

Professional Doctorate Portfolio

Health Psychology

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Abstract

The competences required for the Doctorate in Health Psychology were completed through my workplace; a NHS Trust, and at external organisations. The following sections briefly introduce each competence completed as part of my journey to becoming a Health Psychologist.

Consultancy: The consultancy client was a College of Further Education. Student wellbeing sessions, for early year practitioner students were requested to improve students' knowledge and coping with stress and sleep. The client requested an additional educational session on long-term conditions in children under five years. A contract was developed to include all teaching sessions across three groups of students. Session plans were approved and timeline for completion was agreed. Five sessions in total were completed. Following completion, an executive summary was provided to the client summarising the teaching and my suggestions as a Trainee Health Psychologist. Suggestions for future sessions and a regular earlier slot in the curriculum were advised.

Teaching and Training: The teaching a training competence was completed through a five-session series at The Royal Oldham Hospital. A health psychology series was developed providing a particular focus of each session (Stress, stress management, managing worry, self-compassion, and behaviour change interventions).

The second aspect of the teaching and training competence was completed through a one three-hour lecture at the University of Salford. The undergraduate curriculum was explored for areas of health psychology that could be added to expand knowledge. Students undertaking the health psychology module in their third year of study attended the session. The session covered long-term conditions in children. Long-term conditions were covered in adults but education around children's experiences was absent. The session covered the most common long-term conditions in children and how they are different to adults. Common issues around treatment and management such as medication adherence were discussed. Health psychology theories of behaviour were introduced to discuss medication adherence. Ways in which research helps provide better healthcare for children with long-term conditions were explored.

Research: A systematic review was conducted, exploring the relationship of emotional dissonance and psychological wellbeing in police officers. Empirical paper one was a quantitative piece which explored the relationship of parental involvement and self-efficacy on

self-management behaviours of children and young people with type 1 diabetes. The second empirical paper aimed to expand on report one and explored facilitators and barriers to self-management behaviours in children and young people with type 1 diabetes through semi-structured interviews.

Behaviour Change Intervention: The first case study reports on a group intervention aimed at improving psychological wellbeing through introducing self-compassion with research team members at an NHS Trust. The second case study fulfilling the competence is a one-to-one intervention. The case study shows the assessment, development, and implementation of an asthma adherence intervention with a young person. Evaluation of the intervention is included.

Generic Professional: The portfolio completes with a reflective summary from my experience of the Health Psychology Doctorate training, including successes and struggles throughout my journey to completion of each competence. It includes case studies from each competence which has helped guide me to become an assertive, confident Health Psychologist. A training log, signed by my workplace supervisor is enclosed to demonstrate my professional activity during the training.

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Introduction

My road to completing a Professional Doctorate in Health Psychology began when completing my undergraduate degree. The Health Psychology module was a great interest of mine and led me to complete stage one of the Doctorate through a Masters degree. Both courses developed my passion to become a Health Psychologist. The portfolio was developed through working as a Research Assistant at the Northern Care Alliance NHS Foundation Trust (formally known as Pennine Acute Hospitals Trust) which I later progressed to a Research Practitioner whilst continuing the competencies. Within my role, I was interested in the relationship of self-efficacy on self-management behaviours, particularly in people with type 1 diabetes. I also took an interest in educating staff in aspects of health psychology and staff wellbeing. External to my role, I continued to expand my teaching skills and explored staff wellbeing within the police force.

I aimed to gain a variety of experiences, which would allow me to learn and demonstrate the skills required to become a qualified Health Psychologist.

Chapter one: Consultancy

This competence was completed outside of my usual role. I had an interest in student wellbeing, coming from my own experiences as a student. This competence was in addition to my full-time role. I had to liaise between both teams to find a suitable time within my clinical work to complete this competence. The support from my line manager was crucial here. This consultancy project provided students with several educational wellbeing sessions and a specific taught session on type 1 diabetes in children under 5 that can be directly linked to their course content. This competence taught me the process of being a consultant and the importance of contractual agreements. It taught me to manage my time and communicate effectively with several parties, to ensure the successful completion of the project.

Chapter two: Teaching and Training

Throughout this competence, I have taught health psychology to NHS professionals and students at college and university. I have taught in different settings, and for different lengths of time. It has taught me the importance of planning my sessions for the audience and having flexibility. Reflection on each session was important for my progress as a trainee as I was able to amend future sessions to ensure the audience understood the content. This competence was one that I feared most, but my confidence grew, and I enjoyed teaching.

Chapter three: Research

This competence fulfilled an area of personal interest. Empirical project one & two were an extension to my MSc dissertation. This competence allowed me to learn a lot about the NHS ethics process. I recruited children and young people with their families into the research. The research allowed me to work closely with the multidisciplinary teams that oversee the healthcare for the children and young people. I chose a mixed methods design study, providing me with quantitative and qualitative data to analyse, which gave me the opportunity to practice and become comfortable with data analysis. The projects were hindered by the Covid-19 pandemic which reduced recruitment. In contrast to the empirical papers, the systematic review focused on staff wellbeing in police officers, as I wanted to widen my knowledge.

Chapter four: Behaviour Change Intervention

The group work case study was developed as a result of the Covid-19 pandemic. NHS staff were self-critical when thinking of patient outcomes. Having experienced this first hand myself, I felt it was important to try and improve staff wellbeing. A consultant paediatrician asked me to try and improve adherence to asthma treatment for one patient which led to the 1:1 intervention. My role in this competence included assessment, design and delivering the intervention.

Chapter five: Generic Professional

The Professional Doctorate has provided me with many opportunities to grow as a practitioner, and to gain a variety of experience. Skills learnt over my student career have been put into practice to deliver the course competencies, Consultancy, Teaching and Training, Research, Behaviour Change Intervention and Professional skills. The course prompted a lot of reflection about my practice and the ways I can improve. I began the course naïve and shy, but the practice has provided me with the opportunity to increase in confidence and assertiveness. There have been huge challenges for me, both personally and professionally, and the Covid-19 pandemic was an additional pressure I had to navigate. As I complete the Professional Doctorate, I have an awareness of future training and opportunities I'd like to pursue to continue to improve as a Health Psychologist.

Chapter 1

Consultancy

This section covers the consultancy competence working with [REDACTED] College. The competence includes a reflective case study of the consultancy, contract between client and trainee, and a consultancy report.

Consultancy Case Study Project [REDACTED] College

Summary

My role in the consultancy project involved meeting with the student support tutors (the clients) and discussing the personal development needs of the students in the Childcare and Special Education Needs (SEN) cohorts. The clients identified the needs of the cohorts based upon issues reported by the college students, and an agreement was made to conduct taught sessions about these. Delivery of the consultancy involved teaching sessions about sleep, stress, and type 1 diabetes in children less than five years of age.

Needs of Client group:

- To understand about the importance of sleep on health and wellbeing.
- To understand stress on health and wellbeing and learn management techniques.
- To understand type 1 diabetes in children under the age of 5.

Agreed outcomes:

- To conduct five teaching sessions to the students during their usual support tuition sessions. The aims are to help students understand the impact of stress and sleep on the body and the impact to their health and wellbeing.
- To provide background information and strategies with practice to overcome effects of stress and improve sleep duration and quality.
- To provide students with a workable knowledge of type 1 diabetes in children under 5

Identifying the needs of the client

An employee of the college heard about me receiving a “Jerry the Bear” which is a bear who has been designed with scan points on its body relevant to diabetes management tasks. For example, the bear has scan points on its tummy, legs, and arms as these are areas that children would use to inject insulin. The bear comes with an app which tells the story of how Jerry deals with his diabetes each day and prompts the user to conduct diabetes management tasks on the bear to try and help the child understand the condition and practice. The employee expressed interest in running a session about type 1 diabetes with the Special Education Needs group using Jerry to aid learning. The employee asked me to come in and teach a session. The Head of Childcare at the college heard about Jerry the Bear and asked whether a meeting could be arranged to discuss teaching with Jerry to the childcare cohort to help understanding of type 1 diabetes in children under the age of 5.

Firstly, a meeting was held with the SEN student support officer. There was discussion about the Jerry the Bear which the client expressed an interest in using as an activity in a general

wellbeing session. We also agreed that a session on type 2 diabetes and factoring in about healthy eating would be appropriate for the students.

A meeting was held with the Head of Childcare for the college. We discussed the option of including other sessions such as chronic illness in children. I suggested that type 1 diabetes would be a useful session to teach due to it being a common chronic condition in children in the UK with 24.5% per 100,000 children making the UK the 5th highest incidence of type 1 diabetes internationally (Diabetes UK, 2013). She agreed and asked if I could tailor the teaching to be relevant to children under the age of 5 as the students will most likely be starting a role in a nursery setting where children are under 5 years. I recommended Stress Management, Sleep, Smoking, and Improving Wellbeing as extra sessions to provide personal development for the students. She suggested that I meet with the student support tutor as they have one session a week which covers current topics to suit the student's personal development such as, sexual health and bullying. I think the process so far into my consultancy was a normal process of meeting with the managers to discuss the issues. I think this could have been improved by meeting with the managers as well as a student representative for the cohort.

Upon meeting with the student support officer for the childcare cohort, I suggested subjects I could teach that might benefit student's wellbeing. The tutor felt the level 3 cohort would benefit from learning about stress and stress management as this time of year is quite stressful with completing their final work. She expressed that she lacked knowledge in this area and that her student's would not take stress management techniques suggested by her seriously. The client suggested to run the sessions during the student support sessions as the content was relevant to students' wellbeing. It was feasible to run the sessions during a set timetable to ensure the students were available to attend. Using Schein's (1978) three models of consultation, I believe that this consultancy meets criteria for model one: 'Purchase of Expertise'. Here the client diagnoses their problem and employs an 'expert' to deal with the issue without being involved in the process.

I aimed to use the Seven Cs of Consulting (Cope, 2003) to guide my consultancy competence. It is a model designed to successfully deliver change to a wide variety of projects. It contains seven stages which can be used in order or simultaneously. In hindsight, I think I would have developed a stronger consultancy project by using more diagnostic processes within the 'Clarify' stage of the Seven C's (Cope 2003). I would have conducted this with the students themselves such as focus groups, questionnaires, or personal logs. This would also meet criteria for Schein's (1978) Model three: 'Process Consultation'. Here the client and the consultant would collaborate in diagnosis of the issue and the client will help inform the

intervention and induce change. Reflectively I think this would have been a longer process, however, would have had the potential to succeed further with the students due to the more collaborate approach from the beginning, which may have encouraged them to invest more into the sessions and their own change. I believe if I was to conduct a similar consultancy, I would allow myself to be flexible across Schein's (1978) three models during different stages of the consultancy.

My preparation for the meetings was minimal as I was confident I could talk about type 1 diabetes. I know that I feel much more confident when I have had a lot of experience in the area. I felt that I took the opportunity to use my health psychology knowledge and offer a range of services such as offering to teach more about wellbeing subjects. The meetings went better than I expected, I was glad that I was able to talk about what else I could offer. I have now learnt that I needed to be more aware of the needs of the client going into the meeting. In hindsight I would have benefitted from having a number of prompts or questions to use to draw more information from the client. If I was to meet with a potential client for a consultancy role in the future, I would use the Seven Cs of consulting (Cope, 2003) rapid mapping as a formulation tool. I would take a mind map of the Seven stages and ensure that I have developed questions in order to cover all aspects of the Seven Cs of consulting. I was nervous about the meetings as I couldn't predict an outcome. However, I think if I was able to predict an outcome it would have likely to have been negative, such as thinking about rejection from the client. This would have negatively affected my confidence. I don't think that I can improve on the nervousness at the moment as I think the fear of rejection is prominent.

Both clients were informed that following signing of the contract that I would send over the lesson plans for them to approve prior to me preparing the learning materials. At this point, I also asked when they would like the sessions to run, and it was agreed that after the Easter holidays would suit all parties. Firstly, because they had lessons planned until that time and secondly because it provided me with enough time to prepare the lesson plans and learning materials. It also gave me a deadline, which I am motivated to meet and has been a successful tactic which I have used throughout my doctorate so far.

Creating the contract

Both the Childcare and SEN cohort were required to sign the contract to cover the consultancy. To ensure they signed the same document I requested the childcare student support tutor to sign first. Due to a delay in response, I did not send the lesson plans until later than I had planned. This impacted the length of time I had planned for development of learning material. I have learnt from this to ensure that I request a date for a contract to be returned by when conducting consultancy work. It was an oversight as I assumed the client would reply quickly

as they had on previous email exchanges. In hindsight I would have followed up with a phone call to the client to discuss the contract which may have encouraged the client to sign earlier, reducing delays. I thought that it was clear, but this experience has shown me not to assume and to not be afraid to clarify information with the client in future.

Managing the Contract

Following advice from my supervisor during my workplace visit, I sent the lesson plans to the client. The childcare support tutor replied with the signed contract and asked me to start the sessions the following week. I felt a little rushed, as I had only made a start on my teaching material in case the tutor wanted to change topic after revising the lesson plans. In future, I could follow up with a phone call to the client to discuss the contract and whether they request any amendments. I felt a lot of pressure in the next week to complete my teaching material to a high standard. I think I work well under pressure, and it pushes me to complete my work. I don't usually leave things until last minute as I like to feel organised by making an early start, but on the other hand, I don't feel like I have worked hard on it if I haven't felt a time pressure. I feel a huge sense of achievement when I complete my work to deadlines. I have begun to wonder whether that sense of achievement is something which I strive for in every aspect of my work. As I have already found that setting myself deadlines overall has helped me with my doctorate.

At the point that the SEN student support tutor returned the contract, the students had completed their year and so she invited me back in September to discuss any needs for the new cohorts of students. This meant that the SEN part of the contract needed to be re-negotiated and a new contract for the SEN cohort drawn up at the start of the educational year. I have since learned that the student support officer for the SEN cohort resigned from her position at the college. Hence the consultancy was completed as agreed with the Childcare cohort only.

Developing lesson plans

Sleep session planning

It was important to cover sleep deprivation and its impact on the individual. Research has found that those experiencing sleep loss are unable to perform as well as their peers without sleep loss in a decision-making game (Harrison & Horne, 1999). Using academic performance as reported by the university, those with shorter sleep duration had lower academic performance. This research outcome could apply to the college students and poorer academic performance when experienced shorter sleep duration.

For those who report shorter sleep duration, this is associated with increased daytime sleepiness, irritability, and decreased concentration (Bonnet & Arand, 2003). A shorter sleep length is associated with lower academic performance (Medeiros et al, 2001). Loss of sleep affects immune function and puts the person more at risk of developing infections and experiencing increased stress (Imeri & Opp, 2009). Sleep and stress have a bidirectional relationship, meaning that one can affect the other and vice versa. During the adolescent stage, the brain maturation and cognitive functioning is negatively affected by stress. (Sinclair et al, 2014). Since research reveals that stress and sleep impact one another, the body, and the person it is important to focus on promoting sleep hygiene and stress management to encourage well-being in students aged 16-19 years.

Using the National Sleep Foundation guidelines for sleep duration, Hirshkowitz et al (2015) stated that 16–19-year-olds should sleep for approximately 7-10 hours each night (16-17 years 8-10 hours, 18-25 years 7-9 hours). I used this guidance in the session and included an online exercise that allows the students to enter in their wake-up time, how long it takes them to fall asleep and select the sleep duration one would like (7 hours 30mins or 9hours). I hoped that the exercise would increase class engagement and teach the students how long they are sleeping for currently and what time they could go to bed to increase their sleep duration. It also allowed me to use their experiences to introduce Rapid Eye Movement (REM) sleep, and how they could improve their REM sleep.

Using the Behaviour Change Taxonomy (Michie et al, 2013), I selected a behaviour change technique which would benefit the sleep session. I chose to provide information of health consequences to the session to show the impact of lack of sleep duration or poor sleep quality. I felt this may be more successful than showing the students positive health implications of good sleep hygiene and quality to health. This decision was based on my clinical experience where I frequently encounter non-adherence to medication in young people with type 1 diabetes. I have had previous success of telling people about the implications to their health rather than benefits of improving health behaviours. When discussing non-adherence with patients, they have said they do not conduct the behaviour due to currently feeling 'well' in themselves. They struggle to understand that completing the behaviour would benefit the patients' health further because they currently feel 'well.' This experience could be due to the perception gap (Ropiek, 2012). The perception gap is defined by one sometimes over-calculating or under-calculating risks based on evidence that is presented to us. I believed that this could be generalised to sleep. It could be that students do not feel that increasing sleep would reduce their risk of ill health. Therefore, I chose to discuss the impacts of reduced sleep duration and poor sleep quality and its risk to the body to encourage that students would think about decreasing the risk of ill health.

Stress session planning

As before, I used the behaviour change taxonomy and focused on the technique of providing 'information about health consequences' to explain the effects of long-term stress on our body and immune function and the relationship between stress and sleep. I hoped this information would help the students think about what they could do to reduce the risks. When creating the learning resources, I developed the session to progress from the health consequences of stress-to-stress management techniques.

There has been little research into stress management in young adolescents aged 16-18 years as the focus has generally been based on the transition to university life in those aged 18 and over. Techniques included in the learning material I developed were based on literature and previous research of stress management in children and young adults due to their level of development being similar to the students compared to older adults. Mindfulness was included in the learning material as a stress management technique as literature has shown that Mindfulness Based Stress Reduction (MBSR) has led to improved well-being, relaxation, self-care and improved sleep in adolescents (Wall, 2005). The MBSR technique has also been found to benefit sixth-form student's psychological health and academic potential (Bennett & Dorjee, 2016). As well as self-reported improvements in well-being, there have also been physiological improvements in blood pressure in students who used mindfulness meditation (Barnes et al, 2004). Progressive Muscle Relaxation was also included as there is support for this technique to reduce stress related anxiety (Rausch, Gramling & Auerbach, 2006).

Whilst creating my teaching sessions on stress and researching effective relaxation strategies to include in my session, I found progressive muscle relaxation techniques useful for myself. I have tried the technique and after relaxing muscles I feel like the stress has left my body with the tension. I will be using this technique in the future as I think it's valuable for me to release the stress and move on.

Type 1 diabetes session planning

When thinking about the lesson plan for the type 1 diabetes session, I reflected on my clinical experience rather than looking towards knowledge from research and books. I know the management processes well from my clinical experience and I tried hard to select the essential material that the students would need to know rather than going into great detail. I felt that showing a real-life example would help put the condition into perspective; therefore, I chose a video which portrayed the child's level of development and the involvement of the parents on management of type 1 diabetes. It was the easiest of the sessions to plan, although I was wary of the information becoming overwhelming. I have experience of seeing families of newly

diagnosed children in my clinical work. There is usually a lot of information provided on the first visits. It is essential information, but it is a huge life change and parents tend to forget some vital information. I was wary that if I provided too much information to the students that they too might forget or misinterpret parts of the condition and its management.

Research shows that using a variety of different learning styles aids learning and memory (Rushton & Larkin, 2001). I chose to use a variety of learning techniques to try and help the students take on board some information. I included pictures when describing medical devices and items that could be used to help the child raise their blood sugar, a video and 'Jerry the bear' which required the students to be hands on and try out the diabetes management tasks themselves. I feel I was able to inform the students clearly about the condition but did not overload them with information. Compared to the other sessions, I know that I am capable to talk about this subject without prompts and answer questions confidently. I usually worry about remembering things when teaching or presenting and it impacts my confidence to talk publicly however, I do not experience this when thinking about teaching type 1 diabetes to people. It helps me when looking at the possibility of teaching in the future because I anticipate that I will have a lot of experience in a variety of subjects, and I think that I would be able to talk confidently in public.

Delivery

When thinking about teaching for this competence when first meeting with the client, I anticipated that I would be very nervous. As the 3-hour session was successful and filled me with confidence, it has allowed me to anticipate teaching experiences positively. If I am required to conduct any teaching in the future, I would be keen to accept the opportunity. I think this has allowed me to enjoy the sessions within this competence and I felt more approachable to students, where previously I would shy away from questions from the class. I conducted three one-hour sessions on the same day and conducted the last two sessions on two separate dates when convenient with the student support tutor.

I aimed to make the session experiences emotionally and intellectually engaging for the students. As research has shown that student's future achievements were predicted by the diverse and engaging learning formats (Allen et al., 2013). Stronge, Tucker and Hindman (2004) stated, "Effective educators use their own enthusiasm for the subject as a tool to reach and motivate students". I feel that I am passionate about the subjects I taught, and I believed that it helped with engaging the class and encouraging group discussion.

I felt the first session went very well. The group interacted with me and asked questions about the session. It was empowering to think that I was teaching someone something. The students

shared their own anecdotes which told me that they were relating to what I was talking about. There was an activity following the sleep cycle which used the students wake up times that morning to determine what time they should go to bed to achieve optimal sleep (7 hours 30 mins/ 9 hours). I feel this attracted the most input from students as they all wanted to check their own times. It created a lot of discussion and comparison against each other in the group. The second cohort also attended a sleep session which had a similar outcome. The second group was much smaller; consisting of 7 students therefore the session took less time than the previous one. From this I have learnt to have an extra exercise to add in which may benefit the students which I can use to if the session runs quicker than expected.

The third session of the day felt much harder. It was the type 1 diabetes session. I was feeling the most confident that day because this was the subject I knew most about. As soon as I walked in one student said, "I don't need to know about type 1 diabetes because I don't have it". It stumped me a bit because I had previously had two successful sessions that day and I was not expecting any feedback on the name of the session alone. It didn't immediately make me feel as negative as it might have done previously. I think this is because I have a lot of knowledge about type 1 diabetes and know I can talk confidently about it. I felt that I could show her my rationale for this session that I could prove to her that it's not a waste of time. The session on the whole was taken positively as the class asked questions and I felt that everyone gave me their attention whilst I was talking. I feel that my rationale for why adults need to know about type 1 diabetes in children was the strongest point that I wanted them to take home and think about. I think I portrayed the importance well. I struggled to engage most of the class with the Jerry the bear exercise. Only a few volunteered to use the bear whilst the remainder of the class watched.

After having what I felt was a testing session for the type 1 diabetes session, I came into the fourth and fifth session expecting the same. The fifth session was the stress session with a level 3 cohort identified by the client. The class was the busiest so far and felt quite loud when I was setting up. I think this reinforced my fear that the session would be quite stressful. I started off telling myself that I am not outgoing enough to quieten the class down and I could feel myself getting a bit worked up and embarrassed. I think if I was to experience this again, I would actively try to settle the class using a mindfulness exercise. The stress session on the whole was a success. I could tell that students were listening as they commented on the information I was sharing. The first activity asked the students about what makes them stressed. This created a lot of discussion amongst the class and the students fed back many different stressors they experience. I feel that unlike the sleep sessions, the students were less surprised about the impacts of stress on the body as in previous sessions they had tended to ask more questions about the impacts.

The 'confirm' stage of the Seven C's framework (Cope, 2003) asks whether what was wanted was actually delivered. I believe that I provided what the Client (student support tutor) wanted, however, I think that if I was to repeat a consultancy like this that I would focus on the students more as the 'client' and work around what they would want. The sixth stage of the Seven Cs of consulting is 'continue.' The aim of this stage is to follow up and ensure the change is maintained and receive long term results. I was unable to use this stage as it was not feasible. The students were in their final year of college due to complete within one month of the completion of the consultancy. Within my recommendations, I suggested that the client should consider starting the wellbeing related sessions at the start of the educational year to allow for progression and follow up.

Informal Feedback

The student support tutor stated that she thought she knew about type 1 diabetes but hadn't realised that she didn't have that much knowledge. She has a couple of students who have been diagnosed within the last year, who regularly come to her and report struggling to manage their diabetes. She said that it's allowed her to talk to her students using the knowledge she's gained, and it's allowed the students to relate to her and open up about their issues. Using this feedback, I feel that I taught the essential information and that has provided all attendees with a beginner knowledge.

The final stage of the Seven Cs of consulting is 'Close' (Cope, 2003). I created the report to allow the client to look back at what has been carried out to allow the client to understand the value. Looking forward is a part of the close stage which allows discussion for the opportunity to gain more work from the back of this consultancy. I experienced this throughout my informal feedback. The student support tutor mentioned that she had discussed the sessions with the Head of Childcare and told them how helpful the sessions were. The Head of Childcare asked whether I could continue teaching the remaining cohorts for all sessions. Unfortunately, I was not able to do this due to working in my full-time role as a research assistant. I don't like to say no to people as I feel like that causes conflict or tension. The Head of childcare understood my position and was grateful when I came to complete my last session. I feel quite relieved when it comes to thinking of completing this part of the consultancy; it felt harder than teaching university students as the university students appeared to be more invested in my session. I think I was also relieved as I was one step closer to completing my work for the doctorate.

Evaluation

One thing I realised in writing up the report was that I did not discuss the report in much detail with the client. Using this reflection, in future, when completing a consultancy, I would like to address this with the client. I would like to offer them the opportunity to select items which they

would like to see in the report as they may have a different vision to the outcome report that I have created.

I feel that the sessions ran very well. But reflecting on this, if I were to conduct the sessions again, I would like to add a mindfulness activity at the beginning and end of the sessions. I experienced a mindfulness exercise whilst at university. It gave me a bit of time to myself to reflect and the breathing exercises distracted me from stressors, and I felt more relaxed and content. I think if I had carried out the activity with the students then it would have encouraged the students to do their own mindfulness exercises at home as they have experience of whether it was likely to work for them.

On reflection, I could have extended my consultation and diagnosis period to include a focus group with the students to diagnose issues. I may have run a session on teaching about stress to the group and followed it up with diaries and a one-to-one confidential session. I would also focus more on practicing stress management and helping students find their most effective stress management techniques. This would have used self-monitoring of behaviour and skills training. These are behaviour change techniques which may have benefitted the students through monitoring and evaluation their own behaviours. I would also use the outcome of the focus groups to guide the path of the consultancy which would have allowed me to be more flexible and gain experience of adapting to their needs. The student support tutor described issues the students experience such as social services involvement which add to stressors or lack of sleep duration. I believe changing the delivery of the consultancy to allow the students to guide their own change would have addressed the 'Change' stage of the Seven C's (Cope, 2003) as it would allow me to address the deep systemic issues which may impact the change stage.

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CONSULTANCY AGREEMENT

This agreement is made 24th April 2019.

BETWEEN: [REDACTED] COLLEGE (referred to as the Company) [REDACTED]
[REDACTED] Contacts (student support tutors):
[REDACTED]

AND: JENNIFER PHILBIN (referred to as the Consultant) Pennine Acute Hospitals Trust, The Royal Oldham Hospital, Rochdale Road, Oldham, OL1 2JH, 0161 656 1910- J.E.Philbin@2018.ljmu.ac.uk

SERVICES

Services to be provided by the Consultant subject to agreement.

- To deliver 8 educational sessions to two cohorts of students.
- To develop lesson plans for each of the sessions.
- To develop supporting teaching resources for the sessions.
- Provide written reports to each cohort leader on completion of the Consultancy.

RESPONSIBILITIES

The consultant will provide teaching to two cohorts at the company. The teaching will consist of one-hour sessions. The sessions delivered with the Childcare Cohort will be conducted at the Rochdale Campus in the student's usual teaching environment. The Special Education Needs Cohort will be delivered at the Middleton Campus in the student's usual teaching environment.

1. The childcare cohort will receive teaching sessions on sleep, stress and type 1 diabetes in children.
2. The Special Education Needs (SEN) cohort will receive teaching sessions on stress and resilience and general health and well-being.

The consultant will develop lesson plans to be assessed by the company. Learning materials for each session will be created based on the approved lesson plans.

Learning will be assessed by the consultant and feedback will be provided to the company in the form of two reports, one for the childcare cohort leader and one for the Special Education Needs (SEN) cohort leader.

TIMELINE

Following an initial meeting on the 8th March 2019, the company provided the consultant with a brief for the sessions. The consultant will draft lessons plans to be assessed by the Company before production of the learning materials are commenced. The consultant will commence teaching the sessions 29th April 2019 for works to be completed by 24th May 2019.

FINANCES

The work will be provided by the consultant at no cost to the company.

EXTENUATED CIRCUMSTANCES

In the unexpected event of death, Dr Helen Poole will become the consultant's agent and complete the works described in the contract on their behalf. In the unexpected event of illness or other reason that the consultant is unable to

complete the services described in the contract, Dr Helen Poole will complete works on behalf of the consultant.

PROFESSIONAL DOCTORATE DECLARATION

The consultant is a Trainee Health Psychologist, whom will undertake the services subject to agreement under supervision from a university supervisor. The consultant is required to show completion of consultancy competence as part of the Professional Doctorate in Health Psychology. The consultant will submit a case study to be included in the portfolio to be reviewed by the university and external examiners. A copy of the contract will be submitted with the case study, learning materials and outcome reports. The Company will receive the reports. Feedback from the company will be requested by the consultant, which will be included in the portfolio. The contract, reports and feedback will be anonymised to protect the privacy of the company and those involved in the teaching sessions. The Consultant's supervisor may need to view the Consultancy documents before redaction to ensure the work has been completed to standards meeting the BPS Code of Ethics and Health and Care Professions Council.

 COLLEGE- CHILDCARE COHORT

Signed:

Print Name:

Title:

Date:

 COLLEGE- SEN COHORT

Signed:

Print Name:

Title:

Date:

CONSULTANT

Signed:

Print Name

Title:

Date:

Consultancy Report

Consultant: Jennifer Philbin

Client: [REDACTED] (Childcare Cohort)

Date:

Executive Summary

The client expressed concerns for their students aged 16-19 years who attend college. The students regularly report high levels of stress and reduced sleep duration as an issue impacting their attention and wakefulness during college classes. A decision was made between the client and the consultant to run a number of sessions on sleep and stress to different cohorts of students identified as in need of the educational sessions to promote wellbeing. Two sessions were developed to allow the students to reflect on their own experiences of stress and sleep, gain a level of understanding about these issues, and explore management techniques. A total of four-hour long sessions was delivered to the Childcare Cohorts, one session on stress to a level 3 cohort, and 3 sessions on sleep to level 1 and level 3 cohorts.

There was a further requirement for the consultant to teach type 1 diabetes in children as the students may seek employment in a nursery setting upon completion of the course. Children are not able to manage their own condition under the age of 5 due to lack of understanding in line with their stage of development. It is important for early year's practitioners to have an understanding of how to manage the condition and symptoms of a low sugar and high sugar episode. Thus, a third extra-curricular session on type 1 diabetes in children was developed and delivered to students, to provide them with knowledge to transfer into the workplace.

In summary the consultant developed three sessions for the Childcare cohort at [REDACTED], to promote wellbeing by teaching about stress and sleep, and to add to workplace knowledge by teaching about type 1 diabetes in children under five years. The sessions were run in one-hour sessions with students aged 16-19 years over the spring/ summer term.

Following the sessions, a number of recommendations were developed by the consultant for the client.

- Student wellbeing should be carefully monitored and work on stress and sleep management should be included upon commencement of college education. This allows students to implement management techniques appropriately, thus reducing likelihood of these issues becoming a bigger problem.

- Closer working in focus groups and 1:1 ratio with student support workers or Health Psychologists has the potential to benefit student's wellbeing.
- Student reports of stress and lack of sleep is likely not only limited to the experiences of the Childcare cohort at this college, and attention could be branched out to the remaining cohorts from other subjects and ran as part of a college-wide wellbeing strategy.

The outcome of the type 1 diabetes session was that it was useful to the students, however not all students intend to obtain a childcare specific role after completion of their studies, therefore, it may be more suitable to implement the session as an opt-in approach. By using the opt-in approach, the advertisement is likely to reach all level 3 childcare cohorts wishing to pursue a role in childcare.

Introduction

This report has been created following completion of a consultancy project with the childcare students at [REDACTED]. The report outlines how Jennifer Philbin, Trainee Health Psychologist [hereafter "the consultant"] addressed and met the needs of the client, [REDACTED], Student Support Tutor at [REDACTED] [hereafter 'the client'] The report also includes recommendations the client may consider implementing in the future. A meeting was arranged between the Client and Consultant after the client expressed interest in 'Jerry the Bear', a behaviour change intervention for children to help understand type 1 diabetes. The meeting took place on 5th March 2019 to discuss the interest in showing the childcare cohorts Jerry the Bear. The College runs a number of Early Years Practitioner courses for students aged between 16-19 years at entry Level 1 and Level 3. The consultant suggested that Jerry the Bear could be integrated into a Type 1 diabetes in Children session. After discussion, the client deemed this suitable for the cohort, with the caveat that the session only covered type 1 diabetes in children less than 5 years of age. It was agreed that the session should be delivered to a level 3 cohort as they are completing college and preparing to begin work, therefore it may be more relevant to a level 3 cohort. The client suggested that the sessions would be delivered during the students' support classes, which they have once a week. An additional meeting was arranged with the Early Years student support tutor on 8th March 2019. The Early years support tutor runs sessions with each cohort at least once a week aiming to cover topics relevant to the student's personal development.

