autonomy, relatedness, and competence individually. The performance measures used are: flow, sport achievement, perceptions of success, and objective performance measures.

Relationship Between Performance and Autonomy Satisfaction

Four of the five articles included measures of athlete autonomy satisfaction compared to various performance measures (Karimi & Besharat, 2010; Kowal & Fortier, 1999; Kowal & Fortier, 2000; Sheldon et al., 2013). These performance measures include: flow, sport achievement, perceptions of success, and objective performance markers (e.g., number of goals scored).

Flow

Two studies explored the relationship between flow and autonomy in masters level swimmers. Both studies were conducted by the same research team but had conflicting

results. Kowal & Fortier (1999) found that perceptions of autonomy was significantly and positively associated with flow ($p < .01$) and with six out of nine flow variables (challenge skill balance ($p < .01$), clear goals ($p < .01$), unambiguous feedback ($p < .05$), concentration on the task at hand ($p < .01$) sense of control ($p < .01$), and autotelic experience ($p < .05$).

Conversely, Kowal & Fortier (2000) researched this relationship from situational (at a specific point in time) and contextual (within a specific life domain) perceptions of autonomy. Neither situational nor contextual perceptions of autonomy were significantly correlated with flow ($p > .05$). No significant difference was found between the high and low flow groups with respect to perceived autonomy ($p = .068$).

Sport Achievement

Karimi & Besharat (2010) measured autonomy using the sociotrophy-autonomy scale and performance using the sport achievement scale with 135 athletes. The sport of the participants were not specified, apart from 92 participating in team sport, and 42 participating in individual sport. Results showed autonomy to be a predictor of sport achievement within individual sport athletes ($p = .000$), but not team sport athletes ($p = .903$).

Perceptions of Success

Kowal & Fortier (2000) researched this relationship from situational and contextual perceptions of autonomy. Neither situational nor contextual perceptions of autonomy were correlated with perceptions of success (situational or contextual; ($p > .05$)).

Performance Markers

Sheldon et al. (2013) took objective performance measures in basketball players, aged 19-22, pre and post-game. The performance measures taken were: the number of three point shots taken, the number of two point shots taken, and the number of one point (foul) shots

taken by each player. Percentages were then calculated for all of these measures. Autonomy satisfaction pre-game was significantly associated with 2 of the performance markers (2 points taken ($p < .05$) and percent of 2 ($p < .01$)). When examining predictive effects of within-person fluctuations in pre-game autonomy satisfaction on within-person changes in performance markers, no significant results were found. Furthermore, they identified autonomy as the stronger predictor of “quality” (efficiency) of performance (percent of one and two point shots made).

Relationship Between Performance and Relatedness Satisfaction

Three of the five articles included measures of athlete relatedness satisfaction compared to various performance measures (Kowal & Fortier, 1999; Kowal & Fortier, 2000; Sheldon et al. (2013). These performance measures included: flow, perceptions and success, and objective performance markers (e.g., number of goals scored).

Flow

Two studies conducted by the same research team, as discussed previously, explored the relationship between flow and relatedness within masters level swimmers. The studies identified similar findings in relation to flow and relatedness, despite contrasting findings regarding flow and autonomy. Kowal & Fortier (1999) found perceptions of relatedness to be significantly and positively associated with flow ($p < .01$) and with eight out of nine flow variables (challenge skill balance ($p < .01$), action-awareness merging ($p < .01$), clear goals ($p < .01$), unambiguous feedback ($p < .01$), concentration on the task at hand ($p < .01$) sense of control ($p < .01$), loss of self-consciousness ($p < .01$), and autotelic experience ($p < .01$). Kowal & Fortier (2000) researched this relationship from situational and contextual perceptions of relatedness. Situational perceptions of relatedness were significantly associated with flow ($p < .01$). Contextual perceptions of relatedness were significantly associated with flow ($p < .01$).

Additionally, participants in the high incidence of flow group reported significantly higher levels of perceived relatedness ($p < .001$).

Perceptions of Success

Kowal & Fortier (2000) researched this relationship from situational and contextual perceptions of relatedness. Situational perceptions of relatedness were significantly associated with situational ($p < .01$) and contextual ($p < .05$) perceptions of success.

Contextual perceptions of relatedness were significantly associated with contextual ($p < .01$) and situational ($p < .01$) perceptions of success.

Performance Markers

In Sheldon et al.'s (2013) basketball study, they found relatedness satisfaction pre-game significantly and negatively predicted three of the performance markers (one point foul) ($p < .05$), percent of one point fouls ($p < .05$), and total points ($p < .05$). This is indicating the greater relatedness pre-game, the lower the quality of performance and frequency of shots made. When examining predictive effects of within-person fluctuations in pre-game relatedness satisfaction on within-person changes in performance markers, no significant results were found. Additionally, they found relatedness satisfaction predicted fewer one point shots taken, a lower shooting percentage for one point shots, and fewer points overall.

Relationship Between Performance and Competence Satisfaction

Three of the five articles included measures of athlete competence satisfaction compared to various performance measures (Kowal & Fortier, 1999; Kowal & Fortier 2000; Mikicin, 2007; Sheldon et al., 2013). These performance measures include: flow, perceptions of success, and objective performance markers (e.g., number of goals scored).

Flow

Kowal & Fortier (1999) found perceptions of relatedness to be significantly and positively associated with seven out of nine flow variables (challenge skill balance ($p < .01$), action-awareness merging ($p < .01$), clear goals ($p < .01$), unambiguous feedback ($p < .01$), concentration on the task at hand ($p < .01$), sense of control ($p < .01$), and autotelic experience ($p < .01$). Further, Kowal & Fortier (2000) researched this relationship from situational and contextual perceptions of competence. Situational perceptions of competence were significantly associated with flow ($p < .01$) as were contextual perceptions of competence ($p < .01$). Additionally, participants in the high incidence of flow group reported significantly higher levels of perceived competence ($p < .001$). This is also supported within Kowal & Fortier (1999), who found flow to be significantly and positively associated with perceptions of competence ($p < .01$).

Finally, Mikicin (2007) measured perceived competence of motor ability and flow within 28 swimmers. They found perceived competence of motor ability to be significantly associated with five of the nine flow variables measured within the Flow State Scale (FSS). These being: intrinsically rewarding ($p < .01$), control ($p < .05$), feedback ($p < .05$), distorted sense of time ($p < .05$), and action awareness merging ($p < .01$).

Perceptions of Success

Kowal & Fortier (2000) researched this relationship from situational and contextual perceptions of competence. Situational perceptions of competence were significantly associated with situational perceptions of success ($p < .01$) and contextual perceptions of success ($p < .05$). Contextual perceptions of competence were significantly associated with contextual perceptions of success ($p < .01$) but not situational perceptions of success ($p > .05$).

Performance Markers

In Sheldon et al.'s (2013) basketball study, competence satisfaction pre-game significantly predicted 3 of the performance markers (3 points taken ($p < .01$), percent of 3 ($p < .01$), and total points ($p < .05$)). When examining predictive effects of within-person fluctuations in pre-game competence satisfaction on within-person changes in performance markers, no significant results were found. Furthermore, competence was identified as the stronger predictor of "quantity" of performance (number of one and two point shots taken).

Discussion

This review is the first to review the relationship between BPN satisfaction and performance within athletes aged 18 and over. Overall, the literature examining this question is sparse, with a lot of heterogeneity in outcome measures of performance. In the current review, whilst heterogeneity between studies limited the conclusions that could be drawn, results indicated a potential relationship between the satisfaction of some BPN and performance within competitive athletes. Further high quality research is needed to explore the impact of BPN satisfaction on performance. None of the studies reviewed provided an aggregate score for overall BPN satisfaction. However, according to Basic Needs Theory, the three needs are distinct psychological "nutrients" (Ryan 1995; Vansteenkiste et al., 2020), and overlooking them in their individual right can lead to researchers overlooking distinct outcomes of the needs. Regardless, BPN are also interrelated. It is possible that high satisfaction of one need might "cancel out" less satisfaction of another, meaning the balance of total BPN satisfaction may be important. This is urged to be explored in future research.

Much of the research closely linked to that within this review explores related measures. For example, autonomy support (e.g., Balk et al., 2019; Englert & Bertrams, 2015; Sáenz-López et al., 2017) or motivation regulation (e.g., intrinsic and extrinsic; e.g., Barte et

al., 2019; Li et al., 2011; Chantal et al., 1996), not BPN directly which, according to the process model of SDT, mediates autonomy support and motivational regulation. Though this is beneficial to the field to promote higher quality forms of motivation, we need to explore from a more practical perspective how these forms of motivation can be developed within athletes. This can be done through exploring which BPN can positively impact performance, though without this measure being included in many of the research papers in this area we are missing vital data to further inform applied practice within sport psychology and coaching. The reason for this may be that the relationship between performance and BPN satisfaction is infrequently explored due to conflicting findings (Cerasoli et al., 2016).

One study that has been reviewed indicates relatedness and competence to have a greater impact on performance than that of autonomy (Kowal & Fortier, 2000), whereas one other indicates lower levels of relatedness pre-game, and higher levels of autonomy and competence predict performance (Sheldon et al., 2013). The impact autonomy, competence, and relatedness has upon performance within competitive athletes is therefore unclear. Despite this, the results are promising to suggest that all three of the BPN may have a positive impact on performance to some degree within competitive sport. One reason for the difference stated above could be the nature of the sport, with Sheldon et al. (2013) reporting from a team sport (basketball) and Kowal and Fortier (2000) reporting from an individual sport (swimming). Kowal and Fortier's (2000) swimmers had a greater significant relationship between relatedness and performance than Sheldon et al.'s (2013) basketball players. This may be due to relatedness meaning more within individual sports as it is more difficult to come by (e.g., less team work and communication). However, Sheldon et al.'s (2016) findings that lower levels of relatedness pre-game predicting performance is puzzling. This could link to incentive salience whereby rewards are fuelling the athlete's performance as opposed to relatedness, or that athletes take their focus off the game when relatedness is

high due to chatting and having fun with friends! Another study in the review explored team sport and individual sport athletes (Karimi & Besharat, 2010), though they only measured autonomy. They found autonomy to be a predictor of sport achievement in individual sport athletes but not team sport athletes, contradictory to findings regarding individual sport athletes from Kowal and Fortier (2000). Therefore, we can see how there is not a clear answer to the impact autonomy has within team and individual sport athletes and requires closer research.

Additionally, differences could be due to athlete age, with Kowal and Fortier (2000) recruiting athletes from a greater age range (18-64, $M=38.2$) than Sheldon et al. (2013; 19-22; mean not reported). Karimi and Besharat (2010) also contradicted findings from Kowal and Fortier (2000) and reported a lower mean age ($M=22.36$; age range not reported). This could suggest that older athletes' performance benefits more from competence and relatedness than younger groups of athletes, who's performance benefits more from autonomy and competence. Perhaps more likely, is for these discrepancies to be due to Kowal and Fortier's (1999; 2000) performance measure being flow or differences in the measures of BPN satisfaction. Flow is, of course, different from performance measures such as shots taken reported in Sheldon et al. (2013) and perceived sport achievement in Kowal and Besharat (2010). Though we can still argue for the use of flow as a performance measure within this review, with Csikszentmihalyi's conceptualising of flow (Csikszentmihalyi, 2002) used as the primary framework for understanding optimal experience and performance in sport (Swann et al., 2016). Further, several of the subscales of the FSS could be considered to measure subcomponents of performance (e.g., concentration on the task at hand, sense of control). However, we should still be cautious directly linking flow to performance and view the results in this review critically.

With this in mind, flow was found to be significantly related with relatedness and competence in all studies that reported such measures. Autonomy was found to be significantly related to flow in one study (Kowal & Fortier, 1999), however in another study by the same research group no significant difference was found between the high and low flow groups with respect to perceived autonomy (Kowal & Fortier, 2000). Furthermore, the same study found no relationship between perceived situational or contextual autonomy and flow. However, this could be due to the different measures of autonomy used. One study with swimmers measured competence of motor skill and found this significantly predicted five of nine flow variables (Mikicin, 2007), whereas competence satisfaction predicted eight of nine flow variables in another study with swimmers (Kowal & Fortier, 1999). Kowal and Fortier's (1999) research also suggests perceived competence and relatedness is more positively related to eight of the nine FFS subscales than perceived autonomy; with 'Transformation of Time' being the only subscale to deviate from this finding and to be more positively related to perceived autonomy. Moreover, they found the athletes within the high incident flow group saw higher levels of competence and relatedness compared to the low incident flow group. This body of research suggests BPN satisfaction has a positive impact on many of the flow variables, which links with much of the research indicating intrinsic rewards as an outcome of a flow state (Jackman et al., 2017). Further, these findings suggest the potential for relatedness and competence to have greater impact on flow state than autonomy.

Research similar to that within this review, but exploring the impact of BPN satisfaction within a range of youth (under 18 year olds) to older athletes, indicates BPS satisfaction to have a positive impact on flow states (Alonso et al., 2011). When breaking this down into the basic needs, autonomy is significantly related to three of the nine flow variables within the FFS, all at $p < .05$; competence was significantly related to all nine flow variables, all at $p < .01$; and relatedness was significantly related to seven of the nine flow

variables, all at $p < .01$. This suggests competence and relatedness have a greater impact on experiencing a flow state than autonomy within dancers aged 11 to 55 years old ($M=22.53$), in line with that found by Kowal and Fortier (1999) in swimmers. Placing more emphasis on developing competence and relatedness within athletes could therefore provide enhanced performance in the form of increased flow experiences. Despite this, we must remember that flow does not paint the whole picture of optimal performance, with athletes reporting that two states underlie optimal performance (Swann et al., 2016). Further, flow has been found in some research to predict optimal performance but we must be aware that experiencing a flow state (and therefore intrinsic motivation) does not ascertain optimal performance in all cases.

One study in the review exploring perceptions of sport achievement, show autonomy to be a predictor of sport achievement (Karimi & Besharat, 2010), with measures for competence and relatedness not assessed. Linking this to burnout, previous research has shown the three key dimensions associated with burnout to be: a reduced sense of athletic accomplishment, which includes unfulfilled goals and performance that are removed from the desired standards of performance; emotional and physical exhaustion; and sport devaluation, which is a reduced interest in sport participation and a reduction in the significance put upon sporting achievement (Curran et al., 2013; Raedeke & Smith, 2001). Due to the links between burnout and low self-determined motivation, it may be that, as shown by Karimi and Besharat (2010), lower levels of autonomy predict lower levels of sporting achievement. In turn, this may increase risk of burnout. Additionally, research has shown BPN satisfaction to mediate the relationship between the passion-burnout relationship (Curran et al., 2013; Vallerand et al., 2006). By promoting autonomy within athletes, there is potential to increase perceptions of sporting achievement (or the significance they place upon it) whilst reducing risk for burnout and supporting athletic performance. These potential implications for risk of burnout and athletic performance need to be researched further.

Sheldon et al.'s (2013) data suggests that stable levels of BPN satisfaction pre-game significantly predicts average performance. With those who experience greater autonomy and competence, or less relatedness, pre-game performing better. However, fluctuating levels of BPN satisfaction prior to specific games did not impact the athletes' performance in those games. Perhaps indicating that BPN satisfaction is not the only component influencing performance, as would be assumed.

We can see how this review found connections between each BPN and performance; what is lacking is clarity around which BPN may have a greater impact on performance outcomes. This may differ due to individual differences in athletes (e.g., parenting, personality style, competitive level) the type of sport being played (e.g., team or individual), or the differences between performance measures included in the review (e.g., flow versus shots taken). Similarities found are that competence and relatedness (but not always autonomy) are important for a flow state. Autonomy may be more important for team sport athletes than individual sport athletes, though autonomy was found to be important for swimmers in Kowal and Fortier (1999). Finally, when it comes to objective measures, only two of the seven performance markers were significantly associated with autonomy and relatedness and three with competence. This indicates that BPN satisfaction may have some positive outcomes on performance but we need to be careful when stating the impact of BPN satisfaction on performance based on this review. Ultimately, the similarities are slim and there is too much heterogeneity between the five studies to draw meaningful conclusions. More research is needed to establish the relationship between individual and total BPN satisfaction and performance within competitive sport.

Limitations

Due to the limited research done in this area, the number of papers that met criteria was limited and heterogeneity in the studies included made comparisons difficult. During the search phase, a large drop in numbers of studies was seen from the initial database search to the final screening phase. This could have been due to the search terms used (e.g., self-determination theory, basic psychological needs satisfaction) being generic across many fields other than sport. The terms used relating to BPN satisfaction may have been too broad, for example “interpersonal coaching” may have provided us with search results that were irrelevant to BPN. However, these terms were not omitted as we wanted to ensure we were including all papers relevant to the decided criteria where possible. The low number of studies could have been due to the databases included not being broad enough, though specific sport databases were used to support the research aims. Finally, the low numbers could simply indicate that research in this area is lacking. This review can therefore provide an overview of the current findings (and issues) within the research presented in order to support future research. For example, poor study quality across the board means the findings from this review are to be taken with a critical mind.

As Cerasoli et al. (2016) found a relationship between performance and the three BPN performance domains such as work, school, and exercise perhaps it is the quality of the studies being conducted with athletes in competitive sport settings which is leaving the field behind in what we know in terms of BPN and sporting performance. Or, as otherwise suggested by Cerasoli et al. (2016), the salient incentives could be mediating the relationship between BPN satisfaction and performance. By not acknowledging this within the review, we could be missing potential moderators that explain the different relationships found in the review.

The wellbeing vs performance debate is well known within sport psychology, and it is difficult to separate the two. This review is no different, in that we cannot assess whether fulfilment of BPN has increased performance directly or due to a wellbeing increase. Finally, the broad definition of “performance” could be a limitation of the review, but the paucity of literature focusing on objective performance measures meant a broader view was needed. This meant the addition of “performance measures” such as flow to allow for the identification of areas of potential impact. .

Research Recommendations

Further research is recommended to investigate the impact of BPN satisfaction on performance within competitive athletes, and the role of moderators (e.g., salient incentives) and mediators (e.g., wellbeing) in this relationship.

Conclusion

This review shows no clear consensus to the impact of BPN satisfaction on the performance of competitive athletes. The results show there is potential for BPN satisfaction to be beneficial for performance, though the heterogeneity within the five studies is too great to draw any meaningful conclusions. Due to this, there are many future directions that can enhance the field’s knowledge within this area. We urge researchers to explore BPN satisfaction alongside performance measures, as BPN satisfaction mediates many of the constructs used more frequently (e.g., motivation regulation) within the current research base and objective performance outcomes are vital to consider for competitive sport environments.

References

- Alonso, D. A., Marcos, F. M. L., Miguel, P. A. S., Oliva, D. S., & Calvo, T. G. (2011). Interacción de la teoría de la autodeterminación en la fluidez disposicional en practicantes de danza. *Cuadernos de Psicología del Deporte*, 11(1), 7-17.

- Armijo-Olivo, S., Stiles, C. R., Hagen, N. A., Biondo, P. D., & Cummings, G. G. (2012). Assessment of study quality for systematic reviews: a comparison of the Cochrane Collaboration Risk of Bias Tool and the Effective Public Health Practice Project Quality Assessment Tool: methodological research. *Journal of evaluation in clinical practice*, 18(1), 12-18. <https://doi.org/10.1111/j.1365-2753.2010.01516.x>
- Bakker, A. B., Oerlemans, W., Demerouti, E., Slot, B. B., & Ali, D. K. (2011). Flow and performance: A study among talented Dutch soccer players. *Psychology of Sport and Exercise*, 12(4), 442-450. <https://doi.org/10.1016/j.psychsport.2011.02.003>
- Balk, Y. A., de Jonge, J., Geurts, S. A., & Oerlemans, W. G. (2019). Antecedents and consequences of perceived autonomy support in elite sport: a diary study linking coaches' off-job recovery and athletes' performance satisfaction. *Psychology of Sport and Exercise*, 44, 26-34. <https://doi.org/10.1016/j.psychsport.2019.04.020>
- Barte, J. C., Nieuwenhuys, A., Geurts, S. A., & Kompier, M. A. (2019). Motivation counteracts fatigue-induced performance decrements in soccer passing performance. *Journal of sports sciences*, 37(10), 1189-1196. <https://doi.org/10.1080/02640414.2018.1548919>
- Bartholomew, K. J., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2009). A review of controlling motivational strategies from a self-determination theory perspective: Implications for sports coaches. *International Review of Sport and Exercise Psychology*, 2(2), 215-233. <https://doi.org/10.1080/17509840903235330>
- Cerasoli, C. P., Nicklin, J. M., & Nassrelgrawi, A. S. (2016). Performance, incentives, and needs for autonomy, competence, and relatedness: A meta-analysis. *Motivation and Emotion*, 40(6), 781-813. <https://doi.org/10.1007/s11031-016-9578-2>

- Chantal, Y., Guay, F., Dobreva-Martinova, T., & Vallerand, R. J. (1996). Motivation and elite performance: An exploratory investigation with Bulgarian athletes.
- Cheon, S. H., Reeve, J., Lee, J., & Lee, Y. (2015). Giving and receiving autonomy support in a high-stakes sport context: A field-based experiment during the 2012 London Paralympic Games. *Psychology of Sport and Exercise, 19*, 59-69.
<https://doi.org/10.1016/j.psychsport.2015.02.007>
- Conroy, D.E. and Coatsworth, J.D. (2007). Assessing Autonomy-Supportive Coaching Strategies in Youth Sport, *Psychology of Sport and Exercise, 2007, 8*, 671-684.
<https://doi.org/10.1016/j.psychsport.2006.12.001>
- Csikszentmihalyi, M. (2002). *Flow: The classic work on how to achieve happiness*. London: Rider.
- Curran, T., Appleton, P. R., Hill, A. P., & Hall, H. K. (2013). The mediating role of psychological need satisfaction in relationships between types of passion for sport and athlete burnout. *Journal of Sports Sciences, 31(6)*, 597-606.
<https://doi.org/10.1080/02640414.2012.742956>
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality, 19(2)*, 109-134.
[https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268
https://doi.org/10.1207/S15327965PLI1104_01
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). The undermining effect is a reality after all: Extrinsic rewards, task interest, and self-determination: Reply to Eisenberger, Pierce,

- and Cameron (1999) and Lepper, Henderlong, and Gingras (1999). *Psychological Bulletin*, 125, 627–700. <https://doi.org/10.1037//0033-2909.125.6.692>
- Delrue, J., Soenens, B., Morbée, S., Vansteenkiste, M., & Haerens, L. (2019). Do athletes' responses to coach autonomy support and control depend on the situation and athletes' personal motivation?. *Psychology of Sport and Exercise*, 43, 321-332. <https://doi.org/10.1016/j.psychsport.2019.04.003>
- Edmunds, J., Ntoumanis, N., & Duda, J. L. (2008). Testing a self-determination theory-based teaching style intervention in the exercise domain. *European Journal of Social Psychology*, 38(2), 375-388. <https://doi.org/10.1002/ejsp.463>
- Englert, C., & Bertrams, A. (2015). Autonomy as a protective factor against the detrimental effects of ego depletion on tennis serve accuracy under pressure. *International Journal of Sport and Exercise Psychology*, 13(2), 121-131. <https://doi.org/10.1080/1612197X.2014.932828>
- Fenton, S. A., Duda, J. L., Quested, E., & Barrett, T. (2014). Coach autonomy support predicts autonomous motivation and daily moderate-to-vigorous physical activity and sedentary time in youth sport participants. *Psychology of Sport and Exercise*, 15(5), 453-463. <https://doi.org/10.1016/j.psychsport.2014.04.005>
- Gerhart, B., & Fang, M. (2015). Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: Revisiting long-held beliefs. <https://doi.org/10.1146/annurev-orgpsych-032414-111418>
- Hancox, J. E., Quested, E., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2018). Putting self-determination theory into practice: application of adaptive motivational principles in the exercise domain. *Qualitative Research in Sport, Exercise and Health*, 10(1), 75-91. <https://doi.org/10.1080/2159676X.2017.1354059>

- Jackman, P. C., Crust, L., & Swann, C. (2017). Systematically comparing methods used to study flow in sport: A longitudinal multiple-case study. *Psychology of Sport and Exercise*, 32, 113-123. <https://doi.org/10.1016/j.psychsport.2017.06.009>
- Karimi, M., & Besharat, M. A. (2010). Comparison of hardiness, sociotropy and autonomy in team and individual sports and investigating the impact of these personality characteristics on sport achievement. *Procedia-Social and Behavioral Sciences*, 5, 855-858. <https://doi.org/10.1016/j.sbspro.2010.07.198>
- Kowal, J., & Fortier, M. S. (1999). Motivational determinants of flow: Contributions from self-determination theory. *The journal of social psychology*, 139(3), 355-368. <https://doi.org/10.1080/00224549909598391>
- Kowal, J., & Fortier, M. S. (2000). Testing relationships from the hierarchical model of intrinsic and extrinsic motivation using flow as a motivational consequence. *Research Quarterly for Exercise and Sport*, 71(2), 171-181. <https://doi.org/10.1080/02701367.2000.10608895>
- Li, C. H., Chi, L., Yeh, S. R., Guo, K. B., Ou, C. T., & Kao, C. C. (2011). Prediction of intrinsic motivation and sports performance using 2× 2 achievement goal framework. *Psychological reports*, 108(2), 625-637. <https://doi.org/10.2466/05.11.14.PR0.108.2.625-637>
- Locke, E. A., & Latham, G. P. (1990). Core findings. In E. A. Locke & G. P. Latham (Eds.), *A theory of goal setting and task performance* (pp. 27–62). Englewood Cliffs, NJ: Prentice Hall.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological bulletin*, 131(6), 803. <https://doi.org/10.1037/0033-2909.131.6.803>

- Mikicic, M. (2007). Relationships between experiencing flow state and personality traits, locus of control and achievement motivation in swimmers. *Wychowanie Fizyczne I Sport*, 51(4), 323. <https://doi.org/10.2478/v10030-007-0009-8>
- Minh-Duc, L., & Huu-Lam, N. (2019). Transformational leadership, customer citizenship behavior, employee intrinsic motivation, and employee creativity. *Journal of Asian Business and Economic Studies*. <https://doi.org/10.1108/JABES-10-2018-0070>
- Muraven, M. (2008). Autonomous self-control is less depleting. *Journal of Research in Personality*, 42(3), 763-770. <https://doi.org/10.1016/j.jrp.2007.08.002>
- Ntoumanis, N., Pensgaard, A.-M., Martin, C., & Pipe, K. (2004). An idiographic analysis of amotivation in compulsory school physical education. *Journal of Sport and Exercise Psychology*, 26, 197-214. <https://doi.org/10.1123/jsep.26.2.197>
- Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of sport and exercise psychology*, 23(4), 281-306. <https://doi.org/10.1123/jsep.23.4.281>
- Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of personality*, 63(3), 397-427. <https://doi.org/10.1111/j.1467-6494.1995.tb00501.x>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

- Sáenz-López, P., Mateos, J. L., Almagro, B. J., & Conde, C. (2017). Apoyo a la autonomía, creencias implícitas de habilidad y metas de logro en jugadoras de baloncesto en formación. *Cuadernos de Psicología del Deporte*, 17(3), 199-206.
- Sheldon, K. M., Zhaoyang, R., & Williams, M. J. (2013). Psychological need-satisfaction, and basketball performance. *Psychology of Sport and Exercise*, 14(5), 675-681.
<https://doi.org/10.1016/j.psychsport.2013.05.006>
- Smith, A., Ntoumanis, N., & Duda, J. (2007). Goal striving, goal attainment, and well-being: Adapting and testing the self-concordance model in sport. *Journal of Sport and Exercise Psychology*, 29(6), 763-782. <https://doi.org/10.1123/jsep.29.6.763>
- Swann, C., Keegan, R., Crust, L., & Piggott, D. (2016). Psychological states underlying excellent performance in professional golfers: “letting it happen” vs. “making it happen”. *Psychology of Sport and Exercise*, 23, 101e113.
<http://dx.doi.org/10.1016/j.psychsport.2015.10.008>
- Thomas, B. H., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A process for systematically reviewing the literature: providing the research evidence for public health nursing interventions. *Worldviews on Evidence-Based Nursing*, 1(3), 176-184.
<https://doi.org/10.1111/j.1524-475X.2004.04006.x>
- Tshube, T., Akpata, D., & Irwin, B. (2012). The use of nonmonetary incentives as a motivational tool in sports. *Psychology Research*, 2(11), 662.
<https://doi.org/10.17265/2159-5542/2012.11.004>
- Vallerand, R. J. (2007). Intrinsic and extrinsic motivation in sport and physical activity: A review and a look at the future. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 59-83). New York: John Wiley

- Vallerand, R. J., Rousseau, F. L., Grouzet, F. M. E., Dumais, A., Grenier, S., & Blanchard, C. M. (2006). Passion in sport: A look at determinants and affective experiences. *Journal of Sport & Exercise Psychology*, 28, 455-478.
- Van den Berghe, L., Soenens, B., Vansteenkiste, M., Aelterman, N., Cardon, G., Tallir, I. B., & Haerens, L. (2013). Observed need-supportive and need-thwarting teaching behavior in physical education: Do teachers' motivational orientations matter? *Psychology of Sport and Exercise*, 14(5), 650-661. <https://doi.org/10.1016/j.psychsport.2013.04.006>
- Van Tulder, M., Furlan, A., Bombardier, C., Bouter, L., & Editorial Board of the Cochrane Collaboration Back Review Group. (2003). Updated method guidelines for systematic reviews in the cochrane collaboration back review group. *Spine*, 28(12), 1290-1299. <https://doi.org/10.1097/01.BRS.0000065484.95996.AF>
- Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In *The decade ahead: Theoretical perspectives on motivation and achievement*. Emerald Group Publishing Limited. [https://doi.org/10.1108/S0749-7423\(2010\)000016A007](https://doi.org/10.1108/S0749-7423(2010)000016A007)
- Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory: Advancements, critical themes, and future directions. <https://doi.org/10.1007/s11031-019-09818-1>
- Webster, C. A., Wellborn, B., Hunt, K., LaFleche, M., Cribbs, J., & Lineberger, B. (2013). MPOWER: An observation system for assessing coach autonomy support in high school varsity boys' soccer practices. *International Journal of Sports Science & Coaching*, 8(4), 741-754. <https://doi.org/10.1260/1747-9541.8.4.741>

Empirical Paper One

The Implementation of Needs Supportive Communication Training with Exercise Referral Practitioners

Abstract

Buckley et al. (2020) explored the effectiveness of a co-produced physical activity (PA) referral scheme and found significant improvements in cardiorespiratory fitness and vascular health compared to usual care and no-treatment groups. Though no significant changes were found in PA or wellbeing, there was improved engagement from patients. The co-produced scheme was based on self-determination theory, for which exercise referral practitioners were trained in “needs supportive behaviours” prior to intervention delivery. The extent to which these behaviours were applied in practice has not however been investigated. This research is the fidelity study of the larger body of research exploring the effects of this co-produced PA referral scheme. The current study aims to investigate (1) to what extent ER practitioners trained in needs supportive behaviours applied them in practice, and (2) practitioner perspectives on delivering using needs supportive behaviours. Two female ER practitioners were purposefully sampled from the PA referral scheme centre, and six patients were randomly selected to have their consultations recorded from the 42 patients on the wider study. For research aim (1), practitioner-patient consultations were audio-recorded and coded for the practitioners’ use of needs-supportive and thwarting behaviours using a novel coding manual developed by the researchers. Data showed ER practitioners elicited behaviours consistent with the training they had received (i.e. needs supportive behaviours with a moderate-to-strong potency and needs thwarting behaviours with a weak potency). For research aim (2), semi-structured interviews were conducted with ER

practitioners. Themes identified included ‘awareness’ and ‘application’ of needs supportive behaviours. Key facilitators (from the scheme and from the environment), benefits (for patients and for practitioners), and challenges (internal and external) when implementing needs supportive behaviours were also noted. This study has shown the use of needs supportive communication as a feasible and acceptable mode of delivery within a PA referral scheme and has contributed a first-hand account of the experiences of ER practitioners. It is recommended that needs supportive training is implemented within ER training courses to teach practitioners the skills to cultivate patient behaviour change, whilst considering the facilitators, benefits, and challenges identified in the current study.

Keywords: Needs Supportive Communication, Self-Determination Theory, exercise referral scheme

Note: LS = Laura Swettenham; PMW = Dr Paula Watson; LT = Dr Laura Thomas

Physical activity (PA) makes an important contribution to lowering mortality rates, mitigating effects of obesity, and preventing chronic disease (Young et al., 2014). Patients are experiencing more PA prescription by their doctors, so with PA taking on the role of a medicine, it is integral that delivery occurs in the most effective way to positively impact health and behaviour change. Exercise referral (ER) schemes within the UK are interventions involving healthcare professionals referring patients who are inactive (not meeting guidelines of 150 minutes moderate-intensity PA per week) with controlled health conditions and/or lifestyle related risk factors to a 12 to 16 week gym based exercise programme. Pavey et al., (2011) estimated there were over 600 ER schemes across the UK, however significant PA behaviour change is not a consistently observed outcome. One reason behind this inconsistency could be due to the manner of ER scheme delivery. Research has highlighted a lack of congruence between what providers should deliver to produce optimum results, and what is feasible to deliver with the resources available (Buckley et al., 2018).

Within the UK, only 23% of women and 31% of men aged 16 and over met both the aerobic and muscle-strengthening guidelines (Scholes, 2016) suggesting there is a need for change in individual PA behaviour. It is common that ER schemes are focussed on prescribing a programme of exercise for 12-16 weeks without an explicit focus on PA. Long-term PA is unlikely to be changed with a short-term exercise prescription (e.g., Berry et al., 2003). PA can be far more than exercise (e.g., PA can include habitual daily activities; Caspersen et al., 1985) and support long-term PA adherence. There is a suggestion that the aim of ER schemes moves away from exercise prescription and more towards changing individual PA behaviour (Buckley et al., 2018). For example, the National Quality Assurance Framework (NQAF) suggestion is that “ER schemes are individualised to provide an educational experience that motivates patients for long-term change” (Craig et al., 2001 p. vii). Although some ER training providers include behaviour change theories within their

courses (e.g. Wright Foundation, Future Fit, YMCA), this is minimal and lacks an in-depth emphasis on how to apply these theories to foster motivation and behaviour change in practice. The current training model for ER lacks a focus within psychology to support health related behaviour change. Therefore, to allow this shift towards increased PA behaviours and creating an individualised experience to motivate patients, ER practitioners require education and training in strategies that support long-term behaviour change.

A widely used psychological theory within health behaviour change that informs the implementation of behaviour change strategies is Self-Determination Theory (SDT) (Deci & Ryan, 1985; 2000). SDT is unique in that it recognises the importance in quality of motivation, not the quantity alone (Teixeira et al., 2020) and therefore the type of motivation an individual has is integral to behaviour change and moves along a continuum of self-determination. The types of motivation along this continuum include self-determined or autonomous motivation, non-self-determined or controlled forms of motivation, and amotivation (Deci & Ryan, 2000; Ryan & Deci, 2017). When an individual is autonomously motivated to engage in a task, it means they are doing so freely for self-endorsed reasons such as the behaviour being in line with their values or personal goals (Ryan & Deci, 2006). Whereas those experiencing controlled forms of motivation will be engaging in the task due to external influences, such as approval motive, avoidance of shame, contingent self-esteem, and ego involvement (Deci & Ryan, 2008). Finally, amotivation is when an individual has no reason, motive, or intention for action (Ntoumanis et al., 2004).

In implementing SDT informed behaviour change, an interpersonal style that supports basic human psychological needs has been shown to increase self-determined, autonomous forms of motivation (Hancox et al., 2018). The basic psychological needs consist of autonomy (i.e. a sense of choice and ownership over your own behaviour), competence (i.e., feeling capable of meeting the demands of the behaviour successfully) and relatedness (i.e.,

feeling valued and connected to significant others) (Edmunds et al., 2008). Basic Needs Theory states that the satisfaction of the three basic psychological needs promotes greater autonomous motivation, which corresponds with an array of positive outcomes such as optimal functioning, personal growth, and well-being (Deci & Ryan, 2000).

Behaviour change strategies are readily used within health-related interventions and can be applied successfully to aid a range of health-related issues such as weight loss (Silva et al., 2010), exercise adherence (Edmunds et al., 2008), and addiction (Webb et al., 2010). One approach to behaviour change, which draws on SDT, is needs supportive communication (NSC). NSC aims to support the three basic psychological needs of autonomy, competence, and relatedness by implementing multiple interacting motivational behaviour change techniques (MBCTs). For example, providing a meaningful rationale, providing choice, and acknowledging and respecting perspectives and feelings (Teixeira et al., 2020). This way of communicating is “empathic, flexible, and patient, rather than taking charge, pressuring and urgent” (Ntoumanis et al., 2017 pg.5) and takes an interpersonal style. Evidence suggests that the interpersonal communication styles used by practitioners has a positive effect on the success rates of ER schemes (Beck et al., 2016). The needs supportive practitioner will allow the individual choice, create a meaningful rationale, give specific praise, and show an interest in the patient’s wellbeing.

