

Promoting Health Psychology in Veterans' Healthcare

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Abstract

Introduction: The work contained in this portfolio was completed at a veterans' community service that was part of a mental health charity. Where a competency could not be met here, work was conducted in the wider charity.

Competencies: The Health Psychology Doctorate Training consisted of five competencies. These are outlined below in order of appearance in the portfolio.

Psychological Intervention: This involved two behaviour change interventions; one face-to-face and one in an alternative mode e.g. group, online. These were written up and submitted as case studies.

Consultancy: This consisted of consulting an external service on a health related subject. A contract was drawn up at the start and a summary report was submitted to the client at close of consultancy. In addition to the documents mentioned above, trainees were also asked to submit a consultancy case study.

Teaching and Training: This needed to include teaching of two different populations, one of which must be health professionals. At least one teaching needed to be a series of sessions. Assignments included a teaching and training case study and a teaching diary.

Research: Trainees were required to complete two research studies, a systematic review, and to reflect on their research experience during training: Empirical Papers 1 and 2, Systematic Review, Research Commentary.

Professional skills: This involved reflecting on the experience of training as a whole: working with clients; respecting them; and respecting professional boundaries, laws and codes of conduct. This was assessed via a reflective practice commentary and log of training. The latter is submitted separate to this portfolio.

Introduction

The work I completed for the Health Psychology Professional Doctorate took place at a Veterans' community mental health service. Most of the assignments were completed within this team, however a couple (consultancy and one psychological intervention) were completed across the mental health charity in which this team was situated.

Veterans present with a complex range of health needs; physical, mental, and social. These are often treated separately, however largely interlink and veterans would benefit from better integration of the treatments they receive. In my experience working with the veterans' team, I have encountered challenges engaging veterans in treatment. With many reporting feeling weak for needing support and negative experiences of seeking help previously. Much of my role within the team has involved motivational work and behaviour change intervention such as increasing activity levels, and replacing maladaptive coping (e.g. self-harm, substance misuse) with healthier coping strategies. The impact of veterans' difficulties on their families has also been significant and highlighted a need for supporting families and carers in adapting and coping with changes to family life. I feel there is a role for Health Psychology in working with this population and my doctorate training has enabled me to start promoting this.

This portfolio contains the required written accounts of the work completed for the course and will reflect on my training across the five competencies: Psychological Intervention (chapter 1), Consultancy (chapter 2), Teaching and Training (chapter 3), Research (chapter 4), and Professional Skills (chapter 5).

Chapter 1 - Psychological Interventions

This competency consisted of two items; Behaviour Change Intervention Case Studies 1 and 2. The first intervention was face-to-face and the second was online.

1.1 Behaviour Change Intervention Case Study 1

Learning outcomes:

- Assess, formulate, intervene and evaluate in a formal behaviour change intervention with an individual client where the intervention is delivered face to face.
- Work with clients, respecting them, respecting professional boundaries and laws and codes of conduct, and reflecting on the experience in a structured fashion.

This intervention was a case study of a 47 year old, male veteran presenting with complex health needs including Post-traumatic Stress Disorder, anxiety, chronic pain, and mobility difficulty. Its aim was to increase his confidence in going out in the community and in communicating with others. It consisted of eight sessions and followed a graded exposure model.

I learned a lot from this intervention about assessing a client's needs and adapting treatment accordingly to meet these. It pushed me out of my comfort zone as I was less able to rely on a standardised therapy approach and had to trust my own instincts and knowledge. It also made me consider how the treatment expectations of the client, service, and therapist can differ for goals and progress.

Behaviour Change Intervention Case Study 1

This case study is a reflection of a face-to-face behaviour change intervention conducted within the Veterans' Mental Health – Complex Treatment Service (VMH-CTS) at St Andrew's Healthcare, a mental health charity. It will reflect on the assessment, formulation, intervention, and evaluation of the case.

Context:

The client was a 47 year old, male veteran presenting with complex mental health needs: Post-traumatic Stress Disorder; depression; anxiety; anger; and memory difficulties. He had sustained multiple physical injuries from his military service and now experienced intense chronic pain and difficulty with mobility, requiring use of a walking stick or mobility scooter. These difficulties had significantly impaired the client's quality of life and he struggled to carry out everyday activities such as cooking, cleaning, going out in the community, and interacting with other people.

The client had a quiet manner and high anxiety; difficulty engaging in conversation and poor eye contact. It took several sessions to develop a therapeutic rapport and for him to feel comfortable in sessions. With this progress came multiple areas of difficulty that had not been identified at assessment, painting a much more complex picture than initially anticipated.

Clients receiving treatment from the VMH-CTS are funded for up to 32 sessions, and prior to this behaviour change intervention I had been working with the client for eight months in my role as an assistant psychologist. The aim of this was to stabilise symptoms; improve sleep, and learn emotional coping skills. Treatment and care plans were regularly reviewed with the client, Multi-Disciplinary Team (MDT) and in supervision. As we reached the midpoint of treatment, it was felt that the stabilisation phase of treatment was coming to a natural end and a review was scheduled to determine the next stage of treatment.

Assessment and formulation:

VMH-CTS treatment reviews use a semi-structured interview approach; looking at client goals, engagement, progress, and further treatment options where applicable. This allows the service to provide a consistent approach to review, regardless of clinician job role or qualification. As the only unqualified role within VMH-CTS, I can sometimes experience doubts about my ability to match the performance of my colleagues, and can worry about colleagues perceiving my ability as inferior to their own. Whilst I have previously perceived

this in MDTs, this is a rare occurrence, and I know the worry is largely due to my own fear of not having enough experience. Consequently, I found encouragement in the review structure as it enabled me to feel skilled up to facilitate this, and to put aside some of this anxiety.

In my previous experience I have seen that reviews can often be anxiety provoking, with clients worrying that they are being tested or judged. I also notice my own inner critic, about whether treatment has been helpful, and whether I have done enough. I feel that when shared as an agenda in advance, the structure can be containing for both the client and myself in managing some of this anxiety. It manages expectations of the session, allows time to prepare reflections, and provides opportunity for questions to be asked. In facilitating the review, the structure helped focus the session and keep us on track. At the same time, I appreciated that it was not overly structured, as this enabled me to be more responsive to the client's needs. For example, adapting for cognitive ability and maintaining the therapeutic rapport rather than utilising a more formal approach. I feel the latter helped engage the client, making them feel more comfortable during the session.

Options discussed for further treatment included trauma processing and continuing stabilisation to improve quality of life. Although the former had been helpful previously, both the client and team felt this was not the right time to pursue this due to recent stressors and difficulty with day-to-day functioning. There were concerns that the current environment could destabilise the client during any trauma processing. Whilst it remained a goal of the client, he recognised the rationale of allowing time to recover from the external stressors and improve his ability to function on a day-to-day prior to starting this work.

During the review the client was asked to reflect on how he would know his day-to-day life had improved, and he decided that this would be shown in his increased independence. He often relied on his mother for support in interacting with professionals (e.g. healthcare and other services) and for getting household supplies, and worried about being a burden on her. He would often become self-critical, comparing himself to how he functioned prior to his difficulties. The following treatment goals were identified:

1. To increase my confidence in going out in the community.
2. To increase my confidence in communicating with other people.

Several barriers were identified to going out including; fear of falling due to mobility difficulties, perceived stigma from others about using a mobility scooter, pain levels, crowds of people, and noisy areas. In interacting with others the client experienced several worries;

fearing embarrassment, criticism, physiological symptoms of anxiety (e.g. shaking and blushing), and that other people would think he was stupid. This highlighted several symptoms of social anxiety (NHS, 2017).

The review outcomes were shared with the MDT and the client's new goals were considered as a potential behaviour change intervention for health psychology training. There were many areas where the client would benefit from support, and it was a challenge deciding what should be prioritised. I needed to respect the client's wishes and accept that other difficulties (e.g. sleep, chronic pain) would remain post treatment.

Cognitive Behavioural Therapy (CBT) based on Clark and Wells (Clark and Wells, 1995) or Heimberg (Rapee and Heimberg, 1997) models, is the current recommended treatment for social anxiety disorder in adults (National Institute for Health and Care Excellence, 2013). In supervision we reflected on the client's engagement in treatment, cognitive needs, and the therapeutic approach he worked best with; gentle guidance, praise, and breaking tasks down into manageable steps so that they did not feel too overwhelming. With this in mind we decided the Heimberg model of graded exposure to feared social situations, would be most appropriate. There was a limited number of sessions available for this work as the client was nearing the end of their treatment. We agreed to eight sessions of social anxiety treatment.

Prior to starting the intervention it was necessary to get the client's consent (see appendix a) to facilitate this work as a trainee, and write it up anonymously for training purposes.

Although I am currently a trainee health psychologist, there is no formal job role for this within St Andrew's Healthcare. This has left me in a dual role, as I complete my training employed as an assistant psychologist. It was important to be transparent with this; ensuring the client understood the trainee role, and that their treatment with VMH-CTS would not be compromised if they chose not to give their consent. In the event of the latter, I would have taken the case to the team meeting for review, to determine whether I could continue treatment as an assistant psychologist, or whether another clinician would be required to do this. I would have been disappointed if I had been unable to continue the client's treatment, as having already assessed/formulated, I felt best placed to deliver this intervention.

To establish a baseline and understand the client's social anxiety difficulties, two self-report outcome measures (see appendix b and c) were administered prior to the intervention. The first was the Social Phobia Inventory (Connor et al. 2000), a scale for social anxiety disorder or social phobia, which assesses three symptom domains; fear, avoidance, and physiological arousal. The client's pre-score for this measure was 51, indicating a very

severe level of social anxiety. Individual items of the measure indicated extreme avoidance of social events and talking to strangers. The second measure was the Flourishing Scale (Diener et al. 2010), which measures the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose and optimism. The lowest possible score for this measure is eight, and the highest is 56. The client's pre-score was 23, indicating few psychological resources and strengths.

Intervention:

The graded exposure work was simplified to account for the client's cognitive difficulties. The goal being to ensure he understood the process to continue his own practice post treatment. Consequently a less formal approach was used, which strayed from the structured therapy approaches I was used to. Adapting this felt uncomfortable at times and less therapeutic, as it required more autonomy and I worried about doing something wrong. I found reassurance in regular supervision, which encouraged this flexibility and allowed me to be led by the client's needs rather than the models.

There were several advantages to having a pre-existing relationship with the client. He had trust and confidence in the service and we had a good therapeutic rapport. He had previously experienced abrupt and difficult endings with services, resulting in a wariness of therapy and fear that this would happen again. Consequently, the engagement period took significant time that would not have been available had we only had these eight sessions. Heimberg's model recommends 16 sessions over a four month period and I feel that even with the full number of sessions this may have been insufficient time for the client to engage and complete the treatment. Other advantages of the pre-existing relationship included familiarity with the client's cognitive difficulties and learning style, making it easier to pitch the treatment in a way he would understand and accept. Having already covered coping skills I was also confident in his ability to apply these.

A disadvantage of the pre-existing relationship was difficulty separating this work from previous sessions. There had been no break between the two phases of treatment (stabilisation and social anxiety work) and I had remained his lead clinician throughout. This led to times where the client brought external matters to sessions. Support from other clinicians in his care had gradually been phased out to prepare him for discharge, and this combined with my familiarity with the matters resulted in pressure to take on this extra responsibility. On reflection, it would have been helpful to ask his Clinical Liaison Nurse (CLN) to briefly step back in to support this. This way it would protect session time for the

graded exposure intervention, but still prevent the risk of further dependency on the service prior to discharge.

Table 1. Session content summary

Session	Content	Homework practice
1	A graded exposure hierarchy for telephone practice (see appendix d) was drawn up along with a flashcard (see appendix e) to remind client of coping skills he can apply before, during, and after practice. Emotional coping skills practiced.	Completed steps on the graded exposure hierarchy for telephone practice. Practiced emotional coping skills.
2	Unfortunately the client had received bad news and did not feel able to do graded exposure practice. Emotional coping skills practiced.	Positive thinking: for each session (face-to-face and telephone) the client was encouraged to share one thing they had enjoyed or achieved that week.
3	Sat on a bench in a popular outdoor space in the hospital.	
4	Practiced talking to a stranger by booking a room with reception for his next appointment.	
5	Looked at communication styles; passive, assertive, and aggressive. Completed worksheet on what each of these styles would be for a range of scenarios. Practiced two conversations observing the difference between an internal focus of attention (body sensations) and an external focus of attention (the other persons voice/body language). Repeated practice of booking a room for next appointment.	
6	Unfortunately there was an issue parking prior to the appointment, which distressed the client and he did not feel able to practice graded exposure work. Instead we drew up a coping plan for how he could	

	contact the hospital to resolve this matter. Considered how to sound confident on the phone.	
7	Repeat issue with parking. The client noticed he had been shifting into an aggressive communication style, and we considered what skills he could apply in future to prevent this happening. Practiced speaking to a stranger again, this time regarding the parking issue.	
8	Role play was set up where a hospital staff member acted dismissive and disinterested when the client practiced assertively arranging his next appointment. Recapped communication styles and considered what the assertive middle ground was, not putting our needs below or above those of others.	

Table 1 summarises the content of sessions. These were fortnightly, 90 minute (extended from 60 to account for cognitive difficulties) sessions, with a telephone call on the weeks between to check in and troubleshoot homework practice. Skills were applied before, during, and after practice to help manage anxiety. The client rated their anxiety as a percentage (0% = no anxiety, 100% = the most anxiety you could experience) before and after practice. Unfortunately there were two sessions where the client had felt unable to practice in session due to external stressors. I was understanding of this, however noticed some anxiety and frustration at the limited sessions and inability to extend these. It was important to respond creatively to this so that the sessions were still helpful, allowing development. Therefore rather than skip a practice we would prepare for one that could be completed from home.

Evaluation:

Scores of the Flourishing Scale and Social Phobia Inventory (SPIN) are discussed below.

Table 2. The Flourishing Scale and Social Phobia Inventory pre and post scores

Outcome measure	Pre score	Post score	Indication
The Flourishing Scale	23	41	Increase in psychological resources and strengths*

SPIN	51	40	No clinical response** but a reduction in social anxiety from 'very severe' to 'severe',
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* Lowest possible score = 8, highest = 56, higher score indicates more psychological resources and strengths.

** Clinical response requires 50% reduction in score.

At the post time point the client scored 41 out of a possible 56 on the Flourishing Scale, where higher score is best. This indicates that he has several psychological resources and strengths such as feeling his social relationships are supportive and rewarding, feeling competent and capable in the activities that are important to him, and feeling he leads a purposeful and meaningful life. Table three below shows that the client's score improved for all eight of the items on this measure.

Table 3. Changes in the Flourishing Scale item scores

Item	Pre score	Post score*
1. I lead a purposeful and meaningful life	2	5
2. My social relationships are supportive and rewarding	3	6
3. I am engaged and interested in my daily activities	3	5
4. I actively contribute to the happiness and well-being of others	3	5
5. I am competent and capable in the activities that are important to me	3	5
6. I am a good person and live a good life	3	5
7. I am optimistic about my future	3	5
8. People respect me	3	5

* Improved post scores are highlighted in bold

The client's SPIN post score of 40, did not correlate with a clinical response (SPIN states this at a 50% reduction), however did indicate that the social anxiety had started to reduce. The clients score reduced from the very severe category to severe. Table 4 below show individual item changes on the measure. Scores worsened on one of these (I am bothered by blushing in front of people), remained the same for ten, and slightly improved for six.

Table 4. Changes in Social Phobia Inventory item scores

Item	Pre score	Post score*
1. I am afraid of people in authority	3	3
2. I am bothered by blushing in front of people	2	4
3. Parties and social events scare me	5	5
4. I avoid talking to people I don't know	5	3
5. Being criticized scares me a lot	4	4
6. I avoid doing things or speaking to people for fear of embarrassment	4	3
7. Sweating in front of people causes me distress	4	4
8. I avoid going to parties	5	5
9. I avoid activities in which I am the centre of attention	5	4
10. Talking to strangers scares me	3	3
11. I avoid having to give speeches	5	5
12. I would do anything to avoid being criticized	4	3
13. Heart palpitations bother me when I am around people	3	3
14. I am afraid of doing things when people might be watching	4	3
15. Being embarrassed or looking stupid are among my worse fears	4	4
16. I avoid speaking to anyone in authority	4	3
17. Trembling or shaking in front of others is distressing for me	4	4

**Improved post scores are highlighted in bold.*

Although I noticed some disappointment that the reduction in anxiety on the SPIN was not a clinical response, I was not overly surprised by this. The limited number of sessions meant we were not able to provide the full CBT (Heimberg model) recommended in NICE guidance (NHS, 2017). I feel this intervention could have been improved by offering the full 16 sessions and with a shorter time lapse between each one. Unfortunately due to the geographical area covered by VMH-CTS we were only able to meet face-to-face for fortnightly sessions. Whilst telephone check-ins were utilised for weeks in between, these did not feel like sufficient replacements for the face-to-face sessions. These limitations were frustrating, however, I feel we made good use of the sessions that we had. The outcomes were encouraging and provided motivation for the client to continue his practice post treatment.

Feedback was gathered verbally from clinicians involved in both telephone and face-to-face practice, and I would then share this with the client afterwards. For the former, the CLN observed that the client sounded more confident and was able to make conversation more

easily in phone calls post treatment. For practice talking to a stranger, the client had called a member of VMH-CTS not involved in their care. This staff member commented that whilst initially anxious, the client grew in confidence on the phone, and there were clear improvements in his conversation skills following telephone practice. It was a pleasure to hear this feedback, I noticed feelings of relief, and found it motivating. Due to the initial difficulties engaging the client in treatment and the increasing complexity of his case, treatment had at times felt stuck and I had worried that he was not benefitting from it or finding it helpful.

In face-to-face practice a clinician from an external service commented that initially the client had presented as anxious and uncomfortable, with poor eye contact. In the second practice they reported that the client improved, making good eye contact and sounding assertive. The client said that they had been highly anxious during the interaction, which was a good opportunity to reflect that we can still appear assertive even when we do not feel it. This reiterated the benefits of an external focus of attention in interacting with others so that we do not get caught up with internalised critical thoughts, covered in session 5 of the behaviour change intervention.

To close this work, we reflected on the experience and considered the progress that had been made. The client reported the following achievements:

- I have learned more coping skills and feel stronger in using these.
- I am not as dependent on my mum for managing my phone calls and appointments.
- I am less avoidant of making phone calls, more assertive talking on the phone and able to contain my anger better.
- This is a difficult time of year for me but my distress started later this year (usually beginning of October, this year didn't start until end of November) and I am coping better with it.

The client's low mood often made it difficult for him to acknowledge achievement and recognise positives and this felt like a significant turning point. I found reassurance in his feedback, as it challenged the earlier worries I had experienced due to the perceived slow progress at times. I had enjoyed seeing him become increasingly independent and growing in confidence; learning new ways to cope with distress, successfully interacting with strangers, being assertive in managing conflict, and problem solving stressors.

Following this piece of work I knew I would be preparing the client for discharge and I noticed some challenges to letting go. Whilst I could visibly see improvement and knew he was ready for discharge, I could still see areas where he would benefit from treatment. Referrals had been made to adult social care for longer-term input, but I worried that the lack of support in the interim could de-stabilise him and undo the progress he had made.

In supervision I reflected on the therapeutic relationship and identified that the client's likeability, hardworking approach, and vulnerable presentation drew out a protective trait in me, which increased my responsiveness to his needs. I knew that he had struggled to get his needs met previously and found myself at times, taking on additional roles (e.g. coordinating treatment and liaising with other services/agencies) to ensure that tasks were completed and to prevent further challenges for the client. Unfortunately, this meant there were occasions where I added too much to my case load, and although I was able to keep on top of this, it was an additional stressor. It also resulted in some underlying resentment towards other services/agencies when I felt the support they offered was not the best approach. I was able to name this in supervision and problem solve by creating a support information sheet with the client highlighting areas of support and how others can help, and writing a summary report of our work together including recommendations for further input. This helped give me some closure on our work together and an appropriate ending.

My practice throughout this behaviour change intervention was informed by BPS codes of ethics and conduct (The British Psychological Society, 2018), and HCPC standards of proficiency (The Health and Care Professions Council, 2015). I feel this was demonstrated in my ability to work within my competency, making good use of supervision and MDT support. I was also open and honest about my trainee role, and respectful of the client.

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Appendices

Appendix A

Behaviour change intervention consent form

Liverpool John Moores University

Health Psychology Professional Doctorate

Consent to the use of written information for training purposes

Louise Winter-Oakman is a trainee Health Psychologist at Liverpool John Moores University. A requirement of this training is that examples of trainees work are submitted for assessment purposes.

Please note that any information written up:

- Will be anonymised, meaning all identifying details (e.g. your name) will be removed.
- Will only be used for assessment purposes.
- Will only be viewed by Louise Winter-Oakman, her clinical supervisor (Dr Sophia Collins), Academic supervisors at Liverpool John Moores University, and an external examiner for the course.
- Will be stored securely by Liverpool John Moores University until three months following Louise Winter-Oakman's graduation. These documents will then be destroyed.

Please speak to Louise Winter-Oakman if you have any further questions and complete the following form if you agree for your sessions to be written up for training purposes.

I, _____

Give my informed consent for sessions to be written up for training purposes by Louise Winter-Oakman. I understand the terms of this listed above.

Signed

Date

Signed

Date

Appendix B

Social Phobia Inventory (SPIN)

The Social Phobia Inventory (abbreviated as SPIN) is a 17-item questionnaire developed by the Psychiatry and Behavioral Sciences Department at Duke University. It is effective in screening for, and measuring the severity of social anxiety disorder.

Please read each statement and click in the column that indicates how much the statement applied to you **over the past week**.

	Not At All	A Little Bit	Somewhat	Very Much	Extremely
1. I am afraid of people in authority.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
2. I am bothered by blushing in front of people.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
3. Parties and social events scare me.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
4. I avoid talking to people I don't know.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
5. Being criticized scares me a lot.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
6. I avoid doing things or speaking to people for fear of embarrassment.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
7. Sweating in front of people causes me distress.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
8. I avoid going to parties.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
9. I avoid activities in which I am the center of attention.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
10. Talking to strangers scares me.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐

	Not At All	A Little Bit	Somewhat	Very Much	Extremely
11. I avoid having to give speeches.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
12. I would do anything to avoid being criticized.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
13. Heart palpitations bother me when I am around people.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
14. I am afraid of doing things when people might be watching.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
15. Being embarrassed or looking stupid are among my worst fears.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
16. I avoid speaking to anyone in authority.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐
17. Trembling or shaking in front of others is distressing to me.	Not At All ☐	A Little Bit ☐	Somewhat ☐	Very Much ☐	Extremely ☐

Appendix C
The Flourishing Scale

The Flourishing Scale

The Flourishing Scale is a brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism. The scale provides a single psychological well-being score.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.

Below are 8 statements with which you may agree or disagree. Using the 1–7 scale below, indicate your agreement with each item by indicating that response for each statement.

1. Strongly disagree
2. Disagree
3. Slightly disagree
4. Mixed or neither agree nor disagree
5. Slightly agree
6. Agree
7. Strongly agree

I lead a purposeful and meaningful life.
My social relationships are supportive and rewarding.
I am engaged and interested in my daily activities
I actively contribute to the happiness and well-being of others
I am competent and capable in the activities that are important to me
I am a good person and live a good life
I am optimistic about my future
People respect me

Scoring: Add the responses, varying from 1 to 7, for all eight items. The possible range of scores is from 8 (lowest possible) to 56 (highest PWB possible). A high score represents a person with many psychological resources and strengths.

Appendix D

Telephone practice graded exposure hierarchy

Anxiety is rated as a percentage where 0 = no anxiety and 100% = the most anxiety you could experience. The client started by practicing the first step, at the bottom of the table. The client would rate his anxiety prior to practice and again afterwards. This step would be repeated until the anxiety level reduced and the client felt ready to move up to the next step. This process was repeated for each step.

Anxiety (%)	Step
*	Disagreeing with someone during a phone call with a stranger.
*	Disagreeing with someone during a phone call with someone I know.
*	Ending a call with a stranger and calling them back with an answer.
*	Ending a call with a practitioner involved in my care and calling them back with an answer.
*	Saying 'I get anxious with phone calls, so if I don't know how to answer I will let you know', during a phone call with a stranger.
*	Saying 'I get anxious with phone calls, so if I don't know how to answer I will let you know', during a phone call with a practitioner involved in my care.
90	Saying 'I don't know' to a stranger (CTS staff member) in a telephone conversation.
75	Saying 'I don't know' to my VMH-CTS clinicians in a telephone conversation
70	Saying 'I don't know' to daughter in a telephone conversation.
65	Saying 'I don't know' to my mum in a telephone conversation.
60	Changing conversation talking to stranger (unknown VMH-CTS staff member) on phone.
	Talking to stranger on phone – VMH-CTS staff member not involved in my care.
45	Changing conversation talking to my VMH-CTS clinicians on phone.
40	Changing conversation when talking to daughter on phone.
30	Changing the conversation when talking to mum on phone, not letting her know in advance that I am doing this.
25	Changing the conversation when talking to mum on phone, letting her know in advance that I am doing this.

* Anxiety not rated, as at time of forming hierarchy, these were all 100% and did not feel attainable at this time. We were also limited in number of sessions and these last steps therefore were not the focus. It was agreed that these could be future steps post treatment, for the client to continue their practice.

Appendix E

Before, during, and after flashcard

The client was asked to consider which of the emotional coping skills he had learned prior to the behaviour change intervention, could help him manage his anxiety before, during, and after graded exposure practice. These were summarised on a flashcard to aid recall. This was tailored specifically for telephone calls and appointments, which was a main trigger of anxiety.

Telephone calls and appointments

Before:

- Write down what I want from the appointment/call and any questions I need to ask.
- Mindfulness of an object e.g. stone, fishing float

During:

- Write down any important information
- *Remember, I don't need to make a decision today I can call them back.*

After:

- Write down what happens next and any action points I need to do.
- Mindfulness of an object e.g. stone, fishing float
- Use colouring book or draw.

Follow-up: If I have not been contacted within seven days I will call them to arrange this. Repeat if required.

1.2 Behaviour Change Intervention Case Study 2

Learning outcomes:

- Assess, formulate, intervene and evaluate in a formal behaviour change intervention where the intervention is delivered in a group, online, or other alternative mode.
- Work with clients, respecting them, respecting professional boundaries and laws and codes of conduct, and reflecting on the experience in a structured fashion.

This intervention was an online e-learning on self-care for employees of the charity. It aimed to explain the importance of self-care, help individuals recognise warning signs of stress and burnout, identify how self-care can be promoted in the workplace, and locate employee support available across service sites. During the time the intervention was evaluated 36 employees completed the e-learning, of these 16 completed pre and post measures and the findings of this are discussed in this report.

This experience, made me consider accessibility to training and support for different professions and what the different needs were for clinical and non-clinical staff. The charity has continued to offer this online training and staff self-care has been increasingly promoted during the COVID pandemic. With many staff now working from home, this form of intervention may be particularly helpful in training staff going forwards.

Behaviour Change Intervention Case Study 2

This case study is a reflection of an online Behaviour Change Intervention (BCI) conducted within St Andrew's Healthcare, a mental health charity. It will reflect on the assessment, formulation, intervention, and evaluation of the case.

Assessment:

The National Health Service's long term plan addresses concern about funding, staffing, increasing inequalities, and pressures from a growing and ageing population (National Health Service, 2018). It recognises that to succeed it will need to challenge the pressures faced by healthcare staff. Pressures can include increasing workload and demands on staff as a result of staffing shortages and dissatisfaction with work environment and career pathway, due to limited funding for training, facilities and resources.

Staff in patient facing roles such as nurses (Lesly, 2020) or therapists (Sodeke-Gregson et al., 2013; Sprang et al., 2007) are considered to be at risk of burnout, compassion fatigue, and secondary trauma. Lesly (2020) describes burnout and compassion fatigue as the condition of staff's extended stress, emotional states, and prolonged duress following an event. Secondary trauma has been described as a psychological response to indirect exposure to traumatic content (Figley, 1995). Burnout is associated with both mental and physical health issues including anxiety, depression, sleep disturbances, obesity, infectious diseases, musculoskeletal disorders; and increased risk of diabetes, cardiovascular disease and cardiovascular related events (Alexandrova-Karamanova et al., 2016). This indicates that without sufficient support, staff's health and wellbeing can deteriorate.

A systematic review looking at staff (nurses, physicians, pharmacists, hospital staff, paramedics, surgeons, anaesthetists, and trainee doctors) wellbeing and patient safety found that the latter was associated with poor wellbeing and moderate to high levels of burnout in staff (Hall et al., 2016). Poor wellbeing was characterised by depression, anxiety, poor quality of life and stress. Wijdenes et al. (2019) noted low morale, increased medication errors, and higher staff turnover as a result of compassion fatigue. Providing further support that the wellbeing of a workforce may have wider spread consequences, potentially jeopardising the health of the patients they treat.

St Andrew's Healthcare have several initiatives in place to support staff wellbeing. These include a 24 hour helpline, access to recovery college courses, and staff training. However, a service manager and the Recovery College reported several barriers to accessing these

resources. This included staff not being able to take time out from work due to extensive caseloads, limitations on how many staff can attend trainings as teams will need to be able to cover absent staff, and variance in support resources available at the different sites of the charity (e.g. Recovery College staff based at Northampton site). To help improve access to support the service manager proposed an online BCI. This had been done in other areas of the service to improve clinical practice e.g. clinical record keeping and information governance. However, evaluation had focused on feedback on the online BCI not what change had been made following this. It was thought that an online BCI would be less time consuming than face-to-face intervention, would not require staff to leave their work base, could be accessed at any time during the work day, and would reduce Intervention costs as no staff are required to facilitate it.

Formulation:

The online BCI would comprise teaching on self-care for the service's employees. Using the Oxford Dictionary definition to describe Self-care, "the practice of taking an active role in protecting ones' own wellbeing and happiness, in particular during periods of stress." It would incorporate stress management techniques. The following learning objectives were identified; by the end of the online BCI participants would be able to:

- Explain why self-care is important
- Recognise warning signs of stress and burnout
- Identify how self-care can be promoted in the workplace
- Locate staff support available across service sites

This would be a non-mandatory training so it would be important to consider how best to advertise the online BCI and encourage staff to prioritise their own wellbeing. A challenge to this could be that staff are used to caring/supporting others and it may not feel natural to direct this to themselves. One way round this may be to inform them of the benefits of self-care, including how this could improve their ability to care for others in the long-term. It would be helpful to include this at the start of the online BCI, however, I feel advertising with this could detract from the emphasis on staff needs. The charity supported the online BCI by crediting it's completion as Continued Professional Development (CPD). This was particularly relevant for professions such as nursing who are required to complete CPD to maintain their professional registration.

The online BCI was advertised on the services Intranet, internal messaging service, and Facebook; and the Communications team sent out an email notification. This utilised the slogans 'Take care of yourself with our new e-learning!' and 'We recognise the importance of staff health and wellbeing and this e-learning has been designed to support you'. It then listed the learning objectives of the course and explained how it could be accessed. The online BCI was launched in January, where it was hoped that staff would have had a break over Christmas and the New Year. It would also be a time where people are talking about making changes/resolutions and consequently may be more open to learning and trying something new.

One challenge of designing the BCI was that it would need to be relevant to all staff (clinical and non-clinical), with self-care practices that could be easily applied in different workspaces and conditions (e.g. wards, offices). The content of the online BCI drew from the NHS guidance on stress reduction strategies (NHS, 2018), and my own clinical training/practice. It included advice on day-to-day activities (e.g. sleep, eating, and exercise); along with work specific advice around time management and acceptance that there will always be a 'to do' list. I aimed for a range of strategies that would allow for different work situations e.g. stretches would be helpful for those sitting for extended periods of time, breathing would be discrete for those with more patient focused work. Table 1 below summarises BCI content.

Table 1. Online BCI content summary

Topic	Summary
What is it?	Definition of self-care (Oxford dictionary)
Why practice?	- Increases resilience to stressors and difficult emotions - Risk of burnout in caregivers - Increases energy levels and productivity in long-term - Reminds others that you are important too
Check in	Check list of burnout symptoms – if any are selected a notice comes up advising staff that self-care could be beneficial to them.
STRENGTH skill	Sleep, Take time for yourself, Resist unhelpful behaviours, Exercise, Nutrition, Gain mastery, Take time for yourself, Healthy self-talk
Self-care at work	Tips:

	- Don't over commit, give your manager a realistic time frame or if urgent let them know what will be put on hold to allow time to do this. - Have lunch away from ward/desk - If sitting a lot, stand up and stretch often - Drink water regularly and opt for healthy snacks - Keep work correspondence within working hours - Try get exercise e.g. park further away, lunch walk - Get to know your colleagues
Breathing exercise	3 minutes – deep breathing, breathe in for 5 out for 7
Seated yoga	3 minutes – six poses each held for 30 seconds
Promoting self-care at work	Tips: - Encourage regular lunch breaks away from ward/desk - Encourage staff to accept it will never all get done - Check in with staff, are they burnt out? Consider Occupational health referral or time off if they are. - Encourage staff to take regular leave throughout the year. - Create a health email policy, check 'is it necessary to send?' - Be a self-care role model - Set up staff activities to boost morale - Have a staff wellbeing representative in your team - Put together a notice board with self-care tips/tools - Consider their goals and support staff development
Other resources/support	Links to other staff wellbeing support and initiatives across St Andrew's Healthcare.

The Transtheoretical model - stages of change (Prochaska & DiClemente, 1998) was considered when planning this BCI, recognising that not all staff will be in a place to start applying the stress reduction strategies. It was important to inform staff of the benefits of changing their behaviour at the start of the BCI to account for those in the contemplation stage of change and not yet at the preparation or action stages. With staff's busy caseloads it was felt that the online BCI should be no more than 30 minutes initially so that this felt manageable and did not create further stress.

To account for different learning styles, the online BCI was supported with visual aids, audio and practical exercises. Including a breathing exercise video animation, which a patient volunteered to make with the media team. One reported benefit of patient involvement in education for care is that it can encourage participation and debate, and is deemed worthwhile and enjoyable (La Var, 2002). It felt good to involve a patient in this project and have their support in highlighting the importance of staff self-care.

For evaluation of the online BCI staff were given the option of completing measures. The Self-Compassion Scale – Short Form (Raes et al., 2011; SCS-SF; Appendix A) was completed at the start of the BCI and again four weeks later. An evaluation form (Appendix B) was also completed at post time point. The SCS-SF was chosen to see whether self-compassion would increase as a result of the BCI encouraging and promoting self-care behaviour. It was felt that four weeks as a post time point was enough time for participants to apply self-care skills/knowledge, and not too long that they would have forgotten the material.