The client reported that the students regularly complain of being stressed or tiredness (from shorter sleep duration or struggling to fall asleep). A report by the Mental Health Foundation (2018) supports the students' complaints. The consultant suggested that it may benefit the students to run a number of sessions for the cohorts who report these issues. The need for

students to learn about type 1 diabetes in children was discussed and the head of childcare expressed an interest. The consultant offered to develop a session on long term conditions in children for the students. The students have a session on long term conditions in children in their curriculum; therefore, the client did not require this session. Discussion was held on which cohorts would benefit the most from the sessions. It was decided that the stress session would be best conducted with the level 3 cohort. It was suggested that a number of cohorts required a sleep session as many students report lack of sleep duration and tiredness to the client. This session would need to be developed for level 1 and level 3 cohorts therefore the consultant needed to ensure it was pitched at the right level for understanding. The type 1 diabetes in children session was suggested best run with a level 3 cohort as they are in their final year, completing their time at college and moving on to jobs or beginning university studies. The consultant suggested a number of other sessions from which the students might benefit, such as smoking, alcohol use and sexual health. The client did not need the extra sessions as they have already been conducted by the client in previous student support sessions. The client was informed that the consultant is completing a Professional Doctorate in Health Psychology and that the contract, sessions, and report would be provided and submitted as part of the consultant's portfolio.

Following the meeting a number of objectives were made:

- Deliver a teaching session on Stress for the student's personal development to the identified level 3 cohort.
- Deliver a teaching session on Sleep for the student's personal development to the identified level 1 and 3 cohorts.
- Provide a session on Type 1 Diabetes in children to aid the student's understanding of what it is like to look after children with a long-term condition.

Lesson Plans

The learning plans were designed to meet the learning outcomes expressed by the client.

Session One- Type 1 Diabetes in Children

The Type 1 diabetes in children learning plan (See appendix 1) aimed to explore the difference between type 1 and type 2 diabetes. The session then focused on how to manage type 1 diabetes on a day-to-day basis, covering issues that may arise (such as the child experiencing hypoglycaemic events) and how to deal with such events. The consultant developed the session for learning about the condition in children under 5 years to stress the importance of their role in childcare to this condition and to explore how a child at this level of development requires external input to manage their condition. It was important to stress the role of the

parents or carers on children particularly under the age of five with the condition. This was achieved by showing the students a video of a day in the life of a child with diabetes who is 6 years old. The video shows a lot of parental involvement with the child's diabetes care on a child who is above the age range they are working with. This is to show that even at that age group the child requires support, thus emphasizing the need to know about the condition when working with children under five as it's likely they will be managing the diabetes care in the absence of the parent.

Session Two- Stress

The session was designed to provide students with knowledge on the science behind stress (See appendix 2) and to encourage the students to reflect on their own experiences. On approval of the lesson plans, learning material and activities were developed. The session was delivered in May 2019 to the cohorts who were identified as most in need of receiving the session by the student support tutor. The session started with asking what the definition of stress is and the different types of stress we may experience. A stick man diagram was used to ask the students to draw on their experiences by asking them to think of things that make them feel stressed. The session covered the body's response to stress and its use of the hormone cortisol and the long-term effects of stress on the body. The consultant briefly covered how stress may impact immune function. A secondary activity asked the students to discuss in groups what they do to cope with the stress or to try and relieve the stressor. The consultant discussed the differences between problem focused coping and emotion focused coping and provided students with a number of techniques to try to manage stressors.

Session Three- Sleep

The sleep session aimed to show the students the science behind why sleep is important for our body and brain and to provide ways to improve sleep. The session was developed to ask the student why they thought sleep was important and to encourage class discussion about how well they sleep. The learning material was developed (see appendix 3) to show the reciprocal relationship between sleep and stress. Sleep cycles were discussed explaining each stage of the cycle and Rapid Eye Movement (REM) sleep. The sleep cycle informed students about why they may not feel rested, and an activity was provided to suggest ideal times to go to bed to ensure optimal sleep time (7 ½ Hours- 9 Hours). The impact of light was discussed and the impact of the hormone melatonin, covering the impact of blue light from our mobiles. Good sleep hygiene was included in the session to try and encourage students to improve their sleep hygiene.

Delivery

Sessions were run during the cohort's usual weekly student support session in their usual setting.

The sessions were delivered as followed:

7th May 2019- Sleep Session with a Level 1 cohort.

7th May 2019- Sleep session with a Level 3 cohort.

7th May 2019- Type 1 Diabetes in Children session with a Level 3 cohort.

9th May 2019- Sleep session with a Level 3 cohort.

20th May 2019- Stress session with a Level 3 cohort.

The client was asked for formal written feedback on the consultancy work to be provided after receipt of this consultancy report, which would be submitted in the consultant's portfolio as agreed in the contract. Further feedback on the sessions was requested from the students. Students received a feedback sheet which had a number of questions related to the session for them to answer. The bottom section of the feedback form asked the students whether there was anything they liked about the session and whether there was anything the consultant could have improved on.

Feedback

Sleep sessions

The sleep sessions were received well. The students engaged with the consultant and appeared interested to learn about the impacts of blue light from mobiles on sleep and reported this as learning on the feedback forms. The feedback form asked students whether they felt they had enough sleep in the past week and whether they felt stressed. When asked "what did you learn from the session?" the most common answer from the level 3 class reported the sleep cycle in particular the impact of Rapid Eye Movement (REM) sleep stage. The students answered the questions about what happens to our body if we do not sleep enough and ways to improve sleep. Of those students who completed and returned the feedback forms, 11 reported lack of sleep in the past week compared to 7 that reported they had felt they had enough sleep. One student did not answer the self-report questions. Of the 11 who reported lack of sleep, 63% reported that they felt stressed also. This supports the literature regarding the bidirectional relationship between stress and sleep.

Stress session

The students positively appraised the stress session. All but 2 of 22 students in the class responded “Yes” to the consultant when asked “Do you currently feel stressed?” This equates to 91% of the class. If that was generalised to the student population at the college, it suggests that a lot of students are currently experiencing stress. The students regularly shared their own accounts of stress triggers and ways they find it useful to relax. They engaged in group work activities to make note of what makes them stressed. Answers supplied to this question were college work, people, finding a job, overthinking, relationships, and confidence. A number of the students stated that they felt they couldn’t cope with a number of stressors in their life at the moment and that they do not see their life changing or becoming less stressed in the future. Knowledge was not measured in a written activity but through an end of session quiz to determine whether students learnt about stress management techniques. Students answered correctly about the long-term effects of cortisol on the body and listed a number of techniques to manage stress. When feedback was asked for the activities carried out during the session, the consultant found it was the same group students who would contribute.

Type 1 Diabetes in Children

Some students reported that the session would not be useful to them; the majority of the class completed the feedback forms (see file attached to report) and correctly identified the daily management tasks for type 1 diabetes. Two students did not complete the forms; therefore, it is unknown how these students felt towards the session. The symptoms of low blood sugars and high blood sugars were also successfully completed with the correct answers. One student reported family experience of type 1 diabetes and regularly shared her experiences with the group. The consultant believes that the type 1 diabetes in children session could have been improved if the topic was advertised as a stand-alone session. This is because not all students had plans to seek employment in a childcare setting after completing their level 3 and therefore did not feel it was relevant. The consultant believes that students may have benefitted more from the session if the session was made optional and advertised to all childcare students. Students could “opt in” to attend the session. In future, collaboration with the students to allow them to express an interest in extra-curricular childcare sessions may increase success in this type of session.

Informal Feedback

The consultant received some informal feedback from the student support tutor, stating that she felt the sleep session was useful to herself personally with her family as well as talking to other students and explaining the science of why we sleep and the importance of amount of

sleep on the body and brain restoration. She has also found it useful to suggest techniques to improve sleep including reducing the amount of light before bedtime, with understanding how people are more sensitive to blue light from our mobiles and how to remove the blue filter as she is aware student's do not like to part with their mobile phones.

Further informal feedback was received from the student support tutor regarding the Type 1 Diabetes in Children session. She stated that she believed she knew a lot about type 1 diabetes until she experienced the session. She noted that she was unaware of how much self-management one needs as part of their care on a day-to-day basis, and she was unaware of what to do when someone experiences a hypoglycaemic episode. She said that the session has helped her chat to a student who has been diagnosed within the previous year and has a history of poor self-management.

Recommendations for the Stress and Sleep sessions

- Consider prioritising first year students for stress management training as Towbes & Cohen (1996) evaluated stressors and found that first year students reported feeling stressed more often than other years. This may be due to a new social environment.
- If implementing the first recommendation, to consider a formal knowledge test to measure learning about stress.
- Consider delivering a session on sleep and techniques to improve sleep should also be prioritised to students to help them throughout the year. This could be run at the beginning of the college year for each year group to reinforce promotion of wellbeing.
- Initiate discussion of wellbeing at the current student rep meetings to provide an opportunity for students to discuss issues such as stress or sleep with the inclusion of other aspects of student wellbeing, and to identify any areas requiring intervention. Consider conducting follow ups from rep meetings, 1:1 session or focus groups with the use of diaries to allow the student to express their reflections from the relevant session the student has attended (sleep, stress or other wellbeing sessions ran by the college). Questionnaires could be handed out at the start of the year and repeated quarterly to allow the student support officers to monitor wellbeing and mood in students. Students in previous research have shown enthusiasm for focus groups as it has allowed them to share their opinions (Anderson & Graham, 2015).
- As mentioned in the feedback section, a number of students stated that they felt they couldn't cope with a number of stressors in their life at the moment and that they do not see their life changing or becoming less stressed in the future. It could be suggested that these students may benefit from more than a one-hour session with peers.

- Consider reviewing the College policies regarding mental health and wellbeing should you wish to implement any of the recommendations above. Updating policies may benefit staff and students at the college. Previous research showed that the more ways a college can facilitate student wellbeing the more successful it may be. Ways suggested by Warwick et al, (2008) are: Staff awareness regarding wellbeing and mental health, access to internal (current support staff) and external (a counsellor or health psychologist) support services and having guidance and policies at the college for wellbeing.
- Consider offering Sessions on stress and sleep to all childcare cohorts and explore the opportunity to expand to other relevant cohorts at the college if not routinely covered by other student support tutors.

Recommendations for Type 1 Diabetes in Children session:

- Consider delivering an additional session for type 1 diabetes in children/ long term conditions in children, which students may book on if they are keen to learn about this topic.
- Consider employing a diabetes specialist nurse and/or parent and child to deliver an experience session so that students get to discuss first-hand experience with professionals and families regarding long term conditions in children less than 5 years of age.
- Consider delivering individual sessions for other long-term conditions and extra-curricular activities to increase knowledge and experience beneficial to the students and the children who they work with in future.

Conclusion

The consultant successfully delivered the sessions requested by the client as evidenced by feedback from the students and the client. All sessions included students in the activities to ensure students were actively involved. The stress session was insightful to the consultant, as some of the students reported feeling stressed recently, as far as saying that they can't cope. It is possible that students who reported this level of stress may require more support than a one-hour training session. The session provided rationale for this topic to be covered at the start of the college year as a preventive method of stress management rather than solution method to cope after the stressors occur. A secondary benefit from running the session at the start of the year would be to determine whether the session has positively impacted the student. This could be assessed by regular follow ups with the student using a questionnaire which assesses stress and mood. These questionnaires could be distributed

quarterly and compared to the previous completed questionnaires. Another approach to helping students with stress would be for the college to facilitate focus groups and 1:1 sessions with regular follow ups. This may benefit some students as it is possible that some students who wish to discuss student wellbeing privately and would otherwise keep wellbeing issues to themselves. If the client was to provide extra sessions and offer a 1:1 meeting it would increase the chances of students discussing issues with their teachers. There is potential for a referral to further support if the students require more help such as consulting help from a health psychologist. A third session was run on Type 1 Diabetes in Children due to the head of childcare expressing an interest. The session may have had more success from being advertised as an extra session to increase student's knowledge for a childcare role.

Informal feedback received for the sessions from the student support tutor has been positive and appears to have aided discussion between the students and their support tutor. The demand for stress and sleep management in students is high and will not decrease without intervention. As students regularly attend college, the intervention would be suitably employed as part of their study ideally at the start of the college year. The client is aware of the importance of wellbeing, as sessions ran by the student support tutor already covers some aspects of wellbeing with the students throughout the year such as bullying, sexual health, recreational drugs, and alcohol intake. The client has identified further wellbeing needs to be taught to some of the childcare cohorts and instructed the work of the consultant. The client could consider implementing the sessions for every childcare cohort ideally to be covered in the first term of college.

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Chapter Two

Teaching and Training Case Study

Introduction

This case study outlines the reflective practice of the planning, designing and implementation of a teaching series for the development of new knowledge in Health Psychology. The series was conducted with nurses within the NHS and demonstrates my professional development of this competence. This chapter also includes my teaching diary which covers all aspects of teaching experiences as a trainee. The reflective diary shows the development of my skills in planning and delivering teaching with a focus on the importance of my audience and confidence.

Teaching and Training Case Study

This case study covers the development and delivery of a series of educational workshops within an NHS setting. The sessions were attended by healthcare professionals at an NHS Trust in the North-West of England, and they will be referred to as 'students' in this case study. The educational workshops formed part of the teaching and training competence of the professional doctorate in health psychology. The educational workshops were a stand-alone set of workshops that I developed specifically for this group to apply to patient care. The case study outlines the use of teaching theories to plan and deliver the teaching and includes an evaluation and personal reflection of the series.

The teaching series informed the development of the group Behaviour Change Intervention case study.

Needs Assessment

Following a meeting with one of the line managers at the Trust, it was proposed that I run a series of educational sessions about stress reduction and well-being for the healthcare professionals on the clinical research unit, aiming to increase knowledge in this area for patient care. During the meeting, the line manager described that the staff had little knowledge about health psychology, so I suggested that I could develop a teaching series to provide an insight into health psychology theories and physical health conditions. To inform planning, I asked all clinical research staff which learning style they preferred (see appendix 1). I thought that health psychology knowledge would be scarce due to the lack of education provided in this area.

Based on my experience, I suggested that I could provide a series of five teaching sessions, related to the health psychology of long-term conditions. During the Professional Doctorate, I have moved roles within research departments. I have left the paediatric, obstetrics and gynaecology research team and moved to the core research team, which examines a wide range of conditions such as: gastroenterology, emergency care, cardiology, and Covid-19 research. During patient consultations, I noticed that many would express worry about their condition or worries about others, such as family members. Many patients reported that they were 'too stressed' to take part in research studies. People would blame themselves for their condition and their subsequent admission to hospital, but state that they didn't know how to become healthier. This informed the development of the teaching sessions; specifically, to increase knowledge of health behaviours, stress, worry and self-compassion. The ward managers agreed that the sessions could be beneficial to healthcare professionals on the clinical research unit, who could apply their learning directly to their patient facing work. The

sessions were planned to be face-to-face sessions, of approximately one hour per session once a week, for five weeks to fit in with workload constraints.

Planning and designing

I planned to complete five one-hour sessions face-to-face with the research healthcare professionals including research nurses, research assistants and clinical trial administrators, all who have knowledge in various physical health conditions such as cancer, diabetes, vascular disease, heart disease and emergency care. I developed a teaching plan for each of the sessions and discussed the objectives and topics with my two professional doctorate supervisors (Appendices 2-6). Although I know the students as colleagues, I was unfamiliar with how the group would interact in a teaching environment. I chose to research teaching theories to help guide my planning for all sessions, with a view to reflect on each session to try and improve areas where necessary.

While creating the teaching plans for the five sessions, I considered the relevance of the sessions to the students. The constructivist theory uses an approach that builds on the interaction of students' existing knowledge and new events, developing the knowledge further to achieve learning (Narayan et al., 2013). I aimed to build on the healthcare professionals' knowledge of long-term conditions. For example, when developing my first session I thought it would be useful to describe the effects of stress without linking it to a long-term condition first, to ensure that the students understand that response to stress is a normal adaptive function. Then I chose to focus on the bidirectional relationship between stress and long-term conditions. I tried to ensure this approach was implemented in all my session plans.

Andragogy is known as “the art and science of helping adults learn” (Knowles, 1980). Adults need to know why they should learn something, how the learning will help them individually, and that they bring their prior knowledge and experience which forms a foundation of their learning. I developed a rationale for each session by relating the learning material towards people with long-term conditions. I wanted to include a variety of long-term conditions due to the variety of specialism in the group. I chose to include prevalence and incidence of people with long-term conditions relevant to the students' specialisms, to help trigger relevance to their health professional roles.

An individual's learning style can vary in different situations. The question I sent out asked how people feel they learn best (See appendix 1). I received 10 responses (58.8% response rate). Most students chose pairs/group work and group discussion as their 'strongest' learning modality. Presentation and video were also preferred choices. Therefore, I chose to include these modalities in my sessions as the respondents reported these in their favour. Although I asked students how they learn best, it is possibly the learning style that they enjoy, not

necessarily their strongest learning style (Krätzig & Arbuthnott, 2006). Individual activity received two votes, suggesting the respondents did not favour this modality. Nonetheless, I chose to include individual activities in my sessions irrespective of the responses received as it may facilitate learning for some and/or in those who did not respond. I aimed to be inclusive in my teaching strategy to reflect student needs.

Throughout my sessions I incorporated videos sourced from YouTube. The use of video in teaching has been recommended with Brame (2016) suggesting several important aspects to educational videos which are likely to maximise learning. There are three elements to videos that should be considered: cognitive load, student engagement and active learning. Narrative animations have been recommended for their matched modality of auditory and visual stimulus which decreases extraneous load and enhances learning. Brame (2016) advised that videos less than 6 minutes in length maintain student engagement. The use of conversation language and personal pronouns, such as “your” includes the students and allows them to reflect personally. Upon searching on YouTube, I decided that I would search for videos on positive and negative thoughts and cognitive fusion created by Dr Russ Harris as his materials met the criteria. His videos are very personable and easy to understand from a beginner’s perspective; each were around 2-4 minutes long comprising narrated animation. In addition, I used Brame’s criteria to select other videos for my series. I felt by using Brame’s advice, I was able to try and maximise learning in my sessions. Advice for active learning was to include interactive questions alongside the video. I found this hard to find, as many videos were describing a phenomenon. I decided to conclude the video with short discussions and questions around the video, to try and incorporate the element of active learning.

I chose to conduct interactive sessions between myself and the students in a process called active learning. ‘Active learning is an environment/ community where all participate including the teacher’ ((Kohn, 2006) cited in Orlich et al., (2013). In previous research, small group work discussions were shown to increase recall in knowledge one month after the exercise when compared to controls (van Blankenstein et al., 2009). This suggests that group discussions positively affect long-term memory. In addition, group discussion allows the individual to reflect on their experience, whilst sharing with others, engaging others, and allowing them to reflect and be involved in the discussion promotes active learning. Based on previous research, I anticipated that the discussions would help the student’s knowledge transfer to long-term memory so that the knowledge gained could be applied to real life (van Blankenstein et al. 2009).

Experiential learning is described as the process of making sense of your experiences (Kolb, 1970). It is a reflective learning style. As mentioned previously, the students have baseline

medical knowledge of long-term conditions, and many years' experience of working with patients. I expected that teaching about health psychology and asking them to reflect on their patient experiences would improve learning. As part of experiential learning approach, I decided to use mindfulness exercises throughout the teaching as examples of exercises that can be practiced individually, to inform the students of exercises their patients could use. I chose to pair the managing worry session with the *leaves on a stream exercise* to portray how we can space ourselves from our thoughts (see appendix 9 for session details).

In addition, I included a cognitive defusion activity I had completed myself during Russ Harris's Introduction to ACT for Beginners course. I aimed to show the students ways in which ACT works and could work to help their patients. During the activity students have 20 seconds each to divulge their negative thoughts, this is then followed by divulging positive thoughts. The aim of the activity is to highlight that everyone experiences positive and negative thoughts, to show that we are not our thoughts, and hopefully take some power away from the negative thoughts we experience. Cognitive defusion exercises have shown promise in reducing discomfort (Masuda et al., 2004). I considered that as the group know one another and have a trusting relationship, they may feel comfortable enough to engage in the activity. I felt this was appropriate to their learning, that they could apply to patient care, as many patients express negative thoughts as an inpatient or an outpatient with a long-term health condition, subsequently leading to depression and anxiety (Trick et al., 2016).

PowerPoint was used to deliver the teaching sessions (see appendices 7-11 for copy of slides), as it was the most convenient due to the large screen in the seminar room that I could utilise to share slides with students. In order to make my PowerPoint slides appealing to the students, I used minimal writing and diagrams to describe concepts, thus catering for both visual and auditory learning styles. The multimedia approach (specifically narration and visual cues over text) has been suggested as beneficial to learning (Penciner, 2013). According to Mayer & Johnson, 2008, reading from presentation slides hinders learning. I wanted to ensure that if I did lose confidence at any point, I would not start reading from the slides. Upon reflection, utilising diagrams and minimal writing on my slides required me to create a narrative around the material to lead the session well, rather than just stating the content of the slides.

Implementation

The teaching series was delivered in a seminar room within the research ward. Social distancing was maintained throughout the sessions due to the Covid-19 pandemic and hospital trust policy. There was a gap of one week due to the likelihood of small attendance numbers as many staff were on annual leave, so sessions occurred over six weeks.

Schedule	Session Topic
Week 1	Stress
Week 2	Stress Management
Week 3	Managing Worry
Week 4	Self-Compassion
Week 5	Health Behaviours

For my first session, stress and health, I felt it ran smoothly. I saw students appear surprised by the incidence rates, which I felt was successful in providing a rationale for the session. Group discussion facilitated the learning of topics in relation to long-term conditions. I aimed for the students to discuss what they had just learnt about stress and apply this in context, and consider the impact on their patients, giving them the opportunity to express their own examples of patient situations. I strongly believe that this enhanced learning and demonstrated application of new knowledge to their existing knowledge, thus building as per the constructivist approach (Hein, 1991). I also felt that by sharing their experiences, they built on the experiential learning approach (Kolb, 1970).

The stress management session was my first opportunity to practice mindfulness techniques with the students. I decided to run the body scan exercise. Upon reading the session feedback, one person expressed that they enjoyed the mindfulness practice, however felt that they were sleepy afterwards and suggested that it would be most beneficial at the end of the session. Following this feedback, I amended my future sessions with planned mindfulness activities to be completed at the end of the session. Due to the positive verbal feedback after the mindfulness practice, I decided that I would include different mindfulness exercises in the remaining sessions, continuing Kolb's (1970) experiential learning approach.

During week two, I chose to teach the Acceptance and Commitment Therapy (ACT) matrix. I felt confident in teaching the ACT matrix due to completing a two-day beginner course on this topic and using it during the skills sessions conducted by the health psychology skills group I attend. During the session, the students appeared confused, and the matrix took longer to explain, and I felt I had to give many examples to promote understanding. Some students appeared to understand whilst others didn't, leaving the group at different stages, and completing the matrix exercise at different time points. I feel that this was a little more complex than I had expected when developing my materials. In retrospect, I did not consider my audience and their prior knowledge when including this element in the session. In future, I will consider my audience more closely and prepare for situations where students are less familiar or take longer to complete the exercise.

The prevalence and incidence rates I included in each session were designed to create a rationale for why the subject might be useful to the students' areas of specialty. In my opinion,

it was useful as some students appeared surprised at some statistics which opened pockets of discussion. I think I could have improved on this by exploring students' views of what the figures might be in an exercise before providing the answers, e.g., via a guessing 'game' or 'poll.' This may have developed more of a discussion around long-term conditions and created a more Socratic method of teaching, a dialogue approach to teaching where the course facilitator guides the discussion pathway (Knox, 1998).

Evaluation

I wanted to assess learning in multiple ways. During the sessions I created activities such as the stress bucket (appendix 12), the three emotional regulation systems (appendix 13), coping styles (emotion vs problem) (appendix 14) and the ACT matrix (appendix 15). These were provided as handouts for the students to complete as an individual exercise during the session. I asked the students to share their examples if they felt comfortable to, which led to a group discussion. I felt that when one student was talking, other students would agree and then build on previous points. This expanded the discussion, leading to wider knowledge. The ACT Matrix engagement was much slower; therefore, I tried to add my own examples to the matrix to help explain this concept further.

I developed a feedback form to ensure my teaching series was evaluated, and that learning outcomes were met. The use of feedback forms is the most common form of student evaluation, practised at most institutions (Khan & Husain, 2016). I utilised the feedback form after each session, with a larger form after the final session, to include questions about the overall delivery of the series and whether they would change any aspect.

There were 11 attendees for session one (64.7% of all invited). I tried to monitor learning through using activities. I prompted students to share their thoughts and give examples where possible. All, except one attendee completed the stress bucket exercise by putting the correct information in the associated box suggesting that they understood the stress bucket exercise. If more students had completed the exercise incorrectly, I would have changed how I explained the task as it would highlight an issue with the way it was taught. I enclosed a "what did you learn in the session?" question at the top of the feedback form (See appendix 16 for full feedback summary). On reflection, I received quite short answers, naming topics that I discussed in the session. I feel that this is an inaccurate way to evaluate learning, and the question was ambiguous which left it susceptible to vague responses.

Feedback about the delivery of each session was collected by a feedback form. Overall, the feedback about the delivery of session one was positive. A few attendees commented that they liked the variety of learning materials such as diagrams to explain things, interaction with the group and video. One student stated that they would have liked a simplified version of

Psychoneuroimmunology (PNI). I felt that the video I provided was a brief introduction to PNI and the diagram I provided was easy for me to explain as an introductory piece. After the receiving the comment, I have considered that the diagram may have been complex as part of an introductory piece. I prioritised the ease of teaching this aspect rather than how I felt my students would understand it. I feel that PNI is an important subject, and it is important for beginners to have an awareness of PNI. I feel that PNI can be complex to understand, and that if I had provided more information, it may have lost some student engagement. In future, if I was to teach another session to the group, I would re-consider where in the series it would be appropriate to introduce PNI and how to do this effectively. My preference would be to devote a whole session to PNI.

During the first session, I had a technical issue with the computer in the seminar room. It did not open the video as planned, it delayed a little, and needed some time to download the video before I could play it. I quickly asked a question, which created a group discussion whilst the video downloaded. One of the students acknowledged this in my evaluation form, and stated it was good use of the time whilst the video was loading. On reflection, I think I should have a toolbox of questions that I could start a group discussion or an individual exercise, which would take away the pressure of me thinking on the spot. It did knock my confidence as, I wasn't prepared for it, and in future, I might not be so lucky with creating a question to raise a discussion. In the future sessions, I preloaded the videos to ensure that the transition was smooth. I also developed questions that I would ask if I experienced any technical issues in future sessions such as, during the managing worry session I asked for examples of worries that patients have expressed to the students.

Session two had seven attendees. The most common topic reported when asked 'what have you learned in the session?' was ACT (See appendix 17). The introduction of a mindfulness activity was received positively. One respondent mentioned discussing their ACT Matrix with the group would have been beneficial. I had considered this when planning my teaching material. However, I did not feel that it would be appropriate to share with the group as it was personal. Perhaps, since the group have a trusting relationship, they may have engaged and shared their matrix. Other groups may not, and I tried to deliver it as taught in Russ Harris' ACT training. I also could have offered some personal feedback at the end of the session if people wanted to discuss in private. In hindsight, as the ACT matrix was challenging to explain and some appeared to find it difficult, a group discussion with others sharing their examples may have helped those struggling. In future, I need to be more flexible if there is an issue with a topic and students understanding.

Session three was attended by 10 students. Learning was evaluated by group discussions throughout the session and learning focused questions at the top of the feedback form. The questions to assess learning were answered correctly, suggesting that my approach was successful (see appendix 18). Students enjoyed the way the session was delivered, and the majority liked the mindfulness exercise, with one student finding it difficult due to lack of practice (see appendix 18). I have tried to overcome this by introducing a mindfulness exercise at the end of the session, although the exercise was for an awareness for their patients rather than for individual use. One of the attendees reported acceptance of worry as a way we manage worry. I feel that I wanted to emphasise this more within the session after explaining about why we worry. On reflection, I feel that I could have been more explicit, by stating this, rather than trying to show it by using activities, and perhaps more of the students would have met this learning outcome.

Session four was an introduction to Self-compassion. Four of the five attendees that returned the feedback form named the three emotional regulation systems correctly. All attendees gave an acceptable definition of self-compassion. All respondents rated the content positively and stated that the course content was relevant to their patient facing role. The feedback from the positive and negative thought activity was commented on frequently and received a mixed response (See appendix 19). One student commented that they 'could see that we all have similar negative thoughts.' This is what I aimed to achieve from the exercise. There was a contrasting comment that they believed this activity would make some people uncomfortable. I considered this when designing my teaching materials. I am unsure whether they are referring to other members of the research team or patients. This feedback was helpful because I believe I should have been more explicit that this was an exercise to highlight to the students that we have the same thoughts rather than an activity to try with patients. The trusting group environment would help the students express themselves better. Finally, I offered the opportunity for the students to volunteer to participate rather than assume all would want to take part. I had already considered my audience when designing the sessions, and I would regard the sensitivity of this activity in future sessions. The feedback has allowed me to reflect on how I could portray this information differently, not including a group activity but maybe a video example of another group would resolve the uncomfortable issue whilst still teach what I had aimed.

Session five- Behaviour change interventions was the final session of the teaching series. There were ten attendees but only eight returned their feedback forms. Two students may have not returned their feedback due to high workload after the sessions. The delivery feedback was positive (See appendix 20). I only received one answer when asked what they would change, and this was due to seating during the final session. The room layout was

changed for clinical purposes and unable to be rearranged. Seating was put into rows rather than around the table and some boxes were obstructing the view of one of the students. This was likely to have affected learning for this individual. I was unaware of this situation at the time, or I would have tried to accommodate more or offer them to view it as a paper document. At the end of the session, I asked if there were any questions or any areas that may need further explanation. In future, I would offer to send all slides to attendees for future viewing.

I extended the feedback form to include questions overall from the series. Overall feedback comments were positive, with mention of being relevant in different departments in the hospital. A student commented that I gained more confidence the more sessions that I delivered. I asked the attendees which of the five sessions they felt benefitted patients the most. Behaviour change interventions received the most votes. The stress session was not selected by any students, suggesting that they found this least useful, or that the students had prior knowledge of stress and health. Feedback on the delivery implies that I successfully used a variety of methods of teaching, and this was received positively.

I believe that I should have developed a survey to explore the students' prior knowledge of the topic and develop the learning material from this basis. I was aware that the students had knowledge of long-term conditions, however, it was an assumption that the students had less knowledge of health psychology as education is not provided as part of their role. If I was to deliver the material again, I think it would be helpful to develop some open-ended questions to try and ascertain existing knowledge before developing my learning materials. This may have helped me create a more successful teaching series, as I would have delayed some items such as PNI and ACT matrix until I could ensure a satisfactory level of knowledge was obtained. By exploring students' existing knowledge, it would allow me to fill 'gaps' or change complexity of my material based on the answers I received.

Reflections

Following my three-hour lecture completed as part of my doctorate competency, I left excited and discovered that I really enjoyed teaching. I surprised myself, I didn't think that I would be able to manage one three-hour session. It left me with the confidence to complete five, one hour, sessions. I felt my first session was very successful but ran over time due to class discussions. I was happy to lead the discussion as I didn't expect the students to engage as much as they did from the first session. I presumed engagement would be something that would build throughout the series. I believe this may have been due to the students being colleagues of mine, and all the students knowing each other; creating a trusting environment. I think it is important to be aware that engagement may not be that successful in future teaching sessions with groups that I don't know, and students may not know each other. In

situations like this, I can introduce icebreakers, and develop a “contract” between the group. The contract building exercise is led by the students, listing everything they require to make the group a trusting environment.

In hindsight, I think the order of the sessions could have been improved. I believe that putting the health behaviour session first would have been more fluent and enabled me to build on the sessions and show more progression as suggested by constructivist theory (Hein, 1991). I feel that the behaviour change intervention session would be best placed at the beginning as some of the long-term conditions discussed are deemed as preventable conditions. The sessions would have flowed to areas of well-being and its impact on long-term conditions. The gap of a week between sessions unnerved me as I had prepared all the learning materials before beginning any of the sessions, I felt that I was forgetting key information that I wanted to teach due to my inexperience of teaching. I felt anxious on the day of the session, consequently, I practiced my session to confirm what I had planned to say. I reflected after the session and felt that I delivered what I wanted to, but the feedback form highlighted that I should have been more explicit about the activity outcomes. In future, I plan to state whether this activity can be applied with patients or whether I used the activity to portray my point.