There are circumstances in which the basic psychological needs can be thwarted by the practitioner’s communication style, known as needs thwarting or controlling, which deprives individuals of the opportunity of choice. Pressurising language shuts down individuals and they are not listened to properly (Ntoumanis et al., 2017). In previous research, exercise practitioners have expressed that their use of pressuring language, using commands or language that makes the exerciser feel guilt and shame, was a consequence of their training (Hancox et al., 2018). Training ER practitioners in NSC will positively impact

long-term PA behaviour change as effective communication is integral when supporting successful engagement in PA (Kahn et al., 2002). For example, participants could experience higher motivation to attend their future consultations, with each consultation proving an opportunity to promote PA and behaviour change (Boyce et al., 2008).

Many SDT intervention studies have been effective in promoting autonomous forms of motivation towards PA behaviours (Silva et al., 2010; Fortier, et al., 2012; Duda et al., 2014). Patients who feel autonomy towards PA have been found to maintain PA for longer than those who experience controlled forms of motivation (Teixeira et al., 2012), such as participating in ER schemes for a cheaper gym membership. Moreover, those that encounter thwarting of their basic psychological needs can experience lower self-determined forms of motivation when engaging in PA (Gunnell et al., 2013) and sport (Bartholomew et al., 2011). The NQAF (Craig et al., 2001 pg.vii) states that ER “involves more than advice giving, recommending exercise, or offering patients vouchers to attend exercise facilities. Exercise referral involves a systematic individualised process”. This would allow for autonomous forms of motivation to be cultivated within the patient and support their psychological needs. Therefore, ER practitioners would benefit from knowledge of how to support individualised behaviour change to go beyond the standard protocol and meet NQAF recommendations.

From a patient perspective, interpersonal, intrapersonal, and organisational factors are important for ER scheme adherence. These may include health factors, competing priorities, communication about services, and support from family and health professionals (Birtwistle et al., 2019). Scheme practices such as individualisation, timing and content, and scheme setting and accessibility (Morgan et al., 2016) are also important factors impacting ER scheme adherence for patients. Key findings from a systematic review assessing psychosocial factors associated with adherence to ER schemes (Eynon et al., 2019) reports intrinsic motivation and psychological needs satisfaction to be prominent psychosocial factors

associated with ER scheme adherence, along with social support and self-efficacy. These findings further support the implementation of needs supportive delivery by ER practitioners and touch on the importance of individualisation, also recommended within the NQAF (Craig et al., 2001). Additionally, the importance of wider scheme practices is apparent, such as communication, timing and content of sessions and accessibility, which could support the practitioner's needs supportive delivery and ultimately patient's adherence to the scheme.

Implementing NSC within an environment does not come without practical implications. Strategies for supporting behaviour change are difficult to separate from one another, as behaviour change interventions often contain multiple active behaviour change strategies and it can be challenging to confirm what is contributing to the effectiveness of the behaviour change (Michie et al., 2018). Another difficulty in implementing NSC is that some practitioners may hold beliefs that a controlling style is effective (Ntoumanis et al., 2017) and that, when exercising, people want to be told what to do. However, over a training period, practitioners change their beliefs about NSC once they see it is easy to implement (Reeve & Cheon, 2016) and so this could be possible within an exercise setting.

This study was part of a larger programme of research exploring the effects of a co-produced PA referral scheme, which was piloted in a fitness centre in the North West of England. ER practitioners at the centre received training in SDT-based communication strategies at the intervention phase, before delivering the 18-week ER support for patients. Results from Buckley et al. (2020) showed significant improvements in cardiorespiratory fitness and vascular health in patients receiving the SDT-informed intervention compared to usual care and no-treatment groups. Though no significant change was found in PA or wellbeing, there was improved attendance of consultations after the implementation of the SDT-informed intervention, however the extent to which these behaviours were applied in practice has not been investigated.

To better understand the role of needs supportive behaviours within the ER consultations, the current study forms the fidelity research for the aforementioned body of research exploring a new co-produced PA scheme, with intervention fidelity being crucial to understand whether the intervention was delivered and received as planned (Lambert et al., 2017). Considerable variation in effectiveness is seen with behavioural interventions at the individual level (Orrow et al., 2012), therefore fidelity checking these interventions is crucial to provide a more accurate judgement regarding their effectiveness (Borrelli, 2011) and to increase accuracy of replication in future studies or real-world application (Mars et al, 2013).

In order to learn more about how needs-supportive communication techniques were applied by the trained ER practitioners and to fidelity check the intervention, this research aims to investigate (1) to what extent ER practitioners trained in needs supportive behaviours applied them in practice, and (2) practitioner perspectives on delivering using needs supportive behaviours.

Methods

Study Design

The research took place in a leisure centre in the north-west of England, which was undergoing a new, 18-week PA referral scheme (Figure 1) (Buckley et al, 2018). The intervention consisted of needs supportive consultations at induction, week 4, week 8, week 12 and week 18. The focus of the consultations was on helping participants make sustainable changes to their PA behaviours. Alongside this, participants were provided with subsidised access to the leisure centre for the first 12 weeks (after which they had options to extend their membership if they wished). The PA referral scheme was delivered by ER practitioners trained in NSC. The average length of consultations varied across the PA referral scheme for

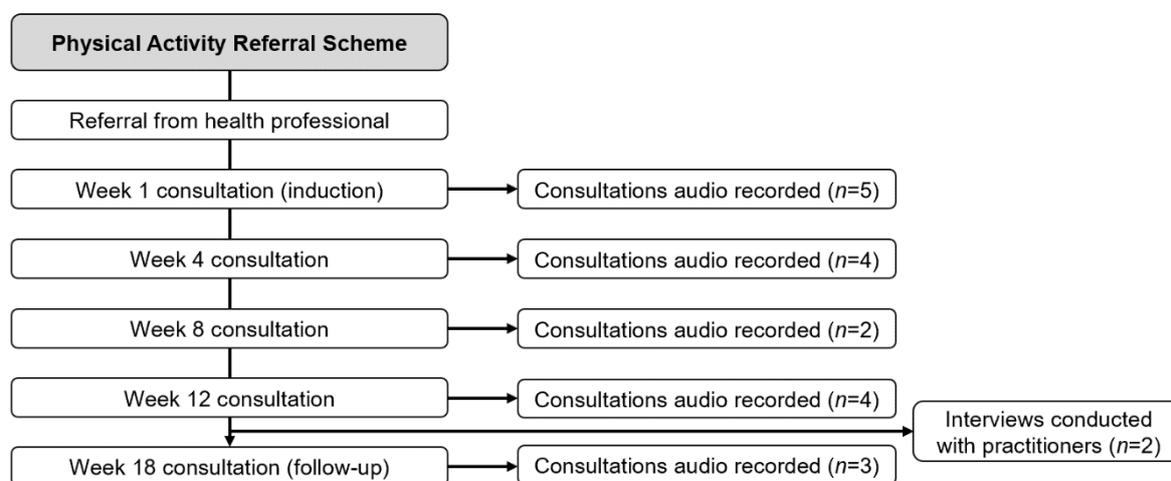
each consultation type (induction M = 50 minutes, week-4 M = 17 minutes, week-8 M = 11 minutes, week-12 M = 19 minutes, and week-18 M = 13 minutes).

The study had a mixed methods design. For research question 1, practitioner-patient consultations were audio-recorded and coded for the practitioners' use of needs-supportive and needs-thwarting behaviours using a novel quantitative coding manual. Research question 2 data was explored using semi-structured qualitative interviews which were analysed thematically.

Informed consent was obtained from all individual participants included in the study and ethical approval was granted by NHS Research Ethics Committee (REC: 18/NW/0039).

Figure 1

Flow Diagram of Physical Activity Referral Scheme and Data Analysis



Note: numbers for audio-recordings are reported after phone consultations were removed

Participants

Two female ER practitioners, who were solely responsible for delivering the ER scheme, were purposefully sampled from the intervention centre as the inclusion criteria required ER referral practitioners from the intervention centre. At the time of the study, the

practitioners were responsible for delivering the PA referral scheme in the intervention study and were trained in NSC as part of the larger body of research. 42 patients were enrolled on the PA referral scheme, with 6 of these patients randomly selected to have their consultations recorded for the current fidelity study. Prior to the study commencement, written informed consent was collected from the practitioners and patients.

Training & Materials

A HCPC-registered Sport and Exercise Psychologist (PMW) experienced in NSC (and the academic supervisor of the lead author) delivered the NSC training for the ER practitioners between October 2016 and January 2017. The training began with a half-day workshop, covering details about the new PA referral scheme (Buckley et al., 2019) and how to support behaviour change by learning about psychological needs (autonomy, relatedness, and competency), and the guiding approach embedded in NSC. The workshop involved interactive discussions, videos of other needs supportive consultations, and reflective worksheets within the training workbook (See appendix 13). Following the workshop, practitioners took part in a series of one-to-one sessions involving observations, feedback, and support to facilitate the implementation of needs-supportive behaviours in practice. The intervention was then piloted with a small number of participants from January to August 2017 (Buckley et al., 2019), and areas where delivery required further development were identified (e.g. viewing PA more holistically, ensuring continuity between consultations, improving monitoring procedures etc.). To address these issues, a further series of interactive group meetings took place between the research team and ER practitioners, which included an opportunity to recap on the needs supportive behaviours. The delivery of the refined intervention occurred between May and November 2018.

Measures

Needs Supportive Behaviours

To analyse practitioners' use of needs supportive behaviours in practice for research aim 1, a Sony ICD-UX560 Digital Recorder with a clip-on microphone recorded ER practitioner consultations during the 18-week ER referral scheme. 23 consultations were initially audio-recorded, but 5 of these were phone consultations (one at week 8, one at week 12, three at week 18) which were excluded as the patient could not be heard in the audio recordings and it was therefore difficult to judge the appropriateness of the practitioners' behaviours and the impact this might have had on the patient. Due to this, and because some patients did not attend every consultation, not all patients had a consultation from induction to week 18 in the final analysis. This left a total of 18 consultations for the final analysis (Practitioner 1 $n=9$, Practitioner 2 $n=9$) selected from induction ($n=5$), week 4 ($n=4$), week 8 ($n=2$), week 12 ($n=4$) and 18-week ($n=3$) time-points during the PA referral scheme for each practitioner. Once recorded, practitioner behaviours were coded against 7 needs supportive and 4 needs thwarting behaviours (Table 1).

Development of Coding Manual

A coding manual (See appendix 14) was developed with the aim of quantifying the potency of needs supportive and needs thwarting behaviours (Table 1) elicited by ER practitioners. Potency scoring (Table 2) is a principle adopted within other Self-Determination Theory-based coding systems, developed in exercise instruction settings by Quested et al., (2018). Potency scoring focuses on the anticipated psychological impact of the practitioner's behaviour on the basic psychological needs of the client by attributing a qualitative potency score that considers frequency, manner and intensity of the behaviour elicited. The researcher's supervisor (PW) and an HCPC-registered health psychologist (AC) developed an initial coding manual prior to the start of the study. This was further refined

during 5 stages (See appendix 15), over a one-year period by the researchers (LS, PW) and an independent SDT expert (LT). The researchers practiced coding consultations using the manual and compared scores. Discussions about the clarity and consistency of using the manual took place, with adjustments made accordingly before testing the manual on multiple occasions.

The coding manual included 7 needs supportive behaviours and 4 needs thwarting behaviours (Table 1). Each consultation was scored from 0 to 3 depending on the potency of each technique (Table 2). A consultation score sheet (Appendix 16) tracked behaviours during the consultation. This included noting quotes from instances of needs supportive and needs thwarting behaviours, the time verbalised on the audio recording, ways the practitioner could have been more supportive/less thwarting, and a summary and rationale for the potency score given by the researcher. Finally, the average potency scores were calculated for needs thwarting behaviours and needs supportive behaviours.

A-priori independent coding was carried out by the lead researcher (LS), the researcher's supervisor (PW) and an independent SDT expert (LT). Each researcher coded one of each consultation type (induction, 4-week, 8-week, 12-week and 18-week). An intra-class correlation (ICC) was used to calculate inter-rater reliability to compare researchers scoring using the coding manual. After exclusion of phone consultations, the ICC for needs supportive behaviours ($M=.897$) and thwarting ($M=.309$) were calculated and indicated 'excellent' and 'poor' agreement, respectively. It is possible the ICC for thwarting items is low due to there being very few examples of thwarting behaviours throughout the consultations, therefore mean scores were very low. The research team decided this was acceptable as it is not realistic to achieve a higher ICC given the nature of the task.

Once inter-rater reliability was established, the remaining consultations were coded by LS. To calculate intra-rater reliability, two consultations were randomly selected (using a random number generator on Excel) to be repeat coded by LS (with at least seven days in between the two coding instances). Intra-rater reliability was strong, with 82% agreement across the two randomly selected consultations. Higher intra-rater reliability was seen for needs thwarting behaviours (100%) than needs supportive behaviours (71%).

Table 1

Needs-supportive and needs-thwarting techniques with example verbalisations

Practitioner Behaviours	Examples of Practitioner Verbalisations
Needs-Supportive Behaviours	
9. Ask open questions to explore the client's perspective	"How are you feeling today?" "How do you feel about swimming."
10. Reflect back what the client has told you	"So, your action plan was to continue with the activity for golf and continue with your diet with support from family." "Yeah, you're struggling a little bit with that machine?"
11. Involve the client in setting their physical activity programme	"People have little things in their head of what they want to do and then it's up to you about what you want to do, so it's you who makes the choice." "Action plan for the next 4 weeks, you can either continue with what you previously suggested, or you can make a new one, it's up to you" P1 "Is there anything you'd like to change with the plan?"
12. Ask permission before raising sensitive issues or providing advice (outside of professional remit)	"Is it ok if I ask you a couple of questions just about what your physical activity is at the moment?" "Can I get your weight?"
13. Provide a meaningful rationale for activities	"The skier, it's whole body, it's strength, cardio... really good for short bits so 30 or 45 seconds and then rest." "Muscles support your joints and that's what helps up do activity so when you're doing impact and things."
14. Give the client space to ask questions or request clarification	"Any questions so far?" "You can stop me if there's any questions or anything you're wondering." "Have you got anything else to ask me?"

15. Offer praise/feedback that is meaningful and specific
- “And the fact you’ve been in the pool as well, that’s brilliant because you’re already doing 2 activities alongside your golf.”
 “That’s good to hear as well is that despite that you were away for 3 weeks you’ve still had that lifestyle change mentality to changing your activity.”

Needs-Thwarting Behaviours

- | | |
|--|--|
| 1. Use jargon, or technical terms that the client might not understand | “It’s really good for cardiovascular.”
“LDL and HDL foods.”
“This machine has a fly wheel.” |
| 2. Tell the client they “must” (not) or “should” (not) do something | “Every minute I want you to put a level up. So now, bring the level up to 2.” |
| 3. Disregard the client’s perspective when setting programme | Patient: “I can’t do cycling” Participant: “why don’t you look up a bike school.?” |
| 4. Appear indifferent or distracted during a consultation | Patient: “I battered my femur...” Participant: “yeah, let’s get you your next appointment.”
Patient: “is it the pool busy then?” Participant: “The goal is to keep building your swimming.” |
-

Table 2

Potency Scoring

0 – Not at all	1 – Weak potency	2 – Moderate potency	3 – Strong potency
The practitioner makes no use of the behaviour.	The practitioner makes minimal use of the behaviour.	The practitioner makes some use of the behaviour.	The practitioner makes considerable use of the behaviour.
	The frequency, manner and intensity through which the behaviour is delivered is not anticipated to have a notable impact (supportive or thwarting) on the client’s psychological needs.	The frequency, manner and intensity through which the behaviour is delivered may have some impact (supportive or thwarting) on the client’s psychological needs.	The frequency, manner and intensity through which the behaviour is delivered may have a substantial impact (supportive or thwarting) on the client’s psychological needs.
	There are considerable ways the practitioner could have delivered this behaviour in a more needs supportive/needs thwarting way (within the length and nature of the consultation).	There are a few ways the practitioner could have delivered this behaviour in a more needs supportive/needs thwarting way (within the length and nature of the consultation).	The practitioner could not notably have delivered this behaviour in a more needs supportive/needs thwarting way (within the length and nature of the consultation).

Interviews

For research question 2, semi-structured interviews (See appendix 17; n = 2; 2 female) were conducted with the ER practitioners at a location convenient for the interviewee and recorded using an Olympus WS-831 Digital Recorder. One interview lasted for 62 minutes, and the other for 57 minutes. The interviews took place when the practitioners had completed the 18-week scheme or were at the 12-week consultation phase. Due to circumstances, delivery started with one practitioner, there was then a period of overlap between them before the other practitioner took over. Practitioner 1's (P1) interview was conducted in July 2018 whilst they were at the 12-week stage. Practitioner 2's (P2) interview was conducted in October 2018 whilst they were at the 18-week stage. The aim of the interviews was to explore: (1) the extent to which practitioners trained in need supportive techniques applied them in practice and (2) practitioner perspectives on delivering in a need supportive communication style. Example topics in the interview included 'Positive factors about delivering the scheme', and 'Fostering motivation in clients', with questions such as "What do you feel works well about the new scheme?", and "Have you changed anything about the way you communicate with clients through working on this project?" (See appendix 17).

The lead researcher (LS) used iterative questioning and probing when conducting the interviews. This allowed in depth data to be gathered by returning to points previously raised by the interviewee (Shenton, 2004). Interviews were conducted by the lead researcher who received training and mentoring from an experienced qualitative researcher on the research team (PMW).

Analysis

Needs Supportive Behaviours

Using the coding manual, each individual consultation was analysed for seven needs supportive and four needs thwarting techniques (Table 1). Once all consultations were coded using the manual, averages were calculated for each consultation for use of needs supportive and needs thwarting techniques using Microsoft Excel. An overall average for each ER practitioners' consultations over the 18 week PA referral scheme was calculated, along with a combined average of both ER practitioners' scores. These average potency scores were compared between different consultation time-points (inductions and shorter follow up consultations) and between practitioners. The analysis was descriptive in nature due to the small number of participants.

Interviews

Each interview audio file was transcribed verbatim and thematically analysed (Braun & Clarke, 2006) to identify relevant themes using NVivo (2015) qualitative analysis software. Themes and subthemes were identified and adapted as analysis progressed. All analysis was done by the lead researcher (LS). To ensure rigour, a member of the research team experienced in qualitative research (PMW) acted as a 'critical friend' to discuss and debate themes until an agreement was reached (Smith & McGannon, 2018). Pen profiles (Mackintosh et al., 2011) were created for each research question to provide an overview of the data under the identified themes and subthemes.

Results

Research Aim 1: To what extent did ER practitioners trained in need supportive behaviours apply them in practice?

Potency of Needs Supportive and Needs Thwarting Behaviours

Combining the two practitioners scores (n=18 consultations) for needs supportive and needs thwarting behaviours showed that more needs supportive behaviours were used than needs thwarting behaviours (Figure 2).

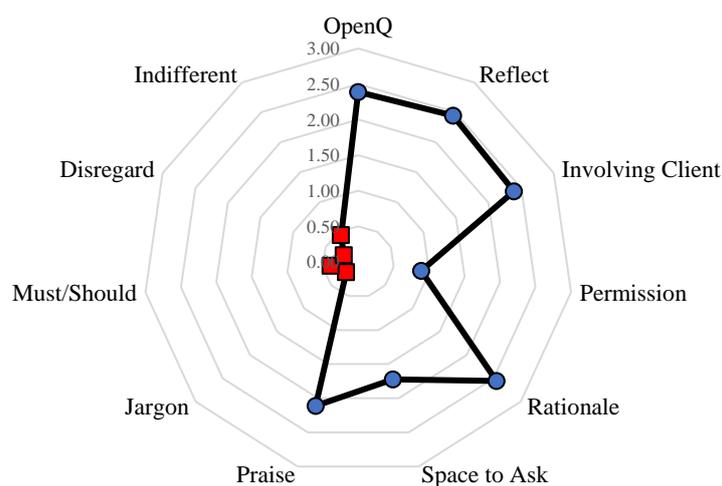
Overall, needs supportive behaviours were used to a moderate-to-strong potency (M = 2.07). The most frequently used needs supportive behaviour was ‘Provide a meaningful rationale for activities’, which scored 2.56 potency on average in the coding manual, indicating moderate-to-strong potency use. Four other needs supportive behaviours indicated moderate-to-strong potency. These included ‘Reflect back what the client has told you’ (M = 2.44), ‘Ask open questions to explore the client’s perspective’ (M = 2.39), ‘Involve the client in setting their physical activity programme’ (M = 2.39), ‘Offer praise/feedback that is meaningful and specific’ (M = 2.11). ‘Give the client space to ask questions or request clarification’ received weak-to-moderate potency (M = 1.72) and ‘Ask permission to engage with the client on a personal level’ received a weak potency score on average (M = 0.89).

Overall, needs thwarting behaviours were used to a weak potency (M = 0.32), with all average needs thwarting behaviours receiving a potency score under 1. The most frequently used needs thwarting behaviour was ‘Appear indifferent or distracted during a consultation’ (M=0.44), followed by, ‘Tell the client they “must” (not) or “should” (not) do something’ (M = 0.39), ‘Disregard the client’s perspective when setting the programme’ (M = 0.22) and ‘Use jargon, or technical terms that the client might not understand’ (M = 0.22). It is important to note that when induction scores were separated from the shorter consultations.

the average potency score across the two practitioners for ‘Tell the client they “must” (not) or “should” (not) do something’ was 1.20.

Figure 2

A Radial Diagram to Show Potency of Practitioners’ Needs Supportive and Needs Thwarting Behaviours



● = Needs supportive behaviours, ■ = Needs Thwarting Behaviours

Needs supportive behaviours: OpenQ = ‘Ask open questions to explore the client’s perspective’; Reflect = ‘Reflect back what the client has told you’; Involving Client = ‘Involve the client in setting their physical activity programme’; Permission = ‘Ask permission to engage with the client on a personal level’; Rationale = ‘Provide a meaningful rationale for activities’; Space to Ask = ‘Give the client space to ask questions or request clarification’; Praise = ‘Offer praise/feedback that is meaningful and specific’.

Needs Thwarting Behaviours: Jargon = ‘Use jargon, or technical terms that the client might not understand’; Must/Should = ‘Tell the client they “must” (not) or “should” (not) do something’; Disregard = ‘Disregard the client’s perspective when setting the programme’; Indifferent = ‘Appear indifferent or distracted during a consultation’.

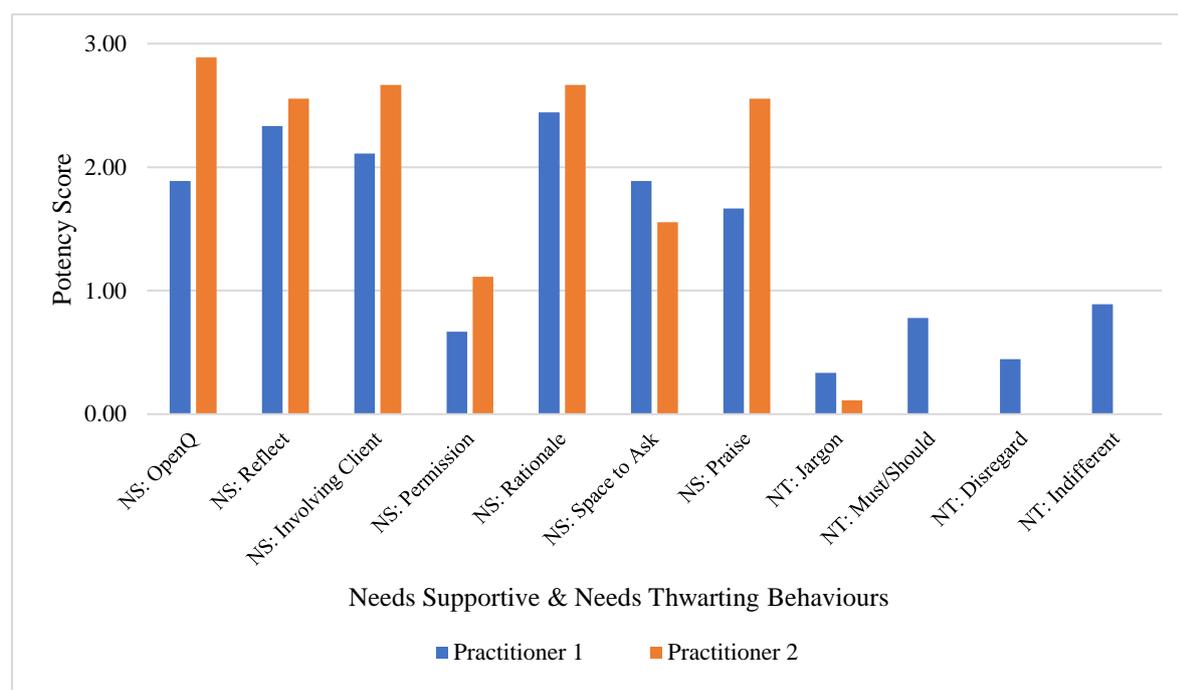
Individual Practitioners

Within the PA referral scheme, P1 (n=9) and P2 (n=9) varied in their scores (Figure 3). Overall, P2’s scores indicated stronger potency overall for needs supportive behaviours (M = 2.29) than P1 (M = 1.86). P2’s scores indicated a moderate-strong potency overall, and P1’s scores indicated a weak-to-moderate potency overall. P1 scores indicated weaker potency overall for all needs supportive behaviours, apart from ‘Give the client space to ask

questions or request clarification' (P1 M = 1.89, P2 M = 1.56). P2 scores indicated stronger potency in 'Ask open questions to explore the client's perspective' (P1 M = 1.89, P2 M = 2.89), 'Reflect back what the client has told you' (P1 M = 2.33, P2 M = 2.56), Involving Client (P1 M = 2.11, P2 M = 2.67), 'Ask permission to engage with the client on a personal level' (P1 M = 0.67, P2 M = 1.11), 'Provide a meaningful rationale for activities' (P1 M = 2.44, P2 M = 2.67), and 'Offer praise/feedback that is meaningful and specific' (P1 M = 1.67, P2 = 2.56).

Figure 3

A comparison of the potency of needs supportive and needs thwarting behaviours between practitioners



Note: This data combined both practitioners' scores.

Needs supportive behaviours: OpenQ = 'Ask open questions to explore the client's perspective'; Reflect = 'Reflect back what the client has told you'; Involving Client = 'Involve the client in setting their physical activity programme'; Permission = 'Ask permission to engage with the client on a personal level'; Rationale = 'Provide a meaningful rationale for activities'; Space to Ask = 'Give the client space to ask questions or request clarification'; Praise = 'Offer praise/feedback that is meaningful and specific'.

Needs Thwarting Behaviours: Jargon = 'Use jargon, or technical terms that the client might not understand'; Must/Should = 'Tell the client they "must" (not) or "should" (not) do something'; Disregard = 'Disregard the client's perspective when setting the programme'; Indifferent = 'Appear indifferent or distracted during a consultation'.

Overall, for needs thwarting behaviours, both practitioners' scores indicated a weak potency (P1 M = 0.61, P2 M = 0.03). All scores from both practitioners indicated weak or no potency for needs thwarting behaviours. P1 scores indicated stronger potency for all needs thwarting behaviours, including 'Use jargon, or technical terms that the client might not understand' (P1 M = 0.33, P2 M = 0.11), 'Tell the client they "must" (not) or "should" (not) do something' (P1 M = 0.78, P2 M = 0.00), 'Disregard the client's perspective when setting the programme' (P1 M = 0.44, P2 M = 0.00), and 'Appear indifferent or distracted during a consultation' (P1 M = 0.89, P2 M = 0.00).

Comparison of Behaviours Between Consultation Length

During the 18-week PA referral scheme the lengths of consultations varied (induction M = 50 minutes, week 4 M = 17 minutes, week 8 M = 11 minutes, week 12 M = 19 minutes, and week 18 M = 13 minutes). Thus, the inductions were compared with the shorter consultations comprised of week 4, week 8, week 12 and week 18 consultations (M = 15 minutes) in order to identify whether the use of needs supportive and needs thwarting behaviours differed between the inductions and shorter consultations (Figure 4).

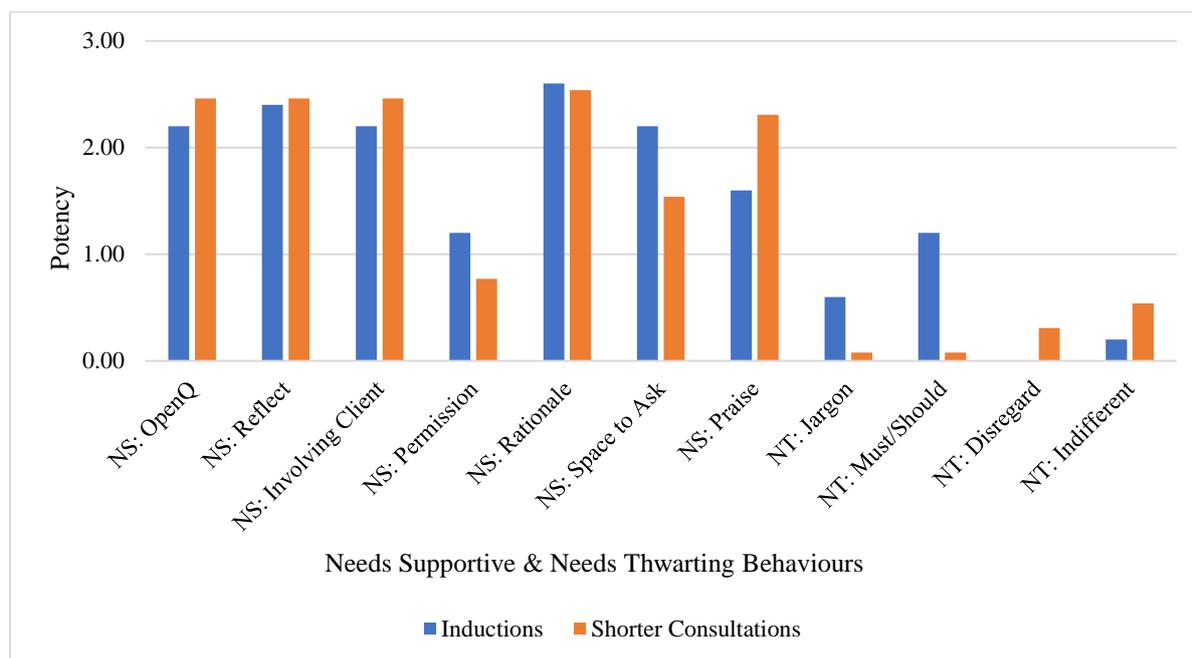
For needs supportive behaviours, all discrepancies between inductions and shorter consultations were smaller than a potency score of 1. Discrepancies above 0.50 are: 0.71 for 'Offer praise/feedback that is meaningful and specific', with the highest potency in shorter consultations; and 0.66 for 'Give the client space to ask questions or request clarification', with the highest potency in inductions.

For needs thwarting behaviours, all but one discrepancy between inductions and shorter consultations were smaller than a potency score of 1. However, it is worth noting these discrepancies are relatively large given the overall low mean scores, in particular for 'Tell the client they "must" (not) or "should" (not) do something'. Discrepancies above 0.50

are: 1.12 for ‘Tell the client they “must” (not) or “should” (not) do something’, with the highest potency in inductions; and 0.52 for ‘Use jargon, or technical terms that the client might not understand’, with the highest potency in inductions.

Figure 4

A comparison of the potency of needs supportive and needs thwarting behaviours during inductions and shorter consultations



Note: This data combined both practitioners' scores.

Needs supportive behaviours: OpenQ = 'Ask open questions to explore the client's perspective'; Reflect = 'Reflect back what the client has told you'; Involving Client = 'Involve the client in setting their physical activity programme'; Permission = 'Ask permission to engage with the client on a personal level'; Rationale = 'Provide a meaningful rationale for activities'; Space to Ask = 'Give the client space to ask questions or request clarification'; Praise = 'Offer praise/feedback that is meaningful and specific'.

Needs Thwarting Behaviours: Jargon = 'Use jargon, or technical terms that the client might not understand'; Must/Should = 'Tell the client they "must" (not) or "should" (not) do something'; Disregard = 'Disregard the client's perspective when setting the programme'; Indifferent = 'Appear indifferent or distracted during a consultation'.

Research Aim 2: Practitioner perspectives on delivering using needs supportive behaviours

The Extent Practitioners use Needs Supportive Behaviours in ER Consultations

Figure 5 shows participant perceptions of how often they applied needs supportive behaviours within their ER consultations. This was broken down into two subthemes: i) ‘Application’ and ii) ‘Awareness’ of needs supportive behaviours. ‘Application’ refers to the way that practitioners described which needs supportive behaviours were being used in consultations, and ‘awareness’ refers to the practitioners’ knowledge and understanding of what needs supportive behaviours comprise of.

Application

Practitioners described applying needs supportive behaviours within their consultations, such as reflecting back what the client has told them and using open questions to explore the client’s perspective. They also discussed the application of other techniques, such as the benefits of a client led approach and use of goal setting. Both practitioners mentioned how the use of certain needs supportive behaviours was “really good” as an extra dimension and structure to their consultation delivery.

Often we [the practitioner and the patient] will have a discussion about things and I’ll say “Is there anything that’s really stood out in what we were just talking about that you would like to do or are you not quite sure?” and they’re like “oh well actually this ...” so they completely come up with their own thing even if they come in and think oh well I don’t know at all that actually they do know more. And yeah, I think definitely open questions and praise yeah, they’re really, really good. (P2)

You're asking them [the patient] open question wise, which is really good to try and keep it in the style of delivery to open it up to them and get them used to kind of like self-directing. (P1)

I think we [the practitioners] listen much more to what the person [the patient] wants and also it's not directive or anything like that. So, it's a lot more about them [the patient] coming up with their own solutions. (P2)

Awareness

Both practitioners discussed awareness on multiple occasions. The importance of having awareness of the needs supportive behaviours was highlighted, along with how they felt they were using "more" of the behaviours than they were prior to the needs supportive training.

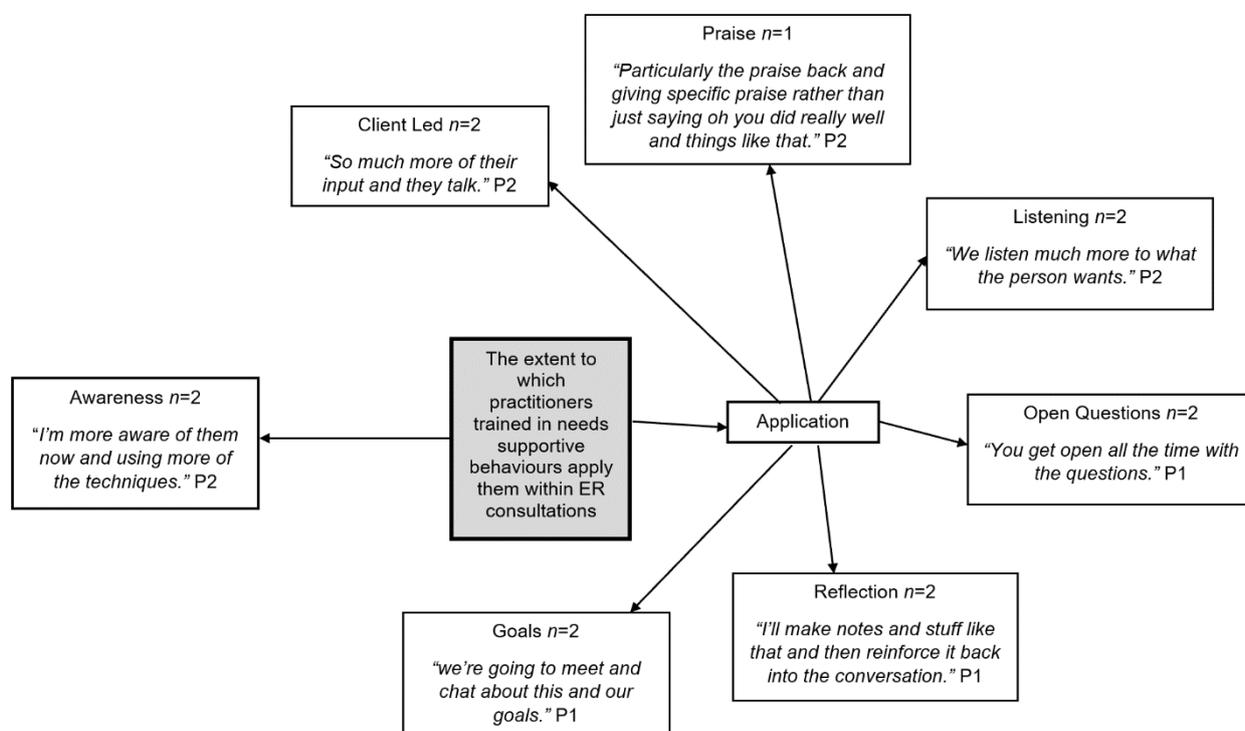
I'm more aware of them [needs supportive behaviours] and using more of the techniques. (P2)

Being understanding and approachable, listen, listen, listen, which is why I think it's good to have the awareness of the open questions... let them [the patients] talk, let them actually say things out loud that they might not have said before so they can maybe hopefully walk away afterwards and reflect. (P1)

There's always been that same intensity [from the patient] of "this is my life, this is why I'm here, I'm in tears" but you just become a little bit more aware of how you're asking them [the patient], erm being clear about what you want to know, what you want them to be able to reflect and say. So, you know yourself, I want them to be able to do this and hoping to be able to decide on that action plan. You're clearer about what the aim is even though you're still trying to think "what am I trying to get them to talk about?" but I've got to do it openly I can't rush it. (P1)

Figure 5

A Pen Profile to Show the Extent to Which Practitioners Trained in Needs Supportive Behaviours Apply Them Within PA Referral Consultations



Practitioner Perspectives on use of Needs Supportive Behaviours

Data were organised into: 'Facilitators', which outlines factors that supported the ER practitioners delivering using needs supportive behaviours; 'Benefits', which outlines the benefits gained from the use of needs supportive behaviours; 'Challenges', which outlines difficulties faced within and outside of the fitness centre affecting needs supportive behaviours; and 'Improvements', which outlines ways in which the PA referral scheme could make improvements to benefit needs supportive behaviours.