Intervention:

The ‘Self-care for St Andrew’s employees’ online BCI was launched on 3rd January 2020. For data collection purposes this was closed on 1st April 2020 as staff settled into lockdown and COVID-19 policies were put into practice. The BCI however, has remained available for staff. In total 36 people completed the course during this time. Of these 22 completed pre measures and 16 completed both pre and post measures. The final 16 had an age range of 24-54, mean age of 39.25 years. Their job roles are summarised in table 2 below.

Table 2. Participant field of work

Role	Frequency
Administrator	4
Psychology	3
Management	2
Medico-legal	2
Learning and development	2
Sports and exercise	1
Occupational therapy	1
Nursing	1

Sales and marketing	1
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Participants consisted mainly of non-ward professions, who would likely have found it easier to access as they were not in patient areas and had greater access to IT facilities.

Evaluation:

Results of the SCS-SF and evaluation form are discussed below.

Table 3. Self-compassion scale – short form scores

ID	Pre score	Self-esteem level	Post score	Self-esteem level	Level change*
1**	2	Low	2.33	Low	No change
2	2.83	Moderate	1.92	Low	Decreased
3	3	Moderate	3.17	Moderate	No change
4	2.33	Low	3.42	Moderate	Increased
5	3.17	Moderate	2.58	Moderate	No change
6	3.67	High	3.83	High	No change
7	3.08	Moderate	3	Moderate	No change
8	3.67	High	3.42	Moderate	Decreased
9	3	Moderate	3.42	High	Increased
10	3.67	High	3.75	High	No change
11	2.67	Moderate	2.42	Low	Decreased
12	2.42	Low	3	Moderate	Increased
13	3.75	High	3.58	High	No change
14	2.92	Moderate	2.5	Moderate	No change
15	2.17	Low	3.38	Moderate	Increased
16	3.33	Moderate	3.33	Moderate	No change

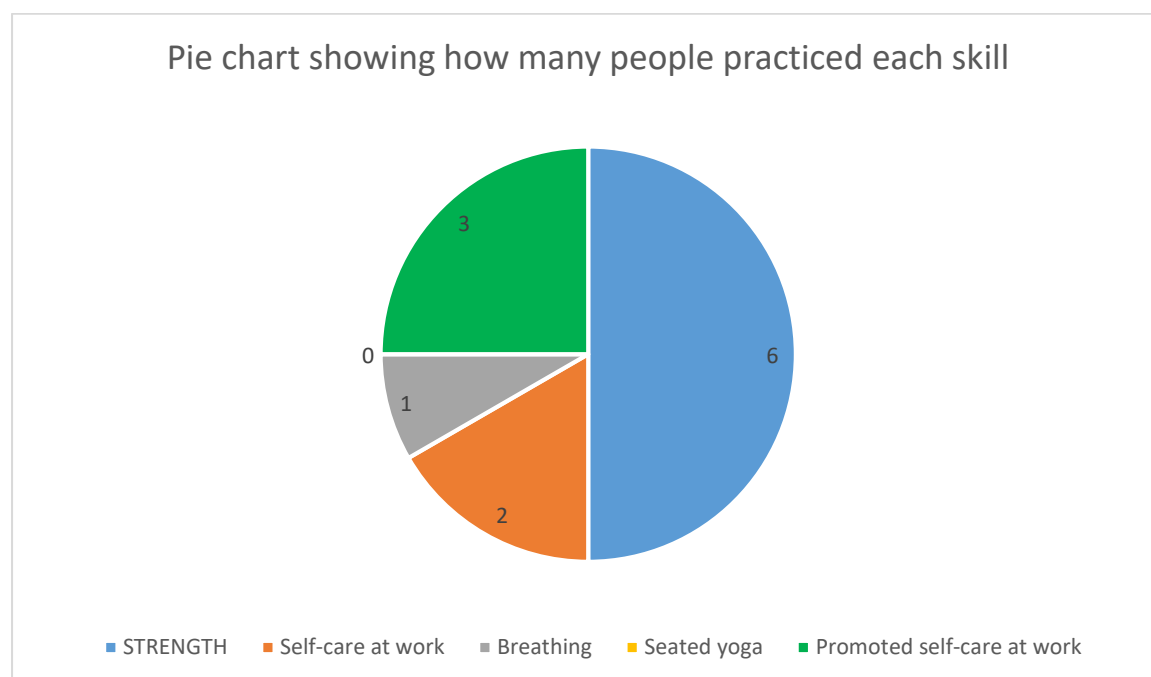
* Level change indicates a difference in score that placed the participants into another range e.g. from low self-esteem to moderate self-esteem.

Table 3 shows total self-esteem scores for the 16 participants who completed all measures. Subscales were not examined as these are considered less reliable in the short form of this measure (Raes et. al. 2011). Of the 16 participants, four increased in self-esteem level, three decreased, and nine remained the same. Three of those that remained the same were at a high self-esteem level prior to completing the BCI and therefore could not increase to a

further level. Only four of the participants scored with low self-esteem at pre time point, which may indicate a barrier to those most in need of the support accessing it. It would be important to consider how those in the pre-contemplation stage of change (Prochaska & DiClemente, 1998) could be supported to move into the contemplation (intention to change their behaviour) stage and access this BCI. These people will likely be unaware that their self-care is a problem or may be placing too much emphasis on the cons of changing their behaviour.

The evaluation form at post time point found that 12 of the 16 (75%) participants had been able to practice the self-care tips in the four weeks following completion of the BCI. Two of the four who had not applied the tips said this was because they had forgotten to practice, a third said they had forgotten the BCI content. The final participant had not completed the full BCI as they were not sure how long this would take and it had not advised that they needed a quiet space for the exercises. Whilst I found it frustrating that some people had not practiced the tips, this made me consider ways to aid memory and remind people to practice.

Graph 1. A pie chart showing how many people practiced each skill



Graph 1 indicates that the STRENGTH skill was most frequently practiced. I feel this was because it allowed participants to build on activities they were already doing in their day-to-day e.g. sleep, nutrition. The next most frequent was promoting self-care at work. Whilst

some of these respondents may have been in managerial roles, it is interesting that even in a self-care training, their focus was on how this could support others. The Chair yoga exercise was not practiced at all. This may have been due to practical issues (e.g. other staff about) or feeling self-conscious. Normalising staff self-care may encourage participants to try this exercise. Practice may also increase as a result of more staff working from home due to COVID-19.

Frequency of practice was reported at a range of 9-28 days over the four week period post e-learning. The mean number of days of practice was 18, unfortunately one participant answered with 'most days' and could not be included in this data. I was pleased to see that participants had been able to practice self-care on several occasions, as this meant they were more likely to form new and healthier self-care habits. Regular completion of the BCI may be required to support the latter stages of the Transtheoretical model; maintenance and termination (Prochaska & DiClemente, 1998). Maintenance refers to sustaining the behaviour change, and termination refers to having no desire to return to their previous behaviour.

Of the 12 participants that had practiced the skills 11 of these felt they had noticed a change in themselves. Table 4 below shows descriptions of these changes.

Table 4. Change experienced by participants

Change	Response frequency*
Better sleep and energy levels	3
Taking lunch break and getting outside helps me unwind/clear head and focus on something other than work	2
Increased tolerance	2
Being kinder/less tough on myself	2
Exercising more – feeling stronger, more energy	2
Taking a step back if something upsets me to get a clear view and not let it consume me	1
Breathing helps calm me when I'm anxious	1
Organising team building event outside of work	1
Helped me realise I'm not practicing what I preach (self-care) and that I deserve this too	1
More mindful of eating/food choices has improved energy levels	1

Putting time aside for myself at weekends/evenings to switch off	1
Feel more rested and mindful	1

* Please note some participants gave multiple answers

The most frequently reported changes were: an increase in energy levels as a result of change to sleep, exercise, or nutrition; finding it beneficial to take a lunch break and get outside; increased tolerance; and being kinder to one self. It was good to see that participants had started to see positive changes as a result of re-focusing on their self-care. However, simultaneously it was sad to see that many did not appear to have time for this previously e.g. taking the time for a lunch break. All staff are given a break and this not being used highlighted the significant work demands of staff. If repeating this evaluation, I would consider using a measure of stress rather than the self-compassion measure, as I feel it could shed further light on this reported change.

Finally participants were asked for recommendations on how the online BCI could be improved. Answers are summarised in table 5 below.

Table 5. Recommendations for how the e-learning could be improved

Recommendation	Response frequency
Keep offering the support/e-learning	2
Have as face-to-face session – get away from work space, opportunity to ask questions	2
Have reminders for practice e.g. via Intranet, email or app	2
State how long it will take to complete	1
Recommend it be completed in a quiet space	1
Allow option to assign this e-learning to other staff	1
Printable crib sheet of top self-care tips	1
Have as a mandatory e-learning every 4-6 months	1

The most frequent recommendations were to: continue offering the BCI; to offer it in a face-to-face format; and to have reminders for self-care practice. One participant did not give recommendations for the BCI, but did this more broadly looking at the service. They felt the culture for self-care was a problem and reported that there were a lot of burnt out staff ‘pushing through’ at work. They felt that a culture needed to be created where reaching out for support isn’t detrimental and self-care is part of the routine e.g. encouraging/making time

for supervision, reflective spaces which 'aren't a strain on further practices on the wards', bi monthly check ins with staff to make sure they are okay. They concluded that this would help staff and in turn the patients they are treating. Some participants inserted a comment here instead of a recommendation. Two participants said they thought the BCI was great/perfect; another highlighted that they had not learned anything new, but that it had helped them to refocus on their wellbeing.

Conclusions:

I feel the online BCI was an efficient format to deliver self-care support as it was easy to access and was available at all times. However, with it being non-mandatory, staff less confident in technology may have missed the advertising of this and/or not known how to access it. Ward based staff may also encounter barriers to participating as they use shared IT facilities and are limited in the time (amount and when) they can leave the ward to access training. This is of concern as recent research indicates this staff group may need support the most during the COVID-19 pandemic. Matsuo et al. (2020) explored burnout in nurses in a Tokyo hospital with high COVID-19 rates and found that more than 40% of these met the criteria for burnout. Consequently, I would want to consider alternative forms of advertising for this. For example, using posters, educating ward managers on the importance of the BCI so that time is allowed for staff to complete this, and considering a wellbeing event to introduce this to the wards.

COVID-19 lockdown and shielding started during the BCI data collection period. This would have put significant strain on healthcare practice and many staff would not have had time to participate. It is possible this may have had better up-take if launched at a different time. It is worth however, noting that due to staff working from home and shielding during the pandemic; online BCI's may be a required format for future practice. Provisions may need to be made to wards, which would allow them to access IT facilities without leaving their ward and risk carrying COVID-19 on to other areas of the site. Once in place this may increase staff access to online staff wellbeing support.

Taking on board participant recommendations, there are some changes I would like to make to the online BCI moving forwards. I would want to include an approximate time for completion and a sentence recommending a quiet space or use of headphones. It would also be helpful to add a link at the end where participants can download and print a poster with top tips for the office or personal use. Along with an option to recommend and send the BCI to others. I feel it would be important to keep this an option and not something

managers could assign to staff, which may result in frustration at something else being added to their workload. Being a non-mandatory training it would be helpful to continue to advertise the course throughout the year using various formats (e.g. email, intranet, posters), which would help normalise the practice of self-care. It may also help to send emails/texts to staff with daily tips and recommendations to promote a self-care culture.

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Appendices

Appendix A

Self-Compassion Scale – Short Form

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never					Almost always
1	2	3	4		5

_____ 1. When I fail at something important to me I become consumed by feelings of inadequacy.

_____ 2. I try to be understanding and patient towards those aspects of my personality I don't like.

_____ 3. When something painful happens I try to take a balanced view of the situation.

_____ 4. When I'm feeling down, I tend to feel like most other people are probably happier than I am.

_____ 5. I try to see my failings as part of the human condition.

_____ 6. When I'm going through a very hard time, I give myself the caring and tenderness I need.

_____ 7. When something upsets me I try to keep my emotions in balance.

_____ 8. When I fail at something that's important to me, I tend to feel alone in my failure

_____ 9. When I'm feeling down I tend to obsess and fixate on everything that's wrong.

_____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

_____ 11. I'm disapproving and judgmental about my own flaws and inadequacies.

_____ 12. I'm intolerant and impatient towards those aspects of my personality I don't like

Appendix B

Evaluation form

St Andrew's staff self-care e-learning

St Andrew's healthcare recognises the importance of staff health and wellbeing and this e-learning was designed to support staff in taking care of themselves. We hope you found the e-learning helpful.

My self-care journey:

1. Have you been able to practice/implement any of the self-care tips so far?

Yes (complete questions 3, 4 and 5)

No (complete question 2 and 5)

2. If no, what were the barriers to practice/implementing the self-care tips?

3a. If yes, which of the following have you used? (Please select)

- Build up your STRENGTH (Sleep, Take care of yourself, Resist unhelpful behaviours, Exercise, Nutrition, Gain mastery and purpose, Take time for yourself, Heady self-talk)
- Self-care at work e.g. have lunch away from the ward/desk, keep correspondence within working hours
- Breathing exercise
- Seated yoga
- Promoted self-care in the workplace e.g. participate in staff activities to boost morale/have a break from work, shared self-care tips and tools.

3b. In the last 28 days, on how many days have you been able to practice/implement the self-care tips?

4. If you have been able to use these self-care tips have you started to notice any change in yourself?

Yes

No

If yes please describe how/give examples

5. How could we improve the St Andrew's staff self-care e-learning?

Chapter 2 – Consultancy

This competency consisted of two items; Consultancy Contract/Report and Consultancy Case Study. The consultancy was for the Charity's Recovery College.

2.1 Consultancy Contract/Report

Learning outcomes:

- Assess requests for consultancy and establish the needs of a client group.
- Plan, manage, monitor and evaluate consultancy in Health Psychology.
- Carry out teaching to contribute to the development of new knowledge, applications or understandings of Health Psychology.

The agreed consultancy was to co-create an 'Introduction to Mindfulness' teaching course with a senior trainer of the college, who had lived experience of mental health difficulties. This would then be piloted at two of the Charity's sites. Fourteen staff attended the pilots and nine of these completed both parts of the course. Participant feedback and facilitator reflections are summarised in this report. Recommendations are also made for future facilitation of the course.

The biggest challenge I faced in designing this course was ensuring that it was helpful for clients, and both clinical and non-clinical staff. I learned how to consider and balance different participant needs. The Recovery College has incorporated this course into their new curriculum and continue to offer this.

REDS Academy Consultancy Report

The agreed consultancy (Appendix A) was to co-create an 'Introduction to Mindfulness' teaching course for REDS Academy. This was to be co-created with [REDACTED], a Senior Recovery College Trainer (the client) and piloted at two St Andrew's Healthcare sites; Northampton and Essex. The following report will summarise feedback collated at the pilots, reflections from the facilitators' experience, and recommendations for the client on future facilitation of the course.

Introduction to Mindfulness Course

The course was a two hour teaching accessible to service users and staff across two of the four St Andrew's Healthcare sites; Northampton and Essex. These sites were agreed due to accessibility of location for myself as the consultant. Both pilots were due to be co-facilitated with the client however, due to sickness [REDACTED] (Recovery College Lead) stepped in for the client to cover the Essex pilot.

The client received a two hour introduction to mindfulness course, which included a PowerPoint presentation and course handbook (contents in Appendix B) containing relevant handouts, worksheets, and resources. The course covered the following topics: what mindfulness is; how it works; why we should practice it; practice exercises; and a mindfulness plan for continuing practice. See Appendix C for references to resources used in designing the 'Introduction to Mindfulness' course.

Course format and attendance

The Northampton pilot was facilitated in two parts on the 21st and 23rd October. This was due to working around the existing REDS academy timetable and staff availability. Four staff members, one of whom was an ex-service user attended part 1 of the course. Unfortunately only two of these participants were able to attend part 2 of the course.

The Essex pilot was facilitated as one 2.5 hour group with a break in the middle. Ten participants attended, eight of these were staff members and two were service users. One service user left after the introduction and group rules citing an inability to see the projected presentation as their reason for leaving. Two staff members left after the break, informing other participants that the room was too cold for them. Seven participants completed the course.

Course evaluation form

On finishing the course participants were asked to complete a course evaluation form. This asked the following questions:

1. What two things will you take away from today?
- 2 What two things did you find helpful about the course?
3. What two things could we do to improve the course?
4. How likely are you to recommend this course to someone else? Please tick

Extremely likely	Likely	Neither likely or unlikely	Unlikely	Extremely unlikely	I'm not sure

The aim of this was to collate feedback on what was good about the course and identify areas for improvement. This data would be used to inform future facilitation of the 'Introduction to Mindfulness' course.

Participant feedback

Responses to the service evaluation questionnaire are shown in the tables below. Response frequency refers to the number of participants who answered with a particular response.

Table 1. What participants took away from the course

What participants took away from the course	Response frequency
Different techniques/approaches to mindfulness	5
Knowledge, awareness of mindfulness and what it is	3
A specific mindfulness exercise to practice e.g. walking, breathing	2
Not every approach will suit you	1
It takes practice	1
How to fit it into everyday activities	1
Motivation to make time in my day to practice	1
The mindfulness plan	1
The biological/neuropsychological effects of practicing mindfulness	1
How to stay mindful	1
How to de-stress and relax	1

Table 1 shows what participants took away from the course. Key learning included knowledge of mindfulness, different techniques/approaches to mindfulness, and a particular mindfulness exercise that worked well for them.

Table 2. What participants found helpful about the course

What was helpful	Response frequency
Practicing mindfulness	4
Finding out/looking at different ways to practice	4
Found a particular practice helpful	4
Mindfulness plan	1
Video on how mindfulness works	1
Understanding mindfulness	1
Tutors were good	1
Discussing the experiences of mindfulness with other participants	1
Taught me how to relax when stressed	1

Table 2 shows what participants found helpful about the course. Several participants said they found the mindfulness practice exercises helpful, and identified a particular exercise that worked for them. Others found it helpful seeing the different ways mindfulness could be practiced.

Table 3. How participants felt the course could be improved

How the course could be improved	Response frequency
Location/environment e.g. bigger space, more relaxing environment	3
Run course as one two hour session not in two parts	2
More information on the development/background of mindfulness	1

As shown in Table 3, the most frequently recommended areas for improvement to the course was the location and environment. Two participants (one from each site) suggested a bigger space, and another at the Essex site suggested a more relaxing environment. At the Essex site, some participants had also verbally expressed that the room was too cold.

Both participants who completed the course in Northampton recommended that the course be run as one two hour session rather than in two parts over multiple days. Additional verbal feedback from these participants was that the different practical exercises helped break up the course so that the course would not feel too long if facilitated as one session.

All participants said they would recommend the 'Introduction to Mindfulness' course to others, 67% were extremely likely to and 33% were likely to.

Facilitator reflections

The facilitators debriefed together as a pair after the pilots to reflect on what had gone well and what could be improved. These reflections are discussed below.

Northampton:

Only two participants completed the Northampton pilot. It was felt by both facilitators and participants that attendance may improve if the course was facilitated as one session. The format of the group is interactive with practical exercises and it was felt that this would help break up the session so that the duration did not feel too long. A second issue with running the course in two parts was that the course had to be set up twice with a recap of the previous session. This reduced the time available to cover the remaining material, and the end felt rushed even after removing one of the practical exercises. This would be particularly difficult in a larger group where there would likely be more discussion.

Another identified difficulty was the location of the sessions. Both parts had been booked in a board room with large heavy tables that could not be moved. This limited the space available for the mindful walking exercise. It also made the space feel formal. A more open space without the tables would have felt more relaxed and may have encouraged more active participation.

Reflecting on the mindful walking exercise it was felt that an alternative exercise should be sourced to account for the limited space and any health conditions/limited mobility of participants that may attend. Whilst this was not an issue for those attending the pilots it would be important to consider this in moving forwards with the course.

Essex:

Location was also an issue reflected on in the Essex pilot. Whilst the tables here could be moved, it left little space for setting up chairs, especially when more participants attended than expected. Due to positioning of a white board, there was also the issue of having to project the presentation on to a side wall, which was not easily viewed by all present. One participant left at the start of the group and cited this as their reason for leaving. The room had also been cold with no means of adjusting the room temperature.

Another issue identified was that two participants left during the break. Whilst participants are welcome to leave, not notifying the facilitators caused a slight delay in re-starting after the break.

Overall:

Facilitators felt that the course materials were appropriate and received well by those attending. Participants appeared to gain a lot from the mindfulness practices, and the range of exercises meant that participants were able to identify at least one approach that worked well for them. In addition to the exercises covered in the group, the course handbook provided participants with alternative exercises that they could try to further their practice. The mindfulness plan was a helpful tool in getting participants to consider what they had particularly found helpful and how they could adapt practice to meet their individual needs.

A video was shown to explain how mindfulness works, which was received well. Unfortunately there were technical difficulties in playing this for both pilots, which caused a brief delay in the sessions.

The Essex pilot had a larger group (completed by seven participants), generating more discussion to aid learning. Unfortunately only two participants returned for the second part of the Northampton pilot, it would have been interesting to see how group dynamics/discussions would fair after the two day break. Generally participants contributed more as the group progressed. This may be due to becoming more comfortable with the environment, other participants, and the format of the group.

Recommendations for future facilitation of course

The following recommendations are based on participant feedback and the facilitators' reflections on the 'Introduction to Mindfulness' course pilots. I would encourage the following be considered.

1. Facilitating future 'Introduction to Mindfulness' courses as one session rather than two. This would potentially improve attendance and allow sufficient time to cover all of the course material.
2. Locating the course in a spacious room where chairs can be positioned in a semi-circle without tables as barriers. This could encourage more active participation in the session.
3. Replacing the mindful walking exercise with an alternative mindful movement exercise, see Appendix D. This adaptation would make the exercise more accessible to participants with health conditions/limited mobility, and resolve the issue of limited room space. In discussing the exercise afterwards, walking/going out could be introduced as an activity that we can do mindfully without adding to our daily routine.
4. Adding a resource list to the course handbook with recommended further reading, websites, or apps. This could also include the link for the video watched on the course.
5. Allowing extra time to set up the video prior to the session. Flip chart paper could be taped up to cover any displays/whiteboards at the front of the room to allow the presentation to be projected centrally. Facilitators' familiarising themselves with the video summary in the slide notes would enable them to cover key points in the event that it is not possible to play the video. Including the video link in the resource list (see recommendation three above) will enable participants to watch this later for further information.
6. Facilitating the course for five to ten participants. A group larger than this could limit participant opportunity to reflect on their experience, share their mindfulness plans, and ask questions. A group smaller than this may not generate sufficient discussion for practice. Expectations could be managed by noting on REDS Academy advertising that course spaces are limited, with a caution that people would be turned away if the course was full. This could help increase number of bookings for courses as people may not want to risk not being able to attend.

Conclusions

The Introduction to mindfulness course received positive feedback and would be a good addition to the REDS academy prospectus. It would be important to take into consideration the recommendations listed above for future facilitation of this course. Given that further pilots will take place at the remaining two St Andrew's Healthcare sites; Nottingham and Birmingham. It would be helpful to collate further participant feedback on the course by

issuing the course evaluation forms at the end of these sessions too. Client feedback on this consultancy report will be provided, see Appendix E.

Report written by:

Louise Winter-Oakman
Trainee Health Psychologist

Supervised by:

Dr Sophia Collins	Clinical supervisor - St Andrew's Healthcare
Dr Helen Poole	Academic supervisor - Liverpool John Moores University
Dr Tara Kidd	Academic supervisor - Liverpool John Moores University

Appendices

Appendix A

Contract of Consultancy

Private Contract: Consultation work for REDS Academy, part of St Andrew's Healthcare

This contract is made on the 24th day of the 3rd month 2019, between LOUISE WINTER-OAKMAN, hereafter known as **the Consultant**, and [REDACTED], hereafter known as **the Client**.

The agreed consultancy is to co-create an introduction to mindfulness teaching course for REDS academy. This will be co-created with a Senior Recovery College Trainer (**the Client**) and will be piloted at two St Andrew's Healthcare sites; Northampton and Essex. Feedback will be collated, reflections will be made on facilitators' experience, and recommendations will be made to the client on future facilitation of the course. This consultancy will hereafter be known as **the Work**.

Consultant's signature

Date

Witness

Client's signature

Date

Witness

Nature of the Contract

The Consultant agrees to two face-to-face appointments with the Client to co-create a two hour course on an introduction to mindfulness. These appointments will be a maximum of 90 minutes. The first face-to-face appointment will be to plan the two hour session, the second will be to review the finished session plan and make any further amendments. For the latter, a second member of staff from REDS Academy will be invited to attend. In addition to this, email correspondence will be used to share session plan drafts in between these two appointments. The Consultant and Client will aim to complete this process over a four week period.

The course will be accessible to service users and staff across the Northampton and Essex St Andrew's Healthcare sites. The Consultant and Client are aware that service user leave is limited on some sites and this may affect their ability to participate on the course. In such cases, the course will be divided into two parts (each one hour) and will take place on two different days.

The completed session plan will be co-facilitated by the Consultant and Client as a pilot at the Northampton and Essex St Andrew's Healthcare sites. Where possible the course will take place over one day. To collate feedback a service user satisfaction measure will be

completed after each hour of the course to allow comparison between courses delivered as either 1x2hr or 2x1hr duration. The Consultant and Client will aim to pilot the courses in REDS Academy's summer 2019 term.

On completion of the pilots, the Consultant will write a report summarising session feedback, reflecting on facilitators' experience of presenting the course, and making recommendations for future facilitation of the course by REDS Academy.

Standards of Conduct

The Consultant agrees to be bound by the ethical codes of conduct published by the Health and Care Professions Council, and the British Psychological Society. Both parties agree to abide by St Andrew's Healthcare policies and procedures, and attend regular supervision. In addition, the Consultant will receive academic supervision from Liverpool John Moores University.

Payment of Fees/Resources

The Client will receive a two hour introduction to mindfulness course, which will include any PowerPoint slides and handouts. This will be piloted at two St Andrew's Healthcare sites (Northampton and Essex), with participant feedback collated. A three page maximum report will be received, this will cover the following:

- A summary of participant feedback from the two pilot courses
- Reflections on facilitators' experience
- Recommendations for future facilitation of the course

The Consultant will receive sufficient experience to meet the Consultancy competency learning outcomes of the Health Psychology Professional Doctorate at Liverpool John Moores University. These learning outcomes are cited below:

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

To do this the Consultant will receive consent from the Client and REDS Academy to submit this contract of consultancy and end report along with reflections on consultancy experience to Liverpool John Moores University for assessment. Reflections on consultancy experience will not include participant feedback, the focus will be on the consultancy process.

Time taken for consultant facilitating two mindfulness courses; Northampton and Essex sites, will be recharged and therefore not taken from Veterans' Mental Health Complex Treatment Service (VMH-CTS) funding. In case of the Essex course not falling on a day where the Consultant is working in that area, travel time will also need to be recharged.

Illness, Disability or Death

In the case of a medically certificated long-standing illness or disability which prevents either party from continuing with this arrangement, the contract shall terminate. In the case of death the contract will also be terminated. In all cases, fees paid to recharge VMH-CTS Consultant time will be non-refundable.

Frustration

In the case of VMH-CTS or REDS Academy closing, the contract shall terminate. Any fees paid to recharge VMH-CTS Consultant time prior to closing will be non-refundable.

Limitation of Liability

Following completion of the Work, the Consultant and their employer VMH-CTS will not be responsible for future facilitation or amendments made to the introduction to mindfulness teaching course. The Client and REDS Academy hold sole responsibility for this.

Ethical Clearance and Insurance

The course materials will be approved by the Consultant's supervisor Dr Sophia Collins and REDS Academy prior to piloting the course.

The Consultant as a Trainee Health Psychologist has professional indemnity insurance cover through Liverpool John Moores University.

Intellectual Property Arising

The Client's employer REDS Academy have ownership of course materials from work arising from this consultancy contract.

Appendix B

Course handbook contents

- Copy of PowerPoint slides with space for notes alongside
- Five take away messages handout
- Mindfulness diary sheet
- Ten mindfulness exercise scripts: breathing; mindfulness of an item; body scan; mindful movement; mindful observation; mindfulness of sounds; mindful eating; colour breathing; mindfulness of thoughts; and mindful self-compassion.
- My mindfulness plan worksheet
- Page for any additional notes.

Appendix C

References of resources used in designing the course

Dunkley, C., & Stanton, M. (2014). *Teaching clients to use mindfulness skills – A practical guide*. Routledge

Kabat-Zinn, J. (1990). *Wherever You Go, There You Are: Mindfulness Meditation for Everyday Life*. London: Piatkus Books.

Linehan, M. (1993). *Skills Training Manual for Treating Borderline Personality Disorder*. New York: Guilford Press.

Mental Health Foundation. (2017). *How to look after you mental health using mindfulness*. Retrieved from <https://www.mentalhealth.org.uk/sites/default/files/How%20to...mindfulness.pdf> (accessed Wednesday 28th August 2019).

Mind. (2018, June). *Mindfulness*. Retrieved from <https://www.mind.org.uk/information-support/drugs-and-treatments/mindfulness/> (accessed Monday 26th August 2019)

Appendix D

Mindful movement

Adapted from <https://www.dummies.com/religion/spirituality/mindful-movement-meditation/>

Please note this exercise can be completed from a seated position if required. This should be offered to participants prior to starting the exercise. It will be helpful for the facilitators to model the variations of the exercise, with one in the standing position and one in the seated position. Please caution participants that this exercise will contain gentle movement. Encourage them to only do what they feel able to and let them know that it is okay to sit out of this one if they have concerns about any health conditions.

Let's start by simply straightening our posture. If standing position your feet about hip-width apart and allow your knees to be slightly loose. Have your shoulders back and down and your chest comfortably open. Allow your arms to hang by the sides of your body. You may want to close your eyes, if not lower your gaze to a comfortable resting point.

Check that your head is balanced on your neck and shoulders. Imagine a helium balloon is attached to the top of your head gently pulling you upright. Keep your eyes closed if you can maintain your balance safely that way.

Notice the sensation of your own breath. Feel the weight of your body upon your feet or being supported by the chair. Become aware of areas in your body that feel tense or uncomfortable, without trying to relax them.

Now I am going to guide you in some movement of the arms. As we do this, notice the physical sensations in your arms and hands. As you breathe in, move your arms upwards so they are in line with your shoulders. As you breathe out move these back down by your side. Repeat this twice more, arms up as we breathe in, arms down as we breathe out. One more time, breathe in and breathe out.

Now raise your arms above your head and feel the stretch. Keep breathing as you do this, no need to hold your breath. See how far you can comfortably reach. Hold that stretch until you begin to feel some discomfort and see if you can stay with the feeling for a few moments before bringing your arms down again.

Moving to the shoulders slowly rotate these in a backwards direction. Feel any tension that may be there. Now rotate your shoulders in a forwards direction. Continue to breathe, in and out.

For the next movement slowly and carefully rotate your head to the left side gently moving your left ear towards your left shoulder. Then straighten to centre before gently rotating the head to the right, moving your right ear towards your right shoulder. Now move the head back to centre.

To end shake out your arms and legs for a moment, noticing the sensations throughout your body. When you are ready bring your awareness back to your surroundings and we will end the exercise.

Appendix E

Client feedback

Thank you for all of your work in producing the Mindfulness course for REDS academy. It was a pleasure working with you and REDS are very happy with the resulting course. I have read the comprehensive report that you have compiled and would like to offer the following feedback.

I found that the preparatory meetings to be extremely useful and it was clear from the beginning that Louise had an understanding of Recovery Colleges and the unique way that our courses are delivered to our cohort of students. This understanding meant that we were able to develop an introductory course that was attractive to patients and staff alike. The resulting course achieved a good balance of academic and experiential learning outcomes. The course also catered well for people that had no previous knowledge of mindfulness without appearing patronising to those with more experience.

I agree that the course would benefit from being delivered in one session. The drop in numbers on the first pilot would have been avoided if delivered in one session. Also it has been noted that courses run over two sessions often run into problems with staff shift patterns meaning that they can only attend one of the advertised dates; this can result in low numbers booking on the course.

I concur with all of the recommendations listed in the report however, it is also important that REDS courses are seen as educational and do not 'morph' into therapy sessions. Whilst I agree that tables can create a barrier and the course would benefit from not having them, care needs to be taken when setting up the room that we do not create the perception of a 'therapeutic circle' familiar to anyone that has experienced group therapy. I would suggest, room permitting, that we set up two 'zones' within the class room. One with desks for note taking and the other for experiential learning.

The course was well received and I am very happy to add it to our permanent syllabus.

2.2 Consultancy Case Study

Learning outcomes:

- Assess requests for consultancy and establish the needs of a client group.
- Plan, manage, monitor and evaluate consultancy in Health Psychology.
- Carry out teaching to contribute to the development of new knowledge, applications or understandings of Health Psychology.

This is a reflection of the work completed with the Recovery College and my role within this. It considers how the working relationship was established, planning and facilitation, management and monitoring, and ends with an evaluation of the consultancy work.

My experience co-producing and facilitating a course with an individual with lived experience of mental health has highlighted to me the benefits and importance of involving clients in service development.

Consultancy Case Study

This consultancy case study is a reflection of my work with the Recovery and Every Day Skills (REDS) Academy, the Recovery College based at St Andrew's Healthcare in Northampton. It will reflect on the work undertaken and my role within this; specifically, how the working relationship was established, how the consultancy was planned and conducted, and how the work was managed, monitored, and evaluated. Reflections were aided by Gibbs reflective model; description, feelings, evaluation, analysis, conclusion, and action plan (Gibbs, 1988).

Forming the working relationship:

My work placement for the Health Psychology Professional Doctorate at Liverpool John Moores University is with St Andrew's Healthcare, a mental health charity. Within this service I work for the Veterans Mental Health – Complex Treatment Service (VMH-CTS), which falls under Community Partnerships, the charity's community care services. When considering opportunities for consultancy work I was informed that REDS academy had contacted Community Partnerships seeking support in facilitating mindfulness sessions. It was agreed that I would meet with [REDACTED], a Senior Recovery College Trainer (the client) to discuss the needs of REDS Academy and see what support could be provided.

Prior to the meeting I experienced some anxiety, as REDS Academy had initially contacted a psychologist for support with this matter. I had concerns that they would feel I was unable to meet their needs and provide the level of support they wanted, as an unqualified staff member. This was also my first experience within this role, of liaising with an external team and I felt some pressure to ensure it was successful. On meeting [REDACTED], I recognised him from attending a recovery college course that he had facilitated for a previous mutual employer. This gave me reassurance and confidence in sharing my understanding and experience of recovery colleges, helping to challenge my doubts. I am conscious the outcome may have been different with an unfamiliar person and this has highlighted the importance of being able to manage anxiety through my own reassurance. In future, I would allow time to reflect on my knowledge and expertise prior to meeting, to remind myself why I was representing the team on this matter.

