Professional Doctorate in Health Psychology

Prevention to Palliative Care; the application of Health Psychology and the biopsychosocial approach to improve patient health outcomes within a multidisciplinary environment.

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A doctoral thesis submitted in partial fulfilment of the requirements of Liverpool John Moores University for the degree of Professional Doctorate in Health Psychology.

2024

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Abstract

The following portfolio demonstrates work undertaken to fulfill the five competencies for the Professional Doctorate in Health Psychology. Below is reference to the placements that I have worked across, predominately within an National Health Service (NHS) setting, incorporating a biopsychosocial model within various physical health environments. These experiences have enhanced my skills and knowledge in the areas of prevention, self-management of physical health conditions, behaviour change and applying therapeutic models including Acceptance and Commitment Therapy to my practice.

The aforementioned opportunities have enhanced my personal and professional development, including establishing my Health Psychology identity, gaining a wide variety of experiences and meeting inspiring people, which are reflected in the chapters throughout my portfolio. The development of my Professional Doctorate portfolio was conducted within and outside of the roles identified below; to demonstrate the application of theories and frameworks of Health Psychology within various environments. A summary of each of the competencies are documented below.

Professional Practice

I have predominately worked within the NHS throughout my Professional Doctorate in Health Psychology, my experiences include, working as a Health and Wellbeing Advisor within an acute medical setting and a Trainee Health Psychologist in Occupational Health, Pain Management and Neuropsychology. See below details of placements for further information.

Behaviour Change Interventions

I have gained extensive experience within the area of behaviour change interventions within various contexts and delivery including; face-to-face, online and group interventions. For the portfolio, I have presented two of the many behaviour change interventions conducted; one-to-one, face-to-face smoking cessation intervention and one online group intervention for sleep hygiene. I have demonstrated the application of Health Psychology theory and principles into my clinical practice.

Teaching and Training

I have evidenced a number of teaching and training experiences within my teaching reflective diary. In the portfolio, I will detail the implementation of a face-to-face, five-week teaching programme regarding Health Psychology theories, frameworks and the biopsychosocial model to student nurses.

Consultancy

I implemented my skills in Consultancy within an external professional organisation (A school). I produced a consultancy contract, provided work in consultancy by designing and delivering a stress management intervention and an end of consultancy report was produced including a case study.

Research

I have conducted three original pieces of research: qualitative, quantitative and a systematic review. The systematic review explored the effectiveness of Acceptance and Commitment Therapy intervention for smoking cessation. Empirical paper one was based around implementing psychological measures; Distress Thermometer and Integrated Palliative care Outcome Scale, within a palliative care environment and empirical paper two was conducted on the readability of health information presented to patients who are experiencing a Macular Hole.

Details of Placements

January 2020 - April 2020 Health and Wellbeing Advisor - NHS East Lancashire Teaching Hospitals (ELHT)

- Contributing to the implementation of the national CQUIN (Commissioning for Quality and Innovation) risky behaviours alcohol and tobacco, focusing on screening and supporting patients who are identified as drinking at increasing high risk or dependent levels, alongside addressing other lifestyle topics to drive the making every contact count agenda (Preventing ill health: CQUIN Supplementary guidance, 2018).

- Brief 1:1 interventions with patients utilising behaviour change techniques to provide motivation, education and strategies to assist with lifestyle changes.
- To develop support that is effective so that patients can remain smoke free for the duration of their stay. To also provide recommendations to staff around appropriate Nicotine replacement therapy (NRT) and how to administer this, liaising with clinicians where necessary to arrange for any NRT to be prescribed.
- To liaise with and empower patients to develop and implement their own stop smoking plan, taking into consideration the NICE (National Institute for Health and Care Excellence, 2021) guidance and the experiences of that individual patient. Following assessment of the patient, to provide tailored support and motivational interviewing to patients, in order to gain commitment to either remain Smoke free during their admission or go on to make an attempt to quit and make healthy lifestyle choices.
- To attend conferences and training to further continue my professional development.
- Contribute to the development and delivery of health promotion for patients and staff by taking part in national awareness days, e.g. smoking cessation, alcohol/ healthy eating and exercise and department displays.
- To keep up to date with the changing evidence base, relevant policy pronouncements including NICE guidance, clinical developments and changes as cascaded by the Smoke free service lead. To provide an effective, high quality and safe service for patients.
- Ensuring both knowledge and skills are developed within an agreed competency framework.
- Follow the NHS values: Putting patients at the heart of our care, respecting individuals, acting with integrity, serving the community and promoting positive change.
- Formally engaging, planning and delivering teaching and training to clinical and non-clinical staff
- Conducting 1:1 smoking cessation clinics with staff members
- Working closely with the Respiratory Department and Chest Clinic Outpatients; supporting patients with long-term respiratory conditions, including lung cancer and asthma, by implementing health behavior change interventions. This included smoking cessation to improve their overall health and quality of life.
- Attending and organising health promotion campaigns such as Health and Well-being events and Stoptober.

April 2020 - November 2022 - Wellbeing Practitioner - Occupational Health

- Undertaking patient centred assessments and formulations with NHS staff who have physical and psychological health conditions.
- Utilising psychological interventions and skills to support NHS staff that are experiencing increased levels of personal or work-related stress.
- Building positive working relationships within an MDT environment.
- Mental Health First Aid trained and Champion for Safeguarding adults.
- Supporting health promotion and developing education programmes.
- Organising wellbeing events to increase members of staff psychological health and wellbeing.
- Teaching and training health care professionals.
- Developing a psychological triage pathway for members of staff who are experiencing heightened stress, anxiety, depression and bereavement.
- Supporting NHS staff members who are absent from work with physical and psychological conditions.
- Supporting staff members psychological wellbeing throughout the COVID-19 Pandemic, implementing a workplace trauma support model introducing psychological first aid, critical incident stress management, trauma risk management and supervision in the clinical environments under the direct supervision of the Resilience Hub.
- Engaging in health campaigns including increasing uptake of the flu vaccination.
- Working alongside the Pain Management, MSK and Rheumatology; working in collaboration with patients who are experiencing chronic pain. Conducting assessments, case formulations, Acceptance and Commitment Therapy groups and evaluation sessions. Collaborating with other health care professionals to address both the physical and psychological aspects of pain.

July 2022 - November 2022 Trainee Health Psychologist - Medical Education and Innovation Team - ELHT

Offering psychological support to Doctors in Training

- Providing psychological support for Doctors in Training; conducting reflective sessions, teaching and training, one-to-one support, psychological wellbeing group sessions, stress management, moral injury and burnout interventions, shadowing on call doctors, networking with other trusts, the deanery and Health Education England.

- Shadowing a Trainee Surgeons and Doctors on call to conduct direct behavioural observation of the stressors they encounter.

- Design workshops and teaching sessions on; fatigue prevention, sleep, stress management, imposter syndrome, burn out and physical and psychological self-care.

- Conduct 1:1 and group interventions/listening lounges to support their health and wellbeing.

November 2022 - present - Trainee Health Psychologist - Staff Support, Smoking Cessation, Neuropsychology and Pain Management - Blackpool Teaching Hospitals

Smoking Cessation:

- Clinical Work/Psychological Interventions: providing direct therapeutic intervention with NHS staff who have chosen to stop smoking, conducting assessment, formulation, intervention and evaluation and exploring the use of ACT as a therapeutic intervention under the direct clinical supervision of a Consultant Clinical Psychologist.
- Conducting reflective practice sessions
- Research
- Capturing patient experience
- Liaising and networking with NHS teams
- Teaching and training

Staff Support

- Conducting Psychological awareness teaching for teams within the NHS.
- Peer supervision
- Providing psychological support for doctors in training.
- Engagement with integrating prosocial model into teams.

- Working systematically with teams within the trust - providing psychological assessment, formulation, intervention and evaluation.
- Engaging in preventative intervention work including conducting self-care, compassion focused therapeutic models and enhancing psychological wellbeing sessions for members of staff.
- Building positive working relationships within an MDT environment.
- Helping to facilitate Schwartz rounds.
- Attend and engage with clinical supervision with a Consultant Clinical Psychologist

Pain Management

- Conducting one-to-one sessions with chronic pain clients.
- Involvement in assessment, formulation, intervention and evaluation with pain psychology clients.
- Attend and engage with clinical supervision with a Health Psychologist.

Neuropsychology

- Conducting psychological assessment, formulation, intervention and evaluation for patients who have been diagnosed with acquired and traumatic brain injury (such as head injury and stroke) and neurodegenerative disease.
- Designing and delivering Wellbeing groups
- Attending IDT and on occasion chairing the meetings
- Engaging and attending Clinical supervision
- Incorporating a biopsychosocial framework into the neuro MDT
- Implementing ACT strategies to support patients with their rehabilitation goals including; adherence, coping with long-term conditions and implementing healthy lifestyles to support the patient in their recovery.

Declaration

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

Acknowledgements

First and foremost, I cannot begin to express my thanks to my esteemed academic supervisors, Professor Mark Forshaw BSc (Hons), PhD, C.Psychol., C.Sci., FBPsS, FIHPE, Professor Helen Poole – PhD, CPsychol, Registered Health Psychologist, Director, School of Psychology, Faculty of Health and Dr Tara Kidd – Cpsychol, Programme Leader MSc Health Psychology, Registered Health Psychologist for supporting me throughout this compelling journey. My supervisors have guided and supported me with invaluable advice, kindness, compassion and helped organise my thoughts regarding the doctoral process. My supervisors have provided reassurance, support and feedback; highlighting both my strengths and improvements, strengthening my quality of work, which has enhanced my personal and professional development, significantly. Their immense knowledge and plentiful experience have encouraged me personally and professionally. An appreciation to my fellow professional doctorate colleagues, who I do consider as professional family. I have learnt a significant amount from you all, encouraging me to believe in myself and offering a great space for reflection of our work.

I am grateful for all my aforementioned work placements, who have welcomed Health Psychology into the workplace to support patient health outcomes and for all the amazing opportunities I have encountered to help me establish my professional character. I am fortunate to have met such inspiring, ambitious and compassion human beings throughout my doctoral placements. These people have enlightened my practice, provided support and developed my personal and professional skills.

I would like to dedicate this section to express gratitude to my family and partner for believing in me, supporting and encouraging me throughout the process, I am extremely fortunate to have them in my life. All of which has helped me grow and develop throughout the doctorate; personally and professionally.

Presentation of Competencies:

1. Planning training in Health Psychology; SWOT analysis
2. Behaviour change intervention one
3. Behaviour change intervention two
4. Teaching and training case study
5. Teaching and training diary
6. Consultancy case study
7. Consultancy contract
8. Consultancy report
9. Research; Empirical paper one
10. Research; Empirical paper two
11. Research; Systematic review
12. Research; Research reflective commentary
13. Professional practice reflective commentary
14. Professional logbook of training

The appendices for each piece of work are attached at the end of the portfolio

Chapter 1: 8001 - Planning your training for the Professional Doctorate in Health Psychology

The aim of this module was to establish my plan of training with regards to the requirement/competencies for Health Psychologists. This section comprises of a Plan of Training, Gantt Chart and SWOT analysis including a critical review of my own planned development, which was completed in January 2020.

Learning Outcomes:

After completing the module the trainee should be able to:

1. *Plan health psychology training and map it over time graphically.*
2. *Consider the strengths, weaknesses, opportunities and threats to their plan of training in health psychology and generate a critical commentary.*

Chapter 1 - 8001: Plan of Training

Introduction

In my current position as a Health and Well-being advisor in Occupational Health at East Lancashire Hospital Trust (ELHT), I advise individuals including inpatients and staff members on living a healthier lifestyle, by delivering smoking cessation interventions and reducing alcohol consumption and advising on health promoting behaviours including increasing their physical activity and healthy dietary behaviours. I work collaboratively with a variety of health care professionals to increase patients' health outcomes and quality of life.

Generic Professional Competency

Developing confidence as an autonomous and knowledgeable professional is essential for becoming a qualified Practitioner Health Psychologist. I will be able to demonstrate my generic professional competency skills throughout the professional doctorate, through continuing my personal and professional development, both internally through experiential, high quality NHS training and academically through taught and supervision sessions at university. Both within the NHS setting and University, I will be able to access advanced and up-to-date research and essentially translate the theory and research into practice.

I am acutely aware of how essential it is to utilise the supervisory practice, for my own development. I sought supervision and seek professional advice when appropriate. The supervisory process allows me to develop my strategies to cope with challenges, limits within my practice, unforeseen circumstances and to learn new opportunities for future personal and professional enhancement. I am of the belief that good practitioners continue to develop and learn relentlessly, within a reflective

practice framework. Thus, I will be conducting a reflective journal throughout my personal and professional career, as indeed the need to be both reflective and reflexive as a health psychologist in training is a central tenet as advised by The British Psychological Society (BPS) (2014). The reflective journal will allow myself to develop and reflect on my own role and understand my experiences throughout each competency, within a context which will enhance an accurate self-awareness (Silvia and Duval, 2001). The reflective process will allow for learning to be completely embedded in and improve my practice. I will continue to utilise the art of reflective writing throughout my practice as, historically, I have found reflective diary writing as a fixed asset to develop my knowledge and that it can act as a cathartic experience for me.

A log of training will be completed to organise and monitor my progress. Throughout my practice, I will adhere to ethical and legal guidelines and incorporate boundaries, within an internal framework in the NHS and external affiliations including guidelines of The British Psychological Society Code of Conduct and Ethics and the HCPC'S standards of Conduct, Performance and Ethics. Part of my role, on a daily basis, is to produce accurate and clear patient records. My role inside the NHS involves conducting regular audits including CQUIN (Commissioning for Quality and Innovation) – preventing ill health by risky behaviours, the audit requirements must satisfy NHS standards.

Continuing my professional development (CPD) is a vital part of my role. I demonstrate a great degree of continuously pursuing opportunities which will enhance my professional practice, for example keeping up to date with professional guidelines such as, National Institute Health and Care Excellence (NICE) and Public Health England (PHE); within my current role I receive continuous updates when new emerging evidence is publicised. To ensure best practice within health care and throughout my professional doctorate, discussion with various health care professionals, attendance at conferences, teaching and training programmes and taught seminars at university, alongside reflective commentary, will allow me to keep up to date with new and emerging evidence which relates to best practice. Every opportunity which arises to continue my professional development will be documented within my professional logbook of training.

Psychological Interventions

Intervention Case Study 1

I am a qualified smoking cessation advisor, awarded by the accredited National Centre for Smoking Cessation and Training (NCSCT). On a daily basis, I deliver one-to-one behavioural change interventions in smoking cessation; to both inpatients and staff members within East Lancashire Teaching Hospitals (ELHT). Smoking is one of the four known key behavioural risk factors which can have fundamental consequences on an individual developing a non-communicable disease (NICE, 2020; Public Health England, 2019; World Health Organisation (WHO), 2019). Smoking has been related to a variety of chronic and complex conditions including, but not limited to, chronic obstructive pulmonary disease and cancer (NICE, 2020; WHO, 2019). As of 2019, smoking prevalence among adults aged 18 years or older in England was 14.7% (National Centre for Smoking Cessation and Training, 2020). Smoking is one of four widely studied health behaviours which is a regular focus of attention in Psychology and Health (Connor and Norman, 2017).

To demonstrate my competency in my behaviour change intervention; my first one-to-one intervention will consist of a 12-week smoking cessation programme. The intervention will be implemented within a clinical environment at ELHT. According to statistics from Lancashire County Council (2019), during the 2017/18 period, Lancashire recorded a significantly higher rate of smoking-attributable hospital admissions, in particular, the geographical area of Blackburn with Darwen resulted in 1,890 admissions. The smoking-attributable mortality rate is significantly higher in

Lancashire (299.5), Blackburn with Darwen (389.0) (Lancashire County Council, 2019). Thus, smoking cessation is a national health priority (Harris et al. 2010). The guidance from the HCPC guidelines and The BPS (2014) will be adhered to throughout, including informed consent and privacy and confidentiality. It is also essential to remain current with evolving evidence base, relevant policy pronouncements, NICE guidelines and clinical developments to ensure best practice is adhered to throughout the behaviour change intervention.

Assessment

Fundamentally, before any assessment process, it is essential to develop a rapport with the individual (The National Centre for Smoking Cessation Training, 2017). Research has established the importance of developing a therapeutic alliance throughout any one-to-one intervention (Leach, 2005). I believe effective interpersonal skills are essential in establishing a positive rapport with participants (Leach, 2005), thus, the positive relationship which I establish with the individual will be one which is professional. Environment is also an essential aspect to consider during the behaviour-change intervention. The environmental setting will be confidential and private, so the individual can feel safe within the environmental setting.

Assessment is a crucial aspect before conducting a behaviour-change intervention. Both objective and subjective elements will be measured continuously throughout the intervention.

Assessments used within my Smoking Cessation intervention will be:

1. Consultation form – identifying demographic information: According to the NCSCT (2020), it is required to have an understanding on an individual's smoking demographics and

prevalence, to assess the individual's chances of quitting smoking, thus, tailoring an individualised intervention.

2. Reflection on past experiences of smoking – This is an essential assessment at the beginning of the individual's journey in smoking cessation. This assessment can identify antecedents, perceived barriers and protective factors. To assess this I will ask questions such as "how many attempts to stopping smoking have you made?" and "what interventions have you used historically to quit smoking?". These questions will also provide insight into how much support the individual may need.

3. Assessing Nicotine dependence – I will be conducting the Fagerström Test, which is a six-item Likert scale measuring tool, which is a valid index of nicotine dependence (Fagerstrom, 2012). This assessment will inform the behavioural support programme and choice of medication for the individual.

4. Measuring an individual's attitudes to smoking - Drawing upon theory from the Health Belief Model (Rosenstock & Hochbaum, 1958), identifying individuals' attitudes towards health and engagement in risky behaviours will allow for the individual and the practitioner to gain a level of understanding not only for their beliefs about smoking, but, how much this can impact upon their motivation to stop smoking. To assess this, I will ask questions such as, "For you, what are the most important reasons to stop smoking?" and "what are you going to miss the most about smoking?". This can be a good motivational tool for both patient and practitioner as it can reinforce and emphasise the motivations as to why that individual would like to quit smoking.

5. Psycho-educative information will be provided for the individual, in the form of, information on smoking behaviour from the British Heart Foundation and Public Health England. Psychoeducation will be used, as literature highlights the effectiveness of using education and knowledge to promote behaviour change (Connor & Norman, 2017). Also drawing on relevant theory, Bandura (2004) emphasises on how knowledge of health risk and benefits of health-promoting behaviours creates a precondition for changing detrimental habits.

6. Carbon Monoxide (CO) reading - Biomarkers are biological objective measures of smoke intake, or its consequences on physiological systems. Throughout the 12-week programme, during every consultation, a biofeedback tool is used. The CO reading will be used as a measuring tool to monitor an individual's progress and to assess their levels of carbon monoxide. This tool is a valuable motivational tool for the individual; this machine can provide

them with visible evidence of the harm caused by smoking and offers a yardstick with which to chart their progress after they stop smoking.

Formulation

I will formulate a biopsychopharmasocial (Clark & Clarke, 2014) framework to adopt a theoretical understanding as to factors which may influence the individual to smoke. From this formulation, perceived barriers, antecedents and protective factors will be identified. These influences will be essential throughout the intervention; as it allows for a contingency plan to be developed and can decrease the incidence of relapse (NCSCT, 2020).

The contingency plan will consist of psychological and practical resources the individual can use when they experience an "urge" to smoke; ensuring attendance and engagement at each consultation and utilising the Nicotine Replacement Therapy (NRT) medication when such cravings are apparent. Social support and environmental reconstructing are essential during the formulation process to increase levels of encouragement and to reduce exposure to external cues which may tempt the individual to crave a cigarette. This is formulated by advising the individual to commit to a contract of the smoke-free pledge; this includes the individual to have a smoke-free home, car and workplace which is completely clear of any external stimuli including ashtrays and lighters which may trigger a response to engage in smoking. To enhance adherence, formulating a change in routine will be beneficial, for example individuals will change their routine where stronger cravings for cigarettes were apparent.

Considering theoretical approaches to smoking cessation behaviours certain interventions have focused on The Transtheoretical Model of Change (TTMOC). The TTMOC has been implemented in a variety of behaviour-change interventions aside from smoking cessation programmes. The TTMOC has been illustrated as an integrated, comprehensive biopsychosocial model of behaviour change (Cole, 2001). These include cognitive, affective, evaluative and behaviour strategies an individual may use which can inform the practitioner of the most effective way of helping the individual to adopt a smoke-free lifestyle.

The COM-B model will be utilised for measuring an individual's capability, opportunity and motivation to engage in such behaviour change (Abraham, & Michie, 2008; Michie, Atkins & West, 2014; Michie, van Stralen, & West, 2011;); this in turn will identify the most effective targeted functions and any

aforementioned barriers, which are associated with increased relapse of smoking behaviour (See table 1 for further information).

Intervention

The intervention will consist of a 12-week one-to-one smoking cessation programme. The assessment and formulation stage will be initiated at the beginning of the consultation, as discussed above. I will then discuss pharmacological treatments; NRT products (including patches, gum, lozenges, inhalators and mouth spray) and Champix (Varenicline). Information including how to use the medications appropriately and potential side effects of treatments will be discussed, to ensure the individual has a realistic expectation of the medications. Once the individual has made a choice on which pharmacological treatments they want to proceed with, I will write a prescription for the individual to collect at their local pharmacy. For individuals who choose to proceed with Varenicline medication; this must be taken to their General Practitioner to sign, due to potential contraindications of various other medications. I will monitor the individual's progress by meeting every 2 weeks for a 12-week period. At each consultation, I will reflect on their assessment and formulation process, adopt necessary behaviour change techniques, prescribe a supply of pharmacological treatments and measure their CO levels. Upon completion of the 12-week programme, the intervention will be evaluated, a CO reading will be taken and a certificate will be presented to the individual as a form of rewarding their smoke-free behaviour. Follow-up sessions will commence at various time periods including 12 weeks, 36 weeks and up to a year.

Evaluation

Evaluating the intervention can allow practitioners to reflect on the effectiveness of the intervention and where improvements could be made (BPS, 2008). Both subjective (self-report) and objective measures (biomarker measurements) have been utilised in this intervention in order to increase reliability and validity (Morrison & Bennett, 2006). Maintaining motivation once the intervention is completed is an essential aspect of sustaining behaviour change, and ensuring the intervention initiates long-term commitment, thus, up to a year follow-up session will be conducted (Miller & Rollnick, 2013; Crichton et al. 2012).

	Table 1: example of COM-B Model adapted to smoking behaviour.
3 interacting factors and subcategories	
Capability	
Physical Capability	Physical health problems and irritability
Psychological Capability	Inadequate knowledge, education and skills to perform behaviour, lacking info consequences of smoking behaviour and low self-efficacy/esteem.
Motivation	
Reflective Motivation	Time commitments, stressful circumstances and work and home demands.
Automatic Motivation	Environmental and peer pressure
Opportunity	
Physical Opportunity	Work and home demands and social priorities
Social Opportunity	Lacking social support, cultural norms and socioeconomic factors.

Intervention Case Study 2

My second intervention case study will be developing a weight management and healthy lifestyle programme for a group of staff members at ELHT. The prevalence of obesity has increased significantly worldwide (Department of Health, 2018; World Health Organisation (WHO), 2018). Obesity is associated with various chronic and complex conditions including but not exclusively to diabetes and cardiovascular diseases (Department of Health, 2018; ; Jenson et al. 2014; National Health Service (NHS) England, 2019; WHO, 2018). In 2016/17, 617,000 admissions to NHS hospitals were reported of individuals with conditions related to Obesity (NHS Digital, 2018; NHS England Long Term Plan, 2019; Public Health England, 2017).

Assessment

Similar to Behaviour Change Intervention 1, assessment is a crucial aspect before conducting a behaviour change intervention. To ensure a thorough assessment is completed both objective and subjected will be measured continuously throughout the intervention.

1. Subjective measurements will include self-assessments; a 'food and mood' diary, identifying their goals and a physical activity tracker.
2. Objective measure; BMI measurements.

Formulation Theoretical Concept

The concept of self-efficacy was introduced by Bandura (1977), and can be simply defined as an individual's belief in their ability to succeed in a situation, or to accomplish a task. Self-efficacy is rooted in Social Cognitive Theory (SCT), which is widely used for nutrition education programming (Hall et al. 2016). Bandura suggested four methods by which a person could develop self-efficacy; vicarious observation, mastery experience, verbal persuasion, and emotion regulation. Self-efficacy is related to motivation, particularly to resilience, as a person with high self-efficacy is likely to persevere and exert greater effort when met with failure (Bandura, 1994).

The Self-efficacy model will be implemented in this intervention thus:

- Vicarious experience – the group will be able to build a community and engage in debates, discussions and activities to enhance social support.
- Mastery Experience – Mastery experience is considered a major aspect of self-efficacy (Bandura, 1986), and involves increasing self-efficacy through recalling previous similar situations in which the individual was successful; this will be implemented via reflection and discussion on past successes.
- Verbal persuasion involves receiving constructive feedback relating to the task – validating the actions which they have taken.
- Emotion regulation involves an individual managing potentially maladaptive mood states to reduce their impact. The Antecedent Control Model will be introduced to provide the individuals with information regarding antecedents which they may encounter to stop them from reaching their goals.

Contingency plans are essential to any intervention (BPS, 2008), and are essentially known as 'Plan B, C and even D'. They are used to anticipate if any unexpected results or barriers occur to individuals who are participating in a behaviour-change program and can keep people on track and motivate them to stick to the initial plan. Effective contingency plans involve; ensuring weekly visits and reviews are introduced to check progress, adopting motivational interviewing techniques, encouraging and reinforcing positivity, identifying antecedents, being empathetic and using reflective practice (Miller & Rollnick, 2013).

Intervention

Firstly, the group session will be conducted within a safe and confidential environment at ELHT. The group will then be provided with Educational tools in the form of; visual tools (e.g. NHS eat well plate), apps (e.g. Change4Life Food Scanner app) and leaflets. The intervention will consist of one session a week for 12 weeks, incorporating education, discussion and interactive sessions. The Group will be required to engage in discussion which can enhance experiential learning from the Social Cognitive Theory (Bandura, 2004). Interactive sessions will also be conducted to create a positive group dynamic and to measure knowledge around nutrition and exercise. The intervention will also include individuals forming SMART goals. SMART goals were originally introduced by Doran (1981) the acronym enables people to set goals that are effective at inducing change. It is clear that goal setting is linked to self-efficacy and nutrition behaviours and that SMART goals in particular are effective at increasing self-efficacy. In the current intervention we consider how individuals will track their goal achievement each week, by using a 'food and mood' diary and measuring their weight. Each week we will review each goal individually and include positive reinforcement and rewards to enhance motivation. A monthly follow up with be conducted for 12 months after implementation of the intervention.

Evaluation

Evaluation would be happening on a weekly basis, encouraging evaluation and reflection through diary writing. Evaluating an intervention is extremely important with regard to measuring the effectiveness of the programme (BPS, 2008). The evaluation will focus on assessing the extent to which the programme's aims have been demonstrated and the objectives have been met (BPS, 2008). Process evaluation consists of creating a list of indicators which need to be measured and identifying whether the aims of the programme have been carried out. Both subjective and objective measurements have been used in this intervention in order to increase reliability and validity; food,

mood, physical activity diaries, BMI measurements are useful in the evaluative process as change can be measured and therefore effectiveness can be evaluated.

Table 2: Gantt Chart for Intervention Case Study 1

Intervention Competency	August 2022	September 2022	October 2022	November 2022
Intervention Case Study 1: One-to-one : Plan and Design Intervention				
Intervention Case Study 1: One-to-one: Assessment and working formulation				
Intervention Case Study 1: One-to-one: Implementation and Evaluation				
Intervention Case Study 1: One-to-one Write up				

Table 3: Gantt Chart for Intervention Case Study 2

Intervention Competency	March 2020	April 2020	May 2020	June 2020	July 2020
Intervention Case Study 2: Group – Plan and Design Intervention					

Intervention Case Study 2: Group – Assessment and working formulation					
Intervention Case Study 2: Group - Implementation and Evaluation					
Intervention Case Study 2: Group - Write up					

Teaching and Training Competency

Part of my role is to engage and formally teach a variety of healthcare professionals including consultants and healthcare assistants, to look through a lens that is based in prevention rather than treatment/cure, implementing the framework of the "Ottawa Model" (Reid et al. 2010), in line with the NHS 10-year plan (2019). The Educational Department at ELHT have allowed me to conduct a five-session training programme with a group of Student Nurses from the University of Central Lancashire, to conduct a tailored training programme on health psychology principles to enhance their practice and psychological understanding. I have conceptualised this training via incorporating the learning outcomes the student nurses must demonstrate to obtain their qualification as a Health Care Professional, for example one learning outcome is to demonstrate pro-social health behaviours towards their patients.

My plan to demonstrate the Teaching and Training competency is to develop a five-stage training programme to enhance student nurses' understanding in the applications of Health Psychology to enhance practice, inform patient-centred care and reflection within a clinical environment. The sessions will be conducted on a weekly basis and consist of five sessions of a duration of one hour. All of the training material will be planned and designed by myself, in line with the learning outcomes for Student Nurses. All training sessions will be conducted at ELHT in the auditorium. Before the session, I will be developing a pre-assessment tool which will evaluate their knowledge on the topic before the training commences. The delivery of training will consist of a PowerPoint presentation which will provide information on a variety of health psychology related topics, incorporating learning and teaching theories from cognitive psychology concepts including interactive sessions, reflection sessions and engagement measurements. Before the development of the training programme, I will be considering models of learning taking into account the most engaging teaching method for my audience. I will be consulting professionals within the education department to develop my knowledge and skills further within the teaching and learning process and to maximise learning opportunities for my audience.

Teaching and Training Session Plan:

1. Smoking Cessation and Alcohol reduction - introduction to my role as a health psychologist in training, the consequences of smoking, theories of addiction, the importance of screening individuals for smoking (MECC), Nicotine Replacement Therapy, policies around smoking behaviour in the hospital, smoking in pregnancy, E-cigarette use, screening individuals for alcohol consumption (MECC), measuring their own alcohol intake, completing the Audit C, interactive sessions on alcohol units and community based alcohol services.

2. Links between Physical Health and Mental Health – discussing psychological disorders including anxiety, depression and post-traumatic stress disorder and co-morbidities in physical health conditions.

3. Nutrition and Physical Activity - awareness into health promoting behaviours, awareness of how to increase physical activity and nutrition behaviours, and what the hospital is already incorporating to increase health promoting behaviours.

4. Self-care; identifying their own emotions, the importance of health and well-being in health care professionals, looking after their own psychological needs, reflective practice, stress management and self-care techniques.

5. Patient centred care and Nurse-patient communication; I will discuss helping individuals to attend screening, adjust to long term conditions, to adhere to medications, manage their condition and to enhance communication skills.

Evaluation is key to critically reflecting on the teaching programme to establish feedback to ensure teaching aims are met. I will design student evaluation forms, after training. I would like to encourage the student nurses to reflect on how they used these principles within a healthcare setting and reflecting on how this impacted on patient care and their own practice. I will be completing a teaching commentary throughout the process; not only does this demonstrate outstanding professional practice competence but demonstrates my development as a teacher/trainer and my public speaking skills. A peer observation will also be conducted by the manager of the educational department, who is highly qualified within the area of teaching and training. They will provide constructive feedback in areas where my strengths are and areas which I could improve within.

Table 4: Gantt Chart for Teaching and Training Competency

Competency	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	Septer 2020
Teaching and Training competency: Conceptualised, Planned and Designed Teaching programme									
Teaching and Training competency: Implementing teaching competency. Series of 5 sessions.									
Teaching and Training Competency: Planning and Designing one discrete training sessions lasting one hour/ Planning and Designing									

Teaching and Training competency: Implementing teaching competency. 1 hour smoking cessation session.									
Teaching Reflective Diary									
Teaching Competency: Write up									

Research Competency

Systematic Review

My current role lends me to experience a variety of physical health conditions and the impact health behaviours such as smoking contributes to such conditions. The study of health behaviours is a crucial area in Health Psychology, which has made significant contributions to improving an individual's overall health (Connor and Norman, 2017). Taking these aspects into consideration, I would like to complete my systematic review on psychological interventions for long-term conditions. My systematic review research question will be based on the "Effectiveness of psychological interventions to improve self-management in individuals with Long term conditions: A Systematic Review". I have conducted an advanced search on the Universities database and my next step is to conduct a comprehensive literature search using a range of databases including; Psychinfo, MEDLINE, Cochrane Review and CINAL. The literature will then be systematically sought and synthesised in line with the PRISMA guidelines.

Empirical Paper 1

I currently work within an acute hospital setting, where I am exposed to a variety of long term conditions. Thus, a proposed research question could be conducted on "Self-management in Long Term Conditions – A qualitative review to systematically explore Patients' and Health Care Professionals' perspectives and experiences on the barriers to self-management in Long Term Conditions". Over 15 million individuals are living with a long-term condition in the United Kingdom (The Department of Health, 2012). Self-management of individuals living with a long-term condition is crucial to their overall health outcomes, quality of life and wellbeing (Kings Fund, 2005). The role of health care professionals and patient collaboration is essential in eliciting 'Shared responsibility for health' (NHS ten year plan, 2019). For my Empirical Paper one, I plan to recruit ten individuals experiencing Long-term conditions and ten Health Care Professionals who have involvement within their care. Interview questions will be focused upon health care professionals and patients views of the most effective self-management techniques. This research may lead to a change in health provision and enhance individuals' experiencing long term conditions health outcomes and quality of life.

Empirical Paper 2

The Occupational Health department, in which I work at ELHT, have identified both musculoskeletal (MSK) and stress conditions as the biggest cause of staff absenteeism and sickness. They have developed a new system in order to prevent this and for staff to access early intervention treatment to reduce long-term sickness. The department has employed a physiotherapy team and psychological well-being practitioners to help support a staff member when they are absent from work. For example, they have adopted an Employee Assistance Model (EASE), which can offer an individual confidential support, counselling and advice and a 24/7 freephone contact, to staff and members of their family. Firstly, the individual has a half-hour consultation with one of the psychological well-being practitioners who conduct assessments and triage to the appropriate place, so that employees get immediate support. The EASE organisation provides advice on a variety of personal, family, legal, emotional, relationships, health, addiction and workplace issues. The head of the department would like me to measure and evaluate the new system, to see whether it has benefited the staff member's quality of life, decreased the period of absence from work and overall health outcomes. This could be approached in a qualitative manner whereby I could interview individuals who have been through the process and how this has impacted on their general overall physical and psychological health and evaluate improvements which can make the service more effective.

Throughout my research competency, I continue to reflect on my practice within the context of research; this will include learning and opportunities I have gained throughout the research process and to progress within the area of research in a chronological manner.

Table 5: Gantt Chart for Research Competency: Systematic Review

Research Competency	December 2020	January 2021	February 2021	March 2021	April 2021
Research Competency: Systematic review Define topic and search parameters.					
Research Competency: Systematic Review: Conduct a search using appropriate databases and sources					
Research Competency: Summarise findings from review and write up					

Table 6: Gantt Chart for Research Competency: Empirical Paper 1

Research Competency	May 2021	June 2021	July 2021	August 2021	September 2021	October 2021

Research Competency: Identify Research Area and formulate research question for Empirical Research 1							
Research Competency: Literature Review for Empirical Paper 1							
Research Competency: Data Collection and Data Analysis Empirical Paper 1							
Research Competency: Write up							

Table 7: Gantt Chart for Research Competency: Empirical Paper 2

Research Competency	January 2022	February 2022	March 2022	April 2022	May 2022	June 2022	Ju

Research Competency: Identify Research Area and formulate research question for Empirical Research 2							
Research Competency: Literature Review for Empirical Paper 2							
Research Competency: Data Collection and Data Analysis Empirical Paper 2							
Research Competency: Empirical Paper 2 Write up							

Consultancy Competency

Consultancy is the temporary process of providing expertise to an identified client group to collaborate on an effective and professional approach to meet the aims and outcomes of the need identified (Anderson, 2019). I have established a working relationship outside of my current working environment, a school have asked whether I could conduct a stress management workshop with members of staff. In the foreseeable future, I will be planning to conduct a consultancy meeting with the client. Once the initial consultation has been completed, I will be conducting a literature review within the area of stress management, negotiate requirements and assess feasibility of the consultancy, to ensure the consultancy is implemented in an effective and professional manner. This will also allow me to develop positive working relationships with the clients and to utilise health psychology knowledge and skills to conduct a successful consultancy programme, as well as critically analysing outcomes and communicating these outcomes to the clients. I believe providing input on a stress management programme is ideal for a health psychologist in training due to their knowledge of biological and psychological theories of stress, knowledge and skills of stress interventions and management and human behaviour. During the consultation, we will also discuss and negotiate a contract to demonstrate the consultancy competency.

Table 8: Gantt Chart for Consultancy Competency

Consultancy Competency	August 2022	September 2022	October 202
Consultancy Competency: Identify, prioritise and agree realistic expectations, needs, and deliverables and outcome requirements of the client regarding the proposed consultancy project.			
Consultancy Competency: Review appropriate (e.g. psychological, business) literature and other information sources for the relevant evidence base (research findings, reports, reviews, policy, guidelines), consultancy approaches, project methods and interventions relevant to the consultancy request.			
Consultancy Competency: Assess feasibility of proposed consultancy and any problems or challenges with providing agreed deliverables			
Consultancy Competency: Write up			

Gantt Chart: Year 1 – 2020

= Psychological Interventions Competency = Teaching and Training Competency = Research Competency = Consultancy Competency

Competency	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020
Plan of Training, Gantt Chart and SWOT analysis									
Intervention Case Study 2: Plan and Design Intervention									
Intervention Case Study 2: Assessment and working formulation									
Intervention Case Study 2: Implementation and Evaluation									
Intervention Case Study 2: Write up									
Teaching and Training competency: Conceptualised, Planned and Designed Teaching programme									

Teaching and Training competency: Implementing teaching competency.									
Teaching and Training Competency: Conceptualising, planning and designing a discrete single teaching session									
Teaching and Training competency: Implementing a 1 hour smoking cessation session									
Teaching Reflective Diary									
Teaching Write up									
Research Competency: Systematic Review. Define topic and search parameters.									

Research Competency: Systematic Review: Conduct a search using appropriate databases and sources									

Gantt Chart : Year 2 – 2021

Competency	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021	August 2021
Research Competency: Systematic Review: Conduct a search using appropriate databases and sources.								
Research Competency: Summarise findings from review and write up								
Research Competency: Identify Research Area and formulate research question for Empirical Research 1								
Research Competency: Literature Review for Empirical Paper 1								
Research Competency: Data Collection and Data Analysis Empirical Paper 2								

Research Competency: Write up Empirical Paper 1									

Gantt Chart: Year 3 - 2022

Competency	January 2022	February 2022	March 2022	April 2022	May 2022	June 2022	July 2022	August 2022	Sept 2022
Research Competency: Identify Research Area and formulate research question for Empirical Research 2									
Research Competency: Literature Review for Empirical Paper 2									
Research Competency: Data Collection and Data Analysis Empirical Paper 2									
Research Competency: Write up									

Consultancy Competency: Identify, prioritise and agree realistic expectations, needs, and deliverables and outcome requirements of the client regarding the proposed consultancy project.									
Consultancy Competency: Review appropriate (e.g. psychological, business) literature and other information sources for the relevant evidence base (research findings, reports, reviews, policy, guidelines), consultancy approaches, project methods and interventions relevant to the consultancy request.									

Consultancy Competency: Assess feasibility of proposed consultancy and any problems or challenges with providing agreed deliverables									
Consultancy Competency: Write up									
Intervention Case Study 1 competency: one-to-one: Plan and Design Intervention									
Intervention Case Study 1 competency: one-to-one: Assessment and working formulation									
Intervention Case Study 1 competency: one-to-one: Implementation and evaluation									
Intervention Case Study 1 competency: one-to-one: Write up									

*Chapter 1.1 - SWOT (*Strengths, Weaknesses, Opportunities and Threats) *Analysis*

Conducting a SWOT analysis has allowed me to reflect on effective ways of identifying my strengths and weakness and examining the opportunities and threats I may encounter whilst on the professional doctorate (Van Marwijk, 2004). The following SWOT analysis has been developed with regard to all the competencies I am required to undertake throughout my Professional Doctorate, with some examples being more relevant to competencies than others. From the Ancient Greek philosophical perspective *"know thyself",* the foundation of building an awareness of one's self can have a profound impact on personal and professional development, including affecting empathy and understanding human behaviour (Böckler et al. 2017). Conducting this SWOT analysis has allowed me to reflect on my own experiences, within a context that is based on self-reflection, an accurate assessment of impact of self and essentially knowing one's self (The British Psychological Society, 2017).

Strengths

Obtaining an MSc in Health Psychology has enhanced my academic knowledge of understanding Health Psychology theories and principles to engender enduring behaviour change; it has also contributed significantly to my personal and professional development, including acquiring a high level of self-discipline with regard to motivation, determination and organisation, which has allowed me to develop clear enunciated goals within a structured framework that has informed my future direction in Health Psychology. I have always been an enthusiastic and motivated individual, which reflects on the passion I demonstrate for the profession of Health Psychology. I follow evidence-based practice inside local governance arrangements ensuring the highest degree of professionalism and integrity in all my workplace interactions and practising in a non-discriminatory manner. Throughout my practice, I adhere to professional standards and ethics outlined both internally (NHS), and externally via my professional affiliation (BPS). I meet commitments to the highest standards possible. I am a willing learner and I welcome the opportunity to broaden my professional knowledge and skills base through seeking out supervision and teaching and training opportunities.

I am enthusiastic and committed to my current role as a Health and Wellbeing Advisor. On a daily basis, I conduct one-to-one behaviour change interventions in the form of smoking cessation and offering brief advice on alcohol reduction to patients and staff members within an acute setting in the NHS. I have built knowledge around assessment, formulation, intervention and evaluation throughout my professional career as an assistant psychologist and within my current role, with consideration of the Dixon and Johnston Framework I would like to further my development to deliver high intensity behaviour change interventions. Throughout my career, I have always been committed to patient-centred care, this has allowed me to initiate, develop and maintain therapeutic and professional relationships with patients. Since working at ELHT, I have been exposed to working with a range of individuals from differing socio-economic and cultural environments, thus it has allowed me to re-frame differing populations with an empathic and non-possessive warmth.

One fundamental aspect of my job is to develop positive professional relationships with both colleagues and patients', thus, I have built up a repertoire of interpersonal skills in order to establish a positive rapport, empathise and engage in active listening skills. I do believe that I am an effective communicator and motivator and enjoy bringing staff and patients along with me in any therapeutic/educational endeavour. Within the NHS setting, I am exposed to a variety of healthcare professionals including, doctors, nurses, physiotherapists and dieticians; this allows me to strengthen my engagement within a multi-disciplinary environment and develop collaborative working relationships to ensure best practice. These skills will be essential when demonstrating all competencies within the Professional Doctorate, as they will allow me to engage within individuals in an appropriate manner for example in consultancy and teaching and training. I value exceptional quality teamwork, and believe this is vital throughout one's professional career. I believe the social support you receive from fellow doctoral students, supervisors, lecturers and colleagues can have a significant impact on developing skills by provoking critical thinking and discussion to enhance practice.

Throughout my professional career, I also have developed the resilience and the skills to be non-judgemental and compassionate in my practice and to identify and manage my own emotions. I believe I can offer an enthusiastic clear mind, calm and collaborative presence. Throughout my personal, professional and academic life, one skill I have obtained is self-awareness (Silvia & Duval, 2001). Self-awareness is an essential skill for a health psychologist in training as one develops the ability to recognise their strengths and weaknesses and when to ask for professional assistance. I attempt to increase my self-awareness throughout the professional doctorate through reflective practice (reflective diary), excellent supervision and observing others I value and respect.

Weaknesses

I am aware I have professional deficits in a number of areas of which I strive to flourish and develop throughout my academic and professional environment. I am willing to challenge to broaden my understanding and inform my professional practice for the better and I am constantly striving to learn. Upon reflection, communicating in an assertive manner is a skill in which I hope to develop during the Professional Doctorate. I have the tendency to be an agreeable individual and highly enthusiastic, indeed, these traits demonstrate strengths, however, not being assertive within my interactions can place me in predicaments where I can say "yes" to too many things, which, in turn, can increase my workload. Although an ongoing process, I would throughout the professional doctorate like to adopt a more assertive approach to my practice, through supervision, discussions with my Professional Doctorate cohort and learning to delegate tasks. My lack of assertiveness within my communication skills, can be because I do not display a good level of confidence and belief in myself; I hope that my professional doctorate journey will build my confidence and self-efficacy, again through effective supervision, feedback and building upon my own self-belief, to ensure by the completion of my Professional Doctorate, I will strive to become an autonomous, respected and professional, Health Psychologist.

Throughout my personal and professional life, I have realised having a work-life balance is essential; nevertheless, finding this balance still to some degree eludes me and is something I continue to be working towards. To focus and complete each competency and ensure I create a work-life balance, I will be utilising my strengths of self-discipline, effective time management and organisational skills. To focus on completing each competency, I will produce manageable goals, which will be derived from SMART principles. Throughout my master's course, I learnt to be willing to strive for excellence not perfection. However, I must ensure that I do not place undue pressure on myself and have confidence in my achievements.

Conducting research, has always been a weakness of mine. Although I achieved my goals throughout my academic life, I have always found the research aspects both challenging and slightly anxiety-provoking in equal measure. Reflecting upon my master's degree, wherein I conducted a systematic review, I was aware some academics spend many years developing such excellence in research; this was daunting for me. However, with supervision and support throughout the doctoral programme, I am hoping this will increase my confidence and self-efficacy within this area.

Opportunities

Currently, I am working in the NHS; daily I am exposed to impelling opportunities where I can passionately apply health psychology to enhance patient-centred care. I have attempted to develop a recognition and awareness of how invaluable Health Psychology is in an NHS setting. Thus far, my collaboration with other healthcare professionals has been invaluable, and I have received comments stating that the profession of Health Psychology is essential within the acute healthcare environment. Upon reflection, I would like to incorporate Health Psychology as a valuable tool within the NHS and to inform evidence base derived from a systematic review would be essential to improve overall health outcomes of patients.

I believe the Professional Doctorate will lead and inform my work in Health Psychology especially in the challenges of multiple enduring behaviour change and to ensure I continue to build and sustain professional relationships collaboratively as a member of a team. I believe effective collaborative working contributes towards successful patient outcomes and high-quality patient care. A motivated clinical team can enhance not just the patient experience but also motivation to embrace evidence-based practice. The NHS long-term Plan (2019) has initiated a fundamental shift within patient care, highlighting the essential need for professionals and patients to create genuine partnerships. The NHS is committing to training staff in effective communication skills and to empower patients to make decisions and to manage their own health care, in essence, “shared responsibility for health”. I believe as a Health Psychologist in Training, I could contribute to implement this plan, due to my knowledge in communication skills, patient empowerment and self-management.

My current role inside the Health and Wellbeing Service at the ELHT allows me to engage in face-to-face, multiple behaviour-change interventions. The Health and Well-being service is a new, developing service within the organisation, wherein we have the opportunity to engage in audits and quality improvement projects. ELHT is a teaching hospital, which is passionate about integrating learning into a clinical environment from a variety of Health Care Professionals, thus, my workplace allows me to complete my competencies to a high standard within an ethical and professional framework. In April 2020, I will be attending a ‘train the trainer’ course for Making Every Contact Count (MECC); this will provide me with the opportunity to train other professionals within the NHS about behaviour change principles, in order to support patients in making positive changes to their physical and mental health and wellbeing. Although this is not only beneficial for my own professional development, it allows me to have access to teach and train

Health Care Professionals from a variety of fields, in order to raise awareness and with the hope to promote health psychology and behaviour-change principles within their practice. I remain acutely aware that I need to continually deepen my understanding and knowledge not just in isolation but more broadly and to disseminate my findings/developments more generally; the NHS allows me to attend conferences and teaching and training events and to shadow other professionals, which can enhance my development.

Traditionally, I have always approached my work from a broadly behavioural psychological perspective. I have found this to have been an undoubted benefit vis-à-vis informing my practice. I believe strongly in the "scientist-practitioner model"; as this approach will enhance my development in the area of behaviour change interventions. I have the opportunity to translate theory/research into practice, which allows me to determine the use of the appropriate theory to utilise. This will directly inform my practice, and thus contextualising my approach to engendering enduring behaviour change within the NHS.

I am also truly grateful for the support I acquired from the Liverpool John Moores University Health Psychology team at MSc level and so far that support has been paramount in my professional doctorate journey. Being a part of Liverpool John Moores University will provide me with the opportunity to engage in discussions with fellow doctoral students and lecturers, attend supervision sessions which allow for learning to be embedded within my practice, reflect on situations, and to ensure I develop into a professional and competent Health Psychologist.

Threats

Working within the NHS as a trainee I need to understand overall organisational systems and to provide knowledge to professions wherein psychology input has not traditionally been present. Through observation, there still remains a dominance of the medical model throughout health care practice, nevertheless, this does present with opportunities for me as a Health Psychologist in training. Also, I am passionate about introducing health psychology principles within patient care, and although this process at times makes one feel in isolation, I strive for other health care professionals to acknowledge and value Health Psychologists as a members of the MDT rather than a separate entity. Firstly, the feedback I receive about Health Psychology is within a clinical psychologist context, therefore it can be an opportunity to ensure I am clear about health psychologists' roles within the NHS setting; although this process can be slow, I have worked extremely hard for individuals to gain a perspective which may enlighten them to reflect on their practice. Thus far, it has been pleasantly surprising how other health care professionals value Health Psychology within practice.