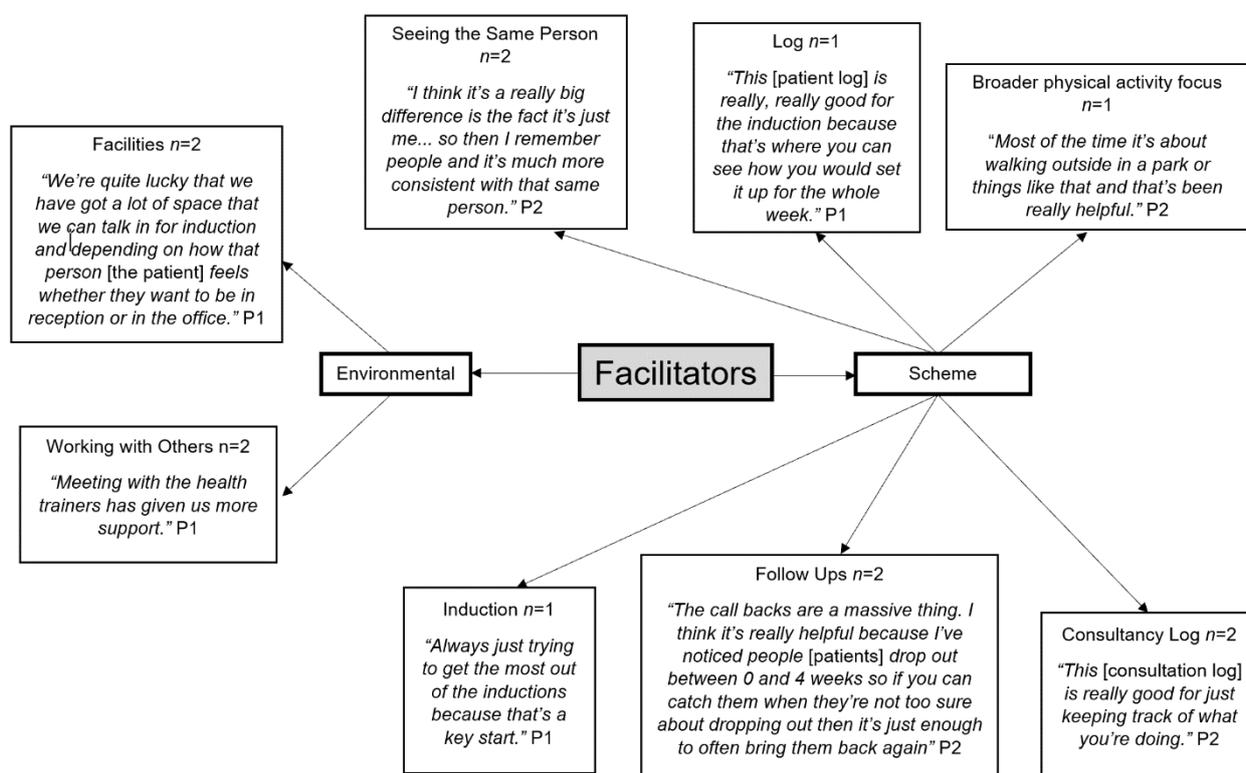
Facilitators

Figure 6 shows practitioner perspectives of facilitators for the application of need supportive behaviours in the PA referral scheme. Facilitators were broken down into two

themes: i) 'Environmental', and ii) 'Scheme Practices'. 'Environmental' refers to facilities and support within the fitness centre, and 'Scheme Practices' refers to the structure and protocols in place on the PA referral scheme.

Figure 6

A Pen Profile to Show Practitioner Perspectives on the Facilitators for Needs Supportive Behaviours on the PA Referral Scheme



Environmental

Environment facilitators included factors within the fitness centre that aided needs supportive delivery. The facilities at the fitness centre were perceived as a facilitator for NSC. With options about where the consultations could take place, either a quiet office or reception area, the practitioner could make sure the client was comfortable to open up before proceeding. Other facilities such as the swimming pool, class timetable, park and low impact circuit classes were mentioned as facilitators.

Now that I teach that [low impact circuit class] it's really useful because I can say to people, especially people who have some stress and anxiety or really, really low self-confidence when it comes to activity. Or even coming into the building. I say "right this is the class I do so if you would like to come it's at 1 O'clock on a Wednesday I'll know you and there's only about 10 other people, really friendly, same time each week.", and that's been helpful and I've had quite a lot of people who have come too. (P2)

Working with others (e.g. charities, health trainers) meant the support systems within the fitness centre grew. This was evident for the patients given consistent support by the ER practitioners and provided with other avenues of support outside of the fitness centre where necessary for an 18-week period. Practitioners gained support from health trainers when referrals were needed, which provided patients with a broad scope of contacts for continued support and rapport building even after the 18-week ER period.

Meeting with the health trainers has given us more support. (P1)

So when we met with the health trainers yesterday they were like we've got links to [local community venue], links to domestic violence em addiction, everything in Liverpool and outside of Liverpool that you could possibly think of they've got links to these charities. (P1)

Scheme Practices

Within the PA referral scheme, certain practices facilitated the delivery of needs supportive behaviours. Both practitioners praised the consistency of each patient seeing the same practitioner every visit, allowing them to build stronger rapport.

The fact that it's become with one or two members of staff instead of before when we had 5 or 6 and the massive difference of the one to ones turning up because they're seeing the same person so I think quality not quantity is better. (P1)

Both practitioners praised the use of follow up calls during week-4, week-8 and week-12 to keep patients on track with the PA referral scheme. Another means of keeping track of the patients included the implementation of the 18-week follow up call, which allowed the practitioners to see how the patients were coping post-scheme.

The call backs [follow up calls] are a massive thing and I think that's really helpful because I've noticed that most people drop out between 0 and 4 weeks, so if you can catch them when they're not too sure about dropping out then it's just enough to often bring them back again. (P2)

Other scheme practices were praised, such as the amount of information gathered during inductions, the logbook for patients, and the focus on broader PA not just gym-based activities. Additionally, the practitioner's consultancy log allowed them to write reminders about each patient to "keep track" of what they are doing.

The booklets, the consultation logs, they were really good. Because that's a lot more helpful for me and for the person because it means I can be really specific on their [the patient's] condition and their situation and see the progress quite clearly and I think that helps with them. (P2)

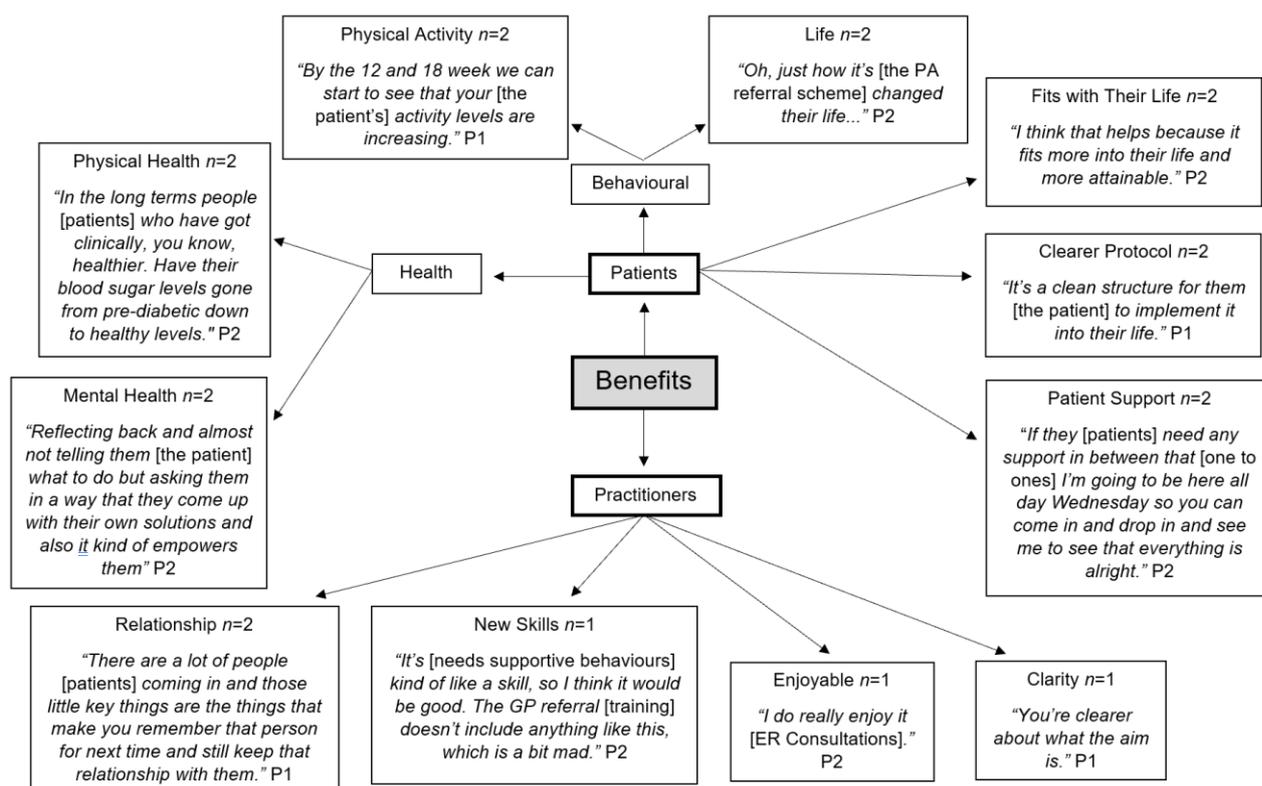
You can note personal stuff down [in the consultancy log] so you can relate to them [the patient] the next time you see them, and that's important because there are a lot of people coming in. (P1)

Benefits

Figure 7 shows practitioner views of the benefits present due to delivering with a needs supportive style. Benefits were broken down into two themes: i) ‘Practitioners’, and ii) ‘Patients’. ‘Practitioners’ refers to the benefits ER practitioners felt they experienced, and ‘Patients’ refers to the benefits ER referral practitioners perceived there to be for the patients.

Figure 7

A Pen Profile to Show Practitioner Perspectives on the Benefits of the Application of Needs Supportive Behaviours on the PA Referral Scheme



Practitioners

A benefit reported by the ER practitioners was the relationship they build with the patients and how it was ongoing throughout the PA referral scheme.

You remember that person for the next time and still keep that relationship with them even though you've by then already seen another 30 people by the end of those 4 weeks. (P1)

Other benefits reported included learning new skills (needs supportive behaviours) that were not included in their GP referral training, enjoyment from working with the patients, and the clarity of the new scheme and its aim.

It's kind of like, well, a skill, a technique, and the actual GP referral [training] doesn't actually include anything like this, which is a bit mad, but I guess why this is doing it. It's obviously a massive, massive part of it so it should definitely be included like this. (P2)

Patients

Practitioner perspective on benefits for patients included health and behavioural benefits. In terms of behaviour, they saw patient's PA increase and behaviour changes within patients' lives. These changes included returning to work after an injury and patients informing the practitioners the PA scheme had "changed their life". P2 linked some of these changes to the needs supportive behaviours, in that the patient had more space to talk and to choose activities that would fit into their daily routine.

Oh, just how it's [the PA referral scheme] changed their life. So, we've had the immediate feedback, which is like in the hour. So like on the Friday I had a few really nice people who you know came, a bit like "I don't know if activity can help me" but by the end of it they were just like "oh you've made a difference to my life already" and it's like oh this is great! (P2)

"Them [the patient] coming up with their plan, with something that's going to fit in with their life, that's not too... like I say some people don't want to use the gym at all

it's about you know really, really focusing on... like most of the time it's about walking outside in a park or things like that and that's been really helpful but yeah delivering the scheme as well, it's so much more of their input and they talk. (P2)

Health benefits include physical health, with “clinically” healthier patients with lower blood sugar levels and no longer at risk of diabetes. Another benefit seen by practitioners was the mental health of patients, with patients feeling better about themselves and practitioners seeing how much happier they were when they came into the centre compared with their previous visits. It was not clear in all practitioner reports whether needs supportive behaviours had any impact on these health benefits. One practitioner reported patients being empowered due to making their own choices through the practitioner's use of reflection and questioning.

Reflecting back and almost not telling them [the patient] what to do but asking them in a way that they come up with their own solutions and also it kind of empowers them a bit more because they've made their own choices. (P2)

And then mentality wise you can kind of get an idea because you've met them [the patient] the first time and the same person [practitioner] is meeting them the second third and fourth time... is that mentality, are they coming into the room happier, or on the phone are they more like at ease with the situation and happier with what they've done. (P1)

Other benefits that practitioners saw for patients was the clearer protocol of the PA referral scheme, which provided a “clean structure” for the patients to follow. The choice for patients when choosing an activity and setting an action plan allowed their PA to fit in with their life and was therefore more attainable. Finally, the provision of patient support on consultancy days and ongoing informal support for patients who needed it was beneficial. It

was not clear from all practitioner reports whether these benefits were due to needs supportive behaviours, one practitioner eluded to “what they say” to the patients being important in how they provided support.

That first initial start is much more successful erm and what we say to them [the patient] and how we support them is quite important in the way they come to the end of the 18 weeks that they are going to start life change. (P1)

Challenges

Figure 8 shows the challenges perceived by ER practitioners in applying needs supportive behaviours on the PA referral scheme. Challenges were broken down into two themes: i) ‘Internal’, and ii) ‘external’. ‘Internal’ refers to challenges faced within the fitness centre, whereas ‘external’ refers to challenges originating from outside of the fitness centre.

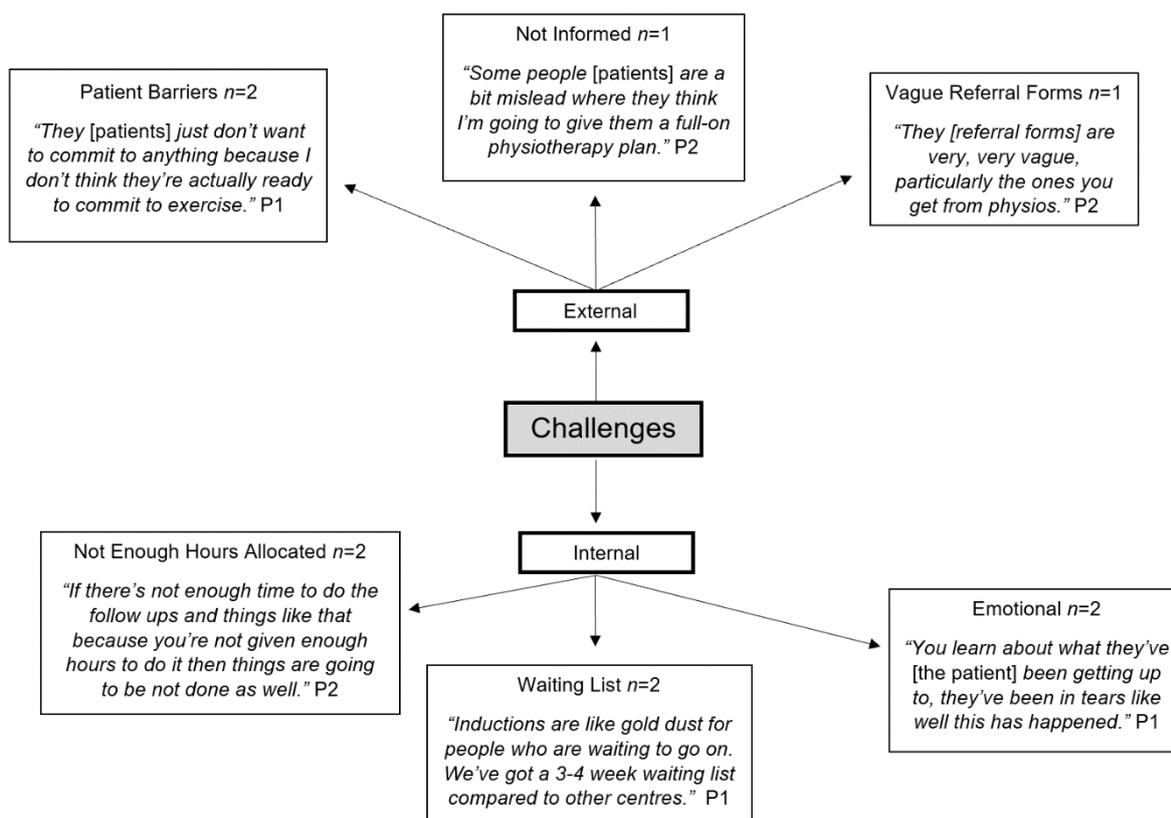
Internal

Within the centre, some factors challenged need supportive behaviours. Insufficient hours allocated to the referral scheme may have led to ineffective delivery of follow-ups, though it was unclear in practitioner reports how this linked to needs supportive behaviours. However, the use of needs supportive behaviours, such as open questions and reflection, lends itself to longer, more in-depth conversations. Not having sufficient time allocated to support could have led to lower quality consultations due to a lower frequency of needs supportive behaviours.

I think it’s quite a lot to do for one person who is – well if it was my full-time job it would be fine, it would be great! But it’s for like you know the time I have, the follow up calls are quite time consuming so it’s quite hard to keep on top of that just because there isn’t enough time. (P2)

Figure 8

A Pen Profile to Show Practitioner Perspectives on the Challenges Faced When Applying Needs Supportive Behaviours on the PA Referral Scheme



The long waiting list was a challenge, with a “3-4 week waiting list” and some patients not gaining admission onto the scheme due to this long wait time. Finally, the work as an ER practitioner could be quite emotionally challenging, with patients opening up about their lives and sometimes crying during the consultations. Though it was not clear in practitioner reports whether the emotional nature of the consultations was linked to needs supportive behaviours, the nature of needs supportive behaviours lends itself to opening up conversations and potentially gaining personal information about a patient. However, practitioners were clear this was something they could handle.

I say some people [patients] are... do get quite emotional like in remission for cancer and start crying and things like that and stuff and I don't want to like get to number 7 [the 7th consultancy of the day] on the Friday afternoon and be drained and don't have enough left to give that person. (P2)

External

Outside of the centre, some challenges were identified. This included patients' barriers, as some patients are not ready to commit to an 18-week scheme or ready to make a change. At times, patients were uninformed about the concept of the referral scheme. Some people thought it was just a subsidised gym membership or physiotherapy plan and did not understand the support provided. Finally, the referral forms that completed were not standardised, meaning the relay of information to the ER practitioners was insufficient. Though not stated in practitioner reports, there may be a requirement to overcome limitations from external challenges to allow for successful delivery of needs supportive behaviours. This could allow for effective communication with the patients regarding the purpose of the scheme, increased motivation for patients to commit to the scheme, and more information gathered by the ER practitioner about the patient's health status.

They [some patients] just don't want to commit to anything because I don't think they're actually ready to actually commit to exercise. (P1)

They [the referral forms] are very, very vague, particularly the ones you get from physios are like you could have someone whose been referred for you know had a hip operation, but actually they're [the patient] coming along and they've got loads and loads of other things of which there's no indication whatever because it's really, really vague. (P2)

Discussion

Main Findings

This study aimed to explore how needs-supportive behaviours were applied by ER practitioners trained in NSC as a fidelity study for part of a larger body of research exploring a co-produced PA referral scheme (Buckley et al., 2018; 2019; 2020).

Data from audio-recorded consultations showed that ER practitioners trained in needs supportive behaviours elicited behaviours within their consultations and showed the use of needs supportive behaviours to be viable on a PA referral scheme. Overall, practitioners showed a moderate-to-strong potency of needs supportive behaviours, and a weak potency for needs thwarting behaviours. Though we can conclude that ER practitioners trained in needs supportive behaviours utilise these within their consultations, we cannot causally relate this to behaviour change within patients as this was not a measured outcome. Research has found the co-produced PA referral scheme showed significant improvements in cardio-metabolic fitness (Buckley et al., 2020), but it is difficult to identify whether the cause of change is due to different motivational behaviour change techniques (MBCTs) active in NSC or PA scheme practices. Additionally, it may be difficult to conclude whether all needs supportive behaviours impacted PA behaviour change, or if change resulted from only some MBCTs active in NSC (Teixeira et al., 2020). Furthermore, PA referral scheme practices could be the active element in behaviour change. For example, follow-up calls or use of patient logbooks were also designed to support basic psychological needs satisfaction, just not through NSC.

Although the participants in the current study demonstrated needs supportive behaviours, unpublished patient data does suggest there may have been some positive changes in autonomous motivation and BPN satisfaction from baseline to 12 weeks, however

similar changes occurred in the comparison centre where the instructors were not trained in NSC. This suggests NSC may not be the only factor important to patient basic psychological needs satisfaction and motivational regulation. With other scheme factors, such as having a kind practitioner to talk to (which may enhance relatedness), and having the opportunity to practice the exercise (which may enhance competence). Future research should consider what the active ingredient to foster behaviour change is and whether it is a combination of MBCTs and practices within the environment, individual elements, or whether it varies across patients.

Within the audio-recordings, discrepancies were identified between practitioners' potency scores. This may have differed due to personal experiences and natural communication and personality styles, making some individuals more suited to a needs supportive delivery than others. For example, an introverted personality may be better suited to listening and reflecting with the client rather than jumping in and giving advice. Furthermore, one practitioner had previous experience in active listening (Rodgers & Farson, 1976, Robertson, 2005) which may have led to stronger potency scores for behaviours such as 'Ask open questions to explore the client's perspective' and 'Reflect back what the client has told you'. Certain behaviours were used more than others, with 'Ask permission to give advice' used the least by both practitioners out of the needs supportive behaviours. This could be due to their role often being to provide advice and naturally pose solutions to help the client and may be a behaviour to emphasise when training practitioners undertaking similar advice-giving roles. However, this lower potency score could also be due to a lack of opportunities to apply this behaviour in practice if the advice they are providing is within their remit.

Data from the semi-structured interviews indicated the ER practitioners had increased their awareness of needs supportive behaviours and how to apply these within a consultation.

ER practitioners perceived the needs supportive behaviours to benefit patients and ER practitioners, such as mental health of patients, relationship with the patient, and skill building of the practitioner. This is in line with previous literature, showing the use of needs supportive behaviours and patient needs satisfaction to enhance wellbeing, such as feelings of vitality, quality of life, life satisfaction, somatization, and a reduction in depression scores (Teixeira et al., 2020; Duda et al., 2014). Furthermore, the benefit to the practitioner and patient relationship could reflect Relationship Motivation Theory, where the satisfaction for the basic psychological need of relatedness enables individuals to pursue relationships (Deci & Ryan, 2014).

Facilitators of needs supportive behaviours included the facilities at the fitness centre and the extra support provided by health trainers. Research discusses the impact of the needs supportive environment (Ryan & Deci, 2000; Oliver et al., 2008), it is therefore important to consider not just the needs supportive behaviours of the practitioners, but the elements within the environment facilitating needs supportive delivery. This could include a quiet meeting area to improve shared decision-making (Reeve et al., 1999) and open discussion of negative feelings (Reeve, 2002) associated with engaging with PA. As well as this, support from health trainers to provide advice can aid patients' perceived competence and is in line with previous research where patients reported support from health professionals as integral to uptake of ER schemes (Birtwistle et al., 2019). Other environmental factors associated with PA engagement include accessibility, opportunities, and aesthetic attributes (Humpel et al., 2002). Furthermore, Morgan et al. (2016) reported the importance of scheme setting and accessibility for patient's adherence to ER schemes. Though not directly linked with needs supportive delivery, it is easy to see how factors such as accessibility could improve a patient's satisfaction of competence particularly in relation to PA referral schemes. The ER practitioners also perceived the scheme practices as a facilitator of needs supportive

behaviours. For example, using the logbook to record key points from consultations facilitated the behaviour of ‘Reflect back what the client has told you’ and the basic need of relatedness. Furthermore, giving the patient a broader choice of PA to engage with, not just limiting them to the gym, facilitates the behaviour of ‘Involve the client in setting their physical activity programme’ and the basic need of autonomy.

Needs supportive delivery did not come without its challenges. ER practitioners perceived external challenges such as vague referral forms, meaning practitioners do not have all the information they needed about the patients. Internal challenges were identified, such as not enough time allocated for consultations and a high standard needed for record keeping being time consuming. ER practitioners suggested more staff time to be allocated to the PA referral scheme, which relates to a challenge identified by Duda et al., (2014) when implementing needs supportive training within a PA referral scheme. This challenge reflects the additional work-related demands that take the ER practitioners away from solely focusing on needs supportive delivery. Extra time could allow the ER practitioners to overcome this challenge and focus more on needs supportive behaviours to explore the patient’s situation and set relevant action plans. Additionally, since the needs supportive practitioner will model “empathic, flexible, and patient, rather than taking charge, pressuring and urgent” characteristics (Ntoumanis et al., 2017 pg.5), time in which to be patient and not rush the consultancy is essential.

Reflections on Use of Coding Manual

Overall, the coding manual was a viable means to measure practitioner’s levels of needs supportive and needs thwarting behaviours in PA referral consultations. As the manual developed, it became easier to use due to the refined potency scoring (Smith et al., 2015) (from scoring 0-4 to scoring 0-3), and generating more suitable language for measuring

intensity (from 0 = low, 1-2 = medium and 3-4 = high, to 0 = not at all, 1 = weak, 2 = moderate, 3 = strong) (Quested et al., 2015). This allowed for more consistent scoring between practitioners and resolved struggles when trying to decipher a 3 from a 4 and a 1 from a 2 in the original scoring system. Despite these improvements, due to the nature of the scoring discrepancy will always exist between researcher scores due to subjective interpretation of the consultations by the researcher.

When trying to increase reliability of the scoring using the coding manual, being attentive to the tone and intent of the practitioner leading the consultation, the response of the patient, and the relationship between them is integral. Research shows the importance of the needs supportive practitioner engaging in warm, friendly conversation to support relatedness in patients (Sparks, Dimmock, Lonsdale & Jackson, 2016). Early in the development of the coding manual, discrepancies between researchers' scores were often due to a statement that one researcher assumed to be a light-hearted joke and received well, whereas it was perceived as rude by another. Therefore, putting oneself in the shoes of the patient, listening to their response and remove researcher bias when coding is important to aid reliability. It is therefore essential to be able to hear both practitioner and patient when using the coding manual and to avoid assessing only one side of a consultation conversation, hence the removal of telephone consultations from the final data set analysed. This can also aid the identification of frequency and quality of reflections used by the practitioner.

On occasions, it was challenging to decide what presented as "jargon" and what did not. For example, whether the use of "resistance" and "yoga" deserved a score for needs thwarting behaviour. What was helpful in making this score more reliable was whether someone new to PA would understand certain terms and to be careful not to assume knowledge. If jargon were used but clearly explained by the practitioner, then they would not be scored for a thwarting behaviour. Additionally, an awareness of how a patient's

knowledge may change the longer they have been on the PA scheme will likely have impact on the score given by the coder. This represents another area where the tone of the consultation and the ability to hear the patient is integral to judge whether something is difficult for the client to understand.

Strengths & Limitations

Strengths of this research included the development of a novel coding manual to undertake quantitative analysis of the use of needs supportive behaviours within ER schemes. Previous analysis of needs supportive behaviours has occurred through questionnaires, such as 'The Interpersonal Behaviours Questionnaire' that measures perceptions from others on frequency of elicited behaviours in relation to SDT (Rocchi et al., 2017) but is not specific to ER schemes. Additionally, questionnaires such as the 'Health Care Climate Questionnaire' experience large ceiling effects when used within ER schemes (Duda et al., 2014). The coding manual developed within the current study allows for a more bespoke analysis of the active behaviours within needs supportive delivery within an PA referral scheme. After completion of the study the research team discovered a comparable SDT-based PA consultation observational tool that they had not previously been aware of (Rouse et al., 2016). On inspection of the tool it was apparent that Rouse et al. (2016) focused on SDT behaviours in general whereas the current study specifically assessed the behaviours that the ER practitioners were trained in and therefore would not have met our needs. Interesting, they also found a lower ICC for thwarting behaviours. Knowledge of this prior to the current study could have enhance the research. Finally, Rouse et al. (2016) videotaped consultations which could have benefited the current study. For example, as reflected on previously, one coder may perceive a comment as a light-hearted joke and received well, and another coder see this as a rude comment. Videotaping the consultations could remove some of the variability between practitioner scoring.

Another strength is the applied focus of the research and its potential impacts, in particular PA behaviour change and adherence to PA referral schemes. Though it does not reach the “gold standard” of a randomised control study (RCT), the implementation of the RCT approach limits external and ecological validity (Gidlow et al., 2008). Uncontrolled, population-based cohorts within an applied setting can provide more of an insight into real world application of findings. Furthermore, the analysis of qualitative research and perspectives from practitioners may help to improve the understanding of PA referral schemes (Crone et al., 2005) and provide an insight into how and why schemes do and do not work.

One limitation of this research was the lack of consultation recordings from practitioners prior to training in needs supportive behaviours. This would have allowed us to identify whether the needs supportive training caused change in practitioner behaviours, or if practitioners were using needs supportive behaviours already. Data collected from a small group of consultations by ER practitioners who had not received needs supportive training (Appendix 18) suggested that ER practitioners without needs supportive training elicited needs supportive behaviours less in consultations compared to trained practitioners. Needs thwarting behaviours remained low, which is in line with previous research where PA instructors expressed they did not use many motivationally maladaptive strategies (Hancox et al., 2018). Needs thwarting behaviours were more frequently elicited by untrained than trained ER practitioners. Despite these suggestions, as these practitioners were different to those who took part in the current study we cannot account for individual differences and confirm a causal link. For future research, it is recommended to take measures of needs supportive and needs thwarting behaviours prior to and post training to directly compare practitioner behaviours.

Additionally, the interview guide provided a holistic evaluation of practitioners' views of the new scheme. Consequently, it was sometimes unclear to what extent the qualitative data linked to delivering using needs supportive behaviours as opposed to the wider aspects of the PA referral scheme. Despite this, the holistic view meant the practitioners interviewed were not led down a specific route by the interviewer and could have produced higher quality data. Finally, one potential limitation of this study was the combination of induction and shorter consultations. Though the discrepancies between the consultation lengths appear small, due to the low absolute values these discrepancies were quite large and so the combined analysis must be interpreted with care.

Future Directions

Based on the recommendation that needs supportive training is implemented within ER training courses to teach ER practitioners the elements required to cultivate patient behaviour change, more research would be beneficial to compare behaviours of practitioners before and after a course of needs supportive training. Future research should also consider how to demonstrate the impact of needs supportive behaviours compared to the application of individual MBCTs on behaviour change within patients.

Further research warrants the assessment of needs supportive behaviours within a PA referral scheme to validate the use of the coding manual. Despite this, the implementation of the coding manual with those utilising needs supportive behaviours could be a useful tool to develop ER practitioner's needs supportive behaviours during and post training. The use of the consultation score sheet and its completion by the NSC expert could be used to provide feedback to the ER practitioner to open discussions and set goals for improvements in need supportive delivery. This could be the role of the sport and exercise psychologist, whereby

monitoring and reflecting on behaviours with the ER practitioners could develop a holistic needs supportive service, in tune with the needs of the client.

Conclusion

This study has affirmed the use of NSC as a viable and beneficial mode of delivery within a PA referral scheme. The development of a bespoke coding manual for needs supportive and needs thwarting behaviours within PA referral schemes represents a viable and useful tool to measure the behaviours elicited by ER practitioners. While there is a need to establish the psychometric validity and reliability of the coding manual, it has great potential as a tool to support the development of needs supportive behaviours within practitioners. This research has contributed a first-hand account of the experiences of ER practitioners utilising NSC within their consultations. These perspectives are insightful for those wishing to implement needs supportive delivery styles within the applied context to foster an environment suitable for these behaviours.

References

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., & Thøgersen-Ntoumani, C. (2011). Psychological need thwarting in the sport context: Assessing the darker side of athletic experience. *Journal of sport and exercise psychology*, *33*(1), 75-102.

<https://doi.org/10.1123/jsep.33.1.75>

Beck, F. E., Gillison, F. B., Koseva, M. D., Standage, M., Brodrick, J. L., Graham, C., & Young, H. (2016). The systematic identification of content and delivery style of an exercise intervention. *Psychology & health*, *31*(5), 605-621.

<https://doi.org/10.1080/08870446.2015.1132718>

Berry, M. J., Rejeski, W. J., Adair, N. E., Ettinger, W. H., Zaccaro, D. J., & Sevick, M. A. (2003). A randomized, controlled trial comparing long-term and short-term exercise in

patients with chronic obstructive pulmonary disease. *Journal of Cardiopulmonary Rehabilitation and Prevention*, 23(1), 60-68.

Birtwistle, S. B., Ashcroft, G., Murphy, R., Gee, I., Poole, H., & Watson, P. M. (2019). Factors influencing patient uptake of an exercise referral scheme: a qualitative study. *Health education research*, 34(1), 113-127. <https://doi.org/10.1093/her/cyy038>.

Borrelli, B. (2011). The assessment, monitoring, and enhancement of treatment fidelity in public health clinical trials. *Journal of public health dentistry*, 71, S52-S63. <https://doi.org/10.1111/j.1752-7325.2011.00233.x>

Boyce T., Robertson R., Dixon, A. (2008). Commissioning and behaviour change: Kicking bad habits final report. *London: The King's Fund*

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

Buckley, B. J. R., Thijssen, D. H. J., Murphy, R. C., Graves, L. E., Whyte, G., Gillison, F. B., Crone, D., & Watson, P. M. (2018). Making a move in exercise referral: co-development of a physical activity referral scheme. *Journal of Public Health*, 40(4), e586-e593. <https://doi.org/10.1093/pubmed/fdy072>

Buckley, B. J., Thijssen, D. H., Murphy, R. C., Graves, L. E., Whyte, G., Gillison, F., ... & Watson, P. M. (2019). Preliminary effects and acceptability of a co-produced physical activity referral intervention. *Health Education Journal*, 78(8), 869-884. <https://doi.org/10.1177/0017896919853322>

Buckley, B.J.R., Thijssen, D.H.J., Murphy, R.C., Graves, L.E.F., Cochrane, M., Gillison, F.B., Crone, D., Wilson, P.M., Whyte, G. & Watson, P.M. (2020). Pragmatic

evaluation of a coproduced physical activity referral scheme: a UK quasi-experimental study. *BMJ Open*, 10, e034580. <https://doi.org/10.1136/bmjopen-2019-034580>

Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public health reports*, 100(2), 126.

Craig, A., Dinan, S., Smith, A., Taylor, A., Webborn, N. (2001). Exercise Referral Systems: A National Quality Assurance Framework. *Department of Health: London*.

Crone, D., Smith, A., & Gough, B. (2005). 'I feel totally at one, totally alive and totally happy': a psycho-social explanation of the physical activity and mental health relationship. *Health education research*, 20(5), 600-611. <https://doi.org/10.1093/her/cyh007>

Deci, E. L., & Ryan, R. M. (1985). Cognitive evaluation theory. In *Intrinsic motivation and self-determination in human behavior* (pp. 43-85). *Springer, Boston, MA*. https://doi.org/10.1007/978-1-4899-2271-7_3

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology/Psychologie canadienne*, 49(3), 182. <https://doi.org/10.1037/a0012801>

Deci, E. L., & Ryan, R. M. (2014). Autonomy and need satisfaction in close relationships: Relationships motivation theory. In *Human motivation and interpersonal relationships* (pp. 53-73). Springer, Dordrecht. https://doi.org/10.1007/978-94-017-8542-6_3

Deci, E.L., Ryan, R.M. (2000). The 'what' and 'why' of goal pursuits: human needs and the self-determination of behavior. *Psychological inquiry*, 11(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01

Duda, J. L., Williams, G. W., Ntoumanis, N., Daley, A., Eves, F. F., Mutrie, N., Rouse, P. C., Lodhia, R., Blamey, R. V., & Jolly, K. (2014). Effects of a standard provision versus an autonomy supportive exercise referral programme on physical activity, quality of life and well-being indicators: a cluster randomised controlled trial. *International Journal of Behavioral Nutrition and Physical Activity*, *11*, 10. <https://doi.org/10.1186/1479-5868-11-10>

Edmunds, J., Ntoumanis, N., & Duda, J. L. (2008). Testing a self-determination theory-based teaching style intervention in the exercise domain. *European Journal of Social Psychology*, *38*(2), 375-388. <https://doi.org/10.1002/ejsp.463>

Eynon, M., Foad, J., Downey, J., Bowmer, Y., & Mills, H. (2019). Assessing the psychosocial factors associated with adherence to exercise referral schemes: a systematic review. *Scandinavian journal of medicine & science in sports*, *29*(5), 638-650. <https://doi.org/10.1111/sms.13403>

Fortier, M.S., Duda, J.L., Guerin, E., & Teixeira, P.J. (2012). Promoting physical activity: development and testing of self-determination theory-based interventions. *International Journal of Behavioral Nutrition and Physical Activity*, *9*(1), 20. <https://doi.org/10.1186/1479-5868-9-20>

Gidlow, C., Johnston, L. H., Crone, D., & James, D. V. (2008). State of the art reviews: methods of evaluation: issues and implications for physical activity referral schemes. *American Journal of Lifestyle Medicine*, *2*(1), 46-50. <https://doi.org/10.1177/1559827607308733>.