Due to the Covid-19 restrictions, it was not possible for an independent observer to be present. I asked my line manager for some feedback on how I taught (see appendix 21). I would have liked to have filmed myself running the sessions, to help reflect on my behaviours whilst running the sessions and this would allow me to become aware of how I communicate non-verbally, especially whilst facial signals/cues are limited by using surgical masks during the pandemic. I chose not to film as I was not aware of how the group would respond in the series. I felt that I would benefit most from how the group responds naturally, as people can behave differently when knowing they are being filmed (Jansen et al., 2018). I feel that if I filmed myself, the students would not engage as successfully in the group activities thus affecting my teaching plans, designed by theories of learning. I think if I was to repeat the sessions, I would film the first session, and prepare for less interaction, as in a different group dynamic interaction may be less irrespective of recording.

Conclusion

The teaching series has been an interesting piece of work. I had accrued a little teaching experience prior to the session through conducting my consultancy competence and my three-hour teaching session at Salford University. I believed, upon planning my sessions and preparing my teaching materials, that I had developed this logically, using appropriate theory to support my materials. This experience has taught me that reflection and experience is equally important to developing a successful teaching series. I think the teaching series has

developed my awareness of how a group responds to the materials I have planned, and I have learnt of ways to organise my material so that it flows coherently and allows for more group interaction. It has also forced me to consider my audience more closely and be concerned about the complexity of the information when developing learning materials. I feel that the trusting relationship of the group of students allowed for more successful engagement and group discussions. I need to reflect on how I can create successful group engagement for future teaching experiences.

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7

Teaching Diary

Three Hour Session

12th November 2018

I began searching for opportunities to complete my teaching and training competencies as part of the doctorate. I reached out to the module leader for Health Psychology at the University of Salford which led to a meeting to discuss teaching opportunities. I had a huge fear of completing my five sessions with healthcare professionals as I felt this is where I would receive a lot of judgement about my competence and knowledge, so I hoped to conduct my five sessions of teaching through the university. Unfortunately, due to the curriculum being limited and directly related to assignments and exam questions it was not feasible to implement five new sessions into the semester programme. It was agreed to complete one lecture, which was three hours in length, which will complete one aspect of my teaching competence. I was very grateful for the opportunity.

During the meeting, we discussed the curriculum and the sessions planned to try and determine a 'gap' in health psychology that I could cover. Long-term health conditions were a large part of the planned sessions, I noticed the focus was long-term health conditions in adults. As I had experience in my research role working with paediatric patients with long-term conditions, I suggested that I could develop a session to follow the adult's session to portray differences between the groups. I left feeling really excited as the meeting was very productive. I felt very comfortable at the university, I always have, and it was nice to be giving something back.

I felt it was easy to prepare the session, from my experience of being a student, I knew how a lot of my lectures were structured and aimed to replicate these. I attended a lecture at the university prior to my own session. This allowed me to get a feel for the group and interaction, and to take tips from the lecturer. The lecturer did most of the talking and when asking for answers, the group lacked engagement. Instead of asking for the students to speak, the lecturer changed the response option to coming up to the whiteboard to write their answer, and the lecturer then fed back to each answer. This had some success. The lectures I enjoyed when I was a student had some interaction with other students. The active learning supports the use of interaction (Orlich et al., 2013). I anticipated that the interactive sessions would help the student's knowledge transfer to long-term memory so that the knowledge gained could be applied to real life (van Blankenstein et al., 2009).

Ahead of the session, the anxiety began to kick in. Although I have spent many years as a student sat in lecture halls and seminar rooms, I have always been in the audience. During

my Undergraduate and Masters degrees, I have had the opportunity to present my work as part of an assignment. I usually got through the presentations by telling myself that everyone was experiencing the same thing, it is only 10-15 minutes and that no one was really paying attention to my presentation as they must listen to at least thirty others which was likely to be boring. I feared judgement of others during this time, something which I still fear, although it felt greater this time as there was more at stake now.

I began to worry a lot about having everyone look at me whilst I am teaching. I worried about what I would wear, I did not want to show that I was sweating, and I did not want to come across as a beginner. I take comfort hiding behind something, such as the computer stand, and I had not previously seen the room that I would be teaching in. I held a lot of worry on what the room would look like, how many students would attend and whether there would be groups of students obviously chatting amongst themselves, ignoring my session.

I am the type of person who prefers one to one situations, whether its discussing work or in social situations, therefore I feel very uncomfortable in large groups as I don't think I'm listened to. I believe that it is the same for teaching, that a large group of people listening to me is something that I have never wanted to experience. However, my biggest fear from presentations to teaching is forgetting what I have prepared to say. This causes me to practice, which I believe is a good thing, however the worry does not reduce as an outcome of practice. During presentations for undergraduate and masters, I always missed points that I wanted to include that I had left off the slide to encourage myself to talk more on each slide. I would then forget these points and feel this took some of the power away from points I tried to make. Due to my previous experience, I worried that this lecture would be the same, except it is supposed to last three hours and seems to be one of the most important lectures of my life so far!

18th March 2019

Looking back at the session, I really enjoyed it. I did not struggle with the lecture as I believed I would, in fact, it ran perfectly to time! Some of the students asked questions about aspects of the lecture, which suggested that they were listening to the work that I had prepared. I think the reason I did not forget what I wanted to say was because I had lived experiences to share, as it seems easier to share a memory or experience than to try and remember knowledge I had gained from reading around a topic. I had included some interactive aspects of the lecture, some successful such as the introduction of Jerry the bear. I had anticipated a lot of interest of how it works. The bear is designed to encourage children with type 1 diabetes to practice their management with the bear. None of the students were keen to try and use the bear and the app to practice, which surprised me as I thought it would be an interesting aspect. When developing this activity, I imagined how my cohort would react when I was an undergraduate

and I believed that most students would like to practice with the bear. I felt this cohort would have been the same. I showed the bear and the activities the app did and asked some students to have a go after me showing it first and gained some interaction. I noticed that the group did not interact much with each other, and this may have been one reason class engagement was low, perhaps they didn't know each other well enough.

17th January 2020

I was asked to attend the university the following year to teach the same session as part of the undergraduate programme arranged for 16th March 2020. I took this as a huge compliment. As I had not had many other opportunities to teach and develop a lesson in between the two sessions, I kept the lecture very similar. I feel that I did not change it much as my lecture ran to time and overall, I was happy with my session and felt I had gained confidence from it. I chose to show more devices in person rather than pictures such as the continuous blood glucose monitor and insulin pump to explain the improvement in technology and the impact it could have on diabetes management and the Nitric oxide machine to help show what diagnostic devices are used in healthcare for asthma patients. I thought this may increase discussion on the topic. I believed I developed the session in line with the module leader's preference, as I was providing a service as an external speaker to the university. I have gained some experience and realise that I have my own teaching style that I prefer, and I believe that my style increases engagement.

Consultancy teaching sessions

4th April 2019

The client expressed concerns about their college students aged 16-19 years. The students regularly report high levels of stress and reduced sleep duration as an issue impacting their attention and wakefulness during college classes. A decision was made between the client and myself (the consultant) to run several sessions aimed at improving awareness about sleep and stress to different cohorts of students identified as in need of the educational sessions to promote wellbeing. I suggested that I could also include a session on type 1 diabetes in children as its relevant to the students' occupational role. It was a topic I was very familiar with, personally and professionally. I felt this would be the easiest session I had to develop due to my knowledge and experience.

In the teaching sessions, I have learnt to consider more information about the students such as engagement, and class size, as these directly impact how long a session will run. Prolonged discussion has encouraged me and helped suggest that I am engaging students.

However, discussion has an impact on the rest of the session such as keeping to time and enabling me to include other aspects of the sessions I had planned to include.

The sessions were conducted as follows:

7th May 2019- Sleep Session with a Level 1 cohort.

7th May 2019- Sleep session with a Level 3 cohort.

7th May 2019- Type 1 Diabetes in Children session with a Level 3 cohort.

9th May 2019- Sleep session with a Level 3 cohort.

20th May 2019- Stress session with a Level 3 cohort.

On reflection, I could have improved the teaching sessions by utilising the student's prior knowledge in my assessments and tried to build on that to form a stronger and more relatable teaching session. I focused on the Head of Childcare as the client, and the needs of the client rather than needs of both client and students, perhaps due to my inexperience. The consultancy teaching highlighted the importance of when to introduce the sessions in the wider curriculum. The client asked for these sessions to be conducted towards the end of term as she did not want to impact the curriculum by interrupting teaching towards the students' qualifications. However, the sessions that I developed were based on wellbeing such as sleep and stress, in which a lot of students reported to be experiencing. It is possible that the students would have benefitted more from the sessions at the start of the educational year, for students to have awareness of the impact to their wellbeing, as many students found the college year to be stressful. The sessions were conducted before an exams period, which many students reported this to be a time of stress and lack of sleep. If I am asked to complete wellbeing teaching in future, I would try to consider where the sessions would be best suited to benefit the student most.

I feel I had good interaction with the students during the activities, although looking back I may have come across as quite serious and straight to the point of teaching without much flexibility. I think this was due to being nervous, as I experienced the same worries, such as what the room was like, could I hide behind something, and I wondered what the students would think of me. I would have liked to come across more relaxed and more personable than I feel I was, but without filming the session it is hard to reflect on how I felt compared to how I appeared.

When comparing the three-hour teaching session and the consultancy teaching, the students were very different groups. Conducting the teaching for the consultancy competence allowed me to gain some experience of teaching different groups. Whilst the university students were quiet and appeared to be listening, the engagement and class discussion was harder to

achieve. The college students were much more engaging in activities and appeared to enjoy the group discussions more than the university students but seemed to struggle to pay attention to the presentation in places. It was harder to regain the attention of the students after an activity. The vast difference between groups has helped my experience, as I feel more able to tailor the teaching to the group I am working with dependent on their engagement and behaviour during the session. To try and gain attention in situations where it is difficult, I could introduce a mindfulness exercise such as the body scan to try and bring the students into the present moment and to focus on themselves. I believe this would calm the group and help them to focus more. For students who may not want to engage with me I could utilise a poll to conduct a quiz, which students would answer via their mobile app, making engagement anonymous whilst utilising a different method of teaching than presentation.

In future sessions, I could prepare both methods of the activity, through face-to-face discussion and using a poll via mobile, as I am sure each group will be different, and it would give me an opportunity to tailor the session to the group I am working with to try and gain most of the group. Research suggests that due to the increase of digital interaction, attention to older pedagogical methods is harder to achieve, and that digital routes to accessing learning may benefit learners (Clifton & Mann, 2011). The use of polls and clicker technology has increased attendance, participation, and engagement in the classroom (Kay & LeSage, 2009). I think initially, this may seem time consuming, however, I think that I can only gain from more practice and that I would begin to recognise the audience and how they may respond to my teaching style.

Teaching Series

27th May 2021

I had decided to wait to conduct my five sessions of teaching, as the covid-19 pandemic interrupted my usual workload and delayed the conduct of my research competence. We were not able to conduct face to face training, a style which I preferred since I already lacked experience in this area and felt I would benefit from more engagement from the students. I did not want to complicate my experience by utilising online methods. Before the pandemic, I was working within the paediatric research team and struggling to think of a way to introduce my training where there was a need within the NHS. Upon gaining a new role within the core research team, predominantly an adult patient facing role, I found they had a need for health psychology teaching sessions.

Having gained some experience of a three-hour lecture and my consultancy competence by this point, I felt very confident that conducting one-hour sessions would be easy, and I wondered whether I could fit everything I wanted to teach during each session. I could conduct

classroom based teaching in 2021 as per trust policy, abiding to social distancing. I advertised my teaching via email, aiming to find out the learning preference of the learners and to gain some interest in the sessions to ensure a good attendance.

When creating the teaching plans for the five sessions, I thought about the relevance of the sessions to the students. The constructivist theory uses an approach that builds on the interaction of students' existing knowledge and new events, developing the knowledge further to achieve learning (Narayan et al., 2013). Andragogy is known as "the art and science of helping adults learn" (Knowles, 1980). Adults need to know why they should learn something, how the learning will help them individually, and that they bring their prior knowledge and experience which forms a foundation of their learning. I tried to develop a rationale for each session by relating the learning material towards people with long-term conditions. The statistics I included in each session were designed to create a reason for why the subject might be useful to the students' areas of specialty. I think it was useful, some students appeared surprised at some statistics which opened pockets of discussion. I think I could have improved on this by exploring students' views of what the figures might be in an exercise before providing the answers, e.g., via a guessing 'game' or 'poll.' This may have developed more of a discussion around long-term conditions and created a more Socratic method of teaching, a dialogue approach to teaching where the course facilitator guides the discussion pathway (Knox, 1998).

2nd Sept 2021

I focused a lot on the form of delivery in the five sessions, wanting to show a variety and keep the sessions engaging as I gained a lot of confidence in my previous teaching sessions. I did not consider the prior knowledge of the staff regarding health psychology topics. I chose to include a brief introduction of psychoneuroimmunology during the stress session; however, I feel it was not taught effectively. Some of the students appeared confused, and it was commented on in the feedback form. On reflection it was too early to introduce this session to the students and would have been more successful as its own session. Whilst researching other ways of teaching, I came across an article which stated that lesson plans should be used as an aid but should not restrict flexibility of the session if the teacher needs to deviate from the plan to enhance learning (Bates, 2019).

When reflecting on my own lesson plans, I feel that I was not flexible, but rather reliant on my plan. Now that I have some experience with teaching, I feel more relaxed at the front, teaching. I feel I have grown throughout the teaching series and become more confident with who I am, and do not feel like I should try to 'fit in.' I feel that I can be more flexible during my sessions and adapt to the needs of the learners when the session does not appear to run as smoothly

as I planned. I worried less about my surroundings before the session and I have taken a different approach towards my teaching, a more flexible and honest approach which applies less pressure on getting things perfect.

Throughout all my years of education I had my preferences of some teachers. I have tried to think back into why I liked them more than others as I listened in every class. Some were friendly and supportive, whilst others were quite the opposite, but I still appreciated that they were great teachers, and I was keen to listen to what they were teaching. I have found it hard to explain why I felt some were great teachers compared to others, but I never considered it to be due to the form of delivery. I think it was down to how the person came across to me. The confidence in what they were teaching I feel is important, the passion they have for the subject captivated me, so I shared interest in the topic. I hoped that I would present as confident and passionate in my own teaching.

April 2022

Upon completion of my teaching and training competence, I have joined with the well-being team for the NHS trust. I have co-facilitated REACT mental health training, which trains staff prepare for difficult conversations with colleagues and teaches a stepped approach, to gain more information about a person's mental health. The training provides a traffic light system, which can signpost the staff to resources beneficial to the person's struggle. The aim of the training is to enable staff to support their colleagues through understanding types of trauma and moral injury one may experience. This course has helped me to develop my own teaching, as the training includes a 'contract setting' aimed to build trusting relationships with others whom we do not know. I think that going forward I will utilise this in my own teaching and group work. I also found it easy to see how the activities developed to support the teaching reinforced learning through the feedback we received on each activity. The aide memoire provided at the end of the session, was a summary of everything taught in the session. This allowed learners to see clearly the topics covered on one sheet. I felt this was more beneficial than providing the full PowerPoint presentation as many slides had prompts and little writing on allowing the teacher to explain in detail but leaving the learners without notes.

Conclusion

Initially, teaching for me was just something I needed to 'survive' during the session, and I could relax after the session, knowing that I did not need to do it again. I feel that after my initial lecture was successful, I developed some confidence and a passion for teaching. I really enjoyed it. The consultancy was a different experience with a different group of students, though I enjoyed teaching I was glad to complete the consultancy. I learnt that I need to adapt to my audience and to be assertive when required. The teaching series conducted with the

healthcare professionals is where I feel developed the most. I have left the series now wondering how the students may have put this knowledge into practice. It is something I wish I had measured after the sessions were completed.

From reflection and gaining more experience of teaching during the doctorate course, I prefer to structure interactive sessions. I feel that I have become more autonomous, and I feel confident in developing a teaching plan, utilising multiple methods of teaching. I think it is important to have awareness of different methods and try to develop teaching sessions to suit the audience. I have learnt to consider more information about the audience such as engagement, and class size, as these directly impact how long a session will run. Pro-longed discussion has encouraged me and helped suggest that I am teaching something, though it has an impact on the rest of the session such as keeping to time and enabling me to spend as much time as I had planned on other aspects of the sessions. I have learnt to be more assertive with the group and feel confident that I can bring the group back to the session if it goes off course.

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Chapter Three

Research

This competency consists of two empirical papers, a quantitative report that explored the relationship between self-efficacy; parental involvement and diabetes control and a qualitative report which explored the psychosocial factors children and young people experience that may facilitate or hinder consistent diabetes self-management.

This chapter also includes a systematic review exploring the literature around emotional labour and psychological wellbeing in police officers. It also contains a reflective commentary of my professional development within this competence.

Empirical Paper One

For submission to Pediatric Diabetes

Experiences of self-management in children and young people with type 1 diabetes. Type 1 diabetes Adolescence Self-Care (TASC) study.

Abstract

Aims The study aims to explore the relationship between self-efficacy, parental involvement and diabetes control using self-report measures in a clinical setting.

Methods A total of 25 children and young people aged between 8-17 years volunteered to take part and completed the Confidence in Diabetes Scale (CIDS), Diabetes Self-Management Questionnaire (DSMQ) and Diabetes Family Responsibility Questionnaire (DFRQ). One parent from each volunteer also completed the DFRQ. HbA1c levels were obtained from medical notes following consent.

Results Participants HbA1c levels were aligned with the national average. No significant relationships between age or HbA1c levels and any of the questionnaires were found; however, self-efficacy and self-management were significantly correlated. Self-efficacy was also related to higher family responsibility scores, suggesting that children are taking more responsibility for their care than their parents.

Conclusions In line with previous research, the study found that higher self-efficacy improves management behaviours of type 1 diabetes in children and young people. Although participants rated their confidence and behaviours as good, this was not reflected in objective measures of diabetes control. This discrepancy suggests that further investigation is required with children and young people regarding daily control of type 1 diabetes. Correspondingly, a self-report study may not be an effective approach of measuring children and young people's management of type 1 diabetes. Work to improve alignment of the child/young person's expectations with their clinicians may provide opportunity to improve glycaemic control.

Keywords: Diabetes Mellitus Type 1, Self-Management, Treatment Adherence and Compliance, Motivation

Introduction

Type 1 diabetes is an autoimmune disease where the body's immune system attacks the beta cells in the pancreas. Beta cells are responsible for producing the body's insulin. When the cells are destroyed, the amount of insulin produced is significantly reduced [1]. Type 1 diabetes is mainly diagnosed between the ages of 10-14 years [2]. It is currently unknown what causes type 1 diabetes, but the disease results in patient reliance on regular insulin injections [3]. A person with type 1 diabetes has several diabetes management tasks to complete each day. These include tasks such as maintaining healthy blood glucose levels through regular glucose tests, carbohydrate counting at every meal to calculate the number of units of insulin needed and injecting insulin [3]. Having type 1 diabetes puts the person at greater risk of developing other conditions later in life, including heart disease, kidney failure, neuropathy, stroke, and blindness are a few of the many conditions associated with the disease [4]. People with type 1 diabetes can reduce their risk of these complications by aiming to achieve optimal blood glucose levels through adhering to their self-management plan set by their clinician [5].

Clinicians monitor diabetes control by measuring the average plasma glucose over a period of eight to twelve weeks, known as an HbA1c measurement [6]. Clinicians use the HbA1c measurement as a diagnostic tool, and to monitor progress of type 1 diabetes. This measurement assists clinicians when making decisions about insulin management and risk assessments for diabetes related complications. An ideal HbA1c level is under 48mmol/mol (6.5%) [6]. The average HbA1c level for children and young people with type 1 diabetes in England and Wales is 64 mmol/mol (8.0%) [7]. Research demonstrates that optimal HbA1c levels can be obtained in child/ young person diabetic population [8]. There are seven key health checks for diabetes related complications recommended by National Paediatric Diabetes Audit (NPDA) [2]. The health checks (HbA1c, height and weight, blood pressure, urinary albumin, cholesterol, eye screening and foot examination) are carried out by clinicians and designed to be completed to monitor diabetes control and prevent diabetes related complications. Of those checks, clinicians are most compliant with completing HbA1c measurements [2].

NICE [9] has provided a flowchart for clinicians as a guide to cover diabetes management with the person during their outpatient appointment, such as meeting blood testing targets, HbA1c targets, managing hypoglycaemia and hyperglycaemia, optimising blood glucose control and monitoring for complications. The NICE guidelines provide age appropriate advice and suggestions for clinicians about what items to discuss. The guidelines focus on the medical

management of type 1 diabetes and provide education for the child or young person, which is vital for improving glucose control [10].

High HbA1c levels can be indicative of poor adaption to treatment, such as incorrect insulin ratios or adherence to self-management behaviours [11]. Where HbA1c levels are indicative of poor glycaemic control, it is recommended that clinicians discuss self-management to ensure that any issues with treatment adherence can be overcome [12]. The above average HbA1c nationally for children and young people with type 1 diabetes [6] highlights that further research is necessary to understand self-management behaviours regarding type 1 diabetes in this age group. Adults with type 1 diabetes are frequently reluctant to discuss self-management with their clinicians [13]. This finding has also been recognised in young people [14]. A study conducted with adolescents described this reluctance as fear that their clinician will focus on poor glycaemic control. The adolescents found the visits negative and stressful, making them less likely to exchange information about their management with their healthcare providers [15].

Social Cognitive Theory (SCT) [16] suggests that behaviours are influenced by cognitive factors (knowledge and attitudes), behavioural factors (self-efficacy, skills, and practice) and environmental factors (Social norms, access, and influence of others). When dissecting the theory, cognitive factors involved in the management of type 1 diabetes involves knowledge of the condition. Someone with a recent diagnosis may have to learn how the condition affects the body and how to manage it daily. Education is provided at the outpatient appointment to improve the knowledge of Type 1 Diabetes and ideal management techniques [7]. Further educational courses are available for the person to attend, aimed at carbohydrate counting for children [17] and the DAFNE course in the adult population [18]. While the clinical appointment may provide enough knowledge to satisfy the cognitive factor of the SCT [16], someone with a recent diagnosis may have to learn new skills to manage the condition and adapt their lifestyle to fit in blood glucose monitoring and insulin injections. Skills practice and self-efficacy could be an important factor in management of type 1 diabetes, particularly in children and young people, to ensure greater self-management in adulthood.

Motivation to complete a task is influenced by appraisal of one's self-efficacy [19]. Self-efficacy is a concept involved with self-confidence. Self-confidence consists of self-esteem and self-efficacy and refers to beliefs about self-worth in general. Self-efficacy is related specifically to our belief in our capacity to succeed at tasks [19] and is an important factor in motivation of behaviour as misjudging our capabilities may lead to unwanted outcomes [20]. People strive to avoid negative outcomes; therefore, their self-efficacy is regularly under appraisal [21].

Application of this theory is challenging when describing self-management of diabetes. For example, a person may calculate the amount of insulin needed based on the amount of carbohydrates consumed, but if they misjudge this, it would cause their blood glucose levels to become too low or too high. This unwanted outcome may lead them to appraise themselves as incapable of calculating their insulin dose which in turn could cause them to stop injecting insulin. Failing to take insulin results in poor self-management and puts them at greater risk of future complications [3]. Self-efficacy has been found to predict adherence to self-care in diabetes [22]. The more self-efficacy a person feels towards conducting self-management behaviours, the less distressed they feel towards their diabetes [22]. Lower levels of self-efficacy are typically associated with unhealthy HbA1c levels [23]. Higher levels of Self-efficacy are associated with expectations of positive outcomes towards diabetes management, increasing adherence to treatment and healthier glycaemic control in adolescents [24].

The final aspect of Social Cognitive Theory explains behaviour influenced by external factors to the individual. It is likely that parents will have much involvement in their child's diabetes management from diagnosis [25], for example, accompanying the child/young person to the treatments and normalising management tasks. Greater parental involvement is associated with healthy blood glucose readings in adolescents [26], and more regular monitoring tests being completed in 8-17-year olds [27]. Parental involvement in the management of type 1 diabetes, decreases at secondary school age [28], suggesting that age and increasing independence may be a factor affecting self-management. Primary and secondary school aged children differ in their healthy HbA1c levels [29] whereby; secondary school children on average have poorer HbA1c levels than those of primary school age. There may be a critical time point, related to age and independence in which management is negotiated between the child/young person and the parent/guardian. Differences in glycaemic control in age groups suggest differences in management between the groups.

Adolescence is a period where individuals frequently appraise their own diabetes care, change social activities and experience hormone changes which may affect insulin requirements [30]. This is the period where adolescents are most likely to develop beliefs about their diabetes [30]. It is likely that beliefs around self-efficacy are constructed in adolescence. During this period, cognitive development occurs in areas of the brain that regulate emotions, intellect, and behaviour [31]. Behaviour is motivated by emotions and social influences rather than a rational consideration of risks and consequences [32]. NICE acknowledge adolescence as a stage of development associated with worsening glycaemic control due to non-adherence to treatment [33]. Non-adherence to self-management may be a result of increasing

responsibility of their management over their parents, and an increase of risk-taking behaviour during this developmental period. Lower psychosocial maturity in children aged 13 predicted poor diabetes control and utilised health care services more often than peers with higher cognitive maturity [34].

Much of the previous diabetes research regarding parental involvement and self-efficacy has been conducted outside of the UK Health Care System. In the adult population, only 8.5% of people with type 1 diabetes are under the optimal HbA1c level, suggesting that the issue continues into adulthood [35]. This means that 91.5% of the adult population with type 1 diabetes are at a higher risk of developing a diabetes related complication. Around 80% of the NHS budget for diabetes is spent on treating diabetes related complications [36]. Care for diabetes related complications is three to four times more expensive than diabetes medication for self-management [37]. The cost of care for diabetes related complications is staggering considering the complications are preventable [38].

The current study aims to explore the relationship of self-efficacy, parental involvement, self-management behaviours and diabetes control during childhood and young adulthood as this is the transition period for increasing responsibility for their own self-management. Due to the possibility that children and young people may be reluctant to discuss self-management of type 1 diabetes, the study will consider the feasibility of collecting self-report measures in children and young people and their parent/guardian within a clinical setting. The study will be a cross-sectional survey within a mixed methods study. The qualitative results will be reported separately.

Hypotheses

1. There will be a negative correlation between HbA1c measurements and scores on the self-management and self-efficacy scales.
2. There will be a positive correlation between the level of parental involvement (reported by parent and child) and HbA1c measurement.
3. There will be a positive correlation between the self-efficacy and self-management scores.
4. Age will be positively correlated to higher self-management and self-efficacy scores.

Methods

The study was given the Acronym 'TASC' which stands for Type 1 diabetes Adherence Self-Care. The TASC study was reviewed and approved by the North West- Preston Research Ethics Committee (REC ref: 19/NW/0182). The study took place in an acute hospital trust in the North West of England between April 2019 and February 2020.

Participants

Potential participants who met the inclusion criteria were identified by the diabetes specialist nurse working for the trust. One parent (n=25) from each family took part with their child (n=25). Within the parent group, 23 out of 25 parents identified as the child's mother, one as the father, and the other as the child's legal guardian. The mean age of the children and young people were 12.88 (SD= 2.53) years. Participants were split into age groups for analysis (8-12 years and 13-17 years) the mean ages were 10.11 (SD=1.45) and 14.44 (SD= 1.41) years respectively. Age groups were selected similar to previous research in this area [27, 39] following suggestion that 13 years of age is a 'key transition period' [40] and studying youths under 13 years old should be studied separately to 13 years and over due to the differing level of parental involvement of type 1 diabetes [41]. Of the children and young people, more males participated (n=14) than females (n=11). The average time since diagnosis for all participants was 5.08 years (SD=3.79). Six participants used an insulin pump whilst the remainder injected their insulin.

Measures

Diabetes Family Responsibility Questionnaire (DFRQ, see appendix 1) [42]. The questionnaire consists of 17 items which are split into 3 factors, general health domain, regimen domain and presentation domain. The responses provided for each item are 1= parent(s) takes or initiate responsibility for this almost all the time, 2= Parent(s) and child share this responsibility equally or 3= Child takes or initiates responsibility for this almost all the time. The parent and child's answers are scored together. The first of the three outcomes are that the parent and child agree on who takes responsibility for the same task. The second outcome is that both the parent and child respond that they take responsibility of the same task. The third outcome is when one member of the family states that the other takes responsibility. The scale can also be analysed by scoring into the 3 subscales for comparison. Internal consistency for the scale in general is high (Cronbach's $\alpha = 0.84$) Cronbach's alpha for the current sample is ($\alpha = 0.74$).

Confidence in Diabetes Self-care (CIDS, see appendix 2) [23]. The questionnaire starts with "I believe I can..." followed by 20 statements. The responses are provided on a 5-point

Likert scale, 1 being “No I am sure I cannot” and 5 being “Yes, I am sure I can”. All scores are summed together to give a total CIDS score. Higher score indicates higher self-efficacy. Internal consistency (Cronbach’s $\alpha = 0.90$ on US participants, $\alpha = 0.91$ in the current study) and test-retest reliability (Spearman’s $r = 0.85$ $P < 0.0001$) are high for this scale.

Diabetes Self-Management Questionnaire (DSMQ, see appendix 3) [43]. The questionnaire consists of 16 items on a Likert scale. Each item can be scored from 0-3. With 0 being “Does not apply to me”, 1= “Applies to me to some degree”, 2= “Applies to be to a considerable degree” and 3= “Applies to me very much”. The questionnaire is broken down into 4 subscales (Glucose management [1, 4, 6, 10, and 12], dietary control [2, 5, 9, and 13], physical activity [8, 11, and 15] and health-care use [3, 7, and 14]). The subscale items can be summed together to create a score for each subscale. The final item on the scale is an overall self-care question to be used when all items are summed together to form an overall self-care score. The internal consistency of the scale is good (Cronbach’s $\alpha = 0.84$). The Cronbach’s alpha for the study sample was $\alpha = 0.79$.

Recruitment Procedure

Face to face recruitment was planned instead of online or postal routes, to ensure that the researcher could discuss the study with the child and the caregiver, and to ensure the child could provide assent (or, if appropriate age, consent) to take part in the study. It was essential that the questionnaires completed by the child/ young person were completed without input from their caregivers. Recruitment was planned to take place in the NHS trust outpatient clinics. Initial recruitment phase saw 150 potential participants identified from clinic records who were sent information about the study (see appendix 4-7). A letter from the diabetes specialist nurse was sent to the potential participant’s home address attached with an age appropriate participant information sheet and parent information sheet.

Uptake from the initial recruitment phase was very poor ($n=5$). To expedite recruitment, a researcher attended outpatient clinics and approached potential participants. As some clinics ran longer than expected, 15 potential participants declined to take part as their children needed to attend school and parents return to work after waiting some time to be seen by the consultant. A further 26 requested more time to consider participation and consented the following week. A further strategy focused recruitment to clinics during the school holidays to avoid time constraints. However, recruitment did not improve as many clinics were cancelled due to non-attendance during the holiday period.

Procedure

During the participant's regular outpatient appointment, the child and their parent/s were approached to take part in the study. If the family agreed to participate parents were asked to sign a consent form for the child and themselves (see appendix 8 & 10). Participant's under 16 years were asked to sign an assent form (see appendix 11) and over 16 years consented for themselves (see appendix 9). Each child and a parent were asked to complete the Diabetes Family Responsibility Questionnaire [42] (DFRQ). Each child was asked to complete two further questionnaires, The Confidence in Diabetes Scale [23] (CIDS) and The Diabetes Self-Management Questionnaire [43] (DSMQ). The research team were aware that some participants may require more help than others. In those cases, questions were read out to the younger participants to ensure full understanding. After the visit, with permission, the following information was abstracted from the Trust's clinical record system: demographic details, history of diagnosis and admissions, HbA1c levels and insulin route to be used in the analysis.

Results

The average HbA1c level was 63.4mmol (7.9%) (SD=12.39) and 12% of participants (N=3/25) were within national target of HbA1c levels [6]. The average attendance to diabetes clinics was 95.6%. The mean HbA1c level in the 8-12 years was M=62.88 (SD=14.44) and the 13-17 years was M=63.81 (SD=11.58). An independent samples t-test was completed showing no significant difference between HbA1c levels of the age groups ($t(23)=-.17$, $p=.862$).

The self-reported measures were scored as per guidance and descriptive statistics are shown in Table 1.