Professional experiences inside my workplace have allowed me to confront aspects of myself I was not necessarily cognisant of, and this growth is evolving. Within my current workplace, it can present with

challenges, for example, on some occasions, working within an NHS environment can present with many challenges including cost cuts, funding, staff shortages and limiting staff access to resources. Considering ELHT is a teaching hospital, there can be a high attrition rate in staff members. This could be a threat to my training programme of student nurses. However, I am going to be teaching a cohort of around 140 students, to ensure I have every possibility to acquire a good uptake of students at the end of the teaching programme which can provide me with invaluable feedback and evaluation. Regarding research projects, as a professional doctorate student you want to be completely engaged and identify an innovative project, however ethical approval can be extremely daunting in that, historically, from my knowledge, it has been a complicated issue when conducting research, especially within an NHS context. Nevertheless, I plan to engage with ethical processes in a timely manner and seek out support to help me through this process.

To conclude, the SWOT analysis has been a valuable tool in order to reflect on positive skills I already possess and particular aspects I need to improve on, alongside opportunities I am extremely thankful for and to think of contingency plans for where some threats may be an obstacle. Upon reflection, I have acknowledged varying challenges and have the tendency to place a degree of pressure on myself, however, this can be overcome to learn to strive for excellence not perfection. Completing this SWOT analysis has visually laid out my opportunities and made me aware of building an effective contingency plan in the face of challenges. Nevertheless, I am extremely motivated, enthusiastic and determined to continue my journey into becoming a Practitioner Health Psychologist.

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8002: The aim of the module is to capture the professional competences of research, consultancy, behaviour change interventions and teaching and training in health psychology over the period of training.

Chapter 2: 8002- Professional Doctorate in Health Psychology

Behaviour Change Intervention One

The following section comprises of two pieces of work; a one-to-one, face-to-face behaviour change intervention case study, outlining and reflecting on my experiences of assessment, formulation, intervention and evaluation of a smoking cessation intervention. The second piece of work was an online group intervention, outlining and reflecting on my assessment, formulation, intervention and evaluation of a sleep hygiene intervention.

Learning outcomes achieved:

10. Assess, formulate, intervene and evaluate in a formal behaviour change intervention with an individual client where the intervention is delivered face to face.

12. Work with clients, respecting them, respecting professional boundaries and laws and codes of conduct, and reflecting on the experience in a structured fashion.

Chapter 2.1 - Behaviour Change Intervention: Smoking Cessation

Setting: East Lancashire Hospital NHS Trust: Royal Blackburn Hospital

Introduction

The following case study outlines the assessment, formulation, implementation and evaluation of a smoking cessation (SC) intervention, to demonstrate my competency in one-to-one behaviour change interventions. I am a qualified smoking cessation advisor; accredited by the National Centre for Smoking Cessation and Training (NCSCT, 2020). I deliver one-to-one behaviour change interventions in smoking cessation within an acute setting in the National Health Service (NHS).

Target Behaviour

Smoking is one of the four known key behavioural risk factors which can have fundamental consequences on an individual developing a non-communicable disease (Black et al.2020; Department of Health, 2017; Gakidou et al. 2016; Hbejan, 2011; NICE, 2020; Public Health England, 2019; Worsnop, 2003; World Health Organisation (WHO), 2019). Smoking has a worldwide mortality rate of 8 million people per year and is the biggest cause of preventable deaths in England (Black et al. 2020; NHS smoke free, 2019; World Health Organisation, 2019). According to NHS Digital, (2019), 489,300 hospital admissions in England were attributable to smoking in 2018/19. As of 2019, smoking prevalence among adults aged 18 years or older in England was 14.7%, and around 6.1 million individuals smoke in England (National Centre for Smoking Cessation and Training, 2020; NHS Ten Year plan, 2019; NICE, 2020; Office for National Statistics, 2018). Although smoking rates have plummeted, smoking still accounts for decreased longevity and quality of life more than any other modifiable risk factor (NHS Ten Year Plan, 2019). Research states smoking costs the NHS approximately two billion a year for treating diseases caused by smoking (NHS Ten Year Plan, 2019). In pure financial terms, this presents a substantive challenge to both health care provision and the accompanying financial costs. Therefore, SC is a national health priority (Gilman et al. 2010; Harris et al. 2010).

Smoking is one of four widely studied health behaviours which is a regular focus of attention in Health Psychology (Connor and Norman, 2017). Smoking Cessation interventions are a national health priority and are paramount to an individual's overall health and well-being (Harris et al. 2010; Morrison and Bennett, 2005; NHS Ten Year Plan, 2019). SC interventions include a combination of behavioural, psychological and pharmacological support (NICE Guidelines, 2006; Roberts, Kerr & Smith, 2013; West et al. 2001). Clinical guidelines state that SC support is most effective using behavioural support and pharmacological treatments

(NICE, 2006; NCSCT, 2020; Roberts, Kerr & Smith, 2013). Systematic reviews show that behavioural interventions can effectively increase rates of SC (Black et al. 2020; Lancaster & Stead, 2017; McCrabb et al. 2018; Michie et al. 2013; NICE, 2006; Roberts, Kerr & Smith, 2013; Whittaker et al. 2012). The importance of utilising theory in health behaviour change interventions has been highlighted with research suggesting the use of theoretical frameworks is associated with larger changes in health behaviour (Cahill et al. 2010; Connor & Norman, 2017; Prestwich et al., 2015). Health psychology models and principles provide a basis for understanding the causal processes and mechanisms underlying human behaviour (Abraham, Sheeran, & Johnston, 1998; Michie & Abraham, 2004). Such theoretical contributions include the Health Belief Model (Chamion and Skinner, 2008; Rosenstock, 1974), the Theory of Planned Behaviour (Ajzen, 1991; Norman, Conner and Bell, 1999) and the Transtheoretical Model (Prochaska, DiClemente and Norcross, 1993) all of which have been consistently utilised within a health psychology context (Hilton and Johnston 2017). Behaviour change interventions need to be based on well-specified, empirically supported techniques in order to evaluate their success in terms of psychological principles (Abraham & Michie, 2008; Michie & Abraham, 2004). Thus, the following intervention incorporates empirically supported models and techniques.

Ethical Considerations

Throughout the behaviour change intervention, I adhered to ethical and legal guidelines and incorporated boundaries, within an internal framework in the NHS (NHS Confidentiality Code of Practice, 2003) and external affiliations including guidelines of The British Psychological Society Code of Conduct and Ethics (2017) and the Health and Care Professions Council (HCPC) Standards of Conduct, Performance and Ethics (2020). I remained current with evolving evidence base, relevant policy pronouncements, National Institute of Clinical Excellence (2020) advice and clinical developments to ensure best practice throughout the intervention.

To ensure a high quality ethical standard was adhered to; the individual provided verbal consent before the intervention commenced, client records remained anonymous and confidential throughout the intervention, information was stored using appropriate secure systems, password protecting documents and stored in a locked filing cabinet in line with the General Data Protection Regulations (2018) and the client had the right to terminate their participation in the intervention at any point (BPS, 2017).

Assessment

Assessment is when a practitioner actively seeks to enter the client's world, to understand their unique experiences which are relevant to engaging in smoking (Mason, 2018; Stewart et al. 2003). Fundamentally, before any assessment process, it is essential to develop a rapport with a client (The National Centre for Smoking Cessation Training, 2020). Literature has established the value of developing a therapeutic rapport as a fundamental governing factor of the outcomes of an intervention (Constand et al.2014; Johnstone and Dallas, 2006; Mason, 2018; Mead and Bower, 2000; Stewart et al. 2003). One important aspect of developing such rapport, was respecting my client as a unique individual and taking into consideration my client's preferences, wishes and values via a systematic approach, whilst ensuring the intervention was meaningful, acknowledging my expertise and deeply valuing the client's input and incorporating 'what matters to the

client' (Mason, 2018; Miller and Rollnick, 2013; NHS Ten Year plan, 2019). I gained a significant amount of information regarding the client's characteristics and integrated their assessment and formulation to create an individually tailored intervention. This enhanced my confidence in developing an individually tailored behaviour change intervention (NHS Ten Year plan, 2019).

To ensure a thorough assessment was completed both objective and subjective elements were measured continuously. The Fagerström Test was utilised as a subjective measure; the test is a six-item Likert scale measuring tool, which is a valid index of nicotine dependence (Fagerström, 2012). The Fagerström test identified a score of seven, indicating a high level of nicotine dependency (Fagerström, 2012) (Appendix 3). This assessment informed the behavioural support programme and choice of medication for the client. An objective measure used was the Carbon Monoxide reading (CO); this was utilised as a biofeedback tool to measure smoke intake. The client consented to undertaking this test during every consultation; it was used as a measuring tool to monitor the client's progress and abstinence markers throughout. I found this measure was also a valuable motivational tool for the client; providing the client with visible evidence of the harm caused by smoking and offering a yardstick with which to chart their progress after they stopped smoking (Appendix 5). The client was also advised to complete a consultation form (Appendix 1) which includes details about their health conditions and smoking habits.

From experience, I found discussing behaviour change with a client can be a very sensitive topic. One thing which demonstrated respect during the assessment phase was empathically acknowledging that the client had spent a lot of time and effort thinking about this change. Introducing the 'typical day' question (Mason, 2018) whereby I asked the client to describe how smoking fits into their daily routine, helped build further rapport and provided me with a clear construction of how smoking fits into the client's lifestyle without being too interrogative. Drawing upon evidence based therapeutic approaches including motivational interviewing (Miller and Rollnick, 2013), the use of affirmations such as acknowledging that the individual has taken the first steps of change by attending this consultation, fostered a sense that the client's experiences were understood (Mason, 2018; Miller and Rollnick,2013).

Measuring the client's readiness to change and past experiences of smoking (Appendix 2) based around their confidence and motivation to stop smoking was extremely important to explore during the assessment phase. Since the emergence of the Transtheoretical Model of Change (TTMOC) (Proschaska, DiClemente, Norcross, 1993) this prominent model in psychology articulates the stages of change a client will encounter when changing a behaviour. Applying the TTMOC provided a conceptual framework in how to approach my intervention. My client was in the preparation stage, as they demonstrated a commitment, and they were ready to take action to quit smoking within one week. The client's readiness to change was strong as they displayed personal value to change and recognised the importance of stopping smoking, however, the client

expressed some cynicism ("I have tried before, it does not work"), therefore, demonstrating limited beliefs in their capacity to change. Thus, I integrated the theory of self-efficacy (Bandura, 1977) to support the client throughout the intervention.

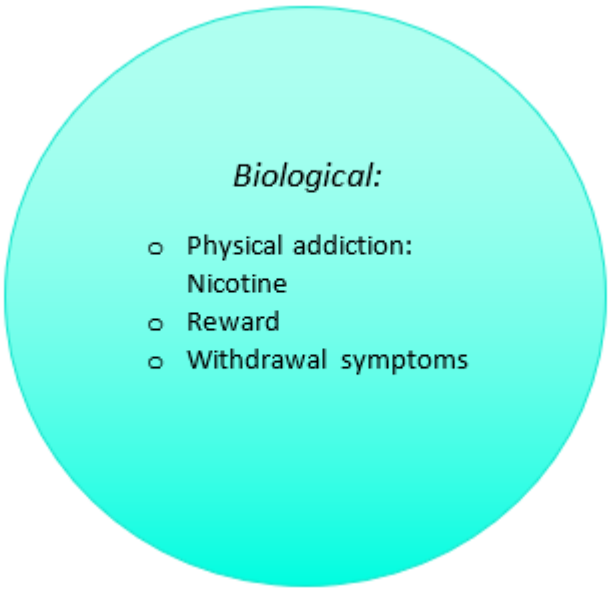
Case formulation

For the case formulation process, I formulated a biopsychosocial (Engel, 1978) framework and incorporated evidence-based Health Psychology theories, to develop a deeper insight ensuring a patient-centred care model is adopted throughout the intervention (Leech, 2005; Rogers, 1986). This process allowed me as a Health Psychologist in training to adopt a theoretical understanding from a behavioural, epidemiological framework as to why my client engaged in such risky health behaviour and informed the structure and content of the intervention. The case formulation process enhanced my ability to apply theory to practice; it provided me with an opportunity to incorporate evidence-based psychological theory and the client's own personal experiences, to provide a framework for describing the client's presenting problem and maintaining factors (BPS, 2017; Johnstone & Dallos, 2006). The formulation sessions enabled the client to articulate their own solutions, to acknowledge the importance that everyone is unique with their own cognitive biases and experiences, demonstrating that they are the expert, and I am willing as the practitioner to learn from their perspectives and experiences to facilitate enduring behaviour change.

Presenting problem and client description

My client is a female of 54 years, smoking 20 cigarettes per day for 38 years. My client was highly motivated to quit smoking, predominantly due to health and financial reasons. The client and I collaboratively designed a case formalisation utilising the 5 Ps (Please refer to Appendix 6 for the extended case formulation). In collaboration with the client, I conducted a comprehensive assessment to explore the cognitive, contextual, affective and behavioural factors. The main aim of the case formulation was to understand the origins of the presenting problem; maintaining and protective factors, this process allowed me to better understand the needs of the client and establish the goals of treatment.

Diagram 1: Biopsychosocial framework to the Smoking Cessation Intervention



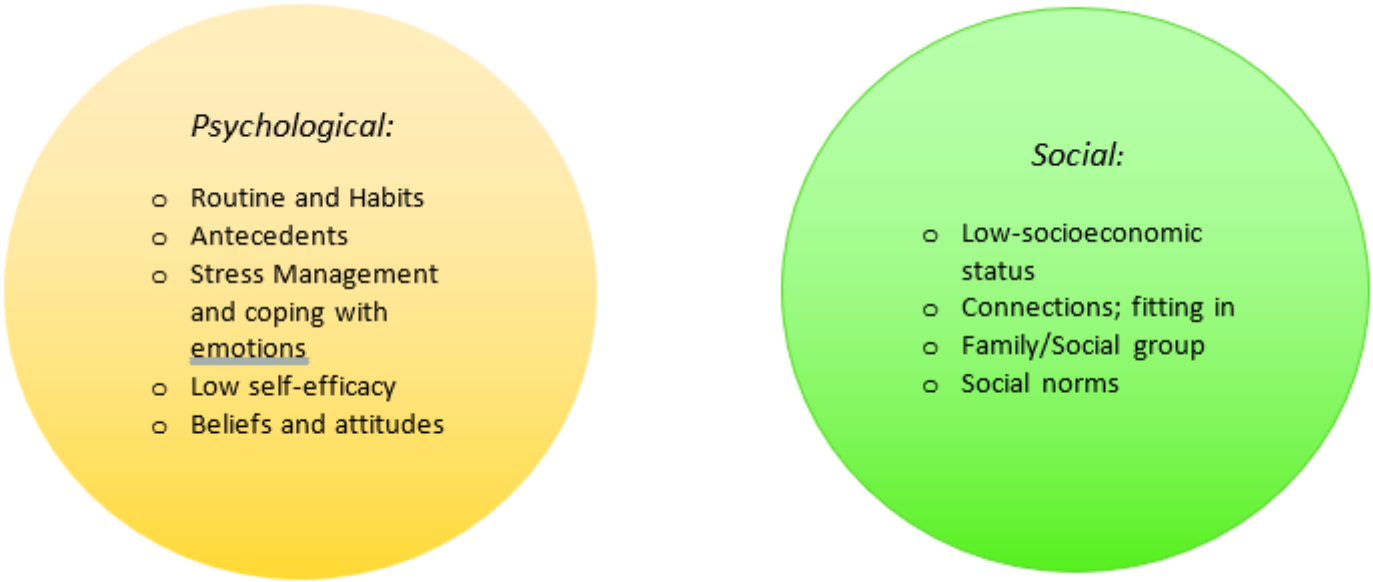
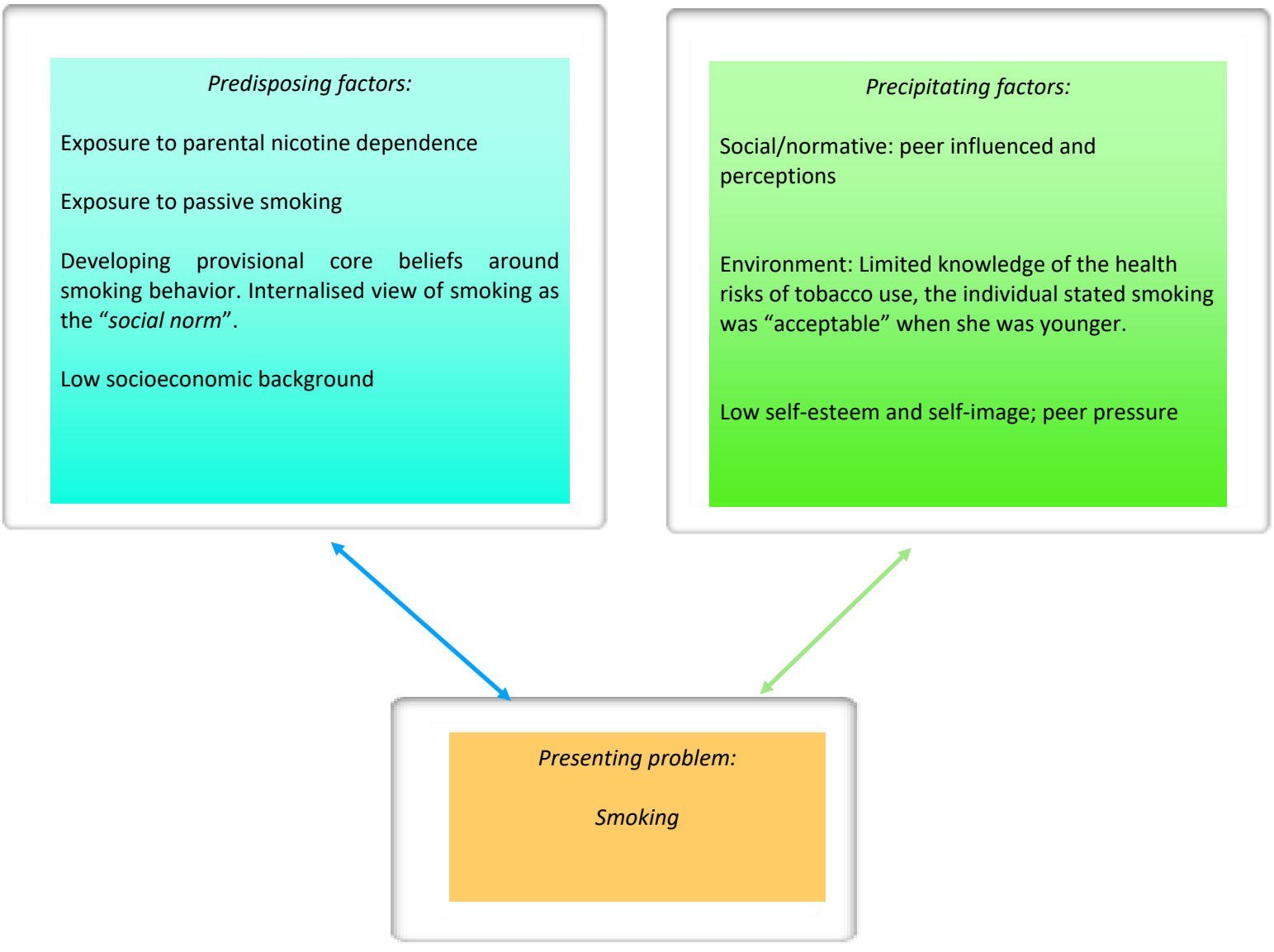
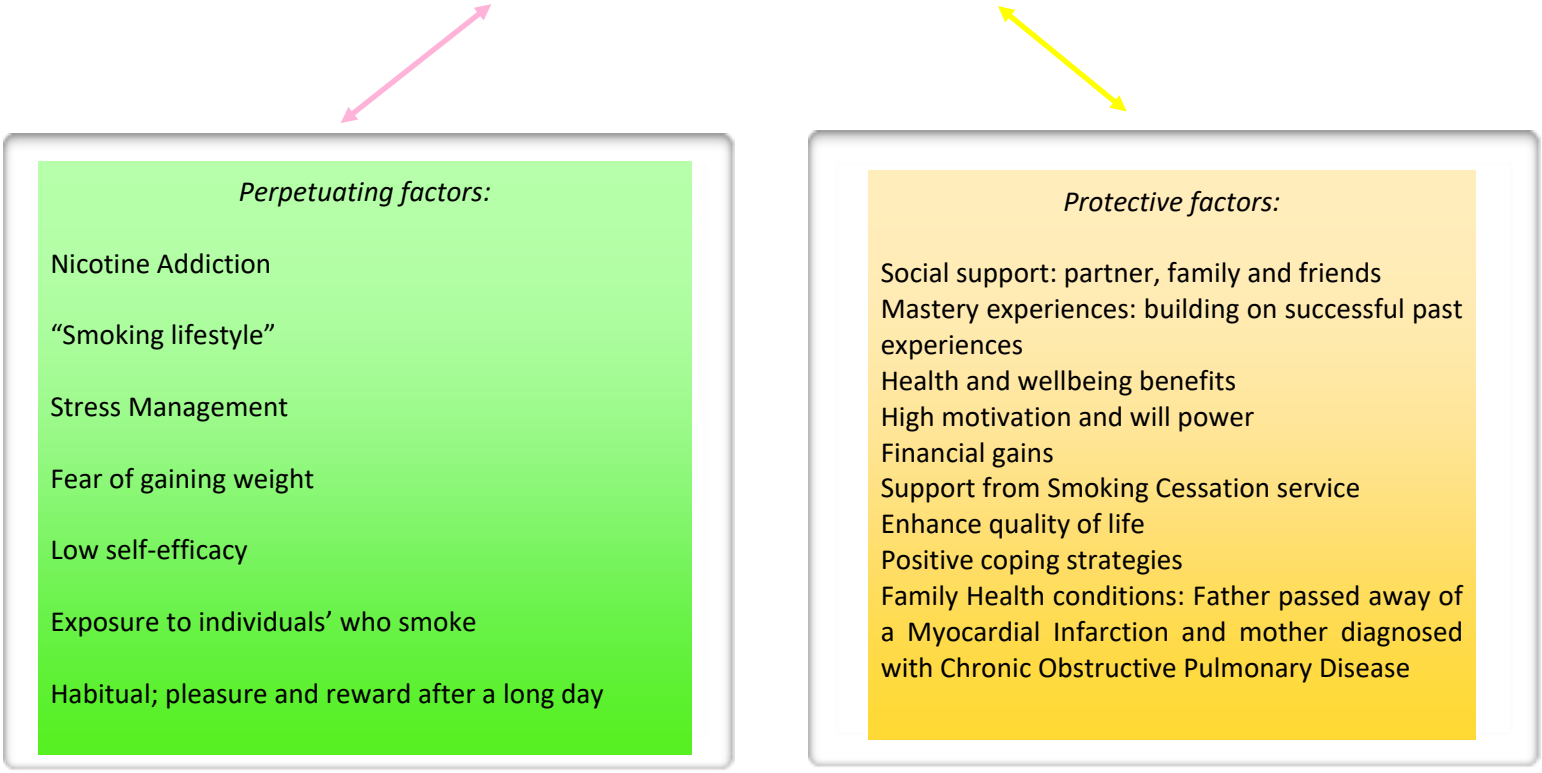


Diagram 2: Predisposing, Precipitating, Perpetuating and Protective factors





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Completing the formulation provided the opportunity to establish a positive rapport with the client, brought clarity to the intervention and enhanced the Scientist-Practitioner model by integrating psychological theory to practice, which enhanced the therapeutic endeavour. The client reported that our working collaboratively fostered a sense of empowerment to make informed choices and the formulation visually laid out their maintaining and protective factors, which helped tailor the intervention to their needs and collate accurate information. It allowed the client to be intuitive and critically evaluate their experiences and relationship with smoking. This supports the concept of shared decision making, which builds a rapport with the client and enhances self-regulatory capacity and skills; placing the client at the centre of the decision making (NICE Guidelines, 2020; Truglio-Londrigan et al. 2012).

The art of reflection played a central role within the development of this intervention. I found it was vital for me to not impose on the client's values and to be cognisant of my own cognitive biases (Beck, 1993). This was described by Johnstone and Ballos (2006) who reported reflective practice is important throughout a psychological formulation as it can highlight one's own thoughts, feelings and personal views. For example, drawing upon the false consensus bias, whereby humans have the tendency to view their own choices as relatively common (Ross et al. 1977), I acknowledged I value health as a motivating factor for change however, other factors including financial gain may be a motivational factor in quitting smoking, thus, recognising this bias ensured I broadened my insight into the uniqueness meaning of my client's behavioural

choices. I also found amplifying my client's strengths was an approach I felt comfortable taking, and the importance of how affirmations have been closely associated with increased self-efficacy (Epton and Harris, 2008; Kim, 2008). However, there is a balance to strike when utilising this approach, including the need to convey respect and genuineness when articulating these affirmations. For example, one affirmation which was beneficial to my client was *"it can take a lot of courage to engage in conversation regarding behaviour change*". I found it is essential to convey a genuine belief in a client's competence when experiencing a challenging lifestyle change.

The case formulation journey enhanced fundamental communication skills and my core therapeutic values including listening skills and reflective summarising (Mason, 2018; Miller and Rollnick, 2013). I believe a few well-chosen words are of more value during this stage and deciphering the information which is relevant to the intervention. Therefore, I would particularly pay attention to any self-expressed change talk, for example the client mentioned her family history of conditions related to smoking and her anxiety around developing such conditions. Thus, it was an opportunity to explore the importance of prevention. These fundamental skills allow one to tailor the intervention within the client's own frame of reference. The case formulation allowed me to gain an insight into how the client and I can effectively promote enduring behaviour change.

Theoretical Perspective

The following intervention was based on two theoretical frameworks: Transtheoretical Model of Change (TTMOC) (Prochaska, DiClemente and Norcross, 1993) and Social Cognitive Theory (Bandura, 2004). Throughout the intervention, evidence-based theoretical approaches were also drawn upon to provide a deeper understanding. Applying these theories allowed me to structure my thinking and guide my intervention. These main theories were adopted as they are widely established in the literature on SC interventions and a vast amount of research supports the effectiveness of utilising these models (Michie et al. 2013; Prestwich, Kenworthy, & Conner, 2017).

The two theoretical models encompass common determinants including self-efficacy, outcome expectancies and intentions (Connor & Norman, 2015). These include cognitive, affective, evaluative and behaviour strategies an individual may use to modify a health promoting behaviour. In this instance, it informs the practitioner of the most effective way of helping the individual to adopt a smoke-free lifestyle (Callaghan, Khalil & Morres, 2010; Elshatarat et al. 2016; Luszczynska and Schwarzer, 2015; Siewchaisakul et al. 2020; Warner et al. 2018). Relatedly, utilising theory to develop interventions has been advocated to identify the key modifiable determinants of health behaviour and is associated with substantial changes (Connor and Norman, 2017; Prestwich et al. 2015).

Diagram 3: Transtheoretical Model of Change: Stages of Change process (Prochaska, Diclemente and Norcross, 1993)

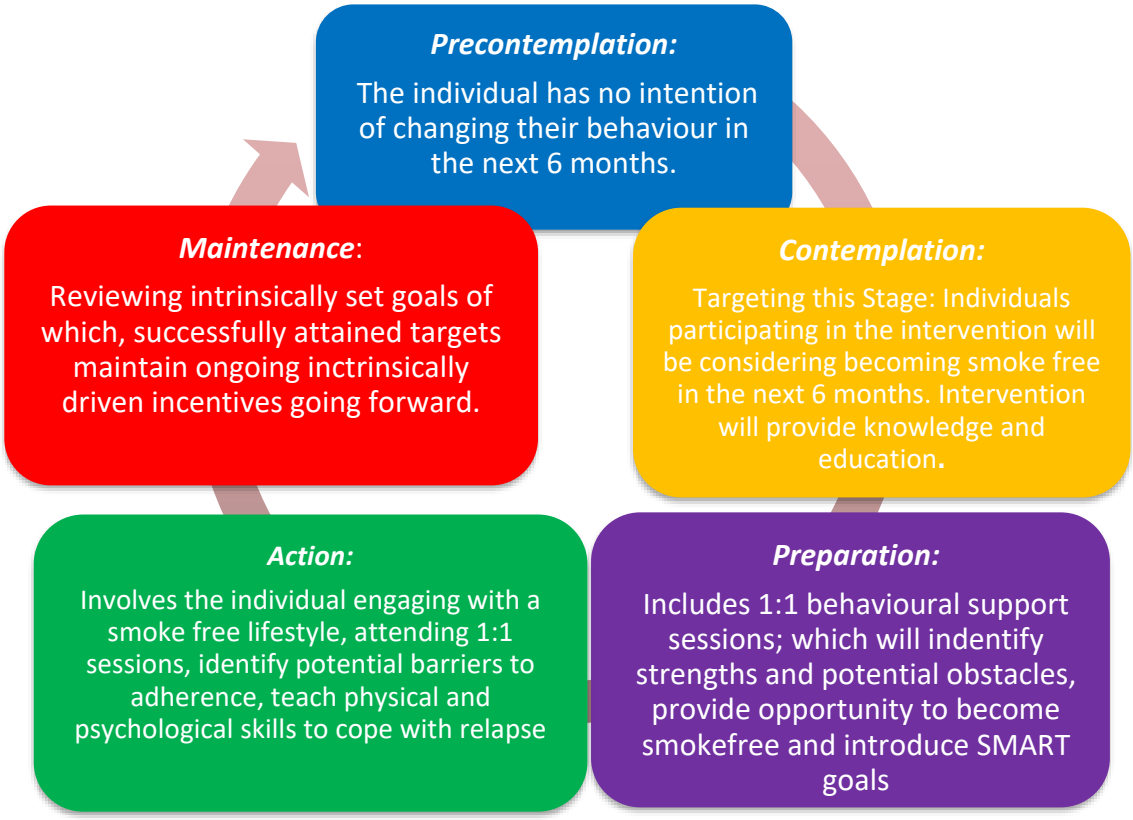
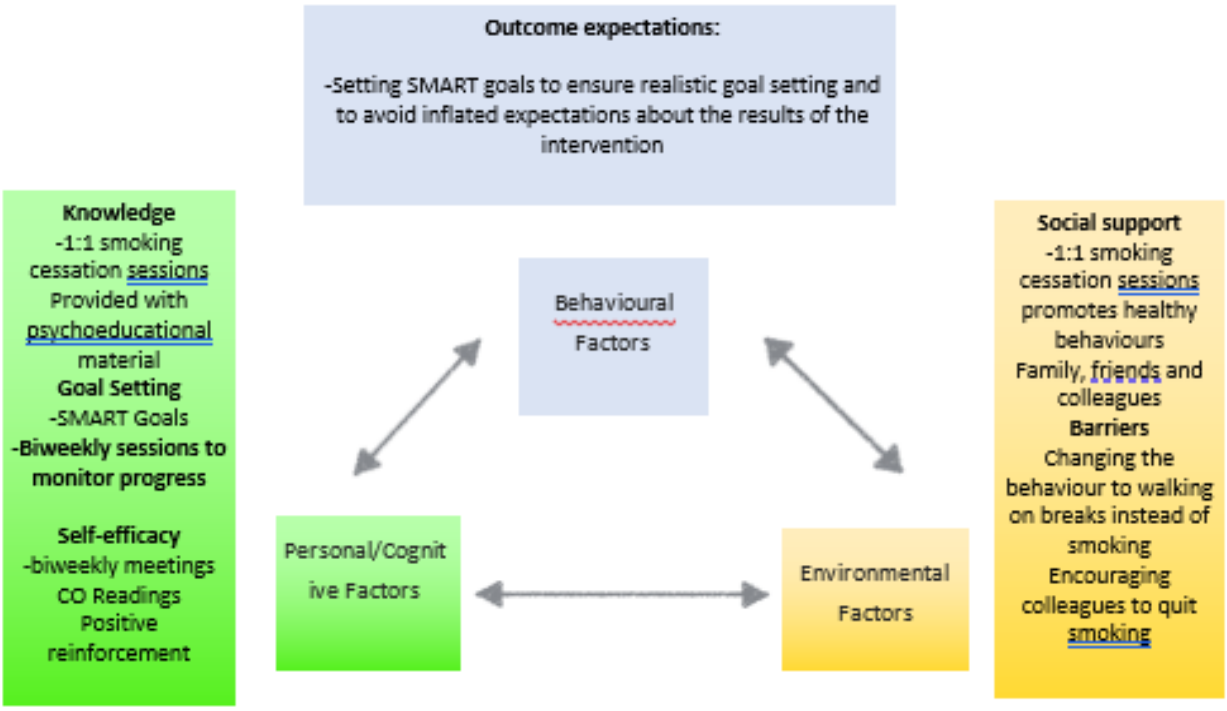


Diagram 4: Interacting factors and functions of the Social Cognitive Theory (Bandura, 2004)



Health Psychology behaviour change interventions are also underpinned by the Health Behaviour Change Competency Framework (Dixon and Johnston, 2021). This framework was used to structure and inform this intervention. Behaviour change techniques (BCT) were also utilised alongside theoretical frameworks, for the BCT used in this intervention please refer to Appendix 7) (Bartlett et al. 2014; Michie et al. 2013; Webb et al, 2010).

The COM-B model was also employed for measuring my client's capability, opportunity and motivation to engage in such behaviour change (Abraham & Michie, 2008; Michie, Atkins & West, 2014; Michie, van Stralen, & West, 2011). The COM-B model has been utilised in various interventions to develop functions of behaviours, identify enablers, barriers, BCTs and to increase capability, opportunity and motivation to address potential barriers (Cheng et al. 2017; Michie, Atkins & West, 2014). (Refer to Table 1).

Table 1: Illustrates the barriers associated with increased relapse of smoking behaviour.

Three interacting factors and subcategories	COM-B MODEL for Smoking Cessation Interventions (Michie, 2011)
Capability	
Physical Capability	• Applying the self-efficacy model (Bandura, 1977) client has previously stopped smoking for 1 1/2 years; has demonstrated history of physically stopping smoking. o Time and access to stop smoking services has been a physical barrier, thus, the intervention will be conducted in the client's working environment to prevent this barrier.
Psychological Capability	• Increasing knowledge and understanding of the benefits of stopping smoking and the consequences of continuing to smoke - providing psychoeducational material from the British Heart Foundation and Public health England (Appendix 4) (Michie, 2011) • Increasing cognitive ability by setting goals, creating a contingency plan and identifying antecedents. • Increasing cognitive ability by self-monitoring; provide the client with a personal smoking cessation card to monitor progress and set goals. • Behavioural Support; previous experiences with stop smoking cessation services have been primarily pharmacological treatments with limited behavioural support, thus, introducing various behaviour change techniques including (utilising positive reinforcement and increasing self-efficacy) to minimise psychological barriers such as low self-efficacy and self-esteem.
Motivation	
Reflective Motivation	• Increase knowledge and understanding of the behaviour; ensuring you encourage positive feelings around stopping smoking. • Providing Feedback, encouraging self-monitoring and setting goals. • Action planning - identifying antecedents in certain situations and how to manage these (for example at a family party ensure you take your nicotine inhalator if you decide to smoke) • Improve self-efficacy; self-monitoring and positive reinforcements/rewards; low CO reading. • Action planning: developing a contingency plan when encountering triggers for urges to smoke. • Beliefs about consequences of smoking; adopting the Health Belief Model, the client identified the increased risk of COPD and Heart Disease.

Automatic Motivation	• Encouraging healthy habit formation • Allocating rewards and incentives when goals are met; observed improved physical health and wellbeing (reduced breathlessness) and saving money. • Lack of knowledge towards behaviour support offered from smoking cessation services. • Fear of relapse • Fear that it is too difficult to change their "smoking lifestyle"
Opportunity	
Physical Opportunity	• Attending smoking cessation clinics every 2 weeks for a 12-week period. • Identifying a local pharmacy to collect pharmacological NRT products. • Limit access to environments which trigger cigarette use; including going for a walk on their break instead of smoking with colleagues.
Social Opportunity	• Family and friends are supportive in the stop smoking intervention; supporting and encouraging friends who are also on their journey to stopping smoking. • Encouraging social support to enhance motivation for behaviour change. Partner has recently stopped smoking.

Table 2: Highlights relevant interventions functions (i.e. increasing education) which challenge barriers.

COM-B: *Model of behaviour sources.*	***Education:*** Knowledge, education and information around the physical and psychological benefits to quitting smoking and the consequences of smoking.	***Incentivisation:*** Individualised SMART goals will be informed by the trainee health psychologist for example measuring CO level (biofeedback);providing positive feedback, reinforcement and praise will be provided when the individual has met these intrinsically set goals.	***Restrictions:*** Identifying antecedents to the client's behaviour, thus constraining performance of a behaviour by following a contingency plan/setting rules.	***Training:*** Increasing the skills adopting appropria behaviour change Techniques during to-one sessions wit the client.
Physical capability			√	√
Psychological capability	√			√
Physical opportunity			√	√
Psychological opportunity				√
Reflective motivation	√	√	√	√

Automatic motivation		√	√	√

Table 3: Links between intervention functions, theories, and behaviour change techniques (BCTs; Abraham & Michie, 2008). Collaborating with my client on these factors enhanced the intervention further.

COM-B	Theory	BCT
Education	Social Cognitive Theory (SCT) Transtheoretical Model of Change (TTMC) Pre-con/Contemplation Health Belief Model	• Provide knowledge and information reg • Provide information on physical and psy • Provide knowledge regarding the conse
Incentivisation	Social Cognitive Theory (SCT) Health Belief model	• Provide intrinsic rewards (positive feedl of biofeedback (CO Reading), monitorin breathlessness) and saving money. • Boost motivation and self-efficacy • Strengthen "ex-smoker" identity
Restrictions	Transtheoretical Model of Change (TTMC)	• Identifying antecedents to the client's b • Collaboratively developing a contingen
Training	Social Cognitive Theory (SCT)	• Increasing the skills by adopting approp one-to-one sessions with the client. • Providing the client with Psychoeducati
Enablement	Social Cognitive Theory (SCT) Transtheoretical Model of Change (TTMC) Action-Maintenance	• Social forums and reconstructing physic • Prompt review of behavioural goals • Prompt self-monitoring • Enactive mastery experience/ Verbal Pe • Provide feedback on current behaviour

Implementation/ Intervention

Table 4: Intervention structure; reflections on my behaviour change intervention

	Intervention Structure	*Reflections*
d 2	○ Establishing a therapeutic rapport ○ Assessment; Assessing my client's current readiness and ability to quit, assess past quit attempts, Explain and conduct carbon monoxide (CO) monitoring ○ Case Formulation ○ Fagerström measure conducted	The intervention involved two sessions before the quit date; to build a therap expectations, explaining confidentiality, assessment and formulation. The int developed by using evidence-based theory and guidance from the NCSCT (2020) information from the assessment and formulation sessions to enhance patient center Regular workplace supervision was appropriately sought and a reflective diary was c of the sessions had taken place on a ward, based within ELHT where the client work ensure I minimised any barriers including lack of time. Six further sessions were conducted biweekly for twelve weeks, to maintain motiv advice on coping and optimising the use of the pharmacological treatment. A combi to-face behavioural support and pharmacological treatment was utilised in this inter combination approach is deemed to be 'gold standard' for treatment of Nicotine de effectiveness of these interventions on SC have been well established within the liter al, 2019; NICE guidelines, 2018; Stead et al, 2016; West, McNeil & Raw, 2000) The cl to a CO reading to be conducted following each session (Appendix 5).

	○ Introduction to pharmacological treatments (Nicotine Replacement Therapy); discuss expectations of medication and how to utilise medication. ○ Introduction to a smoking diary ○ Setting SMART goals; prompt commitment from client and set a quit date ○ Completing a CO reading	Firstly, the client was provided with a choice of Nicotine Replacement Therapy (N decided to choose the combination therapy consisting of the Nicotine Patch (25mg Nicotine Inhalator (15mg), as NICE (2018) recommends a long- acting product and product. A combination NRT therapy was chosen as evidence supports the superior treatment approach compared to one NRT product (Ebbert et al. 2010; Tulloch et 2017). An in-depth demonstration of how to use the NRT products was conducte suggests demonstrating the use of the products can heighten self-efficacy, reduce ni and promote adherence to the medication (Champion and Skinner, 2008). Duri concerned the client would think I was condescending, however, the client mentione attempt was challenging due to using the NRT incorrectly. A smoking diary was introduced to track the progress for the SC journey. The client w diary for appointments and noting reinforcements and antecedents to their behavi then identified a quit date; during this, I implemented the Control Theory (Locke & The theory suggests that the likelihood of succeeding in behaviour change is height client identifies Specific, Measurable, Attainable, Relevant and Timely (SMAR motivated goals (Locke & Lathan, 2002). An effective behaviour change technique to client at this stage of the intervention was '*Prompting commitment from the client t* (Abraham and Michie, 2008; Michie et al. 2013). The client reported they felt an e *liberation'* as they choose the quit date, thus, an immediate goal was set to give up sm

	○ Reviewing goals ○ Provide psychoeducational material to client ○ Discuss withdrawal symptoms and nicotine cravings ○ Introduce environmental restructuring/ advice on changing routine ○ Completing a CO reading	The client had commenced with their first week of quitting smoking. The client wa incongruent feelings regarding SC during this session. For example, they explained fee to quit however, they mentioned how challenging the first week was. When we challenging factors of SC, they stated how smoking was a habitual part of their highlights that habituation of cigarette use, can be a barrier to SC interventions (Luij Everitt and Robbins, 2016). Thus, I exemplified the behavioural support during session I introduced the concept of environmental reconstructing, to reduce the exposure o which may tempt the client to smoke (Michie, 2004; West, 2007). This includes i *'smoke-free pledge'* encouraging the individual to have a smoke-free environment, w any external stimuli including lighters which may act as an antecedent. I found the '*Stimulus generalisation/control*' was a positive factor of the intervention as it helpe prepare and cope with the antecedents which enhanced nicotine cravings. We also explored how the client can make small changes to their routine each day, for were most likely to crave a cigarette with their morning coffee, thus the client repo have a shower before her coffee to eliminate that trigger. I found it was essential f identify their own solutions as they are more likely to adhere to the new routine. I also to reflect upon key components of compassion focused therapy (Gilbert, 2009) acknowledging that SC was an extremely challenging lifestyle change, therefore I reinfo to be more self-compassion throughout the process. I also found reiterating pro identified in the case formulation was beneficial to increase motivation. Psychoeducational material was also introduced during this session. Literature effectiveness of utilising knowledge to promote positive behaviour change and i efficacy (Jones, 2010; Connor & Norman, 2017). Drawing upon self-efficacy theory (B emphasising health risks and benefits of behaviour change creates a preconditio detrimental habits, which can enhance motivation (Bandura, 2004). Psychoeducation provided in the form of the "Smoke-free wheel", Public Health England and British He (Appendix 4). It was evident the client had obtained knowledge regarding the health r Referring to the case formulation session, one motivation for the client was to impro and wellbeing. They identified one motivating factor included their mother had diagnosed with Chronic Obstructive Pulmonary Disease (COPD) and her father pas myocardial infarction.

	○ Introduction to functional analyses; identifying antecedents to my client's behavior. ○ Discuss challenging situations they may have experienced ○ Develop a contingency plan ○ Completing a CO reading	During the third week of the intervention, the client mentioned feeling an intense urg week due to being exposed to a stressful family situation. Literature has highlight including intermittent negative emotional states and decreased motivation can fluctu the smoking cessation intervention (Lai et al. 2010; Ussher et al. 2013; Perkins et al incorporated two behaviour change techniques during this session including '*Provid current behaviour*' and '*Provide rewards contingent on effort or progress'* whereby I p following the effort of them not smoking and also explained that by using their NRT help with the desire to smoke. The client reported this was challenging as since the a smoking had always acted as an "*emotional crutch*" thus, another useful BCT utilised problem solving; in collaboration with the client, we designed a contingency plan, wh client to analyse factors influencing their behaviour and generate specific strategies with the urge of cravings. For example, the client identified negative emotions heigh for a cigarette, therefore, the client stated that when experiencing negative emotio engage in positive activities including; physical activity and social support. A techni successful during this was the concept of reciprocal inhibition: replacing the undesir with a desirable behaviour (Wolpe, 1958). For example, when the client experienced cigarette, they replaced this by using their NRT products or going out for a walk. A burgeoning amount of evidence supports the use of implementing contingency plan individual's health behaviour (BPS, 2017; Ainscough et al. 2017; Lussier et al. contingency plan was important during this intervention, as they are used to an unexpected results or antecedents occur to the individual and enhance motivation t initial plan. Built into my client's contingency plan, was identifying in collaboration wi the psychological and practical resources the client can use when they experienc smoke. For example, ensuring biweekly attendance to the sessions to review progres and reinforcing the client (Miller and Rollnick, 2013). Following the implemen contingency plan; the client became cognisant of their antecedents. From the NH (2019), it is important to empower individuals and to ensure they are front and centr This really made a difference to my client, as they felt in control and a sense of accom

	○ Introduction of reinforcement and rewards for behaviour change ○ Maintaining motivation ○ Completing a CO reading	Key aspects related to theories of behaviour change focuses on the importance of r self-efficacy (Roberts, Kerr and Smith, 2013; Prochaska, DiClemente and Norcross 1993 Bandura, 2004). Therefore, during this stage of the intervention, I introduced reinforcements as the client reported "struggling" with their motivation. I felt during client required further reassurance, thus, I drew upon a BCT 'Provide reward successfully stopping smoking'. The client proposed one protective factor and reinforc money they were saving for their wedding, thus, they had designed a savings pot. Du the client expressed they experienced a relapse in the form of attending a party wh surrounded by smokers and she had a "*puff of a cigarette*". Research reports environments which are associated with smoking have shown to increase the possib (Stevenson et al. 2017**).** We explored this further, and I asked why they did not h cigarette; they reported they did not enjoy the cigarette as much as they used to. We to the contingency plan to discuss antecedents and protective factors to cigarette us reflection-in-action when the client mentioned her relapse, due to a surprise in them felt this was a skill one had to adopt during a behaviour change intervention, which r on gaining a new perspective rather than just solving the problem (Schön, 1988). It w reiterate that relapse was "normal" during SC and one "puff" would not have a detr on the intervention. Here was an excellent opportunity to explore the precipitati introduce the ABC model (Beck, 1993). We formulated a functional analysis to smo (Appendix 6); the client reported they valued this section as it visually laid out the mot their smoking behaviours. Identifying these antecedents are also essential within the r as they decrease the incidence of relapse (The National Centre for Smoking Cessation In most cases, these urges are apparent during particular situations or cues, incl circumstances, thus it is essential to identify these antecedents before they happen the contingency plan when they do. This can include commitment to the "new identity ensuring attendance and engagement at each consultation and utilising the Nicotin Therapy (NRT) medication combination therapy when such cravings are appare responded well to this approach as they reported they did not feel "judged" and the effectively problem solve when exposed to a similar situation in the future.

	○ Maintaining motivation and self-efficacy ○ Review medication usage ○ Providing feedback on performance ○ Strengthen ex-smoker identity ○ Completing a CO reading	Following session 6, this allowed me to explore reflection-on-action and allowed me a to 'step back' from the situation and focus on what is essential to the client during th I found this to be a vital skill to develop beyond my intervention. Therefore, upon refl main focus in this session was to maintain motivation and increase self-efficacy. E defined self-efficacy as "*the beliefs about the individual's ability to perform a particu* According to Bandura (1982) self-efficacy is one of three key influences on beha increase self-efficacy I incorporated concepts including the authentic evidenc experience, the client and I focused on how the individual achieved SC historically, fo client stopped smoking for two years, however, due to an unfortunate stressful cir relapsed into smoking behaviour due to the increased stress. Nevertheless, we exp remained abstinent from cigarettes for two years, which is an achievement, and high which maintained the behaviour change including social support. I found utilising t model during the intervention allowed the client to focus on small steps and initiate creating achievable goals to increase their confidence. One other aspect of self-efficac experiences, the client expressed their partner had recently stopped smoking, thu opportunity to reflect on how they have achieved this. Implementing the concept of s how could subsequently increase the likelihood of positive behaviour change was dis

	○ Evaluation/ Closure session ○ Completing a CO reading ○ Future coping resources	The final session was short; however, it was important to remember the journey to c way. It was about finding the balance of closing the session without closing the proce predominantly in this session on how SC is an enduring behaviour change and re importance of contingency plans, coping resources and organising the follow-up reflected on the journey thus far and reiterating on the identity of an '*ex-smoker*'. T health psychology aims to generate and test theory and translate these theories into has always a passion of mine. Conducting this intervention has enhanced my repertoir to deliver SC behaviour change interventions and my skills as a reflective practitioner, my ability to implement behaviour change interventions within an ethical fr encompassing Health Psychology theory into practice. Utilising Gibb's (1988) reflec helped me to recognise my strongest skills and those that require further deve endeavour to take a proactive approach to using this greater insight into my profes Upon reflection, during this intervention, I felt the eight sessions allowed time for a clie relationship develop and promote behaviour change.
ons nths ion)	○ Conducted via telephone consultation	Telephone consultations conducted 1-month post-intervention (April,2020), (intervention (October 2020) and 12-months post-intervention (March 2021).

Evaluation

Evaluating an intervention can allow practitioners to reflect on the effectiveness and improvements which could be made (BPS, 2008). Both subjective (self-report) and objective (biomarker measurements CO reading) measures were utilised in this intervention to increase reliability and validity (Morrison & Bennett, 2006). Formal outcome and process evaluation were followed throughout the intervention (Medical Research Council, 2019). Following these processes can be challenging, but it is an important way of assessing efforts to change behaviour; both of these processes were used to evaluate the intervention (NICE Guidelines, 2008). The client attended and positively engaged in each session.

