

**An Investigation into the Psychological Wellbeing of Staff Working with Self-Harm in
Forensic Settings**

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ABSTRACT

The relationship between witnessing or experiencing distressing events and acquiring symptoms of trauma is well established. This thesis is concerned with the psychological wellbeing and trauma symptoms of individuals who work in forensic settings, who are regularly exposed to self-harming behaviours. A range of methods were used to explore this. Following an introduction in Chapter One, Chapter Two contains a systematic review investigating the psychological and emotional responses of staff working in prisons and forensic psychiatric hospitals, who are witness to and/or are exposed to regular self-harming behaviours. The review highlights that across the 10 included studies, staff report different immediate and prolonged emotional and psychological responses to managing self-harming behaviours of those in their care, some of which consistent with trauma responses. Findings from the review suggest that those working in prison settings are more likely to report desensitisation and detachment from emotions than those in secure psychiatric hospitals.

Chapter Three, a case study of a woman detained in a medium forensic mental health hospital, explores the impact of Dialectical Behaviour Therapy (DBT) Skills Training and staff perceptions of her self-harming behaviours. This case study identifies the function of her self-harming behaviours and reports a reduction in self-harm following administration of one DBT module. Staff views identify some negative attitudes towards self-harm, highlighting some confusion relating to the function of self-harm, and that further training may be required.

This leads to Chapter Four, an empirical study using four multiple linear regression analyses, and three analyses of variances to explore the impact of attitudes towards self-harm (using the Attitudes towards Deliberate Self-Harm Questionnaire (ADSHQ)) and knowledge of self-harm (using the Knowledge of Self-Harm Questionnaire (KSHQ)) on self-reported trauma symptoms (using the Trauma Symptom Checklist-40 (TSC-40)) of those working in prisons and forensic psychiatric hospital settings, who are regularly exposed to self-harming

behaviours. The regression model highlighted that reported anxiety and depression symptoms were significantly predicted by the subscales of the ADSHQ and KSHQ, with coping ability found to be a significant unique predictor. Significant differences were found between those who have and have not attended training on self-harm, on effective ability and coping ability. Significant differences were also found between prison staff and forensic psychiatric hospital staff on perceived confidence and effective ability scores. Interpretations, limitations, and comparison to existing literature are discussed.

Chapter Five consists of a critical evaluation of the TSC-40 (Elliott & Briere, 1992) exploring the psychometric properties and discusses its use. Overall, the Trauma Symptom Checklist-40 was found to be a reliable and valid tool to measure general symptoms of trauma, in line with the DSM-5's definition of post-traumatic stress disorder (American Psychiatric Association, 2013). The final chapter summaries the key findings across the thesis, the limitations of the methods used, and the implication of the findings.

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**CHAPTER ONE:
INTRODUCTION**

1. Self-harm in forensic settings

Working in prisons and other forensic settings can be challenging for staff for several reasons. Forensic settings can at times struggle to be supportive environments for service-users due to the challenging nature of these settings and difficulties that staff experience balancing risk management with providing care (Short *et al.*, 2009). Challenges that staff working in forensic settings may experience include violence threats, managing mental health difficulties and distress, responding to self-harming behaviours, and staffing issues, all of which can impact on staff's wellbeing (Dennard *et al.*, 2021). There is an abundance of research exploring the impact of violence within forensic settings on staff's mental wellbeing (for example Hemming *et al.*, 2020; Pulsford *et al.*, 2012); however, there is an obvious gap in the literature relating to the impact of responding to and managing self-harm in forensic settings.

There are several ways that the literature defines self-harm, including self-injury, self-wounding, para suicide and self-mutilation (Mangnall & Yurkovich, 2008). Throughout this thesis, the term *self-harm* or *self-harming behaviours* are used to describe a range of behaviours and intentions, deliberately causing direct harm or disfigurement to oneself (Skegg, 2005). *Self-harm* and *self-harming behaviours* were chosen as preferred terminologies to others such as self-injury to encapsulate a range of behaviours that may cause direct harm to oneself, but also to highlight less-common methods that may indirectly cause injury or damage to oneself (for example, unsafe sexual intercourse, restricting food intake, or long-term use of illicit drugs; NICE, 2022). Furthermore, the author was familiar with the term self-harm and uses this term within clinical practice. Although repeated self-harm is a strong predictor of future suicide, not all self-harming behaviours are intended to end one's life (Cooper *et al.*, 2005; Halicka & Kiejna, 2015).