Table 1: Mean Scores (SD) for the CIDS, DSMQ (including subscales) & DFRQ

	DFRQ				DSMQ					
	DFRQ Total	Glycae mic Contro l (Subsc ale)	Regimen (Subscale)	Social (Subscale)	DSMQ Total	Glucose Management (Subscale)	Dietary Control (Subscale)	Physical Activity (Subscale)	Health Care (Subscale)	CIDS
8-12 Years	33.22 (4.86)	11.66 (1.5)	12.77 (3.8)	8.77 (1.71)	6.46 (.74)	8.78 (1.41)	5.04 (2.25)	7.60 (1.63)	7.22 (1.58)	64.72 (22.04)
13-17 Years	33.75 (4.95)	11.93 (2.29)	13.12 (2.80)	8.68 (1.07)	6.37 (1.15)	7.47 (1.82)	6.00 (1.83)	7.94 (1.88)	7.24 (2.00)	74.14 (20.18)
Total	33.56 (4.83)	11.84 (2.01)	13 (3.1)	8.72 (1.30)	6.40 (1.00)	7.94 (1.77)	5.66 (2.00)	7.82 (1.77)	7.24 (1.83)	70.75 (20.92)
Parent	31.88 (4.89)	11 (2.14)	13.36 (2.94)	7.52 (1.35)						

The mean score from the CIDS for all children and young people suggests that overall, the sample report high confidence in diabetes management. There is a difference of means when the participants are split into age groups. The 8-12 years CIDS average was 64.72 whereas the 13-17 years average was 74.14. An independent samples t-test showed that the difference was not significant $t(23)=1.08$, $p=.290$. The remaining questionnaires and sub-scale means show little difference between the two groups, therefore statistical analysis of differences between age groups was not performed.

Given the lack of significant difference between groups, relationships between variables were examined for the whole group. Pearson's r correlations between HbA1c, age and questionnaire scales are shown in table 2. There was no significant correlation between HbA1c, age and any other variable. Therefore Hypotheses 1, 2 & 4 were rejected. There were significant relationships between the DMSQ and the CIDS scores ($r(23)=0.639$, $p=0.001$) suggesting that higher scores on self-management are related to greater self-efficacy. Therefore hypothesis 3 was accepted. There was a significant relationship between Glucose Management ($r=.485$, $p=.01$) and Dietary Control ($r=.514$, $p=.009$) subscales. Physical Activity and Health Care subscales were not significantly related to the CIDS score ($p>0.05$).

The correlation between self-efficacy scores on the CIDS and the child scores of the DFRQ was significant ($r=0.543$, $p=0.005$). Higher scores of the DFRQ suggest that more self-management tasks are conducted independently, or with assistance from the parent rather than total parental control. The DFRQ subscales Regimen and Social were significantly positively correlated with CIDS scores ($r=.450$, $p=.024$ and $r=.453$, $p=.023$ respectively). Parent and child DFRQ total scores were significantly correlated with each other ($r=.586$, $p=.002$) as were the DFRQ subscales (Glycaemic $r=.396$ $p=.05$, $r^2=0.15$; Regimen $r=.723$, $p=.000$; Social $r=.484$ $p=.014$). The CIDS and the parent DFRQ was also significantly correlated ($r=.567$, $p=.005$) supporting the child's scoring.

Table 2: Results from the Correlational analysis to explore relationships between variables.

Variable	CIDS	DSMQ	Glucose Manage-	Dietary Control	Physical Activity	Health Care	DFRQ Child	DFRQ Parent	Glycaemic Control (Child)	Regimen (Child)	Social (Child)	Glycaemic Control (Parent)	Regimen (Parent)	Social (Parent)	Age
HbA1c	0.15	-.098	-.191	.275	-.092	-.148	.003	.066	.018	-.053	.109	.237	-.208	.314	.080
CIDS		.639**	.485*	.514*	.324	.369	.543**	.567**	.308	.450*	.453*	.503*	.506*	.153	.179
DSMQ			.710**	.597*	.678**	.609**	.341	.128	.251	.271	.223	.150	.204	-.216	-.091
Glucose Management				.221	.320	.318	.031	.062	-.076	.070	.066	.030	.089	-.016	-.209
Dietary Control					.387	.011	.300	.268	.063	.307	.276	.324	.227	-.037	.108
Physical Activity						.222	.049	-.076	.198	-.175	.293	.138	-.146	-.175	-.005
Health Care							.366	.052	.421*	.309	-.039	-.071	.303	-.358	-.409
DFRQ Child								.586**	.695**	.908**	.448*	.399*	.662*	.049	-.144
DFRQ Parent									.307	.530**	.424*	.803**	.831**	.537**	.183
Glycaemic Control (Child)										.435*	-.018	.396*	.334	-.243	-.085
Regimen (Child)											.285	.199	.723**	.029	-.115
Social (Child)												.387	.201	.484*	-.124
GlycaemicControl(Parent)													.430*	.387	.169
Regimen (Parent)														.149	.123
Social (Parent)															.128

Discussion

The study aimed to explore the relationship between self-efficacy, parental involvement and diabetes management in children and young people. Previous research suggested that self-efficacy, parental involvement, and management scores would be related to diabetes control. To explore this relationship, diabetes control was measured using HbA1c levels obtained during the child/young person's outpatient appointments. Results are discussed in the context of implications for the management of diabetes and the feasibility of conducting a study in a UK clinical setting.

No significant relationships were found between HbA1c levels and any of the variables measured suggesting self-efficacy and parental involvement are not related to glycaemic control. This conflicts with previous research [23, 24] as glycaemic control has been previously linked to self-efficacy levels. The participants averaged HbA1c of 63.4 mmol/mol (7.9%) which was consistent with the national average 64 mmol/mol (8.0%) [6]. Similarly, they display HbA1c levels above the national target of 48mmol/mol (6.5%) suggesting that there is room for improvement with diabetes management. Scores of self-efficacy were suggestive of high self-efficacy towards their self-management thus it is apparent that their self-efficacy is not supported by the objective HbA1c measure. Discrepancies between self-report and objective measures of glycaemic control have been reported in previous research. Over-reporting of monitoring tests and reporting of healthier blood glucose readings than actual readings occurred in both adults [44] and children [45]. It is possible that the children are over-reporting their self-efficacy and self-management.

It is probable that the clinical team's expectation of a child's self-management differs from the child's perception of their responsibilities. Whilst previous research has shown clinicians and people with diabetes agree on aetiology, pathophysiology and symptoms, the focus of their attention differs. People with diabetes focus on the social aspects of living with diabetes and the impact it has on their lives whereas clinicians are concerned with the physical impact of diabetes [46]. The participant's may feel that they are managing their diabetes well, whereas the clinical team have targets and a care pathway that focuses on how many people are within the national target HbA1c level. HbA1c levels are monitored at each outpatient appointment to provide an overview of glycaemic control during the 12-week period. Children and young people are measuring blood glucose levels at each mealtime and other appropriate times during the day. It is possible that the child/ young person does not try to target lower HbA1c levels as strongly as their clinicians but may value other aspects of diabetes management such as avoiding hypoglycaemia. Previous research suggests fear of hypoglycaemia is related to higher daily glucose levels [47]. Scores suggesting fear of hypoglycaemia were not associated with HbA1c levels, further supporting the idea of variation in expectations amongst clinicians and people with diabetes.

Previous research suggested adolescence is a period when people with type 1 diabetes gain more responsibility for their own care [30]. However, there was no significant relationship between age and any other variable; it was expected to find a relationship between self-efficacy and self-management behaviours

and age due to previous research outcomes suggesting increasing age is related to poorer glycaemic control and lower parental involvement [29, 33]. The non-significant differences in the mean scores of the DSMQ and DFRQ suggest that child and young people complete the similar number of self-management tasks and share similar amounts of responsibility for their management with their parent/guardian. The significant relationship between the parent and child scores of the DFRQ and all subscales, suggest that the parent and child concur regarding the diabetes management responsibilities. The child DFRQ is significantly related to the CIDS suggesting that higher responsibility of diabetes management is associated with higher self-efficacy.

The CIDS and the DSMQ are significantly related, suggesting higher self-efficacy is related to high self-management behaviours. Specifically, CIDS was significantly related to glucose management and dietary control as measured by the DSMQ. The connection found previously [22-24], between self-efficacy and self-management behaviours is supported by this research. This relationship supports the self-efficacy theory of behaviour [16]. The CIDS was not significantly related to the healthcare and physical activity subscales of the DSMQ. This suggests that the children and young person's self-efficacy is focussed on day to day glycaemic and dietary management of their diabetes. The physical activity subscale was also not related to the CIDS, however many children and young people reported that they are guided by school curriculum regarding number of physical activity events completed rather than for their diabetes management. This corresponds with reduced levels of physical activity in children and adolescents [48].

An inspection of the means for the DSMQ subscales suggest that the children and young people report high self-management behaviours. The validation of the DSMQ was based on adult participants [43]. When comparing these scores, it is apparent that the current sample score more highly on physical activity and lower on the healthcare subscale. Scores on glucose management and dietary control from the current sample are similar to the data collected in the adult population. This supports the idea that children and young people report that their day to day management is good; however, it is also possible the parents are managing the healthcare aspects such as contacting the doctor when appropriate and remembering outpatient appointments. This supports previous research, suggesting that the child/ young person manages blood glucose testing and insulin, whereas parents order stock supplies and accompany to outpatient appointments up to 19 years of age [49] It is not expected that a child and young people sample would report scores similar to an adult as it is expected parents are still involved with some aspects of their management. Children and young people may feel that they are completing many management tasks, but not as well as their clinicians expect.

The discrepancy between high numbers of management tasks but poor overall glycaemic control suggests that although children and young people think they are managing well, their diabetes management is not sufficient to reduce the risk of future complications [4, 5]. It presents more questions about the child/ young person's self-management. Although a person may give insulin at every meal, if they have interpreted blood glucose levels or carbohydrate counting incorrectly, they may be giving incorrect doses of insulin. The self-

report scores can be associated with the behaviours themselves, which children and young people are completing, but interpreting of their results may require more education. Furthermore, children and young people may not understand the importance of daily control impacting on their HbA1c result.

Limitations

The sample size was smaller than expected for the number of people with type 1 diabetes across the hospital sites. Eleven potential participants declined and reported the reason as their child “not coping well” with their diabetes. We acknowledge that obtaining data from participants who are struggling to cope can be challenging and accept that this may have contributed to the lack of differentiation in the sample recruited. This is also evident in previous research [14, 15].

Given the self-report nature of the study and the lack of correspondence between HbA1c and other variables, it is possible that participants provided socially desirable answers, possibly to avoid confrontation about poor self-management. Social desirability bias has been found in a similar population previously [50]. Although the DFRQ and DSMQ questionnaires have been validated [42, 51] and used extensively in child and adolescent populations, the CIDS measure and the DSMQ were originally validated for use in adults and as such results should be treated with caution.

These limitations have implications for feasibility for a larger study. A larger study is unlikely to benefit from this recruitment approach. Online recruitment may increase participation due to the increased anonymity and a wider audience, though it would be difficult to ensure the child/ young person has answered independently. The use of self-report measures may not be appropriate, due to the potential over-estimating of self-management however, anonymity may reduce the social desirability bias. Future research, using different methods is needed to explore factors influencing successful self-management. A service intervention, changing aspects of care such as the use of increased education through technology and individualising contextual goals may be appropriate, involving an evaluation period to determine whether a change in outpatient services may benefit glycaemic control.

Recommendation of Practice

As mentioned previously, poorer glycaemic control as indicated in objective testing such as HbA1c levels suggest that people are more at risk of developing diabetes related complications. The other health checks, such as eye screening and foot examination aren't monitored as closely as HbA1c levels but are designed to detect any health changes within the individual as a precursor to any diabetes related complications. Clinicians often rely solely on HbA1c results to provide an insight into glycaemic control. A combination of tests may provide more insight into glycaemic control. The completion of these tests should be stressed to clinical teams to provide optimal care for people with type 1 diabetes. Early diagnosis and continuous monitoring may decrease the number of people likely to develop a diabetes related complication maintaining quality of life for the person and reducing costs further treatment costs to the NHS.

During clinical appointments, it should be advised that the relationship between each blood glucose test result and HbA1c results is reiterated to the children and young people. This ensures that expectations of clinicians and the person with type 1 diabetes are aligned, with the aim of increasing diabetes management and diabetes control overall. Education is provided by clinicians during their outpatient appointment, suggesting the current approach is not working as sufficiently as required. Support provided using different methods such as using technology may increase knowledge and motivations to self-manage.

Future studies may benefit from exploring what values children with type 1 diabetes hold towards their self-management. A new care pathway using national guidelines and children's values together may be beneficial to improve glycaemic control. Although self-management behaviours were reported as high in this sample, it may be important to try and understand the contextual factors that may influence behaviours. For example, management behaviours may vary in school, home, or social environments. Clinician awareness of personal barriers and facilitators to self-management behaviours is essential [52]. If clinicians considered contextual factors it will allow care to become individualised to the child/young person. By introducing new targets which are individualised to the patient values for their type 1 diabetes, a new responsibility for the patient is created: a new motivation. Individualised targets have found to benefit people with chronic conditions such as chronic kidney disease [53].

Conclusion

The study tentatively supports the theory of self-efficacy on motivation of behaviour as self-efficacy scores were associated with more diabetes management tasks. The study took a focused approach of exploring the role of self-efficacy and parental involvement in diabetes management and diabetes control in children and young people with type 1 diabetes. The sample report high self-efficacy and self-management overall, however it is not reflected in the clinical outcome measure representing diabetes control. HbA1c levels suggest that blood sugar levels are higher than optimal levels, increasing risk of future complications. Future research should consider recruitment strategies to improve participation to obtain a wider sample of children and young people. Recruitment through a service intervention may be a suitable approach. Future research focused on aligning expectations from the child and the clinical team to improve diabetes control may be beneficial.

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Empirical Paper Two

For submission to Psychology & Health

**Factors effecting self-management in children and young people with type 1 diabetes.
A qualitative approach.**

Abstract

Objective

Type 1 diabetes requires an extensive daily self-management routine. Quantitative measures suggested that children and young people report confidence in their self-management behaviours whereas glycaemic control is poor. This study aims to explore the psychosocial factors children and young people experience that may facilitate or hinder consistent diabetes self-management.

Methods

Nine children and young people (aged 8-16 years) with Type 1 diabetes and their parents participated in semi-structured interviews to discuss their management of Type 1 diabetes. Participant recruitment was conducted across an NHS trust in the North-West of England. Interviews were transcribed and analysed using Thematic Analysis.

Results

An overarching theme of 'Emotion' was identified throughout the experiences of various self-management events, incorporating the sub-themes 1) Worry of public opinion. 2) Worry as a motivator. 3) Fear of hypoglycaemia. 4) Lack of worry towards hypoglycaemia. 'Reliance on parent' and 'Identity' were the other two themes derived from the analysis. Children and young people differed in fear of hypoglycaemia, young people expressed concern for hypoglycaemia, whereas younger children did not.

Conclusions

The findings identify the importance of emotions and their influence on self-management behaviours. Emotions influence diabetes self-management differently depending on the psychosocial and physiological context. Fear of hypoglycaemia and lack of worry towards hyperglycaemia requires further education around management of blood glucose levels.

Keywords: Diabetes Mellitus Type 1, Self-Management, Treatment Adherence and Compliance, Emotion and Self-Management

Introduction

Type 1 diabetes (T1D) is an autoimmune disease where the body's immune system attacks the beta cells in the pancreas. The cause is currently not known, but the disease leads to the person with T1D being reliant on regular insulin injections for the rest of their life. Diagnosis of T1D can occur at any age, although more commonly diagnosed in childhood between the ages of 10-14 years (National Paediatric Diabetes Audit, 2013). There are around 400,000 people in the UK diagnosed with T1D, including 29,000 children. People with T1D need to complete several daily diabetes management tasks including maintaining healthy blood glucose levels through regular glucose tests and carbohydrate counting at every meal to calculate the number of units of insulin needed to inject. Additional management may be required for fluctuations of blood glucose levels outside of a healthy range. T1D is a complex condition which requires good adherence to an intense management programme.

Whilst trying to manage their T1D daily, a person with T1D may experience short-term complications of the condition. A drop in blood glucose level under the safe limit of 4-7 mmol/l is known as hypoglycaemia (NICE, 2015). The person may feel dizzy, tired and in extreme hypoglycaemia, lose consciousness (Juvenile Diabetes Research Foundation, JDRF, 2021). Causes of hypoglycaemia could be more insulin in the body than required, exercise, or delayed calorie intake (JDRF, 2021). An increase in blood glucose level above the healthy range of 4-7mmol/l is known as hyperglycaemia. Symptoms of hyperglycaemia include, extreme thirst, passing more urine, tiredness, and weight loss. Causes of hyperglycaemia could be too little insulin in the body due to missing or miscalculated insulin doses, or overtreating in response to a hypoglycaemic event (Diabetes UK, 2021). Long-term experiences of unhealthy range blood glucose levels increase the risk of developing other conditions later in life such as heart disease, kidney failure, neuropathy, stroke, and blindness (Diabetes UK, 2021). The risk of these long-term complications can be reduced through good diabetes control; a result of good adherence to self-management behaviours for the condition (Nathan, 2013).

Following diagnosis, clinicians develop a care plan tailored to the individual to try to achieve healthy blood glucose levels. Blood glucose levels are typically monitored through finger prick tests or continuous monitoring devices. Regardless of the methods, the blood glucose level test results require interpretation and management. The carbohydrate content of each meal must be calculated using the ratio prescribed to work out the number of units of insulin to be injected. Unhealthy range blood glucose levels are to be 'corrected' appropriately. The management of T1D is a complex process which requires the person to self-manage on a day-to-day basis. It is likely that during childhood and young adulthood, parents will have some involvement in the management (DAFNE Study Group, 2002). Children and young people are

encouraged, from diagnosis, to be involved some areas of management dependent on their developmental stage. Children and young people will begin to gain independence as part of their development and experience and acquire responsibility to complete tasks independently.

Clinicians monitor diabetes control by measuring the average plasma glucose over a period of eight to twelve weeks, known as an HbA1c measurement (WHO, 2011). The national average HbA1c level for children and young adults up to the age of 24 years, is higher than a healthy range (Royal College of Paediatrics and Child Health, 2020) suggesting that glycaemic control is poor and questioning levels of adherence to self-management regimes. There could be several factors affecting self-management. A study monitoring HbA1c levels over a period show that the level rose from 86 mmol/mol (9.8%) at age 10 to 109.8 mmol/mol (12.2%) at 16 years suggesting that although diabetic control is poor from a young age, the period of puberty and growth into young people may have a further negative impact on their diabetic control (Pound et al., 1996). Snoek & Skinner (2005) suggest that adolescence is a period where the individual struggles between learning the impacts of their own diabetes self-management on glucose control, changing social activities and hormone changes which may affect insulin requirements. In addition, adolescence is the period where young people are most likely to develop beliefs about their diabetes and self-management and illness perceptions (Fortenberry et al., 2014). More psychological disturbances are reported at this stage than in younger children with T1D (Nardi et al., 2008). Further, the diabetes management regime conflicts with social, identity, cognitive and physiological development of children and young people (Edgar, 2003). Consequently, making self-management difficult for some.

Research has found that blood glucose monitoring is not well adhered to (Weissberg-Benchell et al., 1995). Blood glucose monitoring was previously reviewed through patients reporting results in diaries and many tests were fabricated, causing the data to be unreliable. It is now harder to fabricate results as adherence can be measured through downloads of the blood glucose meter readings, resulting in more reliable data (Arbiter et al., 2019). The meter saves time spent on management by automatically saving results from all tests carried out. This method of reviewing assists clinicians as well as patients in identifying trends that may be impacting glycaemic control (Arbiter et al., 2019). Despite the emergence of new technologies to assist in easier management, adherence to blood glucose monitoring has not increased. Children and young people are still required to complete blood glucose tests, understand their glucose readings and act accordingly, requiring extensive self-management skills. Self-management is impaired if blood glucose tests are not taken, or results adhered to. In previous research, 40% of children with T1D has needle anxiety (Howe et al., 2011). Needle anxiety, from insulin injections and finger prick tests causes poor co-operation between parent and

child. Parents did not complete finger prick tests or injections as prescribed to avoid the 'fight' with their child, resulting in poorer glycaemic control.

Diabetes control is generally healthier when parents are involved with the self-management routine (La Greca et al., 1995). Children and young people will attend school/ college where self-management behaviours are unsupervised by parents thus leaving the child or school guardian responsible for accurate self-management. Educational settings have a legal responsibility to support children and young people with medical conditions under the Children and Families Act (2014). Schools are responsible for ensuring adequate training has been given to staff and that individual care plans are received as T1D is individualistic (Diabetes UK, 2021). Children and young person spend a significant amount of their time in educational settings and need to incorporate their self-management routine into their school routine (Amillategui et al., 2009). As such, it is essential education providers facilitate self-management of T1D for children and young people in the absence of assistance from a parent or guardian. For example, some children may require help with insulin injections or carb counting. Previously, feelings of adequate support from school settings have been associated with lower HbA1c levels, i.e., blood glucose control, in children aged eight to fourteen years (Lehmkuhl & Nabors, 2007). Furthermore, a separate study found that only 61-65% of children conducted glucose monitoring at school (Amillategui et al., 2009)] with little explanation why monitoring is not adhered to. Together these findings suggest a lack of consistent support or encouragement in schools for children to carry out glucose monitoring or injections leading to inequalities and poorer glycaemic control. Children may be disadvantaged by the lack of appropriate support schools provide (Marks et al., 2013).

Due to the side effects, and the known danger of hypoglycaemia, some people with T1D have developed a fear about experiencing it (Frier & Fisher, 2007), and this fear has been found to influence self-management. People with T1D intentionally keep their blood sugars higher to avoid an episode of hypoglycaemia (Frier & Fischer, 2007; Perlmutter et al., 2009). Parents of children aged 6-11 years took avoidant action against hypoglycaemia, consistent with developmental stages in which parents manage their child's diabetes more than the child (Gonder Frederick et al., 2011). This finding also suggests that fear of hypoglycaemia and intentionally keeping blood sugars higher than a safe level could be a learnt behaviour from parents when the child becomes more responsible for their own management.

As well as failing to complete blood glucose management, insulin omission has been reported in 11-34% of children (Jones, 2000) and young people (Rydall et al., 1997). Young people with T1D may use insulin omission as a weight management strategy (Peveler et al., 2005) as taking insulin for high amounts of carbohydrates can cause weight gain. By omitting insulin,

and causing high blood sugars, weight loss is likely (Hall., 2021). This is a perceived benefit of omitting insulin, and the most common method used by adolescents for weight loss (Jones, 2000). Other factors related to insulin omission can include pain or embarrassment (Peyrot et al., 2010). Embarrassment has also been linked to lower self-management behaviours and high HbA1c levels (Brazeau et al., 2018). Young people have reported omitting self-management activities to avoid receiving unwanted attention about their T1D (Wang et al., 2010). Older children and young people aged between 14-24 years have felt victim to stigmatisation from T1D (Brazeau et al., 2018). Views of T1D being 'self-inflicted' or as a disability have been acknowledged in stigma research (Abdoli et al., 2017). Injecting insulin has been mistaken for taking prohibited drugs (Browne et al., 2014). Stigmatisation of T1D causes emotional distress, which is hard to forget (Browne et al., 2014). This suggests that some people avoid self-management, to improve how they feel emotionally in social situations with little concern to the long-term impact on their physical health.

The burden of T1D has a known impact on a person's emotional well-being, with insulin injections being related to poorer scores on quality-of-life scales (Rubin & Peyrot, 1999). Negative affect towards insulin injections is associated with increased omission (Peyrot et al., 2010) and blood glucose monitoring (Fortenbury et al., 2009). Furthermore, the intense management of T1D is a source of stress, which can lead to negative affect and non-adherence to treatment, resulting in poor adjustment to the condition (Jacobson, 1996; Balfe et al., 2013). The stress and emotional burden of T1D has been termed diabetes distress. The long-term implications of T1D can be life-changing, contributing to the perception that depression is more common in people with T1D than those without the condition (Lloyd & Brown, 2002).

Self-control is the regulation of thoughts, emotion, and behaviour (Finkenauer et al., 2005). Emotional processing expands during puberty, and adolescents report feeling more intense and reactive (Steinberg, 2010). It is hypothesised that good self-control and emotional processing skills are the foundation of good adherence to treatment regimens (Hughes et al., 2012). For example, good self-control and emotional processing will allow someone to take their insulin although they are annoyed at being reminded by someone to do it. Children and young people do not have the self-control maturity required to adequately self-manage T1D, therefore they are likely to be affected by their emotion which may hinder their ability to self-manage their diabetes appropriately.

Social Cognitive Theory (SCT) (Bandura, 1995) suggests that behaviours are a result of cognitive, behavioural, and environmental influences. In part one of the Type 1 Adherence Self-care (TASC) study (Kujacz et al., unpublished), SCT was used to focus on behavioural

influences for self-management including self-efficacy, and environmental influences such as parental involvement using questionnaires. We found that higher self-efficacy scores were related to a greater number of self-management tasks being completed, supporting the SCT. We also hypothesised that self-efficacy and self-management behaviours would be associated with glycaemic control assessed via HbA1c levels. However, no relationship between HbA1c, self-efficacy and self-management was identified. Furthermore, the average HbA1c of participants was 63.4mmol/mol (7.9%) suggesting sub-optimal self-management which may be associated with an increased risk of diabetes complications. Our previous findings highlight that children and young people feel confident in their self-management behaviours whereas glycaemic control levels suggest there is scope for improvement in self-management behaviours. The lack of association between confidence in self-management behaviours alongside evidence of poor control requires further investigation. Given the limitations of cross-sectional studies, the current study uses qualitative methods to gain in-depth data to explore factors that influence self-management in this population.

HbA1c is often used as a primary diabetes health outcome in research to indicate glycaemic control. Kaplan (1990) argues that a biological measurement such as a HbA1c measurement, is limited to predicting future complications risk. Whilst HbA1c is easy to quantify it may be subject to bias as it fails to distinguish an individual's behavioural functioning regarding their diabetes self-management (Kaplan, 1990). Furthermore, Dayte et al. (2015) argue that barriers to diabetes self-management are psychosocial in nature, therefore psychosocial measurements, such as behavioural functioning and quality of life are indicative of health-related outcomes and should be utilised. HbA1c measurement remains the preferred outcome in clinical settings. The current study aims to explore behavioural functioning around self-management and its current impact for the individual rather than focus on the risk of future complications alone. It is important to understand the cognitive, behavioural, and environmental factors children and young people experience that may facilitate or hinder consistent self-management before suitable interventions to aid self-management can be implemented.

The aim of the current study is to gain insight into experiences of children/ young people carrying out their own self-care. Specifically to;

Explore themes which arise in relation situational influences and diabetes self-care.

Explore the impact of social influences to diabetes self-care behaviours.

Explore hypoglycaemic and hyperglycaemic events.

Develop an understanding of children/ young people's motivations to carry out diabetes self-care.

Methods

The TASC study was reviewed and approved by the North West- Preston Research Ethics Committee (REC ref: 19/NW/0182). The study took place in an acute hospital trust in the North West of England. The researcher (first author) is a Trainee Health Psychologist, completing the work as part of the Doctorate programme. The researcher also works within a clinical research unit at an NHS hospital where the research was conducted.

Participants

Nine children/young people (six female and three males) and a parent or guardian (all nine were female) participated. The mean age of the children/young people was 13 years (range 9-16 years). The average time living with diabetes in this group was 5.4 years. Mean HbA1c level was 63.3mmol/mol, consistent with the UK national average of 64mmol/mol (8.0%) for this age group (Diabetes UK, 2016). Only one participant's HbA1c was within the target level of 48mmol/mol whilst eight participants HbA1c measurement was higher than the target, suggesting eight participants are at increased risk of developing diabetes related complications in the future. All participants attend outpatient appointments with a multidisciplinary team in the NHS.

Procedure

All twenty-five participants from part one of the TASC study were invited to participate in an interview. Those who expressed an interest and consented to be contacted (18 parents/guardians consented to be contacted, nine agreed to participate) were provided with a child/young person age-appropriate information sheet and parental information sheet by post (Appendix 1-4). A follow up phone call was made by the researcher and if the family agreed to take part, an appointment was made for them to visit the outpatient department at a mutually convenient time to take part in a semi-structured interview. Parents were asked to sign a consent form for the child and themselves (Appendix 5). Participants under 16 years were asked to sign an assent form (Appendix 6) and those over 16 years consented for themselves (Appendix 7). Recruitment began in 2019 and was interrupted by the Covid-19 pandemic when face to face visits were restricted by the NHS Trust, hence the final three participants were interviewed via telephone. Interviews were conducted as dyads by the first author with the child/young person and the parent or guardian both present. The semi-structured nature of the interviews allowed participants to report freely and provides opportunities for further exploration. The interviews lasted between 15-25 mins dependent on

the participants' discussion. Each parent/child interview comprised one transcript for analysis. All interviews were transcribed by the researcher and analysed using an inductive approach to Thematic Analysis (Braun & Clarke, 2014) with the support of NVivo (QSR International Pty Ltd, Version 12). The first author began creating codes which represented patterns in the data, then grouped quotes that had been coded the same (Appendix 8). The researcher then developed themes and later discussed these amongst the research team to establish agreement of themes and reduce researcher bias (Noble & Smith, 2015).

Results

The results presented are views and experiences of children and young people with T1D and their parent/guardian. There were three themes and seven sub-themes identified in the analysis (Table 1). Some sub-themes identified are related to one overall theme "Emotion." Emotion was present in most accounts, although it was not directly addressed in the interviews. Emotions were evident throughout the analysis in beliefs, social and environmental variables and appears to influence self-management behaviours by both facilitating and hindering self-management. Worry was present in both parents/guardian and children/young people. A second theme, related to reliance on their parent/ guardian for diabetes management tasks was observed. Mixed feelings of normality and abnormality developed the third theme, identity.

Table 1: Themes derived from Thematic Analysis

Theme	Subtheme
Emotion	Worry of public opinion Worry as a motivator Anxiety and worry of hypoglycemia. Lack of worry towards high blood glucose levels
Reliance on parent	Reliance for carbohydrate counting
Identity	Normality Feelings of abnormality

Worry of public opinion

Analysis shows that children and young people worry about what people think or may say to them if they conduct self-management activities like blood glucose testing or injections in public. When discussing self-management in public, children and young people expressed that they would amend their normal self-management behaviour whilst in public.

Participant 1- *'Since school I've been quite like worried and paranoid about what people think and what people would say.'*

'I'm more conscious on what people think.'

This participant has stated "since school" suggesting that their worry has been experienced for a prolonged period and that it has not decreased over time. It also implies that any situation they appraise as a public situation has a potential negative outcome. The second quote, "I'm more conscious" implies that they prioritise what others think over completing their self-management in public. Analysis from other transcripts support this as participants consider the context and perceived negative outcome of the situation before completing the task, which changes their behaviour.

Participant 1- *'I just feel like people stare at it if I had it on show.'*

Other's experiences of negative outcomes of self-management in public have an impact on the appraisal of a situation.

Participant 2- *'I saw this comedian who said he saw people hold taking the kids away from them because he was taken his insulin. And I thought, something like that is going to happen to me.'*

Other participants stated they would find somewhere private to conduct their self-management rather than get their equipment out in public due to the worry of public opinion, e.g.

Participant 3- *'I usually like go into like the bathroom to do it. Instead of just out in the open. - Cos, I don't think it'll be very comfortable, like with people eating. They might see that and be like "oh"-...It's- it's a bit strange to see'*

One participant had omitted insulin when in public due to this worry.

Participant 4 (Parent)- *'You were on the bus? And you had some chips, but you didn't want to do the injection in front of people on the bus did you? So, you just ate the chips.'*

Advances in technology such as the insulin pod which delivers insulin through a pump attached to the body, have enabled children and young people to complete their diabetes management in public without worry. One participant expressed that the worry existed with injections but not when using an insulin pump.

Participant 5- *'just when I had actual injections, sometimes be a bit more like I don't want to this in the middle of a restaurant. Cos it's a bit- just don't particularly want to do it. When I've been on my pod, I've been fine'*

Worry as a motivator

When asked why participants complete their self-management tasks, worry was prevalent as a motivator. The worry of being admitted to hospital or feeling unwell prompted children to complete their self-management tasks. The transcripts highlighted that children/ young people are aware of the consequence of not looking after their diabetes correctly, including previous experiences.

Participant 5- *"Like when I'm high and stuff I just don't feel well. It's not good. So, I just don't want to feel like that. So, I just tend to try and do as best as I can so that I don't have to feel like that."*

This participant has evaluated their previous experience of high blood sugars. Their physical feeling of hyperglycaemia is an effective deterrent to self-management omission.

Participant 3- *'If I don't, then-then I'll be sick. And I don't really want to be sick.'*

Another participant suggests awareness of the risk of future complications. The participant states 'again' and 'come back into hospital' referring to a time when they have been admitted to hospital for help with their diabetes.

Participant 2- *'I don't want to come back here. I don't want to be in a bed again. That's the main driving point. I don't, I don't want to put myself in a predicament where I've got to have limbs cut off, or I've got to come back in hospital and have cannulas, er being checked on 24-7, I would have started everything all over again.'*

Anxiety and worry of hypoglycemia

Younger participants did not express concern about experiencing hypoglycaemia; however, their parents did express worries around hypoglycaemia being undetected in their younger children.