Literature has identified an essential aspect of sustaining long-term behaviour change is conducting follow up sessions and maintaining motivation once the intervention is complete (Connor and Norman, 2017; Crichton et al. 2012; Miller and Rollnick, 2013). Thus, follow up assessments were conducted at one, six and twelve-months post-intervention, to evaluate whether enduring long-term behaviour change had been achieved (Connor and Norman, 2017). Unfortunately, due to the COVID-19 pandemic and strict restrictions to face-to-face interventions (National Centre for Smoking Cessation Training, 2017); the follow-up sessions were conducted via telephone. I obtained feedback for this intervention from my client, workplace supervisor and through continuous self-reflection. Twelve months post-intervention, the client reported that they had remained abstinence from cigarettes (please see Appendix 8 for further qualitative feedback from the client). Key themes highlighted in the follow up sessions were an increase in self-efficacy, increase in motivation to engage in multiple behaviour change, intrinsically motivating factors including health, wealth and circumstances of the COVID-19 pandemic.

Maintaining motivation once the intervention is completed is an essential aspect of sustaining behaviour change, and ensuring the intervention initiates long-term commitment (Crichton et al. 2012; Miller & Rollnick, 2013). In terms of the 'active ingredients' of the intervention; important elements which maintained change included enablement, reinforcement, self-regulatory processes, strengthening the "ex-smoker identity" and self-efficacy (Black et al. 2020; Kwasnicka et al, 2016; Menninga et al. 2012). All of these are affected in the maintenance of long-term, enduring behaviour change and the prevention of relapse for my client (Menninga et al. 2012). One particular behaviour change technique which was effective in this intervention was the strengthening the "ex-smoker" identity (Black et al. 2020). The client proposed this was a motivational factor to the intervention as they felt inspired by the ex-smoker lifestyle.

Drawing upon the TMOC theory, the client, twelve-months post-intervention, is now in the maintenance stages, thus, it is important to focus on maintaining long-term behaviour change, as evidence suggests throughout these stages one can move between each stage and revert to old behaviours (Prochaska, DiClemente and Norcross,1993).

Communication and partnership were principles utilised throughout my intervention (BPS, 2017; Thompson and Parrott,1994). I believe each of these principles enhanced engagement and the intervention outcome. This highlights the importance of non-specific elements of the therapeutic rapport, for example, I felt the skills of reflective listing and opening questioning enhanced the effectiveness of the intervention. The client commented they "felt listened to" and their "experiences were understood" visually laying out their barriers and motivations towards their behaviour. This is evident of certain therapeutic characteristics including (warmth, empathy and genuineness) can drive effectiveness of an intervention (Black et al. 2020). Although I am continuing to develop an authentic therapeutic style, I believe my skills have been significantly enhanced in this area since the implementation of the intervention.

Future direction

SC interventions can have a profound effect on overall health and wellbeing (Adams & White, 2003; Black et al. 2020; NICE, 2020; Steel et al. 2018). Future interventions need to incorporate theoretical based interventions (Connor & Norman, 2017), as they provide a useful framework for effectiveness of interventions and distinguish key modifiable determinants of health (Glanz & Bishop, 2010; Prestwich, Kenworthy, & Conner, 2017). The SCT (Bandura, 1977) and TTMOC (Prochaska, Di-Clemente and Norcross, 1993) were employed in this intervention as literature suggested a positive variation in smoking in both models, as highlighted in the theoretical orientation section, a range of theoretical constructs were used in this intervention due to the complex factors and influences in smoking as the causal assumptions of the relationships within individuals can be complex, thus enhancing the efficacy of the interventions. As highlighted in TTMOC theory, maintenance of long-term lifestyle change is essential (Prochaska, Di-Clemente and Norcross, 1993). A follow-up of up to one year was conducted; future interventions should assimilate longitudinal methodology to monitor and document ongoing intrinsically driven incentives to enduring change. To conclude, this intervention shows how invaluable Health Psychology theory and concepts are in promoting behaviour change and leading to increases in positive health outcomes. It is important to continue implementing effective interventions to achieve national ambitions of becoming a smoke-free country in England by 2030 (Lightfoot et al. 2020).

Conclusion

To conclude, from this competency I have been able to enhance my professional development in designing and implementing behaviour change interventions and developed as a practitioner by establishing a positive client-practitioner relationship. The intervention complemented my personal and professional values, establishing key characteristics of communication, empathy and enhancing my skills as a practitioner, where I was able to work to a high ethical and professional standard to promote enduring long-term change. I have also been able to develop into a more reflective trainee, especially within the area of 'reflecting-in-action' and incorporating psychological theory into practice. Furthermore, I have enhanced my therapeutic character, which I am aware will continue to grow through learning, experience, supervision and reflection. This process has not only developed my experience of behaviour change interventions, but it has deepened my knowledge of self.

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Chapter 2.2 - 8002: Behaviour Change Intervention Two Competency

Professional Doctorate in Health Psychology

Improving sleep quality and quantity within the police force.

Introduction

This case study reports on the development, delivery and evaluation of an intervention to improve quality and quantity of sleep in a group of six serving police officers and my reflections on the process. New skills have been established and a broader repertoire of understanding developed. All of these are needed as I follow my journey towards being a Health Psychologist.

Target Behaviour

Sleep is fundamental in promoting health and recovery (Abel et al. 2013; Grandner, 2017; Vyazovskiy, 2015; Walker; Rasch & Born, 2013; Worley, 2018). Adequate quantity and quality of sleep are associated with various health benefits and overall quality of life (Grandner, 2017; Scott et al. 2021; Worley, 2018). The National Health Service report the optimal sleep duration for adults is 6-9 hours per evening (NHS, 2019) although individual variability exists (Mukherjee et al. 2015). However, this is not achieved in the United Kingdom, with the average adult receiving approximately 6.4 hours of sleep per evening (Madrid-Valero et al. 2022). Four out of ten individuals express not meeting the UK's guidelines on sleep quality (Jenkinson et al. 2020). Barriers identified to engaging in good quality sleep include demanding pressures in society and occupational stressors (Leng et al. 2014; Madrid-Valero et al. 2022). The COVID-19 Pandemic has been associated with poor quality and quantity sleep due to creating unique circumstances including changes within lifestyle (Jenkinson et al. 2020). Sleep deprivation can be associated with poor health outcomes including hypertension and neurocognitive consequences (Orzeł-Gryglewska, 2010). Thus, receiving a quality sleep is paramount to an individual's health, wellbeing and overall functioning.

Target Population

The importance of sleep in the police force has led to a burgeoning of research to focus on this topic (Habersaat et al. 2015; Kim et al. 2011; Magnavita & Garbarino, 2017). A significant amount of literature reports that, police officers as a profession are at increased risk of an array of physical and psychological illnesses including heart disease and depression (Garbarino et al. 2019; Kim et al. 2011).

A meta-analysis review reported that the prevalence of poor sleep quality in police officers was 51% (Garbarino et al. 2019). This correlates with the significant high risk stress the profession is exposed to (Garbarino et al. 2019). Furthermore, sleep disorders are twice as prevalent in police officers compared to the general public. They are at more risk of developing sleep problems including excessive napping, sleep deprivation and sleep-related accidents (Garbarino et al. 2019). A range of factors contribute to poor sleep quality within members of the police force including; exposure to highly emotive environments and occupational stress (Garbarino et al. 2019 ; Habersaat et al. 2015; Magnavita & Garbarino, 2017). Poor sleep has a significant impact on health and public safety (Magnavita & Garbarino, 2017). Thus, it is essential to promote good quality and quantity sleep within the police population including increasing knowledge and education and incorporating behaviour change techniques based on empirically supported frameworks and techniques (Scott et al. 2021; Worley, 2018).

Assessment

The assessment phase consisted of the participants completing the Pittsburgh Sleep Quality Index (PSQI) (Buysse et al. 1989) (Appendix 9), a focus group and sleep diaries (Appendix 7). The PSQI comprises nineteen items and seven clinically relevant domains of sleep difficulties. A meta-analysis conducted by Mollayeva et al (2016) reported high validity and reliability to measure quality and quantity of sleep. The six members of the behavioural intervention group completed this measure pre- and post-intervention.

It is essential before any intervention to foster a positive rapport with the group members (Nyumba et al. 2018). Therefore, I conducted a focus group before the intervention; this also complemented the quantitative assessment as I gathered in depth qualitative information regarding the participants. The aim of the focus group was to draw from personal, social and occupational experiences and the attitudes and beliefs the participants had regarding the sleep intervention. The focus group was beneficial to decipher the information collated from the literature review and to clarify the common themes experienced by this group population; for example, we discussed the topic of working within a highly emotive environment.

There was a consensus on factors associated with poor sleep quality and the education behind improving sleep. This gave me the opportunity to better understand the met and unmet needs of this group (Please refer to Appendix 11). A common theme was that the organisation was not taking into consideration the health consequences of the occupation, especially the impact on their psychological wellbeing. They identified there has always been a culture whereby one is "*weak*" or "*not committed*

to the role" if one cannot function without sleep and they experience challenges of not being able to "*switch off*" in the evening. Upon reflection, the focus group was an excellent technique to develop rapport and to collocate meaningful information relevant to the intervention to create a tailor-made intervention.

Case Formulation

For the case formulation process, I formulated a biopsychosocial approach to design my intervention. I conducted a group formulation by facilitating a focus group, to capture a shared understanding of needs and views. Whilst conducting the group formulation, I felt apprehensive regarding non-engagement of certain group participants and creating an environment which is not structured, for example deviating from the topic of sleep. Fortunately, the group formulation was a positive learning experience as everyone engaged. I collated data utilising the five Ps (please refer to Diagram 1); this provided the opportunity to integrate theory from the literature review with practice by capturing group members' insights on sleep behaviours.

Diagram 1: Presenting problem, Predisposing, Precipitating, Perpetuating and Protective Factors

Creating a formulation is a core skill for Psychologists in training (Bucci et al. 2021; Cole et al. 2011; Johnstone, 2018;). I had yet to experience a group intervention, therefore, this required me to challenge and be challenged. I valued the collaborative approach to foster a positive rapport within the group, however aspects of this were difficult as some people would engage more than others.

There are many confounding variables which could support this including the personality style and cognitive biases associated with group members (Corrie & Lane, 2010; Kuyken et al., 2009). When conducting the group formulation, I became mindful of the cognitive biases associated with the process including the courtesy bias (Corrie & Lane, 2010). I found that some of the group members have the tendency to give an opinion that is more socially correct, to avoid deviating from the group's opinion. For example, the dominant characters in the group might answer a question and when asked for group feedback the others would agree with the statement.

To develop the aims of the intervention, I gained an insight into the factors involved in sleep quality and quantity which are associated with the profession. The information collated formed a consensus about experiences which helped tailor the intervention. During the focus group, one participant commented "*we do not talk or reflect within the profession... we just get on with it*". However, I wanted to emphasise that the case formulation was an opportunity to ask questions and not to provide solutions. The case formulation journey enhanced fundamental skills including the maintaining factors of limited good quality and quantity sleep (Mason, 2018). The case formulation process enhanced my skills in "following" (Miller and Rollnick, 2012), whereby I strengthened my skills by listening attentively to the group's issues to understand their viewpoints. I found this a valuable skill to adopt which allows the practitioner to keep an open mind (Mason, 2018; Miller and Rollnick, 2012).

The process of group formulation created a shared understanding of the challenges each group member associated with sleep. Creating evidence-based interventions was a key competency for me to develop (Johnstone, 2018). I found the group formulation enhanced rapport and allowed space to reflect. One surprising element of the group formulation was how well individuals connected as a group and the way certain conversations around sleep had evolved. The formulation allowed me to develop structure and consistency of the intervention and two group participants reported they felt the intervention was tailored to their needs and not based on what the practitioner thought their needs were. Upon reflection, it was insightful to see how the profession do not value sleep as a health behaviour and how paramount sleep is to the occupation including their safety.

Theory

Two theoretical components were integrated into this intervention to develop an evidence-based framework (Please refer to Appendix 12 for further information).

Table 1: The Health Belief Model (Strecher and Rosenstock, I. M. 1997; Skinner, Tiro and Champion, 2008; Grandner, 2017) *and Application to Sleep*

Health Belief Model (Strecher and Rosenstock, I. M. 1997; Skinner, Tiro and Champion, 2008; Grandner, 2017).	
Perceived Susceptibility	The individual must develop a belief that the individual is susceptible to the adverse effects of insufficient sleep.
Perceived Severity	Believing that the adverse effects are severe enough to warrant action and a threat to the individual's health is serious; providing psychoeducational material on the health consequences of lack of sleep.
Perceived Benefits	Believing that the action will mitigate the adverse effects; engaging in good sleep hygiene behaviours and implementing these at every opportunity will have a significant effect on physical, psychological and cognitive health and wellbeing.
Perceived Barriers	Believing that the barriers are significantly reduced and protective factors are enhanced; ensuring the individual implements good sleep hygiene measures in an individualised manner in line with their lifestyle and routine.
Cues to action	Engage in the action and the action is under individual control; formulate an individualised plan to execute the behaviours.

Self-efficacy	Belief that the individual can accomplish the behaviour; reflecting on past behaviours, vicarious experiences of other group members, encouragement from the group and physiological feedback.

Table 2: Theory of planned behaviour (Ajzen, 1985; Fishbein & Ajzen, 2011; Sheeran, 2002; Webb & Sheeran, 2006).

The intention to perform a behaviour is influenced by 3 components: attitudes, subjective norms and perceived behavioural control (Ajzen, 1985; Fishbein & Ajzen, 2011; Sheeran, 2002; Webb & Sheeran, 2006).	
Attitude	Favourable attitude to perform the behaviour health benefits and functioning in a highly emotive environment. Will they like engaging in this behaviour? Is it good for them? Important to explore their attitudes regarding a good quality sleep. It was important to discuss expectations and skill building exercises to implement good sleep hygiene. Curious regarding the science of sleep and because the participants were young and health conscious as demonstrated in the formulation they were interested in the material.
Subjective norms	Forming a belief of what others think of good sleep hygiene behaviours; including group members engaging in regular good sleep hygiene behaviours and noticing the positive effects of the behaviour.

Perceived behavioural control	The belief that you have control over a behaviour. Sleep is a function and we cannot do without sleep, however, the quality and restorative sleep you get can enhance health significantly.

Intervention

The Intervention aimed to increase sleep quality and quantity in a police population. The objective of the intervention focused on targeted sleep hygiene education, modified stimulus control, coping, rumination and maintenance of sleep improvements over time (Walker; Rasch & Born, 2013; Worley, 2018). Throughout the behaviour change intervention, I adhered to ethical and legal guidelines and incorporated boundaries, within the guidelines of The British Psychological Society Code of Conduct and Ethics (2017) and the Health Care Professions Council (HCPC) Standards of Conduct, Performance and Ethics (2012), for example, each participant provided verbal consent to engage in the intervention and for this to be acknowledged as part of my professional doctorate. I remained up-to-date with evolving evidence base and relevant policy pronouncements. The target population consisted of six members of the police force who attended four sessions over a four-week period, each session lasting approximately one hour. Each police officer engaged in a virtual group via *Zoom* due to COVID-19 protection measures.

Week One:

1. Education around sleep; healthy sleep, circadian rhythm and sleep stages
2. Sleep hygiene: implementing individualised sleep hygiene measures to improve sleep
3. Developing sleep schedules
4. Introduction of sleep diaries for measure and evaluation

The first session, I become cognisant of the "self", in particular my values and fears. For example, I have felt a progression within my therapeutic self and the qualities I value as a practitioner including concepts within Acceptance and Commitment Therapy (Harris, 2019; Hayes et al. 2009) ensuring the

intervention is meaningful. In particular, the importance of establishing and maintaining a positive rapport with the group (Leach, 2005; Mason, 2018). Drawing from experiences, I found an increase in the intervention outcomes when exposed to a supportive and understanding environment.

To set the agenda of the behaviour change intervention (Mason, 2018) I presented material regarding circadian rhythm and sleep stages (Appendix 13). Research has suggested sleep hygiene education may help to increase sleep quality and quantity (O'Donnell & Driller, 2017; Stepanski & Wyatt, 2003). However, within the group, there was certainly not a knowledge deficit; they demonstrated the physical and psychological effects of a lack of sleep, as they have experienced this directly. The group reported there was a behavioural deficit, thus a number of behaviour change techniques were applied to this intervention reinforcing the factors of the COM-B model (Michie, 2013).

Implementing good sleep hygiene measures can significantly benefit physical and psychological health and wellbeing (Jenkinson et al. 2020). Sleep hygiene is comprised of many behaviours including; creating a healthy sleep environment. The implementation of these behaviours can be described by the COM-B model (Michie, 2013). I found discussing basic sleep hygiene measures was paramount to the intervention. Firstly, we discussed how we could implement some of the sleep hygiene measures utilising SMART Goals. Literature suggests identifying personal goals to interventions can increase rapport with the individual and can have a profound effect on behaviour change (Hamovitch, Choy-Brown & Stanhope, 2018).

I found utilising behaviour change techniques including habit formation and behavioural practice or rehearsal, whereby we prompt rehearsal and repetition of the behaviour in the same context repeatedly so that the context elicits the behaviour for example, adopting a consistent sleep schedule, unwinding with a hot bath and avoiding caffeine and nicotine after 6pm. The first session was fascinating to hear the participants' perception and experiences on adopting good sleep hygiene measures; for example, they reported to have worked a shift (12pm - 10pm), arrive home at around 10:30pm and instantly have a cup of coffee. We used a behaviour change technique called reciprocal inhibition whereby we would replace this behaviour for either a decaffeinated coffee or a glass of water or juice. Each of the participants displayed motivation in designing their own personal plans of developing a good sleep hygiene routine.

Week Two

1. Check in and review sleep diaries
2. Introducing the COM-B Model for behavioural support; applying HBM and TPB theoretical models
3. Producing individualised sleep hygiene measures focusing on COM-B Model and Behaviour change techniques

During week two, the group reviewed the sleep hygiene techniques and their sleep diaries. Most of the participants reported engaging in some of the sleep hygiene measures, however, they reported it was difficult to implement, as it was such a new routine. I felt this week would be good to introduce behaviour change techniques from the COM-B model (Flannery et al. 2018; Michie, Atkins & West, 2014; Webb & Sheeran, 2006). During this session we discussed the physical, psychological capabilities, reflective and automatic motivation and physical and social opportunities which are enablers and barriers to engaging in good sleep hygiene (Please refer to Table 3).

Table 3: Interacting factors COM-B Model (Michie, 2011).

Three interacting factors and subcategories	COM-B MODEL for Sleep Intervention (Michie, 2011)
Capability	
Physical Capability	Skills to perform appropriate sleep hygiene measures; executing the sleep hygiene the individual's lifestyle Physical health conditions; decrease in fatigue, pain and symptoms of existing lon
Psychological Capability	Increasing cognitive ability by setting goals; creating a plan and remembering to e Developing a sound knowledge, appropriate skills and awareness of good sleep hy Research and literature to expand their knowledge on implementing good sleep h Ability to plan to engage in good sleep hygiene measures
Motivation	
Reflective Motivation	Increase knowledge and understanding of the behaviour; developing a positive be hygiene measures. Ensuring the individual is aware on how good sleep can have a and wellbeing. Building the self-efficacy to engage in good sleep hygiene measures. Providing Feedback, encouraging self-monitoring and setting goals. Identifying antecedents which prevent good sleep hygiene Beliefs about consequences of lack of sleep; adopting the Health Belief Model. Having strong intentions to engage in good sleep hygiene behaviours

Automatic Motivation	Encouraging healthy habit formation and building a good sleep hygiene routine Allocating rewards and incentives when engaging in sleep hygiene behaviours Overcoming poor sleep hygiene habits
Opportunity	
Physical Opportunity	Environmental changes to promote health sleep. Attending a group intervention to promote good sleep hygiene Occupational Health and organisations to promote good sleep routine including sl Lack of access/financial resources to promote basic sleep hygiene including a good is a main function for sleep and appropriate blinds/curtains to control light.
Social Opportunity	Encouragement from social support to enhance motivation for sleep hygiene Influence of cultural and societal norms around sleep hygiene; age, culture and illn Social support for engaging in sleep hygiene behaviours from family, friends and t

I observed in the second week a small shift in attitudes from the participants. I utilised principles from Acceptance and Commitment Therapy (Harris, 2019; Hayes et al. 2009) whereby I noted my thoughts regarding the participants but did not let them become a distraction. For example, I noticed that some participants would reflect on the negatives of implementing these measures into their daily routine, thus, I acknowledged their challenges and focused on the practicalities rather than implementing unrealistic behaviours to implement good sleep behaviours; for example, I reiterated that implementing behaviour change is a process, which takes time. I found applying the theory of self-efficacy (Bandura, 2004) was beneficial at this stage of the intervention to promote motivation and to minimise resistance (Wolfson et al. 2015). For example, I wanted to increase their perception of their own ability to implement sleep hygiene behaviours and utilised performance outcomes and verbal persuasion by reflecting on past successes and using encouragement. Upon reflection, the social support was beneficial within a group intervention, however, I felt each human being is unique and the information needs to target the individual as it may not apply to everyone.

Week Three

1. Check in and review sleep diaries
2. Rumination
3. Implementing a good bedtime routine: focusing on activities to engage in before bedtime
4. Relaxation techniques to calm the mind

I felt my role in the group intervention was to tailor the intervention to make sense within the participants' own frames of reference, therefore, following the case formulation process I noticed that limited sleep quality and quantity was associated with rumination. Research has reported a correlation between rumination and poor sleep quality, thus preventing restorative sleep (Clancy et al. 2020; Guastella and Moulds, 2007; Thomsen et al. 2003). Therefore, I wanted to present material to the group on rumination, to enhance understanding of the concept, discussing their experiences and coping strategies associated with rumination. Relaying this information to the group, I felt I encouraged participants to problem solve and find ways to prevent rumination.

The consensus of the group was to introduce relaxation techniques in the evening. The participants all agreed to conduct daily prompts to engage in relaxation techniques including mindfulness mediation before bed. Thus, we incorporated a ten-minute mindfulness exercise body scan (please see Appendix 14 for further information). Literature has reported that mindfulness and body scan exercises can improve quality of sleep (Black et al. 2015; Hubbling et al. 2014; Nanthakwang et al. 2020). The participants were signposted to applications including *Headspace* for further support (Headspace, 2022). We also discussed ways of implementing a good bedtime routine, as literature suggests to not engage in high-stimulus activities before bedtime; reading and relaxation techniques were the most popular chosen by the participants.

Week Four

1. Check in and review sleep diaries
2. Revision and summary on the previous sessions
3. Using behaviour change techniques to implement enduring behaviour change
4. Discussion regarding long-term behaviour change strategies

The final sessions focused upon summary of the sessions and using behaviour change techniques to implement enduring behaviour change and to provide feedback on the intervention. Much emphasis was focused upon the journey of change and creating small steps for enduring behaviour change. We focused predominantly on the sleep hygiene measures which worked for the individual, contingency plans and protective factors. The discipline of health psychology aims to generate and test theory and translate these theories into practice, which has always been a passion of mine. Conducting this intervention has enhanced my repertoire of techniques to deliver group behaviour change interventions. Utilising Gibb's (1988) reflective model has helped me to recognise my strongest skills and those that require further development. I will endeavour to take a proactive approach to using

this greater insight into my professional abilities. Upon reflection, during this intervention, I felt the four sessions allowed time for a client-practitioner relationship develop and promote behaviour change.

Outcome Evaluation

The silent sleep loss epidemic is a public health challenge we face (Walker, 2017). The intervention illustrates the necessary screening and intervention to detect and treat sleep disorders in police officers (Habersaat et al. 2015; Magnavita & Garbarino, 2017). Overall, the group actively engaged in each group session. Six participants enrolled and attended each four-weekly session. The subjective measure in the form of the Pittsburgh Sleep Quality Index (PSQI) (Buysse et al. 1989) was completed pre and post intervention, the PSQI provided valuable information that is necessary to evaluate the intervention. The main findings reported that there was a reduction with their overall global sleep scores (Please refer to Appendix 10 for further information). The verbal feedback I received from the participants was overwhelmingly positive. The participants expressed how the organisation implementing a health and wellbeing group intervention made them feel like the organisation cared. They did report that some of the material was complex, however, the interactive sessions were presented in a way where they could easily apply this to themselves.

A follow up was conducted via *Zoom* a month post-intervention to provide further evaluation (Appendix 10). During the follow up meeting, the group members reported high motivation and confidence to implement sleep hygiene measures; this indicated increased self-efficacy for engaging in healthy sleep behaviours. One participant reported they found it challenging implementing some sleep hygiene measures especially having children and work commitments; they felt a routine could not be adhered to in a consistent manner. However, lifestyle and occupational commitments are identified as a barrier within the literature (Leng et al. 2014; Madrid-Valero et al. 2022; Orzeł-

Gryglewska, 2010). The majority of the participants demonstrated motivation to engage in positive sleep behaviours.

Reflections

I valued building a positive rapport with the group members. A part of enhancing a positive rapport with the group members strongly includes effective communication skills (Lang, 2012). However, since the pandemic there has been a vast shift in connecting online via *Teams* or *Zoom*. I have honestly found this approach challenging. Especially because I am aware that building a rapport involves effective communication skills. I found when you are in the online world we are reliant on limited elements of communication, therefore, not being able to develop a strong social connection with the participants. Therefore, I do feel conducting the intervention face-to-face would have been beneficial on intervention outcomes.

Prior to the intervention I envisaged that the target population group would have insight into Health Psychology, however, Health Psychology as a discipline is not represented within the Police. I was apprehensive they would not engage with new material, nevertheless, the intervention was well received evidenced by the engagement remaining stable throughout. Applying Health Psychology models into a new environment (Police), challenged me to actively engage in reflection-in-action for example, to be mindful of the therapeutic interaction and whether they are conceptualising the material presented and to identify my own feelings and thoughts (Bennett-Levy and Thwaites, 2007). Also, considering the correlation in the literature reporting that shift work is one of the major

contributing factors to poor sleep quality and health outcomes (Fekedulegn et al. 2016; Tamagawa, Lobb & Booth, 2007), future interventions should focus on delivering evidence-based sleep interventions to the police force, which include education on the health and safety consequences of shift work and screening for sleep disorders, to promote their physical and psychological health and wellbeing (Fekedulegn et al. 2016).

The intervention allowed me to enter novel situations with a critical introspect, to tailor the intervention and to make informed decisions. This was constantly measured throughout, which meant that sometimes I felt I was not being my authentic self-due to overthinking whether I was presenting the material correctly. Although conducting a group intervention was a new experience for myself, I do value the importance of this type of intervention as I believe group interventions provide a solution for treatment of multiple individuals simultaneously, especially when the group articulate mutual aims. I relished the opportunity to develop a positive rapport with the group participants, enhancing both personally and professionally. Thus, my confidence has significantly heightened in delivering group interventions and I will apply these skills to future group work.

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Chapter 3 - 8002: Teaching and Training Competency

The aim of this competency was to select two examples of teaching and training opportunities. The first piece of work comprises of a teaching and training case study, where I conceptualised, planned, designed and delivered a teaching and training programme for the biopsychosocial approach in Health Psychology within an NHS organisation. The second piece of work is a teaching and training diary which includes reflections on my growth as an educator, designing, implementing and evaluating teaching programmes associated with Health Psychology knowledge and theory.

Learning Outcomes:

4. *Demonstrate the systematic acquisition and understanding of teaching skills and professional practice.*

5. Plan, deliver and critically evaluate a training programme for the development of new knowledge, applications or understanding in Health Psychology.

6. Carry out teaching to contribute to the development of new knowledge, applications or understandings of Health Psychology.

Chapter 3.1 - 8002: Teaching and Training Competency Case Study

Professional Doctorate in Health Psychology

"*An investment in knowledge pays the best interest.* – Benjamin Franklin"

Introduction

The following case study illustrates how my teaching and training competency was designed, planned and delivered based upon assessment of learning needs and theoretical principles. To enable this to be achieved, the department of education at the Royal Blackburn Hospital provided me with the opportunity to engage and formally teach Final Year Student Nurses from the University of Central Lancashire (June and July 2020) by increasing their knowledge of health psychology principles as applied to patient care. I was delighted for this opportunity to deliver and fulfil my competency in the teaching and training case study teaching session to student nurses; I am passionate about incorporating health psychology into a clinical multidisciplinary setting and by enhancing their psychological knowledge with the hope they will cascade their learning into the clinical environment.

Setting

The teaching sessions were conducted at Royal Blackburn Hospital in the United Kingdom. The teaching competency consisted of five sessions on the following topics; long term conditions and psychological health, applying the biopsychosocial model to health prevention/promotion, screening and diagnosis, applying the biopsychosocial model to adherence, self-management and treatment, stress management and communication in health care.

Assessment and Conceptualisation

Assessing learning needs is a fundamental element of designing a teaching programme (Grant, 2002; Grant & Stanton, 2000). Barley (2016) postulated that the knowledge of health psychology is limited in undergraduate nurses, thus I was mindful the student nurses will vary in their knowledge of health psychology, in turn influencing their motivation and engagement (Spencer, 2003). Knowles (1984) highlighted to increase motivation and engagement in adult learning; the learning material has to be relevant, intrinsically motivating and goal orientated. The students in this case study were in the final year of their degree; it was presumed they are intrinsically motivated and self-directed to meet the learning outcomes of their course, thus, I was provided with the learning outcomes (Appendix 15) and guidance from their professional body (Royal College of Nursing) from the practice education department at the Royal Blackburn Hospital. Obtaining this information allowed me to tailor my teaching programme to make it relevant and intrinsically motivating for the students to progress in their education (Kaufman,2003; Knowles, 1984; Lave and Wenger, 1991).

Given the learning outcomes, I consulted with the practice education team who were mentoring the undergraduate nurses, to ensure my teaching programme was relevant and useful. Liaising with the education team was an invaluable experience as they were familiar with the undergraduate nurses' learning and interaction styles. I strongly believe in learning from experts in order to enhance your own development (Berliner, 2002), I had learnt so much from this, for example the head of the education department proposed that I engaged in more interactive methods such as incorporating case studies to enhance student engagement and attention. I also developed skills which made me more confident in public speaking and engaging with my audience to shape the learning approaches and experiences for the students.

According to Kaufman (2003) learners should contribute actively to the educational process. A benefit of working within a clinical environment, I obtained qualitative information regarding the undergraduate learning needs. I engaged in informal discussions with the undergraduate nurses which provided me with the opportunity to ensure my teaching programme was relevant and meaningful and searching for a "knowledge gap", thereby aiding retention (Jansen and Nicholl 2007; Mowforth, Harrison, and Morris 2005). Some emergent themes from qualitative assessment included

psychological processes of physical health, stress management and communication and reflection in health care; they also mentioned that *"most of the learning was predominantly in a clinical environment, and to provide us with the opportunity to reflect outside of the clinical environment would be beneficial".*

Assessment of learning was an ongoing process throughout my teaching programme, pre and post assessment forms were provided before the teaching session to capture quantitative information to measure learning progress (Appendix 18). I highly valued the assessment process. I felt I had gathered important information to allow my teaching to be intrinsically motivating and relevant to the undergraduate nurses. The assessment process allowed me to conceptualise and formulate learning outcomes (Appendix 7). From the literature, networking with health care professionals and my own experiences highlighted the importance of introducing health psychology into nursing education (Barley, 2016; Batterbee, 2019; Snelgrove, Tait & Tait, 2016).

Learning outcomes

Following the assessment process, I identified learning outcomes for each session (Appendix 7). I incorporated Bloom's Taxonomy (Bloom et al. 1965) to classify each learning outcome and incorporate synthesis, evaluation, application and obtaining knowledge to introduce Health Psychology into nursing, introducing the biopsychosocial model to patient care and to relate Health Psychology theory to clinical practice.

Planning

Learning is an active process, thus it is essential to develop knowledge of theoretical underpinnings of learning to enhance the overall learning experience of the undergraduate nurses (Spencer, 2003). Adult learning is a multi-faceted process whereby an individual's learning history can include their experiences, environment and the interaction between them (Alghasham, 2012; Lesmes-Anel, Robinson & Moody, 2001). A burgeoning amount of literature exists on adult learning styles (Aliakbari et al. 2015; Felder & Brent, 2005; Ferguson & Day, 2005; Howatson-Jones, 2010; Rassool & Rawaf, 2008). Nevertheless, when thinking about adapting various learning styles to maximise learning outcomes, it was important I incorporated various learning styles into my teaching to accommodate for differing needs or preferences. Thus, a variety of theoretical underpinnings including; cognitive,

constructivist, experiential, behavioural and humanistic were incorporated throughout this teaching programme (Honey and Mumford, 1986; Maslow, 1970; Spencer, 2003).

Before designing the teaching programme, I was apprehensive regarding how I incorporate the learning styles of the students considering each individual has a mixed ability. Research by Rogers, (1986) suggests that if you implement a multi-resource of learning strategies, including incorporating an interactive approach and demonstrating clear objectives, it can accommodate various learning styles. Furthermore, I implemented both didactic and interactive student-based learning styles (Bruner, 1960; Honey and Mumford, 1986; Kobl, 1984). The didactic method was adopted as it was important that I embedded context and knowledge to the teaching material, due to health psychology not being integrated within the undergraduate nursing curriculum; additionally, this approach allowed for a more standardised presentation of the material and an effective method of delivering a substantial amount of information within a limited timeframe. Indeed, the literature and constructivist theories suggests that a combination of interactive and didactic teaching methods can further supplement the learning process by students establishing meaning through active engagement (Elliott, 2000; Fry, Ketteridge & Marshall, 2003; Gregory, 2002; Jarvis, 2010; Vygotsky, 1978). Therefore, I complemented the didactic approach by incorporating interactive student-based learning via facilitating discussions, case studies and videos as studies suggest these approaches are effective in increasing engagement and promotes critical thinking and reflection, one aspect which was highlighted as important during the assessment process (Elliott, 2000). Although, whilst using the interactive method I observed more participation, the didactic method is useful especially when the topic is a new concept to the majority of the students, as the case with Health Psychology and the undergraduate nurses.

The concept of experiential learning has remained a focus in adult education, as this approach is more relevant and engaging for students (Kolb, 1984). Kolb (1984) postulates learning is most effective based on experiences, where one has to reflect, conceptualise and combine information and experiences for the learning to take place (Barton and Tistung, 2003; Kolb, 1984; Spencer, 2003). Kolb (1984) proposes four dimensions of learning: concrete experience, reflective observation, abstract conceptualisation, and active experimentation (Figure 1). Within nursing and health care education, Kolb's (1984) associated learning styles inventory has been extensively utilized (Andreou et al., 2014; Cavanagh, 1995; McKenna, et al. 2018; Mitchell et al. 2015; Vizeshfar & Torabizadeh, 2018). I found encompassing Kolb's (1984) experiential learning activities to my teaching programme assisted learning to become self-directed and encouraged the undergraduate nurses to relate theory to their

own experiences of practice (Knowles, 1984). The concept of relating theory to practice is important in nursing education and encouraging the student nurses to draw on theoretical underpinnings and relate this to their own practice was beneficial during the learning process (Barley, 2016) (Figure 1).

Figure 1: Kolb's (1984) Experiential learning cycle

Honey and Mumford's (1986) learning theory has been proposed as an alternative for Kolb's (1984) Learning Style Inventory. Throughout designing my teaching programme I referred to Honey and Mumford's (1986) theory, which identifies four distinct styles or preferences that people use while learning. Research suggests that individuals have the tendency to adopt two learning styles or one

preferential learning style (Fleming et al. 2011; Honey and Mumford, 1986). Fleming et al. (2011) concluded that the preferred learning style for undergraduate nurses was a dual learning style: activist and reflector. In addition, Honey and Mumford's learning style questionnaire, expressed through Learning Style Questionnaire (LSQ) Theory, has been widely used as an instrument of detecting students' learning style in higher education (Duff & Duffy, 2002; Fleming et al. 2011; Kappe et al. 2009). The head of the educational department mentioned he had used the Honey and Mumford questionnaire with the undergraduate nurses and concluded undergraduate nurses have the tendency to relate to a more activist and reflective style of learning, supporting research by Fleming et al. (2011). Throughout designing my teaching programme I referred to Honey and Mumford's (1986) theory, and I adapted my teaching programme incorporating a majority of information based on activist and reflective style, however, I did incorporate theorist and pragmatist approach; this was to ensure I encompassed a "not one size fits all" conceptualisation (Table 1).

Table 1: Honey and Mumford's (1986) Learning styles, cycle of learning, learning style characteristics and learning activities implemented in the teaching programme with undergraduate nursing students.

Learning Style	*Cycle of Learning*	*Learning Style*	*Learning Activities*
Activists	**Experiencing**	○ Activists are those people who learn by doing. ○ Have an open-minded approach to learning ○ Involving themselves fully and without bias in new experiences	○ Problem Solving T ○ Group Participatio Discussion ○ Case studies ○ Applying theory in practice
Theorists	**Concluding**	○ Like to understand the theory behind the actions. ○ They need models, concepts and facts in order to engage in the learning process. ○ Prefer to analyse and synthesise, drawing new information into a systematic and logical 'theory'.	○ Clear aims and objectives present the beginning of e session ○ Explaining theorie models of health psychology ○ Allowing time for questions

Reflectors	**Reviewing**	○ Learn by observing and thinking about what has happened ○ Prefer to watch from the sidelines. ○ Prefer to stand back and view experiences from a variety of perspectives	○ Discussion ○ Time out - reflecti material ○ Feedback from otl ○ Exploring multiple components ○ Providing insight i the next teaching session
Pragmatists	**Planning**	○ Need to be able to see how to put the learning into practice in the real world. ○ Experimenters, trying out new ideas, techniques and theories in practice.	○ Task based - integ theory into practic ○ Encouraging to ap real world experie to theoretical con ○ Provide an understanding and awareness of how health psychology applies to health c

Nevertheless, literature into successful learning suggests personal characteristics of the teacher, including being enthusiastic, respectful and open minded can enhance the learning process and build a rapport with the audience, regardless of the learning style (Göncz, 2017; McKimm & Jollie, 2007; Rogers, 1989; Vaughn & Baker, 2007). The emphasis on the personal characteristics of a teacher correlates with the humanistic approach (Maslow, 1970; Rogers, 1989). Therefore, I delivered my teaching in a style which incorporated professionalism with a balance of being enthusiastic and empathetic with a focus to ensure I developed a rapport with the audience, focusing on empowering and interacting with students throughout their learning experience.

Whilst designing my teaching programme I was inspired by the “minimalistic” approach and I believe keeping information simple can enhance the learning process. Reflecting on experiences of being a student, I have admired the “minimalistic” approach and following on from a lecture on the professional doctorate (alternative ways of teaching) this provided me with the confidence to adopt a simplistic style to the design of my teaching. Adopting this approach was challenging, as at times I felt I was not justifying the concept correctly; however, previously when I have presented complex

information to an audience, I have found that one can increase disengagement and decrease the retention of knowledge. This principle can be described in the cognitive load theory (CLT) and the concept of working memory (Mayer & Moreno, 1998; Sweller, 1988). CLT reflects our cognitive architecture, whereby our brains can retain and process information for a limited time, thus, overcomplicating teaching material can increase disengagement (Sweller, 1988). An example where I eliminated cognitive overload and enhanced working memory was when I introduced the biopsychosocial model. I provided the nurses with worked examples and presented problems with partial solutions for them to complete. I also presented information in a way which was easily understood, utilising more visual presentation and less written material. I noticed the audience engaged in more eye contact and participated more frequently. I thoroughly enjoyed the process of designing my teaching material to suit my audience; it was essential I acknowledged that individuals learn in various ways and incorporated this into my teaching programme.

Delivery

To meet the requirements of the Teaching and Training competency I developed a five-stage training programme (Appendix 16; Appendix 20). Undergraduate nurses are involved in all stages of patient care from diagnosis to treatment, therefore this was an important opportunity to create awareness of Health Psychology principles and the biopsychosocial approach to health care (Barley, 2016). The sessions were conducted on a weekly basis and consisted of five sessions for a duration of one hour each. All the training material was planned and designed by myself. All training sessions were conducted at The Royal Blackburn Hospital auditorium. The students consisted of undergraduate Nurses (n = 20). During session four an observer from the practice educational team was present to observe for purposes of peer feedback.

I found the implementation of my teaching competency both rewarding and anxiety provoking in equal measure. Self-efficacy is essential to personal and professional development (Bandura, 1977; Mahler et al. 2017). On the first day of the teaching programme, I had feelings of low self-efficacy and continued to ruminate on how well I was going to execute my teaching programme. A strategy which eased my anxiety was preparation and organisation. For example, I arrived early to the auditorium to ensure the technology was working and I gathered my thoughts before I presented. As observed from previous teaching sessions, I believe building a rapport with your audience can enhance the learning process. Therefore, I aimed to develop rapport with the students by conducting an ice breaker session and allowed the students to set their own learning objectives to support their own goals and enhance

self-directed learning as highlighted by Knowles (1984). This was successful in not only connecting with the students but easing my nerves when presenting.

I presented the majority of my content via a *PowerPoint* presentation, as practically I could present information to an audience in the auditorium, utilising written, visual and auditory material to complement various learning styles. During the teaching delivery, I became acutely aware that learning is unique to an individual's needs, and I had noticed that some of the students would engage more in the group discussions and some would ask more questions when conducting more didactic methods. I found presenting in an auditorium learning environment is designed for a didactic approach to learning which was useful for presenting large amount of information to the students, nevertheless, engagement increased during more student-led sessions, therefore, in the future, I would conduct my training in a seminar room, as I feel this environment is designed to facilitate such a method. The time of day is also key factor in the learning process (Cooper and Richards, 2017). Throughout my teaching competency I had observed that student engagement was higher during morning sessions compared to those in the afternoon. I presented the first, second, fourth and fifth session in the morning and the third in the afternoon. I am aware there could be various confounding variables contributing to engagement, nevertheless, research has suggested that morning teaching sessions can result in increased productivity and problem solving (Cooper and Richards, 2017). Therefore, considering both the environment and timing of day can enhance optimal learning, this knowledge has promoted growth in designing my own teaching programme in the future.

The case study teaching method was adopted throughout my teaching programme. The case study method is a highly adaptable style of teaching, which facilitates interdisciplinary learning, increases motivation, problem-based learning and stimulates active learning (Bonney, 2015; Herreid et al. 2011; Jansen and Nicholl 2007; Mayo, 2004; Murray-Nseula, 2011; Snelgrove, Tait & Tait, 2016). One example where I introduced the case study method was during the biopsychosocial session. I proposed the biopsychosocial to demonstrate the students' levels of understanding and awareness of patient's psychological and social experiences, which in turn can help us to explore the lived experiences of patients to inform individual and empathic care (Cummings and Bennett, 2012; Sieglová, 2019). I presented two scenarios wherein one patient was diagnosed with hypertension and one was diagnosed with diabetes. The feedback from the students was how important it is to understand the psychological and social factors which could contribute to a patient's condition. These reflections were an example of research by Heale and Twycross (2018) who reported that case scenarios can shine a light on the holistic nature of, and further enhance, patient-centred care. Upon reflection, the case scenarios used in my teaching sessions built a rapport with the students and they

were more willing to ask questions accordingly. I referred back to my lecture on teaching and training at university *"Tell me and I forget. Teach me and I remember. Involve me and I learn" Benjamin Franklin*; this quotation resonated with me as to how relevant the application of case scenarios is to learning. Empirical research also supports this notion that if students create the knowledge themselves, the learning and retention of information increases (Bastable, 2008; Valiga, 2003). I have never presented case scenarios before, but I found them extremely useful to implement. I will most certainly be utilising this approach in the future.

A Socratic method was applied throughout the teaching programme to promote critical thinking and explore underlying presumptions; these skills are crucial within the area of nursing (Costa, Rensburg & Rushton, 2007; Dunn et al. 2013). Facilitated discussions are also a fundamental aspect of learning as they prompt critical investigation, reflection and gaining new insights and perspectives (Carnell, 2007; Kolb 1984; Wlodkowski,1999). An example of facilitating this method was during the communication in health care teaching, where I introduced questions to increase the students' ability to see concepts from multiple perspectives. For example, *"can communication as a skill be taught?"*. The students reported that critical thinking and reflective learning enabled them to explore situations in new ways and move further away from the medical model of clinical practice. The students' placement specialism ranged from surgery, emergency medicine, and community care, incorporating a diverse range of patient experiences (Appendix 17). As identified by Knowles (1984) and drawing upon Kolb's (1984) learning theory, adults bring a varied amount of experience and knowledge to the teaching programme. During my teaching sessions, it was clear that the students brought a wide range of experiences and knowledge and they could articulate multiple issues and perspectives with varying experiences of patient-centred care. Utilising discussions fostered a connection with the group and I found it to be an effective method to embed the information not only in students' everyday clinical practice but to inform my own professional development. It was fascinating to listen to their reflections of how health psychology can be applied to a clinical environment. This demonstrates how important interdisciplinary discussions are in patient-centred care as these discussions have the potential to enhance critical thinking, self-discovery, reinforce learning and promote personal and professional growth and development (Donovan et al. 2013). During each session, the students were

very engaged and it was truly inspirational listening to their reflections within a clinical environment, which in turn enhanced my own professional development.

Videos was also utilised as an interactive component. It was important I ensured the videos were brief and targeted on the learning goals, for the undergraduate nurses to remain engaged; this concept builds on the CLT (Mayer & Moreno, 2003) whereby information presented in a visual and auditory manner can enhance working memory and information acquisition (Mayer & Moreno, 2003). Meisel (1998) also supports this notion that the use of audio-visual materials capture the attention of the students and increase retention of the topic. Time was, unfortunately, a barrier during this part of the teaching, as I did on occasion have to place a time limit on the discussion. Nevertheless the use of videos enhanced group discussion and reflection on individual experiences, where the students would learn from each other. This concept supports Bandura's Social Learning Theory (2004) which highlights that learning can be reinforced by being in groups, peer encouragement and feedback which can be essential components to the learning process, and in turn the students are more satisfied with the learning experience (Bahn, 2001; Bandura, 2004; Jarvis, 2010; Thomas, 2012; Quinn, 2007). I found that it was useful to include group exercises based on the material discussed; not only did this help me grasp the level of knowledge obtained but the engagement levels were much higher, supporting theories from the literature that student nurses prefer discussion and activities in the learning process (Spencer,2003).

One stand-out point was when the students watched the video on effective communication in health care. Students stated how important it was to hear clarification from the patient and to view how other health care professionals implement patient-centred care. This draws upon the research conducted by Schwartz and Abbott (2007) highlighting that hearing patient's stories can lead to improvements in ways of sourcing information about patients. This also encouraged the undergraduate nurses to apply their own experiences and interpretations of patient-centred care in practice with one student stating *"it's reassuring to know that we are consistent in our approach to patient-centred care".* Introducing group discussions after activities and videos promoted reflective learning; this is a major component in the development and learning of undergraduate nurses (Gibbs, 1988). I found when the students engaged in reflection this helped them make sense of their own experiences; however, I did notice that the students would reflect on "critical events" including events which have happened during the pandemic, I expressed that to the nurses although reflection is important in every situation, it is essential to reflect on everyday workplace activities in healthcare

setting with their patients as this can further enhance meaning and understanding to their patient care.

Integrating theory with practice has been highlighted as a key challenge for the nursing profession within the literature (Barley, 2016; Benner, 2000; Cummings and Bennett, 2012; Janson & Nicholl, 2007). However, health-care professionals need to demonstrate regular use of a sound evidence-base and clear reasoning in interaction with patients (Aliakbari et al. 2015; Ferguson & Day, 2005). A challenging aspect to this teaching of theoretical models was demonstrating the need to balance the information giving and skills building. For instance, I found the didactic method of teaching was essential to cascade new theoretical information to the students; however, I was very sensitive to the non-verbal cues when utilising this method. I noticed some individuals would become distracted, thus I noticed I had the tendency to rush information to keep them engaged. Research has highlighted that adult learning attention span decreases after 15-20 minutes of learning due to two factors including working memory and interference (Jeffries, 2014), this is especially important when presenting new information and concepts to the audience (Cowan, 2008). Upon reflection, during future teaching opportunities, I would take a break from the teaching material and leave a sufficient amount of time for the audience to process the information presented and sought feedback to check their understanding of the material.

Nevertheless, I found when the students elaborated on their own "real world" experiences, this made a positive contribution to acquiring new theoretical knowledge, as they could demonstrate a further understanding in applying theory to their own practice (Kolb, 1984). This supports the Information Processing Theory, whereby in order for meaningful learning to be achieved, students must relate the new material being learned to previous schemata (Bastable, 2008; Omrod, 2003) and Batterbee (2019) who suggests psychological content must not be diluted and taught in a manner which is simple to comprehend, thus emphasising on the importance of applying real-world examples to theoretical learning. Therefore, in the future sessions I will be sure to incorporate this style of learning and present more interactive than didactic methods, which are relevant and meaningful to the students when presenting theoretical material.

Evaluation

Evaluation is an integral part of personal and professional development and is a key component to ensuring good practice (Husain & Khan, 2016; The British Psychological Society, 2008). To collect

effective evaluation of my teaching programme I gathered formative data from self-reflection, student assessments, peer observation and informal student discussion feedback. Upon reflection, the evaluation part was the most disquieting aspect of the teaching process. I value feedback; however, I do have the propensity to view feedback as personal. To minimise this, I deliberately viewed the feedback as constructive and an opportunity to personally and professionally develop (Henderson, Ferguson-Smith & Johnson, 2005).

In order to capture the learning experience of the students, student feedback was obtained in the form of formal assessments (Appendix 18) and informal discussions. Student feedback was invaluable as they have direct learning insight (Benton and Cashin 2012). I administered an evaluation assessment (Appendix 18) to provide feedback for both content and delivery of the teaching sessions. All 20 students completed the feedback. The pre and post assessment questionnaires indicated an increase in knowledge (Appendix 18). I was mindful that I only received a small amount of qualitative feedback. One explanation may be due to the length of the questionnaire, as research states when a questionnaire is too long, it can result in respondent fatigue effecting the quality of the data received (Lavrakas, 2008). I am very grateful for everyone who completed my feedback. I was apprehensive, as health psychology is a completely new topic for them; however, it was extremely positive. The positive comments were encouraging. They validated my choices of style and content, increased my confidence and self-efficacy (Bandura, 2004). For example I feel articulating information in a minimalistic manner and by not overcomplicating material, which can be challenging for me, has shown to be an effective method. I also collected feedback from a Practice Education Facilitator for the student nurses', they observed one session and provided feedback (Appendix 19).