The aim of the initial appointment was to understand the client and problem as recommended in the seven C's of consultancy (Cope, 2010). This identified two client needs, support in facilitating a weekly mindfulness based session, and in co-producing and co-

facilitating courses with someone with lived experience of mental health difficulties. For the former, we considered the logistics and potential barriers. It was unlikely that Community Partnership clinicians would be able to commit to supporting this on a long-term basis; however, if deemed suitable this could be a good opportunity for assistant psychologists across the charity to gain supervised group experience. I recommended [REDACTED] contact the head of psychology to explore this further. Although I noticed some urges to 'rescue' the situation and personally offer support, I was able to keep my boundaries and accept that I was unable to meet this need with my health psychology training commitments. It was a positive experience to see that this discussion could still be productive and supportive, despite being unable to help directly.

I felt the second identified need, co-producing/facilitating a course for patients and staff of St Andrew's Healthcare, would best fit the shorter-term support Community Partnerships could offer. It would also be a clearly defined piece of consultancy; creating the course and piloting it. I introduced [REDACTED] to my role as a health psychology trainee and the consultancy competency requirements of my training. [REDACTED] felt there was an opportunity here for a piece of consultancy work and suggested an Introduction to Mindfulness course. No commitments were made at this stage and it was agreed that I would take this idea back to Community Partnerships for discussion.

The initial appointment enabled me to see the scope of the proposed project and how much of my time and resources would be required. With generating ideas it was difficult at times not to get carried away, and I had to keep reminding myself of the limitations in the support I could offer. For example, the initial suggestion of co-producing and co-facilitating a pilot at the Northampton site, became a proposal to piloting it across all four St Andrew's Healthcare sites. We negotiated that I would pilot the course at a second site (Essex), an area where I also have work commitments, but that other clinicians would facilitate the remaining pilots. Theoretically this meant there would be no further travel and I would not be required to take another day of work from Community Partnerships. For future consultancy, I would want to keep in mind that the other party will try to get as much support as they can. It would be helpful to consider in advance what middle ground I was willing to offer so that I do not feel pushed into taking on more than I can.

An informal approach to meeting had allowed exploration of ideas, however, I feel some structure would have been beneficial in keeping discussion on track e.g. clarifying goals in advance. I had some understanding prior to the meeting of REDS Academy's needs, but am conscious that they did not have an understanding of my training needs. This is something

that I would have liked to have shared in advance to manage expectations in what support I would be able to offer. I was also conscious that Community Partnerships would be required to lose some of my work hours for this project, and felt pressure to meet their needs, which I did not have a full understanding of. If planning future consultancy work on behalf of a service, I would want to discuss this more with the team I was representing so that I felt more prepared and informed for the initial meeting with the client.

A consultancy contract was formed, allowing opportunity to clarify details and apply a creative, solution focused approach (Cope, 2010). To co-produce the 'Introduction to Mindfulness' course we agreed to two further meetings; the first to plan, the second to review and amend the finished course materials. Email correspondence between these meetings was agreed as a means of sharing ideas and making enquiries. This felt like an effective way of co-producing the course as e-contact was instant and did not require excessive demands of our time. I feel efficient use was made of this correspondence, however, I can see the risk of a client taking advantage of this opportunity. Therefore for future consultancy work I would limit this correspondence e.g. one check in email a week for a progress update. An approximate time frame was given for the consultancy, however there was room for flexibility here, which was reassuring.

Planning the consultancy:

Learning from the initial appointment, I used a more structured approach in the planning meeting forming clearer aims; deciding course content and how the work would be divided for co-production. Following the meeting I emailed a summary of our discussion, outlining agreed action points and who was responsible for completing these. This was helpful in managing expectations and keeping the consultancy on track. The appointment was a great way to generate ideas and consider what materials would be required for facilitating the course. Again, I recognised the need to rein this in at times so that I was not adding to the contracted work. For example there was one item that appeared to be forming as a separate project. So this did not infringe on the agreed consultancy, any actions regarding this were assigned to REDS Academy in the meeting summary email.

If the consultancy had been private work external to health psychology training I would have reviewed the initial contract to see whether the extra item could be added with payment accounted for. If this was a larger piece that warranted its own contract then I would consider whether it could be completed alongside the original consultancy, with adjusted time expectations. If this was not possible I would recommend it in the end report, as a future consultancy for the client.

The planning meeting identified the following topics to be covered in the Introduction to Mindfulness course: what mindfulness is; how it works; why we should practice it; practice exercises; and a mindfulness plan for continuing practice. We had considered the importance of accounting for different learning styles; incorporating a balance of academic and experiential learning, along with a range of mindfulness exercises. The biggest challenge I found in putting together materials was in making it suitable for an audience with mixed mindfulness experience. It needed to be accessible to beginners, whilst guiding those with prior experience in developing their practice. It was important to find a balance, so the course did not overwhelm beginners or patronise those with prior experience. This consideration was one way we addressed the change phase of consultancy (Cope, 2010), looking at how participants would learn and retain presented information. The process of putting the course together was supervised by Dr Sophia Collins (Clinical supervisor), with some materials provided by [REDACTED] (Clinical Psychologist) who was initially contacted by REDS Academy for support with this work.

In planning, we agreed a PowerPoint presentation would be helpful for course facilitation. The Client was interested in making this Zen inspired, which required a minimalist approach often utilising images rather than words. This approach considers excessive text on slides to be a barrier to good communication (Reynolds, 2011). I was familiar with the technique from a recent university teaching, but had no prior experience of this. I found this challenging as my previous approach to presentations had been to make it as informative as possible so that the slides were helpful as a standalone to any note taking. I enjoyed thinking about how images could be used to aid teaching, and the power of using these over wording on slides. I chose scenic images taken at St Andrew's Healthcare sites e.g. plants, and landscapes. These did not feel too stimulating or distracting, and as a staff member commented, highlighted how they had not been mindful walking through the grounds as they had not recognised the images. This introduced an opportunity for mindfulness practice within the grounds e.g. mindful walking/observation.

A review of the literature emphasises the importance of co-production, co-facilitation, and co-learning in the success of recovery colleges (Perkins et al., 2018). This was something I wanted to keep in mind and incorporate throughout the consultancy, and did so through collaborative planning and dividing action points so both parties contributed. Unfortunately one of the client's agreed action points, a resource list, had not been completed in time for the pilots and we were unable to include this in the course handbook. To prevent this occurring in future, I would want to include clearer time frames for action points in the

planning summary emails. It was frustrating not having this item as it limited our ability to signpost and guide participants' future mindfulness practice. It did however, highlight the difficulty of co-producing courses around two different caseloads. The resource list was included in recommendations for future facilitation of the course.

The initial plan was that facilitation of the course would take place in the summer term, however during a planning meeting REDS Academy suggested moving this to the autumn term. This was to ensure sufficient time to put together the materials, get these approved, advertise the course, and allow time for participants to sign up. This flexibility helped me complete the consultancy around my VMH-CTS caseload.

Conducting the consultancy:

The first pilot of the 'Introduction to Mindfulness' course was at the Northampton site, and was run as a two part course due to staffing and timing issues. Four staff members attended part one, including one that was a former patient. I felt disappointed when only two participants returned for the second part. The course was co-facilitated with the client, which was the first time I had facilitated a teaching alongside a non-clinician. An advantage of this was their personal experience, which could make them relatable and a source of hope to patients attending. For staff, it could provide a unique perspective and help break down any prejudice to healthcare delivery informed by patient expertise. The input of an individual with lived experience has been valued by staff attending recovery colleges, with staff reporting increased feelings of hopefulness, empathy, and appreciation that recovery is different for everyone (Sommer, 2017).

My own experience of teaching/attending groups enabled me to consider what makes participants comfortable in this setting and how active participation could be encouraged. With the client we considered our own introductions to mindfulness and what enabled us to adopt this practice e.g. knowing the theory and evidence base, and trying different types of mindfulness exercises to find what works for us.

I encountered one disadvantage co-facilitating with a non-clinician, which was experiencing increased pressure when presenting theory and answering questions. I worried that I might not have the answer and would lose credibility in being able to teach the material. Consequently participants might not find the course helpful, which could be detrimental to the success of the pilot. Retrospectively, I recognise that I would not be expected to have all the answers and the course was an appropriate introduction to mindfulness. Had I not known the answer to a question it would have been more important to demonstrate how we could

find the answer out as a group. If a question was not answered by the course material, this could be beneficial in highlighting any areas that the pilot had overlooked, potentially informing future facilitation.

The second pilot at the Essex site was facilitated as one 2.5 hour group with a break in the middle. This was attended by ten participants; eight staff members and two patients. One patient left after the introduction and group rules, and two staff members left after the break. All three (one directly, and two by informing other group members) cited environmental issues (e.g. not being able to see projected slides, cold room temperature) as their reason for leaving. Whilst it was disappointing and frustrating to see people leave the group and not inform us directly, I felt relieved that this was reported as a result of factors outside of my control and not as a reflection on the course content. In future, it would be helpful during the introduction to encourage staff to inform us directly, as this will enable us to try resolve the matter or gain a more accurate understanding of their reason for leaving. In total seven participants completed this pilot.

The 'Introduction to Mindfulness' course was the first group I had created from start to finish and I noticed increased anxiety about delivering this. I believe this was because it felt more personal, and that any dissatisfaction with the course would be a reflection on myself and the content I had put together. To manage this anxiety it was helpful to remind myself that having created the course I knew the material in great detail, meaning I would be more confident in facilitating it, and better placed to tackle any challenging questions.

Another source of anxiety was that this was the first time I had facilitated a group, which staff members would be attending for their own benefit. Healthcare can often be hierarchical and I worried my trainee title would be a barrier in qualified staff accepting and finding the course material helpful. Whilst I have previously experienced this working in a multi-disciplinary team, I am aware this worry is largely due to my own fear of not having enough experience. It was not an issue in the pilots, but if faced with this in future, it would be helpful to remind myself of my skill set and the reason I am facilitating this. Psychology is one of the longer healthcare training pathways to qualify, and my unqualified status does not mean I have not got knowledge and expertise to share with other healthcare staff.

For the Northampton pilot, the facilitators arrived early to set up the room and allocate the sections they would teach. For both pilots I led the mindfulness theory, some mindfulness exercises, and the completion of a mindfulness plan. The co-facilitator led on introducing the group and aims, and the remaining mindfulness exercises. This was decided based on

strengths e.g. my familiarity with mindfulness theory, and the client's familiarity with recovery college courses and attendees. Whilst the preparation time was useful, it had not enabled me to ascertain the presenting ability of the co-facilitator. I was aware they had good experience of teaching recovery college courses, but was not fully aware of their experience and knowledge on the subject of Mindfulness. Consequently I was largely dependent on what the co-facilitator agreed to do. For example, in the Northampton pilot the co-facilitator had not sounded confident leading a mindfulness exercise, but they had not shared any concerns about this when allocating sections. If facilitating future groups for REDS Academy, I would want to go over the material in more detail with the co-facilitator prior to the course to ensure that everyone is comfortable and happy with their role in facilitating the group.

We encountered several obstacles in facilitating the second pilot at Essex. The first was a last minute cancellation as the Essex site, despite advertising the course, had forgotten to book a room for this. Consequently it was necessary to reschedule. The second was my own logistical issue of trying to fit the course into an afternoon of one of my Essex work days. Whilst on paper this looked possible, in considering it in clinical supervision we reflected that it would be a long, full on day, with scope for further stressors if any delays occurred that would affect my ability to facilitate the pilot. This gave the option of cancelling my patient appointments or making trips to Essex on two consecutive days. I did not feel able to do the former due to the patients' mental health needs, so instead opted for the latter, staying at an acquaintances house to avoid extra travel. Unfortunately due to a family emergency of the acquaintance I found out a few days before that I was no longer able to stay and this caused significant stress in finding alternative accommodation without increasing my travel. As stipulated in the Consultancy contract, REDS Academy would have had to pay for my travel expenses if the pilot was on a non-Essex work day. It was frustrating to realise that I should have sought support with this and seen whether accommodation could have been funded in place of this travel.

Following this, we had issues with sickness absence and the client was unable to facilitate the Essex pilot. A replacement co-facilitator was required and learning from the first pilot, we allocated the sections we would teach via telephone several days prior. This was to allow sufficient time for preparation. Unfortunately the day before the second pilot, the replacement facilitator went off sick, and it was thought that only a couple of people would attend as the Essex site had struggled to advertise. Recovery College staff are based at the Northampton site and this highlighted logistical difficulties in rolling the group out across the other three sites. We agreed that due to the required timeframe of the Consultancy, the pilot would go ahead with [REDACTED], the REDS Academy Lead stepping in to co-facilitate.

The sickness absence had been covered, however had this not been the case, as stipulated in the Consultancy contract the consultancy would be terminated due to the medically certificated long-standing illness of the client. At the idea of not being able to complete the consultancy I noticed feelings of disappointment, sadness, and frustration. This was because I had put a lot of time and effort into this and not being able to see it through felt like it was all for nothing.

When I started the pilots it had been a year since I had formally facilitated group work. My last experience of this had been running a regular group programme with familiar co-facilitators, whom I had been able to build a rapport and confidence in working with. This had been helpful in carrying the energy for the group where required, and creating enthusiasm. This was something that was difficult to achieve at times during the pilots and I have started to consider how this could be created when working with different co-facilitators in a one off teaching/training session. In future, I would want more prior contact with the co-facilitator to find out about their role and experience. I would also like to attend REDS Academy groups to see this from a participant perspective, and to observe how others facilitate the courses.

Management and monitoring of work:

A debrief between the two facilitators took place after each pilot to reflect on what had gone well and what could be improved. This was a good opportunity to learn, and trouble shoot any difficulties in advance of the following pilots.

A course evaluation form was used to collate participant feedback on the 'Introduction to Mindfulness' course. REDS Academy had their own feedback forms, but I was advised by the client that this could be quite limiting and was encouraged to use my own. The form I created contained the following questions:

1. What two things will you take away from today?
2. What two things did you find helpful about the course?
3. What two things could we do to improve the course?
4. How likely are you to recommend this course to someone else? Please tick

Extremely likely	Likely	Neither likely or unlikely	Unlikely	Extremely unlikely	I'm not sure

These aimed to confirm whether participants had benefitted from attending the course (Cope, 2010) and identify any areas for improvement. The collated data would be used to inform future facilitation. Whilst richer data would have been helpful, I felt it was important to keep the form brief to encourage completion. In the contract it had been agreed that this form would be completed after both parts if delivered in two sessions. However, due to the close proximity of the two delivery dates the consultant and client agreed to only issue this at the end of the second session. This would also allow clear comparison with data collected from courses facilitated in one session.

A reflective log was used to record experience of the consultancy process. This helped capture learning and in monitoring progress. Booking in key dates for planning appointments and pilots helped us establish a clear time frame and keep on track with the Consultancy.

Evaluating the work:

On completing the consultancy I wrote a report summarising the work and making recommendations for future facilitation of the 'Introduction to Mindfulness' course. This was in line with the Continue and Close phases of consultancy (Cope, 2010). Contributions for this report were taken verbally from co-facilitators who debriefed with me after the pilots. Recommendations included:

1. Facilitating the course as one session rather than two, which would potentially improve attendance and would not require time to recap the previous session.
2. Locating the course in a spacious room without tables as barriers, which could encourage more active participation in the session.
3. Replacing the mindful walking exercise with an alternative that is more accessible to participants with health conditions/limited mobility, and could resolve the issue of limited room space.
4. Adding a resource list to the course handbook
5. Allowing extra time to set up videos prior to the course
6. Having a group size of five-ten participants

The client received a copy of the consultancy report and provided feedback on this and the consultancy process. I have reflected on this feedback below.

'I found that the preparatory meetings to be extremely useful and it was clear from the beginning that Louise had an understanding of Recovery Colleges and the unique way that

our courses are delivered to our cohort of students. This understanding meant that we were able to develop an introductory course that was attractive to patients and staff alike.'

I am pleased that both patients and staff had felt able to access the course and gave positive feedback on this. However, attendance was largely staff and I wonder if patients were less familiar with the concept of mindfulness. It would have been helpful to see how this course was advertised to see if we could make this more patient friendly. I would also be interested to know what the patient to staff ratio is for other REDS Academy courses. My understanding of Recovery Colleges was gained from attending a course at another college, and seeing directly how this could benefit patients and staff alike. Drawing on this experience was helpful in putting together the 'Introduction to Mindfulness' course.

'The resulting course achieved a good balance of academic and experiential learning outcomes. The course also catered well for people that had no previous knowledge of mindfulness without appearing patronising to those with more experience.'

I was relieved to hear that the course worked well for both beginners and those with some prior mindfulness experience as this was one of the biggest challenges I found in deciding the course content and putting together materials. It was positive that the client felt a good balance of academic and experiential learning had been achieved. In our planning meetings we had considered different learning styles and the importance of demonstrating a range of mindfulness exercises so participants could find the best approach for them. In my own introduction to mindfulness I had participated in an imagery exercise, which I had not connected with and this did not allow me to adopt mindfulness practice. It was a later breathing exercise that enabled me to see the potential benefits of mindfulness and motivated me to find out more about this.

'I agree that the course would benefit from being delivered in one session. The drop in numbers on the first pilot would have been avoided if delivered in one session. Also it has been noted that courses run over two sessions often run into problems with staff shift patterns meaning that they can only attend one of the advertised dates; this can result in low numbers booking on the course.'

Staff shift patterns was something I had overlooked in planning the consultancy. I am currently working for a community service and have not worked in inpatient settings for some time. I feel this had removed me from the difficulties of attending training when on wards and this is something I would want to be mindful of in future.

'I concur with all of the recommendations listed in the report however, it is also important that REDS courses are seen as educational and do not 'morph' into therapy sessions. Whilst I agree that tables can create a barrier and the course would benefit from not having them, care needs to be taken when setting up the room that we do not create the perception of a 'therapeutic circle' familiar to anyone that has experienced group therapy. I would suggest, room permitting, that we set up two 'zones' within the class room. One with desks for note taking and the other for experiential learning.

I feel that one of the reasons why the Recovery College appeals to patients is that it is educational, they are not seen as being in therapy. Stigma remains an issue for those accessing mental health services and research suggests that the Recovery College model can help reduce this. Nurser (2016) found that students reported a reduction in self-stigma following attendance of a Recovery College. As a result, I agree that it is essential that the environment for this course does not give the impression of therapy. Although, I do believe there are elements of a therapeutic approach that can aid learning in a recovery college environment. For example, in creating a safe and supportive environment where people can share their knowledge and experience (Meddings et al., 2014).

If possible, having two learning zones within a room, could help break up the teaching and retain attention as it would require moving around the room for different exercises. My previous experience of teaching mindfulness had been in a therapeutic setting, and it is likely that this impacted the way I facilitated the course. If I was to facilitate this again, I would pay closer attention to environment and remind myself of the REDS Academy audience; students.

'The course was well received and I am very happy to add it to our permanent syllabus.'

It was reassuring to receive positive feedback for the course from both REDS Academy and course participants. The wording on the course evaluation form 'What two things could we do to improve the course?' encouraged constructive feedback. This was helpful in taking on board any negative comments, as being more heavily involved in the development of the course resulted in it feeling more personal and exposing when delivering it.

Overall, I feel the Consultancy was a success. I faced several challenges along the way, which were rewarding when I was able to overcome them, and a good source of learning

when I didn't. I am pleased the 'Introduction to Mindfulness' course has been added to REDS Academy's permanent curriculum.

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Chapter 3 - Teaching and Training

This competency consisted of two items; Teaching case study and Teaching diary.

3.1 Teaching Case Study

Learning outcomes:

- Demonstrate the systematic acquisition and understanding of teaching skills and professional practice.
- Plan, deliver and critically evaluate a training programme for the development of new knowledge, applications or understanding in Health Psychology.
- Carry out teaching to contribute to the development of new knowledge, applications or understandings of Health Psychology.

This is a reflection on my experience designing and facilitating a teaching series. The group aimed to teach clinicians the materials required for the stabilisation phase of a client's treatment and support them in delivering these materials themselves. It was hoped this would increase clinicians' confidence in delivering stabilisation treatment and improve consistency of delivery within the team. Five participants attended all five of the sessions (minimum session attendance 6, maximum attendance 8). The structure of the sessions was based on Kolb's Experiential Learning Cycle (Kolb, 1984).

This group was considered a helpful resource for staff and it's has continued to run post-teaching series. It currently remains a virtual group during the pandemic and it is thought that this will continue in this format due to the increasing size of the team and geographical spread of staff. This series has helped me problem solve challenges faced with teaching via virtual platforms and consider how these could still be interactive.

Teaching and Training Case Study

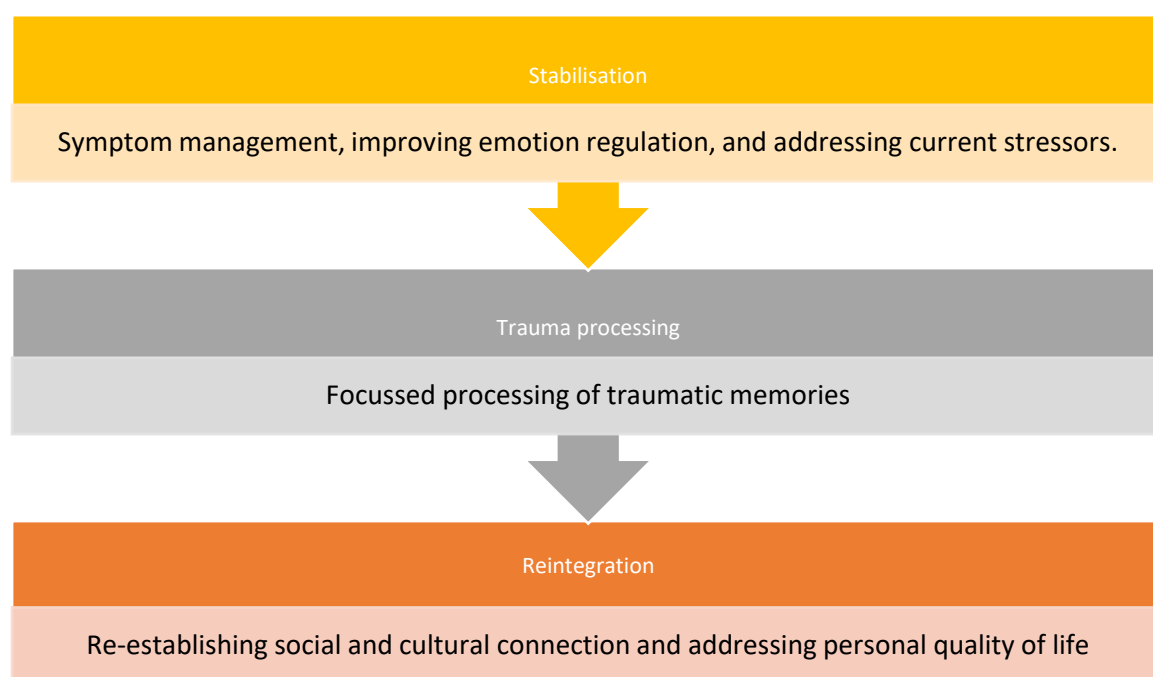
This case study is a reflection on my experience designing and facilitating a teaching series for St Andrew's Healthcare. It will describe an assessment of service need, which determined the teaching topic; and the planning involved in setting up the series. This is followed by reflection on the teaching intervention and its evaluation.

Assessment:

Guidance for treatment of Post-Traumatic Stress Disorder (PTSD) recommends a phase-based approach. In addition to trauma-focused CBT and EMDR, it advises psychoeducation on trauma and learning coping strategies for managing arousal (National Institute for Clinical Excellence, 2018). A study surveying expert clinicians on best practice for treating Complex Post-Traumatic Stress Disorder (CPTSD) provides further support for a phasic model with interventions of: emotion regulation; cognitive restructuring; anxiety and stress management; and interpersonal skills (Cloitre et al., 2011).

The Veterans' Mental Health – Complex Treatment Service (VMH-CTS) use a three phase model, illustrated below.

Figure 1. VMH-CTS service model



The stabilisation phase of treatment was initially facilitated by Assistant Psychologists (AP), however, as the service's case load increased it was necessary to source other clinicians. This resulted in non-psychology staff such as the teams Clinical Liaison Nurses (CLN) and social worker delivering stabilisation. Initially I noticed some resistance in myself to this change, as I was aware that the other staff had little experience in delivering this type of support. Despite this, they were being asked to facilitate stabilisation with minimal training and understanding of the resources. This concerned me as I worried that the stabilisation delivered would not be effective, and would result in inconsistencies in care. The idea that stabilisation could be done by any staff member left me feeling undermined and that my contributions and skill set as an AP were undervalued within the team. Whilst I felt able to share my concerns, in supervision I had not been as open about feeling undervalued. This occurred relatively early on in starting with the team and I feel my lack of familiarity with staff and the service affected my confidence in naming the emotional aspect here. In setting up supervision in other teams or with new supervisors, I would want to consider what would support me in bringing emotional reflection earlier in the relationship, without requiring a build up to this.

Later, it appeared that the team lead may also have developed some concerns about other staff delivering stabilisation, as they asked the APs to create session plans to inform this treatment delivery. This alleviated some of my concerns but added others; such as creating a dependency on handouts and the risk of staff reading out session plans as they did not know the material. Whilst the session plans ensured approved topics were covered, the different professional backgrounds/experience caused inconsistencies in delivery, confidence levels, and treatment outcomes. One psychologist fed back that they had noticed differences in care review sessions of clients in stabilisation with psychology and non-psychology staff. They shared that goals were not always clearly established by the latter and it was difficult to monitor what progress had been made and whether the client was ready for the next stage of treatment. These clients also appeared less confident when naming what coping skills they had found helpful. This resulted in two issues; the risk of clients moving on to trauma processing without sufficient coping strategies in place to support them, and the client running out of sessions as further stabilisation would be required.

This matter was complicated further by the team developing satellite hubs away from the main site. This created a new challenge in inducting staff to the service model and resources as it would be difficult for them to attend training in person. Another challenge was keeping them linked in with the wider VMH-CTS team. These issues highlighted the need for more

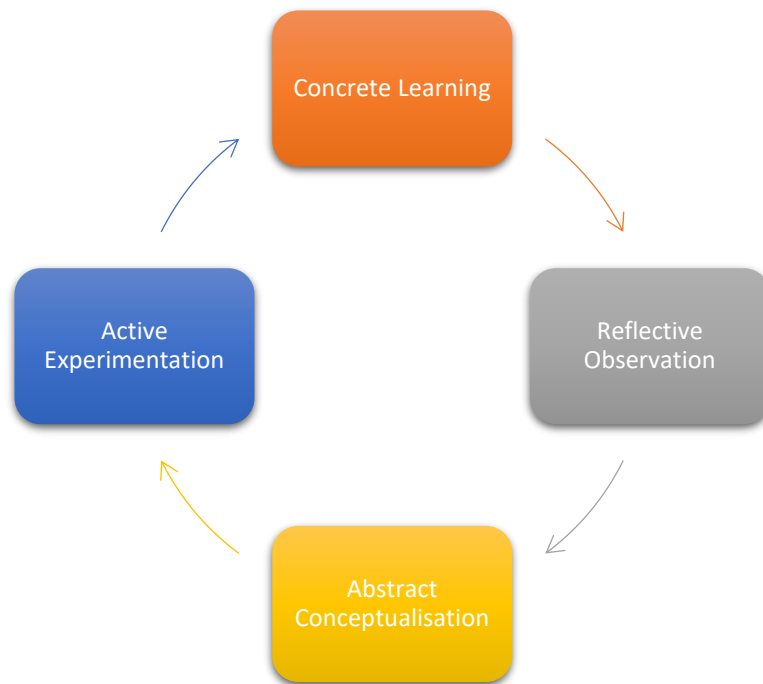
regular support and training including on stabilisation. These reflections were shared in supervision and I proposed running a regular stabilisation teaching session. This would be facilitated by the APs in the team, as they would be most familiar and up-to-date with stabilisation resources.

Planning:

To meet the team's assessed needs a stabilisation support group was set up as an ongoing teaching series. However, this case study will only reflect on the first five sessions of the series. The group would then be evaluated and the results used to inform future teaching sessions.

All team members regardless of hub, are currently expected to attend a team meeting on site every two weeks. Therefore, to increase accessibility to the group and get good attendance, it was agreed that the stabilisation support group would be facilitated on these days. The group was initially considered for non-psychology staff only. However, the team lead felt that it would also be helpful to keep psychology staff up-to-date with resources, and aware of what skills clients would have covered prior to starting trauma processing. This would help with any skills coaching around trauma work. It was important that the session length felt manageable, as the team meeting took up a significant portion of the day and could be tiring. It was felt that a 30 minute group would be suitable, as it would allow enough time to cover a skill, without being too overwhelming for clinicians.

The structure of the sessions was based on Kolb's Experiential Learning Cycle (Kolb, 1984).



Starting with concrete learning of a stabilisation skill, and an opportunity for participants to reflect on their personal experience of this (Reflective observation). This would be followed by abstract conceptualisation, where participants would form new ideas from tips and trouble-shoot with others in the group. Finally, they would be encouraged to apply these new ideas in their practice (Active experimentation); the following session would allow a reflective space at the beginning to reflect on previous skills learned. This cyclical approach would allow reflection of a participants own practice following a teaching. The initial reflective space would be used for any skills covered so far, so a participant would be able to consider practice further following repeated active experimentation. It has been suggested that setting practice/home work in between teaching sessions is crucial in bridging one session to the next, with most learning occurring between sessions (Spalding, 2014). This is something I have noticed in my own clinical work and often share with clients; as our fortnightly sessions will not be enough to sustain any change, and it is important that they are able to apply skills independently.

A backward design (Wiggins & McTighe, 1998), was used to decide on session content. This meant the ending goals for the teaching were considered first, and identified as learning objectives. Session plans were then tailored accordingly to optimise chance of achieving these objectives. Learning objectives are widely used in educational settings, and have also been shown to be effective in supervision (Cabaniss et al., 2014), although to be as useful

as possible objectives need to be measurable. The following objectives were identified for this teaching series; by the end of the sessions participants would be able to:

- Explain the rationale for the stabilisation phase of treatment
- Feel more confident in their ability to assess client needs/develop treatment goals
- Feel more confident in their application of emotion recognition tools to help clients better understand their emotion and identify this earlier
- Demonstrate emotional coping skills
- Locate stabilisation resources and further support

These objectives were considered most beneficial for stabilisation delivery and drew on: my own experience facilitating stabilisation, psychological formulations, and client goals. These experiences indicated that many clients were struggling to cope with difficult emotions and often used avoidant strategies; bottling up emotion or leaving the situation. Consequently, clients were not always able to identify their emotions, or how these escalated; and often only addressed them when they were at crisis point. This highlighted the importance of teaching clinicians about tools that could be used in supporting clients in understanding their emotional experience, and in learning emotional coping skills.

With the inconsistencies in stabilisation outcomes due to not setting clearly defined goals, it would be essential to support staff in goal setting with clients. This would enable them to more effectively review progress and determine when clients were ready to move on to trauma processing. In addition it was necessary that both staff and clients understood the rationale for the stabilisation phase of treatment. Recent feedback from clients at a later stage of treatment had highlighted a previous lack of awareness regarding the importance of stabilisation. One of the clients I saw at the start of the service had progressed slowly through stabilisation and their skills practice outside of sessions appeared infrequent. This resulted in therapy feeling 'stuck' at times and a need to extend their sessions. The client felt critical that their treatment progress had not been as quick as they would have liked, and I had noticed my own feelings of frustration at the lack of practice between sessions. This client later shared that they wished they had understood just how essential these skills (stabilisation) would be for further psychological intervention; so that they would have made more of this opportunity. This feedback resulted in a review of the stabilisation starter session pack, which was adapted to improve staff and future clients understanding of the rationale for this treatment phase.

To support with emotion recognition and emotional coping skills, materials were drawn from and adapted from a Dialectical Behaviour Therapy (DBT) model (Linehan, 2014). Specifically, the emotion regulation and distress tolerance modules. Initially this model was developed as a treatment for Borderline Personality Disorder (BPD). However, many individuals within this population have trauma histories and meet criteria for PTSD; and two applications of DBT have been proposed (Wagner & Linehan, 2006). The first is in achieving stabilisation prior to initiating exposure-based interventions, and the second is for treating specific trauma related problems (e.g. chronic or complex trauma histories). Having previously worked on a DBT ward, I was familiar with the DBT coping skills and felt able to teach these in the series. I also felt the structured approach of the DBT model could be containing for a client population that is used to routine and processes.

The teaching series and learning objectives would be evaluated using an evaluation form (Appendix A), observations shared by my supervisor, and my own reflections on the experience of facilitating the teaching.

Intervention:

The teaching series consisted of five fortnightly, 30 minute sessions. These would be attended in person at the VMH-CTS work base. The series focused on the rationale for stabilisation, how to introduce it to clients, emotion recognition tools, and emotional coping skills. An overview of these sessions is illustrated in the table below. Session plans were shared in supervision prior to commencing teaching.

Table 1. Overview of sessions

Session	Topic	Content
1	Starting stabilisation (Appendix B)	- Learning objectives for teaching series - Overview of stabilisation starter pack - Window of tolerance - SMART goals
2	STRENGTH (Appendix C)	- Review practice of last week's topic - STRENGTH skill - Questions
3	Emotion recognition (Appendix D)	- Review practice of last week's topic - Purpose and experience of emotions - Symptom thermometers

		- Questions
4	Crisis skills – part 1 (Appendix E)	- Review practice of last week's topic - Tip the temperature - Intense exercise - Questions
5	Crisis skills – part 2 (Appendix E)	- Review practice of last week's topic - Paced breathing - Paired/progressive muscle relaxation - Questions

Attendance varied throughout the series with a minimum of six and a maximum of eight clinicians attending. This was not always the same staff attending a session, with clinicians dropping in out of the teaching series. Five staff members attended all of the sessions. Attendance started to level out towards the end of the sessions, as people became accustomed to the group and adapted their work schedules to allow attendance. In introducing a team teaching in future I would want to send out session invites electronically prior to the group ensuring enough time for staff wishing to attend to accommodate this in their diaries. Whilst the team had been verbally informed of the group starting in the team meeting, I feel a visual reminder would have been helpful.