Those in contact with the criminal justice system exhibiting symptoms of mental ill health can be detained in secure psychiatric hospitals, where self-harming behaviours are frequent

(Sarkar, 2011). There is ongoing debate in the literature with the terminology regarding individuals that are detained in prisons and secure psychiatric hospitals, with some research referring to individuals in the prison system and healthcare settings as *patients*, *clients*, *residents* or *inmates* (McLaughlin, 2009; Tran *et al.*, 2018). Throughout this thesis, those detained within the prison system will be referred to as *prisoners*, in line with guidance set out by the Ministry of Justice in 2022, which identifies that staff working with people in prisons must refer to them as ‘prisoners’, ‘people in prison’ or ‘offenders’ (Government Digital Service, 2024). Those detained in secure psychiatric hospitals are referred to throughout this thesis as *service-users* due to the vast amount of research using this terminology within this field at the time of writing. It is recognised and accepted that there is tension regarding the term service-user due to more recent research describing the term as ‘patronising’ (Priebe, 2021); however, with ongoing changes to the terminology since the beginning of writing this thesis, and language clinically familiar to the author, it was decided to continue with the use of this term. The use of the term *client* is used within Chapter Three, when referring to Client G only, to protect the confidentiality and anonymity of this individual described within the case study.

Self-harming behaviours within forensic populations, including prisons and secure psychiatric hospitals, are disproportionately higher than within the general population (Fazel *et al.*, 2016). The latest statistics from the Ministry of Justice show that recorded self-harm incidents are rising in custody, with an increase of 11% in June 2023 compared to the previous year (Ministry of Justice, 2023b). It is of note that many incidents of self-harm are undetected or unrecorded and therefore data may not capture all occurrences of individuals harming themselves (Knipe *et al.*, 2022). Self-harm is a complex, multifaceted behaviour and is identified as a global public health concern (Borschmann *et al.*, 2018).

1.1. Methods of Self-Harm

Methods of self-harm within forensic settings include (but are not limited to) ingestion of poisons (including household products and batteries); drug overdoses; cutting or stabbing with sharp objects; and hanging/asphyxiation by ligature (Marzano *et al.*, 2011). Although measures can be put in place by organisations to prevent methods of self-harm, such as removal of sharp items and easily torn clothing, those deprived of these items can use more creative methods, such as trying to cut themselves with blunt items (for example, pens) that can be more physically harmful to the service-user (Runeson *et al.*, 2010). This is a concern for those managing these behaviours, as although an individual may not have the intention to end their life, there is an increased risk of death by misadventure (Chandler *et al.*, 2015). Self-harming behaviours are individualised and can serve an individual several functions within these populations (Jeglic *et al.*, 2005). These include individual's self-harming due to depressive symptoms and suicidality (Wichmann *et al.*, 2000); using self-harm instrumentally to seek gains (Dear *et al.*, 2000); using self-harm as a means of emotion regulation (Jeglic, *et al.*, 2005); and using self-harm as a result of command hallucinations or hearing voices among those experiencing psychotic symptoms (Taylor *et al.*, 2015).

1.2. Staff Roles in Managing Self-Harm

Following incidents of self-harm in forensic settings, staff are often the first to respond. Although each establishment should have local guidance on staff's roles in responding to self-harm, Gough (2005) provides guidance on managing self-harm in forensic settings for front-line staff. The guidelines include twelve recommendations to facilitate consistent, non-judgemental approaches to self-harm, but also recognises that all incidences must be recorded, and all injuries must be treated. The guidance also includes reference to staff requiring support when working closely with individuals who self-harm, identifying that no one individual should be the sole worker responding to self-harm. Furthermore, appropriate training has been identified as necessary to not only understand the functions of self-harm, but to understand the processes of responding. Within the UK prison system, Assessment,

Care in Custody and Teamwork (ACCT) plans are opened if working with individuals identified as a risk of engaging in self-harming behaviours, increasing the observations of an individual to monitor and engage in conversation as assessment of risk (Pike & George, 2019). If an individual is deemed as an imminent risk of serious harm or death, they can be placed on a constant watch. This can be demanding for staff both in prisons and secure psychiatric hospitals, and completing observations and responding to incidents of self-harm can provoke a variety of emotional and psychological responses (O'Hara *et al.*, 2022).