One important aspect of obtained feedback was informal discussion I gathered in the breaks and at the end of each session. This was extremely insightful, as I obtained further qualitative feedback including the awareness the student nurses have built around health psychology; they appreciated the significance of considering psychological dimensions to health care and how important it is that we work within a multidisciplinary team. Furthermore, they discussed finding interaction with materials taught and space to discuss and share stories helpful to the learning process. Some recommendations for improvement were based around incorporating mental health conditions. I escalated this feedback to the education department as feedback for future teaching opportunities for the students.

I engaged in continuous self-reflection throughout the teaching competency. This allows me to consider and reflect on my own role and understand my experiences, within a context that is based on accurate assessment of my impact of self (Alger, 2006; Silvia & Duval, 2001; The British Psychological Society, 2017). The greatest learning was derived from the fact that I lacked self-belief and the tendency to focus on what did not go very well, instead of what did work well. The ability to analyse one's strengths, weaknesses and capacity to manage unfamiliar situations are essential to professional development (The British Psychological Society, 2017), although at times this has proved to be a difficult task for me, as on occasion I fluctuated between feelings of accomplishment and achievement and feelings of low self-efficacy. What helped when feeling low self-efficacy and rumination was ensuring I worked smarter and not harder and to ensure I accepted the positive feedback I received (Gabrieli & Preston, 2003).

Considerable overlap was evident in feedback from both the students and the peer observer, particularly around good interactions and rapport with the group, encouraging and supporting them in their learning. I was delighted to receive a further invitation to teach in the future, as I feel health psychology has been recognised as a discipline within a health-care setting. Teaching health-care professionals is an essential component to modern day healthcare (Spencer, 2003). Sharing knowledge between professions is an excellent way to enhance best practice and high-quality patient-centred care. It is important for me to cascade teaching sessions in health psychology to a wider clinical team; having the opportunity from the education team to be invited back to teach was a great achievement for me. This teaching opportunity highlights how essential health psychology is in a multidisciplinary team environment for enhancing patient-centred care. I believe working with others is imperative to success and can enhance interpersonal skills, which I am very keen to do as it can provoke discussion and critical thinking (Thomas, 2012). I have learnt a significant amount as to how my teaching style and characteristics, including utilising a minimalistic approach, student orientated and interactive sessions with a combination of critical thinking and reflective discussions can really enhance the teaching session. I will most certainly be making use of these approaches in the future. I am thoroughly grateful for this teaching experience, and I have learnt a significant amount from the process which I will cascade into future teaching sessions.

Overall, the teaching case study was a positive experience. I now believe through self-reflection and the completion of the reflective diary, new skills have been established, new networks and professional relationships with the education team have been developed, and a comprehensive repertoire of teaching theories has been obtained. The reflective teaching process allowed learning

to be embedded into my practice, which in turn, positively influenced the delivery of my teaching material. I thoroughly loved this experience and the students were a delight to teach. I always welcome the opportunity to broaden and enhance my professional knowledge and development. The teaching opportunity has allowed me to grow both personally and professionally. Through completing this reflective case study, it has visually laid out the achievements, opportunities and challenges which I have accomplished throughout the teaching competency and enhanced my confidence to achieve, succeed and believe in myself when engaging in future teaching opportunities. All the skills which I have acquired throughout this teaching competency will be an ongoing learning experience. I am extremely motivated to continue teaching Health Psychology throughout the professional doctorate and beyond.

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Chapter 3.2 - 8002- Professional Doctorate - Teaching and Training Reflective Diary

Introduction

The art of reflection during my teaching and training competency has certainly enhanced my teaching practice and has been an essential component for my personal and professional development; allowing me to consider and understand my experiences, comprehend my own learning process and develop an accurate assessment of my impact of self (Silvia & Duval, 2001; The British Psychological

Society, 2017). Indeed, the need to be reflective is a central tenet for trainee Health Psychologists. As such, reflections will be shaped around experiences of teaching and training I have encountered, the professional skills I have developed whilst drawing upon theory and practice guidelines from the British Psychological Society (BPS) (2017), incorporating an overall self-reflection of my teaching opportunities (Bolton, 2010; Gibbs, 1988; Schön, 1983). During my teaching and training competency I have developed considerable knowledge, engaged in a process of continuous learning alongside acquiring increased self-efficacy, formed positive working relationships and developed within the area of assessment and delivery of teaching, enhancing my confidence in future teaching opportunities, which I express a significant amount of gratitude for.

This reflective process has informed the development and delivery of my teaching and training experiences. Part of my role in the NHS has been to engage and formally teach a variety of health care professionals and I will continue to actively seek opportunities to develop my teaching and training competency during the Professional Doctorate and beyond. However, I will be focusing on four specific teaching opportunities in this reflective diary including; teaching student nurses incorporating a health psychology/biopsychosocial approach into a clinical environment, teaching junior doctors on smoking cessation, stress management teaching to non-health care professionals within an educational setting and teaching junior doctors from the University of Manchester on behaviour change conversations. The following teaching diary will demonstrate three types of reflection; reflection-on-action (after event thinking), reflection-in-action (thinking while doing) and reflection-for-action (thinking before doing) incorporating a multifaceted approach by encompassing cognitive, metacognitive and affective aspects of teaching (Farrell,2004).

February 2020 - Junior Doctors - Behaviour Change/smoking cessation

Part of my role is to teach and train health care professionals to look through a lens that is based in prevention rather than treatment/cure, implementing the framework of the “Ottawa Model” (Reid et al. 2010) (See Table 1), in line with the NHS 10-year plan (2019) and incorporating making every contact count into my daily practice. I was approached by the Postgraduate department at the Royal Blackburn Hospital to deliver a session on Smoking Cessation for Junior Doctors on their induction day in February 2020. I delivered two sessions to 48 junior doctors.

The literature highlights the invaluable evidence of doctors delivering smoking cessation interventions can increase overall quit rates and enhance promotion of health and prevention of non-communicable diseases (Department of Health, 2001; Richmond, 1999; Roddy, Rubin & Britton, 2004; West, McNeill & Raw, 2000). Nevertheless, despite the good evidence of delivering brief smoking cessation interventions, in contrast to other aspects of preventive medicine, teaching on smoking cessation techniques and nicotine addiction in medical school is limited (Roddy, Rubin & Britton, 2004). The NHS Ten Year Plan (2019) proposes "*More NHS action on prevention and health inequalities*", ensuring employers of the NHS will make a significant contribution to making England a smoke-free society; training doctors can contribute to the implementation of this. Therefore, this was a prime opportunity to provide teaching to junior doctors to deliver brief behaviour change/smoking cessation interventions within an acute medical setting.

Table 1: Ottawa Model for Smoking Cessation (NHS ten-year plan, 2019)

Ottawa Model for Smoking Cessation (NHS ten-year plan, 2019)

The Ottawa Model for Smoking Cessation in 120 hospitals across Canada identifies the smoking status of all admitted patients, followed by brief advice, personalised bedside counselling, timely nicotine replacement therapy and/or pharmacotherapy, and follow-up after discharge. It improves long-term quit rates by 11%28. The Royal College of Physicians has modelled the impact of implementing the Ottawa Model for Smoking Cessation intervention within the NHS.

The teaching session was designed in collaboration with the Smoke-Free Service manager (Appendix 21). The attendees were 48 junior doctors over 2 sessions each lasting approximately 40 minutes: 30 minutes for delivery and 10 minutes for questions. Both sessions were conducted at the Royal Blackburn Hospital auditorium. This type of teaching environment is a preferred approach within medical education, especially due to the didactic method being the most preferred method of delivery within the field of medicine (Kloek et al. 2012). The postgraduate department utilised the Honey and Mumford (1986) Learning Styles Inventory/Questionnaire and reported medical students have the tendency to adopt a theorist approach to learning. This would explain when talking about the research and NICE guidelines for behaviour change they would be more engaging in the form of asking more questions However, I noticed when applying this method it can, on occasion, encourage a passive learning environment, which affected their level of engagement. Research has highlighted that, within medical education, learners need to acquire learning skills which they can take beyond junior-doctor level (Kloek et al. 2012), thus, emphasis is required on the learner-centred approach. Kolb (1984) highlights that learning is a process of adapting; meaning the presenter's perceptions and thoughts should be adapted to the learners' responses and reflections. Therefore, I decided to incorporate a complementary mixture of both interactive and didactic teaching methods, as I found this to be more effective for both the learners and I. A learning point here was that although you assess your audience prior to presenting you must always be open minded and adapt within the learning environment, engaging in more reflection-in-action (Schön, 1990).

Drawing upon Kolb's learning model (1984) learning is considered as a cycle of reflection on experiences. Experiential learning emphasises the importance experience plays in the learning process, which can assist in cognitive growth and learning. Considering this, I encouraged the junior

doctors to reflect on their own experiences of behaviour change conversations with regard to smoking cessation. For example, they facilitated discussion embedding the information of their own everyday practice; they could acknowledge the importance of engaging in these conversations and reframed it as an essential requirement in chronic disease management by which every smoker needs to be identified. I was also able to provide examples and relate the similar experience they had encountered due to working within the same clinical environment as them. Knowles (1990) identified providing examples which are relevant to the group's own practical experiences can enhance motivation and engagement. Although a rapport was built with the audience, I found one challenging aspect to this teaching session was to make a learning community within a short space of time, for example when you lead one teaching session with a group you do not develop a rapport with the students as much as you would with continued sessions. I found throughout this experience that building a connection with your audience is a central tenet of enhancing engagement.

One surprising element of this teaching session was that the feedback was incongruent with how I felt I was presenting. I was apprehensive about receiving the feedback, however, the presentation was well received by the junior doctors (please refer to Appendix 22 for further feedback) which provided me with increased confidence. With regards to qualitative feedback; at the end of the teaching session, the junior doctors actively expressed their own reflections regarding their experiences in approaching behaviour change with patients. For example, one junior doctor reported they found it extremely difficult to talk about smoking, as they *"did not want to affect the doctor-patient relationship".* Also, a majority of junior doctors utilised the questions and answers section; with three junior doctors inquiring about them conducting research in the area with the hope to present at the British Thoracic Society conference.

I am incredibly passionate about behaviour change and communication skills to enhance patient centred care and lots of reflection in action took place in this particular teaching opportunity as I had to remind myself that the students will sense your passion if you are your authentic self, as from observation when you listen to a speaker who is very passionate about their topic; you sense this and enhance your engagement. The junior doctors were very keen to learn about the smoking cessation interventions as this was a new, yet essential subject to acquire learning from. Since delivering this, it came to my attention that the referrals for smoking cessation had increased and I was approached by other doctors on the wards to conduct brief teaching sessions. I took this opportunity to respond to the feedback from the teaching session including focusing on nicotine replacement products and prescribing, which was very well received.

Student nurses June - July 2020

I am enthusiastic about embedding Health Psychology into a multidisciplinary environment; I strongly believe working in a healthcare environment reflects health care professionals' commitment to improve the quality of life for patients (Barley, 2016), thus, having the opportunity to teach student nurses for my case study for the Professional Doctorate was an effective way of cascading information regarding Health Psychology theories and techniques to enhance patient-centred care. Whilst working in the NHS, it has been a great passion of mine to increase knowledge and understanding of Health Psychology in a clinical environment and to build awareness of the interconnection between physical and psychological health and wellbeing.

During the development of these teaching sessions; I conducted a thorough assessment of learning needs of the student nurses. I included qualitative feedback from the student nurses, discussions with the education team at the Royal Blackburn Hospital and I scoped the literature. I found conducting a thorough assessment of needs throughout my teaching competency enhanced my insight into the student nurses' primary learning needs to ensure my teaching material was relevant, meaningful and incorporated an interlink between the profession of Health Psychology and Nursing (Barley, 2016). The teaching sessions allowed me to challenge and to be challenged. Striving for excellence is a professional and personal struggle as demonstrated by humanistic theory (Algar, 2006). Particularly, I noticed when developing this teaching session I had placed a significant amount of pressure on myself, as I was aware that the discipline of Health Psychology was a new concept to the undergraduate nurses. I placed a lot of expectation on myself to ensure nurses adopt a psychologically minded approach to a health care setting. Nevertheless, drawing on the Self-efficacy model (Bandura, 1977) through the positive feedback and mastering my experiences of teaching health psychology I now believe in my capabilities to teach Health Psychology, and completing this series of training has improved my self-confidence albeit in small and in some cases surprising ways.

Upon reflection of my teaching experience with the student nurses, it came to my attention that Health Psychology principles are not incorporated into the clinical environment; therefore, it was a rewarding experience for the student nurses to gain further recognition and confidently apply the biopsychosocial model to physical health and illness. I am extremely grateful for the knowledge I have also acquired from the student nurses; they disclosed very insightful accounts of their experiences with the patients, which enhanced my own learning for example, the student nurses articulated their

experiences working on the frontline during the COVID-19 pandemic; in particular expressing the difficulties with communication whilst wearing a mask.

Teaching session 1 -Long term conditions and psychological health - June 2020

The student nurses were welcoming and engaging during my first teaching session; I was anxious, however, to ensure my feelings did not affect my performance, I made sure I arrived early to the presentation and practiced my presentation beforehand. I found applying Maslow's hierarchy of needs theory to my teaching sessions was extremely beneficial, something I have not been particularly cognisant of in previous teaching sessions (Please refer to Table 1 of how I applied Maslow's hierarchy of needs to my teaching sessions). I found attending to these subtle environmental factors can enhance the teaching experience; for example ensuring each individual had a access to a glass of water and attending to the temperature of the room, since research has highlighted that these factors can enhance students' ability to learn and function (Maslow, 1943).

Table 1: Maslow's (1943) hierarchy of needs to my teaching sessions

Maslow's hierarchy of needs	**How this was met:**
Physical Needs	Environmental: temperature of the room, comfortable seating, hydration, face masks, lighting and technology.
Safety needs	Establishing ground rules, secure and confidential environment to facilitate group discussions
Belonging needs	Welcoming and informal environment, they feel they are a part of a group and equal status.
Esteem needs	The students feel encouraged and confidence. Positive reinforcement, opinions and views are respected and contribution is valued.

Self-Actualisation	The student learns and moves towards learning experience, learn meaningful material to enhance their learning and development, to meet learning outcomes on their course and achieve their goals and ambitions

To enhance audience rapport; I decided to conduct an ice breaker session in the form of asking them what their names were, what area they would like to specialise in when qualifying, and when they hear the word 'psychology' to describe this in one other word. I found these sessions to be invaluable, as it allowed me to collate a level of their understanding and their expectation. I also gave the students two tasks to complete; identify their own learning outcomes for this teaching programme and, after each session, to apply one thing to their clinical practice. This task was personal to them and they did not have to share this information with the audience. The informal ice breaker certainly put me at ease, as I formed a connection and fostered a productive learning environment with the student nurses. I would definitely incorporate this into future teaching sessions, especially if more time was allocated.

The first activity involved the students thinking about *"what do we mean by Health?".* This activity was very insightful; the student nurses' comments included predominately physical and biological meanings of health. However, it was surprising for me that the nurses still applied the biomedical model to health, as social wellbeing was not mentioned. One important teaching opportunity for me was to raise awareness of Health Psychology to the student nurses, as they are the future of health care and this provides them with the opportunity to cascade this information out into the clinical environment. The majority of the student nurses acknowledged they had heard of psychology as a discipline but were not aware of Health Psychology; when raising awareness of Health Psychology and the correlation with nursing as a profession, one nurse commented "*why are you not on the ward with us more often?; your profession would be essential for our patients".* This feedback was extremely meaningful, as at the start I was nervous about introducing a new topic to the nurses and how well they would perceive the topic of Health Psychology.

One major component of this teaching session was introducing the biopsychosocial model to health and patient care. We explored how health and illness can present with many challenges which can fluctuate over time, dependent upon the long-term health condition. We discussed many cognitive processes, behaviours, social and cultural factors, which many student nurses could relate to in their own patients. They also mentioned the learning they acquired from the cultural differences of their patients and the prevalence of disease within various cultures. The student nurses also discussed how complex the relationship could be between physical and psychological health and openly mentioned how psychological factors can sometimes be unexplored due to them feeling incompetent in this area. They recognised that many patients they see with long-term physical health conditions present with psychological comorbidities. I found this topic in particular fostered a self-analytical reflective framework with their peers, and met the primary learning needs from the assessment I conducted where one student nurse stated *"they would like the opportunity to be reflective in non-clinical environment".*

As advised by assessment, professional opinions of the education team and review of the literature; student nurses value and learn from case scenarios therefore, to check their understanding of the biopsychosocial approach; I incorporated a task whereby the student nurses had to apply this approach to two conditions: Hypertension and Diabetes. I gave them 15 minutes for the task and we then discussed the case scenarios as a group. The consensus of the group was that they could easily identify the biological factors; however, it had taken a deeper reflection to include the psychological and social factors. What was interesting was they never comprehended any behavioural factors including smoking, alcohol or physical inactivity to these conditions. It was also important to highlight during this activity that even though patients present with the same health condition such as hypertension, they may report a wide variation in their quality of life, beliefs and values and the importance of exploring each factor which contributes to their condition including personality and social influences. The literature reports that a challenge for student nurses is interpreting theory and applying it to practice (Barley, 2016), this case scenario allowed them to explore this.

A challenging aspect to this teaching experience was demonstrating the need to balance the information giving and skills building for instance having that balance of both didactic and interactive style, although this seemed to work with the student nurses. I found the didactic method of teaching

was essential to cascade new information to the undergraduate nurses, however, I was very sensitive to the non-verbal cues when utilising this method. I noticed some individuals would become distracted; therefore, I had the tendency to rush information to keep them engaged. Research has highlighted that adult learning attention span decreases after 15-20 minutes of learning due to two factors including working memory and interference, this is especially important when presenting new information and concepts to the audience (Cowan, 2016; Jeffries, 2014). Upon reflection, during future teaching opportunities, I would take a break from the teaching material as this will leave sufficient time for the audience to process the information presented.

I wanted to incorporate a reflective task to nicely end the session, thus I proposed the thought experiment *"think of the last time you were physically unwell or experienced physical pain"* and reflect on how this affected you and how it impacted on how you interacted with others. This was well received with the nurses; they were very open to discuss this with their peers and I. They also demonstrated a degree of empathy of how their patients must be feeling when they are admitted to hospital. I found this reflective task was insightful and increased an empathic approach to patient-centred care. Overall, I felt the first session was well received; one important factor was creating a rapport with my audience and incorporate both didactic and interactive material to meet all learning needs. I thoroughly loved presenting Health Psychology and identifying the interconnection between physical and psychological health, something which I am truly passionate about. I am very grateful for this opportunity; I feel more confident in the next teaching sessions.

Session 2 - Applying the Biopsychosocial approach to Health prevention/promotion, screening and diagnosis

According to the Nursing and Midwifery Council (2010) standards for competence for registered nurses; all nurses should practice in a holistic, non-judgmental, caring and sensitive manner, supports social inclusion; recognises and respects individual choice; and acknowledges diversity (Nursing and Midwifery Council, 2010). Holistic care involves incorporating a mutual understanding of patients' physical, psychological, behavioural, social, spiritual and cultural dimensions (Zamanzadeh et al. 2015). Thus, throughout this teaching programme, I placed a significant emphasis on the biopsychosocial approach to the model of health. This approach was well received by the nurses, although a great deal of reflection and prompting was required initially for the student nurses to identify behavioural and social factors to health due to an emphasis on the biomedical model, as discussed in the first teaching session.

The second teaching session explored the "prevention is better than cure" concept. This is something the student nurses were aware of. Discussion was based around ways of incorporating the biopsychosocial approach to patient care in the context of health promotion including brief behaviour change conversation and empowering the patient, something which is outlined in the NHS Ten year plan (2019). I presented findings from the literature on a patient's perspective of consultations including; *"If I go to see someone about my eyes, my eyes are what I am and the rest of me doesn't matter. It's the same with mental health. If I go to see someone for a mental health problem, I am a mental health problem.".* The student nurses reported they were surprised that during a consultation a patient feels this way. Thus, this led to discussing how we can have these conversations with patients, including whilst engaging in their daily observations.

Some of the student nurses recognised that they spend almost twelve hours with their patients and identified prime opportunities where they could explore perspectives and their wider needs, however, one student nurse articulated that they were worried of exploring these areas as it may "*open a can of worms*" which may be beyond their professional boundaries to deal with. I explained this is a common feeling among health care professionals however, it is important to understand the other forms of support within the MDT and making a referral to the relevant service. It was excellent to observe how the group would collectively reflect on their own experiences. The student nurses clearly reflected that most learning experiences occur in a formal setting, and especially within the pandemic most experiences and learning are intertwined in everyday life; they expressed the importance of continuing to develop given the reflection activity I gave to them after each session. Before each teaching session I would ask them to reflect on how they adopted any of the information they had learnt to enhance patient-centred care; all of them engaged in the process and I felt privileged that they demonstrated such deep reflection. The student nurses also supported one another throughout the teaching session, for example, one student proposed that one could easily incorporate this into discussion without going beyond one's professional boundaries as they could ask questions such as "*how are you coping*?" I did at times, lose track of time as we engaged in a lot of facilitated discussion during this teaching session, although this is a positive sign as their engagement increased and I acquired so much knowledge from the students, and this creative pursuit made me feel recharged and motivated, although, next time, I will ensure I am more assertive in time keeping.

Session 3 - Applying the biopsychosical model to adherence, self-management and treatment

The following teaching session consisted of how student nurses can best support their patients in adherence to self-management and treatment and exploring the biopsychosocial influences. I wanted

to make this session as interactive and student led as possible, facilitating lots of discussion around these topics. The student nurses could clearly evidence biopsychosocial influences to these areas, which was reassuring as it demonstrated progression in knowledge compared to their first sessions where they evidenced lots of biological and physical factors.

Self-management is at the core of effective treatment for long-term conditions. It is important a patient adheres to their medication regime, monitoring and managing symptoms, engaging in activities to promote health. The student nurses articulated that during their experiences they have noticed especially within acute medicine and in the community how important self-management is, especially to reduce admissions and to empower patients. We discussed psychological factors including the high prevalence of anxiety and depression in long term conditions and how symptoms of these conditions can impede on engagement in treatment and rehabilitation. We also discussed how you can communicate the benefits of for example cardiac and pulmonary rehabilitation, however, it is important to be mindful if the patients are displaying symptoms of anxiety and depression as research does suggest that depressed individuals are less likely to engage in rehabilitation programmes (Lane et al. 2001). Ensuring we take these considerations into practice can certainly alleviate psychological implications such as anxiety and depression in the long term. The student nurses articulated they felt a lot of pressure to understand "a little about a lot" with regards to self-management, however, they reflected on the benefits of a good MDT approach in health care and the importance of learning from a variety of disciplines within the clinical environment.

During this session the student nurses demonstrated their learning outcomes by applying the biopsychosocial model to adjustment and coping. One activity included "*What factors and tasks do you think could help with the adjustment process of a physical health condition?".* The student nurses clearly articulated an array of medical, psychological and social factors. I observed lots of the student nurses emphasizing the social support and the importance of this in helping a patient adjust and cope with a long- term health condition. Some student nurses reported they would often ask the patients about social support. We discussed the wealth of research which supports the importance of good quality social relationships can help the patient adjust and cope with their long-term condition. Some student nurses at the end of the session were very keen to discuss the reflection activity set during the first session. They provided excellent examples of how they incorporated theory into practice including recognising the biopsychosocial factors within their patients.

Session 4 - Stress Management - July 2020

Literature has identified nurses are at increased risk of burnout and occupational stress due to the environments they are exposed to (McGrath, Reid and Boore, 2003; Nowrouzi et al. 2015; Sharma et al. 2014; Xianyu and Lambert, 2006). Since the outbreak of the COVID-19 pandemic, these occupational pressures have heightened, with the potential of nurses experiencing feeling professionally challenged with an increase in their own workload and pressure, which can affect their own psychological health and wellbeing (Arnetz et al. 2020; Otgonbaatar et al. 2020). The psychological wellbeing of nurses is of profound significance and can impact upon the overall care and treatment of a patient-centred care. Therefore, during this period of increased occupational stress and uncertainty, it becomes imperative to share their knowledge of the stress student nurses are experiencing.

During this session, I conducted a task-based activity to identify any specific stressors they had encountered during the COVID-19 pandemic, the interesting reflection on this task being that the student nurses could empathically identify the stressors experienced by the patients, such as not having visitors at their bedside and fear of infection, however, they were struggling to identify any stressors which they encountered during their time. One student nurse articulated that it was difficult to reflect on this activity, as stress is inevitable within the workplace, so you can become desensitised to what you have been exposed to. All of the students demonstrated the importance of unwinding from work and engaging in self-care, ensuring they place their oxygen mask on before others, something which they all mentioned was very difficult to implement during these times; however, upon reflection, it is necessary for the student nurses to find positive coping strategies to manage these stressful circumstances. The student nurses recognised how essential adopting these techniques are in being able to manage their own stress and health, and to deliver good quality health care.

I thought this session was crucial to recognise the physical and psychological effect of the stressors and to also notice them in other colleagues. During the COVID-19 pandemic, this was very useful to implement; however, it was insightful as the nurses stated they are exposed to various traumas throughout their career not just during the pandemic and reflected on principles they could apply throughout their career. It was important when discussing sensitive information that I provided a safe environment where learning could take place, incorporating humanistic theoretical principles (Maslow, 1943) including a comfortable environment, creating a safe and confidential milieu for discussion to commence and being personable and welcoming, adopting a non-judgmental approach when the nurses facilitated their own discussions; fortunately, I had a very open and engaging group

of student nurses, who flourished from the opportunity to learn and reflect on their experiences as a health care professional during the pandemic.

Discussion was a valued part of my teaching sessions, and it was important I listened to their story; it also allowed me to apply the 'Socratic method' to my teaching session which also enhanced my understanding and gain further insight into their clinical environment. I found when applying reflective learning into the teaching environment it enabled the student nurses to reorganise their own experiences and see situations in new ways. In this way, adult learning is potentially transformative, both personally and socially. From assessment, the student nurses reported they have not had the opportunity to reflect on their practice due to being exposed to busy clinical environments. One aspect I found important was many of the student nurses had not heard of the terms 'compassion fatigue' and 'rumination', yet the majority of the student nurses could recognise a colleague or themselves experiencing this. Thus, it was important for me to explain these terms in a simplistic manner, because I did not want my audience to switch off at the most crucial point where they can notice these signs in themselves and others. During the end of the session, it was essential for me to signpost and provide further support if anyone was affected by the material presented. I also advised them to seek support from their supervisor or from the Occupational Health and Wellbeing Service at the hospital. During this session, I stayed behind, in case anyone wanted to discuss further and wanted time to debrief.

Session 5 - Applying Health Psychology to Communication in Health Care

Communication is essential to everyday functioning, however, it is complex. According to the Nursing and Midwifery council standards for pre-registration nursing education (2010) nurses must demonstrate excellent communication and interpersonal skills which are respectful, compassionate and effective. All nurses must utilise a range of communication skills; non-verbal, written and verbal, throughout patient care, to ensure the patient has thoroughly understood the information about their care and treatment to assist the patient in making informed choices. Thus, it was important I highlighted how communication in healthcare is one of the most important tools we have for providing excellent patient care and in turn enhancing patient satisfaction.

Firstly, we addressed all communication needs which are essential in health care, including emphasis on non-verbal and body language. I adopted a Socratic method to elicit reflective discussion, asking the student nurses to discuss whether "*communication as a skill can be taught*". Introducing

discussions into teaching sessions are a fundamental component of learning which can prompt critical thinking and reflection (Carnell, 2007). During the discussion components, I observed the student nurses collaboratively reflected on their own learning experiences whilst learning from one another. This concept is supported by the Social Learning Theories (Bandura, 1977; Vygotsky, 1978).

To make the session intrinsically motivating for the student nurses, I incorporated a slide on nurse-patient communication. The majority of the student nurses reported they had to adapt to new ways of communicating since the COVID-19 pandemic and the requirements of using Personal Protective Equipment (PPE); wearing hospital grade respiratory protection. The student nurses openly expressed how challenging communication was whilst wearing their PPE, for both the patient and themselves. One student nurse provided an example of how challenging communication was with individuals who are hearing impaired and elderly patients, particularly when you have an array of external noise on a busy hospital ward and how they felt health care professionals were expected to be self-reliant in these new situations. The student nurses articulated how upsetting and frustrating this can be as they feel they cannot communicate effectively. This conversation led to the student nurses to reflect on each other's experiences; providing one another useful tips to cope and adapt to these new situations. It is important to note that the student nurses demonstrated such commitment to safe, personal and effective patient-centred care during these times and it was important that this was positively reinforced and recognised. This discussion heightened my curiosity to explore "communication in healthcare during the COVID-19 pandemic". I found an accumulation of literature reported the challenges health care professionals encounter and the patient's own experiences. The literature reported how communication did not translate well through the mask, in particular in situations where the health care professional engaged in a breaking bad news consultation. Schlögl and Jones (2020) highlighted the challenges of communication especially in palliative care during the pandemic and coping with the use of increased PPE to effectively overcome communication barriers. They suggested utilising the ABC approach. 1. A- attend mindfully to the situation and increase the nonverbal cues during interaction 2. B - Behave calmly - ensure you remain calm, open and warm and you can be heard and understood in spite of the PPE barrier. 3. C - Communicate clearly - employ the gestures which are genuine to your communication style, keep your voice calm and clear. After the session, I provided the student nurses educational supervision resources from the literature for extra resources the student nurses could read.

The barriers of communication were then explored as a group. The student nurses engaged in discussion regarding the barriers they identified including; patients with visual or sensory impairment,

cognitive impairments, time constraints, altered mental state, medication side effects and language/cultural barriers. In turn, the student nurses demonstrated outstanding communication skills to prevent these barriers including:

- Speaking slowly and clearly, listening carefully, keeping the communication simple, using communication, communication aids, hearing aids and written communication.
- Removing distractions, ensuring the environment is calm, ensuring you remain calm, asking someone who is close to a patient about their triggers and protective factor
- Language barriers; translator and family members - difficult during the pandemic due to the no-visitor policy to stop the spread of the virus.

The student nurses were from a variety of specialties including district nursing, theatres and emergency medicine. The student nurses based within theatres/surgical environments revealed that they tend to not develop a close rapport with the patient due to them being anaesthetised. I positively challenged this view, by getting the student nurses to reflect on how they could apply effective communication to patients in a surgical environment. The student nurses highlighted and reflected on situations where communication could be enhanced and it could be recognised how vital communication is pre- and post-surgery to ease a patient's anxiety. Collectively, the student nurses found alternative ways to ease patient anxiety in a hospital setting including addressing factors pre- and post-surgery, keeping people informed as to what is happening to them, understanding the anxieties the patient is feeling during these stages and exploring ways to alleviate these feelings and providing reassurance. Literature has evidenced this has a reduction in patient anxiety (Johnston and Vögele, 1993; Morrison and Bennett, 2006). We also explored how each patient is an individual, for example some patients may be displaying an avoidant coping strategies whereby they prefer limited information about the procedure, whereas in contrast, others may display problem focused strategies finding further information beneficial (Morrison and Bennett, 2006). It was insightful to explore how communication in clinical environments can vary, for example, the student nurses within emergency medicine reported due to working in a fast-paced environment; they engaged in brief interaction with their patients, but the district nurses developed a close rapport with their patients. It made me engaged in reflection-in-action, and to tailor communication techniques to various clinical environments and the interesting perspective from the student nurses that in emergency medicine

and theatres they detached from the patient much more than in district nursing due to the nature of the environment.

Benefits to good communication highlighted from the literature and student nurses' experiences were identified as a group; effective communication can facilitate patient's comprehension of medical information, identify the biopsychosocial aspects of the patients' lives identify patients' needs, perspectives and expectations, and develop a positive rapport, leading to fewer complaints, self-management, greater patient satisfaction and treatment adherence. A video was used to demonstrate patient-centred care. Following the video, student nurses reported they felt reassured that the techniques they use are effective and how communication is a vital component in health care and can enhance quality patient-centred care. The student nurses thoroughly engaged in the case scenario method, something I will most certainly adopt in future teaching sessions. The case scenario presented included *"You have been attending to a patient's observations, and the patient states they have not slept well throughout the night due to recently receiving a cancer diagnosis and worrying about ongoing investigations. What steps could you take following this discussion?"* The student nurses could clearly demonstrate effective communication skills to adopt including seeing if the doctor is available to discuss and explain the investigations ensuring the patient is comfortable, and asking if they would like any further support.

De-escalation can be conceptualised as being a combination of verbal and non-verbal interactions, which can, if used appropriately, reduce the threat of undesirable behaviours (Department of Health, 2001). Good communication skills are vital throughout de-escalation. To explore de-escalation techniques, what could trigger an undesirable behaviour such as aggression in patients with psychological conditions or cognitive impairment? We identified triggers of anxiety in hospital including nicotine withdrawals, feeling uncomfortable, loss of independence, changes in sleep routine and/or increased levels of fatigue, feeling hopeless, external noise, distractions, pain and discomfort, uncertainty around health status, illness, and medication side effects; due to these we discussed the importance of avoiding cognitive overloading which may lead to misinterpretation of information vital to care and treatment. The student nurses engaged well during this session and demonstrated excellent communication skills when describing de-escalation strategies.

Overall, the student nurses demonstrated progression in their learning (See Appendix 23 and 24 for further feedback). This was most certainly evidenced by their level of applying theory to practice, engaging in reflective practice and the evidence of applying the biopsychosocial model to health and patient care. This was an excellent teaching opportunity and I am grateful for the student nurses engagement and enthusiasm they demonstrated throughout.

July 2020 - Consultancy project teaching non-health care professionals in a Registered Independent School

In July 2020, I was invited to present three sessions on unwinding from work and applying stress management techniques to members of staff at a Registered Specialist Independent school for children with additional needs. I utilised this opportunity to also fulfil my consultancy project. As I value the assessment and formulation process of teaching, I ensured I conducted a thorough assessment of the learning needs of my audiences. This was a completely new experience for me, as I have only experienced teaching health care professionals. Thus, it was important I understood the audience's learning needs and preferences before commencement of the presentation. An assessment was conducted through scoping the literature and arranging meetings with Human Resources (HR) and management in the organization. One important aspect which stood out was emphasis on personal characteristics of delivery, including the staff members related well to more informal and interactive teaching methods; this certainly eased my anxiety due to feeling more comfortable with this method of teaching.

Teaching non-health care professionals was a great experience for me; it was eye opening to observe how transferable the area of Health Psychology is. I found it useful to get to know my audience, and to seek out every opportunity to learn from the experts and the people who work with them. I relish the opportunity to build positive working relationships and to understand each and every audience, to capture an insight into their learning style and enhance the learning process. Nevertheless, I do find I can place a significant amount of pressure on myself demonstrating elements of perfectionism to ensure I met every learning need. Although I invested in a significant amount of time and value into the assessment stages of teaching, I did demonstrate a degree of flexibility and adaptability, for example, there were times when a more informal and flexible approach was required, including incorporating a learner-led environment; this approach was particular useful during these sessions with a non-health care professional population. Gaining this level of knowledge, I feel can develop and sustain the rapport. I also found it important to explore the experiences they have had; although the managers and HR provided me insight into this, the members of staff themselves engaged well in articulating their own direct experiences of stress during the pandemic. This supports the literature which highlights that learning is most effective when the learning activity has direct relevance or utility

to individual learner circumstances and experiences (Brookfield, 1986; Jarvis, 2010; Lieb, 1991; Smith, 1982).

Online teaching became ubiquitous due to the restrictions enforced during the COVID-19 Pandemic. This was the first time I had presented utilising this method of delivery. Before the session I ensured I researched Zoom etiquette and explored the functions the online learning world could offer including the chat function. I also made sure one hour before I presented that I conducted a practice session with one of the managers to check all functions were working including shared screen, microphone and video. The more I have engaged in teaching via Zoom the more I have realised that if the technology does not go to plan, you cannot control these things and sometimes it can act as a breathing opportunity to gather oneself. The online world of teaching is a new and different experience, and although during the first session I did feel overwhelmed, I found this method of delivery does have its advantages and disadvantages; it allowed people to connect with one another. However, face-to-face is something I genuinely feel more comfortable with in a learning environment; I feel one can engage with people a lot more and there are limited distractions.

I gained insight into the stressors related to working from home during the pandemic and the affect this can have on an individual's physical and psychological wellbeing. Examples included not being able to unwind from work, missing the commute and not being able to detach from work and home including checking emails at 11pm in the evening, significantly affecting sleep. I found that one creates an effective learning environment when one allows the audience to apply their own reflection of experiences to construct meaning (Kolb, 1984). Another observation was that, as a group, they were able to reflect on what areas of work they would like to return to post pandemic, reframing this in a positive light.

Effective lay person communication requires the speaker to anticipate the audience's knowledge or perspective of the subject, thus, it was important I assessed this aspect. Due to the topic of stress being a complex subject within itself, I found I needed to engage in a lot of reflection-in-action, due to the audience's limit of knowledge pertaining to the subject of stress; I also found myself asking for feedback from the audience to gauge understanding of the topic. This aspect was different for me, as when I simplify material I feel I am not explaining the topic correctly. I found utilising visual aids and an active voice was important in these teaching sessions for example, one participant stated *"I really enjoyed Lauren's session. It was clear and bright and I loved how the slides contained images rather*

than lots of words". This was reassuring for me. I thoroughly enjoyed sharing my ideas around unwinding from work as much as I did researching the area in this specific population. From the feedback (Appendix 25) I value their appreciation and hope they can relate to the material presented and utilise some techniques going forward to support their overall health and wellbeing.

26th February 2021 - University of Manchester - introducing behaviour change theory and motivational interviewing skills for Junior Doctors

In November 2020, I was invited by Dr Jacqueline Lavalee to deliver teaching session in behaviour change conversations, utilising motivational interviewing principles to the Manchester School of Medicine to third year medical students on 26th February 2021. Before the teaching sessions commenced, I ensured I met with the professors and lecturers at the university to gain insight into the audience's learning style, expectations and organising the overall presentation. These meetings were invaluable practically and emotionally, as I was prepared, and this eased my nerves before presenting.

I am of the belief that good practitioners continue to develop and learn relentlessly, within a reflective practice framework, therefore, before this teaching session, I found it essential to reflect on what I sought to gain from this experience and certain aspects which are beneficial for my own personal and professional development. Thus, before this session I had to actively engage in reflection-for-action, because I utilise motivational interviewing on a daily basis in my current role, I had to think of appropriate and relevant experiences I could apply to demonstrate the evidence based motivational interviewing principles in practice. The medical students were currently on placement at Wythenshaw Hospital. I understand the respiratory department implemented the CURE Project, given my role as a smoking cessation advisor. I provided examples of MI can be used to engage in a behaviour change conversation with regards to smoking.

The teaching session was delivered on Zoom, in collaboration with a Health psychologist at the University of Manchester. I felt more comfortable delivering this session online, as I had more experience of the online world and the co-facilitator was very experienced in utilising this method of delivery. Fortunately, the technology worked favorably, and we were able to engage the junior doctors with the whiteboard break out rooms for role play and the chat function. In this teaching session we focused on identifying and evoking change talk from patients. The students have learned about motivational interviewing in their second year and we are using this session as an opportunity for the

students to learn about change talk in more detail and to experience aspects of MI for themselves. Motivational interviewing (MI) as a directive, patient-centred, collaborative counselling approach to activate and facilitate health behaviour change is internationally recognised as an effective intervention (DiClemente et al. 2017; Dunn et al. 2002; Lim et al. 2019). The effectiveness of motivational interviewing training on improving medical students' knowledge of and confidence in their ability to communication with patients regarding health behaviour change. Research has highlighted the importance and effectiveness of delivering these types of teaching to medical students, demonstrating that teaching motivational interviewing techniques to first-year medical students can enhance student confidence in, and knowledge of, providing counselling to patients regarding health behaviour change (Lim et al. 2019; Poirier et al. 2004).

I presented the section related to motivational interviewing techniques in practice; utilising the OARS acronym; open questions, affirmation, reflective listening and summarising. The students in each session engaged really well and could demonstrate these skills when in role play. However, when presenting affirmations, when asked to provide examples the medical students did require prompting. For example one student commented it can be very challenging to initiate affirmations at times, as you do not want to patronise the patient, which was a good point to highlight. However, it was important to communicate that affirmations can be extremely powerful during behaviour change consultations and can enhance motivation and confidence, two factors which are highly influential in enduring behaviour change.

We firstly asked to orientate them to behaviour change - we asked "*what are behaviours?".* This was an interactive session utilising the whiteboard function on Zoom. A majority of medical students in each session reported behaviours including anxiety, worry and weight loss. We explained that these are outcomes of behaviours rather than the behaviour itself. They demonstrate a good level of understanding of this topic. We emphasised the importance of defining a behaviour as this is important to initiate change. A reflection of this session was that the junior doctors found it challenging to highlight recent behaviours as due to the COVID-19 pandemic people had to adhere to, including hand washing, social distancing, vaccinations and wearing appropriate respiratory protection. This led to a discussion regarding the emphasis high income countries place on behaviours which prevent non-communicable diseases and now more than ever have we focused on and adopted behaviours which prevent communicable diseases. I was impressed with the amount of knowledge demonstrated when applying the COM-B model; the medical students articulated great examples of applying this model including applying the reflective and automatic motivation components to increasing physical activity.

One interesting topic was opening up about change and the barriers health care professionals face when discussing behaviour change. The students again utilised the whiteboard option stating things including compromising the doctor-patient relationship, feeling they are being judgmental, discussions around behaviour change particularly weight loss can be highly sensitive, people feeling you are being rude and patients displaying denial. We also facilitated a discussion around why it is important to engage in such conversations; the students expressed that prevention is better than cure, and that improvements in both physical and psychological wellbeing can enhance self-management and treatment. We also emphasised how thoughtful words and questioning can have a profound effect on sensitive topics, including behaviour change.

A Socratic method was utilised during the teaching session; exploring why people know behaviours are good or unhealthy, why do they not/do engage with them. The students expressed excellent answers including; good behaviours are the hardest ones to do, they take more energy, identified the social and environmental influences, addiction, and pleasure being used as a coping strategy, and applying the COM-B model to this thinking. I feel my public speaking has enhanced and I have developed an identity and self-efficacy in teaching. I was apprehensive about taking this teaching opportunity as teaching 120 medical students can feel overwhelming; however, the more I take these opportunities, the more they develop me personally and professionally. I was extremely grateful for the opportunity to engage in this teaching session. It was remarkable to see the medical students so engaging and applying Health Psychology to their practice. I believe if the medical students can take at least one aspect of behaviour change communication during their consultation and cascade this information to their peers, it can have a significant impact on patient-centred care.

Overall reflection of teaching

Overall, the teaching and training competency has been an intellectually enriching and a personally and professionally enhancing opportunity. One of the most important aspects of this journey, from a learning perspective is how I have mastered time management, how much I have thrived in public speaking and developed as a teacher/trainer. All of this I will continue to follow towards my journey of becoming a Health Psychologist. All the skills I have acquired through this teaching competency will be an ongoing learning experience. I now believe in myself and my capabilities in relation to my presentation skills, which has strongly affirmed my competence in delivering a teaching session.

My ability to assess, design, implement and evaluate teaching sessions has significantly been enhanced. Although, I have engaged in teaching sessions prior to the Professional Doctorate, I have certainly engaged in a significant amount of reflection and have adopted a "no stone unturned" approach to the implementation of the teaching programme to ensure my audiences' learning needs have been met. One aspect I have found is how important it is to know your audience, conduct a thorough assessment of the various learning styles and how to adapt these to increase engagement and motivation. It was great to experience the diverse learning styles, although, there was a balance to deliver various learning methods and what you feel comfortable in delivering. The process includes a combination of cognitive and physical factors which can enhance the whole teaching experience for both the learner and the teacher, in terms of improving engagement and interaction within the learning environment (Guraya et al. 2014). The importance of conducting a thorough assessment into the learning styles of your audience is essential for appropriate delivery of your teaching; I was fortunate to liaise with individuals who had a vast amount of experience within education and public speaking and acquired a great amount of knowledge which I will utilise in future teaching sessions.

Although, I adopted a variety of learning styles throughout my teaching competency, I found it important to acknowledge your own cognitive biases around learning. For example, I am a willing learner in every facet of my life and a curious individual; throughout this teaching competency I have developed an understanding of my learning style. An individual's learning style has been defined as a "preference for processing information in a particular way when carrying out a learning activity" (Valley, 1997). Nevertheless, although as a teacher you are comfortable in utilising particular learning styles, it is essential you incorporate most learning styles to enhance the learning environment and remain open minded within your approach (Osborne et al. 2012). The teaching experience has helped me acknowledge that I am more comfortable in presenting in a style which is more interactive, student-led and when you present material in a simplistic manner this can have a remarkable effect on the audience's engagement. I have also enhanced my knowledge and understanding of adult learning including adults are intrinsically motivated, self-directed, goal-orientated and pragmatic learners. I observed especially in health care professionals that they responded well to the more pragmatic approach of how health psychology can be used in everyday clinical settings.

Public speaking is an essential skill to develop in the discipline of psychology (The British Psychological Society, 2017). Throughout the professional doctorate, and in my current role, I have engaged in public speaking opportunities in the form of training to health care professionals. I believe practice, organisation and preparation is essential to competence and good delivery. I have learnt I can place a significant amount of pressure on myself before a presentation. I would observe the most inspiring public speakers and wish one day I could be as articulate and charismatic as them, however, since

encountering various teaching opportunities, I have reflected that the greatest gift we can bring to a teaching programme is to be authentic and demonstrate passion in the topic, and to feel relaxed when presenting. Perhaps more notably, drawing on the self-awareness theory, where expectations of one's self can impact on one's potential outcome (Maslow 1943; Silvia & Duval, 2001). Thus, the way in which you present yourself and deliver the information are important techniques to develop; practice and participation in further teaching opportunities, will allow me to personally and professionally grow as a teacher. Before almost every session, I would feel my heartbeat faster and a sense of anxiety; I noticed these bodily cues throughout the training and became aware of my anxiety manifesting itself physiologically. I have engaged in conversations with education team, public speakers, trainers and lecturers, all of whom have stated they feel this most times. Thus, I accepted I would feel a level of anxiety before presenting and would reframe this applying the Yerkes and Dodson law (1908) and ensuring I would take a deep breath and a glass of water. I am grateful for sharing the experience of others for their guidance and contributions to enhance my development in this competency.

One observation throughout my teaching and training experiences was that everyone in the learning process is always simultaneously a student and a teacher. The process of reflection has turned my own experiences into learning. I found I learnt a significant amount from the audiences I had taught, which stimulates my own reflection on what I need to develop and facilitates an exploration of questioning on my own assumptions of the topic. The teaching and training competency has enriched my own practice, as throughout this competency I have had the opportunity to teach and to learn from such inspiring individuals, who have enriched my own thinking and practice. An element of curiosity and learning will always be with me throughout my career. You can never articulate how much value curiosity, learning and education is. I have developed myself enormously within this competency and will continuously aim to strive and develop within this area and immerse myself in opportunities which arise to allow me to personally develop. One thing I am truly grateful for is the perception of Health Psychology and how much this has been well received by other health care professionals, the education team and external organisations. I have been invited to formally teach student nurses and junior doctors by the Postgraduate Team in the foreseeable future, and this leaves me excited with the opportunities which have arisen when fulfilling this competency. The level of planning and design which have been undertaken will build a strong foundation for teaching Health Psychology material in the future. I am also highly appreciative of the feedback I have received from this teaching session (Appendix 26 and 27).

Conclusion

I am extremely appreciative and grateful for the professional networks I have built and from all the support I have received from the experts with the educational environment. Throughout my journey thus far progressing towards my ultimate goal of becoming a Health Psychologist, I have encountered varying challenges with very impelling opportunities. I have thrived throughout the process, even those moments when feeling challenged or overwhelmed. I have come to realise the pressure I place on myself. Equally, I have principally learnt not to strive for perfection but to strive for excellence. I will continue to develop my ability to reflect through the use of reflective journals alongside the more formalised supervisory process. I believe the knowledge I have acquired through the teaching and training competency has been excellent and allowed me to develop personally and professionally. A key focus for my future is to believe in my abilities to achieve and succeed, appreciate my journey and seek to challenge myself. I am extremely motivated and enthusiastic to continue my journey of engaging in further teaching and training opportunities within the area of Health Psychology.

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Chapter 4 - 8002- Professional Doctorate in Health Psychology - Consultancy Competency

The aims of this competency was to produce three documents with regards to demonstration of Consultancy in Health Psychology including; producing a case study, consultancy report and a consultancy contract. I have established a working relationship with the client, planned and conducted the consultancy and managed, monitored and evaluating my work.

Learning outcomes:

7. Assess requests for consultancy and establish the needs of a client group.
8. Plan, manage, monitor and evaluate consultancy in Health Psychology at the forefront of professional practice.
9. Formulate recommendations to Clients based on evidence collected and disseminate information effectively to Clients on the processes and outcomes of consultancy.

Chapter 4.1 - 8003 – Consultancy Case Study

Workshop session to improve workplace well-being and reduce stress

Introduction/ Background

The following Consultancy project allowed me to demonstrate specialist Health Psychology skills and knowledge to provide an educational organisation in the private sector with a workshop session to improve employee well-being and reduce work-related stress. The current global pandemic caused by Coronavirus Disease 2019 (COVID-19) has resulted in an unprecedented situation with consequences for physical and psychological health (Douglas et al. 2020; The Lancet Public Health, 2020; Toniolo-Barrios and Pitt, 2020). The COVID-19 pandemic has also had a significant effect on an individuals' lifestyles including; employees' experiencing significant changes within their working environment (Toniolo-Barrios and Pitt, 2020). Since the outbreak of the COVID-19 pandemic, organisations are now requesting that employees work remotely to minimise interactions to stop the spread of the infectious disease (Errichiello and Pianese, 2021). Employees now working from home has resulted in a change to many lifestyles including difficulties in concentrating due to ambient distractions, childcare, working longer hours, personal relationships and feeling disconnected with colleagues, all of which affect health and wellbeing (American Psychiatric Association, 2020; Errichiello and Pianese, 2021; Toniolo-Barrios and Pitt, 2020). Consideration of employee burnout and fatigue will be a long-term consequence of the current pandemic. Furthermore, burnout and fatigue can have an effect on overall physical and psychological health and wellbeing, thus, it is vital for organisations to introduce stress management interventions to increase their employees' health, optimal performance and job satisfaction (Toniolo-Barrios and Pitt, 2020).