Participant 4 (Parent)- *'that's the one you panic about most int it? D'ya think? That's the one I panic most from'.*

Participant 4 (Parent)- *'You can't settle you know you can't relax or anything until- until I know that her blood sugars going back up'*

Some young people expressed dislike towards symptoms experienced during hypoglycaemia, especially if it was a "really bad one".

Participant 6- *"I hated the feeling of it if I've got a really bad one... .. Yeah, because I hate hypos more than high blood sugars cos they- feelings awful I hate having them. So, I try avoiding them as much as possible."*

Here, the word 'hate' suggests a strong dislike towards the experience of hypoglycaemia rather than an uncomfortable but manageable feeling. This feeling of dislike towards the symptoms causes worry about experiencing hypoglycaemia in the future, with some participants stating that they would try and avoid this experience. Avoidance of this experience could mean that the child/young person adopts good adherence to self-management or that they amend their self-management to avoid hypoglycaemic events by eating more/omitting insulin. For example, the following participant admitted to taking less insulin than required for the meal and correction of blood glucose level to avoid hypos and the struggle of managing them.

Participant 1- *'I don't really like having hypos. Just because they, really horrible feeling and I had one time where I couldn't get my blood up when I was poorly so I had to go to hospital so that shook me up a little bit so that's another thing with my insulin I'd do a couple less just so I knew that I didn't have a hypo.'*

Participant 1 - *'I don't like doing too much insulin in case my blood goes low.'*

The majority of participants expressed their fear of hypoglycaemia, and in turn, the direct impact that it has on self-management behaviour to avoid becoming hypoglycaemic.

By contrast, one participant displayed no fear of hypoglycaemia, likely due to managing them well.

Participant 7- "I don't have them that often. So, I've just, I just do what I usually do if I have one, it's not really a big deal."

Lack of worry towards high blood glucose levels

Young people reported that blood glucose levels a little higher than the range 4-7mmols would not prompt them to take action to reduce them to within the healthy range and one suggested that they would refuse to correct the high blood sugars.

Participant???? 'I'd just leave it'

Another stated that this situation has occurred several times and that they have not corrected it.

Participant 5- 'Because there's a few times when I'm high and I'd kind of like *brush it over if I'm only at ten or something*'.

These reports and the language used, "*I'm only*" suggests a lack of concern towards high readings. Confirmation from parent/guardians that their child also refuses to manage a hyperglycaemic event suggests an associated lack of concern by parents.

Participant 2 (Parent)- '*If it's like between 11 and 14, he'd leave it*'

Discussion around hypoglycaemia and hyperglycaemia revealed that children and young people would compare the experiences and express a preference about which situation they would rather experience. The variety of responses reveals that the preference is individualistic to the impact of the symptoms of both hyperglycaemia and hypoglycaemia. It indicates that those who fear hypoglycaemia are more content with experiencing high blood glucose levels.

Participant 1- '*I'd prefer it to be higher than lower.*'

Participant 5- '*When I'm low I feel much worse.*'

That said, one participant expressed concern for high blood sugars suggesting that they spend a lot of time worrying about their blood sugars being high.

Participant 3- '*Because I don't really think about having a hypo as much as I do about being high.*'

Reliance on parent

The participants were asked about the support received from their parent/guardians in all aspects of their self-management. All felt they had adequate support, neither intrusive nor

unsupportive. The only notable themes to emerge from the transcripts concerned carbohydrate counting and insulin calculations. Carbohydrate counting in younger participants was completed by the parent alone as expected for the age group.

Participant 8 (Parent)- *'I tend to do at the moment.'*

Many children and young people stated that they enlist the help of their parent to work out the right amount of insulin. The parent and child communicate when not together, whereby the child keeps the parent informed and the child requires parental support at times when they are responsible for themselves such as during school time or out with peers.

Participant 7- *'I probably just text my dad just for him to double check. I'll tell him what I'm having and all that'*

Participant 4- *'My mum works out the carbs most of the time'*

Only one participant expressed that their parent weighs out the ingredients to work out the carbohydrate content which helps calculate the insulin requirement. It is unknown whether all parents weigh the food and calculate insulin requirements as prescribed, or whether the parents estimate the carbohydrate contents.

Carb counting completed by children and young people appears to be an estimated guess rather than an accurate measure based on the ratio set by the multidisciplinary team at the hospital. Children and young people reported they frequently guessed their insulin requirement.

RW601005????- *'I can guess pretty well'*

Participant 3- *'Sometimes I like, try and guess it but I'm really off'*

Further analysis found that children and young people appraise their self-management behaviours positively, and such incorrect appraisals may encourage recurrences of this behaviour.

Whilst many parents appear to be working out carbohydrate ratios, one parent expressed that they "guess" at working out the ratios, and this comment suggests that the parent gives the child permission to "guess" and assumes the child is competent at 'guessing.'

Participant 4 (Parent)- *'Yeah, you can do the other guessing when you're out can't you'*

Participant 5- *'Most of the time, we just have to guess with carbs and cals and stuff.'*

This latter quote highlights there is no alternative but to guess when eating out.

One young person stated that their ratio was once simple to work out when it was a ratio of one unit of insulin to every 10 grams of carbohydrates. But a change in ratio meant it became too difficult for the child to manage themselves which acted as a barrier to insulin calculations.

Participant 2- *'that's just too much maths'*

This quote reveals that if the child believes working out the carbohydrate content is too onerous, they are unlikely to conform with calculating their insulin requirement as instructed by clinicians.

Identity

When asked why they complete their management, many respondents reported it was associated with feeling 'normal.' Feeling 'normal' makes their management easier. Analysis of the transcripts showed two approaches to identity: feeling normal and a sense of abnormality. Some participants reveal acceptance of their diagnosis and integration into their identity, as a result, their management was 'normalised.'

Participant 4- *'I will just be able to naturally. I just know to do it now. It's normal.'*

Participant 1- *'I feel just to be confident with it because it's, it's normal.'*

These participants reported how they have adapted to live with T1D after their diagnosis, suggesting a process by which diabetes becomes part of who they are, and they feel 'normal' again.

Participant 2- *'It's just there now I've learned to live with it'*

Alongside, self-management becomes an automatic process.

Participant 7- *'it's just like my daily routine. I'm just like, it's just I don't really think anything of it anymore.'*

The quote above demonstrates that the child/young person once had to think about various self-management behaviours before conducting them, and highlights how, over time, they have become less onerous and part of a normal daily routine.

Conversely, experiencing feelings of being 'abnormal' appears to impact on diabetes management and negative emotions towards T1D. Negative emotion is felt when the child/young person compares life now to life before the diagnosis of T1D, which implies a lack of acceptance of the diagnosis.

Participant 9- *'That makes me upset because I never used to have it'*

It is apparent that some participants vacillate between normal/abnormal feeling and acceptance as illustrated by the following quote where the participant expresses both acceptance and rejection of their condition during the interview.

Participant 1- *'I just don't want to do it and I just want to be normal is my word. Because sometimes I don't, I don't feel normal, and it does get me down a bit that I'll always have to do it.'*

The same participant continues to discuss acceptance and rejection as good and bad days, implying that self-management is adhered to on 'good' days and on other days it may not be as well adhered to. This indicates that the participant has not accepted that they have T1D.

Participant 1- *'Sometimes I have good days. And I'll do it and then other days, I just, I hate it.'*

Discussion

Kujacz et al, (unpublished) found that although children and young people reported completing high levels of self-management behaviours and held high self-efficacy towards these, this did not translate into subsequent measurements of good diabetic control. The current study aimed to expand on this and explored children/ young people's self-care in various situations to determine facilitators or barriers to conducting good self-management behaviours. Children and young people were asked about their management in school, social situations and when experiencing unhealthy range blood glucose levels. Thematic Analysis of the transcripts found three themes, an overarching theme of 'Emotion' influenced both positive and negative behaviours towards diabetes management, 'Reliance on parent' and 'Identity.'

Children and young people appear to appraise their environment for threats before conducting self-management. An appraisal with a negative outcome, such as people staring in public and the possibility of experiencing hypoglycaemia was associated with worry. This worry informed self-management, with participants taking avoidant action. Avoidant behaviours such as the refusal to complete self-management in public and injecting less insulin than required to reduce the risk of hypoglycaemia, had an adverse impact to their glycaemic control. It is possible that children and young people are influenced by their emotions before their immediate health, impacting their long-term health and risk of diabetes related complications.

The lack of worry towards high blood glucose levels revealed that children and young people are putting themselves at risk when they do not perceive the glucose level as a high result. They stated that readings around 10-14 mmols are often left unmanaged, clearly posing a risk to development of future complications. Furthermore, recommended healthy blood glucose

levels are between 4-7mmol, and participants considering the gap between 7mmol and 10mmol to be negligible implies there is an area of high blood glucose levels that are not considered such. However, minimal, higher than normal readings are physically harming to the body, unbeknown to the individual. In previous research conducted with 11–16-year-olds, older participants were more likely to interpret the negative implications of high HbA1c measurements than their younger peers (Patiño-Fernández et al., 2010). This could be due to more experience of living with T1D and/or an increased level of development. Hyperglycaemia should not be left untreated at any age, suggesting that age-appropriate interventions should be implemented to try and improve glycaemic control rather than waiting for the child to develop to a stage where they act on this.

Some participants expressed they preferred to experience hyperglycaemia than hypoglycaemia and these preferences may be due to illness perceptions. Children and young people reported more uncomfortable physical symptoms of hypoglycaemia than hyperglycaemia, suggesting they are content with higher readings, as they avoid hypoglycaemia. It's possible that the children and young people view the experience of hypoglycaemia as 'severe' whilst they do not perceive hyperglycaemia to be as serious. Some of the older participants admitted that they would sometimes try and avoid hypoglycaemia by taking less insulin than required for their meal. This finding also supports the theory of fear of hypoglycaemia (Frier & Fisher, 2007). The younger aged participants did not express any concern over experiencing hypoglycaemia, whereas their parents did. This indicates that fear of hypoglycaemia is also present in parents. This is concurrent with the knowledge that parents manage their child's diabetes more at a younger age (Fonagy et al., 1987). It is unknown whether the parents amended their management routine to avoid episodes of hypoglycaemia and whether this could be a learnt behaviour.

Children and young people welcome support with their diabetes management from their parents. No participants reported that their parents were too involved with their diabetes management, supporting previous research that support from parents should be encouraged throughout adolescence to encourage health management behaviours (La Greca et al., 1995). All participants reported receiving guidance about their carbohydrate counting. Some of the older participants reported 'guessing' their carbs, with one parent suggesting to their child that they will 'guess' their insulin requirement when out with friends. They may give too much or too little insulin, putting themselves at an increased risk of experiencing hypoglycaemia and hyperglycaemia leading to an increased risk of diabetes related complications. Guessing insulin requirements has the potential to impact health beliefs around their treatment and their self-efficacy, resulting in non-adherence (Griva et al., 2000).

An outcome of guessing insulin requirements may be high blood glucose levels. Since participants report a lack of worry towards high blood glucose levels, it is likely that these errors in judgement lead to further errors of judgement. The child/young person may appraise their 'guessing' or insulin requirement as successful, as they have not experienced a hypoglycaemic episode. In their appraisal, they have avoided a negative outcome from their behaviour. The analysis suggests that there is a lack of understanding from participants in correcting their blood glucose levels when measured to be at either side of a healthy range. It highlights the impact of fear on behaviours, increasing motivation of behaviour, particularly to avoid immediate negative outcomes with no consideration for long-term consequences.

Identity appears to be an important factor in self-management of T1D. Participants reported that they felt the management was 'normal', suggestive of good psychological adjustment to their diagnosis. However, two of the older participants reported that they sometimes have 'off' days where their diabetes diagnosis bothers them. The feelings of abnormality support previous findings of psychological disturbances (Nardi et al., 2008; Jacobson 1996). Although some people have normalised the self-management behaviours and attitude, they still report worry about different areas of T1D suggesting that within each task, there is an ongoing process in which the child/young person appraises the situation for possible outcomes, then later evaluates how successful their management was.

Limitations and suggestions for clinical care

Moving to telephone interviews was difficult to derive deeper answers from some individuals. Due to the Covid-19 outbreak and the full-time work commitments taking precedence, the interviews were not analysed until the sample size was recruited. During transcription, the investigator found that many children 'guessed' their carb counting and insulin requirement calculations. Had the interviews been analysed as soon as completed, more exploratory questions may have been developed from analysis of the first participants to gain further insight into the child's/ young person's experience.

Although all participants expressed a struggle with diabetes self-management, only one participant admitted that they could do more to improve on their management. This could have been explored further to find out what areas of self-management participants felt they could improve. This would have helped identify whether children and young people are intentionally mismanaging their T1D, or how they might benefit from educational interventions and allow further insight into self-management.

Clinicians attempt to achieve optimal blood glucose levels to reduce the risk of developing diabetes related complications, it is important to determine whether children and young people

have the same aim. Concerns from children and young people should be acknowledged by clinicians and guided to balance life and T1D (Freeborn et al., 2013). A discussion of the concerns and finding ways to enable self-management in different situations may optimise outcomes for the child or young person. Increased education on the consequences of high blood glucose levels is recommended and more exploration around the child's attitude towards blood glucose measurement results is required. Healthcare interventions to monitor adherence to treatment regimens should be individualised.

HbA1c measurements provide good insight into diabetes control and a person's future risk of diabetes related complications. Other objective measurements such as download of data from management devices provide accurate data to assess adherence to self-management routines (Gandhi et al., 2015). Quantitative studies measure isolated variables and focus on factors or relationships in large populations (Yardley, 2000), whereas qualitative studies in this population offer a complimentary insight into self-management experiences of children and young people. Future qualitative research could provide further insight into poor glycaemic control despite self-reported adherence to self-management regimens.

Conclusions

Clinicians may focus objectively on management of T1D whereas children and young people are required to balance diabetes management in context of school life, social life, and family life. Each situation a child or young person experiences may alter their self-management to facilitate or hinder their diabetes control. Emotion, in particular worry, changes self-management to facilitate avoidance of uncomfortable situations such as public judgement and hypoglycaemia. If poor self-management is perceived to provide positive outcomes, similar poor self-management behaviours are likely to be repeated. Healthcare professionals are aware that consistency is key to good glucose control. It is possible that the children are consistent with their management, but consistently poor overall unbeknown to the individual, e.g., when guessing carbohydrate calculations rather than accurately calculating requirements. Hyperglycaemia is of little concern to some children and young people compared to hypoglycaemia, with the later deemed more dangerous. Increased education around hyperglycaemia is recommended. It is important for clinicians to try and determine any factors in children and young people's daily lives that might alter their self-management to cause a discrepancy in glucose control.

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Systematic Review

For Submission to Journal of Police and Criminal Psychology

Emotional Labour and Psychological Well-being in Police Officers: A Systematic Review

Abstract

Background

Police officers who attend emergency calls do so without prior knowledge of the situation. Officers may act or behave in a way that is different to how they feel to appear 'professional' or objective to the public, known as emotional labour. Engaging in emotional labour may affect officers' psychological well-being. Whilst it is well known that the role of policing is associated with elevated levels of burnout, no systematic review has explored the relationship of emotional labour psychological well-being in police officers. The systematic review aimed to investigate the research around emotional labour and psychological well-being in police officers to determine whether intervention is an appropriate method for improving police officer psychological well-being.

Methods

The systematic review utilised the PRISMA guidelines. The literature search was taken from April 2007 until April 2022 on five databases (PubMed, PubMed Central, PsycINFO, Science Direct & Criminal Justice Abstracts with Full Texts). A total of 488 results returned and 10 studies met the review inclusion criteria of police officers in a public facing role. The included articles were assessed for quality and risk of bias.

Results

The ten included articles that utilised observational methods in the forms of surveys, interviews, focus groups and role play. Qualitative themes were developed from the findings, suggesting that emotional dissonance is related to job performance, and depersonalisation. Lack of occupational support from fellow officers or management was highlighted. Surface acting is used as a protective coping method whereas deep acting is used as a tool to perform the role. Emotional exhaustion was higher in those who reported more emotional dissonance. Emotional intelligence appears to help protect officers from the negative consequences of emotional dissonance.

Conclusions

Emotional labour is a resource and a job demand. The role of an officer is unlikely to change, but awareness of emotional labour could benefit officers' psychological well-being. Findings support the rationale for intervention for psychological well-being support for police officers. Further investigation of emotional intelligence and officer well-being is warranted.

Introduction

Psychological well-being in police officers

The role of a UK police officer involves frequently responding to emergency situations, which can be stressful, traumatic, and possibly life threatening (Velazquez & Hernandez, 2019). In a recent survey, 77% of officers experienced stress, low mood, or anxiety within the last 12 months (Police Federation, 2021a). Of that percentage, 90% report that their mental health issues had been caused or exacerbated by work. Common work-related causes reported were high workload, poor work/life balance, shift work, Covid-19 and attending traumatic and distressing incidents. Officers (53%) felt unable to undertake certain duties because of fatigue (Police Federation, 2021b). Stressors in the workplace can lead to psychological strain. Strain is defined as consisting of at least two stressors which may pull the individual into different directions (Zhang et al., 2012).

Around 65% of police officers reported that they attended work despite feeling they should take sick leave due to poor psychological health (Police Federation of England and Wales, 2016). Presenteeism is defined by attending work while feeling unwell and unfit for work. There are several negative consequences of presenteeism. Firstly, police officers are working though not feeling fit to work putting the public at further risk of safety. Secondly, presenteeism can have sinister consequences on health (Skagen & Collins, 2016). Figures like this suggest there is a clinical need to focus on police officer psychological well-being (PWB).

Well-being itself is multifactorial which captures a "standard of living" across psychological, social, and spiritual factors. PWB is multidimensional but can be characterised by hedonic well-being (e.g., feeling happy), evaluative well-being (e.g., being satisfied with life), eudaimonic well-being (e.g., finding purpose in life, having a sense of mastery and autonomy in one's own decisions), and other constructs that contribute to feeling well (Trudel-Fitzgerald et al., 2019).

The Conservation of Resources model (COR, Hobfoll & Freedy, 1993) can aid understanding of work well-being and burnout in police officers. People strive to maintain interpersonal resources that enable them to cope in certain circumstances. Threats to the resources may be high workload, job demands and energy expenditure. Police officers may choose to invest resources with an aim to achieve work goals and increase job performance. Officers may find themselves attending an incident where spontaneous expression of emotions could have negative consequences (Lazányi, 2010). Despite the many potentially stressful and/or emotionally challenging situations police officers experience as part of their role, officers are expected to maintain a united front and appear detached from emotions when working with the public. *“Your mental, emotional, and physical capabilities will be tested as you deal with difficult and, on occasion, violent individuals. You must maintain a professional approach throughout, no matter what the situation.”* (Bedfordshire Police, 2022)

For example, officers may attend a dangerous or life-threatening event, followed by a violent arrest or dealing with a victim’s family. Experiencing stress causes one to experience negative emotions (Agnew et al., 2002). The addition of more job demands plus the requirement to maintain a professional image, depletes the internal resources the officer has, to deal with the stressors. This is a form of psychological strain. Failure to regain the resources used over time can affect well-being (Lee, 2015). Any expression of emotion whilst in the workplace is regarded as workplace-controlled emotion rather than a private emotion (Lazányi, 2010).

Emotional labour, Surface acting and Deep acting

Officers use emotional labour as a resource to create a professional image. Emotional labour, a situation where one must display an emotion appropriate to meet the occupational role (Hochschild, 1983), is both a job demand and a resource for police officers (Gelderen et al, 2007). Examples of emotional labour are deep acting and surface acting. Individuals engage in “deep acting” when they attempt to relate to and comply with organisational expectations by placing themselves in an altered emotional state. Whereas “surface acting” individuals may behave in a way that supports organisational expectations, yet internally the person makes no effort to experience the accompanying emotions (Goffman, 1959; Hochschild, 1983).

Emotional labour is a stressor, as people behave differently to their real emotions (Cheung & Tang, 2007). It is a limited regulatory resource (Diestel & Schmidt, 2010) where the addition of stressors without opportunity to regulate this reserve will result in energy depletion. The use of emotional labour places the individual in a state of conflict known as emotional dissonance (Abraham, 1998). Emotional dissonance requires emotional regulation, and like any form of self-regulation, it causes psychological strain. One aspect of emotional labour, emotion suppression, is also related to activation in the sympathetic nervous system (Birze et al., 2020)

can cause cardiac and vascular changes over time, suggesting a long-term consequence of emotional strain (Mancia & Grassi, 2013). Emotional dissonance is also likely to have significant consequences for the individual's sense of authenticity (Hochschild, 1983) due to the inability to display authentic emotion during their shift. This places tension on the individual, as they experience internal role-conflict (Andela & Truchot, 2016). Previous research in wider groups on emotional dissonance has been linked with emotional exhaustion and depersonalisation (Lazányi, 2010). Depersonalisation, a feeling of detachment from aspects of themselves such as from the physical body, affective state, and cognitions (Senior et al., 2001).

So far, research suggests that for any public facing role, a form of emotional labour is required (Brunetto et al., 2023). Therefore, it is important to consider the relationship of emotional labour and the state of emotional dissonance as part of the role of an officer, as well as the impact to the individual psychologically. A review of the existing literature is essential to inform clinicians about the relationship between emotional labour and strain in police officers (Brunetto et al., 2023). It is anticipated that there is not enough research on emotional labour and stress/strain alone to measure this concept, so a wider search of PWB has been included. It is expected that the outcome of the systematic review will help clinicians address the occupational well-being threats formed from working as a police officer.

Rationale

Aims and Objectives

To collate and explore literature regarding the relationship between emotional labour and strain amongst police officers.

1. To identify available evidence on emotional labour in police officers
2. To explore emotional labour on areas of well-being such as burnout, strain, stress.

Methods

Search Strategy

The review was conducted in line with the PRISMA guidelines (Page et al., 2021). A search was conducted using PubMed, PUBMED CENTRAL, PsycINFO proper, Science Direct, Criminal Justice Abstracts with Full Texts.

Unpublished literature was searched using Open Grey.

Search dates 1st April 2007- 1st April 2022. The search was limited to the last 15 years to ensure findings were more reflective of contemporary policing practice (Orden et al., 2019).

Once articles were identified, the duplicates were removed, and the abstracts were screened for eligibility against the inclusion criteria (see figure 1). Any articles that were not excluded at this stage were submitted for full text review. The first reviewer screened the reference lists of included articles for other potentially eligible articles, but this did not yield any further results.

Inclusion Criteria

Inclusion and exclusion criteria were developed using the PICOS acronym (Schardt et al., 2007). Frontline Police officers (police work excluding jail officer/ prison officer and call-handlers) were included in the search and articles containing Emotional labour, Emotional dissonance, Surface acting and Deep acting. The search was widened to all countries as it was anticipated to have a small sample of articles returned. There were no control groups, as it was likely observational research conducted on the relevant population only. Studies with a focus on emotional labour, job performance and areas of PWB (stress & strain not excluding any other factors that arise) were included. The review included any study designs as it was not expected to yield many results.

Search Terms

Police

AND

“Emotional labour” OR “emotional labor” OR “emotional dissonance” OR “surface acting” OR “deep acting”

AND

Strain OR Stress OR “psychological wellbeing” OR “psychological well-being”

Data Extraction

The first researcher conducted the abstract level exclusion. The second author independently assessed 25% at abstract level. Included articles were assessed by both reviewers. There were no discrepancies between articles. The data extracted varied due to the different study designs. For qualitative articles, method of analysis and key study statements were recorded, whilst for quantitative articles, outcome measures used, and primary and secondary outcomes were recorded.

A total of 488 papers were identified during the search. The PRISMA flowchart below (Figure 1) shows the number of articles excluded at each stage of the review process. The eight duplicates and non-English language articles were removed. The titles and abstracts were reviewed for the remaining 479, and this excluded a further 394 from the review. One article (Schaible & Gecas, 2010) was removed as it utilised the same sample as another article (Schaible & Six, 2016). The reviewers chose to include the most recent article of the two as it was a more comprehensive report as per guidance from Harris et al., (2014).

Assessment of Bias

The CASP (Critical Appraisal Skills Programme, 2018) checklist was used to assess bias across the variety of study designs included in the review. For each question, if the information was clearly reported in the article, the reviewer recorded 'yes.' If the reviewer was unsure or if the information was not recorded in the article, the reviewer documented 'no' or 'can't tell.' The number of 'yes' answers was summed. The checklist recommends that if 'yes' cannot be answered in the first three questions, that the report should be deemed poor quality. Those with most 'yes' answers were given high scores and moderate and poor were ranked by the first researcher based on their lower scores. The outcomes from the high and moderate articles will be the focus of the systematic review. See table 2 for the quality assessment scores.

Results

Four diary studies (vanGeldereren et al., 2007; vanGeldereren et al., 2014; vanGeldereren et al., 2017 & Lennie & Sutton, 2020), four survey designs (Adams & Buck., 2010; Schaible & Six, 2016; Hyounggon & McNeeley, 2018 & Mastracci & Adams, 2021), one interview design (Huey & Kalyal, 2017) and one psychodrama with focus group interview (Lennie et al., 2021) were included in the systematic review. Due to the variety of quantitative and qualitative data, it is not possible to complete a meta-analysis. The CASP tool (Critical Appraisal Skills Programme, 2018) was appropriate for mixed methods research.

Survey design studies (Adams & Buck., 2010; Schaible & Six, 2016; Hyounggon & McNeeley, 2018 & Mastracci & Adams, 2021) tended to develop their own measures from aspects of other validated measures. Whilst the co-efficient appeared moderate to strong, these were not validated measures that have been rigorously measured.

Figure 1: PRISMA Flowchart for study selection

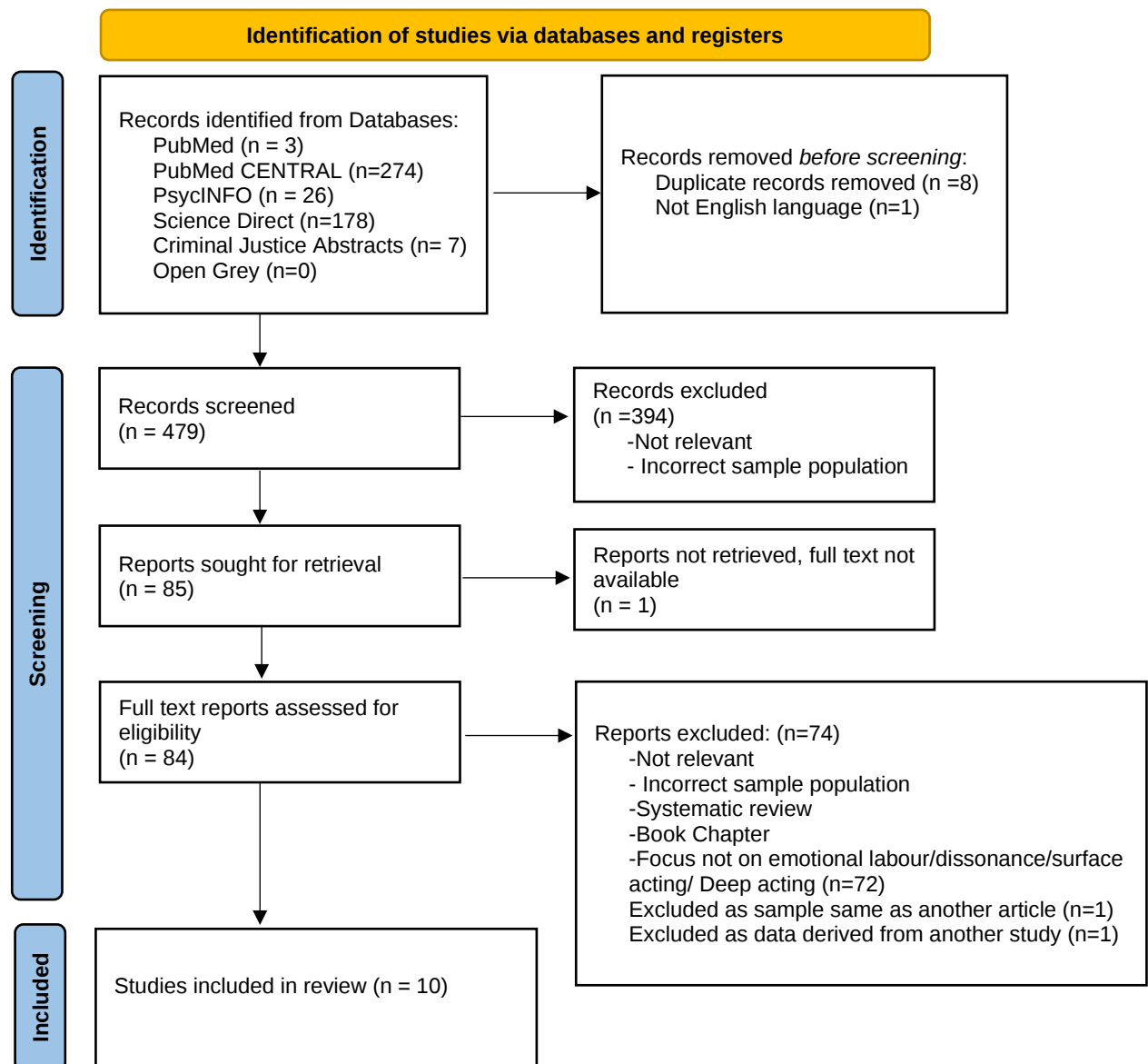


Table 1: Description of Included Studies

Author	Primary Aim	Measures Used	Design	Country	Sample Size	Sample population	Response rate	Results
vanGelderen et al 2007	To examine the relationship of emotional dissonance at the start and end of a shift on job demands and psychological strain at the start or the end of the shift.	Psychological Strain was measured by using adaptations from the Utrecht Burnout Scale (UBOS) (Schaufeli & van Dierendonck, 2000), the Oldenburg Burnout Inventory OLB (Demerouti et al., 2004) and the Checklist Individual Strength (CIS-20) (Vercoulen, Alberts, & Bleijenberg, 1999). The emotional job demands scale was a self-developed scale based on prominent categories of civilians and suspects with whom the police officers must deal with, during their duties. Emotional Dissonance scale (Erickson & Wharton 1997) was utilised.	Diary study	Netherlands	65	Dutch police officers and military officers. Limited information about the length of service.	150 invited police officers and 70 military officers, 43 and 22 participated.	Emotional dissonance during a shift was positively related to psychological strain at the end of a work shift. Emotional job demands were not related to psychological strain at the end of a work shift. Emotional dissonance mediated the relationship between strain before and after a work shift.
Adams & Buck., 2010	To investigate the relationships between social stressors arising from interactions with civilians and suspects (outsiders) and co-workers and supervisors (insiders) with turnover intention, psychological distress, and emotional exhaustion. Examined surface acting a way of faking appropriate emotions—as a mediator of these relationships	Internal social stressors were measured by the Workplace Incivility Scale (Cortina et al., 2001). External stressors were measured from adapting the Customer Incivility Measure (Burnfield et al., 2004). Surface acting was adapted from the Emotional Labour Measure (Grandey, 2003). Turnover intent, psychological distress and emotional exhaustion were developed from adapted validated measures.	Survey	USA	196 in 12 police departments	Rank not documented. Participants had an average tenure of 11.6 years	579 officers contacted via email. 196 participated, response rate 33.9%.	Interactions with insiders (colleagues) and outsiders (public) was positively related to turnover intent, psychological distress, and emotional exhaustion. Surface acting mediated the relationship between social stress arising from interactions with both insiders and outsiders and turnover intent, psychological distress, and emotional exhaustion.

vanGeldereren et al., 2014	To explore if daily Deliberate Dissonance Acting (DDA) was positively related to strain via feelings of emotional dissonance. To measure daily DDA and the relationship to work engagement via perceptions of job accomplishment.	Strain measured using a self-developed scale. Job Accomplishment measured with a self-developed scale. Emotional labour measured with a self-developed scale. Emotional dissonance measured with self-developed scale.	Self-report 5-day diary study-pre and post diary entries on five workdays	Netherlands	54	Dutch Police officers, The sample included 42 men and 12 women. Limited information about the type of role and length of service.	26% of those invited participated.	Deliberate dissonance acting was positively related to engagement at the end of a work shift via job accomplishment. High deliberate dissonance acting related to police officers experiencing more emotional dissonance, which was related to a higher level of strain at the end of the work shift.
Schaible & Six, 2016	To explore whether demands for expression or suppression of specific emotions interact with the methods selected by officers to meet these demands (deep vs. surface acting) to produce both benefits and consequences.	Burnout measured by Maslach's burnout inventory (1996) Emotional labour was measured by developing a measure using items from Emotional Labor Scale (Brotheridge and Lee 2003) and Emotional Work Requirements Scale (Best et al., 1999)	Self-report questionnaires	USA	109	Pacific Northwest police US Patrol division. Representative of the demographics of the department's Patrol Division at the time the survey was administered (12% women, 14% minority). No information about length of service.	153 invited 109 participated. 71%	Higher levels of deep acting were significantly correlated with an increased level of emotional exhaustion. No other factors influence emotional exhaustion by themselves. Surface acting, deep acting, and requirements for the expression of coercion all significantly increase Depersonalisation. No variables had a significant relationship with officers' senses of Personal accomplishment.
Huey & Kalyal, 2017	To investigate 1. In what ways, if any, do mass media portrayals of police investigators and investigations match the reality of police work? 2. How do public perceptions of investigational work – that is, as glamorous and exciting – align with investigators' experiences? 3. How do investigators view the public treatment of their work?	No measures used due to interview style.	Interview	Canada	13 out of 31 from a larger population	Canadian police officers from homicide, major crimes and sexual assault and property crimes	Unknown, data taken from larger study sample.	Maintaining a balance between emotions and professionalism was difficult at times and eventually leads to burnout. Female officers experienced role conflict or a 'double bind' between their personal and professional identities.
vanGeldereren et al., 2017	A diary study aims to explore the role of daily strain in emotional labour and service	Surface and Deep acting were measured using adapted measures from the Emotional Labor Scale (Brotheridge & Lee, 2003).	Diary study across three subsequent days.	Netherlands	53	76.3% male population as 70% are male officers in the region. Service length average 39	150 invited, 35% response rate.	Daily deep acting was positively related to daily service performance, whereas daily surface acting was negatively related to service performance. Strain at the start of the work shift was positively related to daily

	performance on a day-to-day basis.	Emotional Dissonance was measured from the adapted Emotions Work Scale (Zapf et al., 1999). Service performance was adapted from the Extra-role performance scale (Williams & Anderson, 1991). Strain was measured by items which reflect items from the Maslach's Burnout Inventory-General Survey (Schaufeli et al., 2000).				years (demographically similar to the population of 40 years.		surface acting and is not related to daily deep acting.
Kwak et al., 2018	To examine the mediating effect of emotional dissonance while controlling for emotional intelligence, emotional labour, role stressors, and emotional dissonance	Burnout was measured through Maslach's Burnout Inventory (1996). Emotional frequency, emotional dissonance and emotional intensity were measured using a self-developed measure. Role ambiguity was measured using the Role Conflict and Role Ambiguity Scale (Rizzo et al., 1970). Emotional regulation was adapted from the Emotional Intelligence Scale (2002).	Self-report survey	South Korea	505	Average 18.6 years in the force. Male: Female ratio representative of population in South Korea.	600 distributed, 505 participated, response rate 84.2%	Officers' ability to regulate their emotions was linked with lower emotional dissonance. Emotional variety role conflict and role ambiguity were positively associated with emotional dissonance, after controlling for emotional intelligence. The frequency of emotional labour interactions had a statistically significant effect with emotional exhaustion.
Lennie et al., 2020	To explore emotional labour and the relationship with burnout within a large police force in the north of England. The use of audio diary provides in-depth exploration of feeling and display rules operating within the police service	Maslach's Burnout inventory (1996) measured police officer burnout. Prompt sheets were provided for the audio diaries, which focused questions emotional experience and the emotional labour construct.	Mixed methods using audio diary entry and focus group	England	Seven diary participants Six for focus group	Purposive sample-one police force inspector and rank below who had face-to-face contact with the public. No information about the length of service.	Not documented.	Participants who suppressed fear with colleagues suffered a higher level of emotional exhaustion. Expressed emotions seen as poor job performance, surface acting humour to overcome distress and deep acting to overcome fear. Suppression of emotion was utilised to appear professional.
Lennie et al., 2021	To explore use of psychodrama to identify emotional display rules in policing.	Vignettes made of fictional police scenarios for officers to act out.	Psychodrama & Focus group	England & Wales	Not known, poor documentation about participants	Police officers in undergraduate degree (second year) and officers who responded to social campaign. Inspector rank or below.	Not documented, social media advert, hard to obtain number of people viewed.	Officers felt they should continually suppress their emotions, for fear of being seen as incompetent or poor decision makers by the investigation. Contrast between how officers are expected to treat members of the public and how officers are treated.

Mastracci & Adams 2021	To explore the relationship between depersonalisation, emotional exhaustion, suppress and pretend display rules, surface, and deep acting.	Burnout constructs (emotional exhaustion and depersonalisation) were measured by adapting Maslach's Burnout Inventory (1996). Pretend and suppress display rules, surface and deep acting were measured using adapted validated measures (Author not identified measures).	Survey	USA	515 across 38 states	Average officer is a white, 42-year-old man with approximately 13.78 years of experience in his municipal policing agency, who has a bachelor's degree, and holds the rank of officer.	National study, unknown total of invites, study stopped abruptly due to protests police use-of-force in 2020.	Surface acting was positively correlated with depersonalisation and emotional exhaustion. Suppress display rules positively correlated with surface acting. Pretend display rules had a positive correlation with deep acting. Deep acting did not significantly affect emotional exhaustion. Deep acting and depersonalisation was statistically significant.
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Table 2: Quality assessment scores

CASP Checklist Questions	vanGeldereren et al 2007	Adams & Buck., 2010	vanGeldereren et al., 2014	Schaible & Six, 2016	Huey & Kalyal, 2017	vanGeldereren et al., 2017	Kwak et al., 2018	Lennie et al., 2020	Lennie et al, 2021	Mastracci & Adams 2021
Did the study address a clearly focused issue?	Yes	Yes	Yes	Yes	Can't tell	Yes	Yes	yes	Can't tell	Yes
Was the cohort recruited in an acceptable way?	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Was the exposure accurately measured to minimise bias?	Yes	Yes	Can't tell	Yes	Can't tell	Yes	Yes	Can't tell	Can't tell	Yes
Was the outcome accurately measured to minimise bias?	Yes	Yes	No	Yes	Can't tell	Yes	Yes	No	No	Yes
Have the authors identified all important confounding factors?	Can't tell	Can't tell	Can't tell	Yes	No	No	Yes	No	Can't tell	No
Have they taken account of the confounding factors in the design and/or analysis?	Can't tell	Yes	Yes	Yes	No	Can't tell	Yes	N/A	Yes	No
Was the follow up of subjects complete enough?	No	Yes	Can't tell	Can't tell	Yes	Yes	Can't tell	No	Yes	Yes
Was the follow up of subjects long enough?	Yes	Can't tell	Can't tell	Can't tell	Yes	Can't tell	N/A	No	Can't tell	Can't tell
How precise are the results?	Missing data treated	Very	Very	Very	Preliminary	Poor	Very	Can't tell	Subjective	Removal of missing data
Do you believe the results?	Yes	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes	Can't tell	Can't tell
Can the results be applied to the local population?	Yes	Can't tell	Yes	Yes	Can't tell	Yes	Yes	Yes	Can't tell	Yes
Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Can't tell
Overall Score	High	High	Moderate to high	High	Poor	High	High	Moderate	Poor	Moderate

The studies included explored emotional labour (Lennie et al., 2020; Lennie et al., 2021; Kwak et al., 2018; Schaible & Six, 2016; Mastracci & Adams, 2021; Huey & Kalyal 2017; Adams & Buck 2010). Three studies explored both emotional labour and emotional dissonance (van Gelderen et al., 2007; vanGelderen et al., 2017; van Gelderen et al., 2013). The outcomes measured, cover a variety of factors such as depersonalisation, emotional exhaustion, strain, and job performance. Findings have been collated into categories to analyse evidence available from the included studies. Eight of the ten included studies were assessed as high/moderate quality.

The total number of participants across the included studies were 1524. Sample populations were collected across six countries (USA x3, Canada, South Korea, Netherlands x3, England & Wales x2). Most included studies conducted data collection at one time point, with the exception of Van Gelderen et al, (2014; 2017) who completed three and five days of diary entries. Whilst most studies developed their own measure for their study, items were commonly taken from validated measures such as Maslach's Burnout Inventory (Maslach, 1996) and Brotheridge and Lee's (2003) Emotional Labor Scale. Not all studies used the same measures to guide development (see table 1). There is not enough evidence to compare studies including measurement of the same type of emotional labour. Some failed to determine causal relationships (Adams & Buck, 2010; Kwak et al., 2018; Mastracci & Adams 2020) due to the study design and nature of statistical analysis used.

Surface acting vs Deep acting

Surface acting was linked to higher levels of emotional exhaustion and depersonalisation (Mastracci & Adams, 2020); whereas deep acting was not statistically significant with these outcomes. In contrast, Schaible & Six (2016) reported a contrasting finding that deep acting was significantly positively correlated with increased levels of emotional exhaustion. It should be noted that the independent effects of deep acting are only significant when items such as requirement of expression of positive emotion and requirement for apology are controlled. Both sample populations were from the USA, suggesting policing is likely to be similar, though differences in sample sizes suggest that Mastracci & Adams (2020) has more statistical power, and the sample size was across 38 US states, suggesting a wider generalisability. Increased frequency of emotional labour was significantly related to emotional exhaustion (Kwak et al., 2018). All three studies utilised the Maslach's Burnout Inventory (1996) sub-construct-Emotional Exhaustion in their studies.

Surface acting positive emotions and suppressing negative emotions improved personal accomplishment and appeared to protect officers from emotional harm (Schaible & Six, 2016). Suppression of emotions were positively linked to surface acting and pretend display emotions were linked to deep acting (Mastracci & Adams, 2020).

Those who report higher strain at the beginning of the shift, reported more use of surface acting and thus more strain at the end of the shift (van Gelderen et al., 2017). This finding supports the other studies (Mastracci & Adams, 2020; Schaible & Six 2016), but adds detail of a causal relationship between strain and emotional labour. It poses important questions about the need to consider pre-shift strain as a variable.

Emotional dissonance

Three studies included explored the concept of emotional dissonance. Emotional dissonance contributes to the level of strain in officers (vanGelderen et al., 2007). Well-being is at further risk of detriment when officers report higher levels of strain at the beginning of a shift. Emotional dissonance is more likely to be reported in officers already suffering strain (vanGelderen et al., 2007; vanGelderen et al., 2017).

One study suggests that the benefits of dissonance acting outweigh the risk of strain to the officer and portrays the construct in a more positive light as officers feel more connected to their role (vanGelderen et al, 2014). This evidence helps provide rationale for the importance of measuring pre-shift strain, as results suggest that emotional dissonance contributed to increasing levels of psychological strain during a shift. It represents a causal relationship.

All three research studies were conducted in the Netherlands used similar designs, measuring participants over three and five consecutive days. Similar validated measures were used to construct their own measures, suggesting the items in the measures are similar. The studies provide concurrent validity.

Depersonalisation

Qualitative research found that depersonalisation is perceived as a way of coping, and part of organisation culture learnt from more senior police officers (Lennie et al., 2020). The demands of the shown and felt emotions caused role conflict between the individual and their professional identity (Huey & Kalyal, 2017). In quantitative evidence, both surface acting and deep acting have been associated with increased depersonalisation (Schaible & Six, 2016). There is further empirical support for this finding regarding deep acting and depersonalisation

(Mastracci & Adams, 2020). The samples were across countries, and provide concurrent validity, suggesting that this finding can be generalisable to the policing population.

In most quantitative studies (n=6), demographic factors such as age, gender or rank did not account for any differences in depersonalisation. However, Schaible & Six (2016) suggest that there were age related differences, though this was not researched exclusively, it is unclear whether this is due to the level of experience of the officers or generational differences.

Job performance

A further finding from the review was the relationship between emotional labour and job performance. Officers struggle to separate themselves emotionally from situations that they can relate to on a personal level (Huey & Kalyal, 2017) and think that the general population believe they are robots (Lennie et al., 2020). The severity of the case makes it harder for officers to manage their emotions, yet officers recognise institutional demands of the role, "You're supposed to be the police. You're strong. You do not cry. You do not get upset" (Huey & Kalyal, 2017). The acting style used during one shift, whether it be surface or deep acting may influence how the officer reports their performance that day (vanGeldereren, 2017). Personal gratification is reported in those who can emotionally support families of victims (Huey & Kalyal, 2017). Lennie et al., (2020) found expressing their own real emotions was seen as poor job performance and this was supported by other studies (Lennie et al., 2021, Kwak et al., 2018). Officers who reported a higher frequency of emotional expression tended to report higher levels of cynicism in their role (Kwak et al., 2018). This was the only study selected in the review that measured cynicism, therefore it is not possible to confirm this result as valid without support.

Quantitative research suggests that emotional dissonance has a positive effect on police officers whereby the use of emotional labour promotes a sense of accomplishment (Van Gelderen et al., 2014). Furthermore, displaying positive emotions were found to have a positive impact on performance, and displaying negative emotions through emotional labour increases detachment from their role (Kwak et al., 2018). Work engagement was positively related to emotional dissonance, as was higher reported strain at the end of the shift suggesting that whilst it helps officers to complete their role, it is at the expense of strain to the person (VanGeldereren et al., 2014). Deep acting has been positively related to job performance, whereas surface acting has a negative relationship with job performance (vanGeldereren et al., 2017), suggesting that deep acting is used a resource, and surface acting may be used as a coping strategy. The studies do somewhat support one another, however,

difference between the items measured make comparison of the results difficult. They provide rationale for further investigation.

Lack of support from managers

A further finding from the review is that officers recognise a lack of support from their higher-ranking officers. Inadequate supervision has been identified as detrimental to officers' well-being (Kwak et al., 2018). Social stressors of the role (colleague interactions) were significantly related to emotional exhaustion, turnover intent, and psychological distress. These relationships were mediated by emotional dissonance (Adams & Buck, 2010; van Gelderen et al., 2007). Suggesting that officers engage in emotional dissonance beyond the public and through to colleagues, potentially taking this beyond their shift and into family life. Officers want to experience well-being debriefs as a priority of their role, hoping to achieve a sense of belonging (Lennie et al., 2021). The review suggests that there is scope for further research into the officer-manager relationship.

Types of emotion

This theme was discovered upon full text review. Displays of positive emotions as part of an officer's role increases their own interest in their role (Kwak et al., 2018) and reduced effects of emotional exhaustion (Schaible & Six, 2016). Anger appeared to be one of the only genuine emotions that was accepted by the police force (Lennie et al., 2020). Humour was used to cover moments of fear (Lennie et al., 2020).

Two studies are congruent with outcomes assessing emotional regulation in officers. Those who score higher in emotional regulation reported lower levels of emotional exhaustion (Adams & Buck, 2010; Kwak et al., 2018). This was supported by qualitative data (Lennie et al., 2020)

Discussion

This systematic review collates the research regarding the relationship of emotional labour and PWB in police officers. The studies suggest that emotional labour is experienced by many respondents, though associations with both positive and negative psychological states are also common. Officers may have utilised emotional labour within their role, resulting in good performance which enhances their passion for their role, but at the expense of their PWB. Both surface and deep acting have been associated with emotional exhaustion (Mastracci &

Adams, 2020), though deep acting has received conflicting findings (Schaible & Six, 2016). Studies suggest that it is not only important to consider the difference between surface and deep acting, but there could be levels within each that could be explored further such as suppressing emotions or the differences between positive and negative displays. An important consideration of officer strain felt at the start of the shift poses questions around allostatic load of the officers influencing the use of emotional labour and its impact on emotional exhaustion. It is well known that chronic stress from the role of a police officer hinder the formation of a proper response to acute stressors (Giessing et al., 2020). It would be useful to explore this relationship in the context of emotional dissonance. Pre-shift measurements are lacking in this research area but would improve knowledge particularly including a focus on stress and strain experienced prior to the shift as well as emotional labour.

Conflicting evidence was found around job performance, with some studies reporting increased engagement whilst others reporting depersonalisation (Huey & Kalyal, 2017; Schaible & Six, 2016) and cynicism (Kwak et al., 2018). Any included study which assessed the relationship between emotional dissonance and depersonalisation had concurrent findings. These findings also support the suggestion that emotional dissonance has consequences for one's sense of authenticity (Hochschild, 1983). Anger appears to be one of the only emotions to be accepted within the force. Qualitative interview designs acknowledge the officer's relief from talking about their roles, hinting at the necessity to give officers a chance to relieve their stress (Lennie et al., 2020; Lennie et al., 2021). Studies suggest that emotional regulation education may be beneficial to officers, and training around emotional labour may have a protective use whilst still beneficial to the officer's job performance, suggesting implications for policy and practice. Furthermore, interventions to manage stress may be beneficial, and help officers improve regulation of their resources to cope and perform in their role.

A change in workplace norms could help improve staff engagement with well-being approaches and thus improve strain felt both post shift and strain that the officer takes home. This has been recognised by the government, and a recommendation towards a culture change known as an 'organisational justice' approach to help well-being in officers (Orden et al., 2019). This approach is aimed at open, honest, and effective communication between teams and higher-ranking officers. The report calls for awareness around emotions as a protective intervention against burnout.

Limitations of the studies

All studies lacked any long term follow up period from officers. This would provide insight to how officers begin their role, and any institutional changes caused over time that could affect well-being. Any evidence of long-term impact on PWB is being under-researched due to the lack of follow up of police officers. By only exploring a day in the life of an officer, it is difficult to determine whether the shift measured was a particularly difficult shift causing these results, or whether ongoing events of the police officer role is related to poor PWB of officers.

Most studies did not measure the officer's PWB at the beginning of the shift. The included studies (vanGeldereren et al., 2007 & 2017) suggest that strain at the start of the shift could determine which form of emotional labour is utilised. However, much more research is required to help determine whether there is a relationship between pre-shift strain and types of emotional labour used, and whether it could be a coping strategy or a work resource. It would be useful, to provide a greater insight on whether one is used more than the other.

The nature of survey designs is known for poor uptake, as acknowledged in some included studies. The other designs selected in the included studies were low sample designs. Due to the nature of the population, randomised controlled trials (RCT) were likely to be unsuitable methods for data collection as researchers aimed to explore the police officer's response to a typical shift and environment which was most appropriately explored through observational research, thus asserting external validity. An RCT should not be excluded from designs in future research, those it would be important to assess whether the data collected achieves external validity. A large purposive sample, aimed at comparing groups could be beneficial to directly consider types of roles, and types of jobs attended when assessing stress, emotional labour, and job performance. Researchers could also obtain more information such as emotional intelligence and personality types, variables which could be used as control variables to determine how much emotional labour may influence PWB. Structural equation modelling is an ideal route to explore causal routes between outcomes and should be recommended for future research within this area. Most included studies could not control for confounding variables such as external stressors.

Studies from the Netherlands recognise that policing may differ from other countries. Which have been noted in direct police force comparisons (O'Neill et al., 2022). UK police forces differ in many ways for example, training is standardised and for a lengthy time period, whereas in the USA it varies by each state. More training is provided in the UK around de-

escalation techniques, whereas in USA more emphasis is placed on firearms skills (Cheatham & Maizland, 2022).

Conclusion

The systematic review explored the research around emotional labour and PWB in police officers. Ten articles were included in the review. There were a mixture of designs and sample sizes making synthesis of the data difficult. The review highlights several themes associated with the policing role and emotional labour or emotional dissonance. The review explored emotional labour and found differences between surface and deep acting are related to reduced PWB. Another aim was to explore job performance. Alongside job performance, the review yielded results exploring lack of support from management and depersonalisation. The review also emphasises how little research within this area particularly within the UK police force. It is clear from the reports included in this review that there is a need to identify causal relationships between emotional labour and stress or strain to provide rationale to focus on police officer PWB. More research, with a particular focus on UK sample of serving police officers will provide a compelling evidence base for this focus.

The systematic review highlights officers may not have known that they actively engage in emotional labour as a job requirement, and that more research could explore the relationship of officer's emotional intelligence and the use of emotional labour as a job aid. The job demands of officers are unlikely to change, there will always be a requirement to alter emotive states to cope with the emotional demands from situations, but how the officers and the police force deal with this demand is crucial to staff well-being. Staff education around emotional labour could be beneficial, to allow officers to harness emotional labour as a skill for their role, but also to reduce the impact on their PWB.

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Research Reflective Commentary

This competence was the one I was looking forward to completing most. It's the area I have the most experience in, both in terms of conducting my own research and working within a research role. I began the Professional Doctorate working as a research assistant within the paediatric and obstetric team and was later promoted to a research practitioner within the core research team. This commentary discusses issues faced throughout this competency, how I tried to overcome these challenges and how I developed as person throughout.

Empirical Paper One: Experiences of self-management in children and young people with Type 1 diabetes. Type 1 diabetes Adolescence Self-Care (TASC) study

As I work in the NHS as a research assistant, I wanted to get my research projects for the Professional Doctorate adopted into the NHS research portfolio I contacted the NIHR research design service hoping to receive support on designing my own study. However, I was told that the NIHR are not interested in early-stage research, only research which is likely to affect patient care within 5 years. Reflecting on this experience, I was quite naïve at this stage, I think I had really high expectations, and little confidence in myself and relied on other people to help boost that confidence, which didn't transpire. At the time, I don't think I learnt much about this experience other than I felt that I'd bitten off more than I could chew. Thinking about this experience much further along in my Professional Doctorate, I have learnt that I need to explore these routes more thoroughly if I want to be successful.

I approached my Research and Innovation department about co-sponsorship with the university for my research project. I was told they needed to be involved earlier if they were going to sponsor the study and they didn't feel it was appropriate because I am a trainee. As it is the first time I have conducted my own research study in the NHS, I wanted to try and have as much information as possible about my study such as the information sheets and protocol so that anyone reading it would get the impression that I am serious about my research and organised. I don't feel that they made any valid points, I got the feeling they just didn't want to be involved, as though it was more an opinion than a policy. I did not challenge this decision, probably because I was new to my role at the time. I have grown to be a lot more assertive throughout the course, and should I experience that again, I'd challenge it, but from a point of constructively trying to improve my work. I think the passion I have for my study is a reason why I get myself 'worked up' so quickly. It was upsetting to me as I expected that my research and development team would be as supportive as my line manager. I think it bothers

me so much because I ask myself “How am I supposed to do research when I am a qualified health psychologist if people are this negative?” I also think people were reluctant to be involved because I didn’t have funding therefore, I was not eligible for NIHR portfolio adoption. But on the other hand, I was annoyed at myself because I should have taken this on the chin and moved on. I felt I should have developed some resilience towards rejection.

My IRAS form took longer than anticipated. At the time I got frustrated with it. I think I was more frustrated with the feeling of not progressing as much as I wanted to in the course yet. I am now aware that I am experiencing a wide variety of emotions towards my research because I want it to be successful, and probably because I had high expectations when it is harder than I anticipated. Being knocked down really upset me and my confidence in myself. I constantly changed between the emotions, and I noticed that it stressed me out a little. I tell myself “I can’t do this” as much as I tell myself “I can do this.” I tried to be positive after my past experiences, but the slightest problem threw me off track. I didn’t find the questions on the form challenging, which on reflection, I should have taken as a positive. I let my negative thoughts take over, and in future it is something I hope to overcome.

Developing my participant materials was something that I was comfortable with as I worked in the paediatric research team. I am used to speaking to children and going through information and consent procedures with children and their families. It was something I knew was a strength for me completing my research with children. I used other study information sheets as a guide, ensuring that my information sheets were age appropriate for reading and developmental stage (HRA, 2020). One thing I have found through researching deeper after conducting the research, is that we should try to make the research process fun and that we may get more information from children if they are more actively engaged (Johnson et al., 2014).

Quite a lot of people have mentioned how hard it is to pass ethics in the NHS which I think hindered my enthusiasm. I didn’t feel as excited as I expected to feel. I think this was related to the feedback from the NIHR and the research and development team in my trust [discussed previously]. I should have developed a second plan, should I not be successful. In this case, I didn’t but it could have helped me save time overall. When conducting future research, I think I would consider the topic in more detail and spend more time with the development to begin with. This may reduce any problems in the process as they should have already been considered.

Upon receiving my feedback from the ethics committee, first look at the comments upset me a bit. It seemed like the quality of my work was poor, when I was quite happy with the work and effort I had put in. It made me feel quite down, it made me question whether I was good enough for this doctorate. I did have a moment to cry, and I thought I would read it again. I have realised that I take comments about my work personally and become almost offended by them. Once I had calmed down, the comments did not seem as upsetting as I first read them to be. I felt they were more constructive and gave me a few points to think about. Once I started to make the changes they had suggested, I felt like they improved my application.

Since submitting to ethics for the second time, I received an email from the ethics committee which stated that there was a review completed before the official ethics review and that there were several clarifications and amendments to be made to the documents. Not only was the list extremely long, but I was informed of a 2-day deadline. I became very upset when I saw the email. I think this is because I felt that after a lot of back and forth to get the University sponsor to approve the research; it was like I was going back around in circles. I also felt that I had control of things, as I was finalising my teaching preparations and I had started to set up my consultancy project. When I received this email, it knocked the feeling that I was in control, which is why I think it bothered me so much. Most of the amendments were so minimal and easy, it was just the feeling that they'd all been dumped on me when I had other things to do. I had no idea that there was a requirement for a quick turnaround. But now knowing it is such a short turnaround, in future I will plan to free up time when my research is due for ethics review so that I can focus on the work in a timely manner.

I didn't think it would have taken me so long to complete my research project. I felt like I had been fighting a lot around this time. I was fighting to get my work in, fighting for the short deadline and then fighting again for further amendments. I suppose it's a good thing that I have been fighting rather than avoiding. One thing I've learnt from this is that I do not give up, although it has crossed my mind. I am sure that in future I will continue to fight for my work, but one thing I need to try and improve on is my resilience when it comes to my emotions. I will try to address these emotions more often, through mindfulness, which puts me in a reflective and calm state. Providing myself with time to come out of these states when I am emotionally charged allows me to think clearer.

Empirical Paper Two: Factors effecting self-management in children and young people with type 1 diabetes. A qualitative approach.

This part of the research competence began before COVID-19. Some interviews were already conducted face-to-face. My work role changed during the pandemic to meet targets for urgent public health research aimed at finding suitable treatments for COVID-19. My workload increased, and I tried to continue recruitment to my own study as best as could.

I submitted an amendment to complete my research via telephone due to the COVID-19 outbreak and restrictions. This was a new way of working for me, though I had some previous experience of discussing research over the phone. I believe it impacted on my recruitment as previously I would approach potential participants when the child attended clinic, but this reduced during COVID-19 as staff were redeployed and any clinics were conducted via telephone.

Previous research suggests that telephone consultations receive mixed acceptance from patients (Ball et al., 2018). I chose to focus on part two recruitment with the participants who were recruited to part one as I have already met the participants face-to-face and hopefully established a good relationship. Research conducted throughout the COVID-19 pandemic (van Erkel et al., 2022). It was also the first time I had to conduct interviews via the telephone. I think as I am new to face-to-face interviews. It was important for me to see the participants non-verbal cues so I could determine whether the participant was becoming upset or finding it difficult, this is harder to recognise through the telephone (Silverman & Kinnersley, 2010). This was the only route available to me at the time, as the Trust did not adapt Microsoft Teams so early into the pandemic.

I found that overall, engagement was more difficult than face to face interviews. I found it harder to develop questions based on their answers for several reasons. Firstly, the answers given were shorter than the participants who conducted the interview face-to-face. Secondly, I was concentrating on listening to their response as I am hard of hearing via telephone. Usually, I would avoid telephone where possible due to my hearing issue, but it was unprecedented times. I believe that if I weren't trying to complete my doctorate within two years, that I would have paused recruitment and waited to re-start face-to-face interviews, or as the NHS trust adapted to Microsoft Teams it could have been something I pursued. I regret recruiting through this period as management behaviours may have changed, for example, children were not attending school, so it's possible that parental involvement was higher, and children were not able to go out socially.

I had recorded all the interviews, both face-to-face and via telephone. When analysing the interviews, I noticed on numerous occasions that I could have asked more questions in some situations which would have drawn more information. Telephone interviews will always be difficult for me due to my hearing. I am glad that I can record the interview, as it is more likely that after listening to it a few times I will be able to understand what the person has said. However, this does not help me in real time, responding and asking questions appropriately. In future, I can try to ensure that I feedback to the participant a summary of what they have said in their answer, to check understanding and to show I am listening. This is a common technique in showing active listening and motivational interviewing.

Systematic review

I chose to leave the systematic review until the final piece of work. It became last priority when other opportunities arose for the remaining competencies. Overall, I was not confident about starting this aspect of the competency. I wanted to leave it until I could be sure I could concentrate on it a lot more.

I struggled to find a suitable risk of bias tool for observational studies assessing exposure. Whilst recommended to use the Newcastle Ottawa Scale (NOS, Luchini et al., 2017) I came across the ROBINS-E tool (Bero et al., 2018) but I found it time-consuming and confusing in places, so I have since decided to use the CASP tool as I believed it was most suitable for a mix of studies and my supervisor suggested it too. I decided to use the CASP tool as I found it easier to comprehend. It is an accepted tool and one I believed would be the most beneficial for me to use. I felt that taking advice on something I wasn't 100% sure of was the best way. On reflection- was this a good idea? This highlighted that I am still trying to determine when I am confident enough to justify my own decisions. I still felt as though I needed my supervisor's support, though I'd made the decision myself.

The systematic review was hard, I enjoyed the searching the databases, as it was new, and it was nice to learn a practical skill of searching. I also quite liked searching through the articles and reading for key statements and findings and completing the quality checklist. I did not enjoy looking through the articles and results for the write up. Initially I was chopping and changing between articles, worrying about missing key points. I wasted a lot of time with this. In the end, I chose to focus first on the high-quality studies to ensure that I had collected all necessary outcomes. I then moved to the moderate quality studies as my next priority. I felt that this was beneficial to the article, and I felt more structured by doing so. The key thing I have found about myself during this systematic review is that I am too impatient. I need to

accept that it takes a long time to review the articles. I think this is because I am close to finishing the doctorate at this point, and I have begun to get impatient about finishing. I dealt with this by taking a step away from work. It was a sign that I was becoming stressed and needed to take more time for myself. I have felt like this previously but tried to push through and continue my work, but I feel it has a negative impact on both myself and the work I was completing. It is nice to recognise my limitations when I become stressed, it has improved over the time on the course.

I was pleasantly surprised that the comments from my supervisor were more on how I'd written the report than my actual process of the systematic review. The comments made were appropriate and made my report stronger and more concise in places. Noticing my worry about feedback has highlighted how little confidence I had in myself with regards to the systematic review. Initially worried about my systematic review, I grew to enjoy it. I chose to focus on reading a lot around the area and guidance to support myself and I think this helped my confidence with it. I felt confident in my research recruitment and the patient facing work, but struggled to believe I was competent with the systematic review and aspects of the report writing.

Conclusion

One main thing I have noticed at each stage in my report writing is that I worry a lot and it has become exhausting. I worry about lots of little things that I feel I should just be inquisitive about on reflection. I am self-critical about not knowing things, which I believe adds to my imposter syndrome. On reflection, it is ok to not know these things, I am still learning and will continue to do so. Initially, when I received my reports back with my supervisors' comments I would self-criticise even more, as though it confirms my thoughts I had to begin with. Over time, I have begun to see my supervisor comments as constructive criticism. The points raised inform my report writing, and I feel that I have produced better quality work the more I have progressed through the doctorate.

Now I am close to completion of the course, I feel that I am confident with research. It is something I have worked in day to day whilst completing the course, and I have a lot of experience. I am comfortable guiding others new to research and teaching the staff I manage in my role as a research practitioner. I would have liked to have completed the systematic review alongside, but admittedly I put it off until the end due to my lack of experience.

Finally, the empirical papers have helped confirm my confidence in working with patients. I am very comfortable approaching patients and discussing research and conducting research to protocol. I really enjoy the patient facing work that my own research has facilitated, rather than conducting someone else's research on their behalf (I enjoy that too, but I am most enthusiastic about psychological research). Since completing the empirical papers, I have had a change of mind towards research. Initially, I was put off, but the more experience I gained, the more I enjoy research.

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Chapter Four

Behaviour Change Interventions

The first case study outlines an assessment, formulation, implementation, and evaluation of a self-compassion intervention. The research nurses within the NHS experienced self-critical thoughts. It is a reflective case study which showcases my professional development and flexibility in conducting a behaviour change intervention.

The second case study was a 1:1 behaviour change intervention required to improve asthma medication adherence. The intervention was conducted via video call as per the client's request and availability. It includes assessment, , formulation, implementation, and evaluation of the intervention.

Case Study One

The development and evaluation of a self-compassion intervention to improve NHS staff wellbeing case study.

Setting: The Royal Oldham Hospital, NHS

Background

The COVID-19 pandemic has had a huge impact on the National Health Service (NHS). As a consequence of the pandemic, NHS staff succumbed to immense pressure. Pennine Acute Hospitals Trust received 5403 hospital admissions for COVID-19 (Gov.uk, 2022). Healthcare professionals (HCP) dealt with increasing workloads with increased mortality of patients, lack of personal protective equipment (PPE), and increased media coverage. Fear and anxiety in healthcare professionals were evident from both knowing about the virus and fear of the unknown (Merten et al, 2020). Healthcare professionals were at significant risk of contracting the virus or passing it to family members (Ota & Asada, 2020). During the first wave of the pandemic, 52% of NHS workers experienced symptomatic depression, and 48% predicted burnout if the pandemic were to continue past 2020 (Choudhury et al., 2020). In the second wave of the pandemic, admissions of covid positive patients increased whilst the NHS continued its current services, thus applying more pressure to the staff and their workload (NHS England, 2020). Urgent public health research was initiated, trialling novel treatments to aid the recovery of patients suffering from covid-19. Research teams were required to halt existing health research to prioritise frontline work and to recruit covid positive patients into trials, aimed at finding a successful treatment for the virus.

Needs assessment

Target Group: The Pennine Acute Hospitals Trust Research Team. This includes clinical and non-clinical staff, who are hereafter referred to as 'clients' in this case study.

During the Covid-19 pandemic, I regularly heard comments from the research team which suggested the staff were criticising themselves. Nurses would say "If only I went to see them sooner," "If only I could have given X treatment", "I'm rubbish at taking blood" or "maybe X should talk to them as I mustn't explain it [the study information] as good because they decline". These types of comments suggested staff were not behaving with self-compassion, and I considered that this could be impacting their well-being. Figley (1995) suggests that healthcare professionals are exposed to traumatic stressors and 'absorb it'. Figley (1995) first conceptualised compassion fatigue which is a form of burnout and can be defined as "the natural consequent behaviours and emotions resulting from knowing about a traumatising

event experienced by a significant other” (Figley 1993, cited in Figley 1995, p.66). Traumatic stress, resulting from helping or wanting to help a traumatised or suffering person and burnout have been related previously (Conversano et al., 2020) and a review of the literature suggests that self-compassion consistently relates to well-being (Barnard & Curry, 2011). Whereby those with greater self-compassion report better wellbeing.

Self-compassion is defined as having three components, 1) kindness and understanding of oneself rather than self-criticism; 2) seeing one's experiences as part of the larger human experience rather than isolated; and 3) awareness of one's painful thoughts and feelings rather than over-identifying with them (Neff, 2003). Self-compassion interventions have buffered self-criticism that is linked to depression in firefighters (Kaurin et al., 2018). Self-compassion acts as a protective factor against burnout in healthcare professionals (Hashem & Zeinoun, 2020). High levels of self-compassion have mitigated burnout experienced by nurses before the Covid-19 pandemic (Dev, 2018). In addition, Dev (2018) identified that nurses experiencing burnout felt that they could not provide compassionate care. This suggests that both staff and patients are impacted by staff who lack self-compassion. A behaviour change intervention may be necessary to increase self-compassion, thus reducing stress and improving the well-being of NHS staff and potentially the patients they care for.

The Trust currently offers a staff support programme. Accessed by the staff intranet, it allows all staff to have access to information about psychological, emotional, physical, and financial support. I noted that the staff support programme does not include self-compassion exercises. Following a discussion with my manager, I offered to develop a behaviour change intervention to try and help members of the research team [clients] to improve their self-compassion. Both my manager and the research team manager agreed that the intervention could be conducted during shifts and suggested that some members of the team may prefer one-to-one sessions and asked that this would be offered. Due to my employment in the Trust, I was already aware that the NHS trust did not offer this type of well-being session.

I created a survey to aid my assessment of the clients' experience of stress and stress management techniques, knowledge of self-compassion and whether they believed some wellbeing sessions would be helpful (Appendix 1). I used email correspondence to communicate and advertise my intervention due to different workloads and shift times. The email was sent to all staff based in the clinical research unit, including research nurses and clinical trial administrators. I received ten respondents to the survey. Two of the respondents reported to have accessed the staff support resources available. Clients were asked for their definition of self-compassion (Table 1). Although some respondents appear to understand

self-compassion, 40% of respondents report that they always criticise themselves when thinking back over situations at work suggesting that they may not have the skills to treat themselves with compassion. All respondents agreed that group sessions aimed at improving wellbeing through self-compassion may be beneficial. The intended outcome of the intervention is to provide the clients with the skills to implement self-compassion independently, increase clients self-compassion and reduce stress.

Table 1: Responses to self-compassion description

▪ Recognising what my mental and physical weaknesses are and finding new ways to improve them. Build upon well-being- self-kindness. ▪ being patient with oneself and attending to your needs ▪ Being nice to oneself and accepting that no one is perfect. ▪ Not criticising yourself for things out of your control. Being kind to yourself when you make mistakes as it is always a teachable moment. ▪ feeling good about yourself, and the things that you done. not putting yourself down or criticising yourself or your work. ▪ being kind to yourself by taking time out when feeling the need to. ▪ Taking care of yourself and realising that you can make mistakes, we are only human. ▪ Don't know. ▪ No idea ▪ Not too sure. Is it being kind to yourself?

Developing the Intervention

A successful behaviour change intervention contains three components, Behaviour Change Techniques (BCTs), Theory, and Form of Delivery (FoD) (Dombrowski et al., 2016). I aimed to use the COM-B model of behaviour to develop my intervention. Michie et al (2011) suggest that behaviours are a result of three main factors, Capability, Opportunity, and Motivation. Capability is defined as the individual's psychological and physical capacity to engage in the activity concerned. It includes having the necessary knowledge and skills to complete the behaviour. Motivation is defined as all those brain processes that energize and direct behaviour, not just goals and conscious decision-making. It includes habitual processes, emotional responses, as well as analytical decision-making. Opportunity is defined as all the factors external to the individual that make the behaviour possible or prompt it. (Michie et al. 2011). I decided to conduct the sessions during shift times, with approval from management, accessing the 'opportunity' aspect of the COM-B model. Coaching sessions have previously been successful at increasing motivation to access self-care (Kivelä et al., 2014). It is hoped that the intervention will increase the client's motivation to access self-compassion exercises. This interactive method differs from the staff support programme which provides self-care videos that the clients had not utilised previously.

Gilbert developed Compassion Focused Therapy (CFT, Gilbert, 2009a), which built upon our emotional regulation system. It involves three systems, threat, drive and soothe. The threat system induces biologically driven responses to threats such as the fight or flight response, designed to increase survival in situations (Sapolsky, 2004). Attention is driven by fear, anxiety, and thoughts of danger. The drive system holds one's motivation, arousal, and focus to achieve goals. The soothe system is concerned with caring, soothing, safety, and calmness. The systems can interact with one another. Failure to meet set goals such as weight loss achievements can cause our threat system to self-criticise. In humans, the emotion regulation system includes rumination of the threat faced. Rumination obstructs access to the soothe system, causing people to stay within the threat system, prolonging feelings of anger, depression, and anxiety (Gilbert, 2015). CFT aims to refocus attention from the threat system. Gilbert (2009b) states that stress and burnout are a result of over-activation of the threat system and under-activation of the soothe system. I felt it may be beneficial during the intervention to bring to attention the threat system and thoughts that originate from the threat system and then focus on exercises to access the soothe system. CFT has been found to be effective in group formats when compared to no psychological intervention groups (Craig et al., 2020) and particularly useful in people who were high in self-criticism (Leaviss & Uttley, 2014).

I used the Behaviour Change Technique Taxonomy V1 (BCTTv1, Michie et al., 2013) to select the techniques most appropriate to provide the clients with this information. I designed the first session to illustrate a 'discrepancy between current behaviour and goal.' Before individuals can set a goal to change behaviour, individuals need to understand their current standards through self-monitoring of behaviour to evaluate their performance (Hagger, 2010). I intended to demonstrate that the clients may be self-criticising, and accessing the threat system often, which can cause other negative outcomes affecting well-being, to provide a rationale for behaviour change. I planned to build on this technique using 'information of antecedents' (Michie et al., 2013) to provide knowledge about the three components of self-compassion, the emotion regulation systems, explaining the threat response, and why it is hard to access the soothe system to provide a rationale for the exercises in the future sessions.

I intended to use the behaviour change technique, 'self-monitoring of behaviour' (Michie et al., 2013) to improve the clients' awareness of their thoughts and behaviours as it has been successful in previous self-compassion interventions (Rahimi-Ardabili et al., 2020). Neff (2003) argues that self-compassion is a skill to be developed, therefore I planned to include many opportunities to practice self-compassion individually. I included an explicit message in

my presentation that self-compassion is a skill that requires practice, to remind the clients that it is normal to struggle at first. I decided to provide the clients with a practical skill to use when feeling stressed, aimed at reducing negative emotions using the 'drop the anchor' exercise as developed by Russ Harris (2017). I also gained consent from the managers that the clients could take extra time out from their roles for a compassionate space exercise if they felt necessary.

'Social support' was used in the intervention as a behaviour change technique and as an FoD. People are relational beings and belonging to a group meets the needs of survival and improves the quality of survival (Brandler 2016). Many interventional studies have found success in developing interventions with a focus on social support (Verheijden et al., 2005). The soothe system is derived from attachment theorists. Mammals soothe one another which leads to calm and trusting relationships (Gilbert, 2009). Previous research aimed at improving wellbeing in nurses utilised social support through focus groups has been successful (Happell et al., 2013). I chose to deliver the intervention in group format to clients who are also colleagues, aiming to create a trusting environment in that colleagues can help to soothe each other. Furthermore, I believed the group intervention would increase motivation for the clients to attend weekly sessions, and access on an individual basis.

To evaluate the intervention, pre- and post-assessments were undertaken. Previous reports using compassion-focused interventions measured self-compassion, depression, anxiety, psychological distress, and life satisfaction and happiness (Van Dam et al., 2011; Stutts et al., 2018). For the current intervention, clients were asked to complete the Self-compassion Scale (SCS- Neff, 2003), Penn State Worry Questionnaire (PSWQ, Meyer et al., 1990), Professional Quality of Life Scale (ProQol, Stamm, 2009) and the Perceived Stress Scale (PSS, Cohen et al., 1983) via a Qualtrics link which provided the user with an identifier code to remain anonymous. These scales were completed before and after the intervention. Using the BCTT, I planned to provide the outcomes of the pre-intervention assessments to the clients to utilise the 'feedback of behaviour' technique (Michie et al., 2013), which would facilitate the goal-setting aspect of the intervention. However, I was unable to provide results anonymously to the clients, therefore I decided to remove this technique. I felt removal was most appropriate as the clients are also colleagues, and it was possible that removing anonymity would cause some of the clients to change their responses.

Implementation of the Intervention

The intervention was designed to use both individual and group work to provide clients with practical skills to increase their self-compassion to use whenever they felt it appropriate. The COM-B model was utilised when designing the intervention, aimed at increasing the client's capability to practice self-compassion by providing the opportunity for the clients to access

exercises and social support, and designed to increase motivation to work on their wellbeing. The intervention was developed to be conducted face to face. Due to ongoing pressures at the hospital site, the research ward has been prioritised for emergency use, leaving clients without a permanent work base. It was not feasible to run the intervention face to face due to ongoing social distancing and shortage of space. The intervention was adapted to work on Microsoft Teams (MST). All staff on the unit were invited to the sessions by email calendar request, reminding the clients that the sessions will last to 15-20 minutes. Two dates a week were provided to try and increase attendance, though the sessions were not mandatory.

Table 2: Client Demographics

Age (Years)	40.75 (SD=13.37)
NHS Service (Years)	12.05 (SD= 9.84)
Position	Research Nurse 9 Research Assistant 3 Trial Administrators 2
Gender	13 Female 1 Male

Sessions

I developed a 4-week intervention, one session a week last approximately 15-20 minutes. The sessions were offered as group sessions or individual sessions. Only one member of staff requested an individual session for session four as they were unable to attend both group sessions that week.

Using knowledge I have gained throughout researching behaviour change techniques, I created session one to include an introduction to self-compassion, detailing the three components and laying examples of self-critical/ self-judgemental thoughts (Appendix 2). I then provided an insight to the emotional regulation system, with the aim to show the clients why they may experience negative self-talk. I conducted an activity at the end of the session aimed at highlighting the discrepancy between how we treat a friend compared to ourselves in the same situation. I prompted the clients to try and recognise times where they experience negative self-talk and advised the client to try and change this to respond in the same way they would a friend.

Session two began with a refresher of the three components of self-compassion (Appendix 3). I was conscious of the high workload required of clients, so I tried to keep the sessions short with one main activity to try. The activity asked clients to think of something about themselves that may cause them to feel shame or insecure. The second half of the activity asks the client to write down some thoughts as if an imaginary friend was writing to them. The next step was

to allow themselves to try to be soothed by the thoughts. I also introduced compassionate break exercise, which clients were encouraged to practice throughout shift times when they felt it necessary.

Session three employed personal reflection through focusing on how they may self-criticise as a motivator, such as “I’m fat” encourages them to go to the gym. I then provided some examples of negative self talk (Appendix 4) and asked the group to feedback what positive self-talk they could provide instead to initiate group work. The group then fed back their examples of negative self-talk if they felt comfortable to and shared their responses allowing others to respond too.

I developed session four ahead of time but changes within the ward caused me to amend the session as I felt staff had succumbed to more stress. I felt the final session required information about stress, so I decided to highlight the difference between internal and external stressors, aimed at strengthening the rationale for self-compassion. I tried to show the impact of negative self-talk on emotions, physical symptoms, and behaviours and in what way self-care helps to provide compassionate care for patients alongside well-being. The final activity involved a pair-work exercise allowing one person to be the ‘thinker’ and the other to be the ‘listener’ (Appendix 5). The timed activity provided the group with an opportunity to share their thoughts with a colleague confidentially. At the end of their time, the listener would provide the thinker with affirmations. The pairs then switched roles. The aim was to show that whilst we have self-talk, it is appropriate to share those thoughts with others and gain insight from another person to facilitate their own positive self-talk.

The clients were informed that practicing self-compassion more often will enable them to express self-compassion more naturally over time. Clients were given the option to practice the exercises from the sessions in their own time, in between sessions and keep a diary of negative thoughts experienced, to show that the clients are practicing mindfulness. Clients were prompted to write examples of self-compassionate re-wording of these thoughts.

Reflections on delivery

The outcome of the first activity in session one was to try and respond to their self-judging thoughts as if they were responding to a friend and I set this as an exercise to practice individually before the next meeting. One attendee responded that they do not think they would believe themselves if they tried to treat themselves like they do a friend. Initially, I struggled to reply to this, due to my inexperience in delivering behaviour change interventions and dealing with sustain talk. I worry a lot about struggling to respond to people when on the spot as I feel I have not had sufficient practice. I reminded the attendee that self-compassion is a skill, which

requires practice, and to not judge themselves for struggling to practice self-compassion, to begin with. I felt in the situation that I answered suitably. I had already included this reminder in my PowerPoint slides for the first session, but this interaction caused me to remind the group before each exercise in future sessions, to avoid self-criticism should they struggle to complete the activities in any way.

Throughout all sessions, some clients engaged often. I felt others held back, and I struggled to engage them via MST. I have since completed a training day, where I completed a 'contract' asking participants what they feel they need from their colleagues to feel comfortable in expressing themselves in a group. In future group interventions I will use this technique to help build the foundations for a trusting and comfortable relationship, to improve engagement.

Due to changes at the hospital site, I was able to work from home on the third session. I set up MST and PowerPoint as I usually do, confidently. I had several technical issues, related to being off-site, of which I was unaware. I had two laptops to try and resolve the issue, however, I had to prioritise the use of my PowerPoint over the group being able to see myself via teams. It delayed the session start as I had to remove myself and re-enter the meeting several times. It was very stressful, I am competent with the MST application, and I had never had issues with access before. It was very embarrassing, and I felt it was unprofessional. This experience informed future sessions by either on-site or via a safer route on MST, due to the issue being related to the trust off-site IT network.

Evaluation

I conducted statistical analysis for the pre- and post-intervention questionnaires. Only seven of the post-intervention questionnaires were completed, whereas there were 14 pre-intervention responses. A paired-samples t-test was conducted using seven of the pre-intervention responses (Appendix 6).

Table two: Mean and Standard Deviation of Pre and Post Questionnaires

PSWQ Pre	53.92 (SD= 17.86)
PSWQ Post	54.42 (SD= 14.36)
PSS Pre	21.00 (SD= 8.00)
PSS Post	18.57 (SD= 7.95)
Self-compassion subscales (Below)	
Self-Kindness Pre	2.38 (SD=0.70)
Self-Kindness Post	2.80 (SD= 0.80)
Self-Judgement Pre	2.55 (SD= 0.81)
Self-Judgement Post	2.71 (SD= 1.03)
Common Humanity Pre	2.83 (SD= 0.63)
Common Humanity Post	3.14 (SD=0.55)
Isolation Pre	2.48 (SD= 1.01)
Isolation Post	2.96 (SD= 1.27)
Mindfulness Pre	3.05 (SD= 0.62)

Mindfulness Post	3.17 (SD= 0.95)
Over-Identification Pre	2.10 (SD= 0.93)
Over-Identification Post	2.28 (SD=0.85)
ProQoL subscales (Below)	
Burnout Pre	31.14 (SD=4.12)
Burnout Post	29.14 (SD=4.14)
Compassion Satisfaction Pre	38.28 (SD= 4.51)
Compassion Satisfaction Post	37.57 (SD= 5.79)
Secondary Traumatic Stress Pre	22.00 (SD= 7.31)
Secondary Traumatic Stress Post	20.57 (SD= 5.74)

The T-tests showed no significant differences between any pre- or post-scores, suggesting that the intervention did not improve feelings of stress. Scores of the seven participants who completed both pre and post measures were compared for differences (See Figure 1, Appendix 7). The PSWQ scores show a mixture of increased and reduced worry scores suggesting some participants experienced reduced worry, but others did not. Five participants scored lower on the PSS suggesting a reduction in perceived stress. Sub-scales from the self-compassion scale show that participant scores increased in all six subscales, self-kindness improving in the highest number of participants (n=6). Compassion satisfaction scores show a mixture of results. All seven participants show a reduction in burnout scores in the post measures.

To try and determine whether participants scores used in the statistical analysis were generalisable to the participant group, participant scores from the pre-measures were compared. No difference between the participants scores were observed, suggesting that the scores used in the analysis were representative of the group.

Three of the clients that completed the pre-intervention questionnaires were not able to attend the sessions. It is unknown why the post-intervention responses were not completed by some clients that attended the session. I tried to prompt clients by emailing the link out again, but due to anonymity, I was not able to prompt clients individually. There were several issues with the trust IT network allowing access for Qualtrics. Whilst it worked for some, others struggled, and the links had to be resent several times and completed via mobile phone or personal computers. It is possible that some clients experienced this issue during the post-intervention questions but did not inform me of the issue and felt it was onerous.

This intervention focused on providing information and skills practice for self-compassion exercises aimed at improving self-compassion. I focused on the nurse's burnout and impact to their own wellbeing and only briefly covered education to client about self-compassion and the relationship of these factors on their ability to be compassionate for their patients. On

reflection, I could have explored this in my pre and post measures as it would have been helpful to explore in more detail.

Work commitments acted as a barrier for some clients as they were unable to attend the set time. A second date per week was introduced to try and overcome this issue, though not all staff were able to regularly attend. Overall, of the 17 invited, 14 staff completed the pre-measures and 11 staff attended over the two days per week (64.7% attendance rate) which is a satisfactory attendance record, since NHS staff commonly struggle to attend health and wellbeing services face to face (Quirk et al., 2018). I think that in this case study, gaining permission from line managers before inviting the client to participate has enabled a good attendance record. On reflection, I am unsure how I would increase attendance further. Also, some of the team may not have felt they would benefit from a self-compassion intervention since attendance was not mandatory. In the future, if trying to gain a higher attendance record, I could liaise with the management team, to block the clients out on shift for the wellbeing intervention. This is a route undertaken by some wards to allow the nursing staff to complete their mandatory training during work hours. I could have also included a question about preference of accessing the intervention in my assessment survey rather than deciding on their behalf that this could be the most appropriate route.

Towards completion of the BCI, the client group received information about potential job redeployment and de-banding of staff which left many colleagues with uncertainty about their role. The post-intervention questionnaires were completed one month post intervention. Questionnaire scores may have been impacted by these workplace changes. In addition, given the evolving work situation, clients' may have benefitted further from a different form of intervention, such as mindfulness, aimed at managing stress rather than self-compassion as the stressors appeared to be of external nature. Managers asked me to continue to run the sessions once weekly after the BCI was completed, suggesting that they felt the clients benefited from the sessions, though this is not represented in the post-intervention scores. I feel that the intervention may have needed more time to embed within the team, therefore a longer intervention may have been needed to be reflected in the post measures. I did amend the post-intervention sessions to include a variety of mindfulness exercises aimed at reducing stress, demonstrating my awareness of the need to remain flexible and aware of the clients' needs, including any external factors that might influence behaviours.

During the last session, I received a comment that one person was struggling to practice as their "mind wanders" during exercises. I reiterated the practice and advised them to continue to practice individually. Having time to reflect on that discussion, I would have answered this differently. In the future, I would remind the group that mindfulness is a process of trying to be

present, without trying to suppress our thoughts, therefore noticing that her "mind wanders" suggests that she is developing the skill of mindfulness. I did approach the client to discuss this after my reflection and they stated that they had not thought of it like that.

Following completion of the BCI, I received some feedback from a colleague. They explained that they had difficulty sleeping the previous night, but utilised part of the compassionate break exercise to focus on their breathing and remind themselves that it is a "moment of struggle". They found that this helped them to calm down and get back to sleep and they favoured this over the 'leaves on a stream exercise' which they had tried to implement before the compassionate break. Both exercises listed have been introduced to this staff member using the teaching and training and the behaviour change intervention competence, therefore I was overwhelmed with happiness that I felt I had helped someone out of a moment of struggle.

It was harder to engage with clients over MST, and I feel that the 'opportunity' and 'motivation' aspect of the theory behind the intervention was difficult to maintain. I felt some people were reluctant to open up over MST, and some clients lacked cameras, which could have hindered engagement. I feel a face-to-face intervention may have been more successful. I feel that I could have included a feedback form at the end of the intervention as the client enjoyed the sessions but did not seem to be reflect in post intervention scores. I would have liked to explore the client's personal opinions on the intervention to see if there was anything I could have improved on and will do this in future intervention work.

Conclusion

The intervention was developed to provide the clients with a self-compassion 'toolbox' of exercises, practiced within group sessions over MST. The COM-B model was utilised in the design of the intervention, focusing on skills development, and creating an opportunity for the client group to access well-being services within shift times. Statistical analyses showed no differences between the pre and post measures. Two client interactions suggest that self-awareness and mindfulness skills were developed, and self-compassion exercises have been utilised in moments of pain. External factors may have had an increased impact on the well-being of clients accounting for the lack of difference between pre and post measures. The workload of NHS staff may have acted as a barrier to attendance to the personal well-being sessions, suggesting that individual interventions requiring access outside of working hours would be even more difficult for staff to engage with. Resources could be developed for staff to access when convenient for themselves, using recorded sessions hosted on the staff intranet with the option to utilise interactive group sessions or receive protected well-being time.

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Case Study Two

One-to-One Behaviour Change Intervention

Background

This report forms the Behaviour Change Intervention case study with an individual client that comprises six online sessions. The client was a 13-year-old patient selected by the consultant paediatrician at an NHS trust due to non-compliance with their asthma treatment. The client was on a low dose of corticosteroid, and not struggling with severe asthma, though remains at risk of an exacerbation when non-compliant with treatment. The case study includes a summary of the assessment, intervention development, delivery, and evaluation.

Intervention Rationale

Asthma is the most common long-term condition in children, e.g., with around one in eleven children and young people diagnosed (Asthma & Lung UK, 2023). Treatment of asthma usually entails a preventer inhaler which is a corticosteroid, and a reliever inhaler which is a bronchodilator. The preventer inhaler is usually prescribed for daily use. The reliever inhaler is prescribed for use when the person is struggling with asthma symptoms (NICE, 2017). Non-adherence to the preventer inhaler is likely to cause increased need to use the reliever inhaler, and sometimes requires clinicians to increase the dose of corticosteroids in the preventer inhaler (Bollinger et al., 2013). This means that people may be on a higher dose than required to manage their asthma, which has risk of complications associated with high doses of steroid inhalers such as obesity, hypertension, gastritis, and sleep disturbances (Dalal et al., 2016).

I work closely with a paediatric consultant who specialises in respiratory conditions such as asthma. The consultant mentioned that some of his patients' asthma are poorly controlled, and he suspects it's due to non-adherence to their preventer prescription. Medication adherence in children with asthma has been previously estimated to be between 30-70% suggesting a wide variety of poor adherence to their prescription medication (de Groot et al., 2015; Celano et al., 1998; Bender et al., 1997). One patient (known as 'the client') was identified as a high risk for asthma exacerbation and hospitalisation by the consultant. I was required to provide an intervention to improve medication adherence, with the expectation that this would lead to improved asthma control.

The consultant gained consent for me to contact the client's parent to arrange for a meeting to discuss the intervention as the client was 13. I previously agreed with the consultant that any clinical asthma related advice or issues will be discussed with them. I believe this was part of respecting boundaries and not working beyond my role as a health psychologist (HCPC, 2015). Prior to our initial meeting, the client attended an outpatient appointment with

the respiratory specialist and conducted a Fractional exhaled Nitric Oxide (FeNO) test and a spirometry test. Higher levels of nitric oxide suggests that there is airway inflammation. The client's FeNO was 86 which indicates the client's airway was inflamed (Dweik et al., 2011). A spirometry test measures lung functions. One result was 74% of the predicted value for the client's demographics, suggesting an airway obstruction (British Thoracic Society, 2014). These results led the consultant to assess compliance, in response the client reported he took his treatment 50-60% of the time.

Assessment

Following initial consent from the parent, I contacted the client via text to ask whether he would be happy to meet me over video call. The initial meeting was conducted on 8th December 2022. The meeting was conducted online at a time to suit the parent and client rather than face-to-face dictated by parental availability and lack of accessibility to attend a hospital site. The client's parent attended the video call, provided consent, and suggested that the client continue the video call by himself. I ensured that the client was aware that I am a trainee health psychologist and that this was additional to his appointments with the consultant. In addition to parental consent, I also gained consent from the client to write up this case as part of my portfolio and informed the client that I would be supervised by the consultant and by my university professional doctorate supervisors. Consent was given to record the sessions to enable the supervision as this could not be conducted face-to-face. I began asking the client about his lifestyle such as his levels of activity and to try and engage the client as the parent informed me of the after-school sports training. I aimed to conduct the intervention using the four stepped approach (French et al., 2012), identify the problem, assess the problem, intervention development and evaluation of the intervention. With the awareness that medication adherence in asthma is multifaceted (George & Bender, 2019), I began my assessment, using the COM-B model of behaviours (Michie et al., 2015) to obtain information. I chose to use this model to guide my questions as I felt it would prompt me to explore a variety of aspects that might influence behaviour.

Identifying the Problem

The client felt that they have the capability to physically use the inhaler as prescribed due to several years of practice. The opportunity was partially dictated by the prescription as the client was prescribed a morning dose. The client identified the best time for him to take it is as soon as he wakes up, though he reported regularly forgetting to take it. He reports that his management has somewhat improved since his last outpatient appointment. When exploring this further, the client reported that his parents said he could need ventilating and maybe even die if he continued to be non-adherent. This fear of dying concurrent with previous research

in adolescents with asthma (Wells, 2000). The client appeared to be fearful of this idea. At the same time, he did not appear to worry about his asthma during a usual day. The client participates in many after school sports in which he performs as well as, if not 'better' than his peers. The client appears to experience few symptoms of asthma daily. I suspect that due to the client's low dose of inhaler, and without a requirement to use a reliever inhaler during sports training, his motivation to take the inhaler is low. Therefore, the client feeling physically healthy may act as a barrier to treatment compliance. Being asymptomatic leads to adherence issues in adolescents with asthma (Wamboldt et al., 2011) and is a common issue with other conditions (Johnson et al., 2015).

Measures

- Paediatric asthma quality of life scale (PAQLQ, Juniper et al., 1996)

I asked the client to complete the paediatric asthma quality of life scale (PAQLQ, Juniper et al., 1996). The overall Quality of life score was 19.3 with high scores in each domain (symptoms- 6.3, activity limitation- 6.8 & emotional function- 6.2) suggestive of good quality of life.

- Asthma Control Test (ACT, Nathan et al., 2004)

I utilised the asthma control test (ACT, Nathan et al., 2004) result from his outpatient appointment in November as this questionnaire is utilised as standard treatment within the NHS. The ACT score is 22 which indicates good asthma control. This is a self-report questionnaire which is concurrent with the client's views regarding their asthma management. However, as mentioned previously, the FeNO test suggests that the airways are inflamed, suggesting that the client may be at risk of an imminent asthma exacerbation which may need oral steroids or hospitalisation to treat. The discrepancy between self-report and objective data suggest that the child does not believe they are at risk, whilst the lung measurements suggest a risk. An exacerbation could be avoided if the steroid inhaler were taken as prescribed, supporting the need for an intervention.

- Newcastle Asthma Knowledge Questionnaire (Fitzclarence & Henry 1990)

People with asthma and their families may need education to understand more about their asthma, their treatment, triggers to avoid, and how to manage their symptoms at home (World Health Organisation, 2022). I chose to meet again with the client to assess knowledge of asthma. I decided to use the Newcastle Asthma Knowledge Questionnaire (Fitzclarence & Henry 1990) as it is used commonly in previous research with children and young people (Gibson et al., 1995). I did not score the questionnaire as I felt the score would not aid my intervention, so I chose to focus my education around incorrect answers on the asthma knowledge.

Developing the Intervention

I found that the client's motivation for taking their prescription was possibly due to their concern about dying from asthma. I feel that the client has anxiety around death from his condition, which has not necessarily improved his adherence but has increased worrying about asthma attacks. I aimed to reduce some anxiety around this, by using psychoeducation, specifically to present some facts on adherence and death in people with asthma. I chose to educate that people do die from asthma, as the parents stated, but I chose to try and educate that much of this is due to non-adherence, as is hospital admissions (Bollinger et al., 2013).

According to the Social Cognitive Theory (SCT, Bandura, 1986), knowledge does not directly translate into behaviour. Environmental factors as well as personal factors such as values and beliefs moderate the relationship between knowledge and behaviour. I tried to consider the environmental factors that could impact the client. The use of a preventer inhaler for treatment of asthma is a form of self-regulation behaviour. A person will conduct the behaviour (use the preventer inhaler or reliever inhaler) and evaluate the effectiveness of this behaviour (symptom improvement or increased exercise tolerance). The person may then determine that their health has improved with compliance to treatment (Kosse et al., 2019). As the client stated that they believe their health and exercise tolerance was not affected by the lack of compliance to the medication, it is likely that they have evaluated taking the inhaler as ineffective. I hoped to challenge this belief by psychoeducation. I chose to include statistics from children previously hospitalised as a result of non-adherence to their asthma treatment. As I also focused on the incorrect answers from the knowledge questionnaire, I hoped this would challenge his beliefs and encourage openness to consider new information around asthma exacerbations. I aimed for the education to improve adherence and hoped that the respiratory tests conducted post-intervention would show reduction in inflammation, helping the client to evaluate the behaviour as effective. It would be hard for the client to evaluate the behaviour as effective without these measurements, as they don't experience discomfort daily. The use of monitoring and feedback has been successful in adherence interventions in asthma patients previously (Eakin & Rand, 2012).

Previous research has helped identify ways to improve adherence in children. Adolescent ages 12-18 can benefit from symptom and medication monitors, education, peer and pharmacist chat, adherence monitoring and an emergency plan (Rehman et al., 2020). Using this research and my own assessment I developed an intervention aimed at increasing adherence. The session was created on PowerPoint and included key facts about asthma that the client answered incorrectly. I was unable to identify any additional peer support groups for the client. Meta analyses suggests that peer support has little benefit in asthma improvement (Kew et al., 2017). Despite some recommendations to utilise an adherence monitor which

attaches to the inhaler and counts use, standard treatment within the NHS does not include an adherence monitor, and due to lack of funding I am unable to provide one for the intervention.

During the assessment, the client stated they did not know what an asthma plan was, concurrent with the general population as only 25% of children in the UK have an asthma plan (NHS England, 2021). I chose to include this in the intervention and would like to work with the client to complete their own to enable their self-management. This plan has instructions on how to manage asthma when they feel an attack is starting. I aimed to reduce anxiety and provide the client with the tools to manage an attack. Panicking may only exacerbate symptoms such as breathlessness and reduce successful management (Asthma & Lung UK, 2020). The client participates in many types of sports. I wanted to encourage maintenance of this behaviour by sharing some athletes that also have asthma, and that it has not affected performance and success. I aimed for this to improve motivation to adherence to the inhaler prescription. Following education and development of an emergency asthma plan, I included a goal setting task to the intervention aimed at bridging the gap between present condition and desirable outcome. Goal setting has been implemented in many behaviour change interventions over the years with success in patients with asthma (Liao et al., 2019).