1.3. Staff Responses to Self-Harm

Responding to self-harm can be traumatic, as seeing an individual significantly harming themselves can be distressing, along with pressures from the organisation to provide physical and psychological safety (Awenat *et al.*, 2017). Research highlights that repetitive exposure to traumatic events in forensic settings can affect staff's psychological health, which in turn can impact the risk of burnout and compassion fatigue (Bradford & de Amorim Levin, 2020). The stress-response theory of post-traumatic stress disorder (PTSD) argues that following an event that incites initial distress or shock, one can become overwhelmed by the experience, leading to the presence of defence mechanisms such as denial and numbing to keep the traumatic memory in the unconscious (Horowitz, 1986). The theory argues that the memories can be brought into the conscious through psychological responses such as flashbacks and nightmares and ongoing emotional difficulties. Individual differences such as pre-existing mental health difficulties, support systems, and resilience are highlighted to understand individual responses to stress. This has been highlighted in existing research, indicating that staff can often feel desensitised to ongoing self-harm, but can also experience flashbacks, nightmares and other psychological and emotional responses when exposed to self-harming behaviours (Marzano *et al.*, 2011).

1.4. Staff Wellbeing

Identifying staff's responses to ongoing exposure and management of self-harming behaviours is important to prevent staff stress, retention of staff and high turnover, and overall job performance (Oates *et al.*, 2020). Ultimately, staff's wellbeing is of ample importance to enable them to provide effective care, to maintain safety and security, to prevent poor mental health and traumatisation of staff, to prevent re-traumatisation of service-users, and for positive service-user care and outcomes (Pompili *et al.*, 2005). To support staff responding to self-harm, organisations should provide adequate training and support to employees, to prevent poor psychological or emotional wellbeing (Marzano & Adler, 2007). Staff should have access to reflective practice, supervision, debriefs, and formal support to help manage any distress following responding to self-harming behaviours (Gough, 2005; Smith *et al.*, 2019). Walker *et al.* (2017) found that staff were reluctant to attend to support sessions or to ask for help, referring to a 'facade of coping' and reporting that they should feel unaffected by witnessing self-harm.

2. Conceptual Framework of Thesis

There is an abundance of research related to the experiences and wellbeing of staff responding to self-harm working in GPs, accident and emergency, emergency services, and general inpatient mental health settings (Chandler *et al.*, 2015; Chidgey *et al.*, 2019; Egan *et al.*, 2012; Thomas & Haslam, 2017); however, there is a gap in the literature exploring this within forensic settings. In this thesis, staff's wellbeing when responding to and managing self-harm in prisons and secure psychiatric hospitals is the thread connecting the four chapters.

2.1. Research Aims

This thesis aims to offer an evaluation of staff's responses, attitudes, understanding and wellbeing related to managing self-harm in prisons in secure psychiatric hospitals. The chapters aim to enhance the current psychological knowledge and understanding of the

impact of repetitive exposure to, and management of self-harm and the trauma symptomology associated. The objectives of the thesis are as follows:

- To examine the existing literature exploring the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff.
- To outline the assessment, formulation, and intervention of a 21-year-old female residing in a medium secure psychiatric ward using Dialectical Behaviour Therapy informed sessions to explore her self-harming behaviours.
- To explore the relationship between staff working in prisons and secure psychiatric hospitals' attitudes towards self-harm, knowledge of self-harm and the presence of trauma symptoms.
- To provide a critique of the Trauma Symptom Checklist-40 (Elliott & Briere, 1992) and its applicability in measuring trauma symptoms.

2.2. Thesis Chapters

Each of the four main chapters have a unique focus, however the learning from each chapter informs the next. This thesis begins with an introduction of the topic in Chapter One and a final overall discussion in Chapter Six. The contents of the four main Chapters are described below.

Chapter Two

Chapter Two is composed of a systematic review exploring the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff. To the author's knowledge, this is the first study to systematically review the existing literature of psychological and emotional responses of staff exposed to self-harm in forensic settings. This review highlighted that there are a small number of papers with limited empirical evidence exploring the impact of self-harm on staff in prisons and secure psychiatric hospitals. The review highlights that working closely with these behaviours can have an

impact on emotional and psychological responses, both immediately and prolonged, and some of which are consistent with trauma responses. Chapter Two was guided by one research question:

- What is the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff?