Gunnell, K. E., Crocker, P. R., Wilson, P. M., Mack, D. E., & Zumbo, B. D. (2013). Psychological need satisfaction and thwarting: A test of basic psychological needs theory in physical activity contexts. *Psychology of sport and exercise*, *14*(5), 599-607 <https://doi.org/10.1016/j.psychsport.2013.03.007>

Hancox, J. E., Quested, E., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2018). Putting self-determination theory into practice: application of adaptive motivational principles in the exercise domain. *Qualitative Research in Sport, Exercise and Health*, 10(1), 75-91. <https://doi.org/10.1080/2159676X.2017.1354059>

Humpel, N., Owen, N., & Leslie, E. (2002). Environmental factors associated with adults' participation in physical activity: a review. *American journal of preventive medicine*, 22(3), 188-199. [https://doi.org/10.1016/S0749-3797\(01\)00426-3](https://doi.org/10.1016/S0749-3797(01)00426-3)

Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K. E., ... & Corso, P. (2002). The effectiveness of interventions to increase physical activity: a systematic review. *American journal of preventive medicine*, 22(4), 73-107. [https://doi.org/10.1016/S0749-3797\(02\)00434-8](https://doi.org/10.1016/S0749-3797(02)00434-8)

Kinnafick, F. E., Thøgersen-Ntoumani, C., & Duda, J. L. (2014). Physical activity adoption to adherence, lapse, and dropout: a self-determination theory perspective. *Qualitative health research*, 24(5), 706-718. <https://doi.org/10.1177/1049732314528811>

Lambert, J. D., Greaves, C. J., Farrand, P., Cross, R., Haase, A. M., & Taylor, A. H. (2017). Assessment of fidelity in individual level behaviour change interventions promoting physical activity among adults: a systematic review. *BMC public health*, 17(1), 765. <https://doi.org/10.1186/s12889-017-4778-6>

Levy, S. S., & Cardinal, B. J. (2004). Effects of a self-determination theory-based mail-mediated intervention on adults' exercise behavior. *American Journal of Health Promotion*, 18(5), 345-349. <https://doi.org/10.4278/0890-1171-18.5.345>.

Mackintosh, K.A., Knowles, Z. R., Ridgers, N.D., & Fairclough, S.J. (2011). Using formative research to develop CHANGE!: a curriculum-based physical activity promoting intervention. *BMC public health*, *11*(1), 831. <https://doi.org/10.1186/1471-2458-11-831>

Mars, T., Ellard, D., Carnes, D., Homer, K., Underwood, M., Taylor, S.J.C. (2013). Fidelity in complex behaviour change interventions: a standardised approach to evaluate intervention integrity. *BMJ Open*. *3*(11):e003555. <https://doi.org/10.1136/bmjopen-2013-003555>

Michie, S., West, R., Sheals, K., & Godinho, C. A. (2018). Evaluating the effectiveness of behavior change techniques in health-related behavior: a scoping review of methods used. *Translational behavioral medicine*, *8*(2), 212-224. <https://doi.org/10.1093/tbm/ibx019>

Morgan, F., Battersby, A., Weightman, A. L., Searchfield, L., Turley, R., Morgan, H., ... & Ellis, S. (2016). Adherence to exercise referral schemes by participants—what do providers and commissioners need to know? A systematic review of barriers and facilitators. *BMC public health*, *16*(1), 227. <https://doi.org/10.1186/s12889-016-2882-7>

National Institute for Health and Care Excellence (NICE) (2018) 2018 Surveillance of Physical Activity: Exercise Referral Schemes *Public health guidance 54*. London: NICE. Available at: <https://www.nice.org.uk/guidance/ph54/resources/2018-surveillance-of-physical-activity-exercise-referral-schemes-nice-guideline-ph54-4909662685/chapter/Overview-of-2018-surveillance-methods?tab=evidence>

Ntoumanis, N., Pensgaard, A.-M., Martin, C., & Pipe, K. (2004). An idiographic analysis of amotivation in compulsory school physical education. *Journal of Sport and Exercise Psychology*, *26*, 197-214. <https://doi.org/10.1123/jsep.26.2.197>

Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2017). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.

NVivo (2015). Qualitative data analysis software. QSR International.

Oliver, E.J., Markland, D., Hardy, J., & Petherick, C.M. (2008). The effects of autonomy-supportive versus controlling environments on self-talk. *Motivation and Emotion*, 32(3), 200-212. <https://doi.org/10.1007/s11031-008-9097-x>

Orrow, G., Kinmonth, A.L, Sanderson, S., Sutton, S. (2012). Effectiveness of physical activity promotion based in primary care: systematic review and meta-analysis of randomised controlled trials. *BMJ*. 344:e1389. <https://doi.org/10.1136/bmj.e1389>

Pavey, T. G., Taylor, A. H., Fox, K. R., Hillsdon, M., Anokye, N., Campbell, J. L., ... & Searle, J. (2011). Effect of exercise referral schemes in primary care on physical activity and improving health outcomes: systematic review and meta-analysis. *BMJ*, 343, d6462. <https://doi.org/10.1136/bmj.d646>

Quested, E., Ntoumanis, N., Stenling, A., Thøgersen-Ntoumani, C., & Hancox, J. E. (2018). The Need-Relevant Instructor Behaviors Scale: Development and Initial Validation. *Journal of Sport and Exercise Psychology*, 40(5), 259-268. <https://doi.org/10.1123/jsep.2018-0043>

Reeve, J., & Cheon, S. H. (2016). Teachers become more autonomy supportive after they believe it is easy to do. *Psychology of Sport and Exercise*, 22, 178-189. <https://doi.org/10.1016/j.psychsport.2015.08.001>

Reeve, J., Bolt, E., & Cai, Y. (1999). Autonomy-supportive teachers: How they teach and motivate students. *Journal of educational psychology, 91*(3), 537.

<https://doi.org/10.1037/0022-0663.91.3.537>

Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and emotion, 28*(2), 147-169. <https://doi.org/10.1023/B:MOEM.0000032312.95499.6f>

Reeve, J., Jang, H., Hardre, P., & Omura, M. (2002). Providing a rationale in an autonomy- supportive way as a strategy to motivate others during an uninteresting activity. *Motivation and Emotion, 26*(3), 183-207. <https://doi.org/10.1023/a:1021711629417>

Robertson, K. (2005). Active listening: more than just paying attention. *Australian family physician, 34*(12), 1053.

Rocchi, M., Pelletier, L., Cheung, S., Baxter, D., & Beaudry, S. (2017). Assessing need-supportive and need-thwarting interpersonal behaviours: The Interpersonal Behaviours Questionnaire (IBQ). *Personality and Individual Differences, 104*, 423-433.

<https://doi.org/10.1016/j.paid.2016.08.034>

Rogers, C. R., & Farson, R. E. (1976). Active listening. *Chicago: Industrial Relations Center.*

Rouse, P. C., Duda, J. L., Ntoumanis, N., Jolly, K., & Williams, G. C. (2016). The development and validation of the interpersonal support in physical activity consultations observational tool. *European journal of sport science, 16*(1), 106-114.

<https://doi.org/10.1080/17461391.2014.987320>

Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of Personality, 74*, 1557- 1586. <https://doi.org/10.1111/j.1467-6494.2006.00420.x>

Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: Basic psychological needs in motivation, development and wellness. *New York, NY: Guilford Press*.

Scholes, S., (2016). Health Survey of England 2016: Physical Activity in Adults. *Health and Social Care Information Centre*.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information, 22*(2), 63-75. <https://doi.org/10.3233/EFI-2004-22201>

Silva, M. N., Markland, D., Carraca, E. V., Vieira, P. N., Coutinho, S. R., Minderico, C. S., ... & Teixeira, P. J. (2011). Exercise autonomous motivation predicts 3-yr weight loss in women. *Medicine & Science in Sports & Exercise, 43*(4), 728-737
<https://doi.org/10.1249/MSS.0b013e3181f3818f>

Silva, M. N., Vieira, P. N., Coutinho, S. R., Minderico, C. S., Matos, M. G., Sardinha, L. B., & Teixeira, P. J. (2010). Using self-determination theory to promote physical activity and weight control: a randomized controlled trial in women. *Journal of behavioral medicine, 33*(2), 110-122. <https://doi.org/10.1007/s10865-009-9239-y>

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International review of sport and exercise psychology, 11*(1), 101-121.
<https://doi.org/10.1080/1750984X.2017.1317357>

Smith, N., Tessier, D., Tzioumakis, Y., Quested, E., Appleton, P., Sarrazin, P., ... & Duda, J. L. (2015). Development and validation of the multidimensional motivational climate

observation system. *Journal of sport and exercise psychology*, 37(1), 4-22.

<https://doi.org/10.1123/jsep.2014-0059>

Sparks, C., Dimmock, J., Lonsdale, C., & Jackson, B. (2016). Modeling indicators and outcomes of students' perceived teacher relatedness support in high school physical education. *Psychology of Sport and Exercise*, 26, 71-82.

<https://doi.org/10.1016/j.psychsport.2016.06.004>

Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: a systematic review. *International journal of behavioral nutrition and physical activity*, 9(1), 78. <https://doi.org/10.1186/1479-5868-9-78>

Teixeira, P. J., Marques, M. M., Silva, M. N., Brunet, J., Duda, J., Haerens, L., ... & Michie, S. (2020). A Classification of Motivation and Behavior Change Techniques Used in Self-Determination Theory-Based Interventions in Health Contexts. *Motivation Science*. <https://doi.org/10.1037/mot0000172>

Webb, T. L., Sniehotta, F. F., & Michie, S. (2010). Using theories of behaviour change to inform interventions for addictive behaviours. *Addiction*, 105(11), 1879-1892. <https://doi.org/10.1111/j.1360-0443.2010.03028.x>

Young, D. R., Coleman, K. J., Ngor, E., Reynolds, K., Sidell, M., & Sallis, R. E. (2014). Associations between physical activity and cardiometabolic risk factors assessed in a Southern California health care system, 2010-2012. *Preventing chronic disease*, 11, E219-E219. <https://doi.org/10.5888/pcd11.140196>

Empirical Paper Two

Developing The Triad of Knowledge in Coaching:

Coach Perceptions of Think Aloud as a Reflective Tool Within a Category 1 Football

Academy

Abstract

This study aimed to explore the perceptions of football academy coaches on their use of a novel reflective tool (Think Aloud) and to understand if this can support the development of knowledge within coaches. Eight male coaches (M age = 36) employed full time at a Category 1 football academy within the United Kingdom took part. All coaches attended a 2-hour workshop on the use of Think Aloud (TA) as a reflective tool, with opportunity to practice TA whilst coaching. Participants were interviewed on their perceptions of TA as a reflective tool using a semi-structured approach. Data were analysed abductively, which allowed the generation of initial codes and the involvement of the triad of knowledge (professional, interpersonal, and intrapersonal knowledge), which has been adopted within coaching and identified as an approach to developing coaching expertise (Côté & Gilbert, 2009), within the analysis process. Findings suggest all three types of knowledge can be developed through the TA, with sub-themes identified within each type of knowledge: professional knowledge (player and coach development, session design); interpersonal knowledge (communication, relationships); intrapersonal knowledge (biases, self-awareness, reflection). This research offers a novel perspective on coach development through the use of TA, with the potential to support the development of coaching knowledge and expertise.

Key words: reflection, football, Think Aloud, knowledge, education

Note: LS = Laura Swettenham; AW = Dr Amy Whitehead

Coaching effectiveness and the development of knowledge within this discipline is a growing area of research (e.g., Côté & Gilbert, 2009; Downham & Cushion, 2020). One definition of coaching effectiveness is “The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes’ competence, confidence, connection, and character in specific coaching contexts” (Côté & Gilbert, 2009, p. 316). Within a coaching context, knowledge can be classified in terms of: professional knowledge (i.e., knowledge of one’s sport and how to apply this knowledge); interpersonal knowledge (i.e., a coach’s ability to connect and communicate with athletes and stakeholders); and intrapersonal knowledge (i.e., self-awareness and introspection; Trudel & Gilbert, 2013). These three types of knowledge have been referred to within the teaching literature as the triad of knowledge to promote professional expertise (Collinson, 1996). More recently, the triad of knowledge has been adopted within coaching (Côté & Gilbert, 2009) and was identified as the first component necessary for developing coaching effectiveness and expertise. The second component encompasses athlete outcomes (competence, confidence, connection, character), and the third component places importance on understanding the different levels of coaching (e.g., recreational, youth development, high performance) and the appropriate strategies for each level (Côté & Gilbert, 2009). Therefore, while the development of coaching knowledge is not the only element needed to develop an expert coach, it can be regarded as an integral element in the process.

Development of professional knowledge is often emphasised over other types of coaching knowledge, with the majority of the 285 coach development programmes identified in a recent systematic review focused on professional knowledge (Lefebvre et al., 2016). Only 18 of these programmes focused on interpersonal knowledge, and just six focused on intrapersonal knowledge. Despite this, professional, interpersonal, and intrapersonal knowledge have been used recently in numerous coach education interventions (e.g.,

Berntsen & Kristiansen, 2019) and have supported the development of frameworks such as the International Sport Coaching Framework (ICCE, 2013) and the European Sport Coaching Framework (ESCF; Lara-Bercial et al., 2017). Indeed, the ESCF states that intrapersonal knowledge can be developed through “knowledge of the self and personal philosophy based on experience, self-awareness and reflection” (Lara-Bercial et al., 2017, p. 32). Further, the ESCF highlights that coaching competencies are underpinned by knowledge and reflection. In turn, this underlines the importance of reflective practice, which itself can help to develop the triad of knowledge (Irwin et al., 2004).

Within sport, reflective practice has been defined as, “a purposeful and complex process that facilitates the examination of experience by questioning the whole self and our agency within the context of practice. This examination transforms experience into learning, which helps us to access, make sense of and develop our knowledge-in-action in order to better understand and/or improve practice and the situation in which it occurs” (Knowles et al., 2014, p. 10). Reflection can be in-action, whereby the individual is thinking on their feet and reflecting *during* moments of applied practice, or on-action, where an individual retrospectively reflects on events *after* they have already occurred (Schön, 1987).

Research investigating the use of reflection for the development of coaching knowledge has explored various strategies for reflective practice, such as the reflective journals (Koh et al., 2015); reflective cards (Rodrigue & Trudel, 2018); and meditation (Longshore & Sachs, 2015). A common feature of these methods, however, is that they all encourage reflection-on-action. Further, educational interventions on reflective practice taught as part of coaching courses typically focus on retrospective methods of reflection, such as reflective journaling after the event, as opposed to reflection-in-action, which occurs during the event (Gilbourne et al., 2013). Retrospective reports through reflection-on-action have been criticised for their accuracy due to memory decay (Ericsson & Simon, 1993)

distortion of knowledge about the success of resolving stressful events (Brown & Harris, 1978); and personal biases that can distort retrospective reports based on perceived success or failure (Bahrnick et al., 1996). Moreover, the memories people remember after an event differ from their experience during the event (Miron-Shatz et al., 2009). That is, the remembering self is fallible and will not retain all information from an event (e.g., a coaching session or match). Instead, what is felt at the end of an event and critical moments will be recalled. This poses an issue for reflection-on-action and creates a case for the introduction of in-action reflective tools.

Some drawbacks of reflection-on-action have been mitigated by methods that support coaches to reflect in-action. Although workshops promoting reflection-on-action are useful at the time, learning is not necessarily transferred into coaches' practice (Knowles et al., 2006). Transfer of knowledge is an important consideration for coach education as Partington and Cushion (2013) demonstrated that coaches' understanding of their profession does not always translate into practice. Together, this evidence suggests that although coaches strive to implement certain coaching behaviours and knowledge in applied practice, some often continue to coach in their traditional manner. However, if coaches can reflect in action, they can change behaviour in-situ and the transfer gap between traditional coach education and practice is lessened. Subsequently, this can develop their expertise.

One approach that can facilitate reflection-in-action is Think Aloud (TA). TA has been used within sport psychology research to understand cognitions in golf (Whitehead et al., 2015), tennis (Swettenham et al., 2020), and cycling (Whitehead et al., 2018). Of direct relevance to the coaching context, recent research has introduced the use of TA as a reflective development tool in coaches (Whitehead et al., 2016). During TA, participants verbalise their thoughts throughout the task (Ericsson & Simon, 1980), most commonly wearing a dictaphone and a microphone whilst in their performance or coaching context. This allows for

data on real-time cognitive processes and decision-making to be collected and is an effective way to overcome memory decay issues of retrospective methods, such as interviewing or reflection-on-action. Ericsson and Simon (1993) distinguished three levels of verbalisations within TA, each of which involve varying degrees of cognitive processing required to produce vocalisation. In Level 1 verbalisation, the individual is required to make no effort to communicate their thoughts as they are simply vocalising their inner speech. Level 2 verbalisation requires the individual to verbally encode and vocalise their internal representations not originally in verbal code. For example, the verbal encoding of sights and smells would be included in Level 2 verbalisation. This encoding involves additional processing but does not bring new information into the person's focus of attention (Hertzum et al., 2009). Finally, Level 3 verbalisation requires the individual to explain their thoughts, ideas, hypotheses, or motives. Level 3 has been criticised for potentially impacting performance, although this has recently been challenged (Whitehead et al., 2015). As Level 3 verbalisations require the individual to hypothesise and explain their thoughts, this leads to the retrieval of information from long-term memory, which in turn may disrupt the natural process. However, within coaching and reflection, Level 3 verbalisation is purposefully used to cause such 'disruptions', as this is what can help coaches to raise awareness of their thoughts as they occur.

Whitehead et al. (2016) used TA to overcome issues of memory decay and bias within traditional reflective practice methods in the context of coach development. TA could, therefore, be an asset when developing adaptive expertise in coaching by building knowledge through reflection-in-action. Recent research on developing reflective practice in coaching seems to have focused on Level 3 verbalisation (Stephenson et al., 2020; Whitehead et al., 2016), which could lead to meta-cognition (i.e., thinking about thinking). Both recent studies that explored the use of TA as a reflective tool with rugby league and football coaches found

similar perceived benefits amongst coaches (Stephenson et al., 2020; Whitehead et al., 2016). These perceived benefits include an increased awareness, communication, and pedagogy, which all represent different aspects within the triad of knowledge (intrapersonal, interpersonal, and professional knowledge respectively). Although Whitehead et al. (2016) and Stephenson et al. (2020) reported perceived coach development through the use of TA, with tentative links to the triad of knowledge, the explicit development of specific coaching knowledge using TA as a reflection tool has yet to be explored.

The Current Study

The aim of this study is to expand on the potential utility of TA within a different context. Stephenson et al. (2020) reports experiences of one, young, football coach, coaching a national (nonprofessional) league classed at an adult recreational level. This research must be expanded to explore how the application of TA for reflective practice can be beneficial more broadly within football, for example within a professional football academy with experienced coaches. Demands within elite youth sport are high and come along with unpredictable changes during adolescence, which can impact mental wellbeing (Ong et al., 2018). Youth sport is a critical phase for youth athletes to develop the multitude of skills required for elite sport. The failure of which to acquire these skills being the reason some elite youth athletes fail to make it as adults (Menting et al., 2019). There is therefore a need for coaches within academy settings to reflect upon their practice effectively to best support the development of youth footballers and increase their chances of long term success.

Therefore, the aim of this study was to address two research questions: 1) what are the perceptions of football academy coaches on the use of TA as a reflective development tool, and 2) can TA be used to develop the triad of knowledge within football academy coaches? By implementing TA programmes, akin to that delivered to rugby coaches by Whitehead et

al. (2016), coaches could develop the triad of knowledge and enhance their foundation for developing coaching expertise and effectiveness.

Methods

Philosophical Assumptions

This study was guided by ontological realism (there is a single reality independent of human minds) and epistemological constructivism (knowledge is only partial and fallible), which together positioned this work within the realm of critical realism (Bhaskar, 2008; Ronkainen & Wiltshire, 2019). As such, we recognise the complexity of the social world, with knowledge of the world being socially constructed and, therefore, independent to the existence of the world itself (Ronkainen & Wiltshire, 2019). From a critical realist perspective, theory can be applied to make sense of socially constructed knowledge, although this philosophical position recognises that the objects the theory refers to have an existence beyond the interpretations of the researchers (Westhorp, 2018). Therefore, we have adopted this philosophical position as we believe there is a reality to be found regarding our research questions, but the knowledge within this reality is subjectively and socially constructed by the individuals that experience it.

Participants

Eight male football coaches (M age = 36) with an average of 15 years of coaching took part in this study. All coaches were employed full time at a Category 1 football academy, the highest status of academy in English professional football, which works in line with the Elite Player Performance Plan (EPPP; Premier League, 2012). For the benefit of non-UK readers, the EPPP supports English youth development football, with the aim of creating a world leading academy system to increase the number and quality of home-grown players. Categories are awarded, from Category 1 to Category 4, through independent assessment on 10 factors including productivity rates, training facilities, coaching, education

and welfare provisions. We recruited participants through opportunity sampling (Jupp, 2006) and provided consent prior to data collection. Institutional ethical approval was granted prior to the start of data collection.

Procedure

Think Aloud Training

Participants attended a two-hour coach reflection workshop designed to provide an introduction as to TA. The workshop included: education on what TA is and how it had been previously used within coaching; first-hand accounts from coaches with experience using TA as a reflective tool; examples of TA reflective audio from coaches; the opportunity to practice TA whilst watching a video of a coaching session, and the opportunity to practice TA whilst coaching, with their coaching colleagues taking the role of the football players. During the educational session, the coaches were presented with research outlining that what people remember after an event is quite different to how they experience the event (Miron-Shatz et al., 2009). The following information was provided to the coaches in an educational format: the remembering self will not retain all information from a coaching session or match; what happens at the end, and critical moments will be recalled; this means reflecting after the event may not be accurate; and TA can be used to mitigate these issues. The practicalities of using TA were then introduced, with examples of previous research, the development of TA reflective frameworks, and the impact this has on coaching also outlined (e.g., communication, self-awareness, pedagogy; Stephenson et al., 2020; Whitehead et al., 2016).

Interviews

Two months after the workshop, follow-up interviews were organised with eight of the coaches individually. Three of the eight coaches had used TA within their coaching sessions prior to the follow-up interviews. While this low number was partially due to COVID-19 lockdown restrictions within the UK at the time of the study, all coaches had

experience practicing TA within the workshop. Interviews were conducted by the lead researcher (LS) via Zoom™ online video conferencing. A semi-structured interview guide (available upon request) was created. This was used to discuss participant's initial perceptions of TA, and how they felt it could (or has already) benefitted them and their coaching team.

Analysis

Interviews, totalling 287 minutes ($M = 34.7$ minutes), were transcribed verbatim into 110 pages of data. These data were then analysed in NVivo qualitative analysis software using Braun and Clarke's (2019) reflexive thematic analysis, meaning the researchers engaged in a "reflective and thoughtful process" (Braun & Clarke, 2019, p. 594) together when analysing the data. Moreover, the researchers took into account assumptions held by the current research to create a conscious and reflexive use of the approach and its procedures. Data were analysed abductively, where themes were initially identified and then the triad of knowledge was introduced. The final themes and sub-themes can be seen in Table 1.

Data were analysed by the lead researcher (LS) who was working at the football academy in question at the time of the research. To reduce any biases due to this, the second researcher (AW) acted as a critical friend (Smith & McGannon, 2018) and supported the reflexive thematic analysis process (Braun & Clarke, 2019). In step 1 of the reflexive thematic analysis, the research team familiarised themselves with the data; in step 2, 109 preliminary codes were generated in accordance with the research questions. At this point, initial codes were reviewed as a team and considered. This collaborative coding allows a "dialogic exchange of ideas" that support interrogation and discussion from multiple perspectives (Saldana, 2013, p. 34). Following this, the triad of knowledge was introduced

Table 1*Themes and sub-themes generated from coach interviews*

Themes (The Triad of Knowledge)	Sub-Themes	Description
Professional Knowledge	Player and Coach Development	The impact of TA in supporting the development of players at the football academy through the development of coaching practice.
	Session Design	The impact of TA on the ability to plan and adapt coaching sessions.
Interpersonal Knowledge	Communication	The impact of TA on the coach's use of language and time spent talking during coaching sessions.
	Relationships	The impact of TA on developing coaching relationships through sharing and discussing TA recordings.
Intrapersonal Knowledge	Biases	The impact of TA on the coach's personal biases relating to perceptions of player ability and quality of coaching sessions or matches.
	Self-awareness	The impact of TA on the coach's consciousness of their own character, thoughts, feelings, and behaviours.
	Reflection	The impact of TA on the coach's conscious analysis of their coaching experience leading to a change in coaching behaviour.

and interviews were searched for themes relating to the different types of knowledge such as 'Communication', 'Session Design', and 'Biases'. In step 4, the themes were reviewed by author 1 and author 2. When reviewing the themes, we recognised it was difficult to separate the initial themes of 'Coach Development' and 'Player Development' as ultimately the development of the coach leads to the development of the player, and so we decided to condense both themes into 'Player and Coach Development'. Additionally, this clarified what data would fit within the theme of 'Communication' as previously it was difficult to separate from 'Coach Development'. Once the final themes were decided upon in step 5, interview transcriptions were reanalysed in depth for these themes.

Quality Standards and Trustworthiness

The term trustworthiness is used by qualitative researchers to describe the steps taken to improve the quality of their work (Sparkes & Smith, 2014). During the data analysis process, collaborative coding was conducted to help encourage critical reflexivity (Braun & Clarke, 2019). In addition, to facilitate critical dialogue during the analysis, the first and second author engaged in peer debriefing through formal meetings (Creswell & Miller, 2000). Specifically, the authors met to discuss and debate which codes linked to which types of knowledge. Further, some difficulties arose when themes overlapped each other for certain quotes, such as communication being viable as interpersonal knowledge and professional knowledge. Due to this, it is important to note the analysis involved a constant moving back and forth or as Braun and Clarke (2019) call it ‘a continual bending back on oneself’ (p.594), where the theory used to make sense of the data, and critical reflections between members of the research team occurred.

Results

Interviews were analysed thematically for elements within the triad of knowledge (professional, interpersonal, and intrapersonal knowledge) that coaches perceived to have the potential to be developed through TA. The following section presents each theme and sub-themes (*italicised*), whilst also providing quotes from coaches to illuminate how knowledge within these areas was perceived to be developed through the use of TA. All eight coaches will be referred to hereafter by a pseudonym to protect their identity. Within the results, they will be identified as academy coach one (AC1) through to academy coach eight (AC8).

Professional Knowledge

Professional knowledge refers to the knowledge of one’s sport and how to apply this knowledge (e.g., technical, tactical, and pedagogical knowledge). Within these theme, two

sub-themes were generated, which represented the area that the coaches perceived TA to impact on: *Player and coach development*, and *session design*.

Player and Coach Development

Player and coach development referred to supporting the development of players at the football academy through the development of coaching practice. AC3 spoke about shifting focus away from coaching behaviours and onto the behaviours of the players through the use of TA. This could allow the coaches to better understand the players' responses to certain aspects of the game, such as reactions to mistakes:

I'd used it [TA] at the player-led festival... Then observe behaviours and look at it from a "what do they react like when they're winning, what do they react like when they're losing, what do they do in terms of their body language when the game's tight or it's quite physical?" and we just stepped back and observed it from that point of view and I had the microphone and I was just looking at a few people's reactions to certain mistakes when a centre forward missed a shot, goalkeeper made a bad pass or he let one in. (AC3)

For AC7, they recognised the importance of understanding their own thoughts about individual players and how that impacted on player development, "you can kind of get your thoughts on how a certain individual is doing within a session as well and what you think could be improved." (AC7)

AC1 spoke about how integral coaching skills, such as listening and time spent talking, can be identified using TA. This could, in turn, lead to changes from the coach, such as time spent talking, as they pick up behavioural cues from the players:

When you're watching somebody else coach you're looking at when they're coaching and the impact on the players and are they actually listening and a lot of the time

you're watching and you observe that they're just waiting for them to finish and they want them to shut up and move on. (AC1)

Overall, coaches perceived that *player and coach development* was supported through the use of TA as it could provide them with a greater understanding of the players and themselves. The coaches felt this could allow them to improve the feedback and support they provide the players. Moreover, by using TA, the frequency and impact of certain coaching behaviours could be explored and adjusted according to the players' needs.

Session Design

Session design refers to the ability to plan and adapt coaching sessions. AC6 and AC8 spoke about how TA can allow coaches to remember the positive aspects of the session design rather than just focusing on the negative aspects. This is where methods of retrospective reflection may suffer due to memory decay, rather than only remembering the drills that stood out, or simply carried out at the end of a coaching session:

It [TA] helps you to remember a lot more of the session so you can evaluate the whole thing. So I might remember the really, really poor drill that I did, you know and focus on that where actually the other three drills that I did were actually quite good, but I'm only focussing on the poor one, or vice versa, I might remember the really good one where the players did really well at it and I did some really good coaching for them and they got it, but then I might forget actually the end match, the 4 v 4, 5 v 5 at the end was quite poor but I forget about that. So I think the impact of it [TA] helps to remember what you've done, a lot more of what you've done as you can play it back. (AC6)

Similarly, AC8 explained how TA could encourage him to reflect on the positive elements of a coaching session:

I think the good stuff [elements of the coaching session] as well, so when the good stuff's happening it will all be recorded "that's great, this is working really well, he's responded to that, this session works really well, move that out of there 'cause I had a problem and that's worked really well. (AC8)

AC8 also discussed how TA could make coaches better through analysis of the effectiveness of session design and emotions the coach may experience based on the outcome of the session. This can lead to adapting the session based on reflections-in-action to increase coaching effectiveness:

It [TA] will make them [the coaches] better, it will make them more, erm, more thoughtful in terms of the preparation, things may have been exposed in a previous session in terms of how they've felt about a certain thing. So if it was like, I don't know, area size too small... that will be a priority in their mind and in their planning where they've felt "shit, I was panicking, this is a nightmare, it's not working" rather than they'll just think "leave it smaller" and then that's it and move on to the next part of the session and the next bit when they reflect and think "I was starting to get a bit anxious, I knew it was my time to take the 16 players and the lead coach was watching me and my work was too small. Do I make it bigger now, do I change the pattern, do I put some on the outside or do I run with it? (AC8)

TA was perceived to support *session design* in that it can help coaches to develop a more balanced view of their sessions. Meaning they can take in the positives as well as the negatives, whilst exploring the various emotions they may experience whilst coaching.

Interpersonal Knowledge

Interpersonal knowledge refers to the coach's ability to connect and communicate with athletes and stakeholders. This theme consisted for two sub-themes, which captured areas where the coaches perceived TA to have an impact: *communication*, and *relationships*.

Communication

Communication represented the coaches use of language and time spent talking during coaching sessions. Coaches discussed multiple facets of communication and perceived TA to be beneficial for developing an awareness and understanding of effective communication. AC2 discussed how the use of TA and reflecting-in-action could help them to reflect on the clarity of their language during coaching and understanding from the players:

I've done it [TA] to myself on my own, okay, 'so, has [player name] listened to me? Has my instruction been clear enough when I've said to him "be creative, do whatever skill you want and have a shot on the goal at the end"? Did I say that, was it clear enough? Did I talk too much? Was I commentating? You know, am I talking too fast? Am I talking too high? Am I talking too low? That type of stuff really. (AC2)

Likewise, coaches explained that using TA could positively impact how much coaches spoke during sessions to keep the momentum and intensity of the session going:

My first thoughts were that this tool could massively manage and maybe curb how much people talk as I think I see way too much of that. (AC1)

I think sometimes you, you not "over coach" but you kinda speak for the sake of it, in terms of trying to keep the session flowing and maybe commentating at times to try and keep the tempo referring and the intensity and the motivation for the players.

(AC7)

AC3 discussed utilising a great amount of positive communication whilst coaching and believed that using TA could help them to build more balance into their feedback, whilst also recognising when remaining silent might be more impactful:

Commenting on, what's your language like, what's your tone like, are you overly critical on players, are you too positive? That's the thing that sometimes I struggle with, I think I'm too positive at certain times, so that's something I'm quite conscious

of, trying to really balance praise and actually not saying anything sometimes to have a bit more power and impact on when I do say something. I think that can, that can help by using think aloud. (AC3)

Coaches perceived TA could support *communication* by increasing their awareness and understanding of effective communication. This includes aspects of communication such as clarity, tone, amount of time spent talking, use of silence, and effective questioning.

Relationships

Relationships refers to developing coaching relationships through sharing and discussing TA recordings. AC8 discussed the relationships coaches could build together through sharing their TA audio: “You’re building relationships as well aren’t you ‘cause you’re getting a bit more insight into how they’re [other coaches] thinking” (AC8). AC5 mentioned how hearing a coaching colleague’s feedback on their TA audio would help them to understand each other’s thought processes. This could lead to better coaching relationships, and a more cohesive coaching delivery: “If I work with [a coach colleague] as such, if I listen to his feedback “oh what’s his sort of thinking, thought process?” (AC5). AC6 reported similar interactions with their coach mentor, with the ability to share his thought processes from his coaching session leading to a better understanding from the coach mentor. Though not expressed in the interviews, this could lead to stronger relationships due to an uncensored sharing of thought processes:

I think it would help him [coach mentor] as well to understand what we’re thinking because I must admit when I was sat with [coach mentor], he was watching the match and he was providing feedback on me but then if I can, I could say to [coach name], for example, I was just trying to do that but if I find that he’s recording it as well then he’s got the evidence to say “oh [coach name] was thinking that at the time”. (AC6)

AC8 mentioned that to have a greater insight into what other coaches are thinking by using TA would provide him with a better understanding of other coaches' self-awareness and decision making in action. Though not explicitly verbalised, having a greater understanding of other coaches' levels of self-awareness and behaviours could support the growth of relationships:

I would have loved to have known what was going through his mind. I asked him, I asked him obviously when we went through it but like I said "I thought [coach name] was maybe gonna do that" or I thought in the moment I know he probably wasn't thinking that, he was just sort of probably thinking about his session or not even being self-aware that maybe things were taking as long as maybe they were. (AC8)

Relationships were perceived to be enhanced through the use of TA. Coaches felt that sharing their TA audio could help to build relationships and an understanding of one another's thoughts. Further, sharing their TA audio with their coach mentor could promote a better shared understanding of their coaching behaviours and decision-making. This could support the growth of coaching relationships through an uncensored sharing of thoughts.

Intrapersonal Knowledge

Intrapersonal knowledge refers to self-awareness and introspection. This theme has been broken down into 3 sub-themes, which captured areas of interpersonal knowledge that the coaches perceived TA to have impacted on: *biases*; *self-awareness*; and *reflection*.

Biases

Biases refers to coaches' personal biases relating to perceptions of player ability and quality of coaching sessions or matches. It was discussed how reflecting using TA could increase awareness of personal biases, allowing coaches to understand what this may look like for them whilst coaching and provide them with a more accurate representation of their

coaching experience. AC1 discussed the ability to separate themselves from their emotion after a match to reduce biases, which may occur due to the result:

I suppose it's [TA] that trying to remove as much emotion from the event as possible isn't it? Erm, a large part of our job is writing reviews on players. So we'll do linked reviews on players every week and speak about their performances in the game and I often find that some weeks, some weeks I haven't watched the game back and I've written the review and then I watch the game back and then maybe later on that day or the next day and then my review would be completely different if I was to write it again based on what I've just watched back. (AC1)

For AC5 and AC3, using TA was perceived as beneficial to recognise individual coach biases towards players. This recognition could allow coaches to overcome player biases, preventing them from becoming negative or inappropriate, and hindering the players' development:

Initially when I'm talking about players and certain players and we all have, I do it myself, we all have biases, there's always, there's a couple of players whether it's in the group that you're working with or groups that you kind of, you see boys in those groups and it's something on, yeah, sometimes you're quite negative in a way [towards the players] that is probably inappropriate. (AC3)

I think sometimes your biases will come out a bit more in your conversations and then when you listen back to it you think "okay, maybe I do think I am a bit too supportive of them, maybe I should have come down on him in that situation". I think that would be really good, really good to practice that a bit more. (AC5)

Coaches perceived TA to increase awareness of personal *biases*, especially those that occur depending on the result of a match, which may impact a coach's view of a player. By recognising biases towards individual players, coaches felt it could help them to recognise negative or positive behaviours towards these players and adjust them accordingly.