The start of the teaching series was complicated further due to a last minute change in time. It was initially planned for after the team meeting, but this was inconvenient for some team members who had long distances to travel and needed to leave work early to avoid traffic/delays in getting home. Consequently on the morning of the start of the group I was asked by my supervisor and team lead to move the group to before the meeting. This had been my initial preference for the group, but there were no large clinic rooms available at this time to accommodate the group. In the end it was agreed that this would take place in the staff office. The benefits of this was that I knew the room well, many of the stabilisation resources were to hand, and it was a large enough space to accommodate the teaching. However, there were several difficulties encountered with using the office space. Firstly it removed the optional attendance for psychology staff, as it was not possible for them to work in the office when the group was taking place. It also resulted in some difficulty starting the group as members would underestimate the time required to finish up the tasks they were doing before the group, and laptops/phone were potential distractions. This was frustrating as due to the limited time available for the group it was essential this started on time.

I found the last minute changes with timing of the group stressful and anxiety provoking. I was worried about how a chaotic start would affect acceptance and support of the teaching series. At the same time, I felt it put less pressure on me to make the teaching introduction 'perfect' as it was outside of my control and I couldn't be considered responsible for it. Being able to introduce and set up the group in a team meeting prior to the series had been helpful as with the extra time required to start/settle in the first teaching session, we were even more stretched for time.

A second adjustment required in the teaching series was a result of COVID-19 social distancing and lockdown. This meant part way through the series it was not possible to continue with face-to-face teaching. Fortunately, the team were used to working off site due to the large geographical area they cover, which meant they were equipped to adapt to virtual sessions and meetings. Microsoft Teams was provided and sessions four and five of the teaching series were facilitated via video calls on this platform. However, this did require adaptations to the planned teaching. For example, I would often use practical demonstrations of the crisis skills in teaching them, to aid understanding. This was not possible virtually and consequently more of a descriptive approach was used, supported by handouts that were emailed out. This was frustrating as demonstrations of the skill can help make the session more interactive and provides further opportunity for participation.

Evaluation:

Participant feedback

Five participants returned their teaching evaluation forms. Their responses are summarised below. Response frequency refers to the number of participants who answered with that particular response.

Table 2. What did participants find helpful about the teaching series

What did you find helpful about the teaching series?	Response frequency
Space for reflection, sharing case experience	3
Discussing how exercises etc. can be implemented in sessions	3
Allows consistent approach to stabilisation	2
Facilitator created a positive peer learning environment	2

Well-structured and balanced sessions – good mix of new knowledge gained and discussion time	1
Provides structure for new starters to follow and helps build their confidence	1
Allows easy access to stabilisation materials	1
Refresh knowledge of existing skills	1

Table 2 shows that staff found guidance on how to implement stabilisation resources, and a reflective space the most helpful components of the group. They also felt it would allow for a consistent approach to stabilisation delivery as there was a structure to follow, and that a positive environment was created for peer learning.

Table 3. How participants felt the teaching series could be improved

What could we do to improve the teaching series?	Response frequency
Share group facilitation - invite other members of the team to present	2
Ensure a continuous learning framework – add additional modules/resources in line with service development.	2
Increase frequency to weekly as there are so many resources to go through	1
Perhaps they could be recorded so that new staff can work through the different sessions at their leisure, and reduce the requirement for a facilitator each time.	1
Continue to run it as new members of the team will join	1
Add additional modules/resources as they are developed	1

Table 3 shows participants suggestions for how the group could be improved. Two people suggested that other team members should be invited to teach, and two recommended a continuous learning framework to account for service development. Two of the suggestions considered the importance of this series for new starters, with one suggesting this continues in person and another suggesting teaching sessions could be recorded. One participant felt the teaching should be weekly, and although they found it helpful it appeared that the amount of stabilisation resources could be overwhelming as there was so much to go through.

All five of the participants who gave feedback, said they felt we had achieved the learning outcomes, and that they felt the teaching series would be extremely helpful for new staff. One said they felt the teaching series was essential for new staff rather than just helpful.

Additional comments on the evaluation forms included two participants saying they were happy with the allocated time for this. One felt it was manageable alongside other work commitments and the other described it as in 'small manageable chunks'. Two emails were received relating to the teaching series with one clinician saying 'Just wanted to say a quick thank you. Your stabilisation practice regarding symptom thermometer really helped me in a session today!' Another added that they have been finding the teaching sessions very helpful.

Supervisor's observation

My supervisor provided feedback on the teaching series, which I have reflected on below.

'Louise structured the sessions to model the application of therapeutic skills through the assessment and early treatment process. As group facilitator she created a positive peer learning environment, where those with expertise could share knowledge and those with less experience felt comfortable to ask questions about best practice. When training a group of individuals with different levels of experience and from different disciplines, she was able to acknowledge individual zones of expertise and highlight when team members should access support and where to find this. She demonstrated good teaching skills when breaking down complex psychological models in to accessible and practical applications'.

I was pleased that it was felt a positive peer learning environment had been created. I had been concerned that this would not be manageable with the different professions present. I noticed a spike in anxiety when I was first informed that psychology staff would be present. I feared there may be some resistance here as they may feel they were being taught material they already knew or that they could do better in teaching it as qualified clinicians. I also worried that non-psychology staff may not feel comfortable contributing or asking questions in a setting that was predominantly psychology. To manage this anxiety I found it helpful to reflect on my previous experience of teaching mixed professions (consultancy work) and to remind myself of my own expertise, which best placed me to teach this. To ensure the teaching was beneficial to all professions, it was important to be able to name psychology models used, but in a way that did not reduce confidence levels of non-psychology staff who were unfamiliar with these. This was challenging, so it felt good to hear that my supervisor felt this had been broken down in to accessible and practical applications.

'Louise used supervision well to develop her ideas and reflect on these sessions and her role as facilitator. She was mindful of group dynamics and her own position of knowledge and skill within this group, including where she could develop psychological skills and where disciplinary differences are appropriate. She demonstrated good flexibility when the group requested or needed more time on one topic over another within a session and showed good time management accordingly. She also maintained a client focused approach throughout the development and delivery of the training. An area for further development would be the inclusion of service users and their feedback on the skills in the review and/or delivery of these sessions.'

I did find supervision a useful space to consider ideas and trouble shoot. It was particularly helpful in considering group dynamics and different team members' presentations during the group i.e. what helped or hindered learning within the group, and how to name and address potential issues. Although it is stated here that I was mindful of where disciplinary differences are appropriate, this is something I would like to consider further in supervision. I feel there is a benefit in having a multi-disciplinary team and I would like to consider the strengths of non-psychology professions in delivering stabilisation to see what psychology staff could learn and draw from this. I am conscious that with the current set up of the group the learning may be more beneficial for non-psychology staff and that looking at contributions and ideas from other professions may help balance this into more of a mutual learning experience. In regards to time management, I know myself from attending trainings that a clear structure and feeling of being on track is important and encourages confidence in the group. With the team's other commitments that day, I did not want them to worry about the group running over or not having sufficient time for specific segments of the teaching. I am glad that it was felt I was responsive to the needs of the group in where more/less time was required on teaching segments. Finally, I agree that it would be helpful to collate feedback from service users on which of the stabilisation skills they have found helpful and what teaching approaches helped/hindered their application of skills. This would help develop the stabilisation modules and make them more user friendly for clients.

Self-reflection

Kolb's Experiential Learning Cycle (Kolb, 1984) felt like a good model to base the teaching on as it allows for further reflection following active experimentation. The teaching series aimed to do this by encouraging practice and application of skills between sessions. Unfortunately this practice was not always possible due to clients being at different places of stabilisation and having different treatment goals. Other clinicians also had fewer

stabilisation cases than APs and consequently had fewer cases and opportunities to apply this practice. This meant that there was not always a case to talk about in the practice review at the start of the next session. This space then became a skill recap or opportunity for any later reflections from previous sessions. When thoughts/contributions were less forthcoming I recognised an urge in myself to fill this space to try and achieve some consolidation of a skill. In future teachings, I would want to consider how this space could be used more effectively in the absence of active experimentation. Perhaps participants could role play how they would deliver teaching of a skill, or practice it themselves in place of teaching it and reflect on what they think would be helpful if someone was encouraging them to practice/adopt a skill. This would still allow the practice between sessions that Spalding (2014) deemed essential for bridging one session to the next.

The team were able to switch to a virtual group relatively easily, despite teaching session four being the first time the team had used the Microsoft Teams platform. There were two issues encountered with conducting the teaching series via video. The first was that it was hard to gauge when people were about to speak and when they had finished speaking. This resulted in occasions where people spoke over each other and confusion about who was going to continue what they were saying first. This paused the sessions and took up our already limited time. The second issue was that you were only able to see four people on a screen at one time and this would change depending on who was speaking. This meant you were not able to see the whole group and quieter members were left off screen. It was difficult to include the quieter members without naming them directly and asking questions. You were also missing visual cues so were not able to see how helpful they were finding the session or pick up on any difficulties in understanding the material presented. This made me aware of my reliance on this in face-to-face sessions, and how I encourage participation through body language and eye contact not just verbal prompts. I attempted to resolve this towards the end of session five by saying 'sorry I can't see all of you, does anyone else have any questions or thoughts they would like to share?' Whilst I did not get any comments from this I did get 'no' responses and I feel it was helpful to shift the spotlight here as it reminded everyone of the wider group. If this remained an ongoing issue in teaching I would want to raise this issue with the group and problem solve how participation could be encouraged.

The biggest challenge I found in facilitating the teaching series was pitching it to different levels of expertise. This was particularly problematic in teaching the psychologists. Whilst some presented as keen to familiarise themselves with the stabilisation materials used in VMH-CTS, others were less concerned with the approved materials and used this as an opportunity to talk about their own learning and resources. Whilst some of these may be

helpful and could be incorporated into service development, at this stage they were not approved and were potentially not at an appropriate level for non-psychology professions. It was important as a facilitator to keep this in mind whilst not discouraging contributions or disregarding other team members' expertise. Participants sharing resources within the group dominated the teaching session at times and I feel it would be helpful addressing this more formally going forwards. I would do this by sending out teaching topics in advance and asking people to send any resources they would like shared prior to this so that it can be considered and not take time away from an already planned session. During the group I managed this issue by redirecting - thanking the participants and asking them to send the resources to me after the group so these could be looked at.

Overall, I feel the teaching series was successful although I would like to consider some of the practicalities in how this is run in future. Staff will be expected to return to working in the office post COVID-19 so it would not be possible to continue the group virtually.

Consequently I would want to trial a blended approach of face-to-face and video to allow attendance from those at satellite sites. This would require a co-facilitator attending in person, as someone would need to be the bridge between video attendees and those in the room. I would recommend that this was co-facilitated by an AP or trainee psychologist who was already familiar with the resources and therefore would not miss out on attending the series as a participant. It could also be an opportunity for them to develop their own teaching skills. Whilst this would be an extra resource taken up by the team, it could save on expenses as staff from satellite sites would not need to travel for the teaching. I would also recommend switching the fortnightly sessions to the alternate weeks to see if the large clinic room is available. This would allow video attendees to be presented on a screen where they would be visible to those in the room. This would hopefully reduce the risk of those attending in person dominating discussion. Finally, taking on board participant feedback I would want to encourage other staff members to facilitate teaching; and collate feedback from clients, which could be incorporated into the development of stabilisation materials.

Moving forwards I feel it will be important for the team to consider what we have learned from working remotely and on different platforms. This experience has opened up a lot of new ways for trainee psychologists and other health professionals to engage, learn from and support others. If delivering teaching online in future, I would want to become more creative in my approach and make this more interactive. For example, making more use of the share screen option and completing worksheets together, or sharing videos and audio. I would also want to try facilitating exercises such as mindfulness virtually, which may require

consideration of how participants will feel more comfortable doing this e.g. turning their cameras off during the exercise.

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Appendices

Appendix A

Evaluation form

Stabilisation Practice Evaluation Form

Thank you for attending the stabilisation teaching series. I would really appreciate your feedback to help us improve and develop this teaching.

1. What did you find helpful about the teaching series?

2. Do you feel we achieved the teaching learning outcomes? These are listed below.

Please circle Yes / No

By the end of this teaching series you will be able to:

- Explain the rationale for the stabilisation phase of treatment
- Assess service user needs and develop treatment goals
- Apply emotion recognition tools to help service users better understand their emotion and identify this earlier
- Demonstrate emotional coping skills
- Locate stabilisation resources and further support

2a. If 'No' which learning outcomes were not achieved? If 'Yes' please skip this question.

3. What could we do to improve the teaching series?

4. How helpful do you feel this teaching series will be for new VMH-CTS staff?

Please tick

Extremely helpful	Very helpful	Neither helpful or unhelpful	Unhelpful	Extremely unhelpful	I'm unsure

Appendix B

Stabilisation starter pack content

Area	Task
Current presentation	Explore initial thoughts and emotions about the assessment, treatment, attending the session today.
Introduce stabilisation	Emphasise the importance of using skills independently throughout treatment. Explain that homework will be set and they will be expected to complete this on a regular basis. It is their responsibility to practice skills/complete homework and this will heavily influence their progress in treatment. Treatment will be tailored specifically to their needs.
Window of tolerance	Introduce the three arousal states; optimal, hyperarousal, hypoarousal. Start to consider what their experience of these states are, and what pushes them out/keeps them in their window.
Learning style	Visual, auditory, or kinaesthetic learners? (Learning style questionnaire available as a guide). Any adaptations needed e.g. memory aids, flashcards.
24-hour clock	Explore current routine, hobbies/interests, sleep pattern.
Coping skills	What strategies currently help them cope with distress?
The Flourishing Scale	A brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism.
SMART goals	Encourage client to identify their own goals for treatment. These should be specific, measurable, achievable, realistic, and time-targeted.
Check out	Thoughts and feelings about the session. How are they feeling? What are their plans for the rest of the day? – if they don't have any get them to think of an activity to help them wind down from the session.

Appendix C

STRENGTH

INCREASING EMOTIONAL RESILIENCE LOOKING AFTER YOURSELF

A way to remember these skills is to remember the word
‘STRENGTH’

Sleep

Take care of yourself

Resist unhelpful behaviours

Exercise

Nutrition

Gain mastery

Take time for yourself

Healthy self-talk

1. **Sleep:** Practice healthy sleep habits (e.g. avoid napping in the day). Keep to a sleep programme if you are having difficulty sleeping.

2. **Take care of yourself:** Take care of your body. See a doctor when necessary. Take medication as it is prescribed.

3. **Resist unhelpful behaviours:** Avoid harmful activities. Avoid non-prescribed drugs. Watch caffeine and alcohol intake.

4. **Exercise:** Do some sort of exercise every day: try to build up to 20 minutes each day.

5. **Nutrition:** Eat foods that are good for you. Don't eat too much or too little. Stay away

from food that you know makes you feel over-emotional.

6. **Gain mastery:** Try to do at least one thing a day to make you feel competent and in control.

7. **Take time for yourself:** Do something relaxing or fun each day.

8. **Healthy self-talk:** Treat yourself with respect. Notice your positive qualities and achievements. Encourage yourself.

Appendix D

Emotion recognition content

Area	Task
Emotions and their purpose	Introduce the basic emotions. Consider with the client the purpose of each emotion and their experience of the emotion.
Body map	This can be used for visual learners. Get clients to map on their physical sensations, thoughts, and behaviour urges. This should be completed for emotions they find difficult to manage e.g. anxiety or anger.
Emotion escalation	Consider with clients what their emotions look like at different intensities. What are their early warning signs and how do these build as the emotion intensifies.

Appendix E

The Crisis skills

Crisis skill	What this is
Tip the temperature	Change your body temperature using cold water or ice. This works best by submerging your face into a bowl of cold water. Holding your breath initiates the dive reflex, which slows down the heart rate, which quickens during distress.
Intense exercise	20 minutes of intense exercise e.g. walk quickly, climb the stairs, jump up and down, or run.
Paced breathing	Breathe in to the count of 5, then breathe out to the count of 7. This helps regulate our breathing. If this feels too long adjust counts as required just remember the outbreath should be longer than the inbreath e.g. try in for 4 and out for 6. Repeat for a few minutes.
Paired muscle relaxation	Working through the muscles in your body, starting from the bottom and working upwards, tense the muscles when breathing in, and relax them when breathing out. If this is too difficult to pair with the breathing, replace this with progressive muscle relaxation, which does not require this.

3.2 Teaching Diary

Learning outcomes:

- Demonstrate the systematic acquisition and understanding of teaching skills and professional practice.
- Plan, deliver and critically evaluate a training programme for the development of new knowledge, applications or understanding in Health Psychology.
- Carry out teaching to contribute to the development of new knowledge, applications or understandings of Health Psychology.

This diary is a reflection of my teaching experience during the Health Psychology Professional Doctorate training. It looks at my ability to design, plan, deliver, and evaluate teaching programmes for both clients and health professionals.

My teaching experience has been essential in helping me recognise the skills and expertise I can bring to a team and has increased my confidence in sharing these with other clinicians.

Teaching Diary

Jan 2019 – Dec 2020

Date	Summary
11.03.19	Sharing expertise Description: This was a meeting with the team's social worker to introduce them to stabilisation work and how to set this up with clients. We went through assessment and treatment planning for this (Appendix A), and looked at one of the stabilisation modules – PTSD psycho-education (Appendix B). I tried to present this in a way that was approachable for non-psychology staff who may not be familiar with the materials/tools used. Where acronyms were used (e.g. CBT and SMART goals) I ensured these were explained fully and did not assume understanding. I gave the opportunity to ask questions throughout and tried to illustrate using examples/learning points from my own experience delivering stabilisation to this client group. Feelings/thoughts: I always experience some anxiety at the start of a teaching. This can be worrying about my ability to deliver the teaching, and how it will be taken – particularly by other clinicians who are qualified in their fields. However, I felt more comfortable in this teaching due to the informality and being confident in knowing the materials, which I had put together myself for the team. The social worker's attitude also put me at ease, as they had sought out this teaching themselves and they were eager and willing to learn. Evaluation: It was helpful to use examples/learning points to illustrate, however, I feel it would be more helpful to encourage clinicians to draw/reflect on their own experience too. This would be particularly easy to do in a one-on-one setting and the personalisation may help them recall more from the teaching later. It could also help improve their confidence in delivering stabilisation as they are building on skills/experience they already have, rather than starting something completely from scratch. Conclusion/action plan: In future I would want to consider the staff members job role and reflect with them on skills from their own profession that could contribute to stabilisation delivery e.g. social workers experience with social systems and reintegration could be helpful in behaviour activation work, communication skills, and coping with relational difficulties.

21.10.19	Consultancy work – Northampton pilot part 1 Description: My consultancy competency for the Health Psychology Doctorate was met by creating and piloting a course for St Andrew's Healthcare's recovery college. This course was an 'Introduction to Mindfulness' (summarised in Appendix C, please see Consultancy case study for further information) and would be piloted at two sites; Northampton and Essex. Due to logistics the first pilot at Northampton was divided into two parts, this entry reflects on part one of that course. Attendees included staff and service users of St Andrew's Healthcare. Where possible recovery college courses are facilitated by a clinician and a service user expert – someone with lived experience of mental health difficulties. This was my first time co-facilitating a group with a non-clinician. Feelings/thoughts: I experienced some anxiety about facilitating the course, as it had been the first group I had created from scratch. This felt more personal and that any criticism would be a reflection of my expertise. I was also anxious about teaching staff as a trainee. Healthcare can be hierarchical in nature and I was concerned this would be a barrier to acceptance of the course and usefulness to staff. In co-facilitating with a non-clinician I noticed increased pressure in presenting theory and answering questions as there was no one else available to support with this. Evaluation and analysis: Creating the group from scratch meant I knew the session content well and I was more confident in presenting it. In managing my anxiety it was helpful to remind myself of my skill set and the reason I was facilitating the teaching. The consultancy work had been set up with my team leads approval and assurance of my ability to facilitate this piece of work. Whilst I felt pressure at points in co-facilitating with a non-clinician I could also see benefits to this. Such as their personal experience making them relatable to service users attending and a source of hope in their own recovery. They had good insight into what can help make participants comfortable in a group setting; and demonstrated the benefits of including service user expertise in healthcare delivery.

	Conclusions/action plan: In managing the pressure experienced when answering questions and delivering theory, I would want to remind myself that I am not expected to have all the answers. The session was an appropriate introduction to mindfulness. If I did not know an answer that was okay, it would be more important to demonstrate how we could find the answer as a group. As a pilot, some of these questions may have been helpful in highlighting any areas overlooked by the course and could be a learning opportunity to inform future facilitation.
23.10.19	Consultancy work – Northampton pilot part 2 Description: This was part two of the 'Introduction to Mindfulness' (Appendix C) pilot course at the Northampton site. Unfortunately only two of the four original participants attended the second part of the course. Feedback from the two that completed the pilot recommended that the course should be facilitated as one session. Feeling/thoughts: I was disappointed that only two people completed the first pilot. This was frustrating as I had previously advised the Recovery College that this should be facilitated as one session, but logistical issues (e.g. staffing, pre-existing courses on the college's curriculum) had meant this was not possible at the time. I had advised this to improve attendance of the course as I felt it would be easier for attendees to commit to one day rather than finding time to attend over two days. Another source of frustration was that it had not been possible to capture feedback from those that did not return for part two, or ask about why they had not wanted to or been able to attend the second part. Evaluation and analysis: Whilst attendance had been poor, I think it was still helpful to run one of the pilots in two parts as this enabled us to test this format and collect participant feedback on this. Whilst it had been fed back that the course could be improved by facilitating it in one session, this may be difficult for clients who have limited leave from the ward e.g. one hour. It therefore, would be helpful to consider how the course could best be delivered in two parts.

	Conclusion/action plan: To recommend facilitating the group in one session predominantly. To explore whether clients leave could be extended if attending a course at the Recovery College, and how the timings could match up with staffing shifts to allow supervision by staff where required. If this is not feasible and two part sessions are required, I would want to consider how far apart the sessions should be and hand out an evaluation form at the end of both sessions. I would also want to encourage attendees to contact the Recovery College to notify them of a non-attendance in advance of the session so that facilitators are aware of this, can potentially find out why the attendee is not returning, and how the group could be improved to encourage further attendance.
15.11.19	Consultancy work – Essex pilot Description: This was the second pilot of the ‘Introduction to Mindfulness’ (Appendix C) course, which was delivered at the Essex St Andrew’s Healthcare site, as one session rather than in two parts. Of the ten people that attended the course, seven completed it. One service user left at the start of the group stating that they were not able to see the projected presentation clearly as their reason for leaving. This had been projected on to a side wall of the room, as it would not project clearly on the board at the front of the room. Two staff left during the break having told other group members that the room was too cold, they had mentioned this at the start, but unfortunately it was not possible to change the room temperature. Feelings/thoughts: I was pleased with the group turnout as not many had pre-booked a place on the course. I noticed feelings of disappointment that we had participants leaving early. Whilst they may not have been truthful in their reasons for leaving, I was relieved that these were reported as environmental issues rather than as a reflection on the course itself. I also noticed some frustration that being unfamiliar with the site, I had not been able to factor in some of the environmental issues in planning for the group. Evaluation and analysis: Facilitating the course as one session allowed comparisons with the first pilot’s two part format, which was helpful to consider. Attendance was higher for the pilot delivered as one session. The environmental issues highlighted the importance of location when rooms are

	booked for the course, as space was limited and it did not allow for ideal set up of equipment i.e. flip chart, projector. Conclusion/action plan: Adaptions may be required when rooms are limited and these are not considered ideal for the session. For example allowing additional time to prepare the room to problem solve any potential issues e.g. using flip chart paper to cover notice/white boards to allow presentations to be projected at the front of the room where it will be easily viewed. Where possible it would be helpful to view the room prior to the group. Where space is limited in a room, it would be helpful to replace the mindful walking exercise with a simple standing/chair movement exercise. These suggestions along with others from the pilots will be shared with the Recovery College in a consultancy contract report.
10.02.20	Teaching series (Appendix D, see teaching case study for further information) – Session 1, attendance 6 Description: Initially I had planned for the stabilisation group to take place before the team meeting, however, the meeting room was in use at this time and there were no other clinic rooms large enough to facilitate this. Consequently it was agreed that this would take place after the team meeting. Later concerns arose about some team members needing to leave early due not being based at this site and needing to avoid delays in travelling home. This resulted in the group time being changed last minute on the day of the group (to before the team meeting) and a delayed start as staff had to rearrange work tasks to join. The group took place in the team office. It covered what stabilisation was and the rationale for it, the Window of Tolerance, and goal setting. One staff member was unable to attend due to the change in time. At the beginning of the group, my supervisor asked what other people's thoughts were about something I had said to generate discussion. Feelings/thoughts: I was keen to make a start on the teaching series and was glad this went ahead. Whilst the last minute changes were stressful, I felt the chaos put less pressure on me to make everything 'perfect' as it was outside of my control and I could only apologise for it and plan how to move forwards. I was relieved that I had already set up the teaching series in a

	previous team meeting, as 30 minutes was not enough time to do this and manage the delays in starting the session. I felt the team found the teaching helpful and were able to share some of their own reflections and experiences. Whilst my supervisor's input at the start had been helpful as there had been challenges in getting people settled in the group, I noticed a little bit of frustration at myself and self-criticism for requiring this assistance. Evaluation and analysis: Attendance turned out better than it would have done if it had gone ahead after the team meeting. I also feel this was a better time of day for learning skills as the team meeting is long and energy levels can be low at the end of the day. Unfortunately it was not ideal that I had been unable to give sufficient notice in the change of timings, which may have accounted for some of the initial reluctance I perceived in staff when joining the session. It was helpful to have my supervisor as an attendee to the group as they did prioritise this and were able to model attendance. Conclusion/action plan: The teaching time has officially been moved and the team have all been sent calendar invites for the next four teachings of the series that will be written up in the teaching reflective case study. This will then be booked in as an ongoing teaching slot and feedback at the end of the initial five sessions will be used to inform future teaching. A catch up session will be arranged with the missing staff member. Whilst I had the session plans approved prior to the teaching, I feel it would have been helpful to dedicate some time to managing group dynamics and encouraging participation prior to starting the series. I feel this was lost in trying to overcome the logistics of setting up the group.
24.02.20	Teaching series (Appendix D) – session 2, attendance 8 Description: Unfortunately the best time for attendance is when the meeting room is in use and consequently we have had to use the team office for teaching. The group was initially intended for non-psychology staff, however, the team lead felt it would also be beneficial for psychology staff to know what skills are covered in stabilisation. With the teaching now taking place in the office, this meant optional attendance was now removed, as it was not possible to continue working around the group. Handouts from the previous

	week were given to staff that had not been able to attend. One participant was quite vocal at times about sharing her own resources. Feelings/thoughts: It is frustrating at times facilitating the group in the office because it can be difficult to get people together to start as they are still finishing up tasks at their work desks. I noticed stress from the participant pitching their own resources, as session time was limited and I had resources of my own to share, which had been planned in advance. I also felt concerned as I could not vouch for their resources and these had not been approved by the service. Finally, I experienced some anxiety about the now compulsory attendance of psychology staff who were in the office. I worried that they may be resistant to this as they may perceive themselves as more knowledgeable or better placed to do the teaching. If they already felt they knew it all it would likely be a barrier to their learning/acceptance of the resources and teaching. Evaluation and analysis: I think it is good to have space in the teaching to share and practice tips, however, it will be important to balance this so that it does not overshadow the approved teaching. Where resources are being suggested by those participating, these would need to be reviewed for appropriateness before being sent out. There is the risk that these could be unsuitable for staff who have not had the same type or level of training. Conclusion/action plan: To remind people five minutes prior to the teaching that the group is about to start, this will hopefully allow sufficient time to log off computers and pause any pieces of work. I will then model this, and start setting up so that they can see I am waiting to start. To consider in supervision how best to pitch skills to mixed staff backgrounds and knowledge. I plan to redirect if someone dominates the sharing space, by asking them to send the recommend resources over for me to review later. If this became an ongoing issue I would ask staff to share any resources prior to a session so that these can be incorporated in to session planning as required. To do this it would be important to send out session topics in advance.
09.03.20	Teaching series session 3 (Appendix D) – attendance 6

	Description: The team were reminded five minutes prior to the teaching that the stabilisation support group was due to start. We started with a review space to consider facilitation of last session's skill. Unfortunately due to people being at different places in their stabilisation work and having different treatment goals, it had been difficult for people to apply their knowledge in between sessions. There was also the additional issue that this was not always relevant for psychology staff who were less likely to do stabilisation (only in complex cases or where continuity in clinician was deemed necessary) and were more likely to apply this in skills coaching later in treatment. The lack of application meant that this reflection became more of a recap/space for later thoughts. Feelings/thoughts: It is disappointing and frustrating at times when no participants have been able to apply the previous session's skill. It can also feel uncomfortable and I notice an urge to 'fill the silence' if there are no further thoughts and contributions. I noticed concern that the teaching would not be as effective without this stage of the planned teaching model - see reflective case study for more information. Evaluation and analysis: I think it is good to have this reflective space, but it would be helpful to think of the best way to use it in anticipation of the times where no one has been able to apply a skill. The five minute warning prior to the group was sufficient timing for staff to pause their work tasks and join the group. Conclusion/action plan: To continue with the five minute warning prior to the group. In the absence of practical application, I will encourage participants to reflect on how they would approach teaching a particular skill, they could even use this space to role play this. It would also be helpful to ask participants to practice the skill themselves during the week so that they could reflect on what they think they would find helpful from someone teaching and encouraging them to adopt the skill.
23.03.20	Teaching series (Appendix D) – session 4 – attendance 6 Description: Due to COVID-19 the team moved to working from home. They were equipped with Microsoft Teams to enable sessions via video call.

	Consequently session four took place via video, which was the first time the team had used this. A couple of staff members had been in contact to find out if the teaching was still going on and one of these had tried to problem solve their non-attendance by suggesting Microsoft Teams. Thoughts/feelings: I was pleased that staff had tried to support the teaching going ahead. It felt uncomfortable at times speaking, as it was hard to gauge when people were about to speak or when someone had finished speaking. I also felt conscious being able to see myself on the screen. Evaluation and analysis: Whilst I feel I prefer face-to-face teaching, this will not always be possible due to team members being based in different areas. I can therefore see the benefits of using Teams as an alternative way to attend the group going forwards, which may allow for more consistent attendance. I will also likely become more comfortable with teaching via video as I become more familiar with this platform and process. Conclusion/action plan: When work recommences in the office I would want to trial a blended approach of teaching. Allowing those unable to attend in person to attend via video, which could be projected on to the wall so all group members on site can see those attending virtually. This would help remind them that they are present. As it would not be easy to place a laptop for virtual attendees to see all face-to-face attendees clearly a co-facilitator would be required to link in those not in the room e.g. directing questions between both spaces.
06.04.20	Teaching series (Appendix D) – session 5 – attendance 8 Description: Final session of the teaching series, which will be written up for my training reflective case study. The teaching will then continue within the team hopefully drawing on others to contribute to teaching sessions. This last session was also conducted via video call. This platform only allows four attendees to be seen on the screen at one time, and changes to display who is speaking. Two staff members new to the team joined the session. Thoughts/feelings:

	I noticed some anxiety about this being the last session and knowing I would be collecting feedback on the teaching after the session. Another cause for anxiety was having two new starters in the session, which increased the feeling of pressure as this would be one of their first impressions of me. I also notice feelings of discomfort with not being able to see everyone on my screen, but knowing they were there. Evaluation and analysis: It was challenging not being able to see everyone on the screen. Particularly to engage quieter participants who had not spoken during the session and were off screen. There were no visual cues to see how helpful they were finding the session or to encourage their participation. This highlighted how dependent I am on these cues in to face-to-face interactions. I feel it was easy for attendees on the screen to forget the wider group and this may also contribute to some attendees appearing to dominate discussion during the session more. Conclusion/action plan: I am conscious about naming people directly during the session in case it makes them feel uncomfortable. However, I do feel it would be helpful to more generally name people at the end e.g. 'Insert names...sorry I can't see you on the screen, did you have any questions or anything you want clarified before we end the session?' If this became an ongoing issue I would like to name this with the team and consider how we could more actively encourage participation within the session e.g. alternating who will feedback or role-play a practice, or encouraging other staff members to help me demonstrate a skill.
04.05.20	Stabilisation teaching session Description: The topic was 'How to write a stabilisation summary letter' (Appendix E), which is a brief report sent to the client to remind them of what has been covered in this stage of treatment and to help them consolidate their skills practice. This teaching involved sharing one of my own letters. Two of the psychologists gave positive feedback having previously seen my letters. The session ended slightly earlier, so we used the remaining space to trouble shoot any issues the team were having with stabilisation cases.

	Thoughts/feelings: I felt self-conscious sharing the therapy letter as it felt personal. Whilst it was nice hearing positive feedback I noticed some feelings of discomfort hearing this being said in front of other people. I found it challenging pitching the letter and trying to get staff on board. Evaluation and analysis: It was challenging pitching this to psychologists as they were less likely to be doing stabilisation work and when they did they would be continuing the client's treatment as they moved into trauma processing. However, it was helpful for them to know about these letters so that they could refer to them for skills coaching or when picking up a case where another clinician had completed the stabilisation phase of treatment. It was also challenging pitching this to non-psychology staff who were being asked to do a therapy letter as an additional task to add to their already large caseloads. I found it helpful to remind staff that this summary could be copied and pasted into the client's discharge summary report, so that this did not require too much additional work. Conclusion/action plan: To create a blank template of the letter with prompts, which can be shared with the team. This will also helpfully reduce the time required to complete these letters. To draw up a new teaching rota with topics and encourage participation from other staff members. To review feedback forms when received and use this to inform future facilitation of the teaching series.
01.06.20	Outcome measures teaching 1 – Appendix F Description: The team had found it challenging collecting data from outcome measures since moving to virtual sessions. Measures now had to be sent out via post, which currently had postal delays with COVID-19, but also limitations for when admin would be in the office to send these out. The alternative was to send measures electronically, which the team were unfamiliar with. Both methods were producing less completed measures than when clients were asked to do this at face-to-face appointments. This teaching aimed to show staff what measures were required, how these could be sent electronically, and how to check scores for completed measures. Attendees consisted of the staff team, which include some new starters.