Chapter Three

Chapter Three consists of a single case study of a 21-year-old woman residing in a female medium secure psychiatric ward with a diagnosis of Emotionally Unstable Personality Disorder who engages in self-harming behaviour. The case study documents the assessment, formulation and intervention using Dialectical Behaviour Therapy (DBT) to provide DBT-informed skills to manage self-harming behaviours (Linehan & Kehrer, 1993). The case study also documents staff responses when completing a formulation during one reflective practice session, highlighting responses, understanding and attitudes towards this service-user's self-harming, building from the findings in Chapter Two. This chapter was guided by two research questions:

- What is the effectiveness of providing a module of mindfulness and distress tolerance DBT-informed skills on the reduction of self-harm for a service-user in a medium secure psychiatric hospital?
- What is staff's understanding of a service-user's repetitive self-harm in a medium secure psychiatric hospital?

Chapter Four

Chapter Four aims to build on understanding the underlying attitudes and knowledge of self-harm highlighted in Chapter Three and the impact that this has on trauma symptoms in staff working in forensic settings. Chapter Four also aims to build on the findings from Chapter Two aiming to understand trauma responses from exposure to self-harm and the differences between prison staff and secure psychiatric hospital staff. This Chapter consists of a

quantitative research project exploring the relationship between attitudes towards deliberate self-harm, knowledge of self-harm, and trauma symptoms in staff working in prison and secure psychiatric hospitals. The research progresses from the common qualitative design that previous research has employed when investigating staff attitudes, understanding, and trauma responses to self-harm. Four hypotheses are tested:

1. Those with higher levels of reported trauma symptoms will score lower on confidence, ability to manage self-harm effectively, empathy towards those who self-harm, coping ability, and will have lower levels of knowledge of self-harm.
2. Those who have attended training on self-harm have higher levels of confidence, higher effective ability of managing self-harm, higher empathy towards those who self-harm, and higher coping ability.
3. Prison staff will have lower levels of confidence, lower effective ability of managing self-harm, lower empathy towards those who self-harm, and less coping ability.
4. Those offered support following incidents of self-harm will report less trauma symptomology.

Chapter Five

Chapter Five critically evaluates the Trauma Symptom Checklist-40 (TSC-40; Elliott & Briere, 1992), a tool used in Chapter Four, to measure trauma symptomology. The aim of this critique was to explore the reliability and validity of the TSC-40 when used to measure trauma symptomology and explores its psychometric properties. Chapter Five is guided by one research question:

- Is the TSC-40 an effective tool to measure trauma symptoms?

Chapter Six

The final chapter provides a summary of main research questions and key findings from each chapter within this thesis. It provides an interpretation of the findings and explores and limitations. Recommendations for future research are provided, contextualising each chapter's findings within the wider field of staff responses to self-harm. It discusses the implications of understanding staff's responses to self-harm in forensic settings and the contributions of the findings to clinical practice.

CHAPTER TWO:
**WHAT IS THE IMPACT OF EXPOSURE TO SELF-HARMING BEHAVIOURS ON THE
PSYCHOLOGICAL WELLBEING OF FORENSIC STAFF? A SYSTEMATIC REVIEW**

ABSTRACT

Background: Self-harming rates in prisons and secure psychiatric hospitals are rising in the UK, with staff on the front line often being the first to respond to incidents. Working with individuals who purposely harm themselves can impact psychological wellbeing of those responding to these behaviours, with some staff recognising that they felt “traumatised” following witnessing an act of self-harm.

Objective: To systematically review the impact of exposure of self-harming behaviours on the psychological wellbeing of forensic staff.

Methods: Ten electronic databases were searched using a PEO search strategy to find relevant studies within forensic settings exploring the impact of self-harming behaviours on staff members. Data was extracted on the participant characteristics (e.g., role); setting; responses to and management of self-harming behaviours; and trauma symptoms, psychological wellbeing and emotional responses. The risk of bias and the quality of the studies were checked using the Critical Appraisal Skills Programme (CASP).

Results: Ten studies with a total of 200 participants were included in the review. All papers were cross-sectional cohort studies, with the exception of one study which used a mixed methods design. Settings included secure mental health units; prisons in the USA; forensic learning disability services; and prisons in the UK. Roles of staff included in the studies include clinical staff, prison officers, and staff nurses. Themes of immediate responses included fear and anxiety, anger and frustration, and guilt and blame. Prolonged responses included desensitisation and detachment, flashbacks and nightmares, and stress and shock.