Self-Awareness

Self-awareness refers to the coaches' consciousness of their own character, thoughts, feelings, and behaviours. AC6 discussed how TA impacted their ability to recognise patterns of behaviours and to pinpoint areas that may need improvement in their coaching practice:

Another impact I would say was to, it would help you long term, so if you can do it obviously more than once and do it quite often you might tend to get a pattern of what I do as a coach so I can see I did it on that week and I did it on that week as well where I didn't question him, I didn't provide any positive feedback to him... If you get that pattern you can change it can't you, if it's in front of you. (AC6)

AC2 touched on the importance of finding a personal balance to ensure they bring their best selves to work. To do this requires a level of self-awareness and self-analysis to be more effective at work and understand their impact upon other people. AC2 suggested this could be developed the more they listen to themselves, which could be facilitated through TA and provide coaches with a more objective view on their coaching practice:

The more I listen to myself, I'll kind of be able to, to, er, distinguish and identify how, am I thinking aloud there or am I commentating? Am I, you know, just saying what I'm seeing or am I looking back objectively and giving an objective viewpoint on the practice, the coach, my communication or is it subjective and getting affected by, er, you know, emotions or who I'm talking to or how I'm feeling that day, you know... So probably how I'm feeling as an individual, you know, what's my night's sleep been like, what's my food been like? (AC2)

AC4 perceived TA to have the potential to improve awareness of language used within coaching practice and to notice if language changes due to the pressure of competition:

Does it become more demanding in a game and used, more assertive would be the word, more assertive language because of the game or are you more, are you quite the same? ‘Cause really you should be the same. (AC4)

AC8 spoke about how TA could be used to provide the coach with feedback in-action to allow coaches to regulate their emotions and use of language in matches through in game development:

Really interesting to record think aloud during a game ‘cause I think you’d get a real shift on emotion based on the context of what’s happening on the pitch. For them to hear that back, they’ll have an idea ‘cause they’ll think “ah yeah, I was really annoyed at that” but if they’re constantly talking and giving some feedback to themselves on what they’re thinking, what they’re seeing, play that back over the year and I think for in-game development it could be really, really good, really good. (AC8)

As such, TA was perceived to develop *self-awareness* by helping the coaches to understand their patterns of behaviour and how these may impact their coaching. Coaches felt awareness of language use and how this may change in different contexts (e.g., competition versus training) could be developed. Further, they perceived that this awareness could support their in-game development and regulation of emotions.

Reflection

Reflection referred to how a coach’s conscious analysis of their coaching experience could lead to a change in coaching behaviour. Here, coaches discussed the impact TA can have on coaching as a reflective tool and the ability to reflect-on-action by listening back to the TA audio. Coaches explained how they would question themselves when listening back to a TA audio recording:

So I think, for me, when I listen back to it and I’ll be asking myself “would I have questioned that there, would I have said it like that?”. So, I think there’ll be a lot

[that] comes out of it [TA]... It would be interesting to look at games in sessions, so whether they differ from how people behave. (AC4)

AC8 spoke about how reflecting using TA influenced the planning and preparation of future coaching sessions and could be employed to help them overcome any issues that arose during reflection-in-action using TA:

Then afterwards that would be a key thing to reflect on and think “right, I could have done that, I should have done that, I did do that, it worked, it didn’t but then straight away in terms of the planning and prep that’s a few things for them to think about, how this is gonna fit to get the benefits of what I want in a session”. (AC8)

AC1 felt TA was a novel reflective tool compared to other methods taught on coach education courses and emphasised that “how” you reflect can have an important impact on coaching practice:

I think it’s pretty interesting stuff ‘cause it’s quite different to most of the usual stuff you do on your, on your coach ed stuff. I’ve not really seen people go into real depth about how you reflect and stuff like that. It’s very much they tell you to reflect but I end up writing a load of rubbish on a page that I’m never gonna look at again so it’s, so it’s how you reflect to make an actual impact on what you’re doing. (AC1)

Reflection was perceived by the coaches to be developed through TA, as it provides them with a novel way to reflect-in-action as well as reflecting whilst listening back to their TA audio recordings. Coaches discussed how they would question themselves whilst listening back to their TA audio recordings. This could then support their planning for future sessions, helping them to overcome barriers and maintain positives.

Discussion

This study aimed to explore the perceptions of football academy coaches on the impact of TA as a reflective tool and explored whether if TA can be used to develop the triad

of knowledge within football academy coaches. During the analysis process, the triad of knowledge (professional knowledge, interpersonal knowledge, and intrapersonal knowledge) was evident within the data. In turn, the current findings offer an insight into how reflective development, using TA, could develop a foundation of coaching knowledge to develop expertise within academy football coaches.

From the findings, we suggest that all three types of knowledge could be developed through TA. Coaches discussed how professional knowledge could be developed using TA as the process of reflecting-in-action can support player and coach development, as well as session design. Participants expressed how a shift in focus from coaching behaviours onto the behaviours of players could occur. By having a greater understanding and awareness of player behaviours, enhanced individualised player support and feedback could occur. The TA process could heighten awareness as to whether a coach was talking excessively or providing exceeding amounts information, which has been found to reduce the clarity of verbal communication (Thelwell et al., 2017) and could negatively impact player development. This may be due to the need to be in control, or be a response to stressful experiences. Research suggests high pressure situations can lead to ineffective coaching and negatively affect athlete performance (Gould et al., 2001). Additionally, McCann (1997) reported athletes were able to recognise when their coaches were experiencing stress, which negatively impacted athlete confidence.

In terms of professional knowledge, the coaches identified TA to have an impact on session design by bringing awareness to the effectiveness of the session in-action, which could allow them to respond flexibly to changing conditions. With the role of an effective coach embodying adaptive expertise, they are required to perform flexibly, and innovatively within coaching sessions in response to situational demands (Collins et al., 2016). This finding also reinforces previous findings reported by Whitehead et al. (2016), in rugby

league, where coaches using TA as a reflective tool perceived that it aided development in coaching pedagogy as a result.

Furthermore, within professional knowledge, coaches suggested TA could allow them to remember the session more accurately. Within the interview, one coach stated they would remember the poor drill over the successful drill. By having a more accurate representation of the coaching session by using TA in-action, coaches can increase the likelihood that they do not overlook the successful drills that could be emphasised within their future coaching practice. As humans, we all have a negativity-bias, that means negative information can be attended to compared to positive experiences (Rozin & Royzman, 2001). Within sport, the importance of focusing on strengths has been highlighted by coaches, athletes, and parents (Gucciardi et al., 2009). This can be called a strengths-based approach, which draws on positive psychology, appreciative inquiry (AI) coaching, and strengths-based coaching (Gordon & Gucciardi, 2011). A strengths-based approach can combat negativity bias and is used within fields such as executive coaching (Gordon, 2016), elite sport (Ludlam et al., 2016), and clinical psychology (Seligman & Peterson, 2003) to achieve outcomes such as happiness and flourishing (Compton & Hoffman, 2019), increased performance (Peláez et al., 2019), and mental toughness (Gordon et al., 2017). Within AI, individuals are encouraged to focus on what works rather than what is wrong, but this has been criticised on the basis that an avoidance of negatives may distort the reality of the situation (Cram, 2010), and may be unsuitable for neophyte coaches or during problematic coaching situations (Pill, 2015). However, this is a surface understanding of AI, as individuals do not avoid negatives when using AI but instead engage in critical reflection of failure and success (Hart et al., 2008).

Coaches perceived TA to have an impact upon interpersonal knowledge, specifically for communication with players and relationships with other coaching colleagues. TA can bring awareness to the clarity of the coaches' communication style, such as the use of

silences, asking questions, and feedback. Many coaches discussed the impact TA can have on the amount the coach talks within a session, which is noteworthy given evidence that the use of silence is the largest single behaviour elicited by professional top-level soccer coaches (Smith & Cushion, 2006). Furthermore, coaches in the current study highlighted how TA could refine the feedback they provide, for example, by not being overly positive in their feedback. It is important that positive feedback is used correctly, but positive feedback in the form of general praise can be interpreted as non-specific feedback and reduce the impact it has (Schmidt, 1991). Though research has demonstrated associations between positive feedback, feelings of relatedness, and intrinsic motivation (e.g., Hollembeak & Amorose, 2005), it is important to make sure this feedback is specific and constructive (Ntoumanis et al., 2018). Therefore, the findings illustrate how TA can raise awareness to different facets of communication and development of interpersonal knowledge. In turn, this can be reflected upon and cultivated to influence many aspects of player and coach development.

TA was perceived to influence relationships between coaching colleagues. It was discussed how the ability to share TA audio could lead to better coaching relationships and ultimately more cohesive coaching delivery for coaches working with the same team. This links to social learning initiatives, such as the community of practice approach. Here, research has found that coaches value the ability to connect with other coaches and focus on the processes of coaching (Bertram et al., 2016), learn through engaging in a community of practice (Culver & Trudel, 2006), and share their own knowledge within the community of practice (Culver et al., 2009). Additionally, the influence of support from coaching peers has been shown to be an important factor for the development of coaches through non-formal learning situations (e.g., conferences and seminars) and informal learning situations (e.g., interactions with peers; Camiré et al., 2014).

For intrapersonal knowledge, perceived benefits identified by coaches included the awareness of personal biases, self-awareness, and reflective practice. Coaches perceived that TA brought more awareness towards personal biases present within the coaching environment, for example biases towards certain groups of players or individuals, which may have a negative impact on the support provided to those players by the coach. It could be argued that recognition of biases is particularly important within academy coaching where the focus is on development of the player and not just the results that are produced. Additionally, some coaches discussed how they became more aware of overly supporting players and how TA as a reflective tool could identify biases within the coach's personal behavioural style. Recognition of these behaviours is important, as the development of positive athlete attitude, motivation, and behaviour stem from the behaviours of the coach, such as a clear vision and balance of support and challenge (Arthur et al., 2012). Within this study, self-awareness included the ability to recognise patterns of behaviours in coaching practice and the ability to change or maintain these patterns of behaviours based on their effectiveness. Research shows the importance of using reflective practice to change behaviours (Gilbert & Cote, 2013) and is an integral component in shaping coaching behaviours (Cushion, 2016).

Under intrapersonal knowledge, self-awareness of the use of language was identified as an important factor of coaching practice that TA could influence. This is consistent with previous research that reported self-awareness as a perceived benefit of reflective TA in coaching (Stephenson et al., 2020; Whitehead et al., 2016). Additionally, coaches expressed that TA could bring awareness to consistent language and feedback within training and competition. Previous work has shown a shift in coach language can occur due to the outcome of a match, where during winning bouts in boxing, coaches used less controlling and internal feedback, and more positive feedback compared to losing bouts (Halperin et al., 2016). Self-awareness of personal needs and work-life balance was also discussed by the

coaches, with the more they listen to themselves potentially influencing their self-awareness across other domains such as self-care and work within the coaching office. Self-awareness has been shown to predict coaching efficacy (Afkhani et al., 2011) and could bring more awareness towards coach needs in terms of self-care to reduce coach burnout, a topic growing in research (Hassmén et al., 2019).

Finally, reflection was discussed within intrapersonal knowledge as a process that TA could support. The coaches expressed how they could listen back and reflect on their TA audio by asking themselves questions about coach and player behaviours, use of language, ability to adapt, what was successful, and what was not successful. Furthermore, reflection on their TA audio could influence their planning and preparation for future coaching sessions, a complex practice involving many variables (Denison, 2010), and change or maintain any aspects of their coaching identified as in-effective or effective. The coaches also emphasised the importance of *how* one reflects and the unique qualities of TA as a reflective practice tool, such as speaking their thoughts out loud in-action providing the option to listen back to reflections which other reflective tools, such as Gibbs' Reflective Cycle (Gibbs, 1998), do not provide. Therefore, the findings suggest that the use of TA as a novel reflective tool can enhance intrapersonal knowledge through awareness of one's own thoughts, emotions, and biases to ultimately create a self-aware coach.

Practical Implications

There are a number of practical implications from this study. From a professional knowledge perspective, coaches could use TA to record successful events, rather than being overridden by negativity-bias (Rozin & Royzman, 2001) or inaccuracy of the experiencing self (Miron-Shatz et al., 2009). In turn, it is conceivable that strengths could be cultivated and maintained more using TA as a reflective tool, although coaches are encouraged to find a

balance between focusing on their strengths and uncovering weaknesses whilst using TA to create an accurate representation of their coaching.

Taking the interpersonal knowledge findings from this study, it could be suggested that coaches can use TA to build their awareness of different facets of communication, such as tone, time spent talking, clarity, and the use of silence with TA. Further, by working with a coaching colleague and sharing TA audio, this could help coaches to gain a better understanding of each other's thought processes, strengths, and weaknesses whilst building coaching relationships. It was previously stated that coaches value learning opportunities, networking with peers, and sharing knowledge. However, coaches often perceive time and money as two barriers towards some of these learning situations (e.g., conferences, seminars; Camiré et al., 2014). Gilbert et al. (2009) suggested youth sport coaches need these opportunities to engage in continuing professional development, allowing them to create and share knowledge with coaching peers. TA could therefore be a tool through which to promote peer learning and development of knowledge without incurring the same costs in terms of time and money, as coaches can openly share their TA audio and reflections with one another, gain feedback, and support one another.

Finally, to support the developing of intrapersonal knowledge, TA can support coaches to develop awareness of themselves and their biases. Self-awareness can be developed by identifying and cultivating positive patterns of behaviours in line with coaching philosophies. Specifically, the use of TA could allow an optimal balance of challenge and support to occur through the consideration of biases towards individual players and personal coaching style. Similar findings have been evident within previous research (Stephenson et al., 2020; Whitehead et al., 2016), but no research has yet to identify the explicit benefits. During reflective practice, coaches can use TA to recognise and regulate their own emotions and use of language through in game development. Within Hassmén et al. (2019), coaches

discussed how an increased awareness of signals of stress and rumination helped during the burnout recovery process and prevention of future burnout. Therefore, TA used in these ways could develop intrapersonal knowledge and impact not only the effectiveness of the coach and subsequent player development, but the fulfilment and mental health of the individual as a coach and a person.

Limitations and Future Directions

Although this study has provided positive perceptions for the use of TA to develop knowledge with coaches, it is important to acknowledge its limitations. First, a limitation of this research is the lack of applied experience that the coaches had in terms of the use of TA. Given the current COVID-19 pandemic, data collection was disrupted. Nonetheless, this study does provide a novel insight into coaches' initial perceptions of TA and suggest that it has potential for the development of knowledge within coaches; specifically, in Category 1 football academy coaches within the UK. Thus, future longitudinal research to explore the long-term impacts of reflective practice using TA within football coaching and across different settings (e.g., gender, age groups, location) is warranted. Second, the current study only takes into account the personal views of the coaches participating and it is not known whether the benefits perceived by the group of coaches will transpire when TA is applied within coaching practice. Therefore, future research should examine the development of these types of knowledge amongst coaches enrolled on a TA reflective practice course. For example, this could involve collecting TA data to analyse the content of verbalisations, which could, in turn, enable more a more critical examination of the development of the triad of knowledge through the use of TA.

Conclusion

The current study has provided insight into how TA can be used as a novel reflective practice tool to develop the triad of knowledge within coaches at a professional football

academy. In turn, the findings demonstrate how the use of TA has the potential to build a foundation of knowledge for coaches to then develop coaching expertise (Côté & Gilbert, 2009). Given the universal nature of reflection and coaching, TA has potential to have similar impacts on coaching internationally. Finally, the researchers hope that coaches, and those working alongside coaches, can explore the practical applications of TA discussed within this paper. We hope this will further coaching practice and the subsequent development of athletes.

References

- Afkhami, E., Mokhtari, P., Tojjari, F., Bashiri, M., & Salehian, M. H. (2011). Relationship between emotional intelligence and coaching efficacy in coaches. *Annals of biological research*, 2(4), 469-475.
- Arthur, C. A., Hardy, L., & Woodman, T. (2012). Realising the Olympic dream: vision, support and challenge. *Reflective Practice*, 13:3, 399-406, <http://dx.doi.org/10.1080/14623943.2012.670112>
- Bahrack, H. P., Hall, L. K., & Berger, S. A. (1996). Accuracy and distortion in memory for high school grades. *Psychological Science*, 7(5), 265-271. <https://doi.org/10.1111/j.1467-9280.1996.tb00372.x>
- Berntsen, H., & Kristiansen, E. (2019). Guidelines for need-supportive coach development: the motivation activation program in sports (MAPS). *International Sport Coaching Journal*, 6(1), 88-97. <https://doi.org/10.1123/iscj.2018-0066>
- Bertram, R., Culver, D. M., & Gilbert, W. (2016). Creating value in a sport coach community of practice: A collaborative inquiry. *International Sport Coaching Journal*, 3(1), 2-16. <https://doi.org/10.1123/iscj.2014-0122>
- Bhaskar, R. (2008). *Dialectic: The pulse of freedom*. Routledge.

- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589-597.
<https://doi.org/10.1080/2159676X.2019.1628806>
- Brown, G. W., & Harris, T. (1978). Social origins of depression: a reply. *Psychological medicine, 8*(4), 577-588. <https://doi.org/10.1017/S0033291700018791>
- Camiré, M., Trudel, P., & Forneris, T. (2014). Examining how model youth sport coaches learn to facilitate positive youth development. *Physical Education and Sport Pedagogy, 19*:1, 1-17, <https://doi.org/10.1080/17408989.2012.726975>
- Collins, L., Carson, H. J., & Collins, D. (2016). Metacognition and professional judgment and decision making in coaching: Importance, application and evaluation. *International Sport Coaching Journal, 3*(3), 355-361.
<https://doi.org/10.1123/iscj.2016-0037>
- Compton, W. C., & Hoffman, E. (2019). Positive psychology: The science of happiness and flourishing. *SAGE Publications*.
- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International journal of sports science & coaching, 4*(3), 307-323.
<https://doi.org/10.1260/174795409789623892>
- Cram, F. (2010). Appreciative inquiry. *Mai Review, 3*(1), 1-13.
- Creswell, J., & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory Into Practice, 39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2
- Culver, D. M., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the potential for learning through interactions. In *The sports coach as educator* (pp. 115-130). *Routledge*.

- Culver, D. M., Trudel, P., & Werthner, P. (2009). A sport leader's attempt to foster a coaches' community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365-383. <https://doi.org/10.1260/174795409789623900>
- Cushion, C.J., (2016). Reflection and reflective practice discourses in coaching: a critical analysis. *Sport, Education and Society*. 23(1), 82-94
<https://doi.org/10.1080/13573322.2016.1142961>
- Denison, J. (2010). Planning, practice and performance: The discursive formation of coaches' knowledge. *Sport, Education and Society*, 15(4), 461-478.
<https://doi.org/10.1080/13573322.2010.514740>
- Downham, L., & Cushion, C. (2020). Reflection in a high-performance sport coach education program: A Foucauldian analysis of coach developers. *International Sport Coaching Journal*, 7(3), 347-359. <https://doi.org/10.1123/iscj.2018-0093>
- Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological review*, 87(3), 215. <https://doi.org/10.1037/0033-295X.87.3.215>
- Ericsson, K. A., & Simon, H. A. (1993). Verbal reports as data. Cambridge: MIT Press.
- Gibbs, G. (1998). Reviewing and improving your teaching. Practice Guide, 7, H851.
- Gilbert, W.D., R. Gallimore, and P. Trudel. (2009). A learning community approach to coach development in youth sport. *Journal of Coaching Education* 2: 1– 21.
<https://doi.org/10.1123/jce.2.2.3>
- Gilbourne, D., Marshall, P., & Knowles, Z. (2013). Reflective practice in sports coaching: thoughts on process, pedagogy and research. An introduction to sports coaching: *Connecting theory to practice*, 3-14.
- Gordon, S. (2016). Strengths-based coaching: Case of mental toughness. In P. A. Davis (Ed.), Sports and athletics preparation, performance, and psychology. *The psychology of effective coaching and management* (p. 267–283). Nova Science Publishers.

- Gordon, S., & Gucciardi, D. F. (2011). A strengths-based approach to coaching mental toughness. *Journal of sport psychology in action*, 2(3), 143-155.
<https://doi.org/10.1080/21520704.2011.598222>
- Gordon, S., Anthony, D. R., & Gucciardi, D. F. (2017). A case study of strengths-based coaching of mental toughness in cricket. *International journal of sport psychology*, 48(3), 223-245. <https://doi.org/10.7352/IJSP.2017.48.223>
- Gould, D., Greenleaf, C., Guinan, D., Dieffenbach, K., & McCann, S. (2001). Pursuing performance excellence: Lessons learned from Olympic athletes and coaches. *Journal of Excellence*, 4(4), 21-43.
- Halperin, I., Chapman, D. W., Martin, D. T., Abbiss, C., & Wulf, G. (2016). Coaching cues in amateur boxing: An analysis of ringside feedback provided between rounds of competition. *Psychology of Sport and Exercise*, 25, 44-50.
<https://doi.org/10.1016/j.psychsport.2016.04.003>
- Hart, R. K., Conklin, T. A., & Allen, S. J. (2008). Individual leader development: An appreciative inquiry approach. *Advances in Developing Human Resources*, 10(5), 632-650. <https://doi.org/10.1177/1523422308321950>
- Hassmén, P., Kenttä, G., Hjälm, S., Lundkvist, E., & Gustafsson, H. (2019). Burnout symptoms and recovery processes in eight elite soccer coaches over 10 years. *International journal of sports science & coaching*, 14(4), 431-443.
<https://doi.org/10.1177/1747954119851246>
- Hertzum, M., Hansen, K. D., & Andersen, H. H. (2009). Scrutinising usability evaluation: does thinking aloud affect behaviour and mental workload? *Behaviour & Information Technology*, 28(2), 165-181. <https://doi.org/10.1080/01449290701773842>

- Hollembek, J., & Amorose, A. J. (2005). Perceived coaching behaviors and college athletes' intrinsic motivation: A test of self-determination theory. *Journal of applied sport psychology, 17*(1), 20-36. <https://doi.org/10.1080/10413200590907540>
- International Council for Coaching Excellence (ICCE; 2013). International sport coaching framework. Champaign, IL: Human Kinetics
- Irwin, G., Hanton, S., & Kerwin, D. (2004). Reflective practice and the origins of elite coaching knowledge. *Reflective practice, 5*(3), 425-442. <https://doi.org/10.1080/1462394042000270718>
- Jupp, V. (2006). *The SAGE dictionary of social research methods* (Vols. 1-0). London, : SAGE Publications, Ltd <https://doi.org/10.4135/9780857020116>
- Knowles, Z., Gilbourne, D., Cropley, B., & Dugdill, L. (2014). Reflecting on reflection and journeys. In Z. Knowles et al. (Eds.). *Reflective practice in the sport and exercise sciences: Contemporary issues*, 3-14. Abingdon: Routledge.
- Knowles, Z., Tyler, G., Gilbourne, D., & Eubank, M. (2006). Reflecting on reflection: exploring the practice of sports coaching graduates. *Reflective practice, 7*(2), 163-179. <https://doi.org/10.1080/14623940600688423>
- Koh, K. T., Mallett, C. J., Camiré, M., & Wang, C. K. J. (2015). A guided reflection intervention for high performance basketball coaches. *International Sport Coaching Journal, 2*(3), 273-284. <https://doi.org/10.1123/iscj.2014-0135>
- Lara-Bercial, S., North, J., Petrovic, L., Oltmanns, K., Minkhorst, J., Hämaläinen, K., & Livingstone, K. (2017). *European Sport Coaching Framework v1*.
- Lefebvre, J. S., Evans, M. B., Turnnidge, J., Gainforth, H. L., & Côté, J. (2016). Describing and classifying coach development programmes: A synthesis of empirical research and applied practice. *International Journal of Sports Science & Coaching, 11*(6), 887-899. <https://doi.org/10.1177/1747954116676116>

- Longshore, K., & Sachs, M. (2015). Mindfulness training for coaches: A mixed-method exploratory study. *Journal of Clinical Sport Psychology, 9*(2), 116-137.
<https://doi.org/10.1123/jcsp.2014-0038>
- Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A strengths-based consultancy approach in elite sport: Exploring super-strengths. *Journal of Applied Sport Psychology, 28*(2), 216-233.
<https://doi.org/10.1080/10413200.2015.1105881>
- McCann, S. (1997). Overcoaching and undercoaching: What pressure can do to coaches. *Olympic Coach, 7*, 12.
- Menting, S. G., Hendry, D. T., Schiphof-Godart, L., Elferink-Gemser, M. T., & Hettinga, F. J. (2019). Optimal development of youth athletes toward elite athletic performance: How to coach their motivation, plan exercise training, and pace the race. *Frontiers in Sports and Active Living, 1*, 14. <http://dx.doi.org/10.1136/bjsports-2019-101365>
- Miron-Shatz, T., Stone, A., & Kahneman, D. (2009). Memories of yesterday's emotions: Does the valence of experience affect the memory-experience gap? *Emotion, 9*(6), 885. <https://doi.org/10.1037/a0017823>
- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity, 155-169*.
- Ong, C. W., McGregor, P., & Daley, C. (2018). The boy behind the bravado: Player advanced safety and support in a professional football academy setting. *Sport and Exercise Psychology Review, 14*(1).
- Partington, M., & Cushion, C. (2013). An investigation of the practice activities and coaching behaviors of professional top-level youth soccer coaches. *Scandinavian journal of*

- medicine & science in sports*, 23(3), 374-382. <https://doi.org/10.1111/j.1600-0838.2011.01383.x>
- Peláez, M. J., Coe, C., & Salanova, M. (2019). Facilitating work engagement and performance through strengths-based micro-coaching: a controlled trial study. *Journal of Happiness Studies*, 1-20 <https://doi.org/10.1007/s10902-019-00127-5>
- Pill, S. (2015). Using Appreciative Inquiry to explore Australian football coaches' experience with game sense coaching. *Sport, Education and Society*, 20(6), 799-818. <https://doi.org/10.1080/13573322.2013.831343>
- Premier League (2012). Elite Player Performance Plan. London: Premier League
- Rodrigue, F., & Trudel, P. (2018). Reflective Practice: a Case Study of a University Football Coach Using Reflective Cards. *Reflective Practice*, 2, 3. <https://doi.org/10.2478/ljss-2018-0002>
- Ronkainen, N. J., & Wiltshire, G. (2019). Rethinking validity in qualitative sport and exercise psychology research: A realist perspective. *International Journal of Sport and Exercise Psychology*, 1-16. <https://doi.org/10.1080/1612197X.2019.1637363>
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and social psychology review*, 5(4), 296-320. https://doi.org/10.1207/S15327957PSPR0504_2
- Saldaña, J. (2013). The coding manual for qualitative researchers. Thousand Oaks, CA: Sage.
- Saldaña, J. (2013). The coding manual for qualitative researchers+ qualitative data analysis: A methods sourcebook. *Sage Publications*.
- Schmidt, R. A. (1991). Motor learning & performance: From principles to practice. *Human Kinetics Books*.
- Schön, D. A. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. *Jossey-Bass*.

- Seligman, M. E. P., & Peterson, C. (2003). Positive clinical psychology. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology* (p. 305–317). *American Psychological Association*. <https://doi.org/10.1037/10566-021>
- Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International review of sport and exercise psychology*, *11*(1), 101-121.
<https://doi.org/10.1080/1750984X.2017.1317357>
- Smith, M., & Cushion, C. J. (2006). An investigation of the in-game behaviours of professional, top-level youth soccer coaches. *Journal of sports sciences*, *24*(4), 355-366. <https://doi.org/10.1080/02640410500131944>
- Sparkes, A. C., & Smith, B. (2013). *Qualitative research methods in sport, exercise and health: From process to product*. *Routledge*.
- Stephenson, J., Cronin, C., & Whitehead, A. E. (2020). “Suspended Above, and in Action”: Think Aloud as a Reflective Practice Tool. *International Sport Coaching Journal*, *7*(1), 11-21. <https://doi.org/10.1123/iscj.2018-0022>
- Swettenham, L., Eubank, M., Won, D., & Whitehead, A. E. (2020). Investigating stress and coping during practice and competition in tennis using think aloud. *International Journal of Sport and Exercise Psychology*, *18*(2), 218-238.
<https://doi.org/10.1080/1612197X.2018.1511622>
- Thelwell, R. C., Wagstaff, C. R., Chapman, M. T., & Kenttä, G. (2017). Examining coaches’ perceptions of how their stress influences the coach–athlete relationship. *Journal of sports sciences*, *35*(19), 1928-1939. <https://doi.org/10.1080/02640414.2016.1241422>
- Trudel, P., & Gilbert, W. (2013). The role of deliberate practice in becoming an expert coach: Part 1–Defining Coaching Expertise. *Olympic Coach Magazine* 44-48.

Westhorp, G. (2018). Understanding mechanisms in realist evaluation and research. Doing realist research. *London: Sage*.

Whitehead, A. E., Jones, H. S., Williams, E. L., Rowley, C., Quayle, L., Marchant, D., & Polman, R. C. (2018). Investigating the relationship between cognitions, pacing strategies and performance in 16.1 km cycling time trials using a think aloud protocol. *Psychology of Sport and Exercise, 34*, 95-109.

<https://doi.org/10.1016/j.psychsport.2017.10.001>

Whitehead, A. E., Taylor, J. A., & Polman, R. C. (2015). Examination of the suitability of collecting in event cognitive processes using Think Aloud protocol in golf. *Frontiers in psychology, 6*, 1083. <https://doi.org/10.3389/fpsyg.2015.01083>

Research Commentary

In this research commentary I will share my experiences of research leading up to and during the professional doctorate. I will explore the process I went through when deciding upon research topics, struggles I have faced, and key learnings along the way. I will then outline my research philosophy and end by reflecting on areas I would like to explore in my continued work in research.

Background to my Research Experience

From my BSc, it was drilled into me that quantitative research was the only way. The first piece of research I ever did was titled “The Effect of Storybook Learning in Adults and the Effects of Sleep and Contexts on Novel Word Learning in Adults”. It entailed writing a story about an alien planet and switching some of the English words out for novel words I had created. We then asked participants partake in a cued recall task either after sleep, or after no sleep. I think this is a great example of where I started with research, and how it was very far removed to the research that I conducted next. Entering the MSc at LJMU showed me a completely different form of research. On the MSc., I remember messaging my friend from The University of York saying how I felt very against qualitative research after it being portrayed as the devil on my BSc, and so I struggled with this during the research methods sessions. I therefore decided to use a quantitative approach with my MSc research paper titled “Investigating Stress and Coping During Practice and Competition in Tennis Using Think Aloud” (Swettenham et al., 2020). This is still one of my favourite research experiences as it was within tennis, which is the reason I pursued sport psychology in the first place. This was my first experience of submitting a piece of research to a journal and I was massively supported by my supervisor who pushed me throughout the whole process to achieve my first publication. This impacted my confidence, as I suddenly felt like I could do something

worthy within the field. After the review process and discussions with my supervisor, I was beginning to realise how reporting the data qualitatively could have actually enhanced the work that we did. By reporting the findings quantitatively, we arguably lost many of the nuances within the verbalisations provided by the participants. Further, at this stage of my development I had no idea what my research philosophy was. I just went along with what my supervisor suggested or whatever appeared to make sense logistically without really considering the impact of a research philosophy. This is something that I did not fully address later in my professional doctorate.

The Professional Doctorate

When entering the professional doctorate process in January 2018, I felt most confident with research as I had very little experience within applied practice. Though, in fact, I had very little knowledge about research philosophy and how to independently create high quality research. So, perhaps, it was less about confidence and more a lesser of two evils! Since I had not attempted qualitative research before, I assumed I would continue to research quantitatively. However, after recognising the benefits of qualitative research such as gaining a thick descriptive data (Cupchik, 2001; and less maths) I was starting to warm to the idea. Sessions early in the professional doctorate indicated that for Level 8 research we much present knowledge generation, originality, impact, and rigour. I felt this was something I would be able to do, especially with the help of my supervisory team. In hindsight, I think I was overly optimistic about the process. This meant I was late to the party regarding some aspects of research which I will discuss later.

Research Paper One

Initially, I leant on my supervisors a lot when it came to choosing research topics. This is partially due to me not having a thorough understanding of the research base and not

understanding what my interests were within the field. My first research topic was decided upon early in the doctorate process in 2018 as I was offered to undergo the fidelity study for a larger body of research (Buckley et al., 2018; 2020). A lot of data was already collected for this study in the form of exercise referral consultations, which were to be coded by myself and the research team. This meant there was not a lot of planning required on my part (or even an ethics application!). This made me feel a little guilty, that I perhaps could be doing more and taking a greater role in the planning process. Despite this, over a one year period myself and the research team analysed the consultations previously collected and developed a coding manual to do this with. Further, I conducted interviews with the exercise referral practitioners beginning in July 2018.

Working on and writing this paper taught me a lot in terms of developing a coding framework, analysing interviews thematically, and furthered my understanding of needs supportive communication (discussed earlier within my portfolio; pp 117-119). However, I felt I was missing the experience of picking my own research topic, planning, and collecting data more independently. In a way, this was a great initial experience as it eased me into doctoral level research. My next challenge was to find a topic that really aligned with who I was as a practitioner and researcher.

Research Paper Two

For my second research project, as I started to become interested in mindfulness, I considered whether I could deliver a mindfulness intervention to explore whether mindfulness impacts performance. In March 2019, I was a research assistant for a now published study entitled “A pilot study investigating cortical haemodynamic and physiological correlates of exercise cognition in trained and untrained cyclists over an incremental self-paced performance test, while thinking aloud” (Robinson et al., 2021). This

study used functional near-infrared spectroscopy (fNIRS) to measure cyclists' brain activity. This made me wonder whether I would be able to do a similar thing with two groups of cyclists, one receiving a mindfulness intervention and one as a control. This idea ended up having more questions than answers. Would I be able to deliver a high quality mindfulness intervention? How long would the intervention take? Would I be allowed to use the fNIRS? How many participants would be needed in each group? Would I have access to this many cyclists? Do I know *any* cyclists? I soon disregarded this as a viable option and stopped thinking about research for a while.

After having a break from mulling over research topics, I decided I wanted to do another study on TA. I didn't want to rush this. I wanted to allow the research to occur more naturally as I developed a relationship within an organisation or club and could work with their athletes or coaches. I considered this within a tennis academy, however this never came to fruition. After gaining a solidified position at Blackburn Rovers Academy and being embedded in the academy for over a year, my supervisor and I decided it would be a good time to introduce TA. This was due to a number of reasons, the main one being that the head coach had recognised the coaches were poor at reflective practice and the practices in place currently were more tick box activities rather than a meaningful learning processes. The other reason being that I was starting to work more with the coaches and thought it would be a great opportunity to implement a programme and research its impact.

My supervisor and I then planned a programme for coaches to develop TA as a reflective development tool. This was based on a previous programme developed with rugby league coaches (Whitehead et al., 2016). The first workshop for my study began in March 2020. Terrible timing. We completed the first workshop and the week after we had to shut the doors of the academy due to COVID-19. My plan had to be readjusted to see whether I would be able to produce a meaningful research project out of what we had already done. What started

as a slight scramble and panic to allow me to finish my professional doctorate actually became a really interesting take on the perceptions of TA and its impact on football academy coaches. A new part of the research process for me was scouring the literature base to find a theory that may explain our data. I was reading about professional judgement and decision making, and development of coaching knowledge and expertise. Within this I found Côté and Gilbert's (2009) work on the triad of knowledge and thought it fit really nicely with what we had found. Moreover, it was reinforcing some of the findings from previous research investigating TA with coaches (Stephenson et al., 2020; Whitehead et al., 2016). I felt quite excited to be fitting this jigsaw puzzle together! I found the write up of this quite tricky as I was venturing into coaching literature that I was not familiar with. Something that greatly enhanced this piece was going through the review process and also getting multiple perspectives on the piece from professionals within the field which I have discussed within my portfolio (pp. 120-122).

This piece of research gave me what I was missing from my first project. With more ownership over the research process and the ability to think critically about the direction of the research, I was able to develop further research skills. Particularly, I felt I was able to meet the expectations of doctoral level research, such as knowledge generation, and originality. Importantly, the interview and thematic analysis skills I had developed in research paper one supported me through the second project.

Systematic Review

The last piece of research I had to tackle (and I had left extremely late in the professional doctorate process) was my systematic review. My supervisor gave me the idea for this as we were discussing autonomy supportive coaching (Langdon et al., 2015) and self-determination theory (SDT; Deci & Ryan, 2002). My interest was growing in this area after spending time

around coaches at Blackburn Rovers academy, and I was keen to develop interventions with them to increase autonomy supportive behaviours. The idea for the systematic review was to explore the relationship between basic psychological needs satisfaction and performance within competitive athletes. I had a lot of anxieties approaching this piece of work (which is one of the reasons I left it so late). I was not sure where to gain support from. One of my supervisors was not an expert on systematic reviews and my second supervisor was supporting me with the exercise psychology components of my research. Nonetheless, I asked my second supervisor if she could support me due to her expertise on SDT. I was over the moon when she said she would help me and that she thought it was an interesting topic. A lot of my panic was settled now that I felt I had someone to support me through the process. I took a while to get the protocol to a good standard, but I am glad I took the time to ensure it was coherent so I didn't encounter an issues along the way. I had heard of a few other students having to restart their systematic reviews and I did not have time for this!

I ended up with 7408 hits from my initial database searches. Filtering through all of these was difficult. Particularly, since many of them were irrelevant to my criteria. At this point I should have stopped to rethink my criteria and search strategy. Alas, I did not. This meant I ended up with very few papers as very few that specifically used measures of basic psychological needs alongside performance. Unfortunately, a meaningful conclusion could now be drawn due to the lack of consistency across studies. Despite this, the review process gave me time to consider what is needed within the research base to explore this relationship further. This left me with a sense of promise that I could tackle some of these research topics in the future and that it was not a waste of time!