	Thoughts/feelings: Despite the mixed experience in attendees, I did not feel anxious like I had in previous teachings. I feel this is because I did feel best placed to lead on data and I had experienced multiple issues in collating the team's data regardless of the staff member's experience with this. Consequently I felt more confident in this teaching. Evaluation and analysis: This was an essential teaching to enable the team to still collect data whilst face-to-face appointments were unable to go ahead. It also helped the team consider the best way forwards with this, seeing as we are unsure when we will be able to return to face-to-face sessions. Conclusion/action plan: Hopefully this teaching will help reduce some of the data queries that get sent to the Assistant Psychologists, which can be time consuming and repetitive. Plan for Assistant Psychologists to create a guide with screen shots to explain the process of data collection, which the team can then refer to.
09.06.20	Outcome measures teaching 2 – Appendix F Description: This was a repeat teaching for two new starters who had been unable to attend the first one, and for two external Assistant Psychologists who were going to be creating an outcome measures guide to reduce the need for ongoing teachings and support with outcome measures. Thoughts/feelings: There had been a lot of outcome measure and data queries recently and I noticed some frustration in having to repeat things. I was pleased and relieved I would not have to do the outcome measures guide as I felt I needed a break from this topic. Evaluation and analysis: It was good to have the external Assistant Psychologists present as it was helpful to get feedback on the teaching itself i.e. what was helpful, what could help attendees consolidate their learning more. Conclusion/action plan: To pilot the guide once completed by asking the new staff in the team to review this and see how helpful they found it as they got used to the measures and data collection process.

13.07.20	Hosting a teaching for another facilitator Description: This was the first stabilisation teaching session in the ongoing series where another staff member would be facilitating. This clinician had previously worked in substance misuse services and was going to teach our services role in managing this in treatment. I had expected this to cover how to present psycho-education, coping skills, and how to risk assess/signpost accordingly. Unfortunately, the staff member's preparation was incomplete and the session was used as more of an opportunity to get feedback and reflections from the team rather than to benefit the team directly. I had emailed the clinician prior to the group to see if they needed support with setting up/anything in the session. I also typed up feedback from the team and emailed this to the clinician afterwards. Thoughts/feelings: I noticed some discomfort that the session had not gone the way I would have used it, and recognised my urges to take control here. There was also some frustration that the clinician's prep had been incomplete. Evaluation and analysis: It was good to contact the clinician prior to the group however, I feel it would be helpful to have an earlier reminder than on the morning of the group. It may also be helpful to offer more guidance when setting up a teaching so that clinicians have a clearer idea of what is expected for the teaching series. Conclusion/action plan: To practice radical acceptance that other teachings may not meet the expectations/standards I set myself and that this is okay. It does not mean the session has not been helpful and there will be opportunities for me to learn from other staff member's teaching format. I will message clinicians on the Friday prior to Monday's teaching so that they have a reminder and are ready. I will ask for an outline of the session in advance to ensure this is fitting for the stabilisation group, as there is a risk that staff may not pitch this at a level appropriate for those not trained in the profession or keep it relevant for the team's involvement e.g. it is not the team's role to treat substance misuse, they just need to be able to manage and support this to enable therapy.

24.08.20	Co-facilitating a teaching – Appendix G Description: This was my first teaching with another staff member for the teaching series. We prepared a plan before the session and considered in advance some examples of use with clients that could help generate discussion. Participation in teaching sessions can be slow at times with the same people contributing to discussion. It was agreed in advance that I would lead this teaching and the other clinician would co-facilitate and encourage participation. We met 15 minutes prior to the session to check in and prepare. Thoughts/feelings: I found some reassurance in co-teaching and knowing there was another clinician there. It also made me feel less anxious because I would not be the sole focus point in delivering the material. Evaluation and analysis: It was helpful to have another clinician present for support and help in answering any questions. It can also be useful to start discussion via the co-facilitator, who can be more of a presence within the group. It was helpful to decide in advance who was leading so that clinicians were not repeating or talking over each other. Having someone taking on more of an observing role means they are better able to pick up when an attendee may be struggling to understand something, or where someone may need some encouragement to participate. Conclusion/action plan: To continue to encourage other staff members to contribute to teachings; leading or co-facilitating. Where it is the team's Assistant Psychologist and myself teaching, I plan to alternate who will lead so that we can get practice in the different teaching roles.
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Appendices

Appendix A

Stabilisation starter pack content

Topic	Task
Current presentation	Explore initial thoughts and emotions about the assessment, treatment, attending the session today.
Introduce stabilisation	Emphasise the importance of using skills independently throughout treatment. Explain that homework will be set and they will be expected to complete this on a regular basis. It is their responsibility to practice skills/complete homework and this will heavily influence their progress in treatment. Treatment will be tailored specifically to their needs.
Window of tolerance	Introduce the three arousal states; optimal, hyperarousal, hypoarousal. Start to consider what their experience of these states are, and what pushes them out/keeps them in their window.
Learning style	Visual, auditory, or kinaesthetic learners? (Learning style questionnaire available as a guide). Any adaptations needed e.g. memory aids, flashcards.
24-hour clock	Explore current routine, hobbies/interests, sleep pattern.
Coping skills	What strategies currently help them cope with distress?
The Flourishing Scale	A brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism.
SMART goals	Encourage client to identify their own goals for treatment. These should be specific, measurable, achievable, realistic, and time-targeted.
Check out	Thoughts and feelings about the session. How are they feeling? What are their plans for the rest of the day? – if they don't have any get them to think of an activity to help them wind down from the session.

Appendix B

Post-Traumatic Stress Disorder (PTSD) psycho-education content

Topic	Task
What is PTSD?	Provide definition. Explore when symptoms first presented and diagnosis. Where Complex-PTSD is present or suspected, look at the difference between this and PTSD.
What causes PTSD?	Share causes of trauma. Note not just military backgrounds affected by PTSD, other people can experience this.
What are their symptoms of PTSD?	Exercise with slips of paper with common trauma symptoms. Ask veteran to identify their symptoms and consider frequency and warning signs. Explore impact of symptoms on their relationships.
Trauma and the brain, why does it develop?	Handouts provided to illustrate this. Know your audience – there is one simplified version and one with a more complex explanation.
What is the treatment for PTSD?	Share handout (factory metaphor) illustrating how trauma treatment works.
Suggested homework	Mood diary sheet for them to check in with their emotional experience over the next week.

Appendix C

Introduction to Mindfulness course summary

Topic	Task
What is Mindfulness?	Definition and introduction to Mindfulness
How does it work?	Video on Mindfulness and the brain
Why should I practice?	Share ways it can help us and support with evidence base
Mindfulness exercises	Try out several Mindfulness exercises so participants get a good range of ideas for practice and opportunity to see what may/may not work for them. Exercises covered in session include: - Breathing - Mindfulness of an object - Mindful movement - Body scan - Mindfulness of sounds
Developing a toolkit	Participants encouraged to reflect on which exercises worked best for them. What didn't work and why not? Encourage participants to draw up a plan (worksheet provided) on how they can start applying Mindfulness in their own lives.
What's next?	Explore potential barriers to practice and trouble shoot e.g. how will they remind themselves. Encourage them to make gradual changes so that these are more likely to be maintained e.g. mindfully doing something that they already do daily e.g. eating, walking. Advise on how they can access further support.

Appendix D
Teaching series overview

Session	Topic	Content
1	Starting stabilisation (Appendix B)	- Learning objectives for teaching series - Overview of stabilisation starter pack - Window of tolerance - SMART goals
2	STRENGTH (Appendix C)	- Review practice of last week's topic - STRENGTH skill - Questions
3	Emotion recognition (Appendix D)	- Review practice of last week's topic - Purpose and experience of emotions - Symptom thermometers - Questions
4	Crisis skills – part 1 (Appendix E)	- Review practice of last week's topic - Tip the temperature - Intense exercise - Questions
5	Crisis skills – part 2 (Appendix E)	- Review practice of last week's topic - Paced breathing - Paired/progressive muscle relaxation - Questions

Appendix E

Stabilisation summary letter template

Dear _____,

RE: Completing the first stage of treatment

Our sessions have now come to an end and you have started the next stage of your treatment, **(insert treatment)** with **(insert new clinician's name)**. I would like to take a moment to summarise our work together and reflect on the progress you have made.

On **(insert stabilisation start date)** we met for our first session, where we formed a plan for treatment. You identified the following goals to work on:

- 1.
- 2.
- 3.

We have since met for **(insert number of sessions)** sessions to work on these goals, focusing on **(insert topics covered)**. I have summarised these in the table below to help you continue your skills practice.

Skill	Summary
Example: Self-soothe	Soothe with the 5 senses; see, hear, touch, smell, taste. Put some items together in a box so that these are ready to use. Remember, to put prompt cards for items/activities that cannot go in the box e.g. a reminder to go for a walk.

Insert summary paragraph of stabilisation review appointment including progress made and outcome of this appointment. Remind them of who they can contact going forwards in place of you i.e. CLN and new clinician.

Insert strengths focused paragraph, thanking them for their commitment/effort to sessions and providing encouragement for moving forwards in their treatment.

It has been a pleasure working with you **(insert name)**, and I wish you all the best for the future.

Yours sincerely,

Name
Role
Service

Appendix F

Outcome measures teaching content

Topic covered and demonstrated
How to add a new patient on data collecting software
What measure do we need to send?
Where can I find the measures?
When do the measures need to be completed and how often?
How can the client complete this themselves in a session?
How do I upload scores from a paper copy?
How do I correct a profile if scores are added as 'new episode' rather than 'new session'?
How do I access outcome measure database to review scores across all measures?

Source: www.getselfhelp.co.uk/stopp.htm

STOPP

□□ **Stop and Step Back**

Don't act immediately. Pause.

□□ **Take a Breath**

Notice your breath as you breathe in and out.

□□ **Observe**

What am I thinking and feeling? What are the words that my mind is saying? Is this fact or opinion? Descriptions or evaluations? Accurate or inaccurate? Helpful or unhelpful? What unhelpful thinking habit am I using (e.g. mind-reading, negative filter, thinking the worst)? Where is my focus of attention? What metaphor could I use (mountain, tunnel, playground bully, thought train, beach ball, passengers on the bus)?

□□ **Pull Back: Put in some Perspective**

See the situation as an outside observer. What would a fly on the wall see? Is there another way of looking at it? What would someone else see and make of it? What advice would I give to someone else? What's 'the helicopter view'? What meaning am I giving this event for me to react in this way? How important is it right now, and will it be in 6 months? Is my reaction in proportion to the actual event?

□□ **Practise what works**

Do what works, what is most helpful. Play to your Principles and Values. Will it be effective and appropriate? Is it in proportion to the event? Is it in keeping with my values and principles? What will be the consequences of my action? What is best for me and most helpful for this situation?

Chapter 4 - Research

This competency consisted of four items; Empirical Paper 1, Empirical Paper 2, Systematic Review, and Research Commentary.

4.1 Empirical Paper 1

Learning outcomes:

- Demonstrate skills in conceptualisation, design, development, implementation, and analysis of a study to investigate a pertinent research question in Health Psychology.
- Create and interpret new knowledge through original research or advanced scholarship in Health Psychology.

This paper is an evaluation of a Virtual Reality (VR) social engagement program that was delivered in a veteran population. VR is increasingly being used in healthcare for a range of conditions. In veterans' healthcare it has narrowly focused on Post-traumatic Stress Disorder, despite the complex health needs of veterans and high co-morbidity with other mental health difficulties such as social anxiety. This program followed a graded exposure model.

The paper has been prepared for submission to the Cognitive Behaviour Therapy journal (Taylor & Francis online) and utilised their provided template. The maximum word count was 5500 words. This journal has previously published VR studies.

Evaluation of a Virtual Reality Social Engagement Program in a Veteran Population

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Evaluation of a Virtual Reality Social Engagement Program in a Veteran Population

Abstract

Virtual Reality (VR) has been effective in mental health treatment including phobias, social anxiety and Post-traumatic Stress Disorder (PTSD). Despite high co-morbidity with social anxiety, veterans VR research predominantly focuses on PTSD; little has explored veterans' perceptions. This study evaluates a VR social engagement program and explores the veterans' experience. Male participants (N=12) aged 34-65, presenting with social anxiety symptoms for a minimum of six months were recruited from a veterans' community service. A mixed method approach was used: pre-post quantitative study and interview. Anxiety, social anxiety, depression, wellbeing, and distress were measured. No significant change was found in pre-post scores, however, mean scores improved for generalised anxiety, depression, and social anxiety. Interviews aimed to better understand feelings/experience during VR exposure, and overall treatment satisfaction. Interview data indicated treatment was well received and perceived as beneficial. Veterans reported an increase in confidence in social settings and VR was considered valuable in accessing places they avoided in real life. It was felt that future programs could be supported with real-life exposure to continue treatment. Themes discussed: expectations, exposure hierarchy, de-escalation, military mind-set, further practice, and application of learning. Further research is recommended in a larger sample to determine treatment effectiveness.

Keywords: virtual reality; virtual reality exposure therapy; social anxiety; veterans

Introduction

Virtual Reality (VR) is a three-dimensional, computer-generated environment enabling an immersive experience where users can interact with their surroundings, manipulating objects or performing a series of actions (Virtual Reality Society, 2017). It has been used in healthcare and has been effective in treating mental health disorders including Post-traumatic Stress Disorder (PTSD), where VR exposure therapy was found to be as effective as traditional trauma exposure treatment, and especially useful in treating patients resistant to traditional exposure (Gonçalves et al., 2012). It has also been used to treat phobias (Freeman et al., 2018) and social anxiety (Anderson et al., 2013) – fear experienced in social settings that impedes day-to-day functioning. Cognitive Behavioural Therapy (CBT) based on Clark and Wells (1995) or Rapee and Heimberg (1997) models are currently recommended for social anxiety treatment. Wechsler et al (2019) found VR exposure to be equally effective as the recommended in vivo exposure in treating specific phobia and agoraphobia and indicated high potential in treating social phobia – defined as fear of scrutiny by others leading to avoidance of social situations.

VR studies with veterans' have predominantly focused on the treatment and assessment of PTSD (Van't Wout et al., 2017). Studies have explored avoidance and safety-seeking behaviours (actions people do to prevent, escape, or minimise a feared situation) within this e.g. Dunmore et al (2001) found these significantly predicted PTSD severity. However, social anxiety disorder has not been addressed directly, despite high comorbidity with PTSD (Collimore et al., 2010). A profile of help-seeking veterans (Murphey et al., 2017) indicated that although PTSD is the most prevalent mental health disorder (82%), comorbidity is frequent (95.2%) with other difficulties present e.g. anger (74%), common mental health difficulties (i.e. anxiety/depression 72%), and alcohol (43%). This concluded that treatment should address the range of difficulties rather than narrowly focusing on one.

Kramer et al. (2013) explored veterans' perceptions of the use of VR to assess and treat PTSD. Overall feedback was positive, however, concerns were expressed about possible negative reactions post-VR e.g. anxiety not returning to baseline. Nason et al. (2019) assessed benefits of different virtual platforms, where veterans reported an immersive VR experience, however felt inconsistent visuals/glitches detracted from the program. Few studies have explored veterans' experience and perceptions of VR treatment.

Neudeck & Einsle (2012) identified structural (logistics, insurance, time) and therapist (negative attitudes to treatment, fears, uncertainty of procedures) barriers to

traditional exposure therapy. VR could potentially overcome some of these barriers; bringing the treatment to the clinic room and increasing clinician consistency and confidence in delivering exposure treatment.

This study evaluates a social engagement program in a veteran population. The findings informed and developed recommendations for the implementation of VR as an intervention to reduce social anxiety in veterans.

Method

Design and ethics

A mixed-method, pre-post assessment design was implemented to evaluate a VR social engagement program; interview conducted post-treatment. This was approved by Liverpool John Moores University Research Ethics Committee (20/NSP/039).

On attending, participants were given a £5 voucher to acknowledge their time and effort. This was sufficient to ensure they were not worse off financially for attending, but not enough to provide an incentive for participation.

Participants

Twelve participants were recruited from a veterans' mental health community treatment service. Participants had to have presented with social anxiety symptoms (no diagnosis required) for a minimum of six months, and be able to travel to site for sessions.

Exclusion criteria included: inadequate social skills where behaviour in a social context is likely to lead to negative consequences; harmful behaviour (e.g. self-harm, substance misuse) and/or reported intent to end life within a month before recruitment; specific non-social or environmental phobia (e.g. fear of objects, heights); receiving intensive psychological treatment for social anxiety; receiving trauma processing therapy; social anxiety resulting from acute depression; manic presentation (i.e. bipolar disorder phase or medication change); cognitive impairment resulting in an inability to learn, or significant problems in orientation to time, place or person; impaired ability to understand, follow and recall instructions; psychosis severity that prevents effective engagement; photosensitive epilepsy, significant visual, auditory, or balance impairment; persistent sickness symptoms following VR preview as indicated by the Simulator Sickness Questionnaire (SSQ; Kennedy et al., 1993). SSQ wording was simplified to ensure it was accessible to individuals with a wide range of cognitive skills (e.g. 'tiredness' added next to fatigue, fullness of the head changed to 'feeling of

pressure in the head'). Veterans' clinicians assessed against criteria using own knowledge and health records.

Participants were white British males, the demographic that formed the majority of the service's referrals. The mean age of participants was 47, range 34-65. Eight participants had served in the Army, three in the Royal Air Force, and one in the Royal Navy. Most were at the start of their treatment (three on the waiting list, six in stabilisation for therapy), two were mid-treatment (compassion focused work) and one was ending treatment. In addition to social anxiety symptoms, participants presented with the following: all with PTSD, seven with depression, one with Autism, and one with dissociation. Veterans were asked to share any PTSD triggers so they could be notified in advance of any present in the program.

Measures

Quantitative

Participants were asked to complete several measures pre and post-treatment, these had good alpha-reliability (α). To measure anxiety the Generalised Anxiety Disorder-7 (GAD-7; Spitzer et al., 2006; pre α =0.639, post α =0.710), Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998; pre α =0.878, post α =0.932) and Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987; pre α =0.962, post α =0.951) were administered. SIAS explores specific scenarios and worry thoughts (e.g. *when mixing in a group, I find myself worrying I will be ignored*); LSAS uses more general scenarios and includes avoidance. Depression was measured using the Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2001; pre α =0.848, post α =0.874) and mental wellbeing was measured with the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007; pre α =0.916, post α =0.905). Participants were also exposed to a brief real-life social situation (e.g. waiting room, café), and asked to rate their distress before and after on a 10-point scale (high scores indicate distress).

In addition, the first three questions of the Safety Behaviours Questionnaire (SBQ; Freeman et al., 2001) were administered at pre-time point; to describe avoidance and safety-seeking behaviours.

During treatment, participants were asked to rate their distress levels (see scale above) before and after each VR session.

Qualitative

Participants took part in structured interviews with open-ended questions designed to better understand their: feelings and experience during VR exposure, overall

satisfaction with the treatment, and perceived benefit. Pre-scripted prompts were provided where participants did not answer or to clarify the question e.g. *'How would you describe your overall experience of this treatment? Prompts: what was good? What would you change?'* Interviews lasted approximately 20-45 minutes and with participant consent were audio-recorded.

Procedure

With veteran consent, clinicians referred those meeting inclusion/exclusion criteria. Veterans were then called to go through the participant information sheet and be invited to a VR preview session, where they could practice using the equipment in a neutral scenario (e.g. forest, countryside, sandy beach, rocky beach, and church). The same scenarios have been used to explore the use of VR in patients with dementia (Rose et al., 2019).

After 24-hours, the veterans were called again giving them opportunity to ask any further questions and book a VR preview appointment; delivered with an Oculus Rift™ headset and a Samsung S8 mobile phone. Alternatively, they were able to inform their lead clinician of their decision, to reduce any perceived pressure to participate.

Those consenting to participate in the study were asked to select which scenarios were relevant to their social anxiety and then rank these in order from most to least anxiety-provoking. We aimed for weekly sessions, however, due to the large geographical area covered by the service, several participants were booked in for consecutive sessions with breaks between to help with logistics/travel time.

Intervention

Participants took part in OxfordVR's Social Engagement Program. This was designed to help people feel safer in a range of social situations by exposing participants to an increasing level of social interactions. Individuals can access different scenarios, test their beliefs and learn what happens when they remain in the feared situation. The program consists of six scenarios: street, bus, café, corner-shop, GP surgery waiting room, and a pub. For this study, the latter was not offered due to the use of alcohol as a coping strategy for some veterans. Participants only completed scenarios relevant to their social anxiety. In each scenario, a virtual coach instructs individuals to complete a series of tasks (e.g. queue, buy something) over five levels of difficulty (e.g. increasing number of avatars/noise levels). The program was used with HTC Vive Pro OR Oculus Rift™ headsets, controllers, and sensors. It starts in a virtual room where the virtual coach provide anxiety psycho-education, scenarios lasted approximately 30 minutes.

Figure 1: VR social engagement program screenshots

Initially participants were going to complete their least anxiety-provoking scenarios first, building up to more challenging scenarios, like an exposure hierarchy. However, concerns about potential disruptions from the COVID-19 pandemic meant this was reversed to ensure treatment for most relevant scenarios were prioritised. Graded exposure was still achieved as each scenario was designed independently to gradually increase in difficulty.

The treatment sessions were delivered by a Health Psychologist in training and an assistant psychologist, both of whom had experience working with veterans with complex mental health needs and were trained on how to set up and use VR.

Participants had a debriefing with the clinician following VR exposure to help reduce any distress arising from the session and to check willingness to continue. Where a veteran became distressed during VR exposure they were allowed to end the session or break before continuing. They had a support sheet with contact details and coping skills they could use should any distress arise post-treatment.

Data Analysis

Mean scores were computed and a paired sample analysis was used to explore changes on all psychometric and Likert-scales. To analyse and report participant interviews, Braun and Clarke's (2012) six-step thematic analysis was used; familiarising yourself with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming themes, and producing the report.

The data set had two incomplete participant measures; one not completing GAD-7 at pre-time point, the second not completing this at post-time point and incorrectly completing their LSAS.

Nineteen veterans were informed of the study, twelve of these consented to participate, and ten completed treatment. Attrition rates are illustrated in Figure 2.

Figure 2: Attrition rates and reasons

Results

Descriptive Statistics

Whilst it was not necessary to have a diagnosis of social anxiety disorder to participate in the study, ten participants scored with probable social anxiety/phobia on the SIAS at pre-time point. The two that didn't, scored as marked and severe on the LSAS; scoring highly for social avoidance, which is not captured in the SIAS. The ten participants interviewed rated how likely they would be to recommend the VR social engagement program to someone experiencing similar difficulties on a 0-10 scale (high score indicates extremely likely). All participants rated this at 8 or above; four at 10, four at 9, and two at 8.

Outcome measures

Paired samples t-tests were used to determine whether there were any significant changes in outcome measure scores following the intervention. These showed no significant change at $p < 0.05$ level. There was however, a trend towards improvement on the mean scores of the GAD-7 and PHQ-9 indicating a slight reduction in generalised anxiety and depression. The mean anxiety score for the LSAS also indicated a slight reduction in social anxiety, but not for avoidance or global scores.

Improvement in mean score was also seen in sessions 3-5 of VR treatment and in both real-life exposures (pre and post-treatment).

Table 1: Mean scores (*M*) and Standard Deviation (*SD*)

Due to the small sample, pre and post scores are shown in table 2 to further illustrate score change.

Table 2: Pre and post measure scores

Thematic Analysis

The thematic analysis identified six key themes: expectations, exposure hierarchy, military mind-set, de-escalation, further practise, and application of learning. These are illustrated in table 3.

Table 3: Thematic analysis themes

Expectations

Almost half of participants reported that the VR program surpassed their expectations, commenting that they did not expect it to work or have the impact on them that it did. *'I didn't think it was going to, I thought it was just going to be like a game. So being in the scenarios and having people around you, brought those feelings I would normally get in the real world'* (6). Despite not being a real-life situation the VR environment appeared to be realistic enough that it caused similar anxiety, which was required for VR exposure practice to be effective.

Exposure hierarchy

Many veterans had noticed the increasing difficulty of VR levels and appreciated the step-by-step approach. *'I found the er levels good in the way it progressed from easy to hard. Erm I think it started off just nicely in each level'* (10). However, some reported that there were times where they found a middle level harder than later ones and that the order had not felt right for them. A more challenging level early on meant that it was a bigger step up from starting levels. *'Some of the levels were harder lower down than they were higher up, some of the levels were harder when they were on two or three, then you get to four or five levels and they are actually easier because there wasn't so much going on'* (3).

Other veterans felt more levels could be added to the program for a more gradual build-up in anxiety-provoking interactions. *'I think there is, there is quite a big jump from three, it might have been too much of a big jump, so maybe put a few more levels in. To ease it into it a bit easier'* (6). Finally, the order of scenarios was commented on with some participants noticing anxiety about using the VR for the first time and a recommendation to start with less anxiety-provoking scenarios. *'I would start people on a scenario they feel sort of comfortable with. I wouldn't start them on something they feel uncomfortable with, because I think it's, you have to get used to the virtual reality environment and some people will struggle more with it than say I did'* (3).

De-escalation

A few participants found their anxiety remained following the treatment session or a particularly challenging level and felt extra time to unwind here would be helpful. Some felt they just needed time afterwards, *'I think I spent a few moments in the car or getting some air. I kind of needed a bit of chill time'* (5). Another noticed there wasn't an option to pause unless the VR headset was removed. *'I'd have something that you go*

back to the counsellors' room and try and defuse. Because you just end up going to the counsellor room and she's like uh, where would you like to go next instead of going, right are you okay? Are you, would you like to do a breathing exercise?' (3).

A final suggestion was that the levels could come back down again to help reduce any anxiety. *'I don't know if they need to come back down again after because you seem to get to the highest level and then it stops, and I know you're back in the room and you're talking to the virtual therapist but you don't feel like you've wound back down again' (1).*

Military mind-set

Half of the veterans reflected on their military training and how this impacted their experience of the VR program. *'Just because I think probably as a group of veterans, are probably more alert, more trained to look for things erm they are going to spot things like that pattern more than other people would and that then takes away some of the er, it sort of takes away some of the er impact I think sometimes' (8).* They could be overly attentive to detail and excessively assessing for risk. Consequently, limitations of virtual environments (e.g. avatar repetition) could at times increase anxiety. *'You're getting the same people in the individual scenarios, er repetitively walking past you or opposite you or they're in the same shops as you continuously. Erm and for me I found that difficult, it starts to cause me more anxiety' (7).*

Another veteran referred to the potential of a trauma memory being triggered, which may interfere with the program aim. *'I think one of the reasons why I found the bus one so difficult was because of the 7/7 bombings and the involvement that I had with them. So scenarios that have erm, a bit, for me terrorism is a massive drama so erm anything really that links to that could trigger something in me' (1).*

Further practice

Participants felt the sessions could be improved by increasing the frequency of VR exposure. *'I'm sure by having more time or more regular, doing it more regular, definitely think that would be more beneficial' (11).* More opportunity to repeat levels could bring anxiety down further, which would increase confidence in being able to apply learning in a real-life social setting. *'I would now if I had the opportunity to go back and do the scenarios again and keep running through them until I feel a lot more confident' (1).* Some veterans said it would have been good to be able to take the VR home for further practice in between sessions.

Others felt the program could be enhanced with real-life exposure alongside it. *'It could be a way of introducing people to difficult situations and then with some guided*

assistance in the real world, provided the subject was comfortable with having done the VR process first, it might be a stepping stone' (5). With others saying it encouraged them to stay in a situation, which they would have walked out on if practised in real life. *'I would have opened the door and left so to be put into them and not having any real way out apart from taking the headset off and leaving the room. You know, it does push you to see how far you can go' (3).* Indicating this may be necessary for some before real-life exposure.

Finally, it was suggested that you can become used to the VR, therefore real-life exposure following this would be helpful. *'It would be better to do in a real-life, because the VR become a bit of a sort of cartoon role-play, you sort of get used to it. You get used to the characters and what they are going to do' (3).*

Application of learning

Many of the veterans reported increased confidence in social settings following VR exposure, to varying degrees. Some said it reminded them of what they could do *'I think the VR experience has been good, it has shown me what I am capable of, but it's not opened up a different world for me' (4).* They noticed that their perceived anxiety meant they avoided things they were able to do. Others were able to apply the steps to real-life and were now putting themselves in situations that they would typically avoid. *'It's gave me a little bit of confidence erm, for example on Wednesday I actually walked down to the shop, my local shop, rather than driving down' (2).*

Finally, some reflected on their safety-seeking behaviours and had considered how these could reinforce their anxiety. *'I do try and do things differently, so instead of getting anxious and just leaving, I do try to sit and control it now. I do try and change my behaviour that way, because I am never going to get past that anxious bit, if I am always just upping sticks and running away' (4).*

Discussion

This study found that VR exposure was able to activate veteran's social anxiety for treatment. Whilst outcome measure changes were non-significant, trends towards improvement on some measures (GAD-7, PHQ-9, LSAS anxiety scale, and distress rating scales) are worth exploring further, and this is supported by qualitative feedback on progress veterans have made in managing their social anxiety post-treatment.

Despite graphics being described as cartoon-like, these were sufficient to activate social anxiety, allowing testing of beliefs. In line with previous findings, (Nason et al., 2019) patterns or unnatural behaviours were found to create visual

inconsistencies, which could detract from the VR program. This is particularly relevant for veterans who reported that they were trained to spot these.

The VR program was challenged by its inability to tailor the exposure hierarchy to the individual – some participants found steps between levels too large: this problem could be reduced by increasing VR exposure, more repetition of levels could ensure anxiety is sufficiently reduced before moving on. Future technological development could allow adaptations for individual needs. Due to the Pandemic, scenarios were prioritised so the most relevant were completed first. Completing these in order of least to most anxiety-provoking as planned would enable further gradual exposure as recommended by one veteran.

Whilst all participants were debriefed following sessions, the results found that some felt they would benefit from more time to unwind post-VR; a concern highlighted by veterans in Kramer et al's study (2013). Additional time would need to be incorporated into sessions to allow for this. If conducting non-clinician facilitated VR, an option in the program to break or do a breathing exercise would be beneficial in supporting any distress.

VR did overcome some of the structural and therapist barriers found in traditional exposure (Neudeck & Einsle, 2012) e.g. logistics and consistency/ease of facilitation. If able to transport or use at home (i.e. non-tethered VR device) it could also increase access to treatment for those with disability specific, transportation or financial limitations (Schmeler et al., 2009).

Bringing VR to patients would mean any supporting real-life exposure could be completed in their local area where it would be of direct benefit. Home use would also enable more frequent VR exposure, which participants felt could improve treatment outcome. Trahan et al. (2021) successfully implemented home VR practice offering a face-to-face review session mid-treatment. It would be important to ensure support was available should participants require it following home practice. Veterans recommended having a clinician call available post-practice. Providing participants' with simple coping skills (e.g. breathing exercises) along with out of hours contact details would be beneficial.

Limitations

This study was an evaluation and did not determine treatment effectiveness. The service had VR access for a limited time, meaning sessions were restricted in number and could not be tailored to the veterans' individual needs. Other limitations include the absence of female veterans and lack of diversity in the sample. Referrals to the service

are largely white, male veterans and this was reflected in study referrals. Measures used were self-reported and could be supported in future research by psychophysiology measures. It does not assess clinician attitudes/confidence in delivering VR exposure treatment.

Conclusions

The findings of this study suggest that a virtual reality social engagement program could be an effective tool in facilitating exposure therapy for social anxiety in veterans. Whilst further research is recommended in a larger sample to determine treatment effectiveness, mean score changes indicate some improvement on measures and qualitative data indicates it was well-received, and perceived as beneficial - with reported improvement in social anxiety post-treatment. We recommend increasing VR exposure by session number and home practice where applicable, to maximise benefits.

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Table 1: Mean scores (M) and Standard Deviation (SD)

Measure	Pre M	Post M	Pre SD	Post SD
GAD-7	12.75	12.50	3.615	2.507
PHQ-9	14.60	14.20	5.621	5.116
LSAS social anxiety scale	52.00	51.00	14.874	11.853
VR session 3	6.40	4.90	1.776	1.912
VR session 4	4.75	3.75	1.982	2.188
VR session 5	6.00	3.67	1.000	1.528
RLB 1	5.58	4.50	1.621	2.111
RLB 2	4.60	3.80	1.647	1.751

Table 2: Pre and post outcome measure scores

ID	GAD-7		PHQ-9		LSAS						WEMWBS		SIAS	
	Pre	Post	Pre	Post	Anxiety		Avoidance		Global		Pre	Post	Pre	Post
1	11	13	17	15	18	29	21	30	39	59	34	34	34	39
2	9	17	19	19	63	68	58	62	121	130	33	27	60	67
3	16	11	13	8	58	54	57	54	115	108	47	46	57	49
4	13	12	18	18	64	43	60	64	124	107	24	33	43	43
5	8	9	12	15	56	57	58	61	114	118	30	29	64	59
6	-	7	3	5	38	44	30	32	68	76	47	52	45	33
7	14	12	12	12	61	62	64	64	125	126	35	34	50	60
8	19	15	24	22	54	45	50	41	104	86	33	35	58	59
10	12	-	16	16	56	57	56	60	112	117	32	27	56	57
11	16	11	12	12	34	-	39	-	73	-	41	33	30	31

Green = improvement

Red = no improvement

white = no change

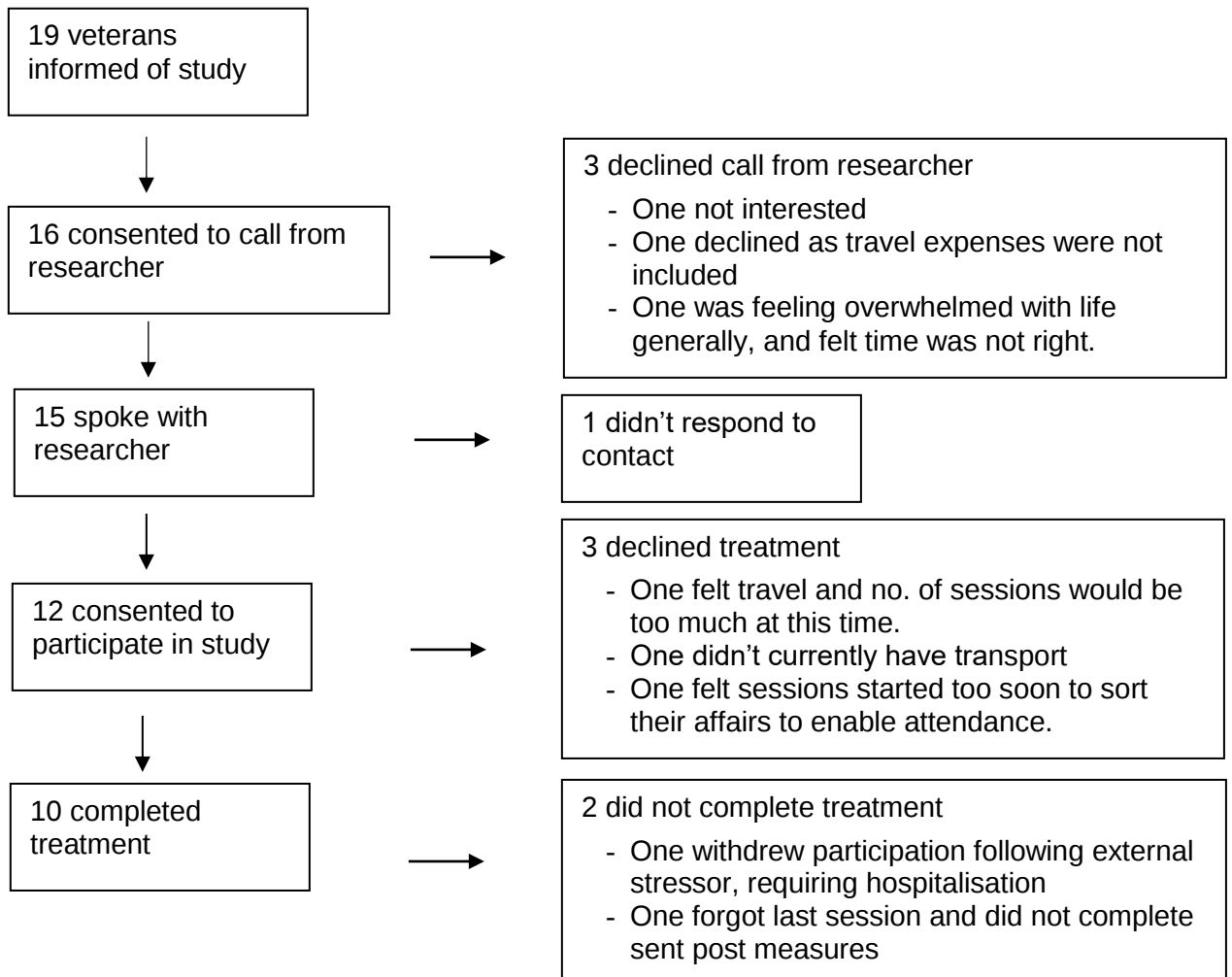
Table 3: Thematic analysis themes

Key theme	Sub theme
Expectations	
Exposure hierarchy	Order of levels Number of levels Order of scenarios
De-escalation	
Military mind-set	Training Triggers
Further practice	Frequency Real-life
Application of learning	Confidence Safety behaviours

Figure 1: VR social engagement program screenshots



Figure 2: Attrition rates and reasons



4.2 Empirical Paper 2

Learning outcomes:

- Demonstrate skills in conceptualisation, design, development, implementation, and analysis of a study to investigate a pertinent research question in Health Psychology.
- Create and interpret new knowledge through original research or advanced scholarship in Health Psychology.