Conclusion: The results suggest that staff have different experiences, some of which are consistent with trauma responses. Findings from this review suggest that working closely with these behaviours can have an impact on immediate and prolonged responses. It is highlighted that those working in prison settings are more likely to report desensitisation and detachment from emotions than those in secure psychiatric hospitals, who are more likely to

report stronger immediate responses. Findings from this review should be interpreted with caution due to the limited amount of empirical evidence exploring staff's responses when responding to and managing self-harming behaviours.

1. Introduction

1.1. Background

1.1.1. Prevalence of Self-Harm in Forensic Settings

Due to increasing levels of self-harm in prison and exposure to self-harming behaviours in secure psychiatric hospitals, staff are more consistently and habitually responding to traumatic incidents. Management of self-harm is classified as an under-recognised component of working in forensic settings, with violence being a more recognised and known expectation of the role (Nixon, 2022). In particular, the role of a prison officer is complex, and despite being directly exposed to potentially traumatic experiences, including self-harm, the culture of the role does not allow space for emotions, promoting a façade of machismo (Sweeney *et al.*, 2018). On the other hand, more than half of the service-users detained in secure psychiatric hospitals engage in self-harming behaviours, suggesting that staff are more expected to manage the consequences of self-harm and must be more vigilant of these risks (Laporte *et al.*, 2021).

1.1.2. Responses to Traumatic Experiences

Working with individuals who purposely harm themselves can impact the psychological wellbeing of those responding to these behaviours, with some staff recognising that they felt “traumatised” following witnessing an act of self-harm (Bell *et al.*, 2019). After witnessing or being involved in a potentially traumatic event, responses to the event can occur immediately, gradually, or have delayed onset (Spinaris *et al.*, 2013). The impact of emotional and trauma responses can lead to work-related stress and burnout, impacting the psychological wellbeing of staff working in forensic settings (James & Todak, 2018). Zapf (2002) describes meeting the needs of an individual who repeatedly self-harms as “emotional labour”. A systematic review discovered that staff in general mental health hospitals desperately tried to prevent self-harm and were preoccupied with managing these

risks (O'Connor & Glover, 2017). The review found that staff in general mental health hospitals experienced a range of emotions including fear and anxiety of the significant risks related to the service-users health, whilst other staff members experienced anger and frustration towards what was viewed as 'manipulative' behaviour (Hadfield *et al.*, 2009). Fish and Reid (2011) highlighted that mental health nurses working in secure psychiatric settings experienced strong emotional responses including anxiety, guilt, frustration, and self-recrimination. This research also highlighted the need for support for staff who are witnessing repetitive self-harming behaviours, to help alleviate some of these negative emotions.

Further studies have suggested that staff can minimise the psychological experiences related to the impact of witnessing self-harm, perhaps as a method of coping with managing potentially traumatic injuries in a professional manner (Marzano *et al.*, 2013). It is important to note that minimisation of emotions does not mean that they are not present and can potentially have a damaging impact on staff wellbeing. Research exploring staff reactions to prisoner's self-harm found that staff members denied the personal impact that exposure had, also discovering that their perceptions of the intention of self-harm were negative, suggesting some form of emotional influence (Smith *et al.*, 2019).

1.1.3. Impact of Negative Psychological Wellbeing

'Psychological wellbeing' is defined as not only the absence of negative disorders, but also the presence of enabling emotions and affect (Seligman, 2011). Studies suggest that individuals with positive psychological wellbeing are more successful in terms of work, relationships and physical health (Butler & Kern, 2016). The effects of poor psychological wellbeing of professionals working in forensic settings can lead to several problematic factors, including high staff turnover and potential symptoms of mental health difficulties (Ferdik *et al.*, 2014). High turnover of staff in secure institutions is costly and time consuming

for institutions and can lead to the loss of experienced staff who have built rapport with service-users (Carlson & Thomas, 2006). The therapeutic relationships with service-users are often a protective factor for self-harming behaviours because it provides a holistic and person-centred approach for complex presentations (Shepperd & McAllister, 2003). High staff turnover means that service-users are exposed to unknown professionals or professionals who are working overtime and therefore potentially more burnout, meaning responses to self-harming behaviours may not be as appropriate (Lambert *et al.*, 2010). The direct costs of forensic professionals leaving their post due to poor psychological wellbeing are the institutions paying for sick leave, paying overtime for shifts to be covered and recruitment for new members of staff (Lambert *et al.*, 2010). It is therefore significantly important to protect the welfare of staff to avoid financial burden of forensic settings, to reduce distressing symptoms for staff members, and to provide a knowledgeable therapeutic environment for service-users.