According to Schein (1999) there are two clients (Intimidate and Ultimate). In this consultancy context, an education and well-being school for young people aged 11-25 with social, emotional and mental health difficulties, the Intimidate client was the Head of HR and the ultimate clients were the members of staff in the school. On a day-to-day basis the members of staff within the organisation are exposed to young people who present with challenging behaviours. However, due to the COVID-19 pandemic, it was identified by the Head of HR that members of staff had encountered an increase in work-related stressors, especially changes within their working environment including; working from home and teaching a challenging cohort with less physical support they would normally get from their colleagues. On Friday 12th June 2020, the client directly approached me via email due to my current

work in Occupational Health (Appendix 28). Thus, further to our email exchange, we decided to arrange an online Zoom meeting to discuss how I could facilitate/deliver stress management workshop sessions to support staff during these unprecedented circumstances. Michie (2001) proposed that *"Health Psychology consultancy is the use of these psychological skills and knowledge to facilitate, develop, or enhance the effectiveness of others in the maintenance and improvement of human health*" (p.230). Therefore, this was an excellent opportunity to utilise my psychological skills and knowledge to enhance and improve staff health and wellbeing in the organisation. Following the initial meeting, the Head of HR agreed that Health Psychology skills and knowledge would be an excellent contribution to support her staff during these times. This was escalated to the Chief Executive and directors of the school and they agreed. A contract was designed by myself, checked by my supervisors and signed by the Head of HR (Appendix 29). The client and I agreed to conduct these sessions on the organisation's annual wellbeing day to ensure that they adopted a holistic approach to wellbeing rather than a targeted approach to increase staff engagement and retention of knowledge.

Establishing a working relationship with the Client

"*A formal relationship where one party seeks help from another, the consultant's role being to facilitate the process whereby both the consultant and client arrive at a mutually acceptable solution" (Earll & Bath, 2004)*

Establishing a positive working relationship with the client was imperative throughout the consultancy project. Effective communication skills are appraised to be one of the most vital aspects in creating rapport between the consultant and the client (Buist, 2007; Ulvila, 2000). Literature suggests key components of a good quality consultant-client relationship are trust, active communication and shared feedback (Belkhodja, Karuranga and Morin, 2012; Schien, 1999). I felt I fostered a positive working relationship with the client and cultivated a partnership which allowed for honest feedback and clarity, enabling a collaborative approach creating synchronicity between our thinking and ideas (Buist, 2007). Developing a rapport with your client is essential, however, although I wanted to appear to be agreeable it was important to confidently express my opinions for the best interest of the organisation. For example, due to the client and I coming from different working environments (education and health care, respectively), the experiences of stressors within the workplace varied. Nevertheless, due to the trust we had established, we felt comfortable to expand on this information

and apply it directly to the project's best interests. Developing a positive working relationship with the client allowed me to feel I could approach them regarding any challenges which appeared and make informed decisions collaboratively.

The working relationship between the client and I was established via structured meetings using Zoom, email and telephone calls. Although it was essential we adhered to the restrictive measures during the COVID-19 pandemic, the rapport may have been enhanced if the interactions were face-to-face. How the client and I managed the change in circumstances was by agreeing regular reviews (weekly) and asking for regular feedback throughout the consultancy project to help maintain a positive working relationship. Once the relationship between the client and I had developed, the aims and objectives (Table 1) of the consultancy were devised and the consultancy contract was signed (Appendix 29), the planning of the project commenced.

I thoroughly valued the process of establishing a working relationship with the client. Throughout my professional doctorate, I have endeavoured to network and develop positive working relationships with various individuals as I feel that we can learn from everyone that we encounter. Although, I have never conducted a consultancy project or worked within the educational sector, I had taken this opportunity with curiosity, to learn and develop. I felt the initial stages of the consultancy project and establishing a positive working relationship with the client allowed me to develop new skills especially within the areas of designing a contract, applying Health Psychology to a new environment, insight and experience of working within a private educational organisation and networking with new people. The fundamental skills I have developed during this stage have allowed me to build strong foundations for developing professional working relationships during future consultancy projects.

Planning consultancy

During the initial stages of planning the consultancy project; the client and I discussed the aims and objectives of the consultancy (Table 1) and I developed a consultancy contract (Appendix 2) to clearly outline the role and function of the consultant and client; ensuring that we minimised the risk of conflict and ambiguities which enhanced a collaborative approach. The client and I also discussed and agreed on the confidentiality of the organisation and in line with the General Data Protection Regulation (GDPR) (2018). For example, I as the consultant formally agreed that I will not disclose, report or identify any personal data and all information will be treated as confidential throughout the

consultancy project and beyond. Through developing the contract; the client and I negotiated clearly stated optimal working agreements. Once these formalities were initiated, the consultancy project commenced.

Table 1: Goals and Objectives for Consultancy Project

Goals and Objectives	
The main goals of this consultancy agreement are as follows:	- For the Consultant to assess teaching needs of the employees; identified through regular meetings with the Client and conducting a scope of the empirical literature on occupational stress in members of staff within an educational setting who are working with pupils with additional educational needs.
	- For employees to identify tangible skills for stress management, positive coping strategies and building resilience within their working environment.

	- For the Consultant to conceptualise, design and present a workshop for employees. The Consultant will use Health Psychology theories and applications to implement a teaching presentation on stress management.
These goals will be achieved through:	- The Consultant scoping current empirical research and applying Health Psychology models to the area of stress management.
	- The Consultant and the Client organising regular meetings to identify the needs of their employees.
	- The Consultant conceptualising, planning and designing a one hour workshop session.
	- The Consultant delivering three one hour teaching session to employees.

I found applying the fundamentals of organisational and time management was crucial in the planning phase of the consultancy project. I was apprehensive that working on an external project alongside balancing work life and professional doctorate commitments would lead to conflicts, however, to ensure my consultancy project was realistic and achievable I learnt to be assertive in my requirements and articulated my own time management of the project. For example, to visually propose clear

annunciated goals for the consultancy project, I developed a work plan (Table 2). This documented a well-defined and reasonable timeline to fit in with my schedule. It was agreed that the client and I would allocate one day a week to discuss the consultancy project. I also felt this adhered to the British Psychological Society's Code of Ethics and Conduct Guidelines (2017) of responsibility and integrity demonstrating consistency in one's actions and outcomes by utilising appropriate time management and organisation. I found developing my own individualised plan for the consultancy project, regular contact with the client and the work plan allowed me to reframe the project in a structured format and also allowed me not to delve into "*scope creep*" and take on more than I should. From formulating a work plan, the client and I narrowed down the scope of the project and it was agreed I would perform a literature review on Occupational stress within educational settings (children with challenging behaviour) since the COVID-19 pandemic and to utilise the evidenced based material to tailor my stress management workshop to complement the organisation's annual health and wellbeing day.

Table 2: Work plan for my consultancy project

Work plan - Consultancy Project	
June 12th	Initial meeting to discuss feasibility of the project
June 18th	Meeting to discuss contract, discussing aims and objectives with HR, chief executive and management and planning stages of the consultancy
June 25th	Conducting literature review
July 2nd	Conducting literature review and telephone call with head of HR. Designing my PowerPoint presentation for the workshop.
July 9th	Zoom meeting with client to check zoom technology and contents of the workshop
July 16th	Designing PowerPoint for the workshop
July 20th	Presenting the workshop
July 23rd	Producing client report
July 30th	Producing client report

August 6th	Sending client report
August 13th	Feedback from client report

Literature on consultancy highlights utilising specific skills which are essential during the planning stages including; process planning, execution and evaluation, relationship, time and resource management. These are competencies which are necessary for successful consultation in Psychology (Arrendondo et al, 2004). Thus, it was invaluable to create a positive working relationship with the client as this supported the execution of the consultancy project and planning effectively. I also found articulating professional boundaries, as challenging as this can be, and being transparent and inclusive in communication, can engender a positive and professional working relationship (O'Driscoll and Eubanks, 1993). According to the British Psychological Society Guidelines (2017), maintenance of professional boundaries is essential to the professional Psychologist and to follow the ethical conduct of being committed to serving the greater good as outlined by the Ethical Code of Conduct (APA, 2010; BPS,2017; Lowman,2016). Therefore, it was important throughout this consultancy project to prioritise the client's needs, expectations and deliverables to maximise the effect and impact of the project. However, I found it was equally important to negotiate rules and expectations of the client-consultant relationship. I was fortunate as the client allowed me to have complete autonomy regarding the design of the project and they articulated clear expectations. This was an excellent opportunity for me to demonstrate the purpose and significance of Health Psychology as a profession and to share my skills and knowledge via a stress management workshop for the greater good. This enhanced my skills further within the areas of organisation and creativity.

Drawing from Schein's (1999) approach the main aim of my consultancy project was "*helping the client*". Thus, I felt it was important to understand the culture of the organisation, in order to deliver a tailored programme. In particular, the client proposed I deliver a more interactive session whereby my audience members could engage with one another and reflect on their experiences to enhance staff morale. Literature has identified that a more interactive approach to teaching can foster engagement and aid retention of information (Knowles, 1984). This was also an opportunity to utilise my transferable skills from other competencies on the doctorate including teaching and training to enhance wellbeing within the organisation. A significant amount of exploratory research was conducted due to the limited amount of knowledge of this organisational area; this concords with Schein (1999) who reports "*assessing your ignorance*", whereby you should acknowledge what you truly do not know and be curious and assess. When conducting my literature review, due to the

sparsity in research on this specific organisation (Special Educational needs school for children with social and emotional difficulties), I arranged a meeting with my client to discuss these unique challenges and how to tailor the literature review. I believe the more understanding you develop, the greater impact you have on the client. Whilst planning my consultancy project, I conducted an extensive review of the literature (Kuoppala, Lamminpää and Husman, 2008; Richardson and Rothstein, 2008). and textbooks (Cropley, 2016; Sapolsky, 2004), incorporated my own personal experiences from the teaching and training competency and my role in Occupational Health, I gathered material from my MSc course and liaised with HR and management at the organisation to gain further insight into the stressors encountered; this was to ensure I assessed the feasibility of the consultancy project and designed my sessions to tailor it to the needs of my client group.

One important aspect of a consultancy project is to demonstrate my competence and confidence in delivering this project, which I found challenging at times as a trainee; the concept of imposter syndrome was present (Hibberd, 2019). Upon reflection, I had noticed one coping strategy I would utilise throughout this consultancy project when I felt imposter syndrome occurred was to *overwork*. Although this empowered me to conduct research into areas I did not quite understand, I was mindful of ensuring I took regular breaks and prevented burnout in myself. Nevertheless, the support I received from the organisation was excellent which enabled me to plan a tailored session. I collated and summarised all the evidence to ensure the consultancy project was relevant and realistic. I found the literature review I conducted created a robust evidenced base, tailored to the organisation's ethos for the workshop on increasing awareness of wellbeing in the workplace during the COVID-19 pandemic. I then developed a *PowerPoint* presentation with the material for my workshop and presentation notes (Appendix 30 and 31).

Regular contact with the client was scheduled into my work plan; I felt this was a robust monitoring system to ensure the client was kept informed on the progress of the project and alleviated any possible constraints which may have occurred whilst conducting the consultancy. One constraint I was apprehensive about was the delivery of the workshop over Zoom, as it was the first time I had delivered a session online. To manage this potential barrier to conducting the consultancy; a test run via Zoom was completed with the Head of HR two weeks and two hours before commencement of the workshop; to check for any inaccuracies, any modifications required to meet the desired outcomes and measure feasibility of the project. I felt this was an important process in keeping the client informed and to prepare for any barriers to conducting the consultancy project. Upon reflection, I felt competent to deliver the stress management workshop through acquiring knowledge from my MSc, experience of working in stress interventions in Occupational Health and advice from my supervisors.

I found this was an excellent opportunity to create ideas in collaboration with the client to improve the service and the health and wellbeing of their staff members.

Theory

I identified the 'purchase of information' and 'expertise' models as most relevant to this consultancy project as in this case study (Schein, 1999). I as the consultant was approached to utilise a specific skill set to design a consultancy project for the organisation. The client provided me with a degree of autonomy to seek out and provide the relevant, evidence-based information on behalf of the client (Arrendondo et al., 2004). I felt empowered by this model, as they assessed the organisation's needs and decided the most appropriate method to deliver this project. Although the process was clearly defined, I did at times engage in self-reflection around my competency and skills to conduct this project, and, although an element of imposter syndrome was present, it was an important opportunity to reflect how I have the skills to conduct such a project. Teaching and training and my everyday occupation involves delivering stress management interventions; thus, I believed communicating and delivering the stress management workshops to an adult audience as something in which I was proficient. As conducting a consultancy project was a new experience for me, I found it reassuring to scope the literature and draw upon evidenced based theories including approaching the client, developing the methodology, assessing feasibility and forming and maintaining an established working relationship, which allowed me to develop the consultancy project in a structured and disciplined manner. (Cope, 2010; Earl and Bath, 2004; Lippitt and Lippitt, 1994; Michie, 2001; Schein, 1999). Following these evidence-based frameworks from the beginning stages, I applied the principles of Cope's (2010) Seven Cs of Consultancy model (See Table 3). The theory is constructed around seven dynamic stages of the consultancy project; following each stage allowed the client and I to create a robust evidence-based consultancy project. The framework was also easy to apply to my consultancy project as it was grounded in evidenced based research and real-life experiences of Consultancy (Please refer to Table 3 below for more information regarding applying Cope's (2010) model of Consultancy.

Table 3: Applying the 7 Cs of consultancy to my project (Cope 2010)

7Cs of Consultancy Cope (2010)	

1. Client: Understand the client and client's problem	Client: Head of HR and staff members working in a education and wellbeing school for young people. Understand the client's problem: COVID-19 pandemic, working from home and due to increased work-load and pressure; Head of HR wanted to incorporate a stress management teaching session to help staff members develop positive coping strategies and boost morale within the team.
2. Clarify: determine the nature and detail of the problem	Literature review and liaising with CEO, Managers and Head of HR within the school to identify and determine the nature of the problem, including the effect the COVID-19 pandemic and working from home has had on the members of staff.
Create: utilise creative techniques to develop a sustainable solution	Most feasible method was utilising a teaching session presenting information to the members of staff via zoom.
Change: Understanding the aspects which underpin the change process.	Gather an insight into the stressors each member of staff have encountered during these unprecedented times, conducting a thorough assessment of learning needs via communication with managers and HR to ensure the teaching session was tailored to the client group.
Confirm: Ensuring that change has taken place	Evaluation was obtained throughout the consultancy; including obtaining qualitative data from both the Head of HR and the members of staff who engaged in the teaching session.
Continue: ensure that change will be sustained	I created a consultancy report for the client (Head of HR) and ensured I highlighted recommendations and presented feedback from the members of staff.
Close: End engagement with the client	The client was provided with a consultancy contract which clear articulated the end date of engagement and was provided with a consultancy report.

Conducting the Consultancy Project

I delivered three workshops on 20th July 2020; the organisation's annual wellbeing day. The course commenced with 30 individuals, 10 participants in each group. This was my first ever teaching session on Zoom and I was feeling apprehensive regarding technological issues. Thus, the Head of HR organised a trial run one hour beforehand to ensure my presentation loaded and to check my microphone and video were working. This definitely eased my anxiety in presenting as technology can be unpredictable; this was also to ensure I monitor the implementation of the consultancy project. When the members of staff were entering the Zoom meeting, due to confidentiality I had to ensure this was the correct member of staff. Two people arrived late for the meeting and this caused a distraction as I had to ask the manager whether this was a member of staff; this was resolved during the next two sessions as I asked for a register and someone to be identified as an administrator to admit the correct individuals.

Upon reflection from my teaching competency, developing a rapport with the audience is essential (Knowles, 1984), this can enhance the learning process and participation. However, I found this particularly challenging over Zoom; although the group was positive and engaging, I felt face-to-face teaching would have enhanced rapport. My initial aim was to create a "virtual environment" which was warm and non-judgmental. Firstly, ground rules were established at the beginning of the session as drawing from experience and research this encapsulates engagement, respect and openness of the group (Jarvis, 2010). I believe an ice breaker session can also create an informal and warm environment, so I started by asking them their names, job roles and an activity which they had engaged in recently for self-care. It was interesting to acknowledge how many people found this question difficult with some people commenting, *"I do not think I have done anything for myself in weeks."* Once everyone had joined, I ensured they could all hear and see me and the workshop commenced.

I presented a *PowerPoint* presentation on stress management (Appendix 30) as a visual aid for my audience, however, upon reflection from my teaching competency and from discussions with the client, an interactive approach was utilised; this approach worked extremely well. I felt the audience was openly sharing their experiences and tips to enhance stress management. I engaged in meta-reflection in session one, as I am used to being exposed to a clinical/medical environment. It was important to be mindful of limiting my use of jargon as this can aid in decrease retention of knowledge and attention (Finney and Close, 2005). It was a personal goal for myself to articulate the model of stress and stress management techniques in a simple manner due to the complexity of these topics, therefore I utilised a minimalistic approach to my sessions, which was received positively as one member of staff expressed " *It was clear and bright and I loved how the slides contained images rather than lots of words.".*

I also aimed to incorporate critical reflection to my sessions (Costa, Rensburg & Rushton, 2007; Dunn et al. 2013); for example, I asked the audience to reflect on the changes within the working environment which have been positive since the pandemic. I wanted this to be a positive reflection by the audience highlighting successful ways they have adapted to working environments during the pandemic; feedback included feeling closer emotionally than ever as a team, and although they missed face-to-face interaction they felt they could easily reach out to one another online. A common theme was regarding how much work dominated their lives since the pandemic. Therefore, I introduced the flash cards which were personal to them highlighted in Cropley's, (2015) book to remind them of one small change to their working day including to avoid checking emails after the working day or making sure to take lunch at 12:30pm to reinforce these ideas and act as reminders.

Adapting the information to the audience is essential for the learning process (Knowles, 1984). I synthesised an array of information which was beneficial to understand stress in the context of this organisation, however, I found it was important to be open minded and let the member of staff guide me throughout the workshop. Schein (1999) expressed the importance of *the client owns the problem and solution* and *go with the flow.* In order to support me at times where I felt doubt, I would refer back to Schein's model of process consultancy. I felt enhancement in engagement when the learning material was relevant and intrinsically motivating for my audience, supporting the notion of Knowles (1984) who highlighted that to increase participation in adult learners, the learning content must be meaningful and relevant.

Zoom fatigue is a recent phenomenon in the literature which describes the tiredness and burnout associated with overusing virtual platforms of communication (Toniolo-Barrios and Pitt, 2020; Wolf, 2020). I was mindful that the organisation utilise Zoom meetings on a regular basis, thus I ensured I delivered one 20 minute session, then a 10 minute break, another 20 minute session, and 10 minutes for questions. I found this temporal structure useful to aid comprehension (Cowan, 2008; Mayer and Moreno, 1998; Sweller, 1988). Through observation, it was clear the members of staff had developed a culture of working long hours and even checking their emails in the early hours of the morning so found it extremely difficult to adopt work life balance. They found it challenging to adapt their working week, lost a sense of structure due to the increased ambiguity and living in uncertain times; they were empathic towards management stating that "we are all experiencing this" and recognised the importance of connecting with one another during the time when they are all encountering the same stressors. Engagement was extremely positive and I believed I fostered a good connection with my audience, with informal yet an insightful discussion. The audience concluded that as human beings in daily life we can be influenced by our senses and our minds are kept busy with ordinary every-day

things; it is important we re-gain calm and a sense of control in such an abnormal situation as a pandemic.

Evaluation of the process

To formally evaluate the consultancy project, I collected quantitative and qualitative feedback from the group members (Appendix 32 and 33) and verbal feedback from my consultancy report from the client. I also found it essential to reflect on my own development and skills utilising Gibbs' (1988) reflective model. Evaluation was ongoing throughout the consultancy project; as I cultivated a good working partnership with the client, I ensured I directly asked for feedback throughout. One learning point during this consultancy was to ensure I apply effective time management and to not increase workload to a point which is not feasible. Previously, I would view this as a weakness, however it is essential to ensure you are balancing your workload for your own wellbeing. I was highly pleased with the feedback I received which provides me with confidence to deliver the face-to-face sessions and adopt these transferable and consultancy skills to future projects. A consultancy report was provided to the client to agree further action and recommendations to implement within the workplace to enhance employee health and wellbeing. Verbal feedback was obtained from the client online via Zoom. The client provided positive feedback regarding my report; they mentioned that the project was effective, they reported I demonstrated an excellent level of research into the area and the workshop was well received by the staff given the qualitative evidence received. I was also invited, when the restrictions have eased, to present face to face to further support the organisation which was an excellent opportunity to further develop my consultancy and teaching skills, and evidence that a good working relationship had been established. As a consultant, I also provided advice and further evidence-based recommendations on implementing stress management techniques within the organisation; ensuring I adopted a solution focused manner to real life problems (Block, 2011; Michie, 2001). Therefore, it was important I made the final recommendations client-centred rather than consultant-centred. I strongly believe the skills I have learnt and the engagement with tools such as self-reflection has put me in a great position to build on this and I am excited to continue my journey of professional development within this area of consultancy beyond the doctorate.

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Chapter 4.2 - 8002: Consultancy contract for the Professional Doctorate in Health Psychology

Private and Confidential

Consultancy project: Delivering an online teaching session on stress management to employees at Raise the Youth Organisation.

Date Signed 16th June 2020

Prepared for:

The Client:

Prepared by:

The Consultant:

Lauren J Turnbull, BSc, MSc, currently completing the Professional Doctorate in Health Psychology at Liverpool John Moores University, hereafter referred to as the Consultant.

Background:

This Consultancy Project will be completed as part of the Professional Doctorate in Health Psychology at Liverpool John Moores University and thus will adhere to the Health and Care Professions Council (HCPC), The British Psychological Society (BPS) and the General Data Protection Regulation (2018) codes of conduct and ethics, and associated policies and guidance.

The Client is of the opinion that the Consultant has the necessary qualifications, experience and abilities to provide teaching to their employees.

Consideration of the matters highlighted above and of the mutual benefits and obligations set forth in this agreement, the receipt and sufficiency of which consideration is hereby acknowledged, that the Client and the Consultant agree as follows:

Services:

The Client hereby agrees to engage The Consultant to provide employees with the following consultancy service:

The Consultant will conduct a literature review and deliver an online workshop session on stress management to 30 employees at the organisation.

Terms of Agreement:

The terms of agreement will begin on 16.06.2021 and will remain in effect until completion of the online teaching session and feedback from the Client and employees at raise the youth have been received by the Consultant.

Performance:

Both parties agree to do everything necessary to ensure that the terms of agreement take effect.

Brief outline of Project

Stress can have a profound impact on an individual's physical and psychological health (Clow, 2001; Lovallo 2016; Ogden, 2004; Schneiderma, Ironson & Siegel, 2005). Literature has highlighted exposure to prolonged stress responses may lead to significant health consequences including but not exclusively limited to cardiovascular conditions (BHF, 2017; Ogden, 2004). Occupational Stress refers to psychological stress of one's occupation, resulting from the inability to cope with the demands of work, thus influencing an individual's overall physical and psychological health and wellbeing (Quick and Henderson, 2016). Factors that commonly enhance occupational stress include working long hours, increased workload and pressure, changes within the work environment and being unable to physically and psychologically unwind from the working environment (British Medical Journal, 2002; Michie, 2002). Literature has emphasised how an accumulation of prolonged occupational stress can lead to depressive symptoms (Tennant, 2001), Burnout (British Medical Journal, 2002) and

cardiovascular disease (Cropley, 2015). A growing amount of literature has highlighted teaching children with additional educational needs as a stressful occupation (Olsson, 2013). Factors which have been directly associated with increased stress include being exposed to challenging behaviour from the pupils, resources and time difficulties, long hours, increased workload and pressure (Kiel, 2016). Thus, it is essential for teachers who are teaching children with additional educational needs to focus on stress management techniques and unwinding from work to enhance their overall physical and psychological health and wellbeing, productivity and job satisfaction (Cropley, 2015). Therefore, the Consultant will conduct a one hour online teaching session to 30 employees, outlining stress management techniques, personal coping strategies and building resilience within the working environment which might enhance productivity and reduce stress within their working environment.

Goals and objectives

The main goals of this consultancy agreement are as follows:

- For the Consultant to assess teaching needs of the employees, identified through regular meetings with the Client and conducting a scope of the empirical literature on occupational stress in teachers who are working with pupils with additional educational needs.
- For employees identify tangible skills for stress management, positive coping strategies and building resilience within their working environment.
- For the Consultant to conceptualise, design and present a teaching session for … The Consultant will use Health Psychology theories and applications to implement a teaching presentation on stress management.

These goals will be achieved through:

- The Consultant scoping current empirical research and applying Health Psychology models to the area of stress management.
- The Consultant and the Client organising regular meetings to identify the needs of their employees.
- The Consultant conceptualising, planning and designing a one hour teaching session.
- The Consultant delivering a one hour teaching session to employees.

Outcomes of consultancy project for both parties

- The Consultant will deliver three one hour teaching session on stress management to employees on Monday 20th July 2020.
- The Consultant will conduct a literature review on Occupational Stress during the COVID-19 Pandemic in an educational environment for children with additional challenging needs and present their findings in a Consultancy report

- The employees at [redacted] will receive a teaching session on one occasion (Monday 20th July 2020)

- The information used in this competency will be utilised to fulfil the consultancy competency for the Professional Doctorate in Health Psychology

Measurement of success

The success of this consultancy will be determined by feedback from the Client and employees. The Teaching session will commence on Monday 20th July 2020.

Project timescale

- July 2020 – The contract will be signed by both the Client and the Consultant.
- July 2020 – Regular meetings will be organised by the Client and the Consultant
- July 2020 – The consultant will conduct a scoping exercise, of reviewing empirical research.
- 20th July 2020 – Deliver the teaching session
- If the consultant is unwell and therefore unable to conduct the teaching session on the proposed deadline, the deadline may be reviewed and extended by up to two weeks at the client's discretion.
- July 2020 – August 2020 – Feedback from the Client and employees at [redacted]

Funds and fee rates

Funding will not be applicable as this will be covered as part of the Consultancy competency from the Professional Doctorate in Health Psychology

Confidentiality

Lauren Turnbull agrees that they will not disclose, report or identify any personal data. All personal data will be removed prior to submitting this consultancy project as part of the Professional Doctorate in Health Psychology at Liverpool John Moores University. All data identified during this project will be treated as confidential by Lauren Turnbull.

Liabilities

Neither the Client nor Consultant will be held responsible for failure to commit to the contract in cases of illness, disability or death. Issues relating to illness or disability will be treated with mutual sensitivity and respect.

Acceptance

Your signature below indicates acceptance of this proposal and its terms.

Thus, proposal is accepted and forms an agreement between the Client and the Consultant.

Chapter 4.3 8002 - Professional Doctorate in Health Psychology - Consultancy Competency

Consultancy Report

Workshop session to improve workplace well-being and reduce stress

Client

Head of Human Resources

"There is a virtue in work and there is a virtue in rest. Use both and overlook neither" Alan Cohen

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Acknowledgements - I would firstly like to thank you for this opportunity to apply Health psychology to an educational setting. The teaching day was a delightful experience and I hope I have introduced the importance of unwinding to increase employee wellbeing and reduce occupational stress.

Executive Summary

Stress can have a profound impact on an individual's physical and psychological health (Lovallo 2016; Schneiderma, Ironson & Siegel, 2005; Clow, 2001; Ogdan, 2004). Literature has highlighted exposure to prolonged stress responses may lead to significant health consequences including but not exclusively to coronary vascular conditions (Ogden, 2004; BHF, 2017). Occupational Stress refers to psychological stress of one's occupation; resulting from the inability to cope with the demands of work thus influencing overall physical and psychological health and wellbeing (Quick and Henderson, 2016). Factors that commonly enhance occupational stress include working long hours, increase workload and pressure, changes within the work environment and being unable to physically and psychologically unwind from the working environment (British Medical Journal, 2002; Michie, 2002). Literature has emphasised how an accumulation of prolonged occupational stress can lead to depressive symptoms (Tennant, 2001), Burnout (British Medical Journal, 2002) and cardiovascular disease (Cropley, 2015). A growing amount of literature has highlighted teaching children with additional educational needs as a stressful occupation (Olsson, 2013). Factors which have been directly associated with increased stress include being exposed to challenging behaviour from the pupils, resources and time difficulties, long hours, increased workload and pressure. Since the Coronavirus pandemic these work-related stressors have heightened significantly, therefore, it is essential for members of staff who are working with children who have additional educational needs to focus on stress management techniques and unwinding from work to enhance their overall physical and psychological health and wellbeing, productivity and job satisfaction (Olsson, 2013). Thus, the purpose of this consultancy project is for the Consultant to conduct a literature review and workshop sessions outlining stress management techniques and practical solutions which can help and support members of staff within your organisation to "*unwind from work*" to enhance productivity and reduce stress within the working environment. The methodology to perform this was to implement three teaching sessions incorporated into an annual wellbeing day. The main findings were that staff were engaging and from the positive feedback I have received I hope it can provide advice and guidance towards unwinding from work. Further recommendations have been documented in this report below.

Literature review: Occupational Stress during the COVID-19 Pandemic

Occupational stress can have a significant impact on a member of staff's physical and psychological well-being (Cropley, 2016; Nielsen et al. 2019). Occupational Stress has been a linked to physical health consequences since 1950s. However, since the outbreak of the Coronavirus pandemic (COVID-19), there has been a significant change within the working environment, thus heightening work-related pressures due to the measures implemented by the government including school closures being the most widely utilised to limit the transition of the COVID-19 infection (Ozamiz-Etxebarria et al, 2021; Sheikh et al. 2020), potentially leading to members of staff being professionally challenged, which could impact upon their own psychological well-being including high levels of occupational stress and burnout (Collie, 2021). A significant change to the working environment was initiated within the educational setting including; changing to remote learning, supporting the children with additional needs' academic development and wellbeing during the pandemic, whilst coping with the additional stressors within their own lives (Chitra, 2020; Collie, 2021). These sources of stress have been undoubtedly compromised during the COVID-19 pandemic. Whilst stress responses are initiated to adapt to a stressor, research has highlighted exposure to prolonged stress responses may lead to significant damage to health including but not exclusively to coronary vascular conditions (Cicchetti et al. 2013; Gross, 2015; Morrison & Bennett, 2006; Ogden, 2004). Therefore, during this period of increased occupational stress and uncertainty, it becomes imperative to identify the psychological issues members of staff within the educational sector are experiencing and strategies from an individual and organisational level to ensure staff within this sector are looking after their physical and psychological wellbeing (Prado-Gascó et al. 2020; Rabaglietti et al. 2021).

According to The Health and Safety at Work Act (1974) occupational stress is widely recognised as a factor in the development of physical and psychological health conditions. Within the education sector, there is a growing appreciation of high levels of stressors which employees are exposed to, therefore, adequate support should be provided. Employers have a general duty to ensure, as is reasonably practicable, the health, safety and welfare of their employees at work; including preventing stress-related illness influenced by occupational stressors (The Health and Safety at Work Act,1974; Management of Health and Safety at Work Regulations 1999). Even short-term implications of stress can have negative implications on cognitive processing, working memory and learning acquisition, all of which are impaired during a (perceived) stressing event (Yaribeygi et al. 2017). Thus,

can impact on the purpose of our work; social support, structure and routine and a sense of purpose. One significant change within the working environment has been working from home or lone working, where members of staff have been exposed to substantial challenges to adjust and cope with their new routine (National Health Service, 2020).

Literature highlights that it is good practice for organisations to support their staff in achieving a work-life balance and managing stress within the working environment (Naghieh et al. 2015). This is particularly relevant within the educational sector as there is a culture of working long hours and taking work home. Therefore, it is paramount for organisations to provide a safe environment and to encourage their employees to maintain a good work-life balance (Cropley, 2016). It is essential for employees to have sufficient time to recover and recharge from workplace demands to prevent compromising their physical and psychological wellbeing and to enhance productivity and cognitive engagement within the working environment (Cropley, 2016). Increasing knowledge of 'unwinding from work' can have benefits for both the employee and the organisation. Evidence based research has identified that increasing education and knowledge of the physical and psychological consequences of stress, sleep hygiene, coping strategies, how to incorporate a work-life balance and promoting health enhancing behaviours can enhance employee wellbeing (Bhui et al. 2016; Cahill, 1996; Cooper et al. 2001; Cropley, 2016; Michie, 2002).

A burgeoning amount of literature has evidenced how improving health promotion and working conditions may promote physical and psychological wellbeing of an employee (Bhui et al. 2016; Bryson, Forth & Stokes, 2014; Naghieh et al. 2015; Ryan et al. 2017). According to the aforementioned literature, the pandemic has had a significant effect on the provision of education. It is essential to create an open environment where one can discuss and acknowledge with the member of staff within an organisation debate what has happened and create plans for the future wellbeing of educational staff, collaboratively (Education Support 2020).

Evidence-based benefits of prevention of stress in the workplace

- Reduction of Fatigue levels
- Decrease in levels of anxiety and depression
- Improvement in employee self-esteem
- Improvements in cognitive performance; thinking rationally and productivity
- Increase in motivation
- Decrease in headaches and tension
- Decrease in Muscloskeletal pain/complaints
- Decrease in prolonged work-related stressors including; cancer, high blood pressure and ulcers and coronary heart disease
- Lower levels of absenteeism
- Decrease in stress turnover
- Increased staff morale
- Decrease in number of accidents and mistakes
- Improved working relationships
- Stress impacting on young people
- Continuity of staff - due to increase of absenteeism
- Anxiety felt by the children/pupils
- Lack of concentration or difficulty in thinking rationally (potentially placing children at risk)

Future suggestions and recommendations
1. Providing staff with and signposting to psychoeducational materials (See below for useful resources); Build awareness of signs of burnout and compassion fatigue, understanding stressors and developing positive coping strategies.
2. Create a culture of openness: communicate and reflect with staff regularly and frequently in simple clear ways. Use video and written means; initiate regular team meetings with their colleagues to connect with one another and increase social support and positive working relationships (Mackenzie et al, 2015; Purath et al, 2004; Bredahl et al; 2015).
3. Maintain a positive work-life balance; ensuring members of staff are working sensible hours, not checking their emails outside of working hours and taking regular breaks and full lunch breaks and rest, recharge and recuperate after busy and stressful days.
4. Prioritising and promoting personal development; encourage members of staff to engage in one-to-one sessions with their management to share learning and develop new skills.
5. Implementing more health and wellbeing days throughout the year; to increase staff morale and productivity. Introducing Mindfulness approaches to reduce work-related stress; literature has highlighted the benefits of introducing mindfulness-based interventions to reduce work-related stress (Harris, 2014; Barclay et al, 2015; Maclean, 2013; Frederickson 2008)

6. For members of staff to establish boundaries within working day; in the midst of the COVID-19 pandemic many organisations, encouraged or mandated working from home. Although there are benefits from working from home, many individuals are experiencing the ability to switch off in the working environment. Encourage members of staff to keep their working environment completely separate from their home environment and to ensure employees are committed to implementing a work-life balance throughout their working week; for example, to stop checking their emails outside of working hours. To ensure members of staff are prioritising taking regular breaks throughout the working day
7. Practice good self-care; engage in regular health enhancing behaviours including incorporating good sleep hygiene into their routine, healthy eating practices, staying hydrated throughout the day and engaging in regular physical activity
8. Leadership: it is important to be available and supportive to member of staff during this time.

Qualitative feedback from staff who attended the course

The feedback from the staff provided an insight into how they have noticed the early signs of burnout, the importance and reflection of self-care and awareness of stress:

Staff member 1	Staff Member 2	Staff Member 3

I really enjoyed Lauren's session. It was clear and bright and I loved how the slides contained images rather than lots of words. Lauren had a calm voice and made me reflect well and think about self-care and how important it is. She was welcoming and friendly and very knowledgeable and approachable. Thank you so much Lauren :-)	It was very thought provoking and enjoyable :) I found the session engaging and informative, the power point was engaging and gave me lots of different ideas and strategies to deal with stress. I learnt how to understand the difference between positive and negative stress, and how the different types of stress can impact on a person physically and emotionally. Additionally, I learnt how important it is to look after ourselves to ensure we are emotionally and physically healthy. Also I learnt how important social interaction with others, is when feeling stressed at the end of the day, and how important it is to talk and not bottle up my feelings. I really enjoyed the session and thought it was delivered really well.	Thank you for our wellbeing sess this afternoon. Personally I ar mother of two with two jobs find it hard to cut off from w especially when I get home (I known as the workaholic in house) when I eventually do cut all my time is devoted to my children. I never really have al time. It's made me realise I nee start being more kind to myself. I to think I was a little selfish thought that way but your sess has made me realise I need to s doing this. I also need to plan be to allow myself to close off fr work.

Useful Resources

- How to be Mentally Healthy at Work (2013), MIND, available on the MIND website

- Stress at Work (2014), Acas, available on the Acas website

- Teacher Stress (2013), National Union of Teachers, available on its website

- https://www.nhs.uk/oneyou/every-mind-matters/7-simple-tips-to-tackle-working-from-home/

- https://www.priorygroup.com/blog/how-bosses-can-help-staff-to-manage-stress-when-working-remotely-during-the-coronavirus-outbreak

- Stress management tools from the Journal of Occupational Health Psychology; https://www.apa.org/topics/covid-19/stress-management-tools

- Collective wellbeing and posttraumatic growth during COVID-19: how positive psychology can help families, schools, workplaces and marginalized communities: The Journal of Positive Psychology: Vol 0, No 0 (tandfonline.com)

- Covid-19: Teacher mental health and wellbeing suffers whilst lack of appreciation or guidance leaves profession struggling (educationsupport.org.uk)

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Chapter 5 - 8002- Research Competency

This section consists of four research competencies; empirical paper one; qualitative methodology paper, empirical paper two; quantitative methodology paper, a systematic review and a research reflective commentary, outlining my reflections and progress throughout this competency.

Learning outcomes:

1. *Demonstrate skills in conceptualisation, design, development, implementation, and analysis of a study to investigate a pertinent research question in Health Psychology 2. Review systematically a substantial body of knowledge in an area of Health Psychology*
3. Create and interpret new knowledge through original research or advanced scholarship in Health Psychology

Chapter 5.1 - Professional Doctorate in Health Psychology - Empirical Paper One

Turnbull, L., Forshaw, M., Poole, H., Kidd, T. and Cook, S. (2024)

Exploring the psychosocial needs of patients in respiratory palliative care: a Multidisciplinary team perspective

Abstract

Background: Identifying the psychosocial needs of respiratory palliative care patients can enable early detection of exacerbations of symptoms, provide timely intervention for early symptom management and support advanced care planning to avoid suffering, especially at the end of life. Factors contributing to improved quality of life; symptom and pain management include identifying and addressing psychological and social aspects within the palliative care pathway. The aim of this qualitative research is to capture a Multidisciplinary Team (MDT) perspective on the feasibility,

practicality and validity of incorporating psychometric measure (the Distress Thermometer problem list or the Integrated Palliative care Outcome Scale (IPOS) in a respiratory palliative care population. We used the Capability, Opportunity, Motivation, Behaviour (COM-B) model to provide insights into the motivation to use such measures, barriers and facilitators to implementing changes in practice to incorporate the measures. As existing literature suggest that psychometric measures are a valid way to identify psychosocial needs in palliative care patients', the research has predominantly focused on patients experiencing cancer, thus, further research is required to incorporate measures to identify respiratory palliative care patients' needs.

Aims:. The objectives were 1) to explore what the multidisciplinary team think about the distress thermometer and IPOS measurements; comparing and contrasting face validity, ease of understanding and completion, feasibility and coverage; 2) to utilise the COM-B model method to identify the barriers/facilitators to potential use of the distress thermometer and 3) to guide effective implementation into routine practice. **Method and Sample:** Online and telephone semi-structured interviews were conducted with n = 10 multidisciplinary team members from a Hospice in North West England. All participants were aged 18 or over, and fluent in English. Interviews were transcribed verbatim and Reflexive Thematic Analysis used to analyse the data. **Results:** Three main themes with seven sub themes were created in the thematic analysis: 1) *Increasing knowledge and skills:* Perceived dominance of medical model / lack of psychological understanding (barrier) and Teaching and training on specific topics to understand the process (barrier) 2) *Implementation of the psychometric measures:* Ease of use and clinicians approval of the psychometric measures (facilitator), Patient health status on admission (barrier) and Perceived poor relevance of content to population (barrier). 3) Enhancing holistic/ patient-centered care: perceived value of incorporating psychological perspectives by using measure into MDT (facilitator) and aide to improving communication/enhancing patient centered care (facilitator). **Conclusion:** The analysis revealed the importance of incorporating psychometric measures to identify psychosocial unmet needs in a respiratory palliative care pathway, to enhance patient centered care. Future research is needed to explore the patients views of the psychometric measures to improve patient centered clinical care, development of a new measurement tool specifically related to a respiratory palliative care population, to guide effective implementation of psychosocial measures into routine practice.

Keywords: Palliative Care, Psychometrics, Distress Thermometer, IPOS, COM-B model, psychosocial needs and Multidisciplinary Team.

Declarations: All authors certify that they have no affiliations with or involvement in any organisation or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. The authors did not receive support from any organisation for the submitted work.

Ethics approval: Ethical approval was obtained from the Liverpool John Moores University Research Ethics Committee. UREC reference: 22/PSY/006.

Exploring the psychosocial needs of patients in respiratory palliative care: a Multidisciplinary team perspective

Introduction

Non-malignant respiratory diseases (NMRD) include conditions such as: chronic obstructive pulmonary disease (COPD), Interstitial Lung Disease (ILD), Bronchiectasis and Emphysema (Blackmore, Iles and Verne, 2011; McVeigh et al. 2019). These conditions result in non-malignant progressive disease displaying symptoms, including progressive scarring of lung tissue, breathlessness, fatigue, pain, dyspnoea, associated with a decrease in patients' quality of life (Kreuter et al. 2017; Strongman, Kausar and Maher, 2018). Patients with progressive NMRD can have an aggressive disease course; 3-5 years of survival from diagnosis (Reigada et al. 2015). Patients in the advanced stages of these

respiratory conditions experience a range of debilitating physical and psychological symptoms including but not exclusively; a loss of functioning and independence, elevated levels of symptom burden, fatigue, pain, decrease in quality of life and high levels of psycho-social stressors compared with patients with other palliative diagnoses including Cancer (Boland et al. 2013; Le et al. 2014).

Surprisingly, few patients with NMRD access specialist palliative care pathways (Smallwood et al. 2019). It is essential to incorporate a palliative care pathway for patients who are experiencing NMRDs and to embed a holistic approach encompassing the biological, psychological and social factors associated with patients who experience NMRD for their care and treatment, within a palliative care framework (Davies and Bailey, 2006; Strongman, Kausar and Maher, 2018). Current NICE guidelines (2017) recommend a palliative care pathway should be introduced for patient's diagnosed with NMRD. Despite this, patients with NMRD are less likely to receive specialist palliative care services compared with patients with malignant disease, such as cancer, thus, resulting in the palliative care needs of patients with chronic lung disease frequently being unmet (Kim, Atkins and Wilson, 2019; Lindell et al. 2018; Rocker, Simpson and Horton, 2015). The consequences associated with unmet needs can include; reduced quality of life, increased psychological distress and depression, in addition, patients experiencing end-of-life care may be overburdened with physical, psychological and spiritual suffering (Narsavage et al. 2017). Psychosocial discomfort is usually greatest immediately following diagnosis, at times of exacerbation and at the end of life, due to the concomitant physical and psychosocial factors associated with palliative care respiratory disease; anxiety, depression, symptom management, low quality of life (Ferrell et al. 2018). Assessing the psychosocial needs of a palliative care population is also a requirement of the NICE guidelines (Stewart-Knight et al. 2012; NICE guidelines, 2017).

Incorporating psychological measures into advance care planning for this population could be effective in identifying patient's psychosocial needs (Gomes et al. 2013). This involves a change in healthcare providers behaviour and existing practice (Potthoff et al. 2022). However, changing healthcare professional behaviours can be challenging, especially when it involves changing ingrained ways of providing care (Potthoff et al. 2022). Educators in health care frequently mention that, despite the vast repertoire of skills and knowledge health care professionals possess, the reality of changing their practice (introducing psychometric measures to their assessment practice) in a real-life setting is under researched (McDonagh et al. 2018). Two measures, highlighted within the literature have been widely used as a screening tool for assessing patients' psychological distress, within a palliative care cancer population: The Distress Thermometer (DT) (Roth et al. 1998) and Integrated Palliative

Care Outcome Scale (IPOS) (Etkind et al. 2015; Long et al. 2021). The Distress Thermometer is the most widely used rapid screening tool for assessing patients' psychological distress in palliative care for cancer. The DT incorporates psychosocial factors associated with the palliative care population including measurements of psychological distress (Roth et al. 1998) This screening tool was incorporated into patient care with an aim to improve identification, management and treatment of psychological distress (O'Donnell et al. 2013). The Integrated Palliative care Outcome Scale (IPOS) is a brief 10-item Likert multidimensional scale which is psychometrically tested and widely used within a palliative care population to identify person-centered outcomes and embodies multiple physical and psychologically symptoms, social and spiritual issues and communication and practical concerns to improve outcome measurement by evaluating essential outcomes in patients during their end of life care (Long et al. 2021; Murtagh et al. 2019;Roch et al. 2020). Clinical guidelines and quality indicators for specialist palliative care recommend ongoing assessment of psychological reaction to illness with validated assessment tools (NICE Guidelines, 2017). However validated tools are not frequently used in specialist palliative care settings especially within a NMRD population, where psychological morbidity is potentially underreported and undertreated (Graham-Wisener et al. 2020; Thekkumpurath et al. 2008).

Early intervention of identifying and addressing unmet needs of patients with NMRD's could improve quality of life, reduce distress and improve function, throughout disease trajectories (Narsavage et al. 2017). Therefore, in addition to physical facets, evidence states that psychosocial factors are crucial to consider in a palliative care pathway for NMRD patients (Michel et al. 2023). The NICE guidelines (2017) recommend that a needs assessment which considers all aspects of a patient's wellbeing, spiritual and health and social needs is taken into consideration when palliative stages have commenced. Previous research by Smallwood et al. (2019) explored respiratory palliative care patients and carers experiences regarding their satisfaction of an integrated MDT approach. They found participants highly appreciated the integrated approach and gained increased confidence in long term specialist self-management and how they deeply felt cared for, listened to, and supported

by the MDT. Similarly, Barrett et al. (2018) established that by embedding an MDT approach into a palliative care system including Psychology input, was effective for identifying patients' unmet needs in a respiratory population and was central in management and health care planning for the patients. Nevertheless, Michel et al. (2023) in their qualitative analyses of understanding the psychosocial factors of greatest importance to patients within a palliative care environment, identified that accessing psychological care would be beneficial to patients. Thus, there is a significant need to understand and assess the needs of NMRD to improve care and potentially reduce the burden of the condition and enhance optimal management of the patient's condition by improving quality of life and reducing psychological distress.

Deeply rooted in the area of Health Psychology is the science of behaviour change, particularly in a health care setting (Michie et al. 2011). The Capability, Opportunity, Motivation, Behaviour (COM-B) model is a theory which can provide insights into the barriers and facilitators of implementing changes in practice which requires behaviour change and intervention design (McDonagh et al. 2018; Michie et al. 2014). The theoretical framework posits that three components need to be present and interact for any change to occur; capability, opportunity and motivation (McDonagh et al. 2018; West and Michie, 2020). Capability (physical skills and psychological knowledge), Opportunity (social and environmental factors) and Motivation (automatic, beliefs and intentions) all contribute to effective change in behaviour. Capturing these factors can help identify the facilitators and barriers to implementing new interventions. and address these barriers at both an individual and organisational level (McDonagh et al. 2018; West and Michie, 2020). Thus, further research is needed to ensure use of measures such as the Distress Thermometer and IPOS is integrated within an evidence-based pathway for identification and management of distress for patients experiencing NMRD within palliative care pathway (Atkin, Vickerstaff and Candy, 2017; Kozlov et al. 2018).

Rationale

NMRD is progressive and eventually all patients require palliative care. Clinical guidance recommends that a holistic assessment including psychosocial needs is required. Incorporating psychometric measures including the DT and IPOS during the screening process of NMRD patients, can capture meaningful data to ensure patients that the psychosocial needs of patients with NMRD are met. However, despite recommendations such measures are not widely or routinely used within an NMRD palliative population (Smallwood et al. 2019). Therefore, the aim of the research is to gain qualitative

data to capture the views and opinions of a Multidisciplinary Team (MDT) incorporating psychological screening into the palliative care pathway.

Research Aims

- To explore from an MDT perspective current practice used to identify psychosocial needs in a respiratory palliative care population.
- To explore barriers and facilitators to staff integrating a new psychometric screening tool into the existing care pathway (and to capture any changes that might be needed to make it relevant for the above population).
- To utilise the COM-B model as a framework to inform behaviour change and guide effective implementation of psychometric measures into routine clinical practice in the context of palliative care for NMRD patients.