This paper explores veterans' experiences of a Virtual Reality (VR) social engagement program. Veterans VR research has largely focused on Post-traumatic Stress Disorder despite its high-comorbidity with social anxiety. Little research has looked at veteran perceptions of this as a mode of treatment. With increasing demands on veteran healthcare services, VR could be an alternative treatment to manage some of the funding and resource challenges faced. It may also be an alternative way to engage a population who can fear treatment seeking stigma.

The paper has been prepared for submission to the Cognitive Behaviour Therapy journal (Taylor & Francis online) and utilised their provided template. The maximum word count was 5500 words. This journal has previously published VR studies.

An Exploration of Veterans Experiences of a Virtual Reality Social Engagement Program

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An Exploration of Veterans Experiences of a Virtual Reality Social Engagement Program

Virtual Reality (VR) has been shown to be effective in treating veterans, however, little research has explored veterans' experiences and perceptions of this treatment. This study explored this in veterans participating in a VR social engagement program. Participants (N=12) presenting with social anxiety symptoms for a minimum of six months were recruited from a veterans community mental health service. A mixed method approach was used. Quantitative measures assessed sickness, system usability, and VR presence/realness; qualitative explored expectations and VR experience. Findings suggest that VR treatment is positively received by veterans and can create a safe space for them to practice interactions and expose themselves to environments they avoid. The virtual environment did not look real to participants, however, it was successful in creating an immersive experience in which they could engage, and activated similar anxiety to what they would experience in real world social situations. Whilst graphics did not have to be life-like, it was important that the VR scenarios and environment had good realism. Themes discussed include technology and program, aftereffects, realism, safe space, and virtual therapist. Further research is recommended in a more diverse sample and for other treatments.

Keywords: virtual reality; virtual reality exposure therapy; social anxiety; veterans

Introduction

Virtual Reality (VR) is a computer generated three-dimensional, immersive environment in which an individual can interact with their surroundings. It has been used in healthcare in treating a range of conditions including: anxiety disorders, obsessive compulsive disorder, Post-traumatic Stress Disorder (PTSD), schizophrenia, pain, addiction, eating pathology, and autism (Maples-Keller et al. 2017).

Several potential benefits of using VR in treatment have been identified. VR could increase treatment access and treatment frequency as it could allow home treatment with further practice in between sessions. This may be particularly relevant for veterans where many have physical health issues; individuals with disabilities may struggle with inadequate transportation, disability specific limitations or financial limitations (Schmeler et al., 2009). VR allows access to more varied scenarios, which would be essential for veterans where it would not be logistically possible or ethical to physically access trauma scenarios. VR could also be an alternative resource to help services manage increasing demand. There has been an increase in the number of UK veterans seeking support for their mental health, which has resulted in funding and resource challenges for services (Murphy & Busuttil., 2018).

In veterans' healthcare VR research has predominantly focused on PTSD with little on Social Anxiety Disorder (SAD) despite high co-morbidity between the disorders (Collimore et al. 2010). Kashden et al. (2006) assessed prevalence in veterans and found 3.6% met SAD criteria. Those with PTSD were more likely to have SAD than those without, and PTSD was more severe when SAD was present. Concerns were highlighted about inadequate recognition of SAD in veterans by primary care providers. The National Institute of Health and Clinical Excellence (NICE, 2013) state that prevalence estimates in the general population vary, but have been as high as 12%. SAD was reported to significantly impair an individuals' functioning, disrupt normal life, interfere with social relationships and quality of life, and impair performance at work or

school. Cognitive Behavioural Therapy with in-vivo exposure (directly facing the feared situation) is the recommended treatment.

With increased use of VR in healthcare it is important to understand how this is received. An exploration of the public's perceptions (Keller et al., 2017) found most participants expressed positive observations about its use. Although some concerns were expressed about costs and increasing dependence on technology. With VR becoming more commercially available, costs have reduced and technology is more accessible.

Schwartzman et al. (2012) explored perceptions of 262 Psychotherapists who were not currently using VR, via an online survey. They felt that despite VR's recognised clinical utility it remained underutilised in clinical practice and identified the following potential barriers: beliefs about training required; equipment and financial costs; and unfamiliarity with the benefits and applications of VR. In addition, Kramer et al. (2010) used focus groups to explore this in VR assessment and treatment of veterans. Findings indicated clinician concern that VR may not be realistic or specific enough to trigger combat-related anxiety.

Kramer et al. (2013) explored veterans' perceptions of the use of virtual reality to assess and treat PTSD. Veterans reported being able to successfully immerse themselves in both combat and civilian environments; demonstrated by their self-reported physiological reactivity, thoughts/behaviours similar to those experienced in Iraq, and triggered memories. Overall participants' feedback of VR intervention was positive, however concerns were expressed about possible negative reactions afterwards e.g. anxiety not returning to baseline. Few studies have explored veterans' experience and perceptions of VR treatment.

Garcia-Palacios et al. (2007) explored acceptability of VR exposure in individuals with phobia, and found that 76% chose VR over in-vivo. Refusal rates for VR exposure were also lower with 3% declining VR and 27% declining in-vivo treatment, indicating VR could increase uptake of exposure therapy.

This mixed-methods paper will focus on the effects of virtual reality, and veterans' experiences and perceptions of it as a mode of treatment for social anxiety.

Method

Design and ethics

This study was approved by the Liverpool John Moores University research ethics committee (20/NSP/039) and uses a mixed-method approach to explore veterans' experiences of a VR social engagement program. A separate report evaluating the VR social engagement program is available (Winter, Girardi, Kidd & Poole, in progress), which can be referred to for further details on the program and procedure.

Participants received a £5 voucher at each session to acknowledge their time and effort. This was sufficient to ensure they were not worse off financially, but not enough to provide an incentive.

Participants

Twelve participants were recruited from a veterans' mental health community treatment service, inclusion/exclusion criteria is displayed in Table 1.

Table 1. Inclusion and exclusion criteria

Participants were white British males, the demographic that formed the majority of the service's referrals. Mean age was 47 years, range 34-65. Eight participants had served in the Army, three in the Royal Air Force, and one in the Royal Navy. Most participants were at the start of their treatment (three from waiting list, six in stabilisation), two were mid-treatment (compassion focused work) and one was ending treatment. In addition to social anxiety symptoms participants presented with symptoms of the following: all with PTSD, seven with depression, one with Autism, and one with dissociation. Nine participants were on psychotropic medication.

Measures

Prior to consenting to treatment, participants previewed VR using neutral scenarios (e.g. countryside, beach), which were delivered via Oculus Rift™ headset and a Samsung S8 mobile phone. The Simulator Sickness Questionnaire (SSQ; Kennedy et al., 1993) assessed sickness symptoms. Wording was simplified to ensure it was accessible to individuals with a wide range of cognitive skills (i.e. 'tiredness' added next to fatigue, fullness of the head became 'feeling of pressure in the head').

Before study participation participants were asked an open-ended question: what are your expectations for this VR social engagement treatment? Prompts from researcher included: what do you expect VR to be/feel like? Have you used VR before? What was your experience?

Following treatment the System Usability Scale (SUS; Bangor et al., 2009) and Igroup Presence Questionnaire (IPQ; Schubert et al., 2001) were administered. Using 5-point Likert-scales the former assesses usability of technology systems such as website, mobile phones, and interactive systems (e.g. *I thought the equipment was easy to use*). The latter uses 7-point Likert-scales to measure spatial presence, involvement and realness (e.g. *I was not aware of my real environment*). Participants were also asked to rate on a 10-point scale how well the treatment met their expectations (1 = didn't meet expectations; 10 = met all my expectations). Finally, participants attended a structured interview where they were asked a series of open-ended questions to understand their VR experience and overall treatment satisfaction. In addition scenario relevance, treatment delivery and perceived benefit were assessed. Interviews were structured to ensure consistency between interviewers.

Procedure

Participants were recruited via treating clinicians who approached veterans they felt may benefit from the program. Those interested in participating provided verbal consent to a call with the researcher, where participant information was provided and

they were invited to a VR preview. Veterans were given 24-hours to read the provided information and to consider participation and attendance of the preview session.

Following the VR preview the SSQ (Kennedy et al., 1993) was used to determine if the equipment caused any sickness. Those with few symptoms rated as mild severity were asked to participate in the study. An optional second preview would be offered had moderate/severe symptoms presented, however participation would not be allowed if symptoms persisted.

Where possible participants were booked in for weekly sessions at the Veterans' service site. However, due to the large geographical area covered by the service several participants had to be booked in for consecutive sessions with breaks in between, to help with logistics of attending and to reduce travelling.

Treatment

Participants took part in OxfordVR's Social Engagement Program. This was designed to help people feel safer in a range of social situations (street, bus, café, shop, GP surgery, and pub) and exposes participants to an increasing level of social interactions. Participants can access different scenarios, test their beliefs and learn what happens when they remain in the feared situation. The pub scenario was not offered in this study as alcohol can be a coping strategy for some veterans. A virtual coach is present throughout the program, instructing individuals through a series of tasks (e.g. stay in a queue, buy something) over five levels of increasing difficulty (e.g. more avatars/noise). The program was used with HTC Vive Pro OR Oculus Rift™ headsets, controllers, and sensors. It starts in a virtual room where a coach provides anxiety psycho-education, scenarios lasted approximately 30 minutes.

Figure 1: VR social engagement program screenshots

Treatment sessions were delivered by a Trainee Health Psychologist and Assistant Psychologist, both of whom had experience working with veterans with complex mental health needs and had training on how to set up and use VR.

Following VR exposure participants had a debriefing with a clinician to help reduce any distress arising from the session and check they were happy to continue. Where distress occurred during VR, veterans were offered a break or to end the session. A support sheet was provided with contact details and coping skills they could use should any distress arise later.

Analyses

Mean scores and range were computed to explore changes on all psychometric and Likert-scales. With its development considered in relation to psychology, Braun and Clarke's (2012) six-step thematic analysis was used to analyse and report participant interviews.

Results

Attrition

Twelve of the nineteen veterans informed of the study consented to participate, ten of these completed treatment. Attrition rate and reasons are shown in Figure 2.

Figure 2: Attrition rate and reasons

Outcome measures

Several symptoms were reported on the SSQ by participants, these are shown in figure 3. Individual symptoms were few and only slight-to-moderate severity (Mean score 2.25, SD 1.485, range 0-5). All were happy to continue with their participation.

Figure 3: Simulator sickness reported symptoms

Table 1 shows expectations and ratings for whether these were met (0= expectations not met, 10= met all expectations. Many veterans expressed that they hoped to feel more confident and have improved social interactions following treatment. Others spoke about the technology; expecting it to be like a computer game and wondering how realistic it would be. Expectation scale ratings indicated that most expectations were met (mean 7.4, SD 1.35, range 5-10).

Table 2: VR expectations and ratings

The mean score for the SUS (Bangor et al., 2009) was 76 (range 45-115) indicating that the VR program design only needed minor improvements and had no issues that needed to be researched or resolved. Six of the ten participants who completed this measure had individual scores supporting this indication.

Mean IPQ (Schubert et al., 2001) scores are shown in Table 3 and indicate that the VR social engagement program was able to create an immersive, virtual environment. Participants had a sense of “being there”, feeling the virtual world surround them, were not aware of the real world whilst navigating the virtual one, and felt present and captivated by the virtual world. The experience in the virtual environment was rated as consistent with real world experience with participants having a sense of acting in the virtual space rather than operating something from outside. Whilst immersed in the virtual world, participants did not find it real or more realistic than the real world.

Table 3: IPQ items and mean ratings

At interview, participants rated how easy it was for them to use the VR program by selecting one of the following: extremely difficult, somewhat difficult, neither easy nor

difficult, somewhat easy, extremely easy. Nine participants rated this as extremely easy and one rated it as somewhat easy.

All participants felt the social scenarios used were relevant, with a good range offered. When asked if any additional scenarios would be helpful several suggestions were made; illustrated in table 4. Noticeably some suggestions were linked to PTSD triggers e.g. Muslim attire, enclosed spaces.

Table 4: Suggested scenarios and frequency

Thematic Analysis

Thematic analysis used coding to identify the five key themes; technology and program, aftereffects, realism, safe space, and virtual therapist. These are illustrated in table 5 with sub-themes.

Table 5: Thematic analysis themes

VR technology and social engagement program

Several of the veterans were new to VR and found that whilst it took time to familiarise themselves with the kit and adapt to the virtual world, it was easy to use. Some participants reported occasional blurry images, this was particularly an issue for those wearing glasses. *“I think sometimes for glasses wearers, I think it’s a bit difficult in that you get a bit sweaty and you can’t clean them and stuff, and, but I tried them without my glasses on and obviously there’s no auto focus, so that’s really the only sort of issue for me”* (8).

A participant commented on the added realism of entering height into the program. *“You were roughly how you would be in normal life. So you were the right height in scenarios and that was quite interesting and I found that quite good”* (3).

Recommendations for improvements to the kit included simplifying the hand controls so you knew which button to press, allowing more movement in the VR environment, and surround-sound. *"You don't get the sense they are stood behind you, like in the real world if someone's stood behind you talking, you can hear them talking behind you, so if you get volume from behind you"* (6). Finally, a training level was suggested to allow further VR practice prior to exposure e.g. picking up items, verbal interaction.

Some glitches were reported in the program, but participants felt this was fine and expected with technology. One participant however, commented that this was distracting at times and another said that it was a reminder that it wasn't real.

Participants reported finding the verbal interactions and tasks in the program good and challenging. *"Speaking to the server was absolutely brilliant erm, and calling the owner of the card"* (1). It was felt these added to realism and increasing frequency to reduce passivity in scenarios was recommended. *"By asking people for things or asking people for directions, or, you know, even standing at the bus stop and asking somebody what bus to get on. You know, that sort of social interaction that probably all struggle with"* (3). One participant who found the interaction challenging compared it to role-play in previous treatment. *"I think it's a massive move on from role-play, which I personally never liked role-play, erm and I know that in some, some treatments role-play is there, but think this is a big, this seems more personal"* (2).

Participants liked the scenarios offered and felt they addressed similar issues, allowing further practice. *"All the scenarios are set so that you're, you're hitting the same problems. It's the proximity of people to you and being in environments that you are not necessarily comfortable in"* (1). Most participants felt the 30 minute scenarios were the right exposure duration, however, some felt levels could be added to scenarios.

It was felt additional ambient noise would be beneficial and that this could more noticeably increase in volume as levels progress. Some participants reflected on how

their perceptions of noise and conversations contribute to their social anxiety. *"You know when you got to the end, level five, it wasn't noisier and normally in cafes it would be a lot noisier. I find the noise of places me sometimes affects me as much as the visual stuff. So I think you could increase the noise of the stuff going on in the background as well."* (3).

After effects

Some after effects were reported following VR use, but participants did not feel these were significant enough to end treatment. Physical effects included eyestrain, dizziness where a participant stepped out of the VR area and the virtual environment disappeared, and tiredness; *"I have been very tired after each of the sessions"* (4).

Some participants experienced anxiety following the session and said they needed some time to calm themselves afterwards. *"I think I spent a few moments in the car or getting some air...I kind of needed a bit of chill time"* (5). Others reported reflecting or ruminating on the experience later that day, which increased their anxiety again. *"When I got home and had finished driving and everything, er, it made me quite reflective and that ramped up the anxiety"* (8). This resulted in tiredness for one with mental fatigue. *"Tiredness erm for that, that evening and probably the day afterwards, but that's just me running through the scenarios in my head again and looking at the, what, what could have happened? What would happen? How would I manage it? Things like that"* (2).

Finally, one participant said *"No more, than usual"* (7) reflecting that their aftereffects were no different from other treatment sessions.

Realism

Two participants reported good graphics *"I was quite impressed with how real they was to be honest. Yeah I was quite impressed, it was quite realistic, the settings and the people"* (11). However, most felt it was not very life-like, although found their social

anxiety was still triggered. *"You still get the whole, still same like, the same feeling you get in the real world doing it. Like my anxiety and my heart rate went up and I got, my hands got very sweaty and uncomfortable"* (6). One participant reported that you put aside that it is VR and look at the scenario rather than the virtual environment. Another felt you were able to remind yourself that it's only VR and would focus on visual inconsistencies e.g. avatar repetition, glitches. Some participants commented on one task they felt was unrealistic.

Safe space

Several participants commented that the VR provided a safe space for them to work through their anxiety. *"But to be taken into, er, or put into situations in a safe environment, you know, it's invaluable"* (1). With some saying that they would not have put themselves in these situations in real life. *"It's given me opportunity to put myself in situations that I definitely would never put myself in. So whilst it's in a very virtual world there's an awful lot of benefit"* (8).

Virtual therapist

Participants reported that they understood the benefits of the virtual therapist, although a couple said the term 'guide' would be better. One said *"The character, the lady...yes I thought she was really good"* (10), another said it was helpful having 'someone' (virtual therapist) in the program with you. All participants felt it was important to have a clinician check in afterwards. *"I think you will also need, some form of, like a therapeutic, sort of, intervention at some point. So they can go, how have you got on with this? Was it okay? Are you feeling okay? Are you using your coping mechanisms? Computers are not going to pick up on the, like hints and the sort of the little things you hear and go 'ah actually that's this'"* (3). This was a limitation to VR as clinicians would still be required around exposure. However, some suggested that clinician presence could be reduced e.g. not required throughout or just a check in. One participant

suggested that this could be done via video in place of face-to-face, where visual cues could still be picked up.

One participant felt the virtual therapist could be repetitive at times and there was also the issue with technical difficulties or having to restart where a wrong selection was made. It was felt an option to skip the program introduction would be useful.

Discussion

This study found VR was easy to use and was effective in creating an immersive environment. Whilst not considered visually realistic, graphics were sufficient in forming emotional and cognitive realism. It was felt that VR treatment would need to be supported by a clinician.

Realism was highlighted as important in implementation of VR treatment. Scenarios had to be realistic and consistent with real social scenarios, however graphics did not need to be a perfect representation of real-life to trigger social anxiety. This supports previous findings (Kramer et al., 2013) and could alleviate reported clinician concerns of VR not being realistic enough to trigger anxiety (Kramer et al., 2010). It was suggested that visual inconsistencies in VR (e.g. repetition of avatars, glitches) could be used by participants to remind themselves that the environment was not real. This could potentially detract from treatment and was an issue previously highlighted by Nason et al. (2019).

Whilst some side effects were found from VR use (e.g. tiredness, eye strain), participants did not consider these severe enough to discontinue treatment. Measuring simulation sickness prior to commencing sessions would help clinicians determine if this is the right treatment option for participants. In the event of emotional distress/ruminating after sessions, it would be necessary to ensure participants have a coping plan; contact details for support and coping skills they may find helpful.

All participants felt a clinician would be needed in VR treatment, although some felt this could be check-ins following sessions (face-to-face or via video call), suggesting that a clinician would not need to deliver the treatment itself. Independent home use of VR has been successfully implemented in previous research (Trahan et al., 2021) with a review session with a clinician following two weeks of home VR exposure.

In social engagement programs used by veterans it would be necessary to consider potential PTSD triggers where co-morbidity was present. Participants' suggestions of scenarios to enhance the program indicate that they do feel adding PTSD triggers could be beneficial. This further demonstrates how VR is able to create a safe space for participants to work through their anxiety. It could act as a stepping stone for those not ready or able to engage in in-vivo exposure and could be a valuable alternative where in-vivo is not logistically possible.

Limitations

There were no female veterans and a lack of diversity in the participant sample. Referrals to the service are largely white, male veterans and this was reflected in the study sample. It is possible that individuals participating in this study had a prior interest in computers and gaming. This may make them more accepting of this mode of treatment than other veterans that did not express interest in the study. Participants were required to travel to site for treatment, which limited access. A trial of portable VR kits is recommended for future treatment.

Conclusions

The findings of this study suggest that VR is positively received as a mode of treatment by veterans. Research is recommended in a more diverse sample across different treatments to explore this further. This study concludes that VR can be used to create a

safe space for veterans to practice social interactions and expose themselves to environments they would avoid and do not feel able to access in-vivo.

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Table 1: Inclusion and exclusion criteria

Inclusion	Exclusion
- Presented with social anxiety for minimum of 6 months - Able to travel to site for sessions	- Inadequate social skills where behaviour in a social context is likely to lead to negative consequences - Harmful behaviour (e.g. self-harm, substance misuse) and/or reported intent to end life within a month before recruitment - Specific non-social or environmental phobia e.g. fear of objects, heights - Receiving intensive psychological treatment for social anxiety - Receiving trauma processing therapy - Social anxiety resulting from acute depression - Manic presentation i.e. bipolar disorder phase or medication change - Cognitive impairment resulting in an inability to learn, or significant problems in orientation to time, place or person - Impaired ability to understand, follow and recall instructions - Psychosis severity that prevents effective engagement - Photosensitive epilepsy - Significant visual, auditory, or balance impairment

Table 2: VR expectations and ratings

ID	Expectation	Rating
1	Enable me to rationalise my feelings in a safe environment. To be able to walk down the street without having to cross the road – without going through worst case scenarios and threat triad.	7
2	Don't know what I expect it to feel like, as practice VR image doesn't move. Give me confidence to go out more and do things more independently. To feel more motivated to do things.	8
3	Challenging. Be okay with some of it. More crowds, more hypervigilance. May want to back out, just see what it is like.	6
4	Hoping it will help me deal with social situations. Have the confidence to go out and put myself in those situations. Hoping it can help other vets too.	5
5	Curious about technology. Wanting to contribute and give back, help others and see if it helps me.	7
6	Hopefully be a bit more independent. Hopefully be better around others.	8
7	Help me if not help other people. Have a lower level of anxiety. Have a different focus rather than looking around.	7
8	Chance to explore in a controlled environment and see how I can deal with situations better.	8
9	Different means of therapy plus self-meditation. Being in the environment and hearing the sounds. Expect it to be positive.	-

10	Not used before but expect it to be a computer game but in it. Hope social engagement will improve. Willing to give it a go.	10
11	Intrigued to see how realistic it is. If it can help in any way that would be good.	8
12	Try to get help to get out and do things and mix with other people. Help build courage to do things.	-

Table 3: IPQ items and mean ratings

Item	Mean Rating	Scale 1-7
In the computer generated world I had a sense of "being there."	5.3	Not at all – Very much
Somehow I felt that the virtual world surrounded me.	5.1	Fully disagree – Fully agree
I felt like I was just perceiving pictures.	3.2	Fully disagree – Fully agree
I did not feel present in the virtual space.	3.3	Did not feel – Felt present
I had a sense of acting in the virtual space, rather than operating something from outside.	4.2	Fully disagree – Fully agree
I felt present in the virtual space.	5.1	Fully disagree – Fully agree
How aware were you of the real world surrounding while navigating in the virtual world? (i.e. sounds, room temperature, other people, etc.)?	4.4	Extremely – Not aware at all
I was not aware of my real environment.	3.6	Fully disagree – Fully agree
I still paid attention to the real environment.	3.8	Fully disagree – Fully agree
I was completely captivated by the virtual world.	4.6	Fully disagree – Fully agree
How real did the virtual world seem to you?	4.1	Completely real – Not real at all
How much did your experience in the virtual environment seem consistent with your real world experience?	4.4	Not consistent – Very consistent
How real did the virtual world seem to you?	3.4	About as real as an imagined world – indistinguishable from the real world
The virtual world seemed more realistic than the real world.	2.5	Fully Disagree – Fully agree

Table 4: Suggested scenarios and frequency

Scenario	Examples	Frequency
Public transport	Airport, bus/train station, tube, taxi	5
Religious/cultural references	Muslim attire, mosque	1
Shopping areas	Supermarkets, shopping centre, clothes shopping, returning item to a shop	4
Social	Party (noise/flashing lights), mingling, walking into a room full of people, a group meeting	4
Alternative street	Really crowded street, walking down a street	2
Public speaking	About to do a presentation	1
Lift	Crowded	1
Other people	Seeing an argument, crying child	2

Table 5: Thematic analysis themes

Themes	Sub themes
Technology and program	Kit Interactions Scenarios Noise
Aftereffects	Physical Emotional Thoughts
Realism	Avatars Graphics
Safe space	
Virtual therapist	Guide Clinician

Figure 1: VR social engagement program screenshots



Figure 2: Attrition rate and reasons

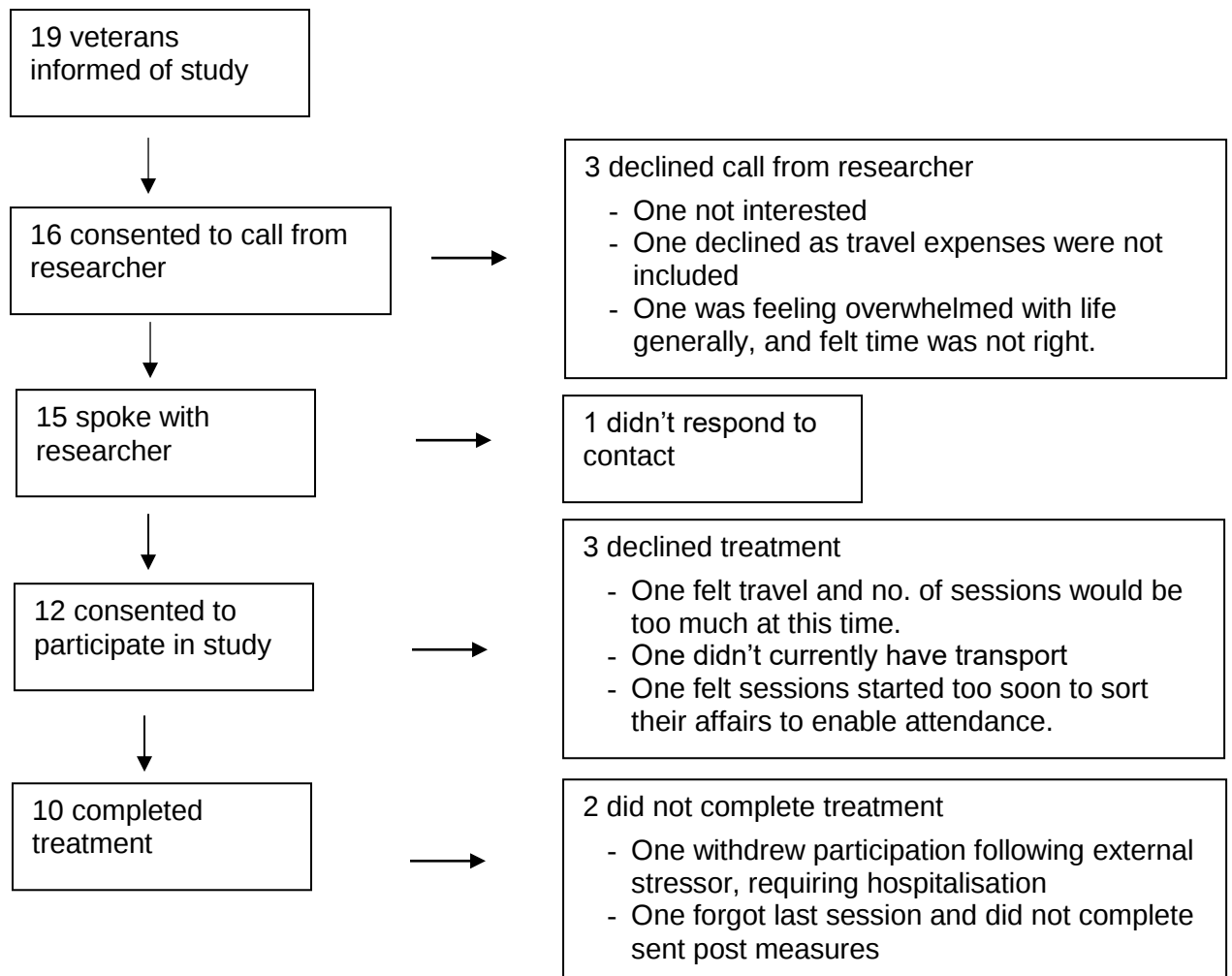
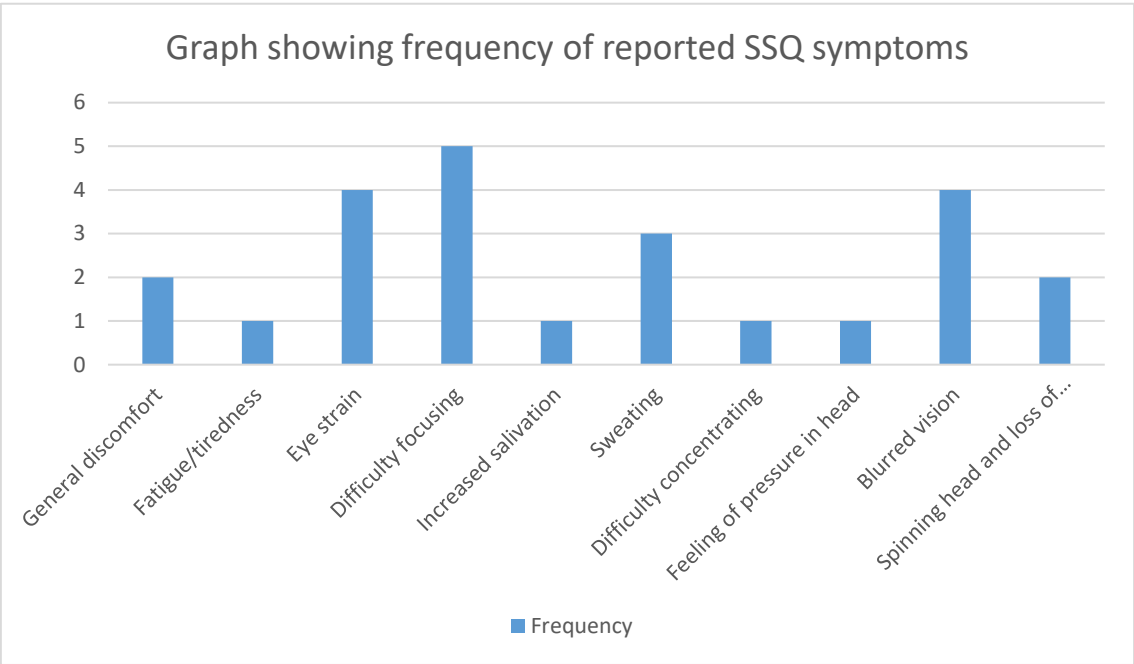


Figure 3: Simulator sickness reported symptoms



Appendix A

End of intervention Interview

Introduction to interview:

Veterans' mental health needs, past experiences, and difficulties adjusting to civilian life on leaving the military, can be very isolating. This study used a VR social engagement programme to treat social avoidance in veterans.

Intervention:

- How would you describe your overall experience of this treatment?
 - Prompts: what was good? What would you change?
- How did you feel going through the different levels of the scenario and how did this change?
- The levels of the scenario increase in difficulty. How confident would you feel completing similar steps in a real life equivalent scenario after practicing this on the VR?
Prompts: By self and with others
- Following this experience, is there anything you are now doing or are considering or planning on doing that you would not have done before?
- What are your thoughts and feelings about being offered treatment via VR?
 - Prompts: What was it like having a virtual therapist rather than an actual therapist? What support do you think you would need if having VR treatment in future? E.g. check in with a clinician afterwards.
- How was the duration of the scenario as a session?
 - Prompts: was this too long/too short/just right?
- Did you feel that any anxiety resulting from the scenarios reduced after VR use?
 - Prompts: Did you notice any anxiety on leaving the session or later that day?
- If offered as several treatment sessions, what should this look like?
 - Prompts: how frequent should these be? Should they look at different scenarios or focus on one scenario that they find particularly difficult e.g. increase number of levels or repeat levels until anxiety reduces completely.

Virtual system

- How easy was it for you to use the VR programme?
 - ☐ Extremely easy
 - ☐ Somewhat easy
 - ☐ Neither easy nor difficult
 - ☐ Somewhat difficult
 - ☐ Extremely difficult

- How did you find interacting with the system?
 - Prompts: how was it wearing the headset? How clear were the images?
How was learning to use the equipment and interact with the environment?
How well did you control actions/grab objects?
- [Show a snapshot of the 6 scenarios] How relevant were these scenarios to you?
 - Prompts: Are there any other scenarios that you think would be helpful to add to future VR social engagement programmes? Was there anything that could be added or changed in the scenario you participated in to help practice social engagement?
- How real did the virtual environment seem to you?
- How real were others in the scenario?
 - Prompts: Did you have a sense that other people were really there?
- How well did you understand what the virtual coach was saying?
 - Prompts: was the information provided clear? Did you understand instructions given?