1.2. Aims and Objectives

Existing research exploring staff responses when working with self-harming behaviours in secure settings have varied findings. A search on PROSPERO for pre-existing reviews confirmed that to date, there has been no published systematic review evaluating the literature exploring the psychological wellbeing of forensic professionals who are exposed to self-harming behaviours. As such, this review aims to further the understanding of the impact that exposure and management of self-harming behaviours has on the psychological wellbeing of the first responders working in forensic settings. This review will contribute to the understanding of how psychological distress and high staff turnover rates can be prevented within forensic organisations.

This review seeks to use the available literature to establish the impact that service-user self-harming behaviours have on forensic staff working in prisons and secure psychiatric hospitals. The specific review question to be addressed is:

- What is the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff?

2. Methodology

2.1. Search Strategy

The purpose of a systematic review is to collate all existing literature in response to a research question, using explicit and precise methodology (Clarke, 2011). Systematic methodological processes anticipate a minimisation of bias, ability to replicate, and form reliable findings of which conclusions can be drawn (Oxman & Guyatt, 1993). This review is concerned with the psychological impact that exposure to self-harm has on individuals working in secure psychiatric settings and prisons. A protocol was developed in August 2021 following an extensive scoping search to explore the research question to aid formation of a search strategy. This included exploring several electronic databases, applying various search terms to explore the existing literature. The scoping search highlighted that the most appropriate framework to operationalise the research question was a Population, Exposure, Outcomes (PEO) search framework. A PEO framework was chosen rather than a PICO (Population, Intervention, Comparison, Outcomes) framework based on the premiss that controlling a group of staff in forensic settings that have not been exposed to self-harming behaviours is unmanageable, as responding to self-harm is often part of the role (Sweeney *et al.*, 2018). Furthermore, following the scoping search of the literature, it was recognised that most of the existing studies collected qualitative data, making a PEO the most appropriate framework to answer the research question (Munn *et al.*, 2018). PEO frameworks are recommended for use when investigating the prognosis of developing

symptoms or conditions as a result of exposure to particular events or situations (Munn *et al.*, 2018).

Population

This review considered all studies that involve human subjects of all genders aged 18 and above working in secure psychiatric or prison settings. All genders of staff were included to minimise bias, and the adult sample was included due to the age requirements to work in forensic settings (HMPPS, 2022). Studies were acknowledged with participants from any country in any language to prevent cultural bias. All participants in studies must have encountered or experienced service-users who engage in self-harming behaviours.

Exposure

Studies of interest included forensic staff members employed by prisons or secure psychiatric hospitals, who respond to and manage self-harming behaviours. There was no exclusion criteria related to the frequency of managing self-harm, aiming to capture as many suitable studies as possible. Studies of interest must include staff responding to self-harming behaviours as part of their role, but there were no limitations as to the frequency of this response (for example once weekly). Any type of self-harming behaviour measured within the studies were included.

Outcome

The primary outcome of interest was the psychological responses of forensic staff, including the impact on wellbeing within work and outside of work. All studies exploring the emotional responses and mental health of staff working with self-harm were included.

2.2. Sources of Literature

The search strategy was designed with an aim to access both published and unpublished studies. Grey literature and unpublished reports were included to avoid publication bias and selective reporting. 10 electronic bibliographic databases were searched electronically in September 2021: OVID PsycINFO; OVID Medline; OVID Embase; Scopus database; Web of Science; PROQUEST National Criminal Justice Reference Service (NJCRS) Abstracts; Applied Social Sciences Index and Abstract (ASSIA); Cochrane Library; Campbell Collaboration Library; Google Scholar. Grey literature was searched via the Home Office Research and Statistics website and contacting field experts, including representatives from the Ministry of Justice (and anywhere else) regarding their knowledge of any further studies meeting the inclusion criteria. The reference lists of any reviews or meta-analyses were hand searched to find relevant studies, which were included if they meet the inclusion criteria. Search results were downloaded and managed using EndNote X9. EndNote X9 was also used to undertake the initial screen of the results, based on the title and the abstract. A full text review of the remaining papers following screening took place by two researchers, the author and supervisor (E.P). The review reports the research aims, methods and key findings within the study, presented in Table 3.