To my surprise, I ended up really enjoying writing the systematic review (note that I have only said "writing" because the rest of it was painful). I quite enjoyed having the PRISMA guidelines to follow as it provided structure to the research process. I must say, I

also enjoyed not having to recruit any participants! If I was to go back and do the systematic review again, I would ensure to refine my search strategy further, and take time to understand the literature more thoroughly before posing a question.

My Research Philosophy

I have placed this section towards the end of this reflection as I, regrettably, only started considering my research philosophy towards the end of the doctorate. I wish I spent more time exploring this earlier. I mentioned previously that, in hindsight, I missed out on some key learning points early on. For example, I knew next to nothing about my research philosophy until 2020 when I teamed up with three other current and past professional doctorate students to research athletes' stories of COVID-19 (Whitcomb-Kahm et al., 2021). They all seemed so knowledgeable about philosophy and I hardly knew what they were talking about! This made me feel stupid and a bit embarrassed that I seemed to miss this key learning on the doctorate process. I think I became so caught up with applied practice that research came secondary. I had never taken the time to truly understand my research philosophy and how it impacted the way in which I approached research, for example collecting and reporting data. I went about my research philosophy in a backwards manner. I would produce the research and then consider later on what was guiding me. This of course is not the ideal way to approach research. I hope that now, as I am beginning to understand my research philosophy that I will have this to guide me as I work through my research rather than it being something to consider in hindsight.

I would posit that my philosophy is guided by ontological realism (there is a single reality independent of human minds) and epistemological constructivism (knowledge is only partial, fallible, and co-constructed between participant and researcher), which together lies within the realm of critical realism (Bhaskar, 2008; Ronkainen & Wiltshire, 2019). What

resonates with my about critical realism is that there is knowledge out there to be found but all humans put their own lens on the world. This means we may not ascertain the whole truth as our experiences and beliefs filter the true reality of the world. In my professional philosophy, I strive to work collaboratively with the client and ensure that the approach we take together fits their needs. I believe this resonates in some ways to my research philosophy as one cannot copy and paste the same approach onto every research question. In some regards, the researcher needs to be flexible in order to provide the best fit for the aims and the data in front of them. The data (or the participant) begins to have a say in the way it is interpreted and this process becomes a collaboration, or co-construction, between the researcher and the data/participant.

Rather than painting the world as black or white, my philosophy holds that we should recognise the nuances within the world whereby seeking tendencies that exist. I like how critical realism recognises one reality but that we, as researchers, do not have immediate access to it. Further, by generating causal mechanisms, that act as tendencies, we can gain some understanding of unobservable entities within reality (Zachariadis et al., 2010), arguably bringing us closer to it. This resonates with me more than the stance of empiricists or interpretivists that see causation as the observation of events (Hume, 1967). If a tree falls in a forest and no one is around to hear it, it still makes a sound.

Key Learning Points

Something I did not expect to come out of the research process was the impact it had on my applied practice. I now use needs supportive communication throughout my consultancies where suitable, promote autonomy supportive coaching and basic psychological needs satisfaction (currently with caution for increasing performance based on my systematic review findings!), use TA with coaches and hope to use it more with athletes

in the future. Emerging myself within the research on these topics has given me confidence to promote them to others and use them within my practice. I often feel I lack depth of knowledge from the literature. Now I am starting to delve a little deeper, I feel more sure of my approach and how it can support others. Of course, I am still scraping the surface of most of these topics but it has allowed me to recognise the impact that understanding the literature base has upon my own self-worth and value as a practitioner.

I am often asked what the difference is between researching or practicing within sport and exercise. For me, I don't see too much of a difference. Of course, the context is different but I am still working based on my philosophy of practice or research philosophy. There is always a similar process to go through. It is like trying to separate person and athlete. I am not Laura the sport psychologist and Laura the exercise psychologist. I uphold my philosophy across contexts and may find myself asking similar questions within each. I think one of the differences between research within exercise psychology and sport psychology is impact. Whether right or wrong, my heart tells me that to produce research that can help people to live longer and healthier lives is more impactful than helping the elite to become more elite. Of course, this is a very generic statement! As we may also consider the mental health of elite athletes, the development of youth athletes, or parenting styles within sport parents. These can all make significant impact to peoples' lives. So, perhaps to that end, the impact of research does not differ between sport and exercise. The variation of impact is more so between pieces of research topics within the context itself.

Finally, through feedback gained from my supervisors and their colleagues, I have recognised my style of writing is not good enough technically (which you may have noticed by reading my portfolio!). I change tenses a lot when I shouldn't, I don't use active sentences when I should, I give human qualities to things that are not human, and the structure of my

work often needs a complete reconstruction to allow it to be comprehensible! This is something I strive to develop in the future.

Concluding and Looking to the Future

At the end of the doctorate, I can say I am confident to produce good quality research. I think this can be reinforced with (hopefully) two papers published as a first author and another two that I have supported on. This being said, I still have a way to go to make my process high quality. I have learnt a lot from working with teams of researchers and I believe I can keep progressing to strive towards high quality research by refining my writing style and by further understanding my research philosophy. I now greatly appreciate the link between my research and practice, and believe this makes me a more credible practitioner. I am still working to fine true coherence between my practitioner and research philosophy, as I believe both are still evolving. I hope that, as this evolution occurs, they will become closer and grow together as I develop as a person.

There are many ideas floating in my mind currently about future research! Such as creating a coding manual for autonomy supportive coaching, creating high quality research to assess the relationship between basic psychological needs satisfaction and performance within athletes, and (perhaps a slightly random one) to explore the experiences of female sport psychologists within male dominated environments. Currently, I am researching tennis coaches' use of TA during competition to support the coach-athlete relationship. I am also lucky enough to be part of the BPS research group exploring sport psychologists' use of TA. There are certainly a lot of exciting times ahead in research for me and I cannot wait to be able to continue to learn from some great researchers to refine my processes.

References

- Bhaskar, R. (2008). *Dialectic: The pulse of freedom*. Routledge.
- Buckley, B. J. R., Thijssen, D. H. J., Murphy, R. C., Graves, L. E., Whyte, G., Gillison, F. B., Crone, D., & Watson, P. M. (2018). Making a move in exercise referral: co-development of a physical activity referral scheme. *Journal of Public Health*, 40(4), e586-e593. <https://doi.org/10.1093/pubmed/fdy072>
- Buckley, B.J.R., Thijssen, D.H.J., Murphy, R.C., Graves, L.E.F., Cochrane, M., Gillison, F.B., Crone, D., Wilson, P.M., Whyte, G. & Watson, P.M. (2020). Pragmatic evaluation of a coproduced physical activity referral scheme: a UK quasi-experimental study. *BMJ Open*, 10, e034580. <https://doi.org/10.1136/bmjopen-2019-034580>
- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International journal of sports science & coaching*, 4(3), 307-323. <https://doi.org/10.1260/174795409789623892>
- Cupchik, G. (2001, February). Constructivist realism: An ontology that encompasses positivist and constructivist approaches to the social sciences. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 2, No. 1).
- Hume, D. (1967). *Enquiries Concerning Human Understanding and the Principles of Morals*. Oxford: Clarendon Press. Oxford: Clarendon Press.
- Langdon, J., Schlote, R., Harris, B., Burdette, G., & Rothberger, S. (2015). Effects of a training program to enhance autonomy supportive behaviors among youth soccer coaches. <http://dx.doi.org/10.14198/jhse.2015.101.01>

- Robinson, N. J., Montgomery, C., Swettenham, L., & Whitehead, A. (2021). A pilot study investigating cortical haemodynamic and physiological correlates of exercise cognition in trained and untrained cyclists over an Incremental Self-Paced Performance Test, while Thinking Aloud. *Psychology of Sport and Exercise*, 101912. <https://doi.org/10.1016/j.psychsport.2021.101912>
- Ronkainen, N. J., & Wiltshire, G. (2019). Rethinking validity in qualitative sport and exercise psychology research: A realist perspective. *International Journal of Sport and Exercise Psychology*, 1-16. <https://doi.org/10.1080/1612197X.2019.1637363>
- Swettenham, L., Eubank, M., Won, D., & Whitehead, A. E. (2020). Investigating stress and coping during practice and competition in tennis using think aloud. *International Journal of Sport and Exercise Psychology*, 18(2), 218-238. <https://doi.org/10.1080/1612197X.2018.1511622>
- Whitcomb-Khan, G., Wadsworth, N., McGinty-Minister, K., Bicker, S., Swettenham, L., & Tod, D. (2021). Critical Pause: Athletes' Stories of Lockdown During COVID-19. *The Sport Psychologist*, 1(aop), 1-12. <https://doi.org/10.1123/tsp.2020-0106>
- Zachariadis, M., Scott, Susan V. and Barrett, Michael I. (2010) Exploring critical realism as the theoretical foundation of mixed-method research: evidence from the economies for IS innovations. Judge Business School working paper series (3). University of Cambridge, Cambridge, UK.

Reflective Commentary

In this commentary, I will reflect on my journey over the last three years. It is difficult to know where to start with this, as I feel I was a different person when I began the professional doctorate in 2018 (despite a lot of my quirks and self-doubts being all too familiar!). Further, there are so many experiences that have added to who I am as a practitioner that it is hard to pinpoint which ones were the most critical. To step into the shoes of my past self and to attempt to pick out the most important moments, I will follow the stages outlined by Risner (2002) and 1) re-read my reflections over the last three years, 2) zoom-in to critical moments and read into the personal narrative I have created, and 3) zoom-out and consider how these critical moments fit into the bigger picture of my development. I view my development on the doctorate in three distinct levels: level 1, level 2, and level 3. I see it as this rather than the beginning, middle and end; as it is not the end, or the middle. I am always developing and there are many more levels to explore!

Level 1: What's Going On?

Level 1 is from January 2018 to January 2019. The basic theme of this year was confusion and anxiety about not knowing what to do as a sport psychologist. I started to get some answers to what it looked like and meant to be a sport psychologist. Nonetheless, I had no idea what was going on a lot of the time. A common theme at the beginning of my journey within my reflections was self-doubt and having no idea what to do within an applied setting stating "...let's be honest I have no idea what I'm doing anyway." (My First Experience as a Sport Psychologist: 11/01/18, p. 73). Due to these feelings, the first year or so of my professional doctorate was attending lots of workshops (e.g., Acceptance and Commitment Therapy (ACT; Hayes et al., 2006), Mindfulness; Kabat-Zinn, 2008). This is reflected in the large number of hours in the professional development section of my log. Looking back, I

think this was out of fear of getting things wrong and not understanding what processes were involved within applied practice. Quite a few candidates on the professional doctorate were already out in the real world doing the job, I had hardly stepped into a performance setting. I felt like I was missing the *doing* part to the profession and I was not sure how I was going to develop this. Attending these workshops and courses gave me a direction for my practice and what I learnt within them was starting to become the building blocks to my professional philosophy (even if I didn't know it at the time!).

As I was beginning to apply my knowledge from workshops and online courses, I was glad that I took the time to build this knowledge as I now had a framework to work from. Despite this, I still struggled applying these tools into sport as many of the courses were for clinical psychologists. This is highlighted in one of my reflections about my first case study, using ACT in youth tennis, where I was struggling to move learning into the performance environment:

...I still experienced fear that what I am doing is not working. I know I need to move the practice onto the court to transfer her skills into the performance environment, but I am worried about what others (e.g., coaches, parents) will think in case I do something wrong. (Getting on Court: 07/10/18, p. 81)

The excerpt above was an important learning experience for me, as it pushed me out of my comfort zone. I was starting to recognise that sitting talking about acceptance, defusion, and committed action was not enough. I had make sure it transferred into the performance environment. I was really nervous about this. But as soon as I did, I saw massive benefits to the client and it gave me more confidence in my work. The puzzle pieces were starting to fit together and I was beginning to understand the processes necessary to be successful in consultancy work. It is easier understood than done though! Considering where I am now, I

still struggle with the *doing* part of the job. I have to keep challenging myself to get onto the getting on court, or onto the pitch to really allow the psychology to shine. A big part of this for me now is being able to let go of any expectations or feelings that I *have* to have the answer. Taking pressure off myself gave me more flexibility. I am much more confident now to use the knowledge of the coach and make psychology a collaborative process. Psychology belongs to everyone, not just the psychologist.

Within the same client, I reflected on the writing process of this case study. I previously was afraid to write up this case study as I felt I had not done a *perfect* job. By working through the case and getting it down on paper, I recognise how it was OK that it wasn't perfect. It allowed me to see a different perspective on the consultation journey:

Having now completed this case study, I am glad that I decided to write it. It has heightened my reflective skills and allowed me to see how the consultation journey was not as catastrophic as I first thought and to recognise the work of the sport psychologist must be holistic as you cannot separate person and performer. (Case Study One, pp. 159 - 160)

Around the same time, I was working with my first high performance athlete. Up until this point all of my clients had been youth athletes in tennis. This meant I had to be flexible in my approach somewhat. My research on needs supportive communication (NSC; Ntoumanis et al., 2018) for my first research paper really came into its own here. I was seeing the beginning of my research and applied practice could live in harmony. By explore exercise referral practitioner's use of this communication style, I was able to learn how I can embed this within my practice. By doing this, I had the first glimpses of my philosophy shifting to be more construalist (Keegan, 2015) with the support of NSC. I reflected on why it was important for me to take a more client-led role:

I felt this [NSC] was effective, particularly in the early stages of the consultancy where Emily was hesitant to open up and be honest about the difficulties she was facing. This could make it difficult to create a practitioner-led intervention without the trust or relevant information from the client. (Case Study Two, p. 183)

Within this case, it was really important for me to not just jump in with tangible techniques (which I tried to do initially!). The client simply was not ready for that, and it was not what she needed or wanted. With my experience on this case, I started to understand the importance of building the relationship, not jumping in to trying to ‘fix’ things, and getting comfortable with feeling like I was not doing much! I had been told this so many times by lecturers and practitioners, but without the experience of it, it can be difficult to truly practice in this way. I would argue this is still one of my most successful cases as I was able to take a step back, build a connection with the client, and allow her to lead. I was not following a specific framework, but I was being authentic to what was presented to me. This is still something I can learn from today, as I easily fall into the trap of trying to ‘fix’ things rather than really taking time to get to know the client. I think an added challenge currently is how a lot of my consultations are online and building relationships away from a formal one hour one-to-one can be a challenge if technologies are not used in the correct manner (Price et al., 2020).

Nonetheless, as I gained more experience and knowledge about *doing* sport psychology I was becoming unsure about whether I would be able to “make it” as a sport psychologist. Though not within my reflections presented in this portfolio, I reflected after attending a workshop on ‘Doing Sport Psychology’ where the focus was on how to work with a team within a performance system:

I got home and I started to panic about all of the great opportunities everyone else was finding and about the people reeling off different international teams they were working with. I started to panic and beat myself up about how I'm was just floating around not really putting in effort to break through into anything bigger and staying very much within a comfort zone... but in fact it still isn't comfortable. I realised I need to get even more uncomfortable. (27/01/19)

At this time, I felt that I didn't have a performance environment to work in and that I could not even try to apply the skills that were being discussed. I did have consultancy work within Chester Academy, however I had no influence over the system and struggled to even book in workshops or find out the location of training. I was mostly doing one-to-one consultancies within tennis and had no influence over the performance environment (or at least did not know how to gain influence!). This made me feel awful. As though I was getting left behind. I felt the need to find a high performance environment so I could understand the deeper layers to being a sport psychologist. Finding an environment where I could try things out, get things wrong, and learn was my next mission. Though I have a long way to go, I know that a lot of these 'Level 1' experiences are what have built me and given me thicker skin. Time to Level up.

Level 2: Doing the Job

Level 2 is from February 2019 – June 2020. It is about opportunities beginning to appear and feeling more comfortable being within the role of a sport psychologist. Of course, there were still many struggles here but it was a step up. I feel as though I can put my finger on the moment things started to change for me. This was after the Spotlight training in February 2019:

I box myself into a category of someone who does not have the right style to “make it” in sport psychology. But, actually, meeting the other practitioners on this course and debriefing our profiles together has made me aware that we are all rather similar and hold the same concerns and vulnerabilities... I am starting to believe that perhaps my preferences are suited to being a sport psychologist. (Battling with Myself: 15/02/19, p. 54)

I am not a religious person, though I cannot ignore how things at this time began to fall into place. It felt like it was happening for a reason. Some may call this fait. I am not sure what I call it. A curious occurrence of events that appear to be interlinked yet are probably not away from the human mind? Lets go with that. So, at the Spotlight training I felt a greater acceptance for myself as a person and a practitioner. At the dinner after the first day of training Pete Lindsay, who was running the training, said a job at Blackburn Rovers academy just opened up. I didn't even think twice about this at the time as I instantly disregarded myself for the role. However, after stepping into a more optimistic mindset after attending the Spotlight training course, I decide to apply (with a push from my dad and my supervisor!). Unknown to me was that the head of sport psychology at the academy is one of Pete's best friends who also loves ACT (and of course Spotlight). The next thing I know I got the job at Blackburn Rovers academy I couldn't believe it. I felt I was not ready for something like this, but it was 100% what I needed and what I had been looking for. Though not within my portfolio, I reflected after being offered the job:

I can't believe it. I think I might have misheard because this seems so far away from anything that I expected of myself to achieve at this stage. I'm excited, I'm terrified, I'm proud, I'm humbled, I've cried a few times! I think it's the feeling that I am worth something and the work I'm doing is worthy and has value. (29/03/19)

The elation from getting job however did not last as long. I had levelled up but I took along all of my insecurities with me. My mind was still telling me the same stories. The feeling of not being good enough, or not deserving of the positions I gained were narratives that I kept creating for myself along the journey. Though not within my portfolio, I reflected: “I feel utterly incompetent and like they didn’t make the best choice. I also have a constant fear of getting something wrong. It’s exhausting.” (05/08/19). So many of my reflections come down to what my value is as a practitioner. I ask myself now what defines this value? A job at an academy? A job with the English Institute of Sport? The pay you get? Helping people? Enjoying the work you do? The amount of courses you’ve been on? It is such an intangible concept at times which I still get caught up in. Am I good enough? Am I making impact? I dig myself into a hole with these concerns. I think I was struggling here because I didn’t feel I had the experiences to back up that I knew what I was doing and could do a good job. I had stumbled and developed through a handful of one-to-one consultancies, but this still didn’t feel natural to me. I still had so many questions and so many things to learn that I was overwhelmed by uncertainties.

Despite these concerns, I was able to slap myself around the face and stop making myself the victim within it. “I have a fantastic opportunity that many people would love. I must grasp it with both hands and move through it with curiosity and wide eyes ready for learning” (I Don’t Deserve To Be Here: 05/08/19, p. 60). One of the key factors that brought me out of this overwhelming self-doubt and anxiety was the support from Dr Andy Hill, the head psychologist at Blackburn Rovers. Though Andy challenged me a lot (e.g., on my use of ACT, my stance on mental wellbeing versus performance, my way of working within a system), and this made me feel uncomfortable, I needed it! I had never been challenged before, as supervision felt difficult to come by at times. I was missing the link into applied work and Andy was amazing at giving me that. He would openly share his tools and

techniques with me as we both were guided by similar philosophies and approaches. This helped my one-to-one consultations and my delivery of workshops as I was able to draw on Andy's ideas to deliver more experiential sessions (Dewey, 1938). Andy also introduced me to a strengths-based approach (Ludlam et al., 2016), which has become an important part to the work I do. This applied knowledge massively increased my perception of my own competency and helped my confidence grow. This is partly because I feel if someone else is doing it, then it must be OK! Having reinforcement that what I am doing is not wrong is a big driver for me. I still have a way to go in building trust in my own decision and how I implement my philosophy, but my support from Andy had been a key ingredient to bring me closer to this trust in myself and my own knowledge.

During this level, I was also working on my third case in October 2019. This was a chance for me to draw on the applied techniques I was picking up. This case study allowed me to refine my use of ACT within a performance setting, making it less clinical and easier to implement for the athlete. This was really empowering for me as it is something I struggled with in the past and my approach was starting to make more sense within sport. As well as this, I continued to see the benefits of using a collaborative approach in my work and giving the client ownership over the work done:

Using the 3R's gave James the freedom and competence to implement the technique easily within the gym and academy lodging. Instead of prescribing a technique to the client, this collaborative partnership supported James in speaking up about his experience and progress with techniques that he was motivated to engage with. (Case Study Three, p. 204)

As my work with players was improving, I started to see the need to work more with coaches and the performance system as a whole. Though not within this portfolio, I reflected on why this was important for me:

I know this [working at a systems level] is a vital component for me developing myself and my role, particularly since I am I am not in full time. This means I may not be making enough impact, with my main point of call being 1-1 work with a very small percentage of players. (11/19/20)

By spending more time with the head coach developing these standards, I was able to get more buy in and continue to work from a more collaborative stance rather than working so independently. I think this impacted not just the systems based work but my one-to-one work as well as I was more confident to have conversations with coaches, meaning I was gathering more information about the players and any support they may need.

In March 2020, myself and my supervisor delivered a Think Aloud (TA; Whitehead et al., 2016) workshop for the coaches at Blackburn Rovers. This was another experience that was getting me deeper into the performance environment and starting to apply techniques in line with my values and philosophy. Working with coaches was something I often struggled to have confidence in, and this was a really key component to start building that work further. It gave me purpose. Getting feedback from interviews with the coaches about their perceptions of TA further reinforced the work and allowed me to perceive further value in my work. Again, I am still fuelled of reinforcement from other that I am not doing the wrong thing!

Before Level 2, I did not know how to work within a system, or how to work within a multidisciplinary team. Now I understood what this looked like and how I could fit into it. I am not saying I do this well, even now. I certainly have a lot further to grow to apply this

well, but I have the tools I need to do this. The next level is vital in allowing me to press pause and consider what the learning over the last couple of years means to me.

Level 3: Refining My Practice and Becoming More Authentic

The next level up for me was understanding my processes and philosophy in more detail and becoming more independent in my work. This level began in June 2020 and is still ongoing. This was a more reflective time of my practice and an opportunity to refine what I do. With COVID-19 bringing a lot of my work to a halt I had a lot of time to consider my practice. Pressing pause was what I needed here, perhaps not in such a dramatic way, but I got my pause all the same. I was starting to see holes within my practice. For example, my case formulations and decision making processes felt lacking:

I have recognise how poorly structured many of my processes are. I feel rather embarrassed reflecting on this, being over two years into my professional doctorate. I feel that as applied practice becomes more of a habit, many of the vital processes that allow me to work effectively and ethically can become a second thought. This is a danger. (Doing It Right: 10/06/20, p. 64)

I was only able to bring clarity to these processes in June 2020 when I attended a series of workshops which covered this topic. I now feel more competent to engage with these key processes well to bring me closer to best practice. Further, I have recognised how this has helped my selection of intervention and ultimately the success for the client. In some ways, this time away from the performance environment during COVID-19 has been a blessing in disguise. I had time to step away from my practice and recognise what I was missing. I felt so busy all the time trying to balance my applied work and doctorate that things became rushed and I was not being the best practitioner I could. I had a lot more knowledge than I had in Level 1, but this did not mean it transferred into my own practice. I needed more time to sit

and reflect on my processes. I found this during Level 3. I recognised that I needed to refine not only my processes, but to bring greater clarity to my professional philosophy and take more ownership over my practice.

Exploring my professional philosophy in more detail came in an unexpected way, as I entered work within esports in June 2020. This allowed me to build confidence and understand what it takes to build a successful programme (though it was small!). This impacted the value I placed upon my own work as I now believed I was capable of doing the job without having my hand held. I also felt I belonged within this environment more than previous ones:

Interestingly, I felt more a part of the team than in football. I found this strange as all of the conversation is online and I had never seen any of their faces before, it was all voice communication. Perhaps it is because I was at the matches, at training, provided consistent one-to-one support, regular workshops, fit in better with the environment and quirks it held, or simply the fact that the team was smaller. (Working in Esports: 10/08/2020, p. 104)

At Blackburn Rovers academy there are so many staff and players. I find it difficult getting to know people in the first place, let alone when there are hundreds of people to get to know! This this perhaps why I felt this environment was more manageable. On reflection, I was thrown into the deep end a little bit at Blackburn. Interestingly, my work within esports and finding more value and belief in myself has had a knock on effect to my work at Blackburn. I am not as plagued with thoughts I am not good enough, or that people don't value what I am doing. I can hold this value for myself rather than relying on someone else to.

In this level, I was also engaging with research that felt authentically me as well and I felt competent within. This was building my confidence and feeding into my applied practice.

For example, delivering a series of workshops on TA for tennis coaches. I felt like more of a professional delivering these as I felt I knew the content and was not just guessing my way through it all. Moreover, during COVID-19 there was a plethora of opportunities to deliver webinars and so I was becoming more and more competent and confident at dissemination.

During COVID-19, I was also meeting more with my supervisory team which. This gave me further confidence in the work I was doing. Despite this, the increased volume in supervisory time meant I was noticing cracks within my practice such as my research philosophy and practitioner philosophy not being well formed. I had an understanding of what these were, but I was missing major details. This really frustrated me and made me feel like I was working backwards. Why had I not sorted this out sooner? I suppose one can argue that we need experiences for our philosophy of practice and of research to grow, but I had left this very late. Despite this, I now have this foundation though I have a lot more to learn:

Though I feel much more confident within my philosophy of practice, I still have a lot to explore. Coming to the end of my Professional Doctorate, I certainly feel as though I am just beginning to understand myself and my practice. (My Professional Philosophy: 15/11/20, p. 97)

This foundation gave me more clarity in my practice, though I was (and still am) noticing cracks! Most recently, I reflected about trying out a different therapy, specifically Rational Emotive Behaviour Therapy (REBT; Turner, 2019):

I have previously rejected the opportunities to try REBT in feeling it goes against my philosophy and beliefs and in fear of getting it wrong. Though, I am now starting to reconsider some of these beliefs. Personally, ACT works for me and helps me manage my internal experiences. But this is selfish. Just because it works for me does not mean it will be the best fit for my client. If my philosophy is to allow the client to lead

where possible, then I should either change my approach or refer the athlete if there are indications that what we are doing is not working. (Does My Philosophy Need to Change?: 16/02/21, p. 115)

This is big for me. To shift my philosophy to encompass an approach that tries to change beliefs. Though I suppose this is still different to approaches that are actively changing thoughts. I am actually really excited to be trying something new and adding another layer to my skill set. It has also allowed me to consider how this fits in to my philosophy and I feel it is allowing me to be less ridged. Having greater flexibility and more choice within how I practice is allowing me to feel more authentic and better able to tailor my approach to best suit the client.

Concluding The Journey

Reading through these reflections is difficult. I want to shout out the answers to myself from the lessons that I've learnt during my time on the professional doctorate and that it's OK that I didn't know what to do. Unfortunately, I have learnt that no matter how many times someone tells you to take time to be embedded in the system, to not worry about doing something tangible, and that it's the small informal conversation that will help you to gain buy-in and trust from the players it will only really make sense when you've experienced that for yourself. When you read the literature and see that it's experience that develops a practitioner (Tod et al., 2009), it kind of sucks! Moreover, I am certainly not my best self or practitioner yet. I have come a long way in my development compared to where I started, but I still have a lot of refining to do!

Despite some of reflections bringing up a lot of difficult emotions for me, it is very powerful reading how far I have come. I now must consider how this impacts how I continue to progress in my practice. I must keep putting myself in uncomfortable situations and

gaining more experience to allow myself to grow and learn as a person and a practitioner. For me now, the challenge is to trust my process, my philosophy, and my instincts. I must remember relationships are key, and that I cannot work in isolation if I want psychology to be embedded and embraced within the system. I must make sure not to trip myself up with my own self-doubt. Finally, I must continue to invest in my own mindset to allow me to overcome the same barriers that have been in front of me my whole life. These barriers are self-confidence, belief, and placing value on myself as a person and a practitioner.

Though I still carry the same doubts and insecurities, I am better able to manage these. Deep down, I am still the same anxious and scared girl who is not sure if they are good enough. My mind still tells me the same stories. I often want to hide away and put on a Disney movie or perhaps Star Wars one more time. I am, however, better at pushing myself now and doing the things that I do not want to do in pursuit of my values. I wonder if this is a bad thing. Should I be loving every moment of this? I certainly do not find my job easy. It challenges me on a daily basis. However, I come back to acceptance that is it OK to feel this way. Along with all of the good stuff, uncomfortable thoughts and feelings will arise and I am in a much better place to manage this now. To be challenged means you are growing. If I took an easy path, what would be the point?

References

- Bothello, J., & Roulet, T. J. (2018). The imposter syndrome, or the mis-representation of self in academic life. *Journal of Management Studies*, 56(4), 854-861.
- Dewey, J. (1938). *Experience and education*. New York, NY: Touchstone.
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour research and therapy*, 44(1), 1-25. <https://doi.org/10.1016/j.brat.2005.06.006>

- Hings, R. F., Wagstaff, C. R., Anderson, V., Gilmore, S., & Thelwell, R. C. (2020). Better preparing sports psychologists for the demands of applied practice: The emotional labor training gap. *Journal of Applied Sport Psychology*, 32(4), 335-356.
<https://doi.org/10.1080/10413200.2018.1560373>
- Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, 8(2), 73.
- Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A strengths-based consultancy approach in elite sport: Exploring super-strengths. *Journal of Applied Sport Psychology*, 28(2), 216-233.
<https://doi.org/10.1080/10413200.2015.1105881>
- Ntoumanis, N., Quested, E., Reeve, J., & Cheon, S. H. (2018). Need supportive communication: Implications for motivation in sport, exercise, and physical activity. *Persuasion and communication in sport, exercise, and physical activity*, 155-169.
- Price, D., Wagstaff, C. R., & Thelwell, R. C. (2020). Opportunities and Considerations of New Media and Technology in Sport Psychology Service Delivery. *Journal of Sport Psychology in Action*, 1-12. <https://doi.org/10.1080/21520704.2020.1846648>
- Risner, D. (2002). Motion and marking in reflective practice: Artifacts, autobiographical narrative and sexuality. *Reflective Practice*, 3(1), 5-19.
<https://doi.org/10.1080/14623940220129843>
- Tod, D., Andersen, M. B., & Marchant, D. B. (2009). A longitudinal examination of neophyte applied sport psychologists' development. *Journal of Applied Sport Psychology*, 21(S1), S1-S16. <https://doi.org/10.1080/10413200802593604>
- Turner, M. J. (2019). REBT in sport. In *Advances in REBT* (pp. 307-335). Springer, Cham.

Whitehead, A. E., Cropley, B., Huntley, T., Miles, A., Quayle, L., & Knowles, Z. (2016).

‘Think aloud’: Toward a framework to facilitate reflective practice amongst rugby league coaches. *International Sport Coaching Journal*, 3(3), 269-286.

<https://doi.org/10.1123/iscj.2016-0021>

Appendices

Appendix 1

Performance Behaviour Chart

Player Name: _____ Growth Status (circle): Normal High Date: _____

 ARTE ET LABORE HONESTY INTEGRITY HARDWORK TOGETHERNESS HUMILITY PASSION												
PERFORMANCE BEHAVIOUR CHART: U15's – U18's												
Circle how you think you have behaved over the last 8 weeks on a scale of 1-10 (e.g. 0 = always hides from the ball, 10 = is always brave and wants the ball)												
HUNGER FOR THE GAME												
Hides from the ball	0	1	2	3	4	5	6	7	8	9	10	Brave and always wants the ball
Low intensity and passive	0	1	2	3	4	5	6	7	8	9	10	Plays with intensity and passion
Lack of energy and impact on press	0	1	2	3	4	5	6	7	8	9	10	Presses with intent and purpose
Slow to react on transition	0	1	2	3	4	5	6	7	8	9	10	Speed and energy on transition
REACTIONS TO MISTAKES												
Dwells on mistakes	0	1	2	3	4	5	6	7	8	9	10	Puts mistakes behind him quickly
Loss of desire and energy-drifts	0	1	2	3	4	5	6	7	8	9	10	Immediate positive energy
Feels sorry for himself	0	1	2	3	4	5	6	7	8	9	10	Not affected & strong mentality
Blames others for mistakes	0	1	2	3	4	5	6	7	8	9	10	Takes responsibility
COACHABILITY												
Lack of desire to learn	0	1	2	3	4	5	6	7	8	9	10	Eagerness to learn
Doesn't engage positively with coach	0	1	2	3	4	5	6	7	8	9	10	Listens and asks questions
Doesn't listen, acts like they know it all	0	1	2	3	4	5	6	7	8	9	10	Applies information from the coach
Doesn't try new things	0	1	2	3	4	5	6	7	8	9	10	Willing to take risks
COMMUNICATION												
Puts down teammates	0	1	2	3	4	5	6	7	8	9	10	Encourages teammates/is a leader
Never demands the ball	0	1	2	3	4	5	6	7	8	9	10	Always demands and gets on the ball
Static and passive	0	1	2	3	4	5	6	7	8	9	10	Times movements and hand signals
Blames others	0	1	2	3	4	5	6	7	8	9	10	Confronts issues maturely
BODY LANGUAGE												
Negative body language	0	1	2	3	4	5	6	7	8	9	10	Positive body language
Head down, doesn't make eye contact	0	1	2	3	4	5	6	7	8	9	10	Makes eye contact
Slouching	0	1	2	3	4	5	6	7	8	9	10	Stands up tall
Noticeable poor shift to staff	0	1	2	3	4	5	6	7	8	9	10	On balls of feet, ready
RESPECT												
Lack of focus and application	0	1	2	3	4	5	6	7	8	9	10	Fully focused and gives their best
Poor language and poor standards	0	1	2	3	4	5	6	7	8	9	10	Consistently achieves high standards
Doesn't complete set tasks – loose	0	1	2	3	4	5	6	7	8	9	10	Completes any tasks set
Lack of respect to others	0	1	2	3	4	5	6	7	8	9	10	Respectful to all (players, staff, officials)
OFF-PITCH DEVELOPMENT												
Doesn't complete gym programme	0	1	2	3	4	5	6	7	8	9	10	Engages with gym programme
Doesn't engage with Hudl & education	0	1	2	3	4	5	6	7	8	9	10	Completes Hudl & education tasks
Takes short cuts/coasts along	0	1	2	3	4	5	6	7	8	9	10	Goes the extra mile/desire to improve
Doesn't get support when needed	0	1	2	3	4	5	6	7	8	9	10	Seeks out support mechanisms

Has anything happened to you recently that could have impacted your behaviour? (e.g. at home, injury, at school)
Please tick: YES NO (If yes, please specify below)

Note: These are only example behaviours, for example you may show hunger for the game or coachability in a different way to what is presented here, if so discuss this with your coach; behaviours may be affected by rate of growth

Appendix 2

The sport psychology consultant evaluation form (Partington & Orlick, 1987) completed by the client

Sport Psychology Consultant Rating											
Please score your sport psychology consultant on each of the following characteristics by using a number from 0 – 10, as seen on the scale below.											
Not at all						Yes, definitely					
0	1	2	3	4	5	6	7	8	9	10	
Score											
10	Had useful knowledge about mental training that seemed to apply directly to my sport.										
10	Seemed willing to provide an individual mental training program based on my input and needs.										
10	Seemed open, flexible, and ready to collaborate/cooperate with me.										
10	Had a positive, constructive attitude.										
10	Proved to be trustworthy.										
10	Was easy for me to relate to (e.g., I felt comfortable and that he/she understood me).										
10	Fitted in with others connected with the team.										
10	Tried to help me draw upon my strengths (e.g., the things that already worked for me) in order to make my best performance more consistent.										
10	Tried to help me overcome possible problems, or weaknesses, in order to make my best performance even better and more consistent.										
9.9	Provided clear, practical, concrete strategies for me to try out in an attempt to solve problems or improve the level and consistency of my performance.										
How effective was this consultant for you and/or your team?											
Hindered or interfered						Helped a lot					
Effect on you:	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Effect on team:	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Do you have any recommendations to improve the quality or effectiveness of the sport psychology consultation service being offered? If so, what are these?											
<u>I found the sessions with Laura structured, well planned and offered invaluable insight which</u> <u>undoubtedly benefitted my sporting performance no end. The only improvement would have been</u> <u>more frequent sessions - though we were constrained by work, sporting and academic commitments</u> <u>and made the most of the time we had.</u>											

Appendix 3

Sport Psychology Feedback Form completed by the client

Sport Psychology Feedback

Please answer the following questions about your experiences with sport psychologist in training, Laura Swettenham. Your feedback will help to inform future practice – thank you!

1) Overall, how would you describe your experience?

My experience, working with Laura, was nothing but positive. Her sessions and guidance helped with not only my sporting performance but brought a number of benefits to my life outside of sport. Throughout my time with Laura, I faced a number of significant challenges in both my sporting and personal life and I have no doubt that I was able to deal with these in a more positive and constructive way as a result of our sessions.

2) What aspect(s) of the support did you find useful?

When assessing the requirements for support, the large overlap and complex interactions between sporting, work and personal life was clear and they were addressed simultaneously; acknowledgement that exclusively looking at sports would hamper overall performance resulted in widespread proliferation of benefits in all areas of my life.

3) What aspect(s) of the support did you not find useful?

It was all great!