Overall VR experience

- On a scale of 0 to 10, how likely are you to recommend this VR social engagement programme to someone who is experiencing similar difficulties?
 - ☐ 0 Not likely to recommend
 - ☐ 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ 7
 - ☐ 8
 - ☐ 9
 - ☐ 10 extremely likely to recommend
- Is there any additional comments or feedback you would like to share?

4.3 Systematic Review

Learning outcomes:

- Review systematically a substantial body of knowledge in an area of Health Psychology.

With Virtual Reality (VR) research predominantly focusing on Post-traumatic Stress Disorder in veterans' healthcare, this review will look at alternative uses of this technology. It will also consider the potential benefits of VR use in this population including increasing access and engagement in treatments and overcoming logistical challenges and demands for traditional treatment.

The paper has been prepared for submission to the Cognitive Behaviour Therapy journal (Taylor & Francis online) and utilised their provided template. The maximum word count for a review was 8000 words. This journal has previously published VR studies.

A Systematic Review of Virtual Reality use in Veteran Healthcare and rehabilitation.

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A Systematic Review of Alternative Virtual Reality use in Veteran Healthcare and rehabilitation

Abstract

Virtual Reality (VR) has been effective in training healthcare staff and in several treatments including Post-traumatic Stress Disorder (PTSD), phobias, social anxiety, and rehabilitation. VR has provided a safe way to expose patients to anxiety-provoking stimuli, and has been an alternative where traditional therapy isn't effective. Its potential has been considered for increasing access and engagement in treatment. In veteran populations VR studies have largely focused on PTSD treatment despite the often complex health needs of veterans. This review aims to explore alternative VR use in veteran healthcare. Ten papers met inclusion criteria. Six of these used VR in treatment and four in training. VR treatment largely focused on physical health and rehabilitation, one paper explored veterans mental health. Training focused on staff working with veterans, and one paper used it in veterans' skill development. Findings highlight that VR has many potential uses and benefits across veteran healthcare. Whilst studies showed VR could improve treatment and training outcomes, the included papers were largely case studies or pilot/feasibility studies. Further Studies are recommended to ascertain suitability and effectiveness of VR for treatment and training in veteran healthcare, and to address other veteran health needs.

Keywords: virtual reality; virtual reality exposure therapy; veterans; veteran healthcare staff; social anxiety; rehabilitation; training

Introduction

Virtual reality (VR) is a computer-generated three-dimensional, immersive space where individuals are able to interact with their surroundings. It has contributed to healthcare in the form of training and treatment. For example, VR has been effective in improving surgeons' technical skills (Aïm et al., 2016), and in treating phobias (Freeman et al., 2018) and social anxiety (Anderson et al., 2013).

A large portion of VR research has focused on Post-traumatic Stress Disorder (PTSD) treatment. Virtual Reality Exposure Therapy (VRET) has been reported to have moderate positive effects on PTSD symptoms (Wenrui et al., 2019) and a dose-response relationship has been found with larger improvements in studies where more VR sessions were offered. Effects were long-ranging with improvements still detected at six and twelve month follow-ups. Eshuis et al. (2020) found VRET to be as effective as other psychotherapies and concluded that it could be an alternative to current treatment. They also said it showed promise in treating patients that have not responded to previous treatment. Gonçalves et al. (2012) found VRET to be especially helpful in treating individuals resistant to traditional exposure. Reviews support the application of VR in treating PTSD.

Within veterans' healthcare, VR research has predominantly focused on PTSD. In a profile of help-seeking veterans (Murphey et al., 2017), PTSD was found to be the most prevalent mental health disorder (82%), however comorbidity was frequent (95.25%). Other presenting difficulties included anger (74%), common mental health difficulties (i.e. anxiety/depression 72%), and alcohol misuse (43%). Veterans' have a complex presentation of mental health needs, and this study concluded that treatment should address the range of difficulties rather than narrowly focusing on one.

Veterans can also acquire injuries resulting in physical health difficulties. Benefits have been found to using VR in rehabilitation (Schulthesis & Rizzo., 2001) such as: testing under more 'natural' conditions providing insight into individuals' typical behaviour; full control over stimulus/response measurement (e.g. number, speed, order) allowing tailored treatment; use in otherwise potentially hazardous situations (e.g. after onset of neurological dysfunction, driving behaviour); increased generalisation of learning (e.g. individualising environment, allowing immediate feedback); and greater consistency and standardisation (e.g. provides objective measurements).

In recent years there has been an increase in the number of UK veterans seeking support for mental health difficulties; increasing demand on services and resulting in funding and resource challenges (Murphy & Busuttil., 2018). In addition to

physical injuries, veterans have reported difficulties later in life (e.g. hearing loss, skin cancer, arthritis and other musculoskeletal health complaints), which they have attributed to military service (Williamson et al., 2019). Non-veterans reported these health complaints less and did not consider them to be related to occupation. The chronic nature of veterans' physical health difficulties may add further pressure for services. VR could be an alternative resource to help services manage this increasing demand and waiting lists for treatment. For example VR could increase access to healthcare treatment. Many military service members live in remote geographic areas far from treatment centres (Reger, 2013); and individuals with disabilities may struggle with inadequate transportation, disability specific limitations, or financial limitations (Schmeler et al., 2009). VR could enable treatment from home and reduce frequency of travel for appointments. This could in turn increase frequency of treatment as it could allow practice (e.g. exposure practice) at home in between sessions.

It has been suggested that VR has very high potential in education by making learning more motivating and engaging (Freina & Ott., 2015). This could be a useful tool in providing psycho-education and other health information to individuals awaiting treatment. It could also be an efficient tool in training healthcare staff, increasing their understanding of veteran specific health needs and confidence in working with this population. Increased staffing and competency could also help reduce waiting times and improve access to healthcare for veterans.

Previously, a barrier to VR had been the high costs of the technology. This has reduced as equipment has developed and been made more readily available. A study examining cost-effectiveness of VR Cognitive Behavioural Therapy (CBT) for psychosis found that it was 'an economically viable approach toward improving patients' health in a cost-effective manner' (Pot-Kolder et al., 2020). Although further research was recommended into looking at the long-term cost effects.

Stigma has previously been reported as a barrier to veterans seeking mental health support. Kulesza et al. (2015) found that many veterans are concerned about perceived public stigma, such as appearing weak for seeking help. A reluctance to seek treatment or accept care was also found for physical health difficulties (Williamson et al., 2018), reportedly due to embarrassment or an armed forces instilled need to be tough. VR could offer an alternative to traditional talking therapies and therefore may be better received by veterans. Its ability to be delivered outside the clinic could also help treatment feel more discreet. Finally it may attract veterans; high rates of personal technology use in military service members have been found at home, across popular electronic media (Bush et al., 2012). This further suggests that veterans may be more comfortable and receptive to VR as a mode of treatment.

Acceptability of VR treatment has been explored in individuals with phobia. Garcia-Palacios et al., 2007 found that when offered both treatments, 76% chose VR as their preference mode of treatment. Refusal rates were recorded in patients only offered one of the treatment modes; 3% of those offered VR declined treatment and 27% of those offered in vivo exposure declined treatment. Indicating that VR could increase uptake of exposure therapy.

To summarise, many potential benefits of VR have been identified. It could: provide an alternative for those not benefitting from traditional treatment modalities; be a safe space to expose patients to anxiety-provoking stimuli; help manage increasing demands for healthcare; increase staff knowledge and confidence via training; increase accessibility to and frequency of treatment with home practice; and finally it could reduce perceived stigma in veterans accessing treatment whilst also potentially being a treatment mode that is comfortable and received well by them. This review aims to see how VR has been used in veteran healthcare. As this research has predominantly focused on PTSD, these studies were excluded from this review so that alternative uses of VR technology in treatment could be explored.

Method

Information sources

The following databases were searched for studies; PsycInfo, Medline EBSCO, Web of Science, and CINAHL. These were searched 31st March and 1st April 2021. Duplicates and studies not meeting inclusion criteria were removed with reasons for this recorded.

Search terms

The following search terms were used:

veteran* OR veteran clinician* OR veteran health worker* OR veteran health staff*
AND "virtual reality" OR "virtual reality exposure therapy" OR "VR exposure therapy"
OR "VRET" AND effect* OR work* OR success* OR impact*

Inclusion criteria

Studies needed to have used VR in veteran healthcare. Those solely focusing on PTSD treatment were excluded, however, studies looking at this alongside other conditions or where the focus was on staff training in veteran populations were

included. Research with active serving military personnel were not included. Whilst helpful research is taking place here, the needs of the military to provide their service means focus can often be on assessing readiness to return to duty or reducing distress to enable personnel to continue to be able to do their jobs.

All studies were required to be published in peer-reviewed journals, grey literature was excluded. The search selection process is illustrated in Figure 1. Ten papers were included in this review. Reasons for paper exclusion included: PTSD, not veteran, active military service, review/commentary, not treatment/training, software development, not VR, and reported study protocol only.

Figure 1: Prisma Flow diagram

Results

Table 1: VR studies grouped into veteran and staff population samples

Overview

In the ten papers included in this review, VR had been used for both treatment (n=6) and training (n=4). VR treatment had largely focused on physical health and rehabilitation (n=5) and one explored veterans mental health. Of the four training papers, three trained staff working with veterans and one was a training for veterans to increase job interview skills. The latter was included due to the links between unemployment and poor mental and physical health, and the high unemployment rates of veterans (Royal British Legion, 2016) where UK working age veterans are nearly twice as likely to be unemployed than their civilian counterparts.

Not all studies stated or clearly stated participant demographics. Of those that did, age ranged from 27-63 and participants were predominantly male for treatment studies (expected due to higher proportion of males in military) and predominantly female for training studies.

Study sample sizes ranged from 1-161 participants (treatment studies: n=1-20, training studies n=15-161) however, most of these consisted of small samples in the form of case studies (n=3) and pilot/feasibility studies (n=3). The remaining four had a control group alongside the intervention group.

VR was delivered via mobile apps (Trahan et al., 2021; Fowler et al., 2019), a store bought game (Wiederhold & Wiederhold., 2006), or an already established or specially designed treatment/training program (Atuel & Kintzle., 2021; Reger et al., 2020; Wong et al., 2020; Zinzow et al., 2018; Sheehan et al., 2016; Smith et al., 2015; Classen et al., 2014). Equipment commonly consisted of a headset with controller or body movement for program input. Programs consisted of a variety of virtual environments including grocery store, walking in a canyon, driving, patient interaction, job interviews, and activities (e.g. fishing, basketball, dancing). Nine of the studies involved researcher/trainer supported VR intervention, although one of these was virtual support via a web conference; one was self-practice by a veteran at home. Number of VR sessions ranged from one to nineteen.

Nine of the studies used a pre-post design, two of these did a follow-up to see whether improvements were maintained. The remaining study only issued measures at post-time point to collate data on staff experience of a VR training program. Measures were largely quantitative questionnaires, however some captured qualitative data via interview or open-ended survey questions, and two used biophysiological measures (e.g. for heart rate, respiratory rate, galvanic skin response).

Mental health

Trahan et al. (2021) conducted a case study investigating the impact of VR exposure on social anxiety and PTSD. A mobile phone was used for VR exposure, which enabled home practice. The VR scenario was a grocery store, which included various social anxiety triggers e.g. crying baby, crowded aisles, disagreements between customers, a dropped backpack on the floor, and a checkout counter with a cashier interacting with the customer. Questionnaire measures assessed sleep, motion sickness, PTSD symptoms, distress, mindfulness, and VR experience. The following modules of the structured clinical Interview for the Diagnosis and Statistical Manual-5 were used: mood, psychotic symptoms, anxiety, trauma, stress related disorders, and sleep-wake. The following biophysiological measures were recorded: heart rate, galvanic skin response, and electroencephalogram (EEG).

This study found significant improvements in social anxiety, PTSD and sleep; and a reduction in mean stress score, although this was not a significant change. Biophysiological measures demonstrated that increased electrical amplitudes in the Medial Pre-frontal Cortex (MPFC) may result in reduction of fear.

Physical health and rehabilitation

Three studies applied VR in physical health rehabilitation programmes. Wiederhold & Wiederhold (2006) explored this in patients with neuromusculoskeletal injury (e.g. arm amputations, rotator cuff tear, shoulder impingement, bursitis), utilising a kinaesthetic video game (available in regular stores) as VR therapy. The game is controlled by the player's body movements rather than a traditional controller handset e.g. using your body to block balls in soccer, or to complete a dance move. It was thought that such movement could improve balance, strength and range of motion, and that games could make treatment more comfortable and entertaining.

In addition to their regular rehabilitation treatment the patients in the experimental group (n=10) participated in ten VR sessions, the control (n=10) received treatment as usual. Measures assessed depression, physical therapy, overall health status, and the virtual environment and its usability. This was an ongoing study, however, preliminary findings showed increased heart and respiratory rate during sessions in the VR group when compared with the control group. This indicates higher levels of activity in the VR group. Patients also enjoyed the music and interaction provided by VR.

In a case study, Sheehan et al. (2016) used VR to address mediolateral instability in an individual with unilateral transfemoral amputation. This involved eight sessions of perturbation-based gait training in which the individual would walk on a treadmill whilst immersed in a virtual environment. This took place in a clinic with clinician support. Unlike traditional perturbation-based gait training, which is discrete and tends to stick to the treadmill speed, this study used continuous walking surface angle perturbations to destabilise the patient to encourage them to develop strategies for maintaining stability. VR provided a real-world context, which was based on feedback from previous patients who described situations they had most difficulty with e.g. walking outdoors, hiking, or playing golf which was a specific goal of the patient in this study. To avoid becoming used to the test, the program enabled full control over stimulus and customisation for the patient, pitching and rolling the walking surface so that it was constantly changing.

Minimal Detectable Change (MDC) values were used to identify clinically meaningful improvements. Functional and mediolateral walking stability improved at post-time point: stepping test times decreased and self-selected walking speed increased to nearly within normative range – a change greater than MDC value. Step width and step width variability decreased by more than its MDC, and Margin of Stability (MOS) variability reduced. These improvements were retained or further enhanced at the 5-week follow-up evaluation. In the exit survey the patient fed back that walking had become easier. He reported that his stride was feeling more efficient

and that he felt he walked more upright. These benefits were attributed to the VR program challenging him to learn how to focus on his surroundings and make the necessary gait/postural changes without the aid of anticipation.

Fowler et al. (2019) used VR as an addition to traditional therapy in chronic pain treatment. This focused on fear of movement and VR was mapped onto an exposure hierarchy ranging from low-intensity pain distraction to high-intensity movement-based exposure. Patients (n=16, 10 completed the intervention) attended daily VR sessions over three weeks to complete the exposure hierarchy. Measures assessed pain intensity, fear of daily activities, pain outcomes, pain catastrophizing, and functioning.

Clinical consultation prior to VR intervention suggested that the majority of participants may not complete the hierarchy due to fear of movement, however, most reached or surpassed the highest movement level in six sessions. However, homogeneous intensity ratings were reported, with participants rating all hierarchy levels (low, medium, and high) near medium intensity. Consequently the hierarchy requires modification so it is more incremental. Self-selected post-hierarchy activities (e.g. fishing, basketball throws) were rated as high intensity. This highlights the importance of considering user preferences in selecting meaningful outcomes in addition to the VR intervention itself.

VR sessions had good attendance, participants felt these could be longer in duration, and 37.5% bought or requested VR purchasing information. This indicated an interest and enjoyment of VR in treatment.

Pain measure results indicated a small improvement in Kinesiophobia (fear of movement) scores for 38% of participants. However the confidence interval indicated the possibility of a null effect. Veterans exceeding minimum clinically important differences were calculated with complete data; effect sizes were large for patient-specific functioning, medium for mobility interference and small for pain intensity. This study supported feasibility of VR as an adjunct to traditional chronic pain treatment, but a control group is required to determine the true added impact of VR.

The final two studies looked at rehabilitation in the form of driving, using VR driving simulators (DriveSafety). The VR program allowed additional military triggers to be added e.g. rubbish bags, and disabled vehicles. Zinzow et al. (2018) piloted this in a Cognitive Behavioural Therapy (CBT) treatment programme for veterans with driving anxiety and aggression. Measures assessed hyperarousal in driving situations, driving cognitions, risky driving, driving violations, distress, and PTSD. Participants (n=8, 6 completed the intervention and 4 attended follow-up) attended eight sessions consisting of psycho-education, relaxation skills, an introduction to cognitive restructuring, an exposure hierarchy, and CBT skills training. Significant improvements

were found in PTSD, driving phobia, hyperarousal in driving situations, and risky driving. No significant change found in driving violations. Treatment gains were maintained at one month follow-up. This study supported feasibility and the potential impact of the intervention.

A high number of combat veterans are injured in motor vehicle crashes shortly after returning to civilian life; Classen et al (2014) explored how driving could be improved to reduce this risk and consequent risk to others on the road. They conducted a case study of a combat veteran, who participated in three sessions of VR. This found a reduction in driving errors; with no signalling, visual scanning, gap acceptance, or adjustment-to-stimuli errors, and no driving errors in response to military triggers at post time point.

Training

Continuing with VR interventions with veteran populations, Smith et al. (2015) used this to simulate job interviews and provide information and tips to help increase employability. Fears at job interview were thought to include being asked about military service and needing to schedule work hours around treatment appointments. In addition to the associated health benefits of employment, supporting veterans in disclosing treatment at interview could allow regular treatment attendance and means veterans are not made to choose between treatment needs and financial needs.

Participants (n=23) attended up to ten hours of VR intervention across five sessions, a waitlist group (n=10) was used for comparison. The VR program allowed them to practice how to: answer questions about their military service; consider their service experience as an employment strength; explain job history gaps; handle anxiety-provoking or challenging questions about their disability; and negotiate scheduling needs (e.g. allowance for treatment appointments).

Results showed a significant greater improvement on role play interviews in the VR group, and revealed a large effect for within-subject change between their pre-test and post-test scores. Performance scores increased significantly over time. A moderate effect on within-subject change for self-confidence was found, however this was not a significant change. The VR was found to be easy-to-use, helpful, and prepared veterans for future interviews.

The remaining three training studies explored VR as a platform for training staff to work with military and veteran populations. Atuel & Kintzle. (2021) compared the effectiveness of VR and role play in staff training. Participants (n=161, 136 completed the intervention) attended one training session and completed pre/post-test measures online. The training session was 5.5 hours and led by clinical facilitators. A short

introduction was given on clinical engagement with military clients, and recognising and responding to suicide and symptoms of PTSD. Participants then split into their assigned intervention for mock clinical interactions. The VR group (n=75) did this via a virtual client trainer and the role play group (n=61) did this with peer role play. Following each interaction the facilitator led a discussion identifying: what went well; missed opportunities; what could be done better or differently; and shared examples of relevant clinical skills that would be useful to apply here.

Measures included the Military Social Work Self-efficacy Scale (self-report) and a clinical skill examination via a mock interview with actors. Both groups of participants reported greater self-efficacy post-intervention. Significant improvements were also found in ability to recognise and respond to PTSD symptoms, suicidal symptoms, and in military cultural competence. This indicated that both training formats were successful, however, the VR condition also found significant improvement in overall competence. No significant change was found in initial engagement with patient.

Reger et al. (2020) used VR to train staff in Motivational Interviewing (MI). All participants completed a 2.5-hour online course, which was followed by two training sessions of their assigned intervention (VR or control), these were observed by a research-coordinator. The VR group (n=61) had a 45 minute skills practice with a virtual standardised patient (VSP). At each VSP pause participants were asked to select from one of three computer-generated response options (1.correct, 2.incorrect, 3.mixed – partially consistent and partially inconsistent with MI), the VSP responded accordingly. The control group (n=59) had 45 minutes to study a detailed document summarising key learning from the previous online training.

Recorded conversations with standardised patients were used to measure MI skill, these were assessed using the Motivational interviewing treatment integrity 4.2.1 coding system. This found significant greater improvement in technical global scores (cultivating change talk and softening sustain talk), relational global scores (partnership and empathy), and reflection to question ratio in the VR condition post-training. These gains were maintained at three month follow-up with further improvement in reflection to question ratio.

The final study used a virtual teaching environment (DebriefLive) for veteran health administration debriefers (n=15) to learn debriefing. This process was conducted via a web conference, which enabled the participant, faculty (expert debriefer), and standardised patient (SP; actors who played the avatars) who were all located in different areas to convene. Over two hours participants watched pre-recorded simulation scenarios, debriefed SPs, and discussed feedback from the faculty - guided by the Objective Structure Assessment of Debriefing. They were also given the

opportunity to interact with the SPs to seek their perspectives of the debriefing. This process was run twice so participants could apply learning immediately in a second session.

The program was evaluated using Likert-scale and open-ended questions. Participants agreed the technology suited the educational objectives and that SPs were accurate/appropriate for this too. Regarding the ability to adjust program to learner level, participants felt feedback was appropriate for their level. All participants said they would recommend the VR training program for other staff and simulation instructors found the program acceptable as well as effective in increasing self-efficacy in debriefing. It was considered a safe, virtual and controlled learning environment, with good flexibility, minimum resource requirement, and potentially less intensive costs than traditional peer and mentored feedback models once initial set up cost had been accounted for.

Discussion

This review only considered veterans care. It found VR shows promising results in rehabilitation, social anxiety treatment, job interview training, and training for staff working with veterans. Most papers reviewed were case study or pilot/feasibility studies, highlighting the need for further research into the effectiveness of VR in these areas. Few studies looked at participant perceptions on VR interventions.

Little veteran VR research has been conducted outside of PTSD to address other mental health needs commonly experienced by veterans (e.g. anger, anxiety, depression, alcohol misuse). Murphey et al. (2017) found a complex range of mental health needs in treatment-seeking veterans and concluded that these difficulties and high co-morbidity may partly explain the poorer treatment outcomes reported in veterans in comparison to the general public. A review exploring VR treatment in psychiatric disorders (Maples-Keller et al., 2017) found support for VR use in treating various forms of anxiety: advantages to panic treatment included improved treatment response and decreased time required for treatment; advantages to social anxiety treatment included potential savings in cost as finding multiple confederates for interactions can be costly and time-consuming. The review also found VR to be effective in treating addictions where exposure to related cues of the addiction (e.g. a bar, casino) can be used to reduce cue reactivity craving in order to prevent relapse. These treatments may be beneficial in addressing veterans' other mental health needs, however, with the complexity in presentation further research is recommended to determine effectiveness in this specific population.

In physical health and rehabilitation, VR intervention resulted in improvement in outcomes across all of the studies. Wiederhold & Wiederhold's (2006) comparison with a treatment as usual group suggests that VR could enhance traditional rehabilitation and increase participant engagement. Driving simulation in VR reduced the number of driving errors made regardless of presence of military triggers, and reduced driving related anxiety and aggression. With many combat veterans injured in motor vehicles crashes shortly after returning to civilian life (Classen et al., 2014) this is essential in reducing risks to veterans and others who may be at risk as a consequence of their driving errors.

The use of VR in the treatment studies, enabled veterans to visually access environments and situations where it may not have been logistically possible or safe to do in vivo e.g. going to a grocery shop multiple times a week or driving past potential triggers. VR makes exposure to these situations more frequently available than they would be in real-life. Giving it the potential to increase intensity and duration of exposure, which may make it more cost-effective to traditional treatments. For physical rehabilitation, VR may be helpful in improving physio practice outside of clinics by motivating individuals in the absence of healthcare staff. VR also allowed full control over stimulus, highlighted as an advantage by Sheehan et al. (2016) and providing further support for the benefits of VR in rehabilitation identified by Schulthesis & Rizzo. (2001).

Similarly to Aïm et al. (2016) the training studies in this review found that VR was a helpful tool for learning, in both staff and veterans. Three of the four training studies (Atuel & Kintzle., 2021; Reger et al., 2020; Smith et al., 2015) were pre-post design and found an improvement in outcomes post-training. These also had a comparison group, which indicated that VR may be more effective than other training tools such as role-play or computerised courses. The remaining study (Wong et al., 2020) only assessed at post-time point, however also reported positive training outcomes. VR may be a safe way for veteran staff to develop their skills prior to working with veterans. Enabling staff to feel more knowledgeable and confident in their interactions. With high demand on veteran health services (Murphey et al., 2018) and staff working more from home with the COVID-19 pandemic, VR may be particularly relevant in facilitating training in teams where it is not possible to get a team together on site, as demonstrated by Wong et al. (2020) in their use of a web conference.

Overall few studies have evaluated VR use in veterans' healthcare and rehabilitation outside of PTSD, and those that are available have been case studies or pilot/feasibility studies. Training studies were of a more robust standard, however, remained few in number. In comparison, VR is more often used and has been explored

across a range of health needs in the general population including phobias, generalised anxiety disorder, obsessive-compulsive disorder, schizophrenia, pain, eating pathology and autism (Maples-Keller et al. 2017). This review suggests that VR has a great deal of potential in treatment and training within veteran healthcare, and emphasises the need for further testing of this.

Conclusion

In addition to current PTSD studies, VR has the potential to benefit veterans' physical health and other areas of their mental health. With the studies in this review showing promising results, future better quality effectiveness studies would be beneficial in ascertaining suitability of VR for treatment and training. Further research to add to the evidence base and address other veteran health needs is recommended.

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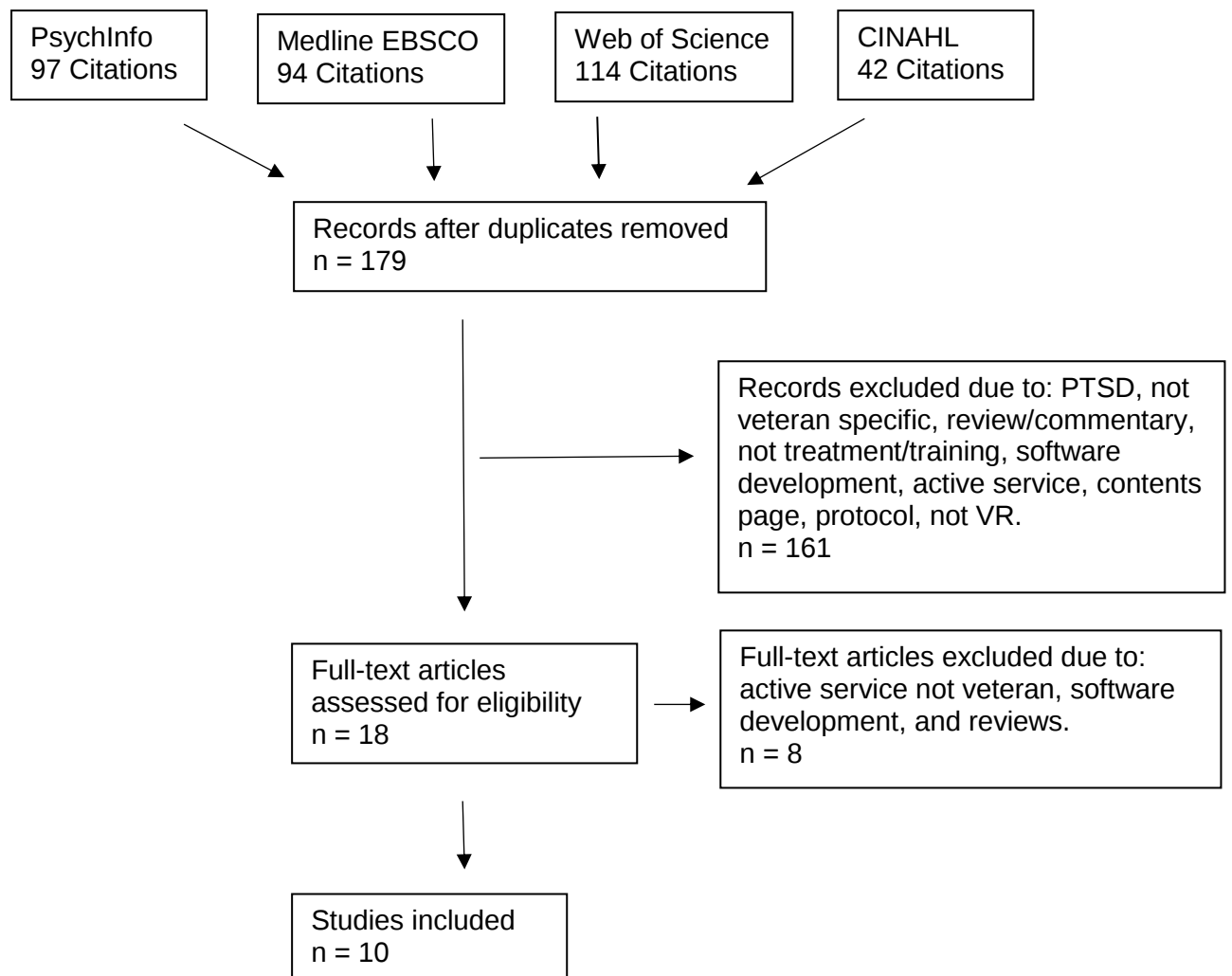
Table 1: VR studies grouped into veteran and staff population samples.

Study	Aim	Participant (N)	Treatment	Outcome measures	Results
Trahan et al. 2021	To evaluate the experience and outcomes of a veteran with social anxiety disorder and PTSD during VRET.	1 male age 36	Setting: home practice Mobile phone and head set. Grocery store. 3x a week 12-15 mins exposure over 4 weeks.	PSQI, MSQ, PCL-5, Tellegen absorption scale, Five face mindfulness scale, SUDS, VR presence questionnaire, SUS. Biophysiological (heart rate, galvanic skin response, EEG)	Reduction in Mean stress (no sig. change). Sig. improvement in social anxiety, PTSD and sleep. Demonstrated that increased electrical amplitudes in MPFC may result in reduction of fear.
Wiederhold & Wiederhold, 2006	To investigate whether augmenting traditional rehabilitation with VR will enable a more rapid/complete rehabilitation.	20 (10 VR, 10 control group) Male and female (n and age not-stated)	Setting: with researcher Traditional rehab activities plus VR video game. 10 sessions.	Virtual environment pre-treatment questionnaire, BDI-II, The Physical therapy evaluation report, The Overall health status assessment, Virtual environment post-treatment questionnaire, Usability questionnaire, Exit questionnaire.	Preliminary findings: Experimental group have increased heart and respiratory rate during sessions. Participants enjoy music and interaction provided by VR.
Sheehan et al. 2016	To explore walking function and mediolateral stability outcomes of an individual with a unilateral transfemoral amputation following a VR perturbation-based gait training intervention.	1 male age 43	Setting: with researcher Computer-assisted rehabilitation environment, Motek Medical, Amsterdam. 8 sessions over 4 weeks, canyon scene.	Functional stepping test, patient self-selected walking speed, lateral walking stability within virtual environment test. The dynamic Margin of Stability (MOS)	Functional and mediolateral walking stability improved. Functional: decreased stepping test times, and increased self-selected walking speed. Stability: reduced step width, step width variability, MOS variability.
Fowler et al. 2019	To examine the feasibility of VR as an adjunct for chronic pain management.	16 -10 completed 13 male, 3 female	Setting: with researcher Daily VR sessions over 3-weeks. Completed a	FDAQ, POQ-VA; fear scale, pain intensity, interference, and negative effect. Pain catastrophizing scale, PSFS.	38% scores for Kinesiophobia indicated a small improvement. Effect sizes were large for patient-specific functioning, medium for mobility interference, and small for pain intensity.

		Age 28-63	distraction to exposure hierarchy.		
Zinzow et al. 2018	To pilot a novel VR and cognitive behavioural intervention for veterans, that integrated both anxiety and anger management components.	8 (6 completed intervention, 4 completed final follow-up) All male, age 27-52	Setting: with researcher DriveSafety CDS-250 driving simulator (military triggers added). 8 intervention sessions Psycho-education, relaxation skills training, developing an exposure therapy hierarchy, intro to cognitive restructuring and CBT skills training.	SUDS, Driving behaviour survey, hyperarousal in driving situations, The Driving cognitions questionnaire, The Risky driving scale, The Driving violations scale, SCID, PCL-5, The Presence questionnaire, MSAQ	Sig. improvement in PTSD. Sig. decline in driving phobia, hyperarousal in driving situations, and risky driving. No participants met criteria for driving phobia at follow up. Sig. change on driving behaviour survey. No sig. change in driving violations. Final follow-up: veterans reported the intervention had a positive impact on driving anxiety/aggression, other worries.
Classen et al. 2014	To determine whether an occupational therapy driving intervention improved the driving ability of a combat veteran who had an orthopaedic injury and PTSD.	1 male age 31	Setting: with researcher DriveSafety DS-250r™ mobile driving simulator (military triggers added) 3x 1 hour training session.	OT-CDRS, UFOV, MMSE, TMT, FTT, ROM	Driving errors reduced in number. No signalling, visual scanning, gap acceptance, or adjustment-to-stimuli errors and no driving errors in response to triggers at post-time point.
Smith et al. 2015	To evaluate the acceptability and efficacy of a highly interactive VR job interview simulation program.	33 -23 VR condition, 10 waitlist (TAU) 32 male 1 female VR mean age 51.2 TAU mean age 50.8	Setting: with researcher 10 hours of simulated job interviews, plus reviewed info and tips for interviewing.	2 pre-test and 2 post-test video-recorded role play interviews, and self-reported interviewing self-confidence.	Found VR easy-to-use, helpful and prepared them for future interviews. VR group demonstrated significant greater improvement on role play interviews and demonstrated a large effect for within-subject change. Performance scores increased significantly over time. Moderate effect on within-subject change on self-confidence, but not significant change.