Methodology

Participants

Ten highly experienced MDT members from a North West Hospice. aged 18 and over were invited and agreed to engage in an online (Zoom or Microsoft Teams) or telephone semi-structured interview. Interviews lasted approximately 40 minutes [range 25-40 minutes]. The participants were recruited via a Gatekeeper at the hospice. The Gatekeeper circulated the participant information sheet to eligible members of the MDT and provided the participants with an initial introduction to the research project. Participants were given a time period of 24 hours to read the participant information form and to decide whether they would like to participate. The participants then directly contacted the first author to acknowledge their participation and following consent, arranged a mutual time and date to be interviewed.

Inclusion Criteria:

· Members of Staff Aged 18 or over who work at the hospice
· Participants who have access to online technology and telephone
· Participants who are willing to have their interviews recorded

Exclusion Criteria:

· Participants who are not employed within the MDT at the Hospice
· Participants who are under the age of 18
· Participants who do not have access to a computer or smartphone for online interviews
· Participants who are not willing to have their interviews recorded

Semi-structured qualitative online interviews were conducted with MDT members, to gain insight, utilising, a COM-B model framework (Michie et al. 2014), into the motivations and barriers to identifying the psychosocial needs of respiratory palliative care patients. The exploratory nature of the research provides the chance to gain detailed awareness of their experiences. Prior to the interview, participants were asked to complete two psychometric measures (IPOS and DT problem list measure). Each participant was asked to complete the psychometric measures from a patient's perspective, this provided them insight into how beneficial the psychometrics are and to familiarise themselves with the assessment tools.

Materials

The materials used to conduct this study include a password protected digital recording device and a computer, to conduct online interviews. The researcher's university e-mail address was used to send information to all participants. Semi-structured interview questions (Appendix 35) were formed around the theoretical framework of The COM-B model (Michie, 2011) to develop an insight into the capability, motivation and opportunity of incorporating the psychometrics within a palliative care environment. During the interview, participants were asked about their experiences and opinions regarding the implementation of the IPOS (Etkind et al. 2015; Long et al. 2021) and DT (Roth et al. 1998). problem list measures. The exploratory nature of the research provided the chance to gain detailed insight into their experiences.

Measures

Distress Thermometer (DT) (Roth et al. 1998)

The DT (Appendix 43) is a 1-item self-report screening tool which incorporates elements of psychological distress among a palliative care population (Roth et al. 1998). It is a 11-point visual Likert scale ranging from 0 (no distress) and 10 (extreme distress). (Refer to Appendix X). The distress thermometer was designed as a means to simply and effectively measure distress and the 'destigmatisation' of distress, to assess whether patients require further psychological intervention (Graham-Wisener et al. 2021).

Integrated Palliative Care Outcome Scale (IPOS) (Etkind et al. 2015; Long et al. 2021).

The IPOS (Appendix 43) is a 17-item multidimensional scale questionnaire comprising of three scales; Physical Symptoms (10 items) Psychological Symptoms (4 items) and Communication and Practical Issues (3 scales) (Etkind et al. 2015; Long et al. 2021). The items are scored on a 4-point Likert scale from (0) best and (4) worst. Thus, higher scores correlating with poorer outcomes. (Refer to Appendix X). With regards to a palliative care environment, the IPOS is a comprehensive and validated measure utilised to capture a robust view of palliative care patient's physical, psychological and social symptoms, concerns and needs, identifying what is meaningful to the patient (Etkind et al. 2015; Long et al. 2021).The measure can also be utilised to evaluate the effectiveness of the service and improve care and treatment outcomes (Murtagh et al. 2019).

Procedure

Before starting the interview, the researcher introduced themselves and describe the aims and an introduction of the research, to establish a rapport. The participants were advised to read their participation information sheet, each of the psychometric measures and to provide verbal consent before the interview commences. The participants were informed that their interviews were recorded on an audio device and recordings could be terminated at any point in the interview, should the participant wish. At the end of the interviews, participants were provided with a debrief sheet (electronic version was emailed to them for future reference). Additional information such as helplines were provided if the participant was affected by any of the interview questions. The researcher reviewed the recording on the day and reflected on the procedures to reinforce the analysis process and collate appropriate data. All interviews were transcribed, verbatim, and all data were managed inside the appropriate Data Protection Framework (General Data Protection Regulation, 2018).

Research Team

The first author conducted the recorded semi-structured interviews. She was a Trainee Health Psychologist in the National Health Service, completing a Professional Doctorate in Health Psychology. Additionally, the first author's first and second supervisors (Director of the School of Psychology and Registered Health Psychologist, respectively) and a Health Psychologist at the Hospice were involved in the research to maximise trustworthiness by ensuring the interview questions, transcriptions and themes create from the data were quality checked.

Data analysis

The theoretical framework of Thematic Analysis (TA) was used to highlight identified themes from the interview transcripts (Appendix 36). A deductive analysis was utilised, which allowed to frame my interview questions and dataset within the theoretical construct of the COM-B model (Michie et al. 2014). By implementing the deductive analysis, it allowed to delve deeper into the constructs of behaviour change and understanding the participants experiences, facilitators and barriers involved in completing the psychometric measures, through a specific theoretical lens. The procedure which Braun and Clarke (2021) demonstrate allows for clear demarcation of TA; data familiarisation, generation of initial codes (Appendix 37), searching for themes (Appendix 38), reviewing themes (Appendix 39 and 40), defining and naming themes (Appendix 41) and producing the final analysis was used. TA as an analytical method was chosen because the researcher focused on identifying themes from each interview and gathering relevant and valuable information. The research proposed to maximise trustworthiness by ensuring the interview questions, transcriptions and themes generated from the data were quality checked by the second and third author. Interview questions were adapted via a theoretical evidence-based theory the COM-B Model (Michie et al. 2014) (Appendix 35). Open semi-structured questions were utilised during the interview, so there was a low risk of bias from the first author. Any accidental leading questions/ prompts were not used in the analysis. The first author adopted an epistemological stance - in that the truth is subjective and only accessible through an individual's experiences. All transcriptions and quotes were documented verbatim. All data was managed inside the appropriate General Data Protection Regulation (2018) Framework. Participants' identifiable information was concealed using numerical codes to preserve anonymity. Throughout the analysis, the first author kept a reflective diary, to highlight any pre-assumptions and biases towards the data. TA is also especially suited to investigating under-researched topics (Braun and Clark, 2021) The analysis incorporated remote one to one interviews to allow individuals to feel safe within a comfortable environment.

Ethical considerations

The Ethics code of conduct outlined by the British Psychological Society (2021) were adhered to throughout the study. The essential ethical issues highlighted in this study include privacy and dignity of individuals, scientific integrity, social responsibility, maximising benefits and minimising harm, respect for autonomy, valid consent, informing participants, confidentiality and debriefing (BPS, 2021). To ensure a high-quality ethical standard was adhered to; participants completed a consent form, interview questions were quality checked (Appendix 35) and approved by the researchers primary and secondary supervisors to ensure they were respectful and if distress occurred during the interview, that the participants had the right to terminate the interview. After each interview a debrief consultation was initiated and appropriate guidance was offered, for example, information of appropriate contacts was provided. Liverpool John Moores University Ethics Committee approved the project (UREC reference: 22/PSY/006) (Appendix 34).

Findings/Analysis

The TA process elicited key barriers and facilitators evident within the data comprising three themes and seven sub themes incorporating the COM-B model (Michie et al. 2014); capacity, opportunity and motivation. These were: 1) *Increasing knowledge and skills:* Perceived dominance of medical model / lack of psychological understanding (barrier) and Teaching and training on specific topics to understand the process (barrier) 2) *Implementation of the psychometric measures:* Ease of use and clinicians approving the psychometric measures (facilitator), Patient health status on admission (barrier) and perceived poor relevance of content to population (barrier). 3) *Enhancing holistic/ patient-centered care:* perceived value of incorporating psychological perspectives by using measure into MDT (facilitator) and aide to improving communication/enhancing patient centered care

(facilitator). Each of these themes are reported below, including sub themes associated with the data. Participant quotations are used to illustrate each of the themes.

Theme 1:

Increasing Knowledge and Skills

Perceived dominance of medical model and lack of psychological understanding (barrier)

The majority of participants reported they had the skills to understand each of the psychometric measures. Nonetheless, there was a pervasive theme within the data whereby participants described the biomedical model as dominant within the field of palliative care which included utilising medication for symptom management and to treat psychological distress. This theme was developed when participants were encouraged to discuss the barriers of completing the psychological measures and interacts with the subcategory of Psychological Capability from the COM-B model. Participants had the propensity to be incognisant regarding psychological and social factors associated with the palliative care population. Participants, working directly with patients focused on symptom and pain management as the priority.

> *"I feel palliative care medicine and the acute settings as a whole are still dominated by the medical world – medical model so to speak. We have not had any exposure to psychology within the medical model. I feel Psychologists need to be more*

empowered by liaising with CCG's are implementing proposals. I also feel there is an issue where more education is required to identify the appropriate referral and an early referral would enhance the patient care we deliver and on whole decrease admission into the national health service, which is a national priority. Education and awareness is priority." (Interview 1: pp. 8 – 111-118).

"I find the psychometrics prompts area of concerns that we may not automatically ask during admission. Again, bringing a holistic approach to our patients care and treatment."

(Interview 3: pp. 22 – 60-62)

Participants highlighted the drive they had for incorporating psychosocial factors to enhance best practice and patient centered care. However, a common theme was that participants did not believe they had the capability of addressing the psychological and social needs due to this area being out of their remit and profession. Most participants expressed they see the value in psychological factors associated within this population, however, they utilise medication as a dominant form of treatment.

"Addressing the psychological and social factors they experience can enhance the patients experience, make their care and treatment plans more individualised, make them feel comfortable within the environment and allow them to take a break from their physical symptoms and discuss important factors which is relevant and appropriate to the patient."

(Interview 5: pp. 34 - 76-79)

Teaching and training on specific topics to understand the process (barrier)

Participants reported that teaching and training and further developing their knowledge or skills in this area, would enhance familiarity, accuracy and consistency with completing the IPOS and DT

measures. Participants felt that implementation was not related to their beliefs about their capabilities it was more about confidence.

"Yes, teaching and training around the area, the theory and how to use it in practice. Partially because I am keen to engage in continued professional development and I want to be reassured that I am completing the measure to the best of my ability and for competence around patients."

(Interview 10 pp. 56 - 52-55)

"We also need to ensure consistency of people measuring this; as this is something new it will inevitably attract enthusiasm however, it is important we accompany this with further training."

(Interview 3: pp. 23 - 81-83)

"I would like to engage in a teaching session or CPD session to learn more about how we incorporate the psychological processes into a palliative care environment."

(Interview 9: pp. 50 – 34-36)

Theme 2: Implementation of the psychometric measures

Ease of use and clinicians approving the psychometric measures (facilitator)

All participants reported that they understood both psychometric assessments, the preference according to the majority of participants was for the Distress Thermometer. As one participant

mentioned it was easy to complete, navigate around and timely. Participants also mentioned that the DT screening tool is effective in identifying patient psychosocial needs and preferences.

"…it was easier to complete and navigate around… especially in the name is distress, which our patients' experience is vast amounts."

(Interview 4 pp. 26 - 28-29)

" I find the distress thermometer more user friendly than the IPOS questionnaire"

(Interview 6 pp. 37 - 29)

The participants described that the psychometrics provide a tool to measure and evaluate patient's care and progress. It seemed that participants recognised the value of incorporating evidence-based psychometrics to complement patient care, audit, innovative research and Care Quality Commission (CQC) funding opportunities.

"Because it will help clarifying and giving evidence and measuring what we do. Audit and research and CQC funding of the hospice"

(Interview 1 pp. 26 – 25-26)

Patient health status on admission (barrier)

Participants highlighted that given the complexities of the patients' conditions within a Palliative care environment, it is essential to accurately assess the patients physical and psychological status at the time of assessment. There was a general consensus regarding the significance of patients making

decisions about their care as essential component towards the end-of-life care and treatment. This was due to the extensive uncertainty, pain, fatigue, patients feeling overwhelmed and the importance of their personal values.

> *"…one thing I would mention is sometimes, I feel patients' when experiencing end of life symptoms including pain and fatigue, may not be well enough to complete them upon admission, thus, it may be that we can complete them over time. I think the patients will really love these measures, as it is taking into consideration their subjective thoughts rather than objective observations."*
>
> *(Interview 7: pp. 41: 28-33)*

> *"I think some patients may feel overwhelmed by the amount of questions if they were asked those questions on first assessment."*
>
> *(Interview 6: pp. 38 - 54-55)*

> *"…we have to assess the patients' condition, they could be in pain or fatigued. Which would not be appropriate or accurate to complete."*
>
> (Interview 2: pp. 16-17 – 73-75)

Participants disclosed that assessment of needs can be particularly challenging to conduct when the patient is no longer able to communicate. Thus, the severe physical and cognitive impairment associated with patients during palliative care stages can affect the assessment process therefore, the health care professionals cannot capture the patients' psychosocial needs.

> *"…but some of our patients are extremely weak and frail so they would need help in filling in the questionnaires."*

(Interview 6: pp. 38: 46-47)

Perceived poor relevance of content to population (barrier)

A barrier participants invariably identified for staff integrating a new psychometric tool into the existing pathway was the patient comprehending and relating to the psychometric assessment, particularly the DT measure. For example, some participants reported that the breathlessness question on the distress thermometer would enhance patient comprehension to expand on this question including: wheezing, coughing and tight chest, thus informing appropriate and accurate decision of care.

"…I feel most of these questions are

appropriate… however… one question which relates to breathing… I feel with the respiratory population they present with a variety of breathing issues… including a cough, breathlessness, wheezing and sputum production… therefore, for this to be more relatable they need to include a spectrum of answers to enhance patient understanding and to make the measure more personal to the patient."

(Interview 1: pp. 6-59-64)

" I really like the distress thermometer, however, I feel the question regarding breathlessness is too vague and requires more expansion to ensure the patient can relate and understand the question"

(Interview 3: pp. 21 – 49-51)

"… I found the two measurements were great to add onto the screening process we do within palliative care… I definitely prefer the distress thermometer; however, I feel some of the questions needs expansion including the ones closely linked to symptoms with someone who has a respiratory condition."

(Interview 8: pp. 45 – 29-33)

Participants reported that to further enhance patient comprehension there may need to be a clarification of the word 'distress' as this word can be perceived in a variety of ways with a range of individual difference. This in turn could result in embarrassment, inaccurate assessment and the patient not understanding the question.

"Considering stress it something you witness everyday with our patient population in every form… physical and psychological… I think it is important to have a clear definition of the word 'distress' as we all have varying perceptions towards this word"

(Interview 10: pp. 57 – 75-77)

"In terms of distress… the saying in itself has a spectrum, I feel… for example, our patients experience psychological distress in the form of anxious preoccupation to fatalism… all signs of distress, just perceived differently I guess"

(Interview 4: pp. 26 - 29-32)

Theme 3:

Enhancing holistic/ patient-centered care

Perceived value of incorporating psychological perspectives by using measure into MDT (facilitator)

An integrated consensus was identified during the interviews of the passion and enthusiasm of working within a palliative care environment and enhancing best practice and patient centered care. The participants demonstrated high motivation to incorporate psychology into the palliative care environment and for evaluating progress. Participants also highlighted the drive they had for incorporating psychosocial factors to patient care and treating the patient in a holistic manner.

"*I believe palliative care would greatly benefit from a more holistic approach."*

(Interview 1: pp. 9: 125-126)

"I like the holistic approach to patient's care. This is why I am very fond of psychology; as it will help deliver that excellent patient care"

(Interview 6: pp. 37: 24-26)

"… I absolutely love it and I am passionate about incorporating new ways to support our patients, alongside taking into consideration their wishes and preferences"

(Interview 5: pp. 31: 32-34)

Participants agreed that incorporating psychometrics in the screening stages are essential as they can prevent and relieve early suffering through early identification of physical, psychosocial and spiritual in order to enhance patient centered care and their quality of life. Participants demonstrated that the psychometric assessments can allow a safe space for patients to discuss psychological and social factors.

"The patients experience will be heightened as it will empower patients' to express how they are feeling and give them an opportunity and a safe space for them to discuss the psychological and social factors which may affect their experience."

(Interview 5: pp. 33: 62-64)

"I think introducing these measures will be meaningful and it can contribute significantly to patient care."

(Interview 9: pp. 52 – 73-74)

"I find the psychometrics prompt area of concerns that we may not automatically ask during admission."
(Interview 3; pp. 22 – 60-62)

All participants demonstrated an optimism regarding incorporating psychological and social measures and displayed a motivation to engage in these assessments if they have the appropriate support and training from the organization.

" I think staff training and explanation and keeping everyone up to date to implement anything new to ensure we keep all of the staff involved to initiate motivation and commitment."
(Interview 3: pp. 23: 94-96)

" …we need lots of support from management and I feel that the management team

should organise training and continue our professional development within the area of Psychology"

(Interview 7: pp. 43: 90-92)

Incorporating a robust MDT within the palliative care environment was a strong theme throughout the analysis. The participants highlighted the importance of being able to signpost to appropriate interventions, evaluate patient outcomes and involving a Psychologist within the MDT. Some participants highlighted how essential it was to adopt a 'whole team approach'.

"I have noticed with an MDT meeting that Psychologists bring a whole different perspective to the discussion. Incorporating theories and frameworks, which we have never even thought of. It suits the holistic approach so nicely. I think very highly of Psychologists', especially within this environment. You are an asset. It moves away from a medical discussion and into a more holistic approach."

(Interview 3: pp. 21: 52-56)

"I have been collaborating with a Health Psychologist in the Hospice and we implement breathlessness management clinics. They have initiated a fantastic contribute to symptom management and enhancing the patients' quality of life. I really value psychology as a field and I believe they are a great contribution to the MDT."

(Interview 1: pp. 5: 35-39)

"I also think a palliative care environment need more psychologists to assess and treat the psychological symptoms patients are experience."

(Interview 5: pp. 34: 90-91)

"This is why it is extremely important to build links between primary and secondary care and to create links within an MDT environment to educate the health care professionals, who may not have an awareness of psychology as a field. Ideally, the patients, this may be in a dream world (laughs) would extremely benefit from having access to a psychologist l within an day clinic or outpatient setting…"

(Interview 1: pp. 8 - 100 – 104)

Aide to improving communication/enhancing patient centered care (facilitator)

Communication is essential for the satisfaction of patients regarding the quality of care. It can establish a relationship of trust, explore expectations and goals for care, report on illness, listen to and validate concerns and needs of patients, and provide a space for conversation about death. The majority of participants reported that they would like to identify patient centered goals surrounding psychological health and wellbeing and that the psychometric assessments will help facilitate this.

" I think communication is key thus, patients must be able to relate to the psychometric measures… our patients' experience multifactorial unpleasant experience of a psychological distress (cognitive, behavioral, emotional), social, spiritual, and/or physical nature that may interfere with the ability to cope effectively with their illness/condition, its physical symptoms, and its treatment. I believe all patients should be screened for distress and is essential in the pathway… many of our patients have complex physical conditions however, there are psychological and social factors which can exacerbate their condition"

(Interview 10: pp. 56-57 – 58-64)

"It is essential we empower and enable these patients at an early stage to self-manage not only the physical symptoms but the psychological symptoms"

(Interview 1: pp. 7 - 79-81)

Discussion

The World Health Organisation (WHO) defines palliative care as *"an approach that improves the quality of life of patients and their families facing the problem associated with life-threating illness, through the prevention and relief of suffering by means of early identification and impeccable*

assessment and treatment of pain and other problems, physical, psychosocial and spiritual" (WHO, 2005; Davies and Bailey, 2006). The aim of the present research was to explore from an MDT perspective the views and opinions of individuals working within the palliative care environment regarding patients' psychosocial needs, the understanding of psychometric tools and utilising the COM-B model to identify any facilitators or barriers to incorporating these tools within a palliative care environment to guide effective implementation into routine practice. The findings have provided insight into how helpful the MDT found incorporating a psychosocial model of care into a palliative care setting can be effective to patient centered care and improved quality of life. Thus, incorporating psychosocial measures into the palliative care screening process, including assessment of biopsychosocial factors is essential and should be carefully considered in palliative care settings to promote patient centered care and quality of life (Almada et al. 2018; Grassi et al. 2015; WHO, 2005; Cherny et al. 2015).

Perceived dominance of the medical model and gaining further psychological understanding were dominant themes in the data. Participants acknowledged that although they are aware of the psychosocial influences involved within the patient population, there is still a dominance within the biomedical model regarding symptom and pain management. This statement correlates with the existing literature suggesting psychological factors in palliative care medicine are receiving insufficient recognition, and that the biomedical model is requisite, (Greer and Joseph, 2016; Robinson et al. 2017; Frey, Powell and Gott, 2013). Nevertheless, a majority of participants expressed the need to enhance a more integrated approach within the palliative care pathway. Furthermore, one participant mentioned that you can increase the rapport with your patient significantly, when adopting a more holistic approach to your care, this statement also correlates with the literature suggesting that fostering a positive rapport with your patients can increase patient experience and satisfaction and quality of life (Butt, 2021; Dang et al, 2017).

A practical suggestion from the participants was the need to offer teaching and training regarding identifying psychosocial factors within palliative patients and how to complete the psychometric assessments to gain insight and reassurance on how to complete relevant psychometric measures. Research has highlighted the importance around inter-professional teaching within a health care and palliative care environment can improve quality of care and practice, promote communication and improve symptom management (Duncan & Simkiss, 2021; Guraya and Barr, 2018; Payne and Haines, 2002; Pornrattanakavee et al. 2022). With regard to identifying and managing patients' distress levels,

it is important to consider inter-professionals to support this and implement training to cope with managing distress within this patient population (Duncan & Simkiss, 2021).

All of the participants expressed that the psychometrics were easy to use, with a specific preference for the DT measure. The theme *'ease of use and clinicians approving the psychometric measures'* provided insight into the facilitators of using a psychometric measure within the palliative care pathway. NHS England (2023) highlight that the needs of palliative care patients must be systematically assessed to tailor care for the patient, ensuring that their priorities, preferences and wishes are accounted for. The incorporation of psychometrics including the DT measure can help integrate the psychosocial aspect into the standard care model and measure distress (Van Lander et al. 2019). One practical mean of this is to introduce psychometrics to the palliative care screening and assessment pathway, this also draws upon the COM-B model of physical capability (Appendix 44). Ease of use and clinician understanding are important factors in ensuring the measures are completed accurately and consistently and can capture and address psychosocial issues which can complement the holistic assessment (Ownby, 2019; Van Lander et al. 2019). Nevertheless, as with most palliative care research, incorporation of the psychometric tools is mostly centralised to cancer patients in hospitals (Graham-Wisener et al. 2021; Ownby, 2019; Stewart-Knight et al. 2012), further research within other areas of palliative care including NMRD patients should be conducted to ensure that the psychometric measures are relevant and applicable.

Participants reported the importance of utilsing their clinical judgement to review the health status of the patient before completing the psychometrics. Often in palliative care patients, given the complex and advanced nature of their condition, their health status can result in them being unable to effectively communicate due to weakness, cognitive impairment, fatigue and reduced levels of awareness due to symptom and pain management medication (Herr et al. 2006; Sampson et al. 2006). Thus, highlighting the importance of being sensitive and aware to capture an accurate assessment of the psychosocial needs of a patient, when they are experiencing such symptoms (Sampson, 2006). A recommendation for further research and practice is to generate a clear plan for when patients are unable to complete the psychometrics due to the complexities associated with their condition, this can ensure that the clinician can obtain accurate information to support the patient's wishes and preferences.

Patient comprehension of the questions within the measure was a theme identified throughout the data. According to the literature, the DT and IPOS measures are predominately used within a cancer

population (Graham-Wisener et al. 2021; Ownby, 2019; Stewart-Knight et al. 2012), thus, these measures are highly applicable to an oncology population (Graham-Wisener et al. 2021). A prominent theme was expansion on breathless question, including; wheezing, coughing and a production of sputum. A burgeoning amount of research highlights that breathlessness is typically a prominent symptom related to NMRD patients and is predominately the symptom which is most severe and distressing for patients (Bajwah et al. 2013; Janssen et al. 2011; McVeigh et al. 2019; Stenzel et al. 2015; White et al. 2011). This highlights the need for the psychometric measures to incorporate a person-centered approach, for example by using questions applicable and relevant to a respiratory population, as research highlights the importance of recognising patients' unique needs and establishing a positive relationship with the patient to foster more patient centered care and treatment plans (Youssef et al. 2020). Thus, by adopting key important changes including an expansion on respiratory symptoms applied to NMRD patients within the DT problem list could ensure that the psychometric measure is more applicable to the NMRD patient population, with further research focusing on how a new measurement tool can be developed to capture the specific needs of this patient population, to enhance patient centered care, create evidence-based interventions to meet the patients' psychosocial needs and to measure quality improvement outcomes (Pantaleon, 2019).

Ensuring patient comprehension is consistent with literature that advises increasing patients understanding and establishing awareness of the patients' needs is highly important (Fix et al. 2018; Hobbs, 2009). Checking the patient's willingness and ability to understand these questions and aide communication is crucial for an effective care and treatment plan (Fix et al. 2018; Hobbs, 2009). When a patient approaches the palliative care pathway, open communication between patients and health care professionals is essential to ensure that care and treatment plans are grounded in patients' wishes and preferences (Tavares et al.2017; National Institution for Health and Care Excellence, 2011; Fix et al. 2018; Hobbs, 2009). Thus, this highlights the need to identify a patient's psychosocial factors to ensure that a patient's wishes and preferences have been acknowledged to support their care and treatment plan for example, as mentioned above to develop a new measurement tool which includes patients in the development to ensure the measurement is tailored to that specific population including conducting a Patient-report outcome measure (PROMs) (Brédart et al. 2014; Wiering et al. 2017). PROMs take into consideration the patient's perspectives to assess health outcomes, which is beneficial to measure effectiveness of any measurement tool or intervention.

A major theme in our data was the perceived value of incorporating the psychometric measures into the palliative care MDT to gain insight into patients' psychological perspectives. Patients are human

beings with physical, psychological, social and spiritual needs and require a biopsychosocial MDT approach to identify and support their wishes and preferences (Almada et al. 2018; Barrett et al. 2018; Payne and Haines, 2002; Smallwood et al. 2019). Incorporating psychological measures into a palliative care environment can facilitate appropriate referral to Psychological Interventions and provide a means of assessing the success of such interventions (Janssen et al. 2011; Stenzel et al. 2015; Payne and Haines, 2002). Various forms of psychological therapy including Existential Psychotherapy and Acceptance and Commitment Therapy are beneficial to improve patients' outcomes and quality of life during palliative care (Almada et al. 2018; von Blanckenburg and Leppin, 2018). A systematic review by Ferrell et al. (2017) highlighted that positive patient health outcomes were evidenced when the palliative care team incorporated interprofessional practice, especially when initiated eight weeks following diagnosis to adopt a holistic approach to care. Furthermore, Pornrattanakavee et al. (2022) found introducing interprofessional collaboration was cost effective and improved quality of life for the patients. Additionally, psychosocial interventions, targeted towards patients and their families, could allow the reduction of suffering, provide support in basic daily life activities, provide an improvement in quality of life and wellbeing, and aid in preparation for a death with dignity (Almada et al. 2018). Further, patients who experience heightened levels of psychological distress are less adherent to treatment plans, dissatisfied with their care and treatment and report lower quality of life (Faller, Bülzebruck, Drings, & Lang, 1999; Hamer, Chida, & Molloy, 2009; Holland & Alici, 2010**;** Von Essen et al. 2002). Thus, assessment and treatment of psychological needs can have a positive impact on patients health outcomes. Also, improving the patient's quality of life can be identified as an essential need in palliative care patients', due to the nature of their condition, therefore, identifying patients' who are vulnerable to 'distress' and likely to have the worst quality of life is critically important (Davis and Hui, 2017).

Our data demonstrates that participants are highly motivated to engage and complete these measures as part of the screening pathway. This theme also draws upon the reflective motivation component supporting the COM-B model and the findings support the extensive literature suggesting the more one is motivated to complete something you will see a change in behaviour (Aldao et al. 2010; Zysberg & Tell, 2013; Micanti et al. 2017; Evers et al. 2010; Konttinen et al., 2010). Thus, these members of staff are more likely to change their behaviours to engage with the psychometric screening process and integrate it into practice to enhance patient centered care and quality of life (Almada et al. 2018; von Blanckenburg and Leppin, 2018).

Limitations and modifications

Whilst we have provided insight into changing practice and incorporating psychological measures into a palliative care environment is beneficial to overall patient care and quality of life, we accept the limitations of our approach in this exploratory study. Firstly, we recruited a relatively small sample (n= 10) from one setting (Hospice within the North West of England). Whilst the findings may not be typical of all MDTs or those of different make-up or size, the study does attempt to understand how the MDT feels about using the tests and what value they add to their practice and patient outcomes.

Although, the unique aspect of the study is to explore qualitatively individuals' experiences, more advanced methodological approaches such as direct behavioural observation of individuals completing the measures in practice (Morrison & Bennett, 2006) could be considered. That said, this would need to be in the context of the resources required which might make such research economically unviable. Qualitative research is inherently subjective in nature, and issues including individual interpretation and a myriad of influences and biases may impact on the findings. To combat this and ensure the rigor of the findings, the first author kept a reflective diary throughout and discussed the developing analysis with supervisors as it progressed and during the write up (Alhojailan, 2015).

Implications and suggestions for future research

Although the use of psychological measures in cancer palliative patients has been intensively investigated, the use of psychological measures within a respiratory palliative care population, especially using a qualitative method is limited. Following this exploratory study, future research should assimilate a longitudinal methodology combining a qualitative approach to further understand how to incorporate psychological measures within a respiratory palliative population, to help identify psychosocial needs and quality of life. Also reflecting on the importance of incorporating psychological, social and spiritual factors associated with palliative care population, as illustrated by the WHO (2019), is paramount.

Additionally, the findings suggest that ways to address palliative patients psychological, social and spiritual factors should be considered when designing and delivering interventions to increase quality of life. Therefore, further interventions need to be implemented, which focus on improving

psychological wellbeing and quality of life within a palliative care environment. Research has been conducted on Acceptance and Commitment Therapy as an intervention to increase psychological outcomes in a palliative care population (Hulbert-Williams et al. 2021; O'Hayer, O'Hayer and Sama, 2018). Furthermore, considering the profound impact palliative care has on an individual is robust, as such, it is incumbent on health care professionals to incorporate psychological measures to screen psychological, social and spiritual needs of the patients. Thus, informing both prevention and psychological treatment of these conditions, providing health care professionals with an insight into the psychology of palliative care patients.

Conclusion

Using the COM-B model as a framework our findings provide an exploration of what currently occurs to identify psychosocial needs in one respiratory palliative care population, describes the thoughts and opinions of MDT members regarding two psychometric measures, identifies barriers and facilitators to their use and considered how to guide their effective implementation into routine practice. Participants were motivated and enthusiastic to incorporate psychometric measures into their practice and recognized their worth whilst at the same time acknowledging the need for training and development on their use and interpretation. We recommend the use of psychometric measures is supported by an appropriate training programme and that MDTs which do not currently include a psychologist, consider this to facilitate ongoing support. Future research should address the patients' perspectives on incorporating these measures to inform psychological intervention within a palliative care population.

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Chapter 5.2 - Empirical Paper Two:

A Readability analysis of UK-accessible online patient health information about Macular Holes.

Turnbull, L., Forshaw, M., Poole, H., and Kidd, T. (2023)

8002: Empirical Paper 2 Research Competency

Abstract

Introduction: It is estimated that approximately 1.5 million people in the United Kingdom experience a macular disease. Due to the vast amount of patient health information being available online, there has been a significant increase in individuals seeking medical information online to self-diagnose prior to seeking medical treatment, self-manage and treat their symptoms and conditions. Nevertheless, 40% of adults in the United Kingdom display difficulty in comprehending and extrapolating from health information. Online patient information can vary in readability, thus, conducting a readability analysis is an alternative way to examine health material. The following study conducts a readability analysis of patient information from the UK regarding Macular Holes.

Aims: To investigate the readability of UK-based online patient health information with reference to Macular Holes and to compare across different types of organisations (Government, Charity and Commercial/private sectors).

Methods: Searches for 'macular holes 'were performed on each search engine (Google, Bing, Yahoo and Duckduckgo) and results from the first page were selected for analysis. 52 pages were examined during the readability analysis and the scores were calculated using Readable.com. Five standardised readability tests were utilised in this study; Flesch-Kincaid Grade Level, Flesch Reading Ease, Gunning Fog Index, Coleman-Liau Index and the Simple Measure of Gobbledygook Index.

Results: The study found that the majority of patient health information in the UK pertaining to Macular Holes is *fairly difficult to read* for the UK population, this translates to a reading age of 15-16 years old. Guidance from NHS Health Education England suggests that health information should be aimed at an average 11-year-old. A One-way ANOVA was conducted to assess whether there was any significant differences between the mean readability scores in three independent groups (Public sector, Commercial Sector and Charitable Sector). The results found there was no significant differences regarding the mean readability score across the three organisations, however, as noted by the descriptive statistics, the charities had a lower readability score compared to the Public and Commercial sectors.

Conclusion: Further work into online health information should be conducted to ensure that the majority of the population can comprehend the health information. The following study identified that the readability of health information on Macular Holes is poor across all sectors; Charity, Commercial and Government. Online health information is widely available and the readability of health information is crucial for engagement, adherence and better health outcomes. Health information providers who publish content to the general public should consider conducting a readability analysis before publishing, avoiding jargon and using shorter sentences to aid comprehension of information on health conditions, care and treatment.

Introduction

It is estimated that approximately 1.5 million people in the United Kingdom experience a macular disease (Macular Society, 2023). Developing a macular disease places the individual at substantial risk of sight loss (Macular Society, 2023). Of macular diseases, a Macular hole is a vitreoretinal interface disease demonstrated by a small defect in the retinal layer that develops within the macula (Majumdar & Tripathy, 2022; National Health Service (NHS), 2021). It is suggested that Macular holes occur in around 3 in 1,000 people over the age of 55 and are more common in women (Macular Society, 2023; NHS, 2021). If an individual experiences a macular hole, this can lead to significant impairment of central vision including distorted or blurred vision, if the condition is untreated these symptoms may get progressively worse (Majumdar & Tripathy, 2022). Treatment strategy is prescribed on the degree of progression; in some cases a macular hole can close itself without the need for treatment; however, if the hole expands, vitrectomy surgery is typically conducted (Macular Society, 2023; NHS, 2021; Sabanci et al. 2023). As there are specific time scales to intervene and treat a Macular Hole (visual outcomes are increased for symptoms existing less than six months). The treatment of Macular Holes less than six months has a 90% success rate compared to Macular Holes which are older than 12 months (Benson et al. 2001; Macular Society, 2023), the comprehension of health information provided from symptoms experienced pre-diagnosis to treatment received by a patient with a macular hole is essential for early diagnosis, self-management and adherence of the condition (Rooney et al. 2021).

With heightened demands on Ophthalmology services, as reported by the Royal College of Ophthalmology (2022) that 656,814 individuals in England were on the waiting list for diagnosis or treatment by an Ophthalmologist (NHS England, 2023; Royal College of Ophthalmology, 2022), busy outpatient clinics and shorter clinic appointment, this may result in less time for effective communication for patient health education and patients seeking advice from other information sources including the internet (Edmunds, 2013). There has been a significant increase in individuals seeking medical information online to diagnose, self-manage and treat symptoms and conditions (Bujnowska-Fedak & Węgierek, 2020; Hochberg et al. 2020; Sabanci et al. 2023; Wang, Shi & Kong, 2021). Indeed, a UK survey found that 73% of individuals utilise the internet to search for health information (Statista, 2022). This has especially been apparent since the 2019 Coronavirus pandemic, whereby a transition to utilising technology for patient care was implemented, giving patients the option to seek traditional or online health care (Hägglund et al. 2022; van Kessel et al. 2023; Wong et al. 2022). Access to online health information can provide an opportunity to enhance patient knowledge and understanding of medical conditions (McMullan, 2006). Individuals utilise various

forms of online platforms to sought health information including government (NHS), commercial/private and charitable sectors.

Seeking health information allows patients to be empowered, actively engaging in health decision making, and assisting in asking their medical professionals informed questions around their care; this is in line with the outcomes of "*shared responsibility*" highlighted in the NHS 2019 Long Term Plan (NHS, 2019). The Department of Health and Social Care (2022) have also highlighted that, with the advancement of digital health care, the correct foundations must be created to ensure its long-term sustainability. Thus, considering the fundamental changes in how health care and health care information is being delivered, the vast abundance of health information being easily accessible to patients and the substantial financial and economic investment (£150 million of funding has been issued for digital adoption (The Department of Health and Social Care, 2022), it is vital to ensure that health information enables the patient to feel empowered, The NHS 2019 Long Term plan emphases on the importance of empowering patients to self-manage, health self-management has been identified as integral to disease management, improved physical and psychological health and wellbeing and enhanced quality of life (Clouston, Manganello,and Richards, 2017). For example, NHS England (2022) highlight that health care providers must integrate ways that encourage and empower individuals to prevent and manage their physical and psychological health and wellbeing (NHS England, 2022), thus, one way to achieve this is to ensure that the health information which patients have access to is understood by patients and expands their knowledge and is fit for purpose.

Health Literacy is the degree to which an individual has the capacity to process, understand and obtain health information, the ability to make well-informed decisions and then to use health information to make an appropriate decision on their health (Berkman et al. 2011; Oliffe et al. 2019; Peerson and Saunders, 2009). It has been reported that 40% of adults in the United Kingdom display difficulty in comprehending and extrapolating from health information, with reports stating 7.1 million adults read at, or below, a level of a 9 year old (Gursul, 2022; Mayor, 2012; NHS Digital, 2021; Simpson, Knowles, & O'Cathain, 2020). Low Health Literacy means that an individual experiences difficulty in their ability to read and understand health information (Hickey, 2018). There are two commonly used measures in the UK to measure Health Literacy (the Test of Functional Health Literacy in Adults (Parker, 1995) and the Rapid Estimate of Adult Literacy in Medicine (Davies, 1993). The consequences of low health literacy has been associated with decreased adherence to treatment, poorer health status, reduced self-management of chronic diseases and increased hospitalisation (Berkman et al. 2011; Davis et al. 2006; Oliffe et al. 2019; Peerson and Saunders, 2009). Health Literacy has been increasingly documented within the literature for why some individuals find it challenging to self-manage and engage with appropriate care and treatment routines, also literature has identified correlations

between health literacy issues in biological factors such as older ages, cognitive function (which declines with age) and social factors such as lower socio-economic status and lower education (Clouston, Manganello,and Richards, 2017; Goodman et al. 2012; Zamora and Clingerman, 2011). Specific characteristics including sex (females) and age (over the age of 55) have been associated with an individual developing a macular hole (Macular Society, 2023; NHS, 2021), considering Macular Holes are predominantly associated within an older population this could increase inequalities in the access of health care information (The Kings Fund, 2022). There is a over whelming evidence that environmental, social and behavioural factors contribute to health inequalities and can have an impact on an individual's access to health care treatment, quality of life, quality and experiences of care and overall health outcomes (The Kings Fund, 2022). Thus, the UK policy has long recognised how essential it is to improve health literacy (Gursal, 2022). One way to address this and a key aspect of Health Literacy is Readability, this is defined as how easy written materials are to read. Conducting a readability analysis is one way to address the issues of individuals not being able to understand and apply health information and is essential in assessing how patient-focused health information is comprehended (Edmunds, 2013).

Individuals who develop a Macular Hole could experience an array of biopsychosocial consequences including issues with reading, mobility, impaired vision, functional disability, psychological issues and deleterious effects on overall quality of life (Casten & Rovner, 2013; Sabel et al. 2018; Schilling et al. 2011; Wittich & Southall, 2008). Thus, it is essential given the implications of experiencing a macular hole that an individual can understand health information of early detection and self-management/after-care. is reported that individuals experiencing a macular hole should have access to the information to inform the appropriate treatment plan, comprehend the decision provided to them to make informed decisions (Margherio, 2000). Within a complex health-care system and information environment, it is vital that patients have the ability to participate in decision making of their care and treatment (Sanders Thompson, 2013). Equally it is important particularly for the patient to identify the symptoms at an early onset and the maintenance of behaviours post-operation/after care including; adhering to an eye drop routine for one month post-surgery and posturing (NHS, 2021) For this to happen, the health information provided must be accessible and easy to read, for the patient to develop an understanding of their condition from prevention, diagnosis to treatment (NHS Long term plan, 2019). If health information is inaccessible/increases in complexity including being difficult to read, it is essential to identify the readability of health information presented for patients to access, as it may affect the processing of health information and choices associated with the patients values and health beliefs to empower and engage patients more fully in their care, self-

management and treatment , this could also have implications across other macular diseases (NHS Long-term plan, 2019; Sanders Thompson, 2013).

Rationale

Various studies have also found that a majority of online health information is unsuitable for a significant proportion of the population (Daraz et al. 2018; Worrall et al. 2020). The readability of patient health information in retinal diseases has previously been reported in the United States of America (USA) (Cohen & Pershing, 2022). Cohen & Pershing (2022) found that the readability of online information in the USA is higher than the average reading age of the USA population (Cohen & Pershing, 2022). However, no literature, at the time of this study, has been identified for UK sample population of individuals experiencing a Macular hole. Therefore, there is a gap in our knowledge regarding accessibility, including readability, of online patient health information pertaining to macular holes within a UK population.The current study will also be assessing whether there are differences in readability scores across three types of organisations including; Charity, Commercial and Government sectors. Given the importance of how online health information can improve patient knowledge and understanding (McMullan, 2006), we conducted a readability analysis using UK search engines to further explore the readability of macular hole information available to a UK population.

Research questions

- What are the readability scores for UK-based online patient health information on Macular Holes?
- Is UK-based online patient health information about Macular Holes easy to read?
- Is there a notable difference in the readability scores across three organisations; Charity, Government and Commercial/Private?

Methods

Search Strategy

The most utilised search engines in the United Kingdom as of 2022 are Google, Bing, Yahoo and Duckduckgo (Statista, 2021). Thus, the following analysis used results from these four search engines. To avoid algorithms, all browsers were accessed in incognito mode and all cookies and cache were cleared prior to each search.

The search included key terms such as “Macular Hole”, “Macular Hole Symptoms”, “Macular Hole Surgery” “Macular Hole Causes”, “What is a Macular Hole”, “Macular Hole Stages”, “Macular Hole Repair” and “Macular Hole Recovery” (Appendix 45). Searches were performed in the UK on 24th February 2023. The search findings were limited to the first page of results, because there is strong published evidence that people do not search beyond the first page of their internet results (Keane et al. 2008; Mcinnes and Haglund, 2011). Additionally, a higher position Google correlates with reputability (Patel et al. 2021). The main pages were across three organisations; Government Sector: Macular Hole NHS, Hull University NHS patient, Imperial College Hospital HealthCare NHS, Manchester Royal Eye Hospital, Patient information Leaflet and Moorfields Eye Hospital, Cambridge Universities Hospitals and Moorfields Eye Hospital. Commercial Sector: Macular Society, New Medica.co.uk, British and Eire Association of Vitreoretinal Surgeons, and Specsavers. Charitable Sector: Guide Dogs.org.uk and Royal National Institute of Blind People 2022. A total of 52 pages across 13 websites were analysed.

Exclusion Criteria:

- Duplicates
- Websites not in English
- Websites in the United Kingdom
- Websites not including information on Macular Holes
- Websites aimed at clinicians
- Information behind a paywall
- Information on discussion boards
- Information advertisements
- Information newspaper article

Readability Analysis

All relevant text from each search was copied into *Microsoft Word (*See Appendix 46*).* Careful removal of figures, visual interpretations, captions, links, advertisements, business information, references and disclaimers was conducted. All relevant text was then copied and pasted into *Readable.com (*Appendix 47*)*. Five validated tests were identified for the analysis, as they are the most commonly used and aid comparison; Flesch-Kincaid Grade Level (FKGL), Flesch Reading Ease (FRE), Gunning Fog Index (GFI), Coleman-Liau Index (CLI) and Simple Measure of Gobbledygook Index (SMOG).

Each of the readability tests utilises different formulae to compute the readability of health information. Based around mathematical algorithms, the different formulae combine various parameters including: syllables, estimation of years of formal education, school grade level, sentence and word length. FRE and FKGL includes word and sentence length and syllable count. GFI formula generates a grade level to estimate the education level required to understand the text, which calculates word and sentence length. SMOG uses the number of words by selecting 30 sentences and counting every word with three or more syllables to calculate readability (Readable, 2023). FRE uses a scale from 0 to 100. A lower score in this analysis states a more difficult readability level *(0–30 is very difficult, 30–50 is difficult, 50–60 is fairly difficult, 60–70 is standard, 70–80 is fairly easy, 80–90 is easy and 90–100 is very easy)* (Flesch, 1948).

Health information from the NHS should be aimed at an average 11-year-old, which translates into sixth grade (Health Education England, 2018). The following analysis thus followed this recommendation to identify whether the health information being analysed was suitable for the UK population. An indication of a suitable score for FRE was, therefore, 80-90.

Results

All five tests showed that the health information provided across different organisations was classed as *fairly difficult* to read, translating to age 15-16 years old, above the recommended age of reading material in the United Kingdom which is recommended as 9 years old (Readable, 2023). (See Table 1). The Mean grade scores (FKGR, GFI, CLI, SMOG) were calculated (see Table 1) yielding a mean of *10.*7 and Median of *10.4 (SD = 0.5).* The average Flesch Reading Ease (FRE) score for all of the information analysed was *59.5 (SD = 2.6)* indicating the patient health information was, *fairly difficult* to read. The mean rank scores were also calculated (Table 1), the FKGL, compared to the readability formulae, represent the highest readability scores, thus, being more difficult to read.

Table 1: Descriptive Statistics of the Readability Formulae for total sample (n = 52)

Readability Formula	*Mean Score*	*Minimum Score*	*Maximum Score*	*Standard Deviation(σ)*	*Median*	*Recommended readability score for each measure (Readable. com)*
Flesch-Kincaid Grade Level (FKGL)	9.0	8.2	9.7	0.5	9.2	8
Gunning Fogg index	12.3	10.9	13.8	0.7	12.4	7-8
Coleman-Liau Index (CLI)	9.4	8.8	10.1	0.4	9.2	8-10
Simple Measure of Gobbledygook Index (SMOG)	12.3	11.4	13.0	0.5	12.2	≤8

Flesch Reading Ease (FRE)	59.5	53.7	63.7	2.6	60.4	70-80
FKGL, CLI, SMOG, GFI combined average score	10.7	9.9	11.5	0.5	10.4	

From the primary analysis (refer to Table 2 and See Appendix 48), according to the FRE scores alone, the health information which presented as easier to read was a commercial/private sector website: "*Macular Hole: Condition and Surgery"* provided by New Medica.co.uk (*63.7*). The health information which was most difficult to read was "*Patient information – vitreo-retinal service Macular hole"* provided by Moorfields Eye Hospital NHS (*53.7).* According to the Gunning Fog Index (GFI) all the patient information analysed was "*hard*" to read with an average score of *12.3*. The recommended calculation for the Simple Measure of Gobbledygook Index (SMOG) is ≤8. The primary analysis for the SMOG revealed that no source of health information fulfilled this criterion. The mean grade for the SMOG analysis was 12.3. However, the results calculated from the Coleman-Liau Index (CLI) analysis indicated that 11/13 sources of health information analysed had an appropriate CLI score as the recommended readability scores are 8-10, indicating that the health information can be comprehended and understood by the majority of the general population. Nevertheless, the health information from two sources; Royal National Institute of Blind People 2022 and Cambridge Universities Hospitals scored 10.1. The Flesch-Kincaid Grade Level (FKGL) for each source of health information highlighted that all sources of health information were >8 indicating the approximate reading level of the health information would be difficult to read.

Table 2: Primary Analysis of readability scores

Source of health information: Organisation and web title page	Number of pages examined	Mean Readability score	Flesch Reading Ease (FRE)

Macular Hole NHS - Macular hole - NHS (www.nhs.uk)	8	9.9	62.6
Macular Society - Beating Macular Disease - Macular Society	3	10.1	60.3
Hull University NHS patient - Macular Hole | Hull University Teaching Hospitals NHS Trust (hey.nhs.uk)	6	10.2	63.4
Imperial College Hospital HealthCare NHS - A4 patient information leaflet template (imperial.nhs.uk)	2	10.3	61.5
New Medica.co.uk - Macular hole | Newmedica	4	10.4	63.7
Manchester Royal Eye Hospital - REH 060 Macular Hole - Manchester Royal Eye Hospital (mft.nhs.uk)	3	10.5	60.5
Specsavers - Macular hole causes and treatments | Specsavers UK	3	10.8	60.4
Guide Dogs.org.uk - Macular Hole | Your Eye Health (guidedogs.org.uk)	7	10.9	57.6
Patient information Leaflet – Moorfields Eye Hospital - Macular hole_1.pdf (moorfields.nhs.uk)	3	11.2	59.3

British and Eire Association of Vitreoretinal Surgeons - Macular Hole | British and Eire Association of Vitreoretinal Surgeons (beavrs.org)	5	11.2	58.1
Royal National Institute of Blind People 2022 - Macular hole | RNIB	4	11.3	57
Cambridge Universities Hospitals - Macular Holes | CUH	3	11.4	55.2
Moorfields Eye Hospital – NHS foundation trust website - Macular hole - Moorfields Eye Hospital	1	11.5	53.7

Due to low cell numbers a non-parametric tests Independent-Samples Kruskal-Wallis Test was conducted to assess whether there was any significant differences between the mean readability scores in three independent groups (Public sector, Commercial Sector and Charitable Sector) (See Table 3 and Appendix 49). The Kruskal-Wallis Test showed that there was no significant differences regarding the mean readability score across the three organisations H (2) = 1.16, p = . 559.(See Appendix 50). However, as noted by the descriptive statistics, the charities had a better readability score compared to the Public and Commercial sectors (See Appendix 50).