4) In what way, if any, did the support have an impact?

The support had a massive impact on my sporting performance. Identification of personality traits allowed for effective application of mechanisms to mitigate weaknesses and develop coping strategies for otherwise stressful situations. It also identified myriad positive traits which could be magnified to allow for further benefits.

5) What were your thoughts about Spotlight performance profiling?
(e.g. strengths, weaknesses, self-awareness, impact)

I found the spotlight profiling very useful – once the initial assessment had been carried out, it was fascinating to then run through the profiling and realise quite how accurate it was. Increasing awareness of both the positive and negative

personality traits associated with my profile resulted in significant changes being able to be made in order to work around the resulting strengths and weaknesses.

I particularly liked that there were no 'good' or 'bad' traits – everything is on a spectrum (or a strange blob like in the profiling) and therefore every trait offers a multitude of strengths and weaknesses. This positive approach allowed for pragmatic analysis of the profile – there is no right or wrong answer and everyone is completely unique. Being able to work through my profile with Laura was incredibly rewarding.

6) What were the positive and negative qualities of the sport psychologist?

As a professional, Laura is compassionate, open and inviting. She is an excellent communicator, both when organising our sessions and even more so in person. Her clear passion for sports psychology was apparent from the very beginning and she regularly far exceeded expectations in her fulfilment of our sessions.

I have very much enjoyed the opportunity to work with her.

8) How would you describe your relationship with the sport psychologist?

In order to benefit from the sessions, I knew that it was crucial that there was an open and trustworthy relationship between myself and the sports psychologist. Prior to starting the sessions, this was the element which I felt I was going to struggle with the most, though in reality this was not the case. Laura is incredibly warm and worked hard so that I was able to relax and speak to her truthfully, resulting in far more effective application of her skills.

I looked forward to our sessions and enjoyed the time I spent with her, Laura is professional, compassionate, knowledgeable and I was able to trust her implicitly to make decisions and recommendations regarding support with my best interests at heart. As a result of Laura's time, expertise and endless patience, I have learned so much about myself which I have no doubt will continue to bring benefits in my sporting, personal and professional life going forward.

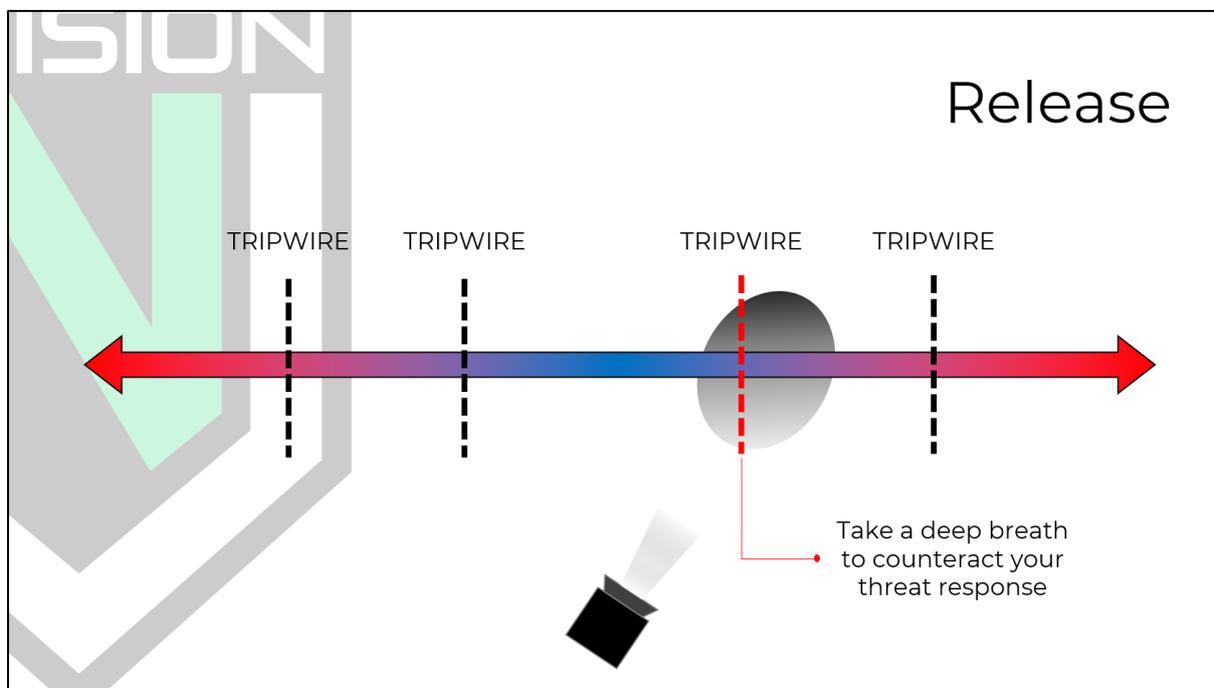
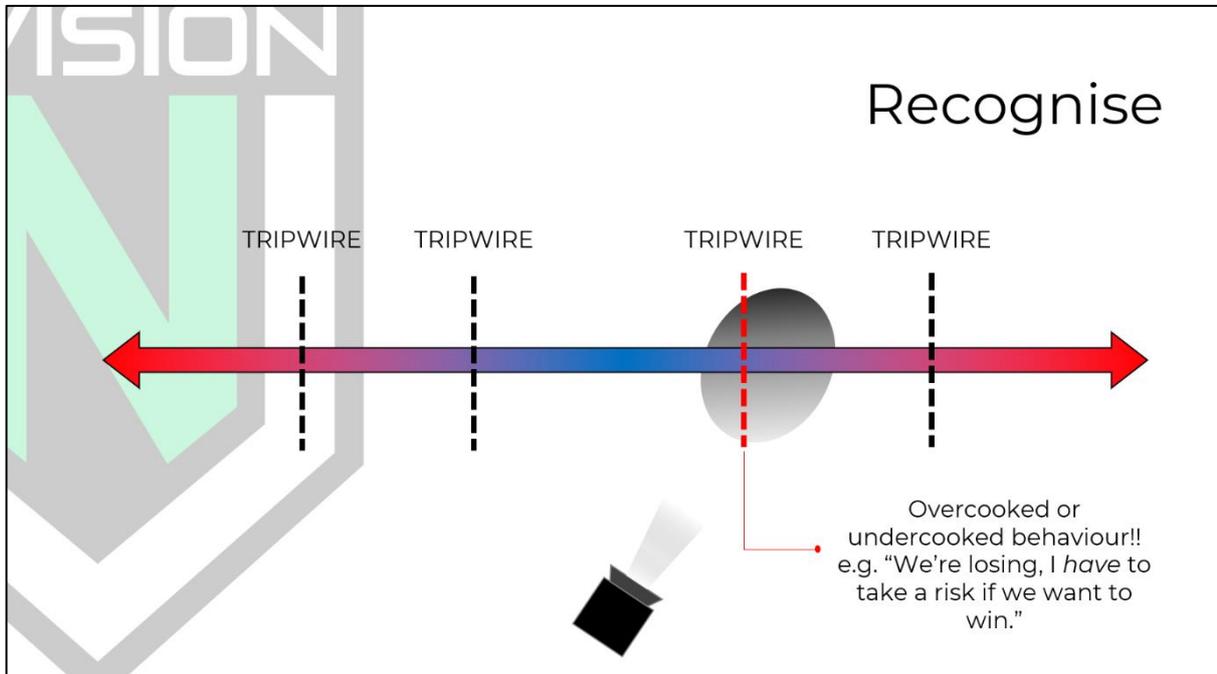
I am happy to have been able to play a part, however small, in her training and development and have no doubt that she will go on to become a superb professional in the field of sports psychology.

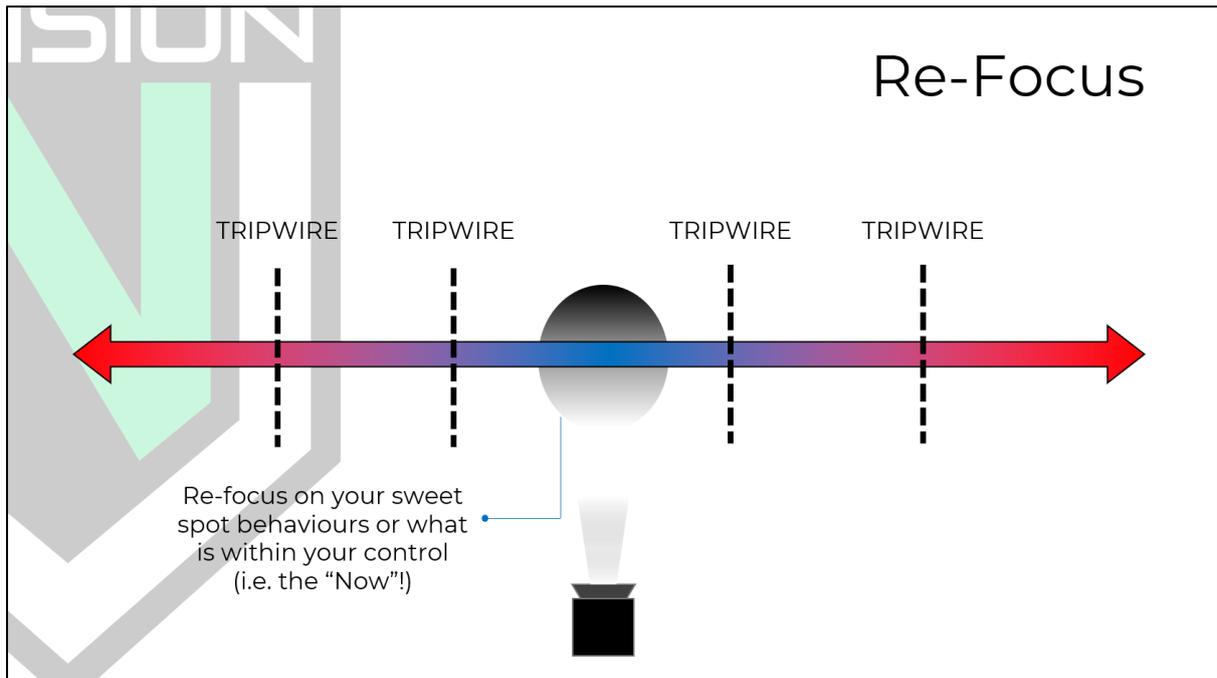
7) What would you like to see more or less of in the future?

It would be great to see more of Laura but sadly I now live at the other end of the country!

Appendix 6

Example slides from workshop: *Playing Under Pressure*





Appendix 7

Re-Focusing Pre-Game Menti Task



Appendix 8

Re-focusing In-Game Menti Task



Appendix 9

Player and Coaching Staff Interview Guides

Player Interview Guide

1. How useful was the content of the group sessions and why?
2. Were there any learnings that were key for you or you took away and used?
3. How would you rate the teaching of the workshops?
4. How easy was it to engage with the sessions? Could they be delivered in a more effective way?
5. What benefits, if any, did you gain from the psychological support?
6. What things, if any, did you not like about the psych support/workshops?
7. How could the psychological support be improved?
8. Are there any other topics you would have liked to be covered over the split/Anything that you would have liked to be better prepared for?
9. Any further comments

Coaching Staff Interview Guide

1. How useful was the content of the group sessions, for yourself and the players, and why?
2. Were there any learnings that were key for you and the players?
3. How would you rate the teaching of the workshops?

4. How easy was it to engage with the sessions? Could they be delivered in a more effective way?
5. What benefits, if any, did you gain from the psychological support?
6. What benefits, if any, do you think the players gained from the psychological support?
7. What things, if any, did you not like about the psych support/workshops?
8. How could the psychological support be improved?
9. Are there any other topics you would have liked to be covered over the split?
10. Any further comments

Appendix 10

Workshop Example 1st Year of Doctorate

Everyone feels pressure!
Even the best players.

Great players create an **internal environment** for themselves in which they do not feel overwhelmed by pressure.

What many players are doing is wondering how they can **look good to spectators, coaches, and teammates**. And often, they're wondering how **to avoid playing badly, how to avoid letting people down, and how to avoid losing**.

These thoughts are a big disadvantage. They put pressure on you by creating fear, because **you cannot directly control** any of these things, including winning.

IDENTIFYING PRESSURES & PERFORMANCE DEMANDS

- 'I *need* to play really well today to impress my coach'
- 'I *must* score or the fans will be on my back'
- 'I can't make *any* mistakes today'
- 'My team can't make *any* mistakes if we want to win'
- 'We *have to* win today so all the training pays off'
- 'I *must* perform well because my dad expects me to be a winner'
- 'Only 5 minutes to go, I can already see myself lifting the cup...'

HOW TO PLAY FREELY

It can be helpful to **“download”** these pressures by or talking to someone before the game if you feel any pressure.



If we are aware of the pressures and the **“stories”** that our mind is telling us, we are less likely to be affected by them on the pitch

Saying to yourself:

‘Ok, those are the outside pressures, but I choose to focus on enjoying myself, and expressing myself on the pitch, I’ve put in the hard work, now’s my time to enjoy it.’

MINDFUL ATTENTION

“The feeling of flow is the feeling of being totally present and in control of your body, actions and mind while playing.”

- Dylan Grimes AFL



The mind generally needs something to focus on before a game. If you don’t give it a focus, it’ll drift towards negatives.



It’s important for athletes to understand **when their attention leaves the present moment**. When you bring it back you’ve skipped a bit of what you’re living in, like the game.

Control the Controllables!

All we truly have control over is what we do in the present moment

Sport › Football › World Cup

Fabian Delph puts England return down to meditation, Pep Guardiola and giving up red meat

Delph was named in Gareth Southgate’s 23-man squad for this summer’s World Cup last month, despite his last international call-up coming back in November 2015

Mark Critchley Northern Football Correspondent | @mrcritchley | Monday 11 June 2018 20:46 | 0 comments

“I do it in numerous ways – you can do guided meditation, depending on how you are feeling. You can get these things on YouTube or get apps on your phone.”



“For me it is just breathing techniques, **learning to be still, to control your thought processes**. It wasn’t about dealing with the pressure of games – I’ve always been all right in matches. But I’m an intense guy, I always want to do more and my mind is racing at 100mph.”

Appendix 11

Workshop Example 2nd Year of Doctorate

What thoughts and emotions do you experience in football?

Two Parts of your Brain

The Logical Brain (the human)

- Logical
- Reliable
- Decision making
- Problem solving

The Emotional Brain (the chimp)

- Emotional
- Error prone
- Sensitive when things go wrong
- Takes over under pressure

What Happened in the Task?

- Catch the sticky notes**
 - ↑ Effort
 - ↑ Pressure
 - ↓ Attention on task
- Dodge the sticky notes**
 - ↑ Effort
 - ↑ Pressure
 - ↓ Attention on task
- Notice the sticky notes**
 - ↑ Attention on task, not avoiding 'sticky notes'
 - 'Sticky notes' still there but not controlling performance

How do we stop the chimp taking over?

- S** Stop
- T** Take a deep breath
- O** Observe thoughts & emotions
- P** Play with commitment

What do you want to commit to?

- Technique?
- Mentality?
- On/off the ball?
- Communication?

What would your teammates see you doing if you committed to this action?

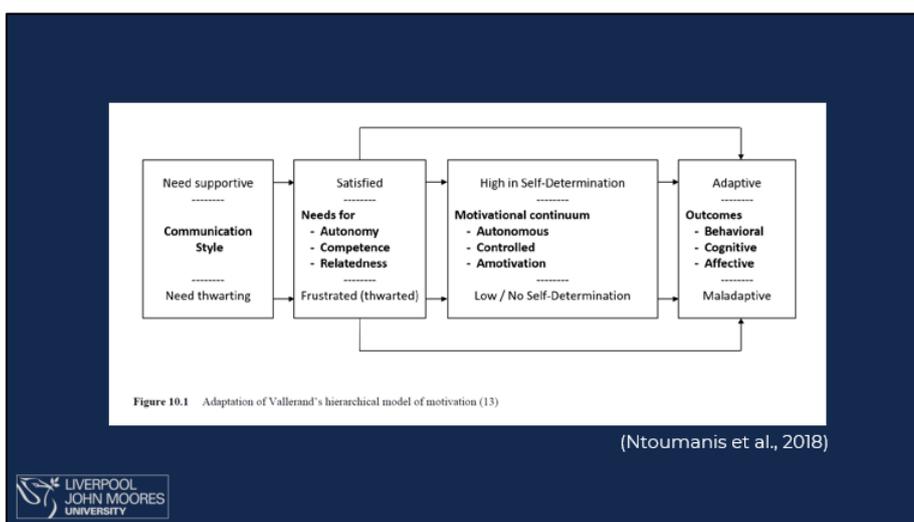
- S** Stop
- T** Take a deep breath
- O** Observe thoughts & emotions
- P** Play with commitment

Appendix 12

Excerpts of a Lecture Titled: The Application of Self Determination Theory for Sport, Exercise, and Health

Overview

- The application of SDT through Needs supportive vs Needs Thwarting Communication styles
- Initiatives that use SDT and needs supportive communication styles to promote participation and wellbeing within clinical and obese populations
- **Break!**
- The application of SDT within Autonomy supportive coaching
- Initiatives within sport and physical education that promote autonomy supportive coaching/needs supportive communication



Needs Supportive



Needs Thwarting

<ol style="list-style-type: none"> 1. Encourages initiative 2. Allows participation in decision making 3. Provides meaningful explanations for task-engagement 4. Empathises with negative affect 5. Communicates perspective taking statements 6. Offers choices that are relevant to others' goals and values 7. Gives specific and constructive feedback 8. Takes personal interest in others 	<ol style="list-style-type: none"> 1. Discourages initiative and questions from others 2. Trivializes and dismisses others' input and views 3. Uses excessive monitoring and surveillance 4. Uses a coercive, pressuring, or guilt-inducing communication 5. Uses intimidating behaviours (e.g., yelling, physical punishment) 6. Uses praise in an attempt to control others' behaviours and feelings 7. Deprives others of opportunities to develop their potential 8. Isolates or rejects others
--	---

Communication Styles

(Ntoumanis et al., 2018)



You are about to have a one-to-one consultation with a 65 year old woman looking to eat more healthily and increase her exercise.

How will you communicate with her in a needs supportive style?

Consider the **needs supportive behaviours** below and specific language you will use

1. Encourages initiative
2. Allows participation in decision making
3. Provides meaningful explanations for task-engagement
4. Empathises with negative affect
5. Communicates perspective taking statements
6. Offers choices that are relevant to others' goals and values
7. Gives specific and constructive feedback
8. Takes personal interest in others



The Promotion of Health and Exercise in Obesity (PESO)

The intervention team offered:

- clear **rationales**
- provided a menu of **options**
- promoted **competence**
- avoided the use of **external** incentives (extrinsic motivators)
- gave **positive feedback**.

These strategies were employed to help establish a **needs-supportive climate** for the participants



(Silva et al., 2010)



The Coach-Athlete Relationship

(Mageau & Vallerand, 2003)



Fig. 1. The motivational model of the coach-athlete relationship.



Autonomy Supportive Coaching

"Research suggest that overall, autonomy support from an authority figure (coach or teacher) encompasses providing opportunities to make **choices**, offering informational and non-controlling **praise/encouragement**, giving **rationales** that explain the importance of advice and established limits, encouraging **athlete/student input**, accepting athlete/student ideas and **perspectives**, and demonstrating **patience**."
(Webster et al., 2013)

An Observation System

M P O W E R

Moves
decision
making

Prompts
for
questions
or feelings

Opts to
use player
idea

Withholds
information
to guide
response

Empathises
with
negative
affect

Rationalises

(Webster et al., 2013)

You are coaching an U14's sport team.
How will you set up this session and how will you communicate with the players to create an autonomy supportive environment?

Think about **specific statements** or **behaviours** you may use with the MPOWER framework

M P O W E R

Moves
decision
making

Prompts
for
questions
or feelings

Opts to
use player
idea

Withholds
information
to guide
response

Empathises
with
negative
affect

Rationalises

Empowering Coaches: Initiative to Support Participation in Sport

There is a focus on:

- foster more **intrinsic** goals,
- highlighting the advantages of more **autonomous** motivation within youth athletes
- how to effectively motivate athletes (i.e., via creating climates that support **autonomy, competence, and relatedness**).



Summary

- We can implement SDT in practice by using needs supportive communication (and reducing needs thwarting communication!)
 - Empowering systems to support individuals' basic needs
 - Using a supportive style during sport psychology consultations
 - Use the MPOWER observational system to assess and monitor supportive behaviours
- Initiatives
 - Coaching: Empowering Coaching
 - Obesity: The Promotion of Health and Exercise in Obesity (PESO)
 - Adolescents: Promoting Adolescent Physical Activity (PAPA)
 - Clinical populations: Co-produced exercise referral scheme
 - Physical Education: The Autonomy-Supportive Intervention Program (ASIP)

Appendix 13

Training Workbook



Physical Activity Referral Scheme - Pilot Project

October 2016

Contents

Topic	Page
Key contacts and points to remember	3
Project aims and rationale	4-5
Physical activity guidelines	6
Roles and responsibilities	7
Training plan	8
Understanding your client (empathy)	9
Worksheet 1 – danger of assumptions	10
Fostering motivation	11-12
Worksheet 2 – satisfying psychological needs	13
Guiding and directive techniques	14-16
A guiding approach	17
Worksheet 3 – open questions	18
Worksheet 4 – reflective listening	19
Worksheet 5 – example induction	20
Example “bubble task”	21
Worksheet 6 – your personal action plan	22
IPAQ	23
WEBWMS	26

Key contacts

If you have any questions about the pilot or workshop content, or wish to offer feedback at any time, please contact:

Ben Buckley, PhD Researcher 07557 448399 / b.j.buckley@2014.ljmu.ac.uk

Paula Watson, Supervisor 07944 385051 / 0151 231 4182 / p.m.watson@ljmu.ac.uk

Remember we are here to help, so please contact us if you are unsure about anything.

Three important points to remember

1. **This is a pilot only.** Please remember this new scheme is only a pilot, and this includes the training and support we are giving you. You are the experts and the people on the “frontline”, and your views and feedback are crucial in helping us shape the scheme moving forward. Please do use the formal and informal opportunities to share honest feedback with us (both positive and negative).
2. **Health and safety must remain at the forefront.** The communication techniques you will learn during the workshop are about listening to the participant, giving them choice and allowing them to manage their own behaviour change. But this is not to say you must refrain from offering expert guidance. As an exercise professional, it is your responsibility to ensure client safety and ensure clients are undertaking PA that is appropriate for their health condition. The workshop covers ways of promoting autonomous motivation in clients, whilst remaining within these safety parameters.
3. **The learning process will be individual.** After the workshop, we will support you to implement changes that are relevant for you personally. Since everyone is at different starting points, these may be different for each one of you (e.g. you may feel you already ask a lot of open questions, but perhaps the reflective listening is more challenging). We will support you over the coming weeks to reflect where you are at now (in relation to where you would like to be), set action plans and support your progress.

What is the aim of this project?

To develop a GP referral scheme that supports inactive individuals with health conditions to make changes to their physical activity (PA) levels that they can keep up in the long-term. Through becoming more physically active it is hoped clients will improve their physical, social and psychological health.

How will the pilot scheme differ from the existing Exercise for Health programme?

Figure 1 shows an outline of the pilot scheme that has been co-developed between practitioners, commissioners, Exercise for Health (EFH) clients and academic experts. There are several key differences between the pilot and the existing EFH scheme. The pilot scheme will include:

1. Regular consultations to support client progress
2. Behaviour change support during consultations
3. Focus on increasing PA in daily lives (rather than just Lifestyles), with the aim of reaching guideline amounts and keeping it up
4. Collection of evaluation and monitoring data during initial, 12 week and 18 week consultations
5. Increased signposting to health trainers in relation to other health behaviours (e.g. smoking, alcohol, nutrition)

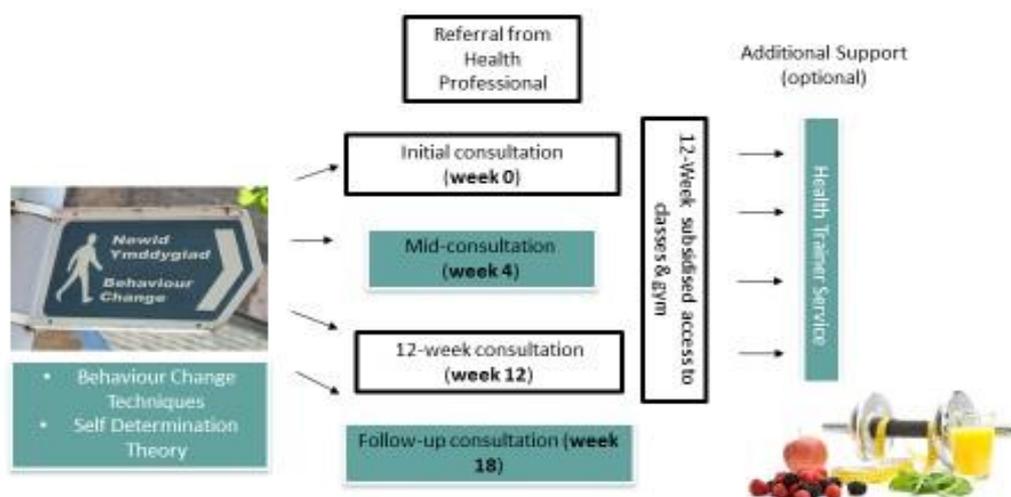


Figure 1. Co-developed pilot scheme

Why focus on small sustainable changes to PA?

Evidence shows that if an inactive person increases their PA by a little, they experience a larger health benefit than a moderately active person who increases their PA by the same amount (see figure 2). This means that the greatest public health impact can be achieved through supporting inactive people to make small changes to their PA levels that they can keep up in the long-term.

Box 1 shows the recommended PA guidelines for adults aged 19-64 years and Box 2 shows the recommended guidelines for adults 65 years and over. Whilst it is optimal that people achieve 150 minutes moderate PA per week, this may not be realistic for all PA referral scheme clients, many of whom have multiple health complications and may be doing very little/no PA when they join the scheme. By supporting clients to make gradual increases to their PA that fit within their lifestyles, clients are more likely to keep PA up in the long-term. For an inactive population therefore, the message needs to be – “start small and build it up, any movement is better than none”.

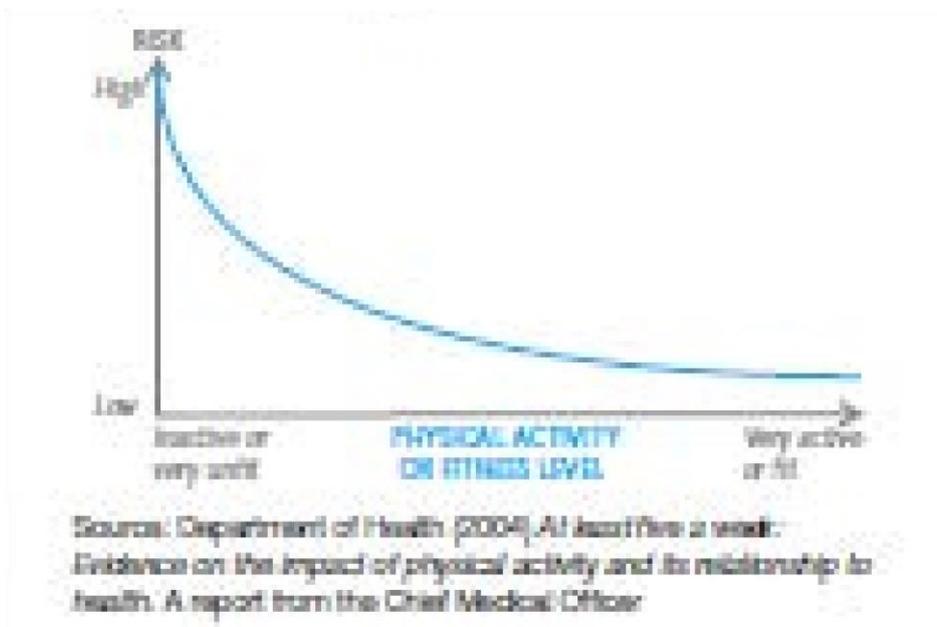


Figure 2. Dose-response curve for PA and health risk.

- ADULTS (19–64 years)**
1. Adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.
 2. Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous intensity activity.
 3. Adults should also undertake physical activity to improve muscle strength on at least two days a week.
 4. All adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

Box 1. PA guidelines for adults aged 19–64 years (Department of Health,

OLDER ADULTS (65+ years)
1. Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none, and more physical activity provides greater health benefits.
2. Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.
3. For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity.
4. Older adults should also undertake physical activity to improve muscle strength on at least two days a week.
5. Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week.
6. All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

Box 2. PA guidelines for adults aged 65+ years (Department of Health,

Roles and responsibilities

LJMU

- Co-ordinate the pilot
- Provide behaviour change training and ongoing support for gym staff
- Collate, analyse and report research data
- Endeavour to deliver pilot as intended (consultations at induction, 4 wks, 12 wks, 18wks)
- Engage with training and support to enhance delivery
- Collect IPAQ, WEBWMS and body composition (if appl) data at induction, 12 wks, 18 wks
- Participate in research activities to provide feedback and inform future development of the scheme

Training plan

	Individual support	Group sessions
<p>Phase 1: Needs analysis</p> <p>October 2016</p>	<p>Observation of current induction session</p> <p>Informal observation of classes (as applicable)</p>	
<p>Phase 2: Education</p> <p>October 2016</p>		<p>Full day workshop</p> <p>Pilot scheme components / Supporting behavior change / Interactive discussions, videos, reflective worksheets</p>
<p>Phase 3: Behaviour change support</p> <p>October to November 2016 (and further as required)</p>	<p>One-to-one sessions over 3-4 weeks</p> <p>Support individual delivery and implementation of communication techniques</p> <p>Ongoing support as required</p>	

Understanding your client (empathy)

It is important to consider the influence your own appearance and lifestyle might have on the clients you work with. Clients may see you as a positive, motivational and inspirational rolemodel. On the other hand, your appearance as a sporty, young and healthy individual may make some clients feel you are unable to understand their situation.

You can help bridge perceived gaps with clients by showing **empathy**.

Empathy is “to sense another’s private world as if it were your own”

(Carl Rogers, 1957)

To help understand what empathy is, it may be useful to consider the different ways you might respond in a situation. Imagine a client who is obese gets upset about her weight and is expressing how anxious she is about coming into the gym. Despite good intentions, if you pity her or feel sorry for her (i.e. sympathy), this may widen the gap between you. Instead, you can demonstrate empathy by gaining a sense for how *she* is feeling (e.g. through reflective listening, open questions etc.). This will help you understand the situation through her eyes so you can support her to come up with solutions appropriate for her.

In this workshop you will learn several communication techniques that will help you demonstrate empathy. But it is important to be aware empathy does not come easily. It requires both an awareness of your communication and a practiced ability to respond with appropriate, genuine sensitivity.

“It is an increasingly common pattern in our culture for each one of us to believe, ‘every other person must feel and think and believe the same as I do’” (Carl Rogers, 1961)

Be aware of falling into the trap of assuming everyone else thinks as you do. It is likely your lifestyle is very different from the clients you are working with, and you will be better able to support them in their behaviour change if you try and understand their situation not as it looks to you, but *as it is for them*.

Never assume – it makes an ass out of “u” and “me”!

Worksheet 1 – the danger of assumptions

Think of a time someone has made assumptions about you.

Were those assumptions accurate?

If not, how did this make you feel?

What could the person have done differently to make the situation less awkward?

Fostering motivation

We cannot motivate someone else. But we can *create an environment* that enables others to feel motivated.

Throughout the new PA referral scheme, gym staff can create an environment that fosters autonomous motivation for PA. **Autonomous (or self-determined) motivation** is motivation that comes from the self, essentially a client who is autonomously motivated will feel like they are being active because they want to rather than because anyone else (e.g. GP, gym staff, family) are making them follow it. If participants are more autonomously motivated they are more likely to adhere to their PA programme and to maintain PA in the long-term.

Conversely, if clients have come along to the referral scheme because they have been pressured or coerced by other people they might be experiencing **controlled motivation**. Clients who are experiencing controlled motivation may appear reluctant to be there, and are unlikely to continue attending. By creating an environment that supports autonomous motivation however, you can support these individuals to develop a desire to engage in PA and increase their likelihood of engaging with the scheme.

There are three psychological needs that are important for autonomous motivation and psychological wellbeing. These are **autonomy** (i.e. clients feel it is they who have made the decision to take part in PA), **competence** (i.e. clients feel they are able to meet the challenge of being physically active) and **relatedness** (i.e. clients feel connected to and supported by others around them to become physically active).

Overleaf are some ideas for how practitioners can support autonomy, competence and relatedness in the pilot referral scheme.

Supporting participant needs through the new pilot scheme

Need	Activities to support this need
Autonomy	<ul style="list-style-type: none"> • Focus on supporting client to integrate PA into their own lifestyle • Offer choice of group classes, gym, swim, and non-Lifestyles activities • Get to know the client and their needs/preferences • Offer meaningful explanations about PA and health (through consultations and client logbook)
Competence	<ul style="list-style-type: none"> • Set specific action plans together with clients • Client keeps a log of their progress • Review action plans at 4, 12 and 18wks • Discuss coping strategies to overcome barriers • Provide meaningful and specific feedback
Relatedness	<ul style="list-style-type: none"> • Get to know clients through repeat consultations with the same staff member • Show clients we care by listening to their needs • Offer opportunities to meet and build rapport with other clients (e.g. promote group classes, introduce members to each other)

Worksheet 2 – satisfying psychological needs

1. Think of a PA you do regularly.

How satisfied do you feel your three psychological needs are? How do you know this?

Autonomy

.....

.....

Competence

.....
.....

Relatedness

.....
.....

2. Think of a time (PA or non-PA) where you have felt like you didn't have any choice (lack of autonomy), you weren't competent (lack of competence), or you weren't connected to others (lack of relatedness).

How did this make you feel, and what effect did it have on your behaviour?

.....
.....

What was it that made you feel this way?

.....
.....

What could others around you have done differently to prevent these feelings?

.....
.....

Guiding and directive techniques

Guiding techniques			Directive techniques		
Technique	Example	How often do you do this? (1 = not at all, 10 = very often)	Technique	Example	How often do you do this? (1 = not at all, 10 = very often)
Ask open questions to find out about the client's needs	Questions that start with "how", "what", "why", "tell me about" etc. e.g. "How are you feeling about starting the referral scheme?"		Set goals for the client, without explanation	Telling client what you'd like them to do, without explaining why. e.g. "I'm going to put you on the treadmill for 10 minutes".	
Reflect back what the client has told you (to acknowledge their feelings)	Paraphrasing what the client has said (in your own words) to demonstrate your understanding. e.g. Client tells you they want to take up PA to lose weight, you say "you're keen to become more active so you can slim down".		Use jargon, or technical terms that the client might not understand	Referring to things that are common knowledge for experienced gym-goers, but may not be understood by new clients. e.g. resistance, cardio, machine names etc.	
Offer the client the opportunity to have a say in their activities	Asking client to choose between several options. e.g. of the group classes we offer, which activities would you like to try?		Tell the client they "must" or "should" do something	Telling client "if you want to get any benefit you must come twice a week for 12 weeks"	
Listen to the client's needs and set goals together	If client says they would rather focus on activities at home, set goals related to activities at home. Decide on goals together by asking open questions throughout.		Disregard the client's needs when setting programme	Client expresses a preference for group classes but you suggest the gym would be better for them so set them a gym programme and convince them to try it.	
Ask permission to give advice	Say "could I ask if" or "would it be ok if" before diving in to offer advice. e.g. "would it be ok if I make some suggestions?"		Offer the client little choice	Set the client a gym programme without going through their other options and asking their preferences.	

Provide a meaningful rationale for activities	Explain to clients the benefits of doing certain types of PA for their condition.		Appear indifferent or distracted during a consultation	Looking around you during the consultation, breaking off the conversation to say hi to others coming into the gym etc.	
Give the client the opportunity to ask you questions	e.g. “Is there anything you would like to ask me?”		Use “no pain, no gain” language	Tell clients they have to work hard if they are going to get any results.	
Offer meaningful and specific praise/feedback	Instead of relying on generic “well done” type statements, give clients specific praise related to their activities. e.g. “You’re making fantastic progress by climbing the stairs, this will really help with your fitness”. In class situations, try and use client names.				

Video 1

Guiding techniques		Directive techniques	
Technique	Note instances where the practitioner uses technique	Technique	Note instances where the practitioner uses technique
Ask open questions to find out about the client’s needs		Set goals for the client, without explanation	
Reflect back what the client has told you (to acknowledge their feelings)		Use jargon, or technical terms that the client might not understand	
Offer the client the opportunity to have a say in their activities		Tell the client they “must” or “should” do something	
Listen to the client’s needs and set goals together		Disregard the client’s needs when setting programme	

Ask permission to give advice		Offer the client little choice	
Provide a meaningful rationale for activities		Appear indifferent or distracted during a consultation	
Give the client the opportunity to ask you questions		Use “no pain, no gain” language	
Offer meaningful and specific praise/feedback			

How much did the practitioner learn about this client?

How much did the programme reflect the client’s preferences/needs?

What effect might this consultation have had on the client’s autonomy, competence and relatedness?