2.3. Search Terms

Eclectic terms for forensic staff, self-harm and psychological wellbeing were utilised within the search to maximise the possibility of identifying suitable studies for the review. The scoping review identified that differing terms were used to define forensic staff working in secure psychiatric and prison settings, which were included in the search terms to capture the different professions. The scoping review also identified differing terms for self-harm, with some studies only noting the acts of self-harm, which were subsequently included in the search terms. Finally, synonyms for psychological wellbeing were identified through the scoping review and included in the syntax. The following search terms were used and

modified where appropriate to meet the searching requirements of each database. Specific search syntax for each database were created.

“Forensic staff” OR “correction* officer*” OR “detention officer” OR “forensic mental health personnel” OR “forensic mental health staff” OR “forensic nurs*” OR “forensic person*” OR “forensic psychiatric staff” OR “forensic psychiatry” OR “forensic psychology” OR jailer OR “prison employee” OR “prison guard” OR “prison personnel” OR “prison professional” OR “prison staff” OR “prison warden” OR “prison work*” OR “prison worker” OR “warden” OR “warder”

AND

“Self-harm” OR “attempted suicide” OR “cutting” OR “hanging” OR “ligation” OR “ligature” OR “self-asphyxia” OR “self-burning” OR “self-destructive behavio?r” OR “self-mutilation” OR “self-poisoning” OR “self-wound” OR “self-injurious behavio?r” OR “self-inflicted wounds”

AND

“Psychological wellbeing” OR “coping behavio?r” OR “emotional distress” OR “emotional disturbances” OR “emotional states” OR “emotional trauma” OR “occupation* stress” OR “posttraumatic stress” OR “posttraumatic stress disorder” OR “PTSD” OR “psychological stress” OR “stress” OR “stress and coping measures” OR “stress and trauma related disorders” OR “stress management” OR “stress reactions” OR “trauma symptoms” OR “wellbeing” OR “well being” OR “mental health” OR “distress” OR “trauma”

2.4. Study Selection

The review considered all studies exploring the psychological impact related to exposure of self-harming behaviours. The inclusion criteria included quantitative or qualitative data to explore this, with a cross-sectional or cohort design. Cohort and cross-sectional design studies were included in the inclusion criteria, as is this is usually the design that is used to measure psychological wellbeing either longitudinally or at a specific moment in time.

Randomised-control trial designs are not appropriate for measuring psychological wellbeing

relating to exposure to self-harming behaviours, due to ethical considerations relating to controlling exposure to potentially traumatic events or for an individual to cause harm for the purpose of research (Edwards *et al.*, 1999). To be included in this review, studies must explore the impact of self-harming behaviours exclusively and not as part of a wider study exploring the impact of challenging behaviours on psychological wellbeing of forensic professionals. Studies exploring the impact of suicide on forensic staff's wellbeing were not included. Inclusion and exclusion criteria were applied to studies retrieved through the searches using the pre-defined inclusion and exclusion criteria (see Box I). Only studies published from 1989 onwards were included, due to the increase of self-harming behaviours in forensic settings, precipitating substantial changes in prison policies regarding the risk of self-harm and suicide at this time (U.S. Department of Justice, 1996). Studies that met the inclusion criteria were selected for further quality assessment by the author. 20% ($n = 2$) of the studies were quality assessed by another researcher in the cohort (K.H.). Should any disagreement regarding the quality of the studies arise, a discussion would have taken place; however, there was agreement among both parties regarding the quality of the studies. Where information relating to inclusion criteria is unclear, authors were contacted directly for further clarification.

Box 1.

Definitions of inclusion and exclusion criteria.

Population: Employees working in secure psychiatric hospitals or prison settings over the age of 18, both male and female. From any country.

Exposure: Response and management of self-harming behaviours. No requirements relating to the frequency of responding to and managing self-harm.

Outcome: Measured by psychological responses, wellbeing, emotional responses, and mental health.

Study type: Cross-sectional or cohort

Language: No restriction

Date of publication: 1989 onwards

Exclusion: Papers exploring the impact of suicide, papers exploring general challenging behaviours on the impact of psychological wellbeing, non-forensic staff, opinion papers.

3. Results