Table 3: SPSS analysis; mean readability scores

Organisation	Mean	Std. Deviation
Government	10.7	0.64
Private	10.6	0.48

Charity	11.1	0.28

Discussion

To our knowledge, this is the first study to assess the readability of online information pertaining to macular holes in the UK. The present study demonstrated evidence that the majority of the online health information pertaining to macular holes was" *fairly difficult to read"*. These findings are consistent with other readability analyses conducted on other patient information and on macular diseases aimed at an international audience (Cohen & Pershing, 2022). Cohen and Pershing (2022) observed that the average grade level of 11.29 is beyond the appropriate reading level of the American population. The results are also consistent with literature conducted on readability of health information on other ophthalmic conditions (Crabtree and Lee, 2022; Patel et al. 2021; Williams, Muir, and Rosdahl, 2016). Williams, Muir, and Rosdahl (2016) conducted a systematic review pertaining to patient health information in ophthalmology findings that the health information presented as difficult to understand for patients. The following results stipulate that patient's seeking advice utilising online health information may access difficult-to-read information at the early stages of searching the internet regarding their physical health condition (Atherton, Forshaw, & Kidd, 2023). Therefore, the current research results are consistent with existing literature.

Interestingly, when comparing the readability mean scores between Government, Commercial/Private and Charity websites, the charity website were the top scoring for the secondary analysis, meaning that the charity websites were 'easier to read' compared to the other organisations. It has been reported that NHS (Government) websites are the most visited UK websites for accessing health information (Marton, 2015), with more than 50 million individuals accessing health information every month (NHS, 2022). Health information provided by charities are also a popular and trusted resources (Sillence et al. 2007). Thus, considering the vast amount of individuals accessing these website for further health information, it stipulates that individuals who are seeking further health knowledge regarding their condition are accessing '*difficult-to-read'* information immediately when they are searching.

It is important to ensure that government, commercial/private and public sector websites conduct readability analyses of their published health information and display appropriate and easy to read

content, as the information the individual receives can have a significant influence on health knowledge, attitudes and beliefs towards their health condition, improve patient's understanding of their condition, promote access to the appropriate services, early diagnosis and post-operative plan and treatment (McCloud et al. 2016;Rooney et al. 2021; The Kings Fund, 2022). Therefore, it is important that health information is readable from a variety of sources to promote health knowledge, literacy and health outcomes.

Conducting readability analyses are essential to ensure health information is comprehensible which then promotes health care (Berkman et al. 2011; Oliffe et al. 2019; Peerson and Saunders, 2009). Considering the UK government's view on fundamentally changing how health care is delivered via a digital platform (Department of Health and Social Care, 2022), it is important that health information for patients is of a level which the general population as it can be helpful to ensure information is comprehensible to promote health care. There has been an increase within the wider literature on readability analyses being conducted on other health conditions such as; headaches, mental health and gestational diabetes (Atherton, Forshaw, & Kidd, 2023; Boutemen and Miller, 2023; Samuel, Fera and Basch, 2023; Willis and Gosain, 2023). These papers indicate that the credibility of readability analyses is increasing and the advantages of utilsing this type of analysis including making health information easier to read, retain and comprehend (Atherton, Forshaw, & Kidd, 2023; Boutemen and Miller, 2023; Samuel, Fera and Basch, 2023; Willis and Gosain, 2023). Thus, a readability analysis is a useful metric to consider before publishing heath information considering the vast abundance of information, accessibility and the benefits for patient-centered care, health decision making and overall quality of life (Badarudeen & Sabharwal, 2021; Rooney et al. 2021). By conducting a readability analysis prior to publishing the information publicly and to ensure that organisations, when sharing health information are aware and change the information accordingly, this can help identify the reading age of patient health information, thus enhancing patient care (Rooney et al. 2021).

Reading includes the acts of processing and making meaning of information (Beier et al., 2022). Literature states that reading speed can reduce with age (after age 40) and notable changes to sensory capabilities occur (Beier et al. 2022; Calabrèse et al., 2016; Levi, 2008; Rayner et al. 2010). It is important to note that macular holes occur in around 3 in 1,000 people over the age of 55 (NHS, 2021; Macular Society, 2023). Given the nature of the condition, when a macular hole occurs this can effect an individual's vision, and this is also associated with reduction in visual span and reading performance (Cheong et al. 2008). Thus, given the context, patients are searching for health information including providing insights into their health condition, curiosity around their health condition, delivering of

information including auditory due to individuals with macular holes experiencing poor vision, decision making, to understand their health condition and to determine whether they need further medical attention (Tan and Goonawardene,2017). The readability of information provided online is crucial for patients who are experiencing macular holes to make meaning of their condition; as poor readability may reduce understanding and prevent early detection and worsening of the condition before treatment is sought (Rooney et al. 2021; Badarudeen & Sabharwal, 2021).

Limitations and implications for future research

It is essential that health care information is accessible to all of the population (National Institute for Health and Care Research, 2022). A patient comprehending health information can promote health behaviours, physical and psychological wellbeing, detecting an early diagnosis to prevent further damage to their vision and self-management pre and post-surgery and treatment, as stated in the aforementioned literature that if individuals detect macular hole symptoms earlier (within 6 months) they have a 90% success rate, therefore, increasing the readability of health information can enhance knowledge and prevent individuals from misunderstanding symptoms to seek support and advice earlier (Benson et al. 2001; Macular Society, 2023; Institute for Health and Care Research, 2022; NHS, 2023; Rooney et al. 2021). The consequences of low health literacy can be significant in how a patient relates to their health condition from diagnosis to self-management (McMullan, 2006; Rooney et al. 2021). Thus, to empower patients it is crucial to enhance public-professional communications through readability analyses, education and multidisciplinary team initiatives looking at a range of health material including that related to symptoms/diagnosis and self-management (Institute for Health and Care Research, 2022). Considering the nature of a Macular Hole places the individual at substantial risk of visual impairment (Macular Society, 2023), additional support should be considered to overcome barriers for example utilising visual formats including videos and auditory material to aid comprehension of patient health information (Farwana et al. 2020; McCarthy, 2012; National Institute for Health and Care Research, 2022).

Readability analyses and formulae are not without their limitations (Plaven-Sigray et al. 2017). The readability analysis does provide insight into how readable the text is, nevertheless, it does not provide a yardstick as it does not necessarily mean the population find the text difficult to *understand* (Atherton, Forshaw and Kidd, 2021; Badarudeen and Sabharwal, 2010; Plaven-Sigray et al. 2017). Therefore, as this is an increasingly important topic to research, it is essential to conduct further research to assess the quality and variability of health information by using additional tools and

measures, for example, the DISCERN instrument, which is a brief questionnaire assessing the quality of written health information (Charnock et al. 1999; Kaicker et al. 2010).

Health information is rapidly updated. We acknowledge that the health information data in this research changes over time and the findings are limited to the data captured and analysed at the time. (February/2023). It is important that future readability research is conducted regularly to keep up to date with the increasingly published health information circulated online. Also, the current analyses were conducted on a United Kingdom (UK) information including a relatively small sample, thus, future research could consider analysis of international information to increase generalisability and allow researchers to collate a larger sample size with evidence base inferences for a wider population (Øvretveit et al. 2011).

On a final note, it is important to involve Ophthalmologists and other health care professionals who work with patients experiencing a Macular Hole to contribute towards increasing patient comprehension to ensure it can contribute to improving understanding of their condition and general overall patient health outcomes and quality of life (Cohen & Pershing, 2022; DeWalt et al. 2004; Easton, Entwistle & Williams, 2013; Eckman et al. 2012; Shahid et al. 2022; Von Wagner, 2007; Zheng, 2018).

Conclusion

Internet based patient health information regarding Macular Holes is fairly difficult to read, thus, there is room to improve the readability of such information. This study highlights that patients accessing health information associated with Macular Holes may not be able to follow appropriate guidance and comprehend the nature of their condition which in turn may have a detrimental effect on patient outcomes including early detection and appropriate and effective self-management of their condition (Berkman et al. 2011; Oliffe et al. 2019; Peerson and Saunders, 2009). Thus, our findings identify that further consideration into the readability of online health information is needed to ensure that the majority of the population can comprehend the health information. Health information providers who publish content to the general public should consider conducting a readability analysis before publishing including consistency with the scores across each readability measure, avoiding jargon and using shorter sentences to aid comprehension of information on health conditions.

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Chapter 5.3 - 8002: Systematic Review

Acceptance and Commitment Therapy for Smoking Cessation: A Systematic Review

Turnbull, L., Forshaw, M., Poole, H., and Kidd, T. (2023)

8002: Systematic Review

***Background and objectives**:* A systematic review was conducted to explore the long-term effectiveness of Acceptance and Commitment Therapy (ACT) interventions on smoking cessation interventions. Smoking is an established independent risk factor in the development of a non-communicable disease. ACT has been applied to a smoking cessation context, utilising techniques including acceptance of cravings and mindfulness techniques to support the individuals stopping smoking journey. As ACT is growing as a therapeutic approach, it is important to establish the efficacy

of the intervention as a potential alternative to other treatments which may? enhance patient centered care and offer individualistic treatment support.

***Design and methods**:* A comprehensive literature search was conducted using six electronic databases between March- April 2023, PsycINFO, MEDLINE, CINAHL, PubMed, ScienceDirect and Web of Science. Further searches were conducted using Cochrane Central Register of Controlled Trials and hand searches evidenced in the reference list. The literature found was then systematically sought and synthesised. Of the 4,631 articles, 3,031 were duplicates, 1,600 were assessed by title and abstract. 1,586 papers were excluded on the basis of the study design, population, intervention and language which left ten papers included in the review. These 10 papers included a total of 5,797 participant adult smokers. The review was conducted following PRISMA guidelines and registered with PROSPERO.

***Results**:* Eight out of ten randomised controlled trial studies reported that the participants who received ACT intervention were more likely to commence with smoking cessation post-intervention and during follow up (3-12 months). Significant increases in acceptance of cravings from baseline and sustained at follow up were reported in three articles.

Conclusions: Use of ACT for adults who smoke could be utilised as an alternative form of smoking cessation intervention. Nevertheless, further research is required to measure and evaluate the longitudinal enduring behaviour change effects ACT has on smoking cessation in adults and enhance patient centred care and choice. Thus, further research is required to measure the effectiveness on promoting sustained and desired behaviour change, including articles conducting more longitudinal studies, similar to the articles in this systematic review including 12 months follow ups.

Keywords: Acceptance and Commitment Therapy, Smoking Cessation, and Systematic Review.

Declarations: All authors in this review certify that they have no affiliations with or involvement in any organisation or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. This is a systematic review study, based on published data, as such the Liverpool John Moores University Research Ethics Committee confirmed that ethical approval was not required.

Introduction

Smoking is an established behavioural risk factor which can have fundamental consequences on an individual developing a non-communicable and potentially fatal disease (Black et al.2020; Mak, Loke & Leung, 2021; National Institute for Health and Care Excellence, 2023; Public Health England, 2019; World Health Organisation (WHO), 2022). Current estimates suggest that there are 1.1 billion smokers worldwide, and it is predicted that by 2025, smoking-related deaths such as cancer and cardiovascular disease will reach 10 million (Office for National Statistics, 2019; World Health Organisation, 2022). According to the Office for National Statistics (2019), there are approximately 6.9 million adults who smoke in the United Kingdom. It is estimated that smoking alone costs the NHS 2.6 billion per year (NHS, 2022), this presents a substantive challenge to both health care provision and the accompanying financial costs (NHS, 2022). Thus, smoking cessation may prevent disease development and may promote better health outcomes (McCallion & Zvolensky, 2015). Given the aforementioned statistics,

it is perhaps not surprising that smoking cessation is a main objective for the UK government (Department of Health, 2017; Harris et al. 2010; Office for National Statistics, 2019).

According to Public Health England (2019), a vast number of smokers (60%) want to engage in smoking cessation (Public Health England, 2019). Despite this, smoking cessation rates are low (interestingly, 4% of individuals will succeed without smoking cessation support) (Koçak et al. 2015; World Health Organisation, 2022). Literature has suggested that including behavioural support, can significantly increase an individual's chance to engage in smoking cessation (Public Health England, 2019; O'Connor et al. 2020). Indeed, incorporating psychological and behavioural factors have been supported in previous systematic reviews to increase intervention efficacy (e.g. Black et al. 2020; Hartmann-Boyce et al. 2021). Correspondingly, the NICE guidelines also acknowledge behaviour change interventions combined with Nicotine Replacement Therapy for smoking cessation interventions are a 'gold standard' (NICE, 2023). Nevertheless, whilst pharmacotherapy and behavioural support improve effectiveness of smoking cessation rates (Taylor et al. 2017; Hartmann-Boyce et al. 2019), the development of these interventions and additional resources they require can have significant financial implications on smoking cessation rates (Ladapo et al. 2020). Thus, there is a need to ensure that interventions are able to deliver a high population level impact (Bricker et al. 2013).
A recent review reported that in combination with pharmacotherapy products, a range of psychological techniques/intervention were effective in smoking cessation including; Cognitive Behavioural Therapy (CBT), Motivational Interviewing (MI), and behavioural counselling and techniques (Zhang et al. 2018). Interestingly, the review highlights that non-specific factors, including rapport and building positive therapeutic relationships, as significant factors in improving smoking cessation rates. Furthermore, these psychological approaches predominately centre around cognitive, emotional and self-efficacy and in particular CBT practice revolves around the action of attempting to control, eliminate or avoid unwanted thoughts to promote and maintain behaviour change (Zhang et al. 2018). Although the literature highlights that these approaches initiate changes in health behaviour (Lightfoot, Panagiotaki & Nobes, 2020; Barth et al. 2015), given the severity, low smoking cessation rates highlighted above, the magnitude of smoking behaviours and the long-term maintenance of smoking cessation, alternative approaches including Acceptance and Commitment Therapy (ACT) are required to enhance patient centred care and individualised treatment, by building relationships and skills for longer term management (Bhattacharyya, Rai and Neog, 2008; Kwasnicka et al. 2016).

A recent innovation for smoking cessation behavioural support is ACT. ACT is a behavioural therapy adopting a framework based on Functional Contextualism, Psychological Flexibility and Relational

Frame Theory (Hayes, Strosahl & Wilson, 1999; Hayes, 2005). Unlike CBT, as a transdiagnostic treatment, ACT encompasses acceptance, willingness, values and mindfulness as an alternative strategy to experiential avoidance (controlling or avoiding issues), orientated towards enhancing psychological flexibility, which is defined as being present in the moment, as a conscious human being, whilst adopting behaviours which are consistent and aligns with their values (Hayes et al. 2012 ; Iturbe, Echeburúa & Maiz, 2022; Zhang et al. 2018). Literature has suggested that individuals who give up smoking demonstrate acceptance when showing willingness to encounter undesirable emotions, physical sensations, feelings and thoughts (urges and cravings to smoke) without the temptation to avoid or control these thoughts, thus, exhibiting acceptance of internal and external antecedents to smoking, which is a major component of CBT behavioural support (Kwan et al. 2023; Levin et al. 2012). Although ACT was predominately focused around enhancing psychological wellbeing (Zhang et al. 2018), interest in this approach has expanded to promoting positive health behaviour change by introducing new health behavioural patterns (Mak, Leung & Loke, 2020; Santiago-Torres et al. 2022). Research has identified that there may be particular components of ACT associated with smoking cessation including; acceptance and cognitive defusion, whereby the individual notices their physical and emotional cravings to smoke and accepts these thoughts, in contrast to a standardised CBT approach encouraging the individual to change or avoid their thoughts (Bricker et al. 2013; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). To increase psychological flexibility six major processes are utilised in ACT; acceptance, cognitive defusion, present moment awareness, self-as-context, values and committed action (Refer to Table 1) (Hayes, 2005; Hayes, Pistorello and Biglan, 2008; Zhang et al. 2018).

Table 1: ACT Intervention Components (Harris, 2019)

ACT Intervention Components	Definition
Acceptance	Acceptance of both physical and psychological experiences of smoking behaviours and willingness to have these experiences without trying to control them (Harris, 2019).

Cognitive defusion	Cognitive defusion is learning to step back and watch your thinking and notice thoughts rather than getting caught up in them. Letting thoughts come and go rather than holding onto the thought, thus, reducing the transformation of stimulus (smoking) functions by reducing the impact of the thoughts and feelings (Kwan et al. 2023; Harris, 2019).
Present moment awareness	Paying attention to our experiences in this moment whilst observing environmental demands (Kwan et al. 2023; Harris, 2019).
Self-as-context	Becoming an objective observer and noticing the environment around you; which may aid smokers in reorienting themselves toward better health behavior change related to smoking cessation and detach from smoking behaviours (Kwan et al. 2023; Harris, 2019).
Values	Identify what is meaningful to you, providing direction and guide on life's journey on how we want to behave to change smoking behaviours (Harris, 2019).
Commitment Action	Taking effective action to change our behaviour, guided by our chosen values (Harris, 2019).

In the context of smoking cessation, ACT's focal point is on helping individuals to recognise and increase their acceptance and willingness to experience the internal antecedents of smoking. This is established by the individual adapting to situational demands that smoking creates and changing their

relationship with these thoughts (Hayes, 2005; Gifford et al. 2004; Zhang et al. 2018). This approach accounts for the limitations of MI and CBT, whereby they attempt to reframe an individual's distorted thinking patterns into positive affirmations which may not be appropriate in all contexts (McClure et al. 2020). ACT helps individuals become more accepting of their emotions and physiological sensations by fully regarding the presence of these thoughts without trying to avoid them, for example, when an individual is experiencing distressing feelings or thoughts, they are encouraged to notice these and not repress them (McClure et al. 2020).

Promising evidence has been found in several studies on the application of ACT for successful behavioural maintenance/smoking cessation in adults (Bricker et al. 2010; Bricker et al. 2013; Gifford et al., 2004; Hernandez-Lopez et al. 2009**;** Kwasnicka et al., 2016). Hernández-López et al. (2009) conducted a quasi-experimental study and found by utilising metaphors and experiential exercises focusing upon personal values applied more to smoking cessation interventions compared to standardised CBT interventions. Their results reported that in adult smokers that ACT was a potential alternative approach compared to CBT as an effective intervention for smoking cessation, this was biochemically supported 30-day point prevalence at a twelve-month follow-up. Similarly, McClure et al. (2020) found promising evidence that ACT interventions was comparable to CBT regarding long-term quit rates of 1 year follow ups for smoking cessation. ACT has been found as a reasonable alternative approach compared to other evidence-based approaches including behavioural support and CBT for smoking cessation, especially in terms of accepting and noticing emotions and feelings around smoking rather than changing and avoiding them, as CBT approach would emphasis on (Hernán**dez-L**ópez et al. 2009; McClure et al. 2020). Thus, if ACT is found to be an effective intervention for smoking cessation then it can provide patients with options and choice regarding which intervention they would like to engage in, this allows the patient to be involved in the decision making process which may also lead to greater satisfaction and intervention outcomes, as literature has highlighted that offering a patient choice and involving them in the decision making of their treatment increases patient satisfaction, optimal care and health outcomes, as linked to the NHS Long Term Plan (2019) (NHS Long Term Plan, 2019; Zolkefli, 2017).

Aims and Research Question

The following systematic review aims to examine the evidence-base to determine the long-term (12 months) effectiveness of Acceptance and Commitment Therapy interventions for smoking cessation, as previous studies consider the short-term effect. This is essential considering the aforementioned statistics on the engagement within smoking cessation interventions and finding new approaches to enhance patient centered care, treatment outcomes and overall positive health outcomes. Specifically, one research question was devised:

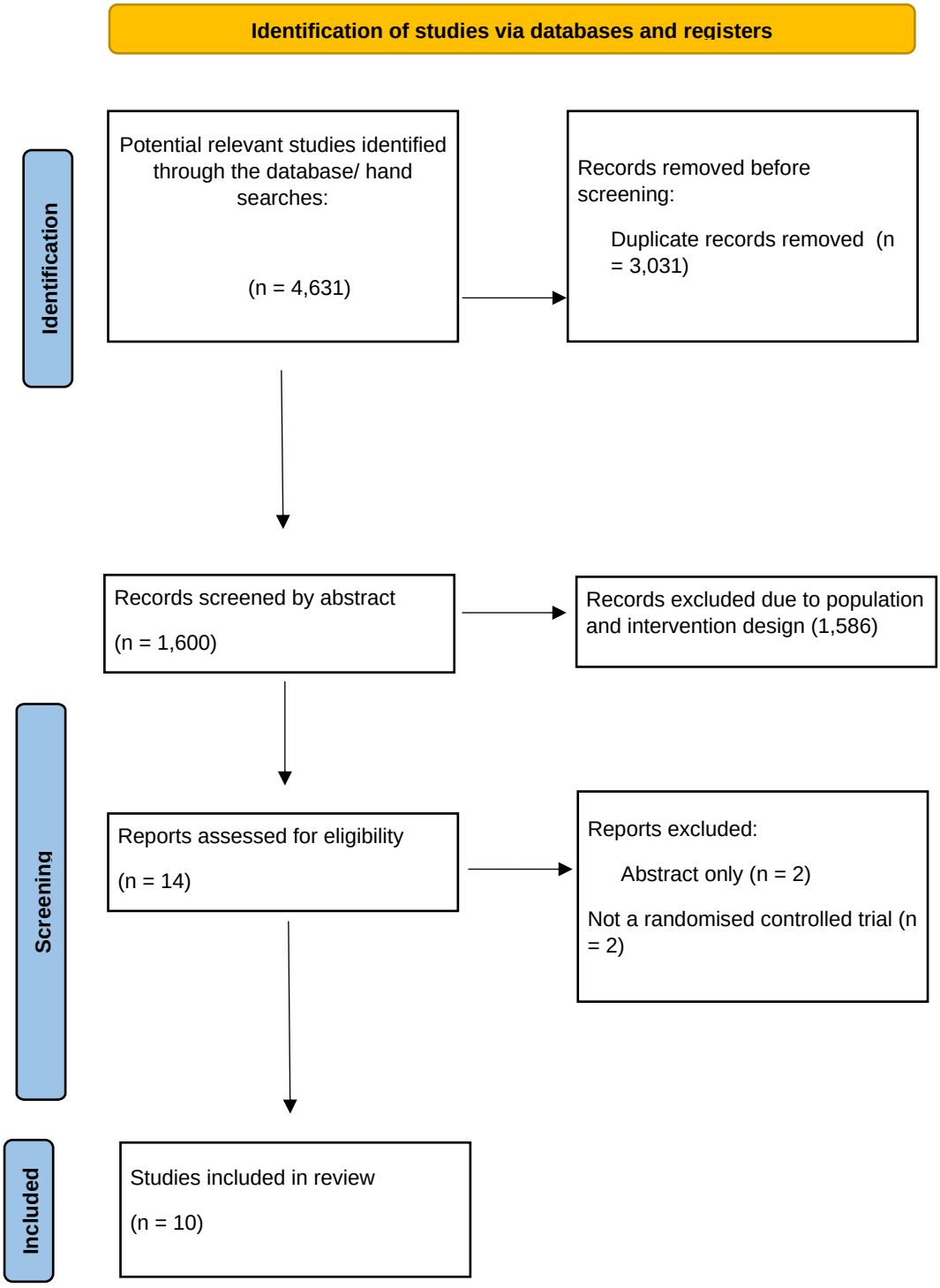
- Is Acceptance and Commitment Therapy an effective long-term psychological intervention for smoking cessation in adults?

Methods

Protocol

The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Liberati et al. 2009) (Diagram 1).

Diagram 1: PRISMA chart identifying search results and articles for the systematic review (Liberati et al. 2009).



Search Strategy and Criteria

A comprehensive literature search was conducted using six electronic databases; Psychinfo, MEDLINE, CINAHL, PubMed, Science Direct and Web of Science were searched using the relevant keywords; "Acceptance and Commitment Therapy" OR **"**ACT" AND "Adults" AND "smoke*" AND "Smoking" AND "Smoking cessation" AND "Psychological Flexibility". Searches were restricted to English Languages and Human participants (Adults). Articles reviewed had to include ACT as a psychological intervention in an adult population who were smokers. RCT articles included were titles published between (2013-2023), this is due to ACT being a relatively new approach to smoking cessation interventions. Further searches were conducted using Cochrane Central Register of Controlled Trials and hand searches evidenced in the reference list. Eligible articles were included. This systematic review was registered on PROSPERO on 16th March 2023 (registration number is: CRD42023397607).

Eligibility Criteria

A criterion was set to identify appropriate journal articles, (1) RCT's are used as the study design (2) Quantitative design studies (3) Participants related variables including an adult sample population (aged 18 and above). (4) The primary psychological intervention was ACT. (5) The primary outcome variable was to reduce cigarette intake and abstinence of cigarettes or cessation of smoking (the participant has quit smoking). (6) Including reviews who conducted a follow up study of 3 months or more. (7) Articles published in a peer reviewed journal. (8) Articles available in English.

Data Extraction

Scoping of the literature, removal of duplicates and screening of relevant titles and abstracts were conducted by the first author (LT) and then checked by the second author (HP) and third author (TK) to cross reference the articles. All reviewers confirmed that the articles were eligible. The first author then independently examined the full text according to the inclusion and exclusion criteria, then

conducted coding for a variety of study characteristics about the participants. Data collated was number of participants, smoking status and attrition rate. Data was also included on intervention included intervention name, description, duration, frequency, delivery, co-interventions, and comparators.

Patient, intervention, comparators, outcomes and study design (PICOS)

One of the initial steps taken was to determine the elements of the systematic review question, including the population, intervention, comparators, outcomes and study design (PICOS) (McKenzie et al. 2019). PICOs are used in systematic reviews to identify elements of clinical evidence and is endorsed by Cochrane reviews (McKenzie et al. 2019).

The PICOS search terms were:

- Population – Adults who are identified as smoking cigarettes.
- Intervention – Acceptance and Commitment Therapy or Psychological Flexibility
- Comparison– Other types of intervention or control intervention
- Outcome – Smoking cessation with 3 months or more follow ups
- Study Design – Randomised Controlled Trials (RCT)

Data Collection process

A data extraction system was employed using EndNote (2023) to record specific information on each study. This includes (1) first author and year of publication, (2) country, (3) characteristics of participants (sample size, age and gender), (4) type of design, (5) intervention condition (including frequency and length of ACT sessions), (5) Primary outcome measures (6) Results following intervention (if reported).

Risk of bias (Quality assessment) Critical Appraisal Skills Programme (CASP) (2022).

A quality check for risk of bias was conducted using the Critical Appraisal Skills Programme (CASP) checklist (2022) (Refer to Appendix 51) which was considered most appropriate for this review as it has been utilised to measure the quality of Randomised Controlled Trials with healthcare practitioners (CASP, 2022; Long et al. 2020). Articles were scored using a 'yes', no' or 'cannot tell' for thirteen ratings on study designs, whether the study was methodologically sound (See Table 2 for further details). From the quality assessment, the impact of these articles demonstrated rigour and relevance as they provide meaningful answers to the research question due to the majority of the scoring being 'yes' (Boland, Dickson and Cherry, 2017).

Study Characteristics

Participants

A summary of each of the study characteristics are presented in Table 1. Overall, the ten RCT studies included, 5,797 adult participants in total. Sample sizes ranged from 35 -2,452 participants with a mean average of 580 participants, with the mean age ranging from 18 years old (Mahmut & Şimşek, 2021) to 51.3 years old (McClure et al. 2020). The age range is wide-ranging; however, research has found mixed evidence regarding smoking cessation rates and age, identifying that other confounding variables including level of addiction and frequency of smoking behaviours should also be considered (Aran ni et al. 2021). All articles conducted a random allocation between the control and intervention group (See Table 1 for further information regarding control interventions used). All the articles targeted adults who were current smokers, articles included both male and female participants. All ten articles reported mixed genders (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; O'Connor, et al. 2020; Mahmut & Şimşek, 2021; Mak, Leung and Loke, 2021; McClure, et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). On average more females than males were identified in eight of the articles; ranging between 23%-49% of males and 51% - 77% of females (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; O'Connor, et al. 2020; McClure, et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). Although, two articles reported a higher male sample size (Mak, Leung and Loke, 2021; Mahmut & Şimşek, 2021). This is an important factor to consider, as research suggests that females are less likely to abstain from smoking and have higher relapse rates in comparison to males (Baur et al. 2023). All the articles utilised a follow-up process ranging from (3-12 months) post intervention.

Table 1: Study Characteristics

or	Participants	Study Design	Intervention details	Comparator	Country	Follow up	Outcome Measures – primary and secondary	Mai

r et al.)	N = 222	A randomised controlled trial	The study compared web-based ACT for smoking cessation (WebQuit.org) with the National Cancer Institute's SmokeFree.gov – the U.S national standards for web-based smoking cessation interventions.	Control group - Smokefree.gov website for psychoeducative smoking cessation information.	USA	Yes – 3 months	○ Participants self-reported a variety of demographics ○ Fagerström Test for Nicotine Dependence (cutoff score: 4 or more; Heatherton, Kozlowski, Frecker, & Fagerström, 1991). ○ Treatment Satisfaction (Brief Survey) ○ Avoidance and Inflexibility Scale (AIS-27; adapted from Gifford et al., 2004) ○ Thirty-day point prevalence abstinence	Results of found that with the c ACT had h receptivity term cessa strong evi theory-bas mechanism

r et al.	N = 121	A randomised controlled trial	Both the ACT telephone intervention and the traditional CBT telephone intervention were delivered as a five-session counseling protocol in combination with NRT.	Control Group (Traditional CBT telephone intervention)	USA	Yes – 6 months	○ Participant Demographics and Smoking Behaviors at Baseline ○ Depression Symptoms at Baseline (Anxiety and Depression Detector). *(*Means-Christensen, Sherbourne, Roy-Byrne, Craske, & Stein, 2006). ○ Nicotine Dependence at Baseline (two-item Heaviness Smoking Index from the Fagerström Test for Nicotine Dependence). (Heatherton, Kozlowski, Frecker,& Fagerström, 1991). ○ Treatment Satisfaction (brief survey). ○ NRT use (qualitative data) ○ Avoidance and Inflexibility Scale (AIS; adapted from Gifford et al., 2004) ○ Thirty-Day Point Prevalence Cessation Outcome at 6-Month Follow-Up (Hollis et al., 2007; Stead et al., 2013)	ACT is feasi by phone, a highly pron compared v CBT/counse

et al. .	N = 222	A randomised controlled trial	Comparing web-based ACT for smoking cessation (WebQuit.org) with Smokefree.gov. WebQuit.org was presented as a self-paced program consisting of eight ACT modules. WebQuit.org contained no interventions specifically targeting depressive symptoms and their relationship to quitting, as it was designed as an intervention for the general population of smokers. A complete description of the WebQuit.org intervention can be found elsewhere (Bricker et al., 2013). Smokefree.gov is also a self-paced program, with content based on the current standard of care for behavioral smoking cessation interventions: the U.S. Clinical Practice Guidelines (Fiore et al., 2008).	Control Group - Smokefree.gov. WebQuit.org	USA	Yes – 3 months follow up	○ The Anxiety and Depression Detector (Means-Christensen, Sherbourne, Roy-Byrne, Craske, & Stein, 2006) ○ Treatment satisfaction was measured with a brief survey at the three-month follow-up. ○ Avoidance and Inflexibility Scale that measures ACT theory-based acceptance processes (Gifford et al., 2004). ○ 30-Day Point Prevalence Cessation Outcome	This study s ACT has co potential as for smoker demonstra rates for AC interventio compared t group.

r et al.	N = 2415 adult smokers	A randomised controlled trial	Remote Smartphone application based on ACT - iCanQuit, an ACT-based smoking cessation application, which taught acceptance of smoking triggers, and the National Cancer Institute QuitGuide, a USCPG-based smoking cessation application, which taught avoidance of smoking triggers. Education and skills for preparing to quit smoking.	Control Group - National Cancer Institute QuitGuide, a USCPG-based smoking cessation application	USA	Yes – 3, 6 and 12-month follow-up	○ Demographic characteristics ○ Depression (Center for Epidemiological Studies Depression Scale) (Radloff, 1977). ○ Alcohol use (Quick Drinking Screen) (Roy et al. 2008) ○ Nicotine dependence (Fagerström Test for Nicotine Dependence) (Heatherton et al. 1991). ○ Smoking in their social environment (eg, number of adults at home who smoke)	For the prir of 30-day P month follo iCanQuit pa 1.49 times quitting sm compared v participant

t al. .	N = 144. randomized to the intervention (ACT) group (*n* = 70) and control group (*n* = 74), respectively	A randomised controlled trial	Participants in the ACT intervention were offered an initial, individual, face-to-face ACT session at the clinic and two telephone follow-up sessions at 1 week and 1 month following the initial ACT session. The sessions were delivered by an experienced health counselor trained in the principles of ACT applied in smoking cessation. Each session lasted around 15 to 20 min. A session-by-session ACT model for smoking cessation is comprised of six core processes, including "acceptance," "defusion," "self-as-context," "the present moment," "values," and "committed action," which work together to increase psychological flexibility.	Control Group – psychoeducative materials	Hong Kong	Yes – 3, 6 and 12 month follow ups	○ Seven-day Point Prevalence ○ Fagerstrom Test for Nicotine Dependence (FTND) (Heatherton et al. 1991). ○ Acceptance and Action Questionnaire-II (AAQ-II) for smoking (Hayes et al. 2004). ○ Avoidance and Inflexibility Scale (AIS) (Farris et al. 2015; Gifford, 2002; Tyndall et al. 2019) ○ Biochemical measures – C0 and urinary cotinine measures	ACT interve feasibly be natural clin and could r smokers to open to qu smoking. I brief sessio not produc help them t smoking. O results sugg for smoking brought ab changes, in psychologic and more c about quitt compared t self-help m

hor, et 20).	N = 150	A randomised controlled trial	Participants were randomly assigned to 6 weekly group sessions of behavioral support, ACT, or ACT combined with the smartphone application.	Control Group – Behavioural support programme	Dublin, Ireland	Yes – 6 month follow up	○ Seven-day point-prevalence abstinence **(Hughes et al. 2010)** ○ piCO Smokerlyzer carbon monoxide breath test monitor ○ The Commitment to Quitting Smoking Scale (Kahler et al. 2007) ○ Mental Health Continuum Short Form (MHC-SF; Keyes, 2005) ○ The Avoidance and Inflexibility Scale (AIS; Bricker et al., 2013, Farris et al., 2015, Gifford et al., 2004) ○ Awareness subscale of the Philadelphia Mindfulness Scale (Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008). ○ The Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014) ○ Valuing Questionnaire (VQ; Smout, Davies, Burns, & Christie, 2014)	The combi was found acceptable in promoti reduction, present-mo awareness posttreatm smoking ce outcomes comparable combined, behavioral conditions.

re, et 20).	n = 450	A randomised controlled trial	Participants were randomized to either ACT-based group counselling or an attention-matched CBT-based group program. All were prescribed an 8-week course of nicotine patches.	Control Group - CBT-based group program	USA	Yes – 12 months	○ 30-day point prevalence abstinence (PPA) at 12 months ○ Saliva collection kit ○ Participant satisfaction questionnaire ○ Baseline assessment included participant demographics ○ Current depression (Radloff, 1997) ○ Generalised anxiety (Spitzer et al. 2006) ○ Nicotine dependence (Heatherton et al. 1991) ○ Audit – C alcohol use (Bradley et al. 2007) ○ Commitment to Quitting Scale (Kahler et al. 2007) ○ Avoidance and Inflexibility Scale (Gifford et al. 2004; Bricker et al. 2013) ○ Self-reported 30-day point prevalence abstinence (PPA) at 12 months. ○ Biochemically confirmed PPA at 1-year and 30-day PPA Participant satisfaction	Group-base had similar rates in this methodolo randomized results add evidence b ACT may be alternative smoking ce

ut, .	N = 35	RCT with experimental design.	6 sessions (1/week) of Acceptance and Commitment-based counselling were given to the intervention group lasting on average 30-60 minutes per session.	Control Group - nicotine replacement treatment or medication treatment from the routine treatments of Smoking Cessation Outpatient Clinic was given.	Turkey	Yes – 3 months	○ Personal Information Form ○ SF-36 Quality of life (Kocyigit, 1999) Questionnaire ○ Fagerstrom Test for Nicotine Dependence (FTND) (Heatherton et al. 1991)	There was a decrease in number of day and FT intervention measureme scores afte intervention follow-up n in the inter and this de significantly the mean n cigarettes p participant group.

go- , et al. .	N = 550	A randomised controlled trial	The iCanQuit smartphone application (version 1.2.1) teaches ACT skills for coping with smoking urges, staying motivated, and preventing relapse (Bricker et al., 2020). QuitGuide The USCPG-based QuitGuide smartphone application (version 1.2.2) focuses on increasing motivation to quit by using reason and logic and providing information on the health consequences of smoking.	Control group - QuitGuide smartphone application	USA	Yes - 3, 6 and 12 month	○ Participants' baseline characteristics ○ Center for Epidemiological Studies Depression Scale (cutoff ≥16) (Radloff, 1977). ○ 5-item Autonomic Nervous System Questionnaire (reporting ≥1 panic attack within the past month indicates a positive screen) (Stein et al., 1999) ○ Six-item PTSD Checklist (scores of ≥14 indicate a positive screen), respectively (Lang et al., 2012). ○ Fagerström Test for Nicotine Dependence (FTND) (Heatherton et al., 1991), ○ The Quick Drinking Screen (Roy et al., 2008).	This study p evidence o acceptabilit of smartph application cessation. F suggest tha more engag satisfying, h significantly term quit ra QuitGuide, higher long rates, and c through its mechanism

go- , et al. .	n = 1452	A randomised controlled trial	Briefly, participants who had access to the ACT-based iCanQuit app for 12-months received eight levels of intervention content based on two key processes of ACT: acceptance of cravings to smoke and enactment of core life values that motivate living a smoke-free life. In the "Preparing to Quit" phase, iCanQuit focuses on helping the user develop acceptance of physical sensations, emotions, and thoughts that trigger smoking, and allowing these triggers to pass without smoking via mindfulness and perspective taking.	Control group – QuitGuide non-ACT based intervention	USA	Yes – 12 months	○ Fagerström Test for Nicotine Dependence (cutoff score: 4 or more; Heatherton et al. 1991). ○ Personal information form – for example participants demographics ○ Center for Epidemiological Studies-Depression scale for depression ○ Smoking behaviors data at baseline included information on (1) number of cigarettes per day, (2) level of nicotine dependence via the FTND, (3) use of e-cigarettes or any other nicotine-containing tobacco products other than combustible cigarettes, (4) quit attempts, (5) confidence in being smoke-free, and (6) friends or family members who smoke (Heatherton et al. 1991) ○ Quick Drinking Screen (Roy et al., 2008). ○ Autonomic Nervous System Questionnaire for panic disorder ○ PTSD checklist (Lang et al., 2012; Radloff, 1997; Stein et al 1999).	Participant the ACT-ba interventio significantl report 30-d compared t group. The that ACT m efficacious cessation ir

Outcome Measures

Primary outcome measures

Smoking Cessation and Nicotine Dependence

The standardised subjective and objective measures utilised in smoking cessation interventions are Fagerström Test for Nicotine Dependence (FTND) (Heatherton et al. 1991) and Carbon monoxide (CO) (National Centre for Smoking Cessation Training, 2020) reading, respectively. The FTND scale is a self-reported measured used as an outcome for nicotine dependence and smoking cessation in all ten articles (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023).

Self-reported measures including a complete-case 7-day and 30-day point prevalence abstinence (PPA) (no smoking at all in the past 7- 30 days, those who have responded no are considered to have quit smoking) was completed as primary and secondary outcomes in nine articles (Bricker et al. 2020; Mak, Leung, & Loke, 2020; O'Connor et al. 2020; McClure et al. 2020; Bricker et al. 2014; Jones et al. 2015; Santiago-Torres et al. 2022; Bricker at al. 2013; Santiago-Torres et al. 2023).

Biochemical measures in the form of Carbon Monoxide (CO) readings were used in two articles (Mak, Leung, & Loke, 2020; O'Connor et al. 2020). This is used as a biofeedback tool to measure smoke intake and to monitor the client's progress and abstinence markers throughout. CO readings are also a valuable motivational tool for the client (National Centre for Smoking Cessation Training, 2020) providing them with visible evidence of the harm caused by smoking and offering a yardstick with which to chart their progress after they stopped smoking.

Nicotine Replacement Therapy (NRT) (National Centre for Smoking Cessation Training, 2020) use was assessed in one study at a 6-month follow up (Bricker et al. 2014) to identify whether NRT had been used since participating in the intervention.

Secondary outcome measures

Personal Information forms were provided in nine articles to capture health conditions, sociodemographic factors, smoking and addiction status (Mahmut & Şimşek, 2021; Bricker et al. 2020; Mak, Leung, & Loke; O'Connor et al. 2020; McClure et al. 2020; Bricker et al. 2014; Jones et al. 2015; Santiago-Torres et al. 2022; Bricker et al. 2013; Santiago-Torres et al. 2023).

Patient and Treatment Satisfaction Questionnaires were also utilised to measure the intervention in all articles (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023), to measure the overall effectiveness and satisfaction of the interventions.

Acceptance and Commitment Measurements

There were variations in how the ACT components and psychological flexibility were measured including; two articles used the Acceptance and Action Questionnaire-II (AAQ-II) for smoking (Mak, Leung, & Loke, 2020). Seven of the articles used Avoidance and Inflexibility Scale (AIS) (Bricker et al. 2014; Jones et al. 2015; Mak, Leung, & Loke, 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023), Awareness subscale of the Philadelphia Mindfulness Scale (O'Connor et al. 2020), The Cognitive Fusion Questionnaire (O'Connor et al. 2020), Valuing Questionnaire (O'Connor et al. 2020; Santiago-Torres et al. 2022) and Commitment to Quitting Scale (McClure, 2020). According to the literature, all the measures utilised demonstrate good validity and psychometric properties (Bond et al. 2011; Farris et al. 2015).

Intervention components

Components of ACT interventions; acceptance, cognitive defusion, present moment awareness, self-as-context, values and committed action (Hayes, 2005), were present in all articles, therefore, all articles adhered to the valid ACT framework (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023), (Please refer to Appendix 52). As shown in Table 3, because ACT is a transdiagnostic personal centered approach, the intervention promotes a more flexible approach to be applied during interventions (Hayes, 2005; Zhang et al. 2018). This is reflected in each of the interventions within this review, as they each study have not applied a linear approach (Hayes et al., 2012; Zhang et al., 2018). All articles begin with an introduction and ended with a summary and committed action which is consistent with recommended delivery of ACT and best practice for psychological interventions (Hayes, 2005; Zhang et al., 2018).

All ten articles created activities and metaphors for example 'passengers on a bus metaphor' (Mahmut & Şimşek, 2021) to provide the participant with information to connect to their established core values, committed actions to their goals, acceptance and to enhance their psychological flexibility in support their smoking cessation experience (Hayes, Strosahl & Wilson, 1999; Hayes, 2005; Mahmut & Şimşek, 2021; Mak, Leung & Loke, 2020; O'Connor et al. 2020; Zhang et al. 2018). However, it must be noted that the use of values and present moment awareness were core themes throughout the interventions (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). These core themes were utilised as an integral part of ACT is for the participant to connect with their individual values and committed action (Hayes et al. 2012).

Results

The aim of the systematic review was to further explore the efficacy of ACT interventions and the long-term effects for smoking cessation. All ten articles reported a positive impact on smoking cessation rates following ACT intervention. Further analysis and evaluation of comparison outcomes are explored below.

Smoking Cessation Intervention Outcomes

Eight of the ten articles reported that the adult smokers within the intervention groups were more likely to commence with smoking cessation and to promote engagement with smoking cessation, measured by the FTND and the 7-day and 30-day point prevalence abstinence (PPA) post-intervention compared to the control groups including CBT ($p<0.05$) (Mahmut & Şimşek, 2021; Bricker et al. 2020; Mak, Leung & Loke, 2020; Bricker et al. 2014; Brown et al. 2015; Santiago-Torres et al. 2022; Bricker et al. 2013; Santiago-Torres et al. 2023). It was observed that ACT-based interventions had a statistically significant ($p<0.05$) effect on smoking cessation during three and twelve month follow ups reported by self-reported measures, FTND and the 7-day and 30-day PPA in six of the articles (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Mahmut & Şimşek, 2021; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). One study found participants who increased on psychological flexibility scores and ACT measures were more likely to quit smoking (Mak, Leung & Loke, 2020). Thus, ACT interventions for smoking cessation provide effective cessation rates in long-term follow ups.

O' Connor et al (2020) reported post-treatment biochemically verified quit rates collated for the combined group (ACT face-to-face and online application-based) and ACT intervention, 36% and 20%, respectively, during the six month follow up the ACT intervention group had increased with the biochemically verified quit rate at 24% compared to 20% in the control group. They also found a significant decrease ($p = < .001$) in the number of cigarettes smoked per day after intervention and during the 6 month follow up (O' Connor et al, 2020). Bricker et al. (2014) found that six months post-

intervention quit rates were 31% in ACT group compared to 22% in the CBT group. Mahmut & Şimşek, (2021) observed no statistically significance between FTND scores of the individuals before and immediately after the application of the intervention ($p>0.05$) however, found a significantly significant ($p<0.05$) reduction in FTND scores during the 3 month follow up period.

Two articles (McClure et al. 2020; O'Connor et al. 2020) demonstrated no statistically significant difference in smoking cessation outcomes and the effectiveness of the interventions between the intervention and control group measured by biochemically verification, including follow ups ($p = 0.704$). Albeit, in one study by O'Connor et al. (2020), non-abstinent participants receiving ACT intervention (combined group) reported a significant decrease in cigarettes smoked per day post-treatment and 6-month follow up ($p = < .001$). However, during the 6-month follow up, the biochemically verified quit-rates were the same (24%) for the ACT group and combined group and lower (20%) in the behavioural support group.

It is important to note that the attrition rate during the follow up stages of the articles ranged between 11.33% to 46% (O'Connor et al. 2020; Bricker et al. 2013). Research suggests that <5% - 20% poses minimum bias, while >20% can effect the validity of study results (Dumville, Torgerson and Hewitt, 2006). The attrition rates could be explained by the follow up periods of articles utilising a 12-month follow up, as it is reported that longitudinal articles have demonstrated higher attrition rates (Bricker et al. 2020 ; Mak et al 2020 ; McClure, et al. 2020 ; Santiago-Torres, et al. 2022; Santiago-Torres, et al. 2023).

Efficacy of ACT interventions

Significant increases in acceptance of cravings from baseline and sustained at follow up (three to twelve months) were reported in three articles (Bricker et al. 2013; Bricker et al. 2014; O' Connor et al 2020). Bricker et al. (2014) found during the three month follow up, that participants who engaged in the ACT group had significantly higher levels of acceptance of cravings to smoke compared to CBT participants ($p = .046$). Also, when participants reported higher levels of acceptance of cravings as measured by the Avoidance and Inflexibility Scale (Gifford et al. 2004) at three month follow up, this predicted 4.6 times higher rates of quitting smoking at the six month follow up ($p = .009$). Mak, Leung & Loke, (2020) found from baseline assessment to their twelve month follow up data, participants

who engaged in the ACT intervention group demonstrated increased psychological flexibility measured by the smoking-specific AAQ (Hayes et al. 2004). Similarly, Mahmut & Şimşek, (2021) reported that ACT interventions had a positive effect on smoking cessation and reduced nicotine dependence, as evidenced in the FTND measure. They also identified that one of the important components of ACT was experiential avoidance from negative emotions and that by adopting cognitive defusion techniques including noticing the cravings for cigarettes are more effective in smoking cessation compared to interventions attempting to escape/avoid the cravings similar to CBT (Mahmut & Şimşek, 2021). Also, two studies found during the 12-month follow up (Santiago-Torres et al. 2022; Santiago-Torres et al. 2023) increases in the mean acceptance scores of accepting sensation and emotions that cue smoking were significantly greater in the ACT-based intervention compared to the control group. Thus, it could be concluded from the findings that the philosophy of ACT including experiential avoidance has a significant impact on smoking cessation in adults which is promising for future interventions.

With regards to present-moment awareness, this increased significantly in the combined group (ACT intervention face-to-face and online application-based treatment) at posttreatment ($p = .005$), but not six-month follow-up ($p = .255$). The combined group's present-moment awareness was greater than that of the behavioral support group ($p = .031$). The combined group's cognitive fusion was not significantly different to that of the ACT or behavioral support groups at posttreatment ($p = .702$; $p = .487$).

Two articles (O' Connor et al 2020; Santiago-Torres et al. 2022) reported valued living in the ACT intervention group displayed no significant difference at post-treatment. With regard to ACT processes, participants in the combined condition demonstrated significantly greater present-moment awareness and willingness to experience internal states associated with smoking than those in the behavioral support condition at post-treatment, but not at follow-up (O' Connor et al 2020).

One important point to note is that the articles utilised patient satisfaction measures, were higher in the ACT intervention compared to the control groups (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023).

Delivery of intervention/Control groups

The similarities of these interventions included the components of ACT in particular noticing and willingness to experience physical, emotional and cognitive triggers of smoking, higher acceptance of cravings and a stronger readiness to quit smoking, as demonstrated by self-reported measures (FTND) at follow up (Mak, Leung & Loke, 2020; Jones et al. 2015). The differences demonstrated in the articles was the duration of the interventions (30-90 minutes weekly sessions) and the delivery of the control groups including; information only, psychoeducation, group based behavioural support and CBT. Two articles conducted individual ACT interventions on a face-to-face individual basis (Mahmut, & Şimşek, 2021; Mak, Leung & Loke, 2020). This does have implications for when comparing interventions with ACT, as some control groups were passive and some were active. For example, in the ACT and CBT groups they saw a practitioner, whereas the information only participants did not. Thus, it is important to note that the therapist/therapeutic relationship rather than the therapy itself could have been an effective component.