Video 2

Guiding techniques		Directive techniques	
Technique	Note instances where the practitioner uses technique	Technique	Note instances where the practitioner uses technique
Ask open questions to find out about the client’s needs		Set goals for the client, without explanation	
Reflect back what the client has told you (to acknowledge their feelings)		Use jargon, or technical terms that the client might not understand	
Offer the client the opportunity to have a say in their activities		Tell the client they “must” or “should” do something	

Listen to the client's needs and set goals together		Disregard the client's needs when setting programme	
Ask permission to give advice		Offer the client little choice	
Provide a meaningful rationale for activities		Appear indifferent or distracted during a consultation	
Give the client the opportunity to ask you questions		Use "no pain, no gain" language	
Offer meaningful and specific praise/feedback			

How much did the practitioner learn about this client?

How much did the programme reflect the client's preferences/needs?

What effect might this consultation have had on the client's autonomy, competence and relatedness?

A guiding approach

You can support clients' autonomy, competence and relatedness by increasing your use of a **guiding approach** and by reducing your use of directive techniques.

In a guiding approach your aim is to **listen supportively, but offer expertise when necessary**. This can be done through the use of several communication techniques:

- **Open questions** allow participants to have a say in the direction of conversation, and thus help them feel more autonomous (rather than forcing them to answer either one way or another). And crucially, they allow you to learn about the participant and their preferences, experiences and hopes.
- **Reflective listening** can be very useful if someone is upset or angry. Two steps: a) Listen to what the client says; b) convey to the client that you have heard by reflecting what they have said in your own words.
- **Offer choices** to help participants have a say in their PA programme and develop a sense of autonomy.
- **Giving specific praise** will strengthen clients' confidence to change.
- **Ask permission** before jumping in with advice or guidance (e.g. "is it ok if we go through X", or "could I make some suggestions..."). This feels less like you are telling clients what to do, and more like they have some autonomy in the situation.
- **Summarise** what the participant has told you about their preferences, hopes and goals. This will show you have heard them, show you care and give participants a chance to correct anything that has been misinterpreted.

What if someone is resistant to change?

Try not to jump in and try to fix things (we call this the "righting reflex"). It is natural to do this if you can see that a behaviour (e.g. PA) would be beneficial for somebody. However doing this can backfire, because people often know both sides of the argument. And lecturing them about one side of the argument only (e.g. reasons to become active) can send them in the opposite

direction. Instead try and step back and encourage the person to voice the positives of changing themselves (through open questions and reflective listening). The more people hear **themselves** talk about the positives of becoming active, the more likely they are to do it.

Don't feel you always need to solve everything in one consultation. If someone is resistant, it may simply be a case of listening to them and ask if they'd be willing to come back and talk some

more in 4 weeks. You could give them some options of something to work on in the meantime, e.g. look up types of PA or exercises they would like to do, go for some short walks, use the stairs instead of escalators etc. This will more likely encourage a client to come back than setting exercise goals for the client when they are not ready to change.

Worksheet 3 – open questions

Replace each of the following with an open question.

Do you like coming into the gym?

.....
.....

Did you stop coming because you couldn't fit the time in?

.....
.....

Would you like to do Zumba once or twice a week?

.....
.....

Does that sound ok?

.....
.....

Are you anxious about being here?

.....
.....

Is that because you don't like walking?

.....
.....

Worksheet 4 – reflective listening

Show the client you are listening by writing a reflective statement to follow each of these examples.

It's the first time I've been in the gym for years, I'm a bit scared.

.....
.....

I can't afford to get the bus and I don't have a car, so my only option is to walk here but my leg is hurting too much at the moment.

.....
.....

I tried Aqua-fit last year and really enjoyed it.

.....
.....

I don't really think I'm a gym person, I'd rather try a group class.

.....
.....

I'm a single mum so can only attend in the day time while the kids are at school.

.....
.....

My wife has made me come to this, I don't really know why I'm here.

.....
.....

Worksheet 5 – example induction

Practice open questions and reflective listening to learn about your client and set a goal appropriate to their needs. Use the questions below as a guide, but listen to the client's responses to direct the conversation.

Could I start by asking how much you know about the PA referral scheme?

Explain scheme

How are you feeling about starting the referral scheme?

What are you hoping to achieve from becoming more active?

May I ask about your current PA levels:

How many days per week do you engage in physical activity for at least 10 minutes or more (e.g. anything that makes you breath harder brisk walk, gardening, dancing, cycling etc.)

1 day 2 days 3 days 4 days 5 days 6 days 7 days

On those days, how many minutes on average do you engage in physical activity?
_____minutes

Praise / feedback, ask further open questions as appropriate

Ask permission to give advice, use the "bubble task" overleaf to talk client through some choices then set an action plan below.

Action plan

State what the participant will do and when, set one or two actions as appropriate for the client. For clients using Lifestyles, it might be good to set one action related to Lifestyles, and one related to increasing daily PA:

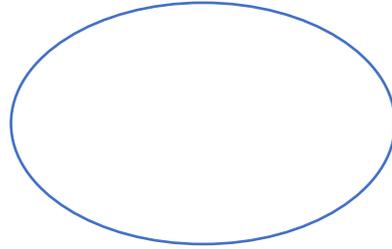
1.
2.

Summarise the discussion and action plan.

How does that sound? Any questions for me?

Example “bubble task” (to help guided goal setting with clients)

Zumba

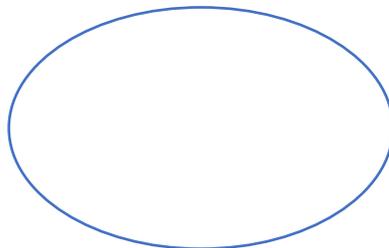


Aqua -fit

Low -impact
circuits

Gym - treadmill

Gym - bike



Worksheet 6 – your personal action plan

1. Based on what you have learned today, what areas of your own delivery would you like to focus on enhancing? (try and be specific)

.....
.....
.....
.....

2. What are your next steps towards doing this? (state specifically what you are going to do and when)

Examples might include reading the workshop materials, trying out the skills in an induction this week, take some notes after your induction, discuss progress with Paula

.....
.....
.....
.....

Action	When

Further learning

Many of the communication techniques we have talked about today have been drawn from an approach called “motivational interviewing”. If anyone would like to learn more about motivational interviewing, BMJ offer a free online learning module (1 hour only) that contains some useful video examples:

<http://learning.bmj.com/learning/module-intro/.html?moduleId=10051582>

IPAQ (International Physical Activity Questionnaire)

We are interested in finding out about the kinds of physical activities that you do as part of your everyday life. The questions will ask you about the time you spent being physically active in the **last 7 days**. They include questions about the activities you do at work, at home, to get from place to place, and in your spare time for leisure, exercise or sport.

Your answers will help us provide you with appropriate support to increase your physical activity.

Please answer each question even if you do not consider yourself to be an active person.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1a. During the **last 7 days**, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ **days per week**

No vigorous physical activities → *Skip to question 2*

1b. How much time did you usually spend doing **vigorous** physical activities on one of those days?

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

1. Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

2a. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ **days per week**

No moderate physical activities → *Skip to question 3*

2b. How much time did you usually spend doing **moderate** physical activities on one of those days?

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

2. Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

3a. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

No walking → *Skip to question 4*

3b. How much time did you usually spend **walking** on one of those days?

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

3. Think about the time you spent **sitting on weekdays** in the **last 7 days**. This includes time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

4a. During the **last 7 days**, on how many days did you spend **sitting on weekday**?

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

WEBWMS (Warwick-Edinburgh Mental Wellbeing Scale)

Below are some statements about feelings and thoughts.

Please **circle the number** that best describes your experience **over the last 2 weeks**.

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

© NHS Health Scotland, University of Warwick and University of Edinburgh, 2006, all rights reserved.

STATEMENTS	None of the time	Rarely	Some of the time		Often	All of the time
I've been feeling optimistic about the future	1	2	3		4	5
I've been feeling useful	1	2	3		4	5
I've been feeling relaxed	1	2	3		4	5
I've been feeling interested in other people	1	2	3		4	5
I've had energy to spare	1	2	3		4	5
I've been dealing with problems well	1	2	3		4	5
I've been thinking clearly	1	2	3		4	5
I've been feeling good about myself	1	2	3		4	5
I've been feeling close to other people	1	2	3		4	5
I've been feeling confident	1	2	3		4	5
I've been able to make up my own mind about things	1	2	3		4	5
I've been feeling loved	1	2	3		4	5
I've been interested in new things	1	2	3		4	5
I've been feeling cheerful	1	2	3		4	5

Appendix 14

Coding manual for needs-supportive and needs-thwarting behaviours during exercise referral consultations

Needs-Supportive Behaviours (high score = positive)	Needs-Thwarting Behaviours (low score = positive)
1. Ask open questions to explore the client's perspective	Use jargon, or technical terms that the client might not understand
2. Reflect back what the client has told you	Tell the client they "must" (not) or "should" (not) do something
Involve the client in setting their physical activity programme	3. Disregard the client's perspective when setting programme
4. Ask permission to engage with the client on a personal level	4. Appear indifferent or distracted during a consultation
5. Provide a meaningful rationale for activities	
Give the client space to ask questions or request clarification	
7. Offer praise/feedback that is meaningful and specific	

Needs-supportive score (mean of needs-supportive items): /3 **Needs-thwarting score** (mean of needs-thwarting items): /3

Potency scoring

This coding tool uses a “potency score”, which is a principle adopted within other Self-Determination Theory-based coding systems, first introduced by Smith et al. (2015)¹ in sports coaching and further developed in the exercise instruction setting by Quested et al. (2018)²³.

The potency score focusses on the anticipated psychological impact of the practitioner’s behaviour on the basic psychological needs of the client. It is a qualitative score that considers the frequency, manner and intensity with which the strategy is delivered.

When allocating potency scores, coders are encouraged to take the following factors into account:

1. Consider how the practitioner’s behaviour might be received by the client, specifically in terms of their satisfaction of autonomy, competence and relatedness.
2. Work on the assumption it is possible to score a 3 for every behaviour within any consultation. What constitutes a “3” in a given context will depend on the length and nature of the consultation. Therefore a potency score of 3 indicates the practitioner has made maximal use of that behaviour, taking into account the context of the consultation and the opportunities afforded within this. E.g. a few open questions might be very potent within a 10-minute follow up consultation and score a 3, whereas the same open questions might be less potent in a 1-hour consultation and score a 2.
3. As well as coding the behaviours that are used, consider what else the practitioner could have done. This element requires knowledge and understanding of Self-Determination Theory principles (particularly needs-supportive strategies), therefore it is important all coders undertake any necessary theoretical training before commencing coding.

0 – Not at all	1 – Weak potency	2 – Moderate potency	3 – Strong potency
The practitioner makes no use of the behaviour.	The practitioner makes minimal use of the behaviour. The frequency, manner and intensity through which the behaviour is delivered is not anticipated to have a notable impact (supportive or thwarting) on the client’s psychological needs.	The practitioner makes some use of the behaviour. The frequency, manner and intensity through which the behaviour is delivered may have some impact (supportive or thwarting) on the client’s psychological needs.	The practitioner makes considerable use of the behaviour. The frequency, manner and intensity through which the behaviour is delivered may have a substantial impact (supportive or thwarting) on the client’s psychological needs.

¹ Smith et al. (2015). Development and validation of the multidimensional motivational climate observation system. *Journal of Sport and Exercise Psychology*, 37, 4-22.

² Quested et al. (2018). The need-relevant instructor behaviors scale: Development and initial validation. *Journal of Sport and Exercise Psychology*, 40, 259-268.

³ Since it is not appropriate to interpret behaviours in the context of a needs-thwarting “ceiling”, needs-thwarting behaviours should be considered strong in potency if they meet the first two bullet points only.

	There are considerable ways the practitioner could have delivered this behaviour in a more needs supportive/needs thwarting way (within the length and nature of the consultation).	There are a few ways the practitioner could have delivered this behaviour in a more needs supportive/needs thwarting way (within the length and nature of the consultation).	(Needs supportive behaviours only) The practitioner could not notably have delivered this behaviour in a more needs supportive way (within the length and nature of the consultation) ³ .
--	---	--	--

Needs-supportive behaviours

1. Ask open questions to explore the client's perspective

Description

The practitioner uses open questions to explore the client's perspective about their involvement in the exercise referral scheme.

e.g. how are you feeling about being here today?

What do you know about the exercise referral scheme?

What would you like to achieve from becoming more active?

How have you been getting on since we last met?

High potency examples

Induction - The practitioner uses a range of open questions throughout the consultation. For example, they might start by asking what the client knows about the exercise referral scheme, then go on to ask clients how they are feeling about starting the programme and what they would like to achieve. During the consultation they may ask the client about previous exercise/physical activity experiences, about what they enjoy and any barriers they may face. The questions are asked in a genuine, interested manner and the practitioner pays attention to the client's response.

Follow-up consultation - The practitioner uses a range of open questions throughout the consultation. For example, they might start by asking how the client is and how they have got on with their exercise/physical activity since the last meeting. They may later ask how the client feels about their current programme and whether they would like to make any changes. The questions are asked in a genuine, interested manner and the practitioner pays attention to the client's response.

Notes

When coding for this item, focus on the practitioner's attempts to open up the conversation and learn about the client's perspective, even if at times this means incorporating other types of language (other than solely "open" questions).

For example, practitioners might use a closed question to gain "access" then expand on this to learn more about the client. *e.g. Is there anything that might make becoming more physically active difficult for you?* Then if the client responds with a "yes", the practitioner might

say...*Would you mind telling me more...* In this situation the practitioner's behaviour suggests their purpose is to help the client open up and should therefore be coded as a positive example of open questioning.

If, however the client gives a brief response to a closed question (e.g. yes/no) but the practitioner does not seek to learn more (and hence shuts the conversation down), this should not be coded as an example of open questioning.

2. Reflect back what the client has told you

Description

The practitioner uses reflective listening to acknowledge the client's perspective and demonstrate they are listening. Reflective statements might be those that occur sequentially within a conversation (i.e. as an immediate response to the client's point), or something the practitioner returns to later in the consultation (i.e. to reflect on or summarise something the client said earlier). *e.g.*

(sequentially within the conversation)

Client: *I'm a bit worried about coming in the gym because I've never done it before*

Practitioner: *You're feeling a little anxious starting something new*

(returning at a later point)

You mentioned earlier that you're a little worried about coming in the gym...

High potency example

Induction & follow-up consultation - The practitioner uses reflective statements at appropriate points throughout the consultation to acknowledge the client's perspective and demonstrate they are listening. At least some of the reflections convey understanding of client meaning or feelings (i.e. go beyond simply repeating what the client has said).

Notes

It is acknowledged there may only be one or two occasions where it is appropriate to use reflective listening within a consultation, and the extent of opportunities will depend on the client's motivational state and content of the conversation. Therefore this behaviour should be coded according to the use of appropriate reflective listening when opportunities arise.

3. Involve the client in setting their physical activity programme

Description

The practitioner engages in a collaborative discussion with the client about their physical activity programme and ensures the client's perspective is reflected in any action plans that are discussed. The practitioner encourages ownership of the programme through the use of autonomy-supportive language (e.g. *it is up to you to choose which days you attend*). *e.g.*

Practitioner: *The programme is about supporting you to be active in a way that works for you. This can be done through coming in the gym, through classes or swimming, or you could choose to increase your walking or activities at home. I can provide you with guidance on how much activity to do and what is appropriate for your condition, but it is important you focus on activities that fit in with your life and that you will enjoy. Have you any thoughts about what activities you would like to do?*

Client: *I quite fancy having a go at some of the classes as I'd like to meet some other people, I don't really like exercising on my own.*

Practitioner: *Ok great, so let me talk you through what your options are for classes (talks through options). Does any of that take your fancy?*

Client: *Yes definitely, I'd love to try the Zumba – I've never dared before but what you've just told me about it being low-impact sounds like it would be ideal for me*

Practitioner: *Yes Zumba is a great activity to help increase your fitness, it's also a friendly class so you'll meet other people on the referral scheme – there's classes on tomorrow and Thursday at 1pm, how would you feel about giving one of those a go?*

High potency examples

Induction - The practitioner takes the client's perspective into account throughout all aspects of their physical activity programme (e.g. activity preferences, gym induction if applicable, action plan). For example, the practitioner might start by asking about the client's preferences and barriers, and make clear to the client it is up to them to decide what activities they do (although the instructor might give them guidance in this). They may then involve the client in setting their own physical activity programme, either through open questions to encourage the client to come up with their own suggestions, or through the practitioner reflecting on something the client raised earlier.

Follow-up consultation – The practitioner may ask the client how they are getting on, what is working well and any challenges they are facing. They may work collaboratively with the client to make any changes required to the physical activity programme (e.g. to make it more enjoyable, or more challenging).

Notes

“Client's perspective” in this context refers to the client's view of their physical and mental condition (even if this differs from the practitioner's view), plus any barriers or preferences that have been discussed. Instances where the practitioner makes assumptions about the client's perspective without drawing on something the client has told them (e.g. *you'd enjoy the gym sessions more than the swimming*) should not be coded as an example of this behaviour.

Coding for this item should be focussed around giving the client a say in their physical activity programme, which may involve discussing client activity preferences (e.g. gym/class/broader physical activity), the gym induction (if applicable) and setting an action plan (if applicable). So for a high potency score we would expect the practitioner to take the client's perspective into account throughout all these aspects (as appropriate). For example, the client would be asked whether or not they wish to have a gym induction, if they say “yes” the practitioner might then explore the client's previous gym experiences (or lack of) and

preferences, or the practitioner might make suggestions based on the earlier discussion (for high potency the practitioner's rationale for these suggestions should be made clear).

If the practitioner seeks the client's perspective regarding aspects of the consultation itself (e.g. what would you like to do first today? Would you rather chat first or go around the gym first?) these would not be coded under this behaviour, because they do not involve offering the client a say in their physical activity programme per se (in the latter example the assumption is that the client will want to go around the gym, rather than asking if they would like to). These examples might however be coded under needs-supportive item 1 (open questions to explore the client's perspective).

4. Ask permission to engage with client on a personal level (e.g. before asking personal questions, raising sensitive issues or providing advice outside of professional remit)

Description

The practitioner uses permission statements when engaging with the client on personal issues, such as asking personal questions, raising sensitive issues, or before providing advice outside of their professional remit (i.e. as an exercise instructor).

e.g. would you mind if I made some recommendations?

Do you mind if I ask your reasons...?

Is it ok if I start by asking you a few health questions?

Would you be interested in some information about X?

Could I ask about your current activity levels?

High potency example

Induction & follow-up consultation – The practitioner asks permission as appropriate throughout the consultation. For example, this might include asking the client's permission before weighing them, before asking health questions or before providing advice on an area not related to exercise/physical activity (e.g. personal circumstances).

Notes

What constitutes "personal questions", "professional remit" and a "sensitive issue" may vary with context. For example, if the referral scheme is part of a weight-loss programme, it may be expected that the instructor would ask about weight therefore this would be less sensitive than if the referral scheme was not specifically focused on weight. It is recommended that prior to coding, all coders agree what will be considered outside the professional remit and what situations will be considered sensitive within that context.

Where advice is provided on non-exercise/physical activity issues (e.g. other health behaviours, specific health conditions, personal circumstances) and the practitioner makes the link to the client's exercise/physical activity clear, this should be classed as advice within their professional remit.

Since permission statements are a means of enhancing needs-supportive communication, coders should work on the premise that there are always some circumstances in which these can be incorporated within a consultation. Therefore an absence of permission statements should be coded as “0”.

Whilst sensitive contexts might be the most obvious times to apply permission statements, instances where permission statements are used in non-sensitive contexts should also be coded as needs-supportive (e.g. if the practitioner asks permission to get started with the consultation). The context will however determine the potency of the permission statements (or absence of permission statements). For example, asking only one permission statement within a highly personal / sensitive consultation might be scored as less potent than if the same permission statement were asked within a short and non-sensitive follow-up consultation. When assessing “what more the practitioner could have done” it is therefore important to take the context into account.

5. Provide a meaningful rationale for activities

Description

The practitioner provides a clear, meaningful rationale for the activities they are recommending (e.g. use of particular gym machines), and for tasks they are asking the client to do (e.g. completion of questionnaires) throughout the consultation. The rationale is made personally relevant to the client and their situation.

e.g. I'm going to recommend you do 10 minutes on the treadmill because you have noted you'd like to improve your stamina to walk. Going on the treadmill each time you come will help you build up this stamina and gradually over time you will be able to increase the amount of time you walk for.

High potency examples

Induction – The practitioner explains clearly what the exercise referral scheme involves with a clear rationale for the approach to be taken, and for the type of activities they will be asking them to do. For specific topics that come up during the consultation (e.g. in response to client questions, or linked to the recommendations the practitioner is making), the practitioner provides a meaningful explanation that is personally relevant to the client and their situation.

Follow-up consultation – The practitioner explains clearly why they are recommending a change to the client's physical activity plan, or why they would recommend continuing with the same plan for now. The explanation is made personally relevant to the client and their situation.

Notes

For this behaviour, examples related to both the physical activity programme and the consultation itself are relevant.

6. Give the client space to ask questions or request clarification

Description

The practitioner allows space to ensure the client understands and is able to ask anything they are unsure about.

e.g. Have you got any questions?

Does that make sense?

If anything I say is not making sense to you, please tell me.

High potency examples

Induction – The practitioner prompts the client from the start to ask questions about anything they do not understand, then at several points in the consultation asks the client specifically if they have any questions. Before bidding the client farewell, the practitioner checks the client is happy with what they have discussed and asks if they have any further questions.

Follow-up consultation – The practitioner asks the client if they have any questions following any changes that are introduced to the physical activity plan, and again at the end of the consultation.

Notes

The practitioner may use a range of closed questions (*e.g. Is there anything you would like to ask me?*) and open statements (*e.g. Please let me know if you have any questions*) in meeting this criterion. The score should be allocated on the extent to which the practitioner allows space to ensure the client understands and is able to ask anything they are unsure about, rather than scoring for the particular type of language used.

Questions such as *How does that sound?* or *Does that sound ok?* might be coded under this behaviour, as long as the practitioner allows space for the client to express any concerns or ask questions. Such examples would however be considered weaker in potency than more explicit invitations for questions.

7. Offer praise/feedback that is meaningful and specific

Description

The practitioner offers specific and meaningful praise to the client throughout the consultation (in response to what the client tells the practitioner or in response to what the practitioner observes the client doing during the gym induction).

e.g.

You are walking really well on the treadmill. (specific) You're in the centre of the treadmill and walking with a good posture. (meaningful)

*That is fantastic that you have managed to introduce daily walking into your life. (specific)
Regular walking is a great way to stay active as it's something you can do wherever you are.
(meaningful)*

High potency example

Induction & follow-up consultation – The practitioner offers specific praise at appropriate points throughout the consultation. The majority of instances of praise clearly articulate what it is the client is being praised for. At least some instances of praise also provide a meaningful rationale (e.g. why it is good that the client is walking every day).

Notes

Instances of “empty”, non-specific praise (e.g. “well done”) may be coded as some attempt at providing praise, but would be considered weak in potency.

Needs-thwarting strategies

1. Use jargon, or technical terms that the client might not understand

Description

The practitioner talks in technical terms and/or abbreviations that the client might not be able to understand, without offering an explanation or checking client understanding.

e.g. your BMI is 30.2 and your body fat percentage is 34%

Exercise can help reduce vasoconstriction in your carotid artery, particularly if you're at risk of CVD

High potency example

Induction & follow-up consultation – The practitioner talks in technical terms throughout the consultation without explaining to the client what these mean or checking client understanding. The technical terms are of a level that are not commonly used in everyday language (e.g. talking about physiological mechanisms) and contain frequent abbreviations without explanation (e.g. BMI, low-GI).

Notes

When assessing this item consider whether the practitioner's use of language is appropriate for someone new to exercise/physical activity. Code instances where individual words (e.g. abbreviations), or overall language use (e.g. references to concepts that new exercisers might not be familiar with such as “overload”) might be difficult for the client to understand.

In judging whether something is difficult for the client to understand, consider the client's background and knowledge (what is known from the consultation or previous conversations). For example, the same term (e.g. resistance machine) might be considered jargon with a

client new to the gym, but may be appropriate language for a more experienced exerciser. Equally, if the client is a medical doctor as their profession, it may be appropriate to use some medical terms that would not ordinarily be used with other clients.

When coding follow-up consultations, note the client's understanding of some issues (e.g. BMI) might be improved as a result of explanations during earlier consultations. Therefore some terms considered jargon in an induction, may be appropriate in a follow-up consultation.

2. Tell the client they “must” (not) or “should” (not) do something

Description

The practitioner tells the client that they must, must not, should or should not do something. This might relate to activities on the referral scheme or tasks that form part of the consultation. This may also involve the use of “if, then” language.

e.g. on the scheme you must come to the centre 2-3 times a week and at least one of these should be to use the gym

You're doing that the wrong way. Do it like this!

You're going to have to work hard if you want to see improvements

If you don't do this right, you won't get any fitter

If you don't do something about this, you will get ill

High potency example

Induction & follow-up consultation – Controlling language is used throughout the consultation to tell the client what they should and should not do. There may be instances when the practitioner uses forceful language to tell the client they will only see gains if they do things a certain way, or unless they “do something”, they will see a negative consequence. There is sometimes frustration, intimidation or malice in the voice.

Notes

When coding this item, the tone and manner of the practitioner should be taken into account. For example, if a practitioner uses the words “must” (not) and “should” (not) but this is expressed in an empathic manner (i.e. that suggests they have the intention of motivating or protecting the client) this would be considered weak in potency.

3. Disregard the client's perspective when setting their programme

Description

The practitioner sets a programme that actively goes against something the client has asked to do / not to do, or that suggests the practitioner has not been listening to the client's preferences or concerns.

e.g.

Client: *It's the swimming I'm really interested in*

Practitioner: *Well I'm going to set you a gym programme anyway*

High potency example

Induction & follow-up consultation – The practitioner consistently disregards the client's perspective and appears not to be listening to their preferences and concerns.

Notes

Examples can be coded for this criterion that relate to both:

- disregarding the client's perspective when setting their overall activity programme; and
- disregarding the client's perspective during the consultation itself (e.g. in determining what machines they go on in the gym, or what intensity they work at).

This criterion is distinct from non-compliance with needs-supportive item #3 (which focusses on involving the client in setting their physical activity programme). A score of "0" on needs-supportive item #3 may mean the practitioner is failing to take the client's perspective into account (e.g. setting an action plan for the client without involving the client), but this is to be distinguished from active disregard for the client's perspective (e.g. dismissing something the client has told them and setting a physical activity programme that is misaligned with this).

There may be some instances where the practitioner has a professional responsibility to encourage the client towards a different course of action than their preferred choice (e.g. if for reasons related to their health condition, it would be better for the client to go to the gym rather than swim). If the practitioner acknowledges the client's perspective, but disregards it without explanation (e.g. *I know you'd like to go swimming, but I'm going to suggest you come to the gym*) this would still be coded, but would be considered a weaker potency than if the practitioner had not even acknowledged the client's perspective.

If however the practitioner either asks permission or provides a meaningful, personally-relevant rationale for their suggestions (see examples below), these instances would not be coded against this behaviour. This is because the practitioner is taking the client's perspective into account but the practitioner is aware that the client's preferences may be misaligned with what is best for them physically.

e.g. Asks permission:

You've said you would prefer to go swimming, but I'm concerned this might not be the best thing for you physically – would you mind if I make an alternative suggestion?

This example would be coded under needs-supportive item #2 (reflect back what the client has told you) and needs supportive item #4 (ask permission before raising sensitive issues or providing advice), since the practitioner is acknowledging what the client told them earlier then asking permission to take a different approach.

e.g. Provides a meaningful, personally relevant rationale:

I know you'd prefer to go swimming but I'm going to recommend you start with the gym until you feel a bit more confident managing your breathing. This is because there is always an exercise referral instructor available to help you out in the gym, so if you came in the gym, I

could help you build up your fitness gradually so you then feel confident to “go it alone” in the swimming pool. How does that sound?

This example would be coded under needs-supportive item #2 (reflect back what the client has told you) and needs-supportive item #5 (provide a meaningful rationale), since the practitioner is acknowledging what the client told them earlier then providing a rationale for taking a different approach.

4. Appear indifferent or distracted during a consultation

Description

The practitioner appears indifferent or distracted, interrupts or cuts the client up, or does not appear to be listening to the client.

High potency example

Induction & follow-up consultation – There are instances throughout the consultation where the practitioner appears indifferent or distracted, interrupts or cuts the client up, or does not appear to be listening to the client.

Notes

This item is distinct from non-compliance with needs-supportive item #2 (reflect back what the client has told you). If a practitioner misses a reflection opportunity by not responding (but this does not come across like they are not listening), this should be considered as a missed opportunity for needs-supportive behaviour #2 but would not be coded here.

Whereas if a practitioner does not appear to be listening, interrupts or cuts the client up, this should be coded against this criterion (since these can be considered active thwarting behaviours).

Practitioners may sometimes be distracted for reasons outside of their control, since they may be the sole individual responsible for the gym (whilst the consultation is going on). For this reason, if the practitioner is taken away to attend to something else or is interrupted by another client but they explain and apologise to the client, this should be taken into account when deciding whether to code against this behaviour, and when assigning a potency rating. Coders should consider the frequency with which such events occur, the tone of the practitioner’s explanation / apology, and the likely impact this would have on the client’s experience. If, for example, the practitioner needs to visit the bathroom on one occasion, they are very apologetic and it is not anticipated this would affect the client’s experience negatively, this would not be coded. If however the practitioner was called away by their team members on frequent occasions, and despite apologizing to the client, the client may feel like they are not the practitioner’s priority, this might be coded as weak or moderate potency.

Appendix 15

Development of Coding Manual

Development Meeting	Objectives	Agreed Changes	Tasks
Stage 1 (Sept 2018)	<ul style="list-style-type: none"> Review current coding manual Train researchers in using coding manual by coding 5-minute clips from consultations. 	<ul style="list-style-type: none"> Language changes to manual to reduce ambiguity. 	<ul style="list-style-type: none"> All 3 researchers to independently code 3 recordings PMW to make changes to coding manual.
Stage 2 (Sep – Oct 2018)	<ul style="list-style-type: none"> 2 x 2 – 3 hour meetings Discuss scores from independent coding task Agree further changes based on discrepancies 	<ul style="list-style-type: none"> Only code lead practitioner when 2 are present Changes to language to improve clarity (e.g. make clear that exercise specific terms like “resistance” and “intensity” should be included as jargon). Changes to score sheet (e.g. list negative points separately). 	<ul style="list-style-type: none"> All 3 researchers to independently code 6 consultations at different time points for stage 3 meeting. PMW to make agreed changes to coding manual.
Stage 3 (Oct – Nov 2018)	<ul style="list-style-type: none"> 1 x 2 hour meeting Discuss scores from independent coding task Agree on further changes based on discrepancies 	<ul style="list-style-type: none"> Make clear to round up when scoring. (e.g. 0.5 = 1) Substantial changes to be made based on the work of Smith et al., (2015) and Quested et al., (2018). This included using a 4-scale potency scoring (Smith et al., 2015), with language for measuring intensity (0-3) of the potency adjusted (Quested et al., 2015). 	<ul style="list-style-type: none"> PMW to make agreed changes to coding manual.
Stage 4 (Nov 2018 – July 2019)	<ul style="list-style-type: none"> 1 x 3 hour meeting New manual discussed on a page by page basis 15 minutes to practice coding using the new manual 	<ul style="list-style-type: none"> Agreed to start coding process from scratch as this new system is better. 	<ul style="list-style-type: none"> All 3 researchers to independently code 6 consultations at different time points for stage 5 meeting. PMW to make changes to coding manual.
Stage 5 (July – Oct 2019)	<ul style="list-style-type: none"> 1 x 2 hour meeting Review inter-rater reliability of the 6 consultations at different time points. Discuss final changes to the manual. 	<ul style="list-style-type: none"> Agreed IRR scores are acceptable (see figure...) Altered language of thwarting potency and NS item 4 to make it clearer when permission is coded. Added thwarting coding to the score sheet. 	<ul style="list-style-type: none"> Lead researcher to complete the remaining audio recordings with the final coding manual when changes have been made.

Appendix 16

Consultation Score Sheet

Time-point: induction/4wk/8wk/12wk/18wk

Centre: Intervention/standard

Participant initials:

Practitioner:

Coder initials:

Needs-Supportive Behaviours (high score = positive)	Examples (describe every instance you hear)	Time/s on audio	How could they have been more supportive? (explain what else they could have done, or leave blank if nothing notable)	Summary (provide a rationale for the score you have given)	Item score
1. Ask open questions to explore the client's perspective					
2. Reflect back what the client has told you					
3. Involve the client in setting their physical activity programme					
4. Ask permission to engage with the client on a personal level					
5. Provide a meaningful rationale for activities					
6. Give the client space to ask questions or request clarification					
7. Offer praise/feedback that is meaningful and specific					
Total needs-supportive score: (sum of scores for 1 to 7)					
Mean needs-supportive score: (sum / 7)					

Note for completion

- In the "examples" column coders should record all instances of the behaviour they pick up (e.g. by noting what was said/done)...This is not however intended as a frequency tally, since the objective of the coding tool is not to provide an objective count of every single utterance that might contribute towards a behaviour,... Instead frequency should be considered alongside manner and intensity to determine a score for each item...
- If a second practitioner is present as an observer but also makes comments during the consultation, code the communication of the main practitioner only (as the purpose of the coding is to code practitioner fidelity to needs-supportive behaviours, not to code the client experience).

Needs-Thwarting Behaviours (low score = positive)	Examples (describe every instance you hear)	Time/s on audio	How could they have been less thwarting (use to help decide whether an instance should be coded or not) or more thwarting (use to help decide the potency score)?	Summary (provide a rationale for the score you have given)	Item score
1. Use jargon, or technical terms that the client might not understand					
2. Tell the client they "must" (not) or "should" (not) do something					
3. Disregard the client's perspective when setting programme					
4. Appear indifferent or distracted during a consultation					
				Total needs-thwarting score: (sum of scores for 1 to 4)	
				Mean needs-thwarting score: (sum / 4)	

Note for completion

- In the "examples" column coders should record all instances of the behaviour they pick up (e.g. by noting what was said/done)...This is not however intended as a frequency tally, since the objective of the coding tool is not to provide an objective count of every single utterance that might contribute towards a behaviour... Instead frequency should be considered alongside manner and intensity to determine a score for each item...
- If a second practitioner is present as an observer but also makes comments during the consultation, code the communication of the main practitioner only (as the purpose of the coding is to code practitioner fidelity to needs-supportive behaviours, not to code the client experience).

Appendix 17

Interview Guide

- Purpose of interview is to listen to staff views about delivering the new EFH scheme
 - what is working well, what could be improved
- Important to share both positives and negatives
- Remind practitioners that it will be audio-recorded
- Everything will be confidential to the research team and any names removed
- If not comfortable answering a particular question, or don't understand anything, please say

Topic	Main question	Prompts/probes
How new scheme differs from old (both from original EFH, and from pilot)	How is the new scheme different from what EFH used to be like?	<ul style="list-style-type: none"> - Developments since original EFH - Developments since pilot - Differences in: <ul style="list-style-type: none"> o Delivery staff? o Client contact? o Aim of scheme? o The way the scheme is delivered?
Positive factors about delivering the new scheme	What do you feel works well about the new scheme?	<ul style="list-style-type: none"> - Reasons, i.e. why do you feel this is working well?
Challenges about delivering the new scheme	What challenges are you facing in delivering the new scheme?	<ul style="list-style-type: none"> - (“Paula mentioned you were having some difficulties with information given by referring practitioners...”) - How could these be overcome?
Fostering motivation in clients	How have you found the process of delivering the inductions and the shorter consultations at week 4, 8, 12 and 18?	<ul style="list-style-type: none"> - Which aspects of the consultation log have been helpful? (<i>show log as prompt</i>) What have you managed to do consistently? - Any aspects that you have not managed to do / did not work for you? - How have you found using the client logbook? (<i>show logbook as prompt</i>) Client reactions / adherence to this? - Have you changed anything about the way you communicate with clients through working on this project (could give <i>communication skills recap</i> as a prompt, i.e. “these were the skills Paula introduced you to” – what do you feel you have mastered? What have you found challenging or not relevant?)? - Has anything changed in your relationships with clients, or in how clients have responded to you? - Have you noticed any difference in how the clients have responded to the new and old scheme? - Do you feel you have learned anything new, or was it stuff you were familiar with anyway?
Training and support	How useful did you feel the training and support provided by Paula (& Ben) has been?	<ul style="list-style-type: none"> - Most useful aspects? - Suggestions for improvement? - If they were to go on and train staff at other centres, what do you think this training should look like? - What do you think of this new way of communicating that Paula has introduced?
Moving forward	How feasible do you feel this is as a model for exercise referral in Liverpool?	<ul style="list-style-type: none"> - For continued delivery at Wavertree? - For running in other centres? - What needs to happen to make this work? - What challenges do you foresee?

Note: EFH = Exercise for Health; “New scheme” = Buckley et al., 2020; “Pilot scheme” = Buckley et al., 2019, which ran Jan-July 2017; “Original EFH” = Delivery before researchers began work with fitness centre in 2017

Appendix 18

A comparison of the potency of needs supportive and needs thwarting behaviours between trained and untrained practitioners.