The intervention includes:

- An education session aimed at improving knowledge.
- Creating an asthma action plan
- A goal setting plan
- A diary to monitor self-reported adherence.

Success of the intervention was measured by re-assessing asthma control using the ACT and quality of life using the PAQLQ. Re-assessments of lung function will be completed at the client's next outpatient appointment and used as the post-intervention assessment. As the client's self-reported measures already report good control of asthma and quality of life, maintenance in these scores and an improvement in lung function will help evaluate the intervention as successful.

Implementing the Intervention

A one-to-one intervention was conducted via Microsoft Teams. One session of approximately 30 mins per week for a period of six weeks were completed, with a goal to improving adherence to taking their inhaler as prescribed. Adherence would be collected by self-report and clinical lung function assessments.

Following the assessment stage, I arranged with the client to implement the intervention. I sent a Microsoft Teams invite so that I could show the PowerPoint and work through the other documents together. Firstly, the client stated that they didn't have teams, I tried to help by suggesting using the internet browser instead of downloading. The client joined from their phone. This meant the PowerPoint and other items was small. This was something I overlooked as previously we met via videocall via mobile phone. Also, the client did have a computer, which I assumed would be working, but the client's relative was using the computer during the time of the appointment.

Table 1: Session activities

Session One	PowerPoint presentation and Goal Setting plan
Session Two	Development of the Asthma Plan
Session Three	Diary discussion
Session Four	Check in
Session Five	Check in
Session Six	Final Check in

The PowerPoint (Appendix 1) was created to provide a visual for the education I provided. I aimed to deliver this as an informal chat, as I wanted it to feel like teamwork. I felt the PowerPoint went well, the client appeared interested throughout as they nodded along and raised eyebrows at certain aspects of the PowerPoint suggesting new knowledge was imparted. During the following session I moved on to the goal setting aspect of the intervention (Appendix 3). I utilised motivational interviewing techniques to develop the goal setting form, such as the ruler question to assess readiness to change (Tooley & Kolahi, 2022). Initially, I felt that I had to remind the client of the behaviour that he's been asked to complete by the consultant paediatrician to set the goal. The ruler questions opened discussion around current obstacles to meeting that goal and how we might overcome them. The client felt he forgets a lot due to rushing in the mornings for school and football training. We discussed where he currently stores his inhaler now, and how we could alter where it stays to try and increase the chance of him remembering in the morning. A plan was set to place the inhaler on top of his mobile phone so that when turning his morning alarm off he could pick it up and take it straight away. This aspect of the intervention adopted good teamwork and openness to reflection. Due to the difficulty setting up the teleconferencing, I emailed the items we had worked on during the session for his own viewing.

I worked with the client to complete a Children's Asthma Action Plan (Appendix 2). The client answered the plan whilst I entered the information. I also explained what to do in an emergency as per the plan so that we had thorough discussion about the plan. I had developed a diary for the client to use to track compliance, but the client had started to track his own compliance using a diary and preferred to continue to use this method. I had wondered whether the diary would be effective in self-monitoring adherence. Completing the diary would be an added behaviour, thus asking the client to try and take their inhaler and remember to document this behaviour in a diary. As the client created their own diary it suggested that they had recognised a need to improve adherence and made positive steps towards self-management behaviours.

When completing our first check in after the education sessions, the client reported to have 100% compliance to his asthma medication. He had also reported to have been unwell with the colder weather but had maintained his treatment and did not require any steroids from the GP which he considered to be a result of good compliance. According to their diary data they were 100% compliant. The client shared their diary over the video call. They had placed a 'tick' over the days their inhaler was taken.

Reports of 100% adherence continued through each weekly check in. We reviewed self-reported adherence together each week to determine whether there were any barriers or facilitators to taking their inhaler. At the third check in, the client stated that they hadn't been as compliant with the diary completion, which was anticipated during the stages of developing the intervention. The client experienced an asthma exacerbation requiring oral steroids within the last week of the intervention. Compliance to the preventer inhaler remained 100% (self-reported).

Evaluation

To measure the intervention, baseline measures were reassessed. Asthma control was measured using the standardised Asthma Control Test (ACT, Nathan et al., 2004). Post-intervention ACT score was 15. Remarkably lower than pre-intervention (22) and suggestive of poor asthma control. The quality-of-life score overall was the same as pre-intervention, with slight differences in the sub-categories (See table 1). The ACT questionnaire was completed again during the client's usual outpatient appointment four weeks after the post-intervention assessments and the score was 22 suggesting that the client's asthma control returned to good control following an asthma exacerbation. The client's FeNO measurement had also reduced from 86 to 27 (normal range). The client's lung function also increased from 74% predicted to 87% suggesting less airway obstruction.

The parent reported satisfaction from the intervention following improvements on the lung function assessments. The client did not express any satisfaction during the post-intervention

assessments but reported satisfaction when feeling less anxious around the asthma exacerbation. Overall, the intervention was a success and objective changes in lung function supported this.

Table 2: Pre and Post intervention ACT and PAQLQ

Questionnaire	Pre-intervention	Post-Intervention	Four weeks post-intervention
ACT	22	15	22
Overall PAQLQ	19.3	19.3	-
Symptoms	6.3	6.8	-
Activity Limitation	6.8	6.4	-
Emotional Function	6.2	6.1	-
Spirometry- lung function	74% of predicted		87% of predicted
FeNO	86ppb		27ppb

The intervention was conducted in the winter months when asthma exacerbations are more likely (Rheumatology and Allergy Institute of Connecticut, LLC, 2022). The client experienced an asthma exacerbation on 16th March, a week before the end of the intervention. A drop in temperature had caused the exacerbation. The client reported that they remained 100% compliant throughout the intervention and as a result, the exacerbation was less severe than previous ones. The client reported this to be a result from medication adherence. This suggests that the client appraised this situation positively as a result of their behaviour.

Although lung function was measured objectively, I would have liked to assess adherence more objectively, such as the use of a smart inhaler as research has found self-reporting adherence can be exaggerated by up to 50% (Bender, 2016). This is an adherence monitor that attaches to the inhaler and counts each time the person uses the inhaler. It is used as part of research trials in the UK and used as standard practice in Australia. Research has shown that using a smart inhaler increased adherence to treatment (NICE, 2017) and in two studies it has improved clinical outcomes such as improvement on the asthma control test (Simons et al., 2015) and reduced presentation to GP and emergency departments for asthma related events (Foster et al., 2014).

Reflection

I struggled initially to obtain a suitable placement for my one-to-one intervention. I reached out to several consultants working with people with long-term conditions to offer my role as a trainee to help with their clients. I contacted private health centres, weight management and smoking cessation specialists. I delayed contacting the paediatricians as I felt for my first one to one intervention I would have preferred to work with an adult. I had this preference because I felt that an adult will be more of a 'driver' in their own life whereas a child would be more of a 'passenger,' organised by their parents. I also believed that children wouldn't be as open and that I wouldn't be able to complete a thorough assessment with them, resulting in my first attempt to be a weak one. When I started working with this client, I didn't feel judged by their parents, despite finding out that both parents were consultant paediatricians. I had applied that pressure to myself when the parents were keen to help me as a trainee and to see whether health psychology could improve their child's adherence.

I felt it was difficult to work with the client in the beginning, to form that trusting and open relationship. I learnt that it won't always be possible to obtain all the information I need at the first meeting and that some people need more time. I feel it was hard to complete the assessment as the client provided short answers. I am used to working with children and adults when recruiting to research trials, and I feel that I can generally make conversation with adults easier, whereas with children, I usually end up asking a lot of questions to try and build that relationship, and I usually find that over time this is something that improves as the child becomes used to seeing the same team. I feel that I need to be more flexible when meeting new patients. The client did seem to open more throughout the intervention, it was difficult as the time I needed the most input was the assessment stage. I think the implementation stage when I conducted the education and developed the asthma plan was a moment of good teamwork and discussion, suggesting that the client was really involved in their intervention.

I am not sure what I would do to form that trusting relationship as soon as possible. I tried to discuss an exercise which the client explains what they need from me to feel comfortable to talk to me, but I felt this was not as successful as when conducted in my teaching sessions. I think this may have been down to age of development of the client, or perhaps that they have little experience with this type of exercise. At the time, I felt these issues would cause the client to lose attention to the education. I ended up providing my own examples of things we may need to feel comfortable, such as, confidentiality, a non-judgemental approach and respect. I also tried to get to know the client by asking about their life and hobbies to try and improve discussion during the assessment stage. It seemed to work a little without much depth to the answers. I feel that introduction face-to-face within the clinic environment prior to assessment may have been beneficial, though not something that would replicate standard clinical practice

within a multidisciplinary team. This is perhaps something we take for granted in some adult populations. I have observed psychologists in other aspects of the NHS and patients attend and discuss any issues more openly, whereas this has highlighted how it is not so simple in child populations, and that groundwork to build a relationship before assessment stage could be beneficial, I do feel that I generally build a good rapport with children that I see for my normal clinical workload. Sometimes I feel the child may refrain from engaging and that relationship can take longer. I feel that this occurred with this intervention and having that awareness for future practice will be useful.

I would have liked to have explored anxiety around asthma attacks before and after the intervention using a questionnaire. I did not realise this anxiety during the assessment stage, it was something I found when developing the intervention. Exploring this during the assessment stage using a questionnaire would have allowed me to have explored further post-intervention for improvement. It only become obvious to me during the final check in after the client experienced an exacerbation and appeared less anxious.

I felt the PowerPoint was a good delivery method to allow for visual alongside the psychoeducation, though viewing through a mobile phone was unforeseen and possibly impacted learning. I feel that if I were able to conduct this intervention face-to-face that I would have developed it as an information booklet, and perhaps this is something I could have done for this intervention as it would have been helpful for the client to refer to.

Conclusion

This behaviour change intervention comprised of six one-to-one sessions via online methods, aimed at improving adherence to their asthma medication. The intervention utilised multiple methods aimed at improving knowledge of asthma, reducing anxiety around asthma exacerbations and goal setting to achieve the wanted behaviour. The intervention was assessed pre- and post-intervention using self-report measures and lung function assessments. The client reported less anxiety when experiencing an asthma exacerbation and reported 100% compliance throughout the intervention. Lung function results improved dramatically post-intervention supporting the clients self-report of compliance. This intervention was developed specifically for the client; therefore, it is unknown whether this intervention could be generalised to other clients across other levels of severity without an individual assessment regarding their capability, opportunity, and motivation for compliance.

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Chapter 5:

Professional Development

Reflective Commentary

The Professional Doctorate has been an enormous part of my life and day-to-day working role for the last six years. This reflective log shows how I have grown as a trainee and as an individual. The Professional Doctorate has highlighted areas of my personality which are extremely self-critical and lack confidence. I have grown to become more assertive, confident, and most importantly more forgiving of myself throughout the course. This log includes reflective moments from my practice log which covers all competencies and talks about how I have learnt to cope better with stress and fear and how I have increased my scope of practice. The log reflects on the impact of the COVID-19 pandemic on my progress on the Professional Doctorate and myself as an individual.

I identified similar issues arise throughout the duration of the course; therefore, I have chosen to develop this piece in themes, focusing on how I have progressed over the course within each theme. I have used the Gibbs Reflective Cycle (Gibbs, 1988) to aid my reflection.

Fear/ Imposter Syndrome

As mentioned in my practice log, I completed my venepuncture training (14/02/2018) which was a challenge as I have always feared needles. This led me to reflect on my progression through the first few months of training and I realised that there are certain aspects of the Professional Doctorate that I feared. I feared showing up and not performing. I wanted to already be great at something I am still training in. I think I put a lot of pressure on myself to perform and this has held me back at times. I prioritised the research competence first due to being confident and avoided some aspects such as the teaching and training competence, because I didn't want to 'embarrass myself.' I experienced a lot of fear during my consultancy competence. I felt intimidated by the educational lead. I felt scared to offer to run the sessions and felt I couldn't say no to her. I had to negotiate the number of sessions so that it did not conflict with my full-time role. The fear was much stronger than the reality.

Throughout the Doctorate, to improve my practice, I regularly attended the Health Psychology skills group (e.g., 07/10/2019), a group set up by Health Psychologists to practice applying skills in role plays to improve our practice with clients. It initially made me nervous when collaborating with other experienced individuals due to imposter syndrome. I think this is because I feel inferior to them and they are more experienced and may judge my attempts to role play (Sverdlik et al., 2020). I spent time focussing on the fears rather than investing into

the conversation and this holds me back from trying new things or to take a pause and ask for help. I always finish these sessions feeling good about my progress. When thinking about the skills groups in the future, I know I need to consider how beneficial the role plays are at improving my practice and how I portray myself as a 'good' health psychologist to other people. At times, I place too much emphasis on the latter, concerned about how I appear to others, and potentially sacrificing my chances of progression through authentic role play. It is a Health & Care Professional Council (HCPC) Standard of Proficiency (1.3) ***"keep their skills and knowledge up to date and understand the importance of continuing professional development throughout their career"*** (HCPC 2023).

By stepping out of that comfort zone and completing my teaching competence, I have learnt a lot about myself and about sometimes being content with 'embarrassing' myself. I have learnt to enjoy things that I fear, its more rewarding and I am not poor at performing them. So what if I don't get it the first time? I have an opportunity to practice. By time I started an Introduction to Motivational Interviewing training in 2020, I felt content communicating with others for the first time, particularly during group work activities and role plays.

Following on from my previous experience and reflections, I chose to complete a Sage and Thyme communication course (1/07/2022). I noticed I wasn't nervous, more interested in the course. As a result, I was able to be more present and take in examples and others experiences without being distracted by my own fear. I found I was learning more, and able to consider the course and how I can apply it to the clients I work with, rather than the focus being on 'surviving' the session and looking professional.

Throughout the doctorate, I have learnt that being upfront was beneficial to negotiations and was a good aspect to communication. I do not need to fear aspects of my role as a trainee or even as a qualified Health Psychologist. Whilst fear itself is normal in some instances, it hindered my approach to my training initially. Through reflection, I have learnt that I do not need to fear things just because I have little experience, though I do believe gaining this experience is what helped me to realise this.

Stress

I went through a bit of a low patch in my first year of the course, with the news about my ethical opinion and not feeling like I had got very far. I felt like I had no time to have a life outside of work, University work, trying to exercise and having a social life too. I felt like no matter how much I tried to organise myself, I couldn't. It took a few months of feeling this way to allow me to realise that I was massively unorganised and unmotivated. To get back on track I planned

the next few weeks. I used a 'brain dump' exercise to get my thoughts out. I felt a sense of relief from this exercise.

With reflection, I found that I felt most organised, proactive, and optimistic at the start of the month. I used this as a fresh start. Recognising that I start the month feeling organised and this trails off into disorganised and I experienced this often; therefore, I realised that it is not beneficial for me to problem solve in this case, rather, I needed to try and use an Acceptance and Commitment Therapy (ACT) based approach because I felt a sense of acknowledgment and relief from the stress when I used ACT. The HCPC Standards of Proficiency (3.4) acknowledge the need for registrants to "*develop and adopt clear strategies for physical and mental self-care and self-awareness, to maintain a high standard of professional effectiveness and a safe working environment*" (HCPC, 2023). I feel that I have been proactive in seeking ways to meet this standard of proficiency, for both myself and for the clients I worked with. Going forward it's vital that I continue to prioritise my health and wellbeing in order to help others.

To summarise on my progression with stress management during the course, I reflected on the reflections I made throughout, and I became aware that I was reaching my limits for coping with stress. For a time, I struggled with the stress as I used an avoidant coping approach. I then realised that this approach was not beneficial and began a problem-solving approach to become organised in and out of work. This approach did not improve my feelings of stress. I developed both physical and mental side effects from this stress. I discovered that acknowledging the stress and pressure I felt provided me with a sense of relief. It allowed me to think and organise more clearly. I have also become more forgiving of myself. When feeling overwhelmed, it is important to give myself some space. Trying to work under such a huge feeling of stress made me feel more unwell. As I approach the end of course, I am in a better place of acknowledging where my limit is, and to manage this effectively.

Increasing my scope of practice

During the start of the Professional Doctorate, I came out of supervision feeling very supported and energised to move on with my research. It calmed my nerves about starting ethics applications through the NHS. My university supervisor had obtained hours during my working week for me to complete my university work. On reflection, I don't think I was assertive enough to ask myself. I don't like confrontation, so I think I thought by not asking I'd avoid any awkwardness. However, my manager has been supportive, and I acknowledge that I am no worse off by asking. I have taken this approach when working on the wards and needing to borrow equipment or asking companies for equipment (or a discount) to help with my education.

As noted in my practice diary, I completed Good Clinical Practice (GCP) face-to-face training early on into the course (12/03/2018). The training sessions, along with other opportunities to teach as part of my consultancy and skills groups also allowed me to consider teaching techniques which might be successful to my teaching and training competence. I intended to use a variety of teaching techniques when designing my teaching plan. From personal experience, it is hard to sit and listen for lengthy periods of time without a break. When researching this, I found the term 'listening effort,' being a combination of the demands of the task, cognitive resources to attend to the task and the motivation to use these resources (Alhanbali et al., 2019). By introducing a variety of teaching materials and activities, I felt it kept the sessions from being one tone or boring to the students.

One of the research studies I worked on aimed to help pregnant women stop smoking. I found myself trying to understand whether their struggles with quitting was due to motivation or other barriers. I found I was limited by my role, and I did not have knowledge of the Trust policy for smoking cessation. To further my experience and develop this, I completed the stop smoking training hosted by the National Centre for Smoking Cessation and Training (NCSCT, 2023). In the role of a research assistant, I understood my professional boundaries at the time, however, it gave me a good insight into unhealthy behaviours and allowed me to recognise an area that I could gain some extra experience in, hence I read around readiness to change (Olenik & Mospan, 2017). I gained some practice with formulation for my behaviour change interventions by these interactions (04/07/2018). In the final stages of the recruitment period for this study, I felt I had progressed as a trainee, and I could flexibly adapt and attend to the client's change or sustain talk (23/12/2019).

A reflection of my actions of dealing with both adult and child patient populations have helped me to progress as a Trainee Health Psychologist. The child population is vastly different to adults. And it highlights the importance of communication. I must communicate to two people (child and parent) simultaneously. I need to ensure I am pitching it at the right level for the child but providing enough information for the parent. I feel I am a strong communicator in these scenarios due to my past experiences. I like to pre-empt questions a parent would ask based on previous experience so that I can provide it as part of my discussion to give a better care to the patient.

The event in my practice log (04/09/2019) regarding consent of child in a bloods study highlighted the importance of pitching to the right level. The patient became anxious and upset. It was important to ensure the child understood we were not taking blood for the study, but they would need them taken clinically. The priority became calming the child down firstly and led me to describe it differently. I found the key was to ensure that they we're understanding

at each point, and to check understanding. I did not want to be the reason someone was upset, and it's important to think of how I explain studies to avoid this going forward. I have found that listening to nurses has also helped using similar language to describe procedures.

Working with patients who lack capacity is something I have learnt throughout the course. On 06/04/2020, whilst approaching a patient I noticed that they did not have capacity. I felt confident to end the approach and inform the nurse. I practiced within my boundaries and advised the nurse to complete a capacity assessment and recognised that the patient is unable to consent for themselves. I felt confident to put the patient's needs first, whereas there was a time when I wouldn't know what to do and would approach a more qualified colleague to approach the nurse as I feared confrontation. In the past, some nurses portrayed that they were unapproachable, and I wouldn't discuss care because I felt that the nurses felt I was giving them extra work. Over time, I had stopped thinking of myself first, and focusing on the safety of the patient. Experiencing events and learning from more qualified colleagues has helped build my confidence. Some nurses still are unhappy when I approach, but I am doing my job, and I don't take the rudeness personally anymore. I try to sympathise with the nurses, but at the end of the day patient care is the forefront of everyone's role, therefore I try to maintain professional relationships with colleagues in the multidisciplinary team in line with standard of proficiency (8.3) ***"understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team"*** (HCPC,2023).

Reflecting on my client work over the duration of the Professional Doctorate, I have noticed a lot of people struggling to cope with self-management of conditions, and multiple co-morbidities. Each person is unique with different motivations and barriers for behaviours. I have found it hard to see people who believe there is nothing anyone can do to help them, and that this is their life, and their prognosis is to get worse. I find it frustrating, because I do see such a variety of people and their responses are so different, with some, a terminal prognosis yet so positive and focused on living well for as long as possible. Whereas others, who have conditions that can be managed and improved, choosing to accept that becoming more ill is to be expected. I feel these experiences highlight how essential the role of a Health Psychologist is. It motivates me to continue my practice going forward, so I can help support clients more and hopefully help to improve their quality of life.

I found that within the NHS, inpatients at the hospital are often only reviewed for their immediate condition rather than the whole picture. For example, someone presenting with a cardiac issue, is primarily only treated for the issue, not behaviours that might have contributed to the issue or cause another health issue later in life. As a trainee Health Psychologist, I can

see the patient from a wider perspective and consider behaviours, both healthy and unhealthy that can contribute to conditions. I also feel able to understand the patient at a wider level. I am passionate about preventative healthcare rather than a reactive approach. I don't feel the NHS takes a proactive preventative approach often enough.

Disagreement with workplace supervisor

As mentioned in my practice diary (19/08/2019), a discussion about the best approach to get the doctors to independently check trial blood results led to a disagreement. Reflecting on this situation, there was a time when I would agree with my manager as I didn't know any better, nor would I want to cause confrontation. However, I was assertive in this case. And although it did not have the desired outcome, I tried and I put my feelings forward, which is more than I have done previously. I must ask myself, would I have done this with someone I didn't know? Have I just become comfortable with my manager instead of achieving personal growth which provided me with more confidence to speak out? Or is this reflection allowing me to experience moments where I am showing self-critical thoughts? I feel that I have gained confidence, as I note other times when patients on the ward need help, I ask the nurses on their behalf or the doctors if needed. This was something I used to avoid, as I felt I'd be giving more work to others and would receive negative feedback. I feel that in future, should a situation occur, I'd want to proactively share my opinion, as it could be a missed opportunity to improve a situation if I held back.

COVID-19

I did not anticipate that COVID-19 would have such a significant impact on my life when I first heard of it. I was still hopeful to complete my research to its deadline of 30th March 2020 and that I'd have written up my reports ready for submission. However, when the hospital stopped outpatient clinics, I lost that feeling of being in control. I had begun approaching patients for the COVID-19 trials such as Recovery. It's difficult to describe how I felt towards patients with COVID-19 in the beginning. The diagnosis of COVID-19 made me feel like they had the plague or that they had radiation poisoning and I feared being around someone with that diagnosis. I felt like this due to the lack of guidance around PPE given to staff, the fear of catching COVID-19, and the uncertainty ahead in work, in our lives and in family relationships.

I soon learnt that these are in fact very poorly patients, who were lacking comfort from their relatives [due to governmental restrictions and lockdown] and had only basics necessities with them whilst trying to recover from a serious illness. It was very harrowing reading patients notes about their deterioration, and their words to their loved ones written in their notes by the nurses caring for them. I began to feel like I knew these patients well and felt grief for those who passed.

As documented in my practice diary, we had to gain telephone consent from the next of kin to take a blood sample from the ventilated patients in intensive care (11/08/2020). I was not clinically qualified to discuss progress as that's not my role and I was respecting my professional boundaries; 1.1 *identify the limits of their practice and when to seek advice or refer to another professional or service* (HCPC, 2023). I tried to avoid this situation by checking with the nurses who provide the care that the next of kin was contacted and that we would not approach anyone who would be receiving bad news as it was not appropriate. This route would be used again when required in the future and has changed my practice for all patients when contacting the next of kin including non-covid-19 studies.

Some days we had to prioritise the sickest patients to try and give them a chance of treatment, which left others without a chance of receiving a trial treatment which we later found could save a person's life. I later realised that I was experiencing a type of guilt known as moral injury (Shay, 1994). I read a lot around this topic, particularly how to overcome it as I felt a lot of guilt. It was a topic I considered a lot when developing my self-compassion behaviour change intervention as I noticed a lot of healthcare staff would continue their day, but not discuss how they were coping with the pandemic. The healthcare system adopted a 'business as usual' approach, which I believe caused staff to suppress their emotions.

Working during the COVID-19 pandemic felt like Groundhog Day, repetitive and non-productive. It felt like treading water, no time to focus on the doctorate and no energy to after I finished work. I had to focus a lot on practice and had little time for theoretical aspects and writing up competencies. At the time, this was frustrating, and something extra to be stressed about on top of the fear of catching COVID-19 and being ventilated or taking it home to family.

Having this experience and thinking about how I'd approach this situation if it occurred again has highlighted that I can't be expected to know how to respond to each novel situation. All I can do is use my previous reflections and experiences to guide how I'd perform. I'd like to think I am patient focused regardless of the situation. I have improved during each encounter with patients due to reflection, which enables me to practice as best I can. I'd also like to approach a re-occurrence with a forgiving attitude and to remember to be present and deal with the 'present' rather than comparing my progress to my future and allowing myself to become frustrated.

Although there was plenty of negative aspects of the pandemic, it allowed for more remote ways of working. After the initial acute phases in work, this was a huge benefit to my progression on the Professional Doctorate as I was able to continue my research after the initial set back. Electronic consent has become more prominent since the pandemic, which enables us to recruit remotely as well as conduct follow up visits via telephone. I also felt that

the group behaviour change intervention (09/02/22) was developed as a result of the COVID-19 pandemic. It drew attention to how resilient we are, as the public, healthcare professionals and trainee Health Psychologist.

As I am nearing the end of the course, I have started to look for new opportunities in health psychology. One thing I notice is the focus on staff support and staff wellbeing in advertisements. After completing the Professional Doctorate and my full-time role, I recognise it's essential to maintain staff wellbeing and that this is an area where I could contribute my health psychology expertise and skills. I consider that prior to the pandemic, the norm was to suppress emotions and struggles, and the pandemic has changed this view to promote greater disclosure and increase positive wellbeing in staff. It's something I have recognised, and I have proactively participated in whilst completing the Professional doctorate. It's external to both roles, but I have enjoyed it, and it is an extracurricular activity that I want to continue in whatever role I obtain.

Personal growth

When reading back over my research reflective commentary I feel I was immature with how I felt towards the negative start of my research. I think I adopted a hopelessness identity and expected too much. I let myself become upset easily, and over the period of the doctorate, I have become much more resilient. I look back on the beginning of my research and what I thought was a disaster was a small issue which I was allowing to take over my feelings. Whereas looking back whilst conducting my systematic review, I was more mature and productive. Using ideas from ACT I have learnt to accept some of the issues I have and feel less stressed when dealing with them.

I think the biggest problem I have tried to overcome is that I remind myself about my weaknesses and worries of doing a task and it doesn't help me perform as well. When trying to understand why others have self-criticising thoughts, I found that my experience could have an impact the level of compassion shown towards clients (Beaumont et al., 2015). I have dealt with this, by treating myself with self-compassion. I found an exercise where I write my self-criticising thoughts down and think of self-compassionate thoughts to replace them (Neff, 2015). Initially, I struggled believing the replacement thoughts, but with practice I have found it easier to accept them and become more self-compassionate.

Leadership

Around the middle of the Professional Doctorate, I felt a lot of pressure from my full-time role. I was asked to be involved and lead on some of the studies due to my previous experience. I noticed that I have a tough time delegating jobs to others. I put myself in their shoes and I'd

be happy to do the jobs if they were to ask me, but when it comes to me being the delegator, I worried what people will think of me. I didn't want people thinking badly of me, and because of this I tended to keep my opinions to myself unless they match the others opinion. This relates to my lack of confidence in groups.

Reflecting on my notes from the practice diary (31/10/2022), I completed the accelerated leadership course. Prior to starting the course, I was asked to complete a personality questionnaire. I was even more surprised to then receive the results (unwantedly) in a PDF document. I was not prepared for some of the statements I received on this results document. I felt that it was a little triggering, I was already worried about who from management I would be working with on the course and that due to my lack of management experience, I was even more unsure how I could contribute to the group. I then receive a PDF which states that "is likely to be exceptionally ill at ease on formal occasions or when required to present to other people," great. If anything, I suppose it was accurate, though confirmatory of the reason I was worrying. This was then followed up by scoring high on my "sensitivity to criticism."

When asked to look at our questionnaire results with the group I felt embarrassed about these items. I chose to focus on these two points rather than the other 22. Some were positive attributes about myself which I should be proud of, but I chose to focus on the worst two. It got me thinking about how these questionnaires might affect the clients we see if we share results. I also thought that my own worry about these attributes is normal, yet I wondered whether clients might focus on what they think are negative attributes. As a healthcare professional, I considered how can I use this knowledge to inform my practice. Would I hand a disclaimer prior to the questionnaires? Could I leave the questionnaires out? Do I address the results directly as a debriefing with the client? I wouldn't want the client to ruminate as I have over these, as some clients do not have the capability to reflect on them from another perspective. I think I only have this capability from my practice as a trainee health psychologist. I know the questionnaires can be helpful to my practice, but I need to think carefully about the individual I am working with and how to best to introduce and explain questionnaires and their application. Importantly, I've recognised through my own experience that I need to feedback to them in a supportive way that acknowledges strengths as well as any 'deficits' on which we might work.

Conclusion

Whilst I love working with clients, meeting new people, and learning about their lives, I do also enjoy teaching more than I thought I would. Prior to starting the course, I perceived not knowing what to pursue as a negative. I decided I'd like to work with clients and help them self-manage their condition. My main priority was Type 1 Diabetes. Following completion of

my competencies, I am more torn about which route I want to take going forward. I don't see this as a negative like I used to, I believe that my experience has provided more opportunities that I did not consider prior to the course. I think this is due to me acknowledging my fears and weakness and choosing to think about them differently. I don't take an avoidant approach to patient care, or to aspects I haven't had much previous experience in. Rather I view these things as opportunities to learn more and gain greater experience.

Each competence has allowed me to develop more as a person and a practitioner. I have a deeper awareness for the thoughts of clients, due to my own reflections and experiences. I believe this helps me to develop empathy with clients and ensures I take a holistic view for a better understanding of how I can work with them. I have grown into a confident communicator with clients, and become less worried about how others perceive me, and more interested in how I can achieve the desired outcome for those I work with.

The Professional Doctorate has required me to reflect and in this meta-reflection I have organised my reflections into themes. Firstly, I worry too much. I worry what others think of me, and whether what I am doing is good enough. I would like people to believe that I am a confident and successful person, who's also approachable and knowledgeable. I am emotionally intelligent towards others but sometimes struggle to manage my own emotions. I am not socially confident, though throughout the course I have grown in assertiveness and confidence. Health Psychologists never stop learning, and our practice will benefit from being inquisitive. I am certainly more forgiving of myself at the end of the course than I was on the beginning, and time has allowed me to reflect and grow from the earlier experiences. I am a good problem solver, and I love to help others. Working with patients is something I really enjoy. I strongly support communication in all aspects of my life and find it difficult to work with others who fail to communicate. The length of the course has taught me that I am too impatient in life, and that thinking of going back in time, I wouldn't change the length of time it has taken me as each day has provided me with an opportunity and more days working as a Trainee Health Psychologist which can only benefit my expertise.

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Glossary

ACT- Acceptance and Commitment Therapy
BCI- Behaviour Change Intervention
BCT- Behaviour Change Technique
BCTT- Behaviour Change Technique Taxonomy
CASP- Critical Appraisal Skills Programme
CIDS- Confidence in Diabetes Scale
CFT- Compassion Focused Therapy
DDA- Deliberate Dissonance Acting
DFRQ- Diabetes Family Responsibility Questionnaire
DSMQ- Diabetes Self-Management Questionnaire
FoD- Form of Delivery
GCP- Good Clinical Practice
HCPC- Health and Care Professions Council
HRA- Human Research Authority
IRAS- Integrated Research Application System
JDRF- Juvenile Diabetes Research Foundation
NIHR- National Institute of Health Research
NHS- National Health Service
NPDA- National Paediatric Diabetes Audit
PNI- Psychoneuroimmunology
PWB- Psychological Well-being
ProQoL- Professional Quality of Life Scale
PSS- Perceived Stress Scale
PSWQ- Penn State Worry Questionnaire
REM- Rapid Eye Movement
SCS- Self-Compassion Scale
SD- Standard Deviation
SEN- Special Education Needs
SCT- Social Cognitive Theory
TASC- Type 1 Adolescence Self-Care Study
WHO- World Health Organisation