Seven of the articles conducted their interventions via a web-based smartphone application (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023) and one study delivered the ACT intervention within a group setting (McClure et al 2020). From the results above it seemed that online interventions had demonstrated similar positive outcomes when compared to face-to-face interventions (Bricker et al. 2020; Mahmut, & Şimşek, 2021; Mak, Leung & Loke, 2020). One study (Bricker et al. 2014) found that when compared to the control group (CBT), ACT interventions, delivered by a web-based smartphone application, had a smoking cessation rate of 31% compared to the control group (CBT) of 22%, they

also included participant satisfaction rates with (ACT = 97% and CBT = 85%) and useful skills for quitting (ACT = 100% and CBT = 87%). Both ACT and CBT were significant different from baseline and from each other. These results provide helpful statistics to inform future work within the smoking cessation field when designing interventions.

Discussion

This systematic review aimed to review the evidence-base for the effectiveness of ACT as an intervention for smoking cessation in adults. Results show that in eight out of ten RCT articles ACT interventions showed significant improvement in smoking cessation interventions compared to controls in an adult population (Mahmut & Şimşek, 2021; Bricker et al. 2020; Mak, Leung & Loke, 2020; Bricker et al. 2014; Brown et al. 2015; Santiago-Torres et al. 2022; Bricker et al. 2013; Santiago-Torres et al. 2023). These findings contribute to a growing body of empirical support for the role of experiential acceptance and psychological flexibility in smoking cessation (Bricker et al., 2013, Bricker et al., 2014, Bricker et al., 2014, Gifford et al., 2004; Mak, Leung and Loke, 2020). A majority of the articles reported the efficacy of ACT interventions for smoking cessation within an adult population in comparison to other treatment strategies including CBT (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Mahmut & Şimşek, 2021; Mak, Leung & Loke, 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). Thus, this review provides further evidence on the effectiveness of psychological interventions (ACT) as being an alternative intervention to improve smoking cessation rates within an adult population. Collectively, the data are consistent with the notion of NHS Long term plan (2019) and NSCST (2020) within the context that behavioural intervention is successful for smoking cessation interventions.

The most frequently used intervention for smoking cessation is CBT (Mak and Loke, 2015; Singh, Starkey and Sargisson, 2017). Within the articles in this review, the interventions which utilised CBT as a control intervention also improved smoking cessation rates, however, ACT was more effective as

an intervention for smoking cessation when compared to CBT (Mak, Leung & Loke, 2020). This could be explained by ACT's flexible approach, whereby ACT encourages patients to experience and accept their cigarette cravings instead of attempting to control or avoid them which is counterintuitive compared to CBT interventions (Hayes, 2005; Singh, Starkey and Sargisson, 2017). Increases in acceptance for cigarette cravings, sensations and emotions were demonstrated in five articles (Bricker et al. 2013; Bricker et al. 2014; O' Connor et al 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023) and one study found increased levels of psychological flexibility since the participants engaged in ACT intervention for smoking cessation (Mak, Leung & Loke, 2020). Thus, highlighting the importance of certain components of ACT including values-based work for smoking cessation in adults. Also, it is essential to note that introducing other interventions for smoking cessation will enhance patient choice and empowerment, optimal health care outcomes, delivery, patient satisfaction individualised care and can offer an alternative intervention when other forms of behavioural support such as CBT are ineffective (Hernández-López et al. 2009; McClure et al. 2020; Zolkefli, 2017).

It is important to note that with regards to subjective and objective measures used within smoking cessation, the "*gold standard*" according to the NSCST (2020) advised to include both FNTD and biochemical verification (CO readings), thus, only two articles (Mak, Leung, & Loke, 2020; O'Connor et al. 2020) utilised FNTD and biochemical verification within their analyses. This could have increased the reliability and validity of the articles included in this review, as research suggests that self-reported smoking cessation rates is a convenient method however, participants may not accurately report their abstinence status (Scheuermann et al. 2017). Therefore, biochemical measures including CO readings for smoking cessation are considered the gold standard for clinical trials (Scheuermann et al. 2017). Nevertheless, methodological problems have been identified with remote biochemical data collection, as the majority of the articles were conducted within an online platform which may attribute to high attrition/non-adherence, identification of an individual's sample and high cost (Connor and Norman, 2017). All of the articles utilised validated ACT measures with good psychometric properties (Bond et al. 2011; Farris et al. 2015), nevertheless, the heterogeneity of the approaches used to measure the ACT interventions in such a small number of articles, could have somewhat interfered with the conclusion of direct comparisons that could be drawn from the findings. Thus, in future reviews the authors could consider grouping articles who have used the same measures, to ensure consistency and reliability of the results.

Interestingly, six out of the ten articles were conducted within an online application-based format (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Santiago-Torres et al.

2022; Santiago-Torres et al. 2023). It could be assumed that due to the Coronavirus Pandemic (COVID-19) experienced, many interventions have resorted to being delivered virtually, digitally or via telephone (Davies et al. 2022; Naja et al. 2023). This supports the evidence of the literature reporting the benefits of online smoking cessation interventions (Do et al. 2018; Kant, Yadav and Bairwa, 2021; Taylor et al. 2017). A meta-analysis by Kant, Yadav and Bairwa, (2021) evaluated the effectiveness of internet-based interventions compared to face-to-face interventions for smoking cessation. Conclusively, they found that internet-based interventions are highly effective compared to face-to-face or no intervention even at twelve-month follow up with smoking cessation rates. They also reported that the internet-based interventions are easily accessible to individuals and incremental costs are significantly less than other modalities (Kant, Yadav and Bairwa, 2021). This aligns with the fundamental changes of delivering health care within an online platform (Department of Health and Social Care, 2022). However, research has identified that internet-based applications can present with barriers for smoking cessation including low motivation levels compared to face-to-face interventions, which can result in low adherence and high attrition rates (Regmi et al. 2017). Nevertheless, as the internet provides such richness for sharing information, it is important to consider utilising this method as a tool for smoking cessation (Taylor et al. 2017). Therefore, future research could potentially explore the benefits of online versus face-to-face interventions for smoking cessation.

Patient satisfaction was reported high in ACT interventions with the articles who encompassed this data (Bricker et al. 2013; Bricker et al. 2014; Bricker et al. 2020; Jones et al. 2015; Mahmut & Şimşek, 2021; Mak, Leung, & Loke, 2020; McClure et al. 2020; O'Connor et al. 2020; Santiago-Torres et al. 2022; Santiago-Torres et al. 2023). Literature suggests that the higher level of treatment satisfaction reported in ACT may be due to the counterintuitive nature of ACT for smoking cessation (Bricker et al. 2020; Mahmut & Şimşek, 2021). Mahmut & Şimşek, (2021) reported that acting in the direction of an individual's values and increasing awareness of negative internal states rather than avoiding these increased the likelihood of smoking cessation. Research has also demonstrated that when a patient is satisfied with their treatment the engagement and treatment outcomes will be higher (Zolkefli, 2017). Therefore, demonstrating that ACT could be a promising alternative intervention for smoking cessation.

Future directions

Considering the emphasis that the health care systems place on promoting and enhancing stopping smoking interventions and the significant health implications on patients (NHS Long Term Plan, 2019),

it is essential that further research needs to be implemented to create an evidence-base for alternative forms of psychological/behavioural interventions, including ACT whilst maintaining the 'gold standard' of combination therapy complemented by pharmacological products including Nicotine Replacement Therapy (NRT) (National Centre for Smoking Cessation and Training (2020). It is important to capture the enduring long-term behaviour change and exploring the longitudinal effects of ACT on smoking cessation interventions. Thus, further research is required to measure the effectiveness on promoting sustained and desired behaviour change, including studies conducting more longitudinal studies, similar to the articles in this systematic review including 12 months follow ups. Also, despite the evidence of psychological intervention being effective for smoking cessation interventions, it is important to note that positive therapeutic rapport can significantly impact on health and intervention outcomes (Deangelis, 2019; Street and Epstein, 2008; Lambert and Barley, 2001), considering the systematic review consisted of mixed delivery methods, it is important to note that the therapeutic rapport a participant receives from face-to-face interventions compared to information only, are significant factors in improving smoking cessation rates (Zhang et al. 2018). Therefore, it is essential to ensure that the non-specific factors/confounding variables are acknowledged including patient-practitioner relationships within intervention outcomes.

Conclusion

This systematic review adds to existing literature and supports the view that psychological interventions including ACT can be an appropriate and effective to implement for smoking cessation interventions in adults. Nevertheless, further research is required to measure and evaluate the maintenance of behaviour change effects ACT has on smoking cessation in adults over time. Overall, the review supports ACT interventions for smoking cessation.

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Chapter 5.4 - 8003: Research reflective commentary

Introduction

The research competency provided me with the opportunity to partake in the development of my research skills including enhancing analytical skills and embracing collaboration. Whilst I have gained

an appreciation of how essential conducting research is to inform evidence-based practice, research is the one competency I felt out of my depth with. Thus, I did plan to focus on the challenging competencies first, however, what I learnt is that the doctoral process is not linear, and opportunities to meet other competencies were presented and I completed these competencies first. Nevertheless, it did give me the opportunity to enhance my skills in attention to detail and later to focus solely on this competency.

I have found the journey of developing the research projects challenging however, the destination has been filled with relief and achievement. The following outlines my reflections throughout my journey of the research competency including reflections from designing and conducting my research competencies, whilst also drawing on theory, practice guidelines from the British Psychological Society (BPS) (2017), Gibbs reflective model (Gibbs, 1988) and techniques I have based my personal thoughts around, with a focus upon my learning process and areas of growth.

Empirical Paper One

Initially I could not narrow my research topics down. As Health Psychology research can be adapted into many areas; I was extremely enthusiastic to conduct research in every area. The plan of training provided structure to my thinking and allowed me to plan a GANTT chart to be realistic with my time management of the project. My clinical experience has been orientated towards prevention of health conditions. However, I was keen to shift my focus on the application of Health Psychology within a new environment. Following an advertisement from my supervisor, I applied for a position within a hospice setting to conduct research and I was offered the position. What influenced me to enhance my experience in this area was a book I read 'With the End in Mind' (Mannix, 2018) and the rich wisdom of incorporating the biopsychosocial model into a palliative care environment, through the patient's lens. This inspired me to conduct further research into the area. One learning opportunity was to enhance the skills I had developed from other competencies (Consultancy), this was demonstrated by the importance of building positive professional connections including active communication and shared feedback. I utilised these skills and built a connection with the Health Psychologist at the hospice. We proposed a brain storming exercise to identify the needs of the service and the literature. I found that this technique provided me with the opportunity to think about ideas in a conceptual and systematic way, something I will utilise beyond my doctoral studies.

The ethics application was submitted, I found completing the ethics application, visually laid out my research project and allowed to structure my thinking. The incorporation of a gate keeper within my research project was something I had not yet experienced, however, I was grateful due to the helpfulness throughout the recruitment process, as I felt the process of using a gatekeeper enhanced recruitment. Initially there was lots of interest, however, given the nature of my participants' job roles, it was challenging to find time to conduct the interviews. I realised that this can hamper with the data collection process and scheduled a longer time frame for my data collection phase. One benefit which was apparent was conducting research in a real-life setting, capturing 'lived experiences' was essential to my research, as it fueled my curiosity and immersed me in the palliative environment.

The literature gave insight into how profound psychosocial factors are within a palliative care pathway, in particular adaptation to adversity and the protective coping patterns patients utilised (Mannix, 2018). This informed my methodology, as I was keen to capture the in-depth experiences of individuals working within this environment from an epidemiological stance. I thrived in utilising

Thematic Analysis (TA) for this research topic, as this approach allowed me to explore trends and discover new perspectives within a real-life setting. Interviewing gave me confidence in a research capacity, enhanced my interpersonal skills and informed my professional opinion and thinking. It is inevitable that a career in Psychology will involve the application of high-quality interpersonal skills, this competency has significantly allowed me to embrace collaboration with others and interviewing skills. This is important to me as I am passionate about connecting with varying individuals, where I am living aligned with my values and creating meaningful connections; to enhance collaboration and inform best practice.

I felt qualitative interviews provide an insight into a social phenomenon as they allow the respondents to reflect and interpret information on the research topic discussed (Alhojailan, 2015). Given that qualitative research is inherently interpretative research; a myriad of biases can be formed (Braun and Clarke, 2021; Alhojailan, 2015). For example, I acknowledged one potential bias which could occur during the interview process: social desirability bias. I was apprehensive that given I am asking questions around psychosocial factors as a Trainee Health Psychologist, participants may respond more favorably, to not personally or professionally offend the interviewer. Thus, to minimize this potential bias, I ensured that I made the participant feel comfortable, engaged in reflection-in-action (Schon, 1991) and provided the participant with a new perspective and to complete the psychometrics as if they were the patient, thus, making the questions more indirect. One cognitive bias, I was mindful of in myself during the interview process was '*Leading questions and wording bias'* whereby due to feeling passionate about the topic, I wanted to ensure that the questions did not lead to a probable outcome, I ensured that I entered my interviews with an open mind and incorporated the valuable and breadth of knowledge they possessed.

One drawback to TA is it may miss nuanced data and have limited interpretative power if analysis excludes a theoretical framework that lacks evidential biases (Javadi & Zarea, 2016). Thus, a theoretical framework of COM-B Model (Michie et al. 2011) was implemented within the interview questions (Appendix 35). This allowed me to reflect on the process whilst acknowledging the complex construct of the COM-B model. My themes were theory driven from the COM-B model to ensure the validity of the research. This drew attention to the concern of the reliability of the analysis, due to a variety of interpretations (Braun and Clarke, 2006; Alhojailan, 2015; Bright, 1996; Noble & Smith, 2015). On a personal level, I had not worked within the area of palliative care. Thus, the analysis was conducted from an 'outsider's perspective' per se. While this granted a degree of objectivity, repeated reading of the data informed my understanding and experiences of the topic. I truly have an

appreciation for qualitative research and the meaningful data collection it can produce, alongside choosing the right methodology to answer my hypotheses. Throughout my professional career, I would like to gain experience in other qualitative methods including Interpretative Phenomenological Analysis.

Empirical paper Two

A Readability analysis of online patient health information with reference to Macular Holes in the United Kingdom (UK).

As this was my last competency to complete, I felt in equal measure that I could place my heart into this and an element of pressure. My mind was full of many ideas regarding empirical paper two. Within my new job we established a peer support supervision group; I found that articulating my ideas to colleagues at work and supervisors helped me formulate a research design.One peer supervision session and a conversation with my academic supervisor provoked discussion and critical thinking (Thomas, 2012). In work we were designing a leaflet for patients accessing psychological support, the topic of how important simplicity and language is for patient comprehending the information leaflet was the main discussion. Thus, an idea was formed to conduct a readability analysis. This highlights one potent point throughout the research competency; giving myself permission for 'thinking time'. Although you feel like you are not producing meaningful work, you can create connections and ideas in your mind which can assist in your development of a research project and carefully and strategically create new ideas. I instantaneously learnt that thinking time is invaluable and crucial to form a well-designed study through experience of my systematic review. From evaluation of my development in research design, this process has increased my confidence and a deeper understanding of how I can structure my thinking. The steady encouragement of self-motivation and self-directed learning has served me well throughout this process.

The readability analysis was a great way of demonstrating how you can have an impact on a larger population. Patient-centred care has always been a passion of mine, as I have found through my clinical experience, when patients understand information it can empower and enhance acceptance of their condition. Thus, I wanted to ensure my empirical papers were based around how to improve

the patients experience of the health care system. I attended a lecture on health literacy during my professional doctorate and patient health inequalities was something I became interested in. This further developed as I explored the literature on readability analyses' and enhancing shared decision making and the importance of health inequalities (The NHS 2019 Long Term Plan, 2019).

Although I have never conducted a readability analysis before, I was looking forward to the learning process. However, drawing upon Acceptance and Commitment Therapy (Hayes, 2005), certain values of mine which had been identified from the beginning of the doctorate were; connection and learning. Thus, I believe that this research was ensuring I was aligned with my values. My supervisors were extraordinary throughout the process by engaging in regular meetings alongside acquiring further knowledge regarding readability studies and analysis this built my confidence to complete this paper. By conducting a literature review of readability analyses, I felt my confidence had enhanced in how I can apply health psychology to this area of research. Therefore, I started to scope out readability analyses on various health conditions and found one study had conducted a readability analysis on 'retinal diseases' which could include macular holes, I could not access this paper and the abstract was relatively small. Thus, panic had hit. I panicked because it was a timely process, with regards to this, I found from completing the Honey and Mumford (1992) scale during my teaching competency, I sought further to comprehend my learning style as a theorist/reflector, thus, I applied these principles to this approach and found reflecting and being cautious were beneficial especially in this process. Something which ignited the theorist in me was applying theoretical principles into my practice. Self-determination theory (Ryan and Deci, 2000) (Diagram 1) which proposes that intrinsic motivation is fostered by three psychosocial needs; autonomy, competence and relatedness. Applying this theory to my research journey, I ensured that I took a 'step back' as an element of self-control, to be more self-compassionate, to adopt a determination and commitment to the research project to demonstrate competence and to seek support to create a connection with others. Thus, I contacted my supervisor who recommended contacting LJMU library services. Carolyn Benny (Library support) was superb in this process and managed to gain access to the article. Macular Holes was included in the analysis however, it was only conducted in the United States of America, thus, I decided to conduct my analysis on United Kingdom health information. I was so pleased I took a strategic approach applying stress management techniques to inform my work on the project further. Applying these learning styles helped me to approach new challenges within a self-compassionate framework (Gilbert, 2004), especially taking a "step back" when challenges arise which can enhance my cognitive growth.

Diagram 1: The Self-determination theory (Ryan and Deci, 2000)

Since completing other competencies on the professional doctorate my confidence and my approach in asking for help when required had flourished, thus, I felt more competent in completing this paper. Somerville & Keeling (2004) postulate the importance of seeking feedback, although I can be apprehensive when receiving it, I have found it has been a major enhancement in my learning and academic skills. Drawing from Kolb (1984) proposing the concept of experiential learning (Vinjamuri et al. 2017), I have applied the "asking for feedback" technique to my practice and found this to be a learning enhancing experience. However, since the completion of my empirical paper two I have noticed that I am experiencing more conversations around the topics of readability with various health care professionals including consultants who want to invest in the readable system to enhance patient centred care. It has also inspired me to engage in further research within this area, as improving health care and patient experiences, health outcomes and quality of life is a passion of mine and readability analyses can help with this process. Throughout this whole process I felt a sense of achievement and was delighted with my level of commitment, motivation and ability to remain calm, all of which will be valuable as a Health Psychologist.

Systematic Review

Acceptance and Commitment Therapy for Smoking Cessation: A Systematic Review

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Choosing a topic and its focus was the most challenging aspect of the research competency. I anticipated that my systematic review was going to be one of the most challenging aspects of the professional doctorate, I found the apprehension both challenging and anxiety provoking in equal

measure. However, my knowledge of conducting a systematic review was moderate, through conducting a systematic review at master's level and attending taught lectures on my professional doctorate programme. After reflecting on my past experiences, I believe enhancing motivation and challenging myself were essential for my development and completion of this competency. The most challenging part of the systematic review was structuring the literature findings in a logical cogent manner and searching widely across databases for the "correct" research question. Thus, one thing I thought worked well was drawing upon psychological theories including Compassion Focused Theory (Gilbert, 2014) and ACT (Hayes, 2005) especially when feelings of stress and apprehension were experienced, I ensured that I was working in alignment with my values; by staying connected to others including engaging in peer supervision and meetings with my supervisors. Ensuring my work aligned to my values also allowed me to initiate my self-soothing system and I learnt to slow down, embrace the journey and ask for support throughout the process due to the stressors including self-criticism I experienced.

Upon reflection, I realised that throughout the competency I had feelings of low self-efficacy and continued to ruminate on how well I could execute rational problem-solving techniques to overcome this. Identifying with feelings such as low self-efficacy and to a degree imposter syndrome. By way of context, I was aware that some academics may spend years working on research papers, also studying and full time working, I felt that time, without the correct management, may defeat me (Mizrachi & Bates, 2013). To focus and complete the competency, I produced manageable goals, derived from SMART principles (Conzemius and O'Neill. 2009). I am very familiar with the SMART principles and execute these in my working environment and now I have the skill to apply them academically. Thus, the greatest learning was derived from the fact that I lacked self-belief within the research competency, as at first, I believed it to be too sophisticated a task and also that self-efficacy is essential to your personal and professional development (Bandura, 1977; Mahler et al. 2017).

Time management has been an essential skill to utilise within the professional doctorate, and applied to conducting my systematic review. I decided to give myself one month for the preparatory stage to write and scope a thorough protocol and conduct the review to a high standard. I had commenced my new role within the smoking cessation team within the NHS; I found this was an excellent opportunity to conduct research in the form of a systematic review within the area of smoking cessation. My therapeutic orientation has always been of a '*behaviourist*', albeit, I apply an eclectic approach, incorporating various theoretical frameworks to my practice. I have an affiliation with Acceptance and Commitment Therapy (ACT) as a therapeutic approach, especially within the area of Health Psychology. I was delighted to have found that according to hand searches and PROSPERO that no

systematic reviews had been completed applying ACT to smoking cessation interventions. I found ten studies which are applicable to the systematic review, I wanted to create a search strategy and study characteristics table and send for approval from my supervisors. I truly wanted to conduct this systematic review as I believe that ACT is an excellent intervention to help patients with their journey towards smoking cessation and provides an alternative approach, enhancing individualised patient centred care within a science practitioner model and an evidence-based approach. It also aligned with my values as mentioned previously.

Following guidance from "Doing a Systematic Review" (Boland, Cherry and Dickson, 2017) established my development as a researcher and increased my self-efficacy to conduct systematic reviews in the future and taught me the significant value of service delivery evaluation. The book allowed me to focus on my review and proceed in a manner 'step by step', I found this a useful approach when you are feeling overwhelmed by the prospect of how much work is involved in a systematic review project. The systematic review allowed me to apply theory to practice; I felt I had identified a significant evidence base to critically analyse and to up-skill the smoking cessation team and myself within principles of applying ACT to smoking cessation interventions. One learning point from the research competency, is how applicable it is to other competencies including behaviour change and how this can inform your practice, for example creating teaching presentations based on ACT for behaviour change interventions.

Conclusion

Upon reflection, the research competency has not only allowed me to be challenged but to challenge myself. The experience I have encountered from conducting three research projects has been significant, thus, establishing an increased self-efficacy (Bandura, 1980) and this has affirmed my competencies. I found the research competency an intellectually enriching process. I have experienced professionally enhancing opportunities by liaising with other health care professionals and comprehending the power of health psychology research to clinical practice. A broader repertoire of understanding has been developed including enhancing my analytical and critical thinking skills, which I have found beneficial to apply my research, evidence-based thinking to my clinical practice by applying Health Psychology to preventative and palliative medicine and enhancing treatment and patients' physical and psychological health outcomes within the National Health Service. All of which

are an essential element of the journey of the professional doctorate and beyond (The British Psychological Society, 2017).

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Chapter 6 - 8003HEAPSY: Reflective and Professional Practice in Health Psychology

This section consists of two pieces of work: A professional development reflective commentary and a professional logbook of my training from 2020-2024.

Chapter 6.1 - Professional practice reflective commentary

“A journey of a thousand miles, starts with one step”

Lao Tzu

Introduction

“*It is not sufficient to have an experience in order to learn. Without reflecting on this experience it may quickly be forgotten, or it's learning potential lost.” (Gibbs, 1988, p9)*

Reflective practice is an essential component as a trainee Health Psychologist (The BPS, 2017). Indeed, the need to be both reflective and reflexive as a practitioner is an expected norm and is a central tenet of the professional doctorate process (Moon 2005). In an environment where one is an agent for (positive) behavioural change this ability becomes even more crucial**.** Reflection allows me to consider and cogitate on my experiences, within a context that is based on accurate assessment of my impact of self (Silvia & Duval, 2001; The British Psychological Society, 2017). My journey in completing the Professional Doctorate in Health Psychology has been a whirlwind with many compelling opportunities. I have honestly loved every single moment. Some of the challenges I faced we associated with an experience of imposter syndrome and the realisation that I place a great deal of pressure on myself (Hibberd, 2019). I have particularly learnt to strive for excellence and seek every opportunity to flourish and grow in my personal and professional life. As the challenges were linked with feelings of imposter syndrome, I tried to overcome these feelings and strive to overcome the challenges (see Logbook Page 752, activity March 2021 and again Page 775, July 2021 for my reflections on managing imposter syndrome). I am forever grateful for all the experiences and inspiring people I have encountered throughout my journey on the doctorate (See Appendix 55 and Logbook activities), incorporating Health Psychology from preventative to palliative care medicine. It has truly shaped me into an established professional practitioner. The following reflective report has improved my self-confidence as a professional, the process of laying everything out has aided my self-confidence. Reflecting on my achievements, opportunities and challenges I have encountered and my accomplishments has enhanced my confidence to achieve, succeed and believe in myself. The self-reflection has been a humbling process and has embedded practicing reflection into my practice, which has positively influenced my practice at a deeply human level, by increasing my self-development and self-efficacy (Bandura, 1977; The British Psychological Society, 2017). I found the ability to become a reflective practitioner an essential tool and a fixed asset to develop my skill repertoire but moreover, it has been a cathartic experience to engage in and become an integral tool to my continued development. As such, my reflections within this diary will be shaped around my experiences and acquirement of professional skills throughout the professional doctorate, cross-referencing my professional Logbook, whilst drawing on theory and practice guidelines in line utilising a meta-reflection framework (Gibbs, 1988; BPS, 2017).

Applying Health Psychology in Practice

Health Psychology is evolving (Forshaw, 2021). Developments within psychological and medical research have led to contemporary ways of thinking about health and illness (Saad & Prochaska, 2020; Taukeni, Mathwasa, & Ntshuntshe, 2023). An example of this would be the inclusion of the biopsychosocial model in health (Engel, 1981). Throughout my professional doctorate, I have applied this model within a variety of physical health environments within the National Health Service (NHS) (See Appendix 53 and Logbook activity May 2020 – August 2020). The wealth of exposure I gained from working within various physical health environments allowed me to view the nexus between physical health and human behaviour and enhanced my passion of promoting Health Psychology as a valuable and creditable profession. Nevertheless, due to Health Psychology being a relatively new, albeit rapidly evolving discipline within the health care system, some of my work was self-directed. I felt a protective factor when exposed to challenges was my fiery enthusiasm and interpersonal skills. However, this form of autonomy as a trainee did feel overwhelming, I developed an uncertainty regarding whether I possessed the skills to embed Health Psychology. Subsequently, I realised that integrating theory to practice was a way I gained more credability and confidence, the scientific reflective practitioner model is the '*flagship*' of our modern discipline in Health Psychology, and utilising evidence based models to patient centered care was something I felt enhanced awareness and patient care (See Logbook Page 710, July 2020 and again Page 761, April 2021 of evidence of applying Health Psychology theory into practice).

Application of Health Psychology theory has been integral in producing effective case formulations and interventions of physical health conditions (Andrasik, Goodie and Peterson, 2015). Since my professional doctorate journey, my growth in applying theory into practice has significantly enhanced. An example which highlights this (See Logbook Page 682, activity February 2020), emanated from my time in Chest Clinic delivering smoking cessation interventions and utilising the power of Acceptance and Commitment Therapy (ACT) (Hayes et al. 2011; Harris, 2019). To set the context, a patient had received a diagnosis of Chronic Obstructive Pulmonary Disease (COPD). The patient immediately stated they wanted their "*COPD to be cured, and that smoking was nothing to do with it"* this personally felt uncomfortable for myself as the COPD was incurable. Although, I had immense support from the Consultant present, I engaged in relfection-in-action during this occasion. The concept of reflection-in-action postulates that to deal with complex information in challenging situations, it is essential to ensure you can make sense of the information provided to you, this is supported by Schon, (1983). Thus, following this reflective stance, I decided to implement theory into practice, and utilise the values based concept of ACT (Hayes et al. 2011 ; Harris, 2019). The Consultant had reiterated the medical evidence regarding COPD and I incorporated the psychological and social elements. I decided

to engage the patient in thinking about their values and asked the question; "*what is it about COPD, that you would like to cure*?" they responded "*I am extremely breathless and my lifestyle has changed, I cannot even take my grandson for a long walk.*" Thus, I decided that his family and health were important values for him and reported that stopping smoking can help with this and provided him with the information to self-refer if required. Drawing upon The Transtheoretical model of change (DiClemente and Prochaska, 1998), he was in the precontemplation stage whereby he did not believe that smoking correlated with his COPD, thus, I planted the seed and engaged in discussion about his values during the consultation. Following their six month review the patient reported to have quit smoking and that consultation had changed his life, as he felt he had always been looked down upon for smoking. He reported that he felt we were compassionate and listened to him. Building upon my skills of incoporating team work alongside the Consultant and implementing psychological theory into practice. I had learnt the fluctuating emotions and psychological processes that the patient potentially experiences throughout a consultation including; elements of cognitive dissonance (Festinger, 1957). This is a pivotal moment in my development as a Trainee Health Psychologist, as it has changed my approach in recognising the impact of a broad range of the wider determinents of health. I consistently work in this way, as I have found applying these factors are integral to assessment and intervention.

Compassionate patient-centred care

A quote which resonated with me the most throughout the doctorate was:

"Everyone's vision is different. A hundred people viewing a glorious sunset in Hawaii are actually seeing a hundred different sunsets (Chopra,2019, p30)"

This thought-provoking quote drew upon on how human beings have varying unique perspectives and the importance of patient centered care. This comment draws upon my experiences within the Pain Psychology Service. Pain can have a profound and life altering effect on an individual (Meints and Edwards, 2018). Under the clinical supervision of a Health Psychologist, we assess, treat and support individuals in establishing coping strategies and understanding the biopsychosocial impact of pain on an individual whilst the individual lives a meaningful life in the direction of their values (Hayes, 2019). I have encountered individuals who are living with chronic pain attributed to numerous health conditions including rheumatoid arthritis (See Logbook, Page 748 activity February 2021). One

important insight was how individuals who have been diagnosed with the same condition can present completely differently to the other. Subsequently I realised that the interconnectedness of the Biopsychosocial approach to practice has enhanced my skills as a holistic practitioner. These experiences also complement the HCPC Standards of proficiency (2023) 12.53 '*understand psychological models related to how biological, sociological, and circumstantial or life-event-related factors impinge on psychological processes.'*

Working in Pain Psychology provided me with an opportunity to incorporate psychological theory/research into my practice, from applying models including; Health Belief Model (Hochbaum, Rosenstock and Kugels, 1952) and Social Cognitive Theory (Bandura, 1977) (See Logbook activities 2020-2024 for pain management activities). This allowed me to gain insight into varying cognitive biases and health beliefs each patient had experienced. It has been a privilege to explore the patients' unique stories of pain. I observed in pain management cases that patients are not used to Psychology being part of their treatment programme. This was especially apparent when patients were undergoing varying investigations from multiple health care professionals and they were not able to present a clinical diagnosis or clarification of why the pain was there. I have realised the power of listening is a skill which is highly underrated. I remember my academic supervisor providing me with reassurance regarding how "*listening can be an intervention within itself."* (See Logbook page 80, activity March 2021). This was most certainly applicable to my patients, I remember one patient in pain management stating *"these sessions have allowed me to be open and honest and I have truly felt, for the first time ever, that you have listened to me with empathy and compassion".* Collating feedback from my patients, I found a majority of them would end the session feeling empowered and listened to, which is something I have come to realise is meaningful in interventions given the uncertainty and lack of control they feel psychological interventions (Swift et al. 2021). I found that listening as a skill has been essential across all my competencies. For example, my consultancy and teaching competency required me to implement active listening skills as I gained a true understanding of my audience and the needs that are required (See Logbook Page 765 activity May 2021 for an example).

Creativity in Health Psychology

I have encountered many health care professionals who value Health Psychology, however, they were mainly of the view that we only engage in one-to-one therapy. Thus, I seized the opportunity with the premise of building my portfolio to be creative, to expand the role of Health Psychology in a health care setting including helping to develop policies and procedures, teaching and training, consultancy

work, group reflective practice and research (See Logbook from activity September 2021 – July 2023 for my experiences of expanding my role). In retrospect, the pandemic had a significant impact on the doctoral process and with the ever-changing challenges of the NHS. I experienced lots of opportunities and events during the pandemic, which exposed me to environments that enhanced my practice, by providing opportunities to work in various ways and be more agile in my thinking and working practice. These included working on COVID wards and Intensive Care to support staff's psychological health and wellbeing (See Logbook Page 709 and 713, activity July 2020). The need to be creative in these settings was a must.

Although, I felt the doctoral process was progressing slowly with regards to the portfolio development, I reflect on that time and realise that I learnt a significant amount of information regarding the health care system, patient experience and encountered compelling opportunities. This enhanced my creativity and networking skills. Working within both the NHS and private sector, I have adapted to different working practices. I find that working creatively, for example adapting to working in different environments, is effective when fulfilling service needs. This is often in light of low staffing and limited resources/funding. Thus, I had to work more creatively by adapting evidence-based interventions for wellbeing. One example of adapting evidence-based interventions creatively for staff wellbeing was during the COVID-19 pandemic. In Occupational Health, we highlighted high levels of psychological distress experienced by members of staff, thus, creative problem-solving skills were required to address this, to ensure we adopted a more proactive approach. Alongside the Resilience Hub, I helped facilitate a workforce trauma support teaching session to deliver coping strategies to improve one's own psychological health and wellbeing and offer a space to think, talk and reflect for members of staff. We conducted these sessions within the theatre environment, although it was an unfamiliar environment for psychologists' (See Logbook Page 710, activity July 2020). We wanted to promote psychological safety, as we learnt that psychology can be daunting, thus, we believed that creating a safe environment was important for people to feel comfortable and confident to express their ideas, particularly in a group setting.

Drawing from my personal experience and from the teaching competency, I had rapidly realised that most adults are self-directed learners (Knowles, 1990); thus, I ensured that the teaching material included material building on their own existing experiences. This model of teaching significantly enhanced engagement in reflection and discussion, as they felt listened to within a safe environment and were able to reflect on their own lived experiences of the psychological processes/factors apparent within the workplace during the COVID-19 pandemic. This teaching was very well received with positive feedback from staff who attended. Upon reflection, applying the portfolio competencies to practice, allows you to be creative in your work, by surrounding myself with new concepts,

individuals and environments and create awareness of Health Psychology. I have also become cognisant of how resilient and adaptable my character is, I demonstrated flexibility and the opportunity to embrace change especially working in the NHS during the pandemic (See Logbook Page 94, activity May 2021).

Throughout my doctorate, I have always been curious and enthusiastic to seek new opportunities to apply Health Psychology across a trans-sectoral setting. An example of this was when I provided psychological support for Doctors in Training (See Logbook, Page 150-180, activity May 2022 – July 2022). Psychological safety and wellbeing are essential to doctors in training, for their physical and psychological health and providing the highest level of care to their patients (Wainwright et al. 2017; Krishnan et al. 2022). Thus, the director of medical education and foundation team at ELHT developed a service to support the psychological health and wellbeing of doctors in training to address the aforementioned issues. This piqued my interest as working in Occupational Health, you realise the impact you can have on patient care and staff wellbeing. What I found helpful to strengthen my understanding of the challenges and improvements to enhance the wellbeing of doctors in training was to conduct a reflective session with the foundation year 2 doctors as a scoping activity. I found it extremely practical to gain insight into the positives, challenges and lesson learnt from completing their foundation years in medicine. Drawing upon Gibbs (1988) reflective model, my feelings and thoughts regarding this reflective session was that I found it powerful that the doctors' utilised the chance to share their lived experiences, views and recommendation for promoting wellbeing. I found skills utilised in the behaviour change intervention including actively listening to their feedback and reflection on the appropriateness and feasibility of the interventions. Overall, the reflective group was a positive experience and provided evidence to build interventions which are beneficial to their psychological health and wellbeing. To inform my work further, I found it was essential to conduct direct behavioural observation (see Logbook page 158, activity July 2022). My overall observations of this type of approach was helpful, whereby you conduct field research within an individual's natural environment, as it provided insight into the stressors that doctors in training encounter, increased my visibility and enhanced my credibility (See Appendix 54).

This role allowed me to explore my passion for supporting health care professionals with their psychological health and wellbeing, which in turn has a significantly positive impact upon 1) patient health outcomes and 2) experience of creating an effective pathway alongside various departments, to ensure that Doctors' in training have psychological health and wellbeing support. I will utilise the above skills in the future as I feel it can create a more personalised approach, which can inform my practice by taking into account lived experiences.

Psychology as a discipline is held in good regard due to the existence of codes of professional conduct (Francis, 1999). This ethical code of conduct has guided me towards high professional standards. I remember my previous clinical supervisor stating *"never lose your ethical and moral compass, it will separate you from the ordinary to the extraordinary".* One of the first sessions of the doctorate was based around ethical codes of practice from the HCPC guidelines, and throughout my time on the doctorate, I kept this ethical framework at the forefront of my practice. I engaged in regular audit and review of my practice, in regular supervision sessions and consulted my academic and clinical supervisor for further support. Due to my role involving working with patients, instigating practices of clear and accurate record keeping, securely storing clients notes in a password protected database or a locked secure filing cabinet in line with the Data Protection act was paramount within my role.

My role within Occupational Health exposed me to a vast amount of clinical information, for example from the MDT and their GP. It was vital for me to only access the documents which were relevant to the client's care and to always ask for verbal or written consent from the client (NHS Confidentiality Code of Practice, (Department of Health, 2003). Importance of the first lecture in my doctorate included following HCPC guidelines "*2.1 maintain high standards of personal and professional conduct; practice within the legal and ethical boundaries of their profession" and* taking pride in my standards and ethics as a Trainee. This included having knowledge and confidence in what you do and applying moral standards to facilitate patient centered care, justifying your opinion and evidence of the logical explanation, being cognisance of your therapeutic character and emphasis on the non-specific effects of intervention via deep meta-reflection and supervision. One training experience particularly resonated with me, conducted and delivered by a Civil and Criminal Barrister (see Logbook Page 140, March 2022), it enhanced my skills in best practice record keeping and report writing. The aims of the teaching were based on legal and ethical aspects of record keeping. We touched upon the areas of obtaining consent (implied, expressed and informed), drawing upon evidence, evidence of subjective and objective measures and the source of evidence obtained and documenting everything. Drawing upon Gibbs' reflective model (1988) my conclusion and action plan were to implement the concept of "less is more," to write in a clear and concise manner as an effective communication style, and the importance of selecting relevant information. This information also supported not only my records of patients' notes but the overall development of my professional doctorate portfolio.

Health is multifaceted and complex (Oleribe et al. 2018; World Health Organisation, 2008). Thus, working within a multidisciplinary team (MDT) can help treat the patient holistically, observing the interconnections between the biopyschosocial factors of the patient which can provide comprehensive care. This way of working as shaped my development in the areas of collaboration, building positive working relationships, broadened my perspectives and problem-solving skills throughout the doctorate. An MDT framework fosters excellent communication and identifies and manages areas of patients' needs therefore, improving optimal health outcomes (Mickan, 2005; Selby et al. 2019; Taylor et al. 2012). I found when working with patients who had complex and chronic physical and psychological health conditions, that consulting with my MDT, increased my knowledge of the biological factors of health conditions, thus, informing my practice, in line with the HCPC guidance (2023) 8.2, 8.3 and 8.4.

I found the importance of working alongside an MDT is that you become aware of your own expertise and limitations. I believe working with others is imperative to success in patient care, improving interpersonal skills. There have been times when my patients have required both medical and psychological support. During my Occupational Health placement, a patient who had experienced a myocardial infarction (MI), a decrease or complete cessation of blood flow to a portion of the muscular tissue of the heart (Reed, Rossi and Cannon, 2017), was referred to Psychology due to an accumulation of stressors which precipitated her MI (see Logbook page 71, activity January 2021). In this instance it was important to acknowledge the physical health condition and for the patient to receive the appropriate medical care. It is excellent to see how Psychology had become incorporated as part of routine practice. At first the patient was apprehensive and did not quite know the expectations of Psychology, however, post intervention reported "*this has been one of the most important interventions for my recovery and developing an insight and awareness in how I cope with stress has been very rewarding*". At the time I felt that this was way out of my remit, however, building that rapport with the patient and applying my knowledge of stress management and the profound impact stress can have on an individual, I subsequently the impact Psychology can have within the MDT approach to enhance optimal patient outcomes, care and quality of life, which confirms my aforementioned beliefs.

I have honestly met the most exceptional individuals throughout my professional doctorate experience and have been in receipt of such kind and constructive feedback (See Appendix 55). I will forever be grateful for the opportunities I have encountered for the outstanding support I have

received. I have grown in my ability to be opportunistic and make valuable professional connections. The ability to effectively communicate with various individuals from differing populations and professions is a crucial skill for a health psychologist and facilitates opportunities to engage in MDT working (See Logbook for example of MDT working Page 683 activity February 2020). I believe my experiences have been strengthened due to my enthusiastic and curious approach, my ability to interact with the environment and the individual in the moment (For an example see Logbook Page 717 activity August 2020). This is most certainly a skill I feel honored to have established and has highlighted the need to continuously develop these skills as a Trainee and beyond.

Health Psychology Identity

Traditionally I have always approached my work from a broadly behavioural perspective. The experiential learning I have encountered has significantly enhanced my application of the biopsychosocial model (Engel, 1977) with the hope to engage with health care professionals to look through a lens that is based in prevention rather than treatment/cure, in line with the NHS 10-year plan (2019) (See Logbook for example Page 731 activity October 2020). Upon reflection, I have demonstrated enthusiasm and determination to integrate Health Psychology into many physical health environments and create opportunities to learn and connect, values which are important to me. Reflecting on my experiences of the implementation of therapeutic approaches, I adopt an eclectic therapeutic approach incorporating elements of ACT (Hayes, 2019), Compassion Focused Therapy (Gilbert, 2004), motivational interviewing (Miller and Rollnick,2012). I found the value of assessment and formulation with the need to be reflective in action during therapy essential to enduring behaviour change and good patient outcomes (Schon, 1983). Working in a hospital setting has been truly rewarding, with compelling opportunities and I truly love what I do, I am fortunate to adopt a scientist-practitioner role, which energises me, as I can disseminate my research and Health Psychology knowledge to influence my practice and enhance patient health outcomes.

I have developed my therapeutic character throughout my doctorate journey. From my experiences, the therapeutic rapport you establish with an individual is paramount (See Logbook for an example Page 673 activity January 2020). This correlates with the literature which posits that a positive therapeutic relationship with a patient can enhance health outcomes (Deangelis, 2019; Leach, 2005). However, considering the crucial impact the therapeutic rapport has on treatment outcomes, it is essential to establish and maintain the clinical skills to complement this (Deangelis, 2019). I have had

the privilege of listening to individuals' stories at the extremes of human experience. I have engaged with individuals who experience complex and chronic physical and psychological health conditions, across all demographic backgrounds. Through CPD, supervision and observation of others, I found it essential within my practice to offer a wise and compassionate mind and provided a safe space for '*psychological respite'* for my patients (Gilbert, 2004). I found two powerful concepts, normalising (you are only human) and validating feelings can have a profound effect on how a patient feels (See Logbook for example Page 752 activity March 2021). These experiences have fundamentally enhanced my repertoire of practitioner skills including; compassion, empathy, active listening and reflection. The most important learning curve I have realised from the Professional Doctorate, is that you cannot '*fix*' individuals and the process of establishing a therapeutic rapport, application of theory into practice and advising and guiding the patient, can be a meaningful intervention in itself. Recongising this has allowed me to realise that simple acts of listening and kindness can sometimes be enough. This has significantly changed my perspective on engaging in interventions, I placed an immense pressure on myself to know everything and apply a 'no stone unturned approach'. On analysis, on aspect which was helpful was drawing upon Compassion focused principles (Gilbert, 2004), where I would continuously practice self-compassion including the fact that I was still learning and it is ok to not know everything (For an example see Page 821 Logbook activity May 2022). I found applying this concept, by approaching myself with warmth and compassion was helpful alongside seeking support from my academic and clinical supervisors. Personally, I find being self-compassionate and engaging in self-care activities can be honestly challenging but deeply meaningful and essential for one's health and wellbeing. Throughout the doctorate and certainly the pandemic, this has been a priority for me.

Work life enhancement

As an enthusiastic leaner I found at the initial stages of the doctorate I would schedule my diary by filling up my spare time by shadowing others, however, I come to realise the importance of *'burnout'* and how overstimulating yourself can correlate with this (Gabriel and Aguinis, 2022; Otto et al. 2020; Stevens and Al-Abbadey, 2023). I reflected on this quite early in the doctorate process, complemented by my own self-awareness and supervision, I reduced the amount of work schedules and factored in time for regular breaks. Cultivating a work-life balance was an essential learning skill I have developed (for an example see Logbook Page 912 activity November 2023). Nevertheless, sometimes factors within a workplace have caused me to say 'yes' above and beyond my workload. Therefore, it was essential as a Trainee Health Psychologist that I prioritised work-life enrichment. This also aligns with

the HCPC Standards of proficiency 3. Therefore, I have taken on hobbies including swimming and yoga which I felt enhanced my 'flow' (Csikszentmihalyi et al. 2014). My academic supervisors' words have resonated with me throughout *"the journey is much more pleasant when you go slower"* (See Logbook Page 25, activity May 2020), thus, appreciating the journey and not striving constantly for the destination has increased my acceptance of self and resilience. Hence, my balance of work and recreation time has been better honed and I will continue to adopt this beyond the doctorate.

Supervision; clinical, academic and peer

I continuously engaged in clinical, academic and peer supervision sessions throughout the doctorate. This has enhanced my self-insight and has been intellectually enriching and professionally enhancing opportunity. I developed the ability to strike the balance of autonomy and initiative, whilst being responsive and appreciative of the supervision process. Throughout the doctorate, I have been responsible for a clinical caseload, although the challenge for this was imposter syndrome, as I felt apprehensive regarding my beliefs and confidence. However, I found that seeking support and supervision enhanced my ability to practice autonomously, by learning skills to effectively manage imposter syndrome including to make a list of my strengths, paying attention to my inner critic and recognising the advantages of being a novice (Hibberd, 2019).

Engaging in supervision was associated with an assortment of feelings. Nevertheless, supervision allowed me to recognise I was not alone with these feelings. I was grateful for the supervisory process where I could experience the headspace to help me reflect and grow personally and professionally. In all roles I have been able to reflect and develop an understanding of how my own personal values, feelings and thought processes influence my work. For example, one memorable point of supervision was utilising formulation on situations which were challenging, I found the power of formulation allowed me to create a space where I could utilise my "wise mind" incorporating logic and emotion to see things from an objective observer point of view.

Additionally, I value the safe space to develop my self-awareness and encourage the development and application of my skills and knowledge within practice. I have developed skills to work with autonomy within sometimes stressful and emotionally charged situations. This is evidence that I can thrive and can remain calm and professional at all times, even in highly emotive situations. Regularly attending and engaging in supervision (See Logbook Page activity September 2020 for example of value of supervision) adheres to the Standards of proficiency HCPC guidance 1.1 "practice safely and effectively within their scope of practice 1.1 identify the limits of their practice and when to seek advice or refer

to another professional or service, keep their skills and knowledge up to date and understand the importance of continuing professional development throughout their career".

Connecting with others can help one regulate one's emotions, cope with stress and enhance resilience (Williams and Kemp, 2020). Engaging in peer supervision has been beneficial to this (For example when See Logbook Page 669 activity May 2020). I found that fostering of collegiality and feeling like you are part of a larger entity was important for me throughout the doctoral process (Basa, 2019). Connecting with my peers in a clinical and academic setting formed positive relationships which have enhanced workplace satisfaction, provoked discussion and enhanced my critical thinking skills (Thomas, 2012) (See Logbook Page 701, activity June 2020). I am currently aware of the issues which may arise with teamwork such as competitiveness, differences in opinions and perspectives; however, learning is often derived from such issues. For example, when I have experienced individuals who have adopted a different theoretical orientation, I adopt the notion that you can always learn from others, and it has allowed me to adopt an eclectic approach within my practice (See Logbook Page 736 activity December 2020). I found being part of a wider network/community heightens that sense of belonging with my peers and I felt more engaged and satisfied with my learning experience (Thomas, 2012). It provides you with that reflective space and practicing 'placing the oxygen mask on oneself, before you can help others, for example when you look after yourself, you are able to have increased energy to focus on others.

Increased self-awareness in the face of stressful situations and striving for excellence is a professional and personal endeavours demonstrated by humanistic theoretical underpinnings (Patterson & Joseph. 2007; Maslow, 1943). Throughout (all) of the professional doctorate process, I have established strong self-awareness. However, this process has required an amalgamation of techniques which have been worthwhile albeit challenging to develop. These include, observation from others, supervision, and feedback of work for my portfolio. Seeking support, which can feel unsettling at times, has been an essential skill I have developed throughout the doctorate. Not only has it improved my self-awareness, enhanced my practitioner and research skills, improved my communication skills it has certainly motivated me to continue to seek feedback from others and view this is as developmental rather than from a negative stance. I have also come to the understanding that I am at the beginning of my career path and that I am a willing learner in every facet of my life, thus, I deeply acknowledge and appreciate the knowledge and skills I have acquired throughout my doctorate. I have no doubt that as I professionally develop those gaps in knowledge and awareness will close, though the desire to remain reflective via the supervisory process will always be needed.

Conclusion

I am extremely appreciative and grateful for all the opportunities and people that I have encountered during my professional doctorate journey. A key focus for my future is to believe in my abilities to achieve and succeed, to challenge myself, to not strive for perfection but for excellence to further enhance my personal and professional development. The professional doctorate has allowed me to follow my aspirations, build up skills and learning, seek out future career prospects, continue with ongoing learning experiences, including engaging in CPD activities and to use my reflective practice skills which are an essential tool for personal and professional development. I am passionate, motivated and determined to continue developing my role as a Professional Registered Health Psychologist.

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