Atuel & Kintzle. 2021	To compare the effectiveness of role play and a virtual client-trainer in training students in the development of interviewing and clinical skills related to working with a military population.	161 -136 staff completed VR 75, Role play 61. Males 29 Females 107 Age not-stated	Setting: with trainer 1x 5.5-hour training session. VR group had a virtual client trainer.	MOSCE, Military social work self-efficacy scale, clinical skill interview.	Both groups of participants reported greater self-efficacy. Significant improvements found in both groups for recognising and responding to PTSD symptoms, suicidal symptoms, and military cultural competence. Significant improvement found in overall competence, but only for VR condition. No sig. change in initial engagement with patient.
Reger et al. 2020	To evaluate the efficacy of training with a virtual standardised patient on the acquisition and maintenance of MI skills compared with traditional academic study.	120 staff - 61 VR, 59 control. Males 37 Females 83 VR mean age 43.4 Control mean age 44.4	Setting: with researcher Computer course on motivational interviewing. Followed by 2x sessions separated by 3 months. VR involved virtual standardized patients.	Motivational Interviewing Integrity 4.2.1 coding system.	VR condition showed significantly greater post training improvement in technical global scores, relational global scores, and reflection to question ratio. This was maintained at 3 month follow-up with the latter showing further improvement.
Wong et al. 2020	To detail the development, implementation, and initial program evaluation of an innovative debriefing faculty development tool.	15 staff Gender and age not-stated	Setting: with trainer via web conference. DebriefLive – a virtual teaching environment	Likert scales	Participants rated content as effective and appropriate to their level. Video-based scenarios followed by avatar-based debriefing sessions was felt to be accurate and appropriate. All participants would recommend the training program and felt it was effective in increase self-efficacy in debriefing.

Figure 1: Prisma Flow diagram



4.4 Research Commentary

Learning outcomes:

- Demonstrate skills in conceptualisation, design, development, implementation, and analysis of a study to investigate a pertinent research question in Health Psychology.
- Create and interpret new knowledge through original research or advanced scholarship in Health Psychology.

This commentary is a reflection of my research experience during training. It considers how I selected my research topics, the design and ethics process, conducting the research, and my findings.

Research Commentary

This research commentary is a reflection of my research experience during training on the Health Psychology Professional Doctorate. It will reflect on how I selected my research topics, the design and ethics process, conducting the research, and my findings. Research was conducted in the Veterans service of St Andrew's Healthcare, a mental health charity.

Empirical Paper 1 and 2

Selecting a research topic:

I found the initial process of generating research ideas overwhelming, due to the number of options and logistical considerations for it to fit within the veterans' service. It was also further complicated by ensuring it would meet the requirements for doctorate training. This increased the pressure I was experiencing, as it left me answering to two different institutions that had their own research processes and needs.

St Andrew's Healthcare had purchased a licence for use of a Virtual Reality (VR) social engagement program. This was being evaluated and offered as treatment across several wards, but had not been offered to community services where the veterans' service was based. Whilst most veterans are referred to the service for treatment of Post-Traumatic Stress Disorder (PTSD) symptoms, their needs are complex, with other mental health difficulties present. This has been found in other treatment seeking veterans, where co-morbidity is high with anger, common mental health problems (i.e. anxiety and depression), and substance misuse (Murphey et al., 2017). Many of the veterans within the service experience social anxiety, which has been found to have high co-morbidity with PTSD (Collimore et al., 2010). Consequently I felt the treatment could be beneficial to veterans. It was positive to see the literature recommending research on other veteran mental health needs, however at the same time I noticed some frustration that these other needs had been ignored, as they could significantly impair veterans' quality of life.

Veterans' VR research has largely focused on PTSD with little on other mental health needs, and few studies exploring veterans' perceptions of VR treatment. Both structural and therapist barriers had been identified in traditional exposure practice (Neudeck & Einsle., 2012) and it is possible that some of these could be overcome with VR exposure. Reviewing the literature was essential in assuring that my proposed research topic would be beneficial to the veteran population and add to the current literature. It enabled me to feel confident in

my research proposal and aided discussions with the charity's research centre, where it was approved.

Design and ethics process:

This project adapted the charity's current evaluation design, so that it would contribute to veteran VR literature and consider veterans' specific needs. Knowing this population well clinically was advantageous as I was aware of potential triggers and felt confident in managing any triggering that occurred. If conducting research with a patient population I was unfamiliar with I would want to utilise clinicians' expertise in research design and have a clinician available should support be required. Researchers utilising VR would benefit from training on the technology and basic de-escalation so they are equipped to manage both technology issues and any distress that arises. This would be essential in ensuring the safety of both participants and staff.

The ethics process was complicated by the charity having NHS patient contracts. Commissioners NHS England Armed Forces were contacted to clarify whether NHS ethics would be required. The outcome from this was that the charity's ethics process should be followed, rather than automatically going through the NHS Research Ethics Committee (REC). This involved using the NHS decision making tool, which concluded NHS ethics was not required as the project was service innovation/evaluation. Thus an ethics application was submitted to the university's REC, where several barriers were encountered.

The first barrier was the application being declined on the basis that 'NHS patients meant NHS ethics' (Appendix A). The ethics application takes time and effort, so it was frustrating knowing that the form and explanation for why NHS ethics was not required had not been adhered to. Further documentation and clarification enabled me to proceed only to reach a second barrier; no face-to-face research was being considered at this time due to the COVID pandemic. This caused further frustration and disappointment. I appreciated and supported the need for COVID research to take precedence, however, this issue had not been mentioned following my first submission and felt more like an organisational issue with the REC. The pandemic was not new and they had already started review of the application, which contained a COVID risk assessment demonstrating how the charity were continuing face-to-face sessions, including VR. The study would just measure this and not increase patient contact. The final barrier (Appendix B) was that the ethics application read as research rather than service evaluation and needed to be amended accordingly. This involved much editing and deletion of work. It was frustrating that the proposed project had not been picked up as a service evaluation through the university's research decision tools. I

feel further guidance on how to fill the application as non-research or a separate form would have been beneficial.

The ethics process was an incredibly stressful experience with so many parties to consider and significant delays in REC response. The former resulted in duplication of processes as approval was needed from both the university and charity's research centre, which used different documentation. For future research I would want to agree the ethics process between parties prior to commencing an application, to avoid the risk of completing unnecessary work or having to start over. Whilst challenging, this experience resulted in a greater understanding of service evaluation, service innovation and research; and I feel more confident in designing research in accordance with this.

Conducting the research:

Due to ethic delays and the charity having access to the VR for a limited time only, there was significant pressure in recruiting and delivering sessions on time. Recruitment was further challenged by the large geographical area covered by the service, which limited access to veterans with transportation. A colleague within the service contributed to this phase of treatment for research experience. This was helpful, but the size of the task still had a noticeable impact on my well-being and for the first time I felt the impact of training on my ability to work full-time. This was supported through supervision, which enabled me to put my caseload on hold so no further clients were added. This was a relief and on reflection, I wish I had considered what additional support I may have needed in advance. A barrier to this was experiencing guilt about letting the team down and not being able to fulfil my role at work. Whilst I had been allowed to incorporate training projects into this, ultimately as an employee I was expected to do the required hours and workload.

It would have been helpful to consider how the project could be simplified to fit the timeframe, unfortunately my experience with the REC meant I did not want to risk making changes in case this resulted in further review and delays.

Working with VR technology was initially daunting despite being shown how to use it. This became easier with use, however, still felt uncomfortable when technical issues arose. It was helpful facilitating sessions near to the research centre office as this meant someone was always on hand to assist if required. This is something I would want to keep in mind for future VR research. I would want to take a more hands-on approach with the VR materials though (e.g. ordering batteries, cleaning wipes) as the research centre's other demands meant this was inefficient. Finally, I would want to remind myself that occasional technical

issues were accepted by participants as something expected with this treatment mode and they were largely understanding.

As sessions progressed the governments tier system strategy for managing COVID was introduced and I was concerned sessions would not be able to continue. I felt conflicted here between my need for the project to continue and wanting to ensure all involved were kept safe. The charity deemed it could be harmful to end sessions abruptly and these were allowed to continue with consent from patients participating. All chose to continue and fortunately the sessions were completed prior to further lockdown.

Findings:

Despite not expecting large changes on psychometrics due to the briefness of VR exposure, I was still disappointed at no significant findings. I was pleased to see improvements in some psychometrics mean scores, but it was frustrating not to have been able to explore these further. The challenges with geographical area, time limits, and access to VR equipment meant that unfortunately it had not been possible to increase VR exposure and social engagement practice. I was relieved that the interviews had captured some of the benefits the veterans had found from the sessions.

Systematic Review

Selecting a research topic:

With doctorate training coming to an end, I felt the need to keep my systematic review related to VR research so that it was a field I was already familiar with. Out of the assignments required for the research competency, the systematic review had been the one that caused me the most anxiety. This was due to having little experience of reviews and it being a long time since I had last completed one. I had planned to complete this assignment at the start of my training, however, had struggled to finalise a topic prior to starting my other training projects. When I did start it, my chosen topic (a review of VR treatment of PTSD) had recently been reviewed and I needed to alter it. A new research question was developed – In addition to PTSD, what else has VR been used for in veteran treatment? The relevance of this to Health Psychology was that VR has been proposed as a potential tool for increasing accessibility and engagement in treatment. Unfortunately, this search did not produce enough eligible papers for review so the question was adapted again to 'In addition to treating PTSD, how else has VR been used in veterans' healthcare. It was challenging

selecting a topic which would produce enough papers for a sufficient review, but not too many that it would not be feasible to complete.

Conducting the review

It had been a while since the university teaching, so library staff were a fantastic resource in considering journals, search strings, and how to record searches. This helped me manage my anxiety and skilled me up in search techniques.

I noticed when searching a database that the papers did not always come up in the same order in subsequent searches. This was an issue as I was not able to access EndNote at the time, so searches could not be saved and duplicates were not easily identified. This again, increased time pressure and was a barrier to finalising my review papers. This highlights an example of where doctorate training and work needs have not matched up, with work not having the same urgency in resolving the matter. This was an ongoing issue particularly for research, where I was balancing the needs of both institutions.

Following an abstract screening I reviewed my final papers and was surprised at how many were excluded following reading of the full text. This meant I initially ended up with fewer than the ten papers required for training. The reason for exclusion at this stage was typically because it was a review of VR use more generally within a broader topic or programme.

Findings:

Having recognised the potential benefits of VR in treating social anxiety, I enjoyed seeing VR's other potential benefits in veteran healthcare including physical health and training. The systematic review opened up new questions for me and other areas I may want to explore in veteran healthcare. For example if effective in training, could military personnel or those leaving the military benefit from VR interventions to prevent development of mental health conditions (e.g. emotion dysregulation, social anxiety) and could framing it as training increase veteran uptake of mental health support? Most of the non-PTSD VR studies were case study or pilot/feasibility studies and effectiveness studies would be essential. The focus on PTSD appears to overshadow the potential for other VR use, which is frustrating as it could be preventing veterans accessing other beneficial treatment.

Conclusions

Whilst I found research the hardest of the training competencies, I had expected this as I had not completed research in a while. On reflection I would have tried to put research earlier in my training plan, to allow sufficient time for this. Although, I may still have encountered issues later with the Pandemic. I also feel my empirical papers were ambitious for the timeframe available. It was hard to find a balance of what was enough to meet the competency and not get carried away here with the wider needs of the veterans' service and my own interests. Whilst I may have made the same decision I would have wanted to consider this in more depth and how much extra time/effort would be required.

This was my first experience of research with a clinical population and I gained a lot from considering ethics in working with vulnerable individuals. For example, in looking at whether any risks were outweighed by potential benefits, and ensuring I had a strong rationale for conducting the research. Completing a safety plan was helpful in identifying potential risks and recording how these would be managed. It also highlighted to me the importance of considering risks to research facilitators, not just those participating.

I have learned a lot from this experience. It has developed my understanding of the research process and increased my confidence in conducting research. I have continued my involvement with OxfordVR, the creators/owners of the Social Engagement Program; to support their other ongoing projects by sharing my knowledge and learning. We are also discussing the possibility of extending my initial research to further VR projects within the veteran population.

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Appendices

Appendix A Ethics Reflective Diary Entry

Ethics application form bounced back

Description: Vague email received from ethics committee asking me to consider some points prior to submitting my application, and asking me to discuss with academic supervisor. This advised that they felt due to the patients being NHS, it should be NHS ethics that I apply for. This required further supporting documents to be sent, and additional questions to be answered.

Thoughts/feelings: This was incredibly frustrating as I had checked with our NHS commissioners prior to completing application for UREC, and been advised that NHS ethics was not required. The NHS decision tool and my employer's research centre also supported this view. I also experienced anxiety and stress that I would have to start over with NHS ethics.

Evaluation and analysis: It was good that I had explored ethics protocol with the NHS commissioners and employer's research centre in advance, as this enabled me to be confident in putting this back to UREC and getting them to look at my application.

Conclusion/action plan: In future I would speak to all parties regarding ethics prior to completing the ethics form, as this would have been incredibly stressful and time consuming if the UREC had declined to accept my application for consideration. I had run this by my academic supervisor, but I feel it would have also been helpful to run this by the UREC for confirmation as they were less familiar with my situation and may require further explanation.

Appendix B

Ethics amendments

Description: This required making further amendments to my ethics application, which required a lot of information to be stripped out. This was due to it presenting as research rather than service evaluation/innovation. This caused further delays.

Thoughts/feelings: I experienced frustration and felt let down during this process. I had put a lot of time and effort into the application and felt a lot of this had been wasted, due to it not being identified as service evaluation/innovation earlier. I think that if this had been an isolated incident it would have been more manageable. The frustration stemmed from this being the third barrier I had encountered with UREC and I perceived a reluctance in UREC's willingness to take responsibility for research in an NHS population.

Evaluation and analysis: It would have been helpful to have had more guidance on this initially and for UREC to have sufficiently read the application to present all feedback for clarification at once, where possible. With the involvement of multiple parties more linked up communication would also have been beneficial.

Conclusion/action plan: If working with NHS patients in future, I would get written confirmation from commissioners if NHS ethics were not required and send this to the UREC prior to completing their ethics procedure. This would have allowed this matter to be addressed in advance. A positive from this experience is that I have learned more about the ethics requirements for research in comparison to service evaluation/innovation.

Chapter 5 - Professional

This competency consisted of two items; Reflective Practice Commentary and Log of Training. The latter will be submitted alongside this document.

5.1 Reflective Practice Commentary

Learning outcomes:

- Conduct ethically sound work in Health Psychology at professional practice level.
- Reflect on their skills, practice, and professional development.
- Reflect on their reflections.

This commentary is a reflection of my Health Psychology Doctorate training. It considers my experience working with clients, professional boundaries, and codes of conduct. For the latter, the Health and Care Professions Council (HCPC) and British Psychological Society (BPS) codes were referred to.

Reflective Practice Commentary

This commentary is a reflection of my Health Psychology Doctorate Training. It will reflect on my experience working with clients, professional boundaries, and codes of conduct. My training placement was with the Veterans service of St Andrew's Healthcare, a mental health charity. Codes of conduct from the Health and Care Professions Council (HCPC, 2018) and British Psychological Society (BPS, 2018) were referred to for this commentary. Text in italics are excerpts from my training practice log.

Competence and limitations

One of my first observations working with veterans was the complexity of presenting difficulties. Whilst it was helpful having a treatment model to follow (three stages: Stabilisation, trauma processing, reintegration), I was increasingly finding that this did not map out neatly with veterans individual needs. *'Not everyone will go through each of the stages and this is okay. M is aware that he can re-refer in the future should he feel trauma processing will be beneficial. Although the model is introduced during treatment planning I feel it would be helpful to emphasise that this is a guide'* (17.04.19). I recall feeling reassured by this as I would not be limited to or pressured to meet an expected progress that was unrealistic with the case complexity. At the same time moving away from the model and related processes was anxiety-provoking as the treatment felt less familiar and structured, and largely relied on my own assessment/clinical judgement of client needs.

Trusting my own judgement was challenged by having a trainee status within a team of qualified staff. I worried that my judgement would not be sufficient or valued and I would often struggle to share contributions within team meetings. My confidence here has grown significantly as I've progressed through training. *'Now that I am nearing the end of training I do not feel as reliant on my colleagues for support with these review sessions. I feel more confident in my assessing and care planning. I plan to review more of these independently in supervision to prepare me for qualifying where I may be required to join Assistant Psychologists in their own stabilisation review sessions'* (11.01.21). Assignments pushed me out of my comfort zone and enabled me to test out my fears here. The more exposure I got to this, the more confident I started to feel. Independently of this, I have set myself the goal of more active participation in meetings (e.g. sharing a reflection with the team) so that this becomes more familiar and easier to do. Where agendas have been provided in advance, I have allowed sufficient time to prepare thoughts prior to the meeting to help me feel more comfortable in communicating these. I also noticed that I felt more able to share expertise

with certain individuals in the team and I have considered what it was about them and what circumstances encouraged me to do this. For example, I was more likely to do this in a one-on-one interaction and with those who had sought out or asked for my thoughts previously. This is something that I would like to keep in mind as I move into a qualified role, so that I am able to support other colleagues that may be quieter in meetings and struggling with anxiety similar to that I have experienced.

Consultancy and teaching clinicians has helped me acknowledge my own expertise and ability. This has translated into therapy sessions, where I now have a more eclectic approach to treatment, allowing me to tailor treatment to individual needs. This has been particularly helpful when sessions do not go to plan and other presenting difficulties need to be prioritised. *'This had not been part of the session plan, however, it felt like a significant learning point and felt right to do it at this time. This has emphasised the importance of flexibility in sessions and tailoring the session to the current needs of the client'* (06.11.20). Moving forwards I would want to be able to apply this flexibility and ability to adapt to group settings e.g. meetings, group therapy, teaching. Here needs may differ between individuals and it would be important to find a balance and not allow one person's needs to dominate. It would also be helpful to increase my acceptance that things won't always go to plan in a group setting. I find this harder as I feel like I am letting more people down and I perceive a higher risk of criticism from others.

I have developed an acceptance that it is okay to not have all the answers and that I may need to try several approaches with a client before we find the one that best fits their needs. This has helped me find a balance between recognising my strengths and where I may require support from others. *'R is very critical of himself and frequently shares the fear that I will think he is a fraud and end treatment. I set up the work with my colleague to run alongside my own sessions. R became very critical blaming himself and worrying that he had said something wrong or not progressed enough in therapy'* (22.05.19). I recognised my own limitations here and was able to source the support that met the clients need; formulation of critical thinking. I had also considered my role alongside this and what would reduce the risk of reinforcing their critical voice or leave them feeling rejected. Accepting my limitations here did not undermine my expertise or mean I was unable to do my job. The additional support meant I was better able to do my job and engage the client in coping skills practice.

Recently, I started treatment with a new client and was struggling with the care planning as my assessment of presenting needs did not coincide with those in the initial assessment. 'L's

needs do not seem to match with the treatment goals recommended at assessment, which focused on Post-traumatic Stress Disorder (PTSD). Her presentation is Emotionally Unstable Personality Disorder (EUPD) and this appears to be causing her the most difficulty' (09.04.21). I had spent longer with the client, which may have contributed to this difference in my opinion and the initial assessors. I also had a good understanding of EUPD from working intensively on a ward with women diagnosed with this. In line with codes of conduct, I wanted to be cautious of making knowledge claims, particularly with such a complex population. I therefore, initiated a case review with the Clinical Liaison Nurse (CLN), and liaised with my supervisor, team lead, and the service's psychiatrist to ensure this decision was supported by the team.

Working with clients I have recognised that there are various approaches and not everything will work. Our service is often considered the last step in the treatment pathway and is for more intensive treatment or where previous service input has not been helpful.

Consequently many clients are feeling frustrated by the time our service assesses. This has emphasised to me the importance of really listening to the client and learning from what has and hasn't worked for them so far. They will be the expert here and are the support I require in overcoming this limitation in my knowledge. For example, one client had not been able to engage in mindfulness as it had been taught to him with an internal focus (e.g. focusing on breathing, body sensations) and he experienced chronic pain. *'In supervision we thought about other ways C could practice mindfulness and considered an external focus e.g. practicing mindfulness of an object with a stone from his mother that he carries around with him. C said he found this exercise helpful. He has since tried this at home with a homemade fishing float'* (05.03.19). Listening to the client and trying to understand why something wasn't helpful allows me to support them in overcoming any barriers, consider their learning style, and select coping skills that are more likely to be effective for them. This incident also reminded me of the importance of considering the client's health presentation more broadly as difficulties can often interlink e.g. pain and sleep disturbance can reduce ability to regulate emotion effectively.

In going through my practice log, I have noted that my earlier entries often reference a plan to take this to supervision for reflection. I am pleased to see in later entries that whilst I still value and utilise supervision effectively, I am spending more time self-reflecting or reflecting with another clinician involved prior to supervision. *'I found it helpful to reflect in advance with my colleague as this meant we were able to clearly present where the difficulties lay and what challenges needed to be overcome. The team lead was then able to help us develop these reflections and form a plan for moving forwards'* (13.04.21). This has allowed

more in-depth reflection as it adds to my original reflection, encouraging me to consider events in different ways. It also improves my ability to reflect independently.

Multidisciplinary working

Working in a Multi-disciplinary Team (MDT) it has been essential to learn and recognise the strengths of other colleagues and professions to ensure a holistic approach and collaborative team working. As a lead clinician during therapy, I have noticed my own anxiety and attachment in the therapeutic relationship. Particularly in stepping back whilst the client awaits the next stage of their treatment. My worries include the client's wellbeing deteriorating, letting the client down, and a reduced level of support from their assigned CLN - who may not know their needs as well, having not worked as intensively with them. *'To help manage my own anxiety about stepping back, I would want to liaise with CLNs to see if they could incorporate skills support/stabilisation maintenance into their check ins. This would increase my confidence that the client would remain safe and feel secure with the care plan' (01.04.21).*

This anxiety has previously been reinforced by a session with a client: *'Responding to incident where R had text for support, and I was unable to respond due to leave. Whilst R had been able to contact a colleague in my absence, he used excessive humour in the session making several jokes about my 'absence when he needed me'. I named the humour, which he often uses as a defence, but felt brushed off when I tried to explore what this incident really meant to him' (07.02.20).* This anxiety can result in me taking on more responsibility for the clients' care than required, adding to my reservations about stepping back from the case.

My experience has encouraged me to coordinate my treatment input more effectively with others involved in the clients care and be more willing in accepting support. Many veterans have reported feeling let down by previous services who labelled them as too complex and consequently clients have been bounced between services. This can make it challenging to form a therapeutic rapport as they can be distrustful. I think this has also contributed to my need to feel that 'everything has to be right'. It's not a lack of confidence in colleagues' abilities, but the pressure to ensure the client has a positive therapy experience. Doing things myself offers some assurance of this as I can see how it has been done and it helps me feel that the situation is under control. This is however, not feasible and also risks depriving clients' of the valuable support I know my colleagues provide.

Teaching clinicians has also helped me recognise and encourage their expertise. My own experience of feeling unable to contribute to MDT discussions has left me wanting to help others find their voice here too. *'To generate discussion in this group I often ask what clinicians familiar with the skill have found in using this. Feedback was limited and I extended this question to those unfamiliar with the skill to find out their thoughts and how they felt in using this with the veterans' (25.01.21).* I found this a helpful way to draw less experienced staff and non-psychology professions into discussion, which was particularly relevant in a psychology led team. This was advantageous to discussion as whilst many psychology staff will be familiar with the skills, they have less experience applying these with veterans and this encouraged reflection.

In becoming more vocal in MDT discussions, I am learning the balance between accepting advice from my peers alongside trusting my own clinical judgment. Sometimes these will conflict. *'I expected some resistance from the team as we've been split on similar cases previously. However, the response from a couple of staff here felt particularly attacking, which shut down any discussion and left me feeling like I had not been listened to' (15.02.21).* I recall feeling annoyed and as the process had not been facilitated in a helpful way, I noticed a resistance to doing what the team members wanted. I recognised this was not helpful and when feeling calmer I wrote down the concerns that had been raised by the team in accepting this particular referral. I then reviewed these with the other assessing clinician, considered how these could be mitigated and formed a care plan.

Pandemic impact

Where possible, during the pandemic treatment sessions have been facilitated by video call. This was a challenge for both clinicians and clients and adaptations were required. *'J answered the video call sitting on his bed. Unfortunately this is an ongoing challenge with clients having sessions at home, as they have other family members in the house and this is often considered the safest space for the session' (25.11.20).* It was important to consider how confidentiality could be maintained from both call environments and problem solve accordingly. It was also necessary to consider how distress could be managed during and after sessions, as participants were now bringing this content into their homes and consequently may find it harder to detach from it. This was also relevant in managing my own wellbeing as I was bringing work into my home environment. Fortunately, I had the space to create a work area, which enabled me to feel like I could still leave work. Not needing to travel for appointments meant I did not have as much time to unwind and let go of

a session before I met the next client. This was important to consider in session planning so sufficient breaks were incorporated.

A noticeable change moving into video calls was that you saw each other in your home environments. Sessions were no longer in a neutral clinic space and I did notice that some clients communicated with me differently or asked more personal questions. I also noticed this during Virtual Reality (VR) sessions where when the headset came off or we were doing real life exposure (an outcome measure for the VR evaluation) participants would slip into more casual and friendly conversation. *'Clients were noticeably more comfortable outside of the clinic room and spoke more casually, like you would to friends. This was understandable as they had spent quite a bit of time with facilitators in a short time period and being outside and an outcome measure, it may have felt like it wasn't part of the program'* (26.10.20).

Whilst I felt this change was understandable, I wanted to maintain professional boundaries and privacy around my personal life. It would be important to do this in a way that did not shut down conversation or appear rejecting. Especially as I was meeting some client's for the first time via video call and building a therapeutic rapport was essential.

Most video call platforms allow you to have a background, which may reduce this issue. However, clients who are guests in the calls do not have this option. I therefore did not feel comfortable using this and felt it could be a barrier to treatment, as considering their own environmental challenges for sessions, the client could not ascertain privacy. I also felt a real background invites openness and honesty. Being mindful of surroundings visible in the call could be an alternative way of reducing personal questions and what can be seen of your home life. I feel I can be stricter in my professional boundaries than my colleagues, who may not have struggled with this shift in dynamics as much. I would want to continue to reflect on my boundaries here and what I feel comfortable sharing about myself with clients, where it is appropriate and helpful to rapport building/understanding in sessions.

With the charity's COVID-19 protocols in place face-to-face sessions recommenced following lockdown. This enabled the VR sessions that I would evaluate for my research to proceed. Here I was conscious of ensuring this adhered to safety regulations so that my training needs were not prioritised at the expense of clients' needs and safety. Towards the end of these sessions and data collection the tier system was introduced by the government. *'This was both stressful and frustrating as we were so close to the end of our data collection. I noticed a conflict between needing to complete data collection, and also wanting to ensure safety of those involved'* (29.10.20). The charity decided to continue to offer the sessions as it could be detrimental to stop mid-treatment. Clients were not obligated to attend.

Fortunately for data collection, clients opted to attend their remaining sessions and these were finished before most counties were moved into the higher tiers.

The practice log entry above was later in my training, and I feel it demonstrates how my reflective practice has developed to capture more of my emotional experience and thought processes. However, I feel this could be improved further, particularly when experiencing challenging emotions towards clients' e.g. anger or dislike of their actions/opinions. *'First session of formulation with an older veteran who was quite outspoken with his political views and on social matters e.g. Black Lives Matter. His opinions here did not match my own and I felt uncomfortable with some of his views. He was not aggressive in this and I do not think he meant to cause any offence (23.07.20).* This was a brief piece of work and challenging to address in a first session when building rapport. Instead, I would re-direct, but made sure I did not say anything that could indicate agreement with the comments. Here, it would have been helpful to have been more honest to myself about the dislike resulting from his opinions, which in a longer piece of work could have become a barrier to my fully being able to engage in sessions. Experiencing this emotional range is normal, yet I still struggle to share them at times; fearing judgment from others and myself.

Moving on past the pandemic, I would want to reflect on what I have learned from this way of working and how it could support future treatment provision. Now we are able to offer more face-to-face sessions, I have found that some clients are wanting to continue these via video. Others put treatment sessions on hold during the pandemic as they did not feel able to have therapy this way, and there are particularly isolated clients that look forward to sessions as a rare opportunity to meet another person. This indicates that it would be helpful to offer both and see what best meets clients' needs. Due to the large geographical area covered by the service there are logistical benefits to offering video sessions. It reduces travel for staff, increasing time available to see other clients. This in turn significantly reduced waiting lists and waiting time. As previously highlighted, not driving has reduced time available to let go of the previous session, so it would be important to allow space for this for staff wellbeing. It may be that a blended approach would be helpful in going forwards.

Attachment

The therapeutic relationship can be intense. For the client, they may have opened up to someone about their difficulties or felt they were being listened to for the first time. They often tell us things that they do not feel able to tell their loved ones or others. To feel like you are in a safe space and able to trust someone with what you are sharing can result in

attachment or dependency on the clinician. *'R has had a break in therapy whilst he accesses social work intervention. We have continued to have fortnightly telephone check ins during this time. In today's call R said he had missed me. I validated how it might have been difficult for him not having our face-to-face sessions, as he had struggled to engage with the team and I had been his contact from the start. We have also worked through a lot together including a crisis' (22.11.29).* This is an understandable occurrence, but has made me consider the pressure it can put on me as a clinician and also how it can limit the support the client is accessing from the wider team. Experiences like this have encouraged me to consider how they can access this support and an outlet for their emotions/thoughts more independently. I am now trying to involve CLNs more in reintegration work alongside therapy, helping clients expand their support network and activities. For those more isolated, I have considered with clients the benefits of writing down difficult thoughts/feelings they are struggling with to help them let go of these. This is essential in discharge planning so that the client feels confident moving on from treatment, and so a positive ending/closure is achieved.

Attachment can also form in the other direction, from myself as a clinician to the client; this is also understandable. After hearing the difficulties faced and experienced by clients I have noticed myself becoming protective. Particularly of clients who are vulnerable from exploitation and who often go unnoticed or are not prioritised by services because they are quieter personalities and less likely to raise concerns. This along with my anxiety about these cases, means I am likely to take on more work here and be less willing to let colleagues step in and support. My self-awareness of this has helped me challenge this and start to take a step back. For example, to minimise additional contact between sessions, if something needs communicating non-urgently I will now pass this on to the CLN who can inform the client in their check in. I have also started including the CLN when emailing clients session resources/agreed action points and am trying to increase frequency of case reviews so all parties remain involved throughout treatment. My self-awareness here has also helped me consider how therapy endings are important for the clinician too. Enabling me to think about my own needs in closing treatment e.g. a chance to reflect on the work we have completed, recognising progress, and a positive/hopeful ending.

During my training I worked closely with a client for over a year; they were the subject of my face-to-face behaviour change intervention. Unfortunately, they died from natural causes following treatment. I had been expecting a final follow-up call with them and the service had planned for them to re-refer for trauma processing following a period of time outside of therapy; to consolidate what they had learned and to see their quality of life now. This left me

without closure and I did grieve the loss. The experience highlights the attachments that can develop, but also the 'cost of caring' (Davies, 2021) - witnessing the challenges clients are going through can take a toll on our own wellbeing as health professionals.

There were no quotes from my practice log reflecting on the attachment experienced by clinicians and I wonder if part of this is because it can feel uncomfortable or inappropriate and this is something I would want to be able to challenge so that I am able to process and work through it in future. I did write about the incident in my reflective log, which I knew would not be shared. This felt safer and more comfortable for me at the time.

Self-care

Working with trauma has highlighted the importance of looking after my own wellbeing. *'R said he had become more easily triggered at work. He works within healthcare and was struggling with hearing the trauma histories of some of his patients. He struggled with one in particular, which he shared in a detached way. Later I noticed that this trauma had stuck with me following the session. Plan to take it to supervision' 18.06.19.* I found it helpful to reflect in supervision on why this trauma impacted me more than other traumas I had heard. Firstly there was how the information was shared in an offhand way, and secondly, there was the fact that the trauma was not my client's. The former shocked me and the latter left me feeling helpless as there was nothing I could do for the individual experiencing the trauma. This experience has made me conscious of secondary trauma – a psychological response to indirect exposure to traumatic content (Figley, 1995). The impact on wellbeing can result from a specific incident like the one above, other times it can be an accumulation of exposure to other people's trauma (e.g. physical/mental health issues, violence, abuse, death) over a prolonged period – Vicarious trauma (Davies, 2021).

When starting therapy, there have been times that I have worried about how I will be perceived by the client. Being used to military order, a couple of clients have shared that incompetency or stupidity are triggers for their anger difficulties. I initially noticed anxiety and some reluctance in working with these clients and that I was extra critical of my interactions with them. I recognised the importance of addressing this so that I was able to quieten my inner critic and focus on the care I was providing. *'I have accepted that it is likely that at some point R will perceive me as stupid or incompetent as therapy is going to be hard at times and progress can take time. This does not necessarily mean I am stupid or incompetent. I plan to explore this in supervision and consider how best to manage any frustration that comes out in sessions' (07.08.19).* In managing these situations in future I

would want to name this with the client. State that they may at some point perceive the service or myself as incompetent, and consider how we would manage this if that occurred. This would also allow opportunity to consider what anger response is acceptable. For example communicating that they are angry in a healthy way, re-scheduling the session, leaving the room to calm down, or using the complaints procedure if they have a concern about their care provision. Where anger risk is high, it could also be a good way to remind them that no abuse towards staff is tolerated.

Working and studying full-time has been incredibly challenging and I have had to learn ways to protect and maintain my wellbeing both inside and outside of this work. Inside I have made use of the support available to me, including supervision, line management, check ins with colleagues, and occupational health. I have also considered how I organise my work day. For example, leaving admin time in between client sessions or meetings so this doesn't build-up. This can also give me time to process sessions and reflect. I also include brief, but regular breaks throughout the day to give me time away from screen use, which I have felt the physical impact of (e.g. eye strain, tiredness). Outside of work, I stay connected with loved ones, and engage in activities that I enjoy and give me a sense of achievement. I try to look after myself physically (e.g. eating well, having a sleep routine, and exercising) and mentally (e.g. trying to be kinder to myself when I am struggling, resting, and not pushing myself too hard).

Noticeably there is not a quote in my practice log to illustrate my self-care practices. Whilst I have grown more confident in reflecting on and sharing challenging emotional experiences, there is little reflection on how I managed this. Instead reflections have focused on problem solving a work issue or planning what I could do differently next time to change the outcome. Moving forwards, I would want to spend more time reflecting on underlying emotions to ensure these are resolved and managed in a healthy way. I plan to do this in supervision, but also by more actively participating in team reflective practice. I would also like to follow this up at intervals afterwards to see whether the experience is still bringing up difficult feelings for me, and ensure I have moved on. Finally, I plan to consider my after work routine and consider activities that will help me switch off, especially when working from home.

To conclude, I feel my ability to reflect on my practice has improved significantly throughout my training. I feel I am more open and honest in my emotional experience and am becoming more confident in sharing this, aiding my practice and learning. The commentary has highlighted areas for me to develop further such as incorporating reflections on my own coping and self-care alongside problem solving/task focused reflection; and in considering

attachment and the different roles I perceive that I am put in by clients. Writing this commentary was challenging, particularly meta-reflection. However, I can see the benefits of going back to reflections to do this.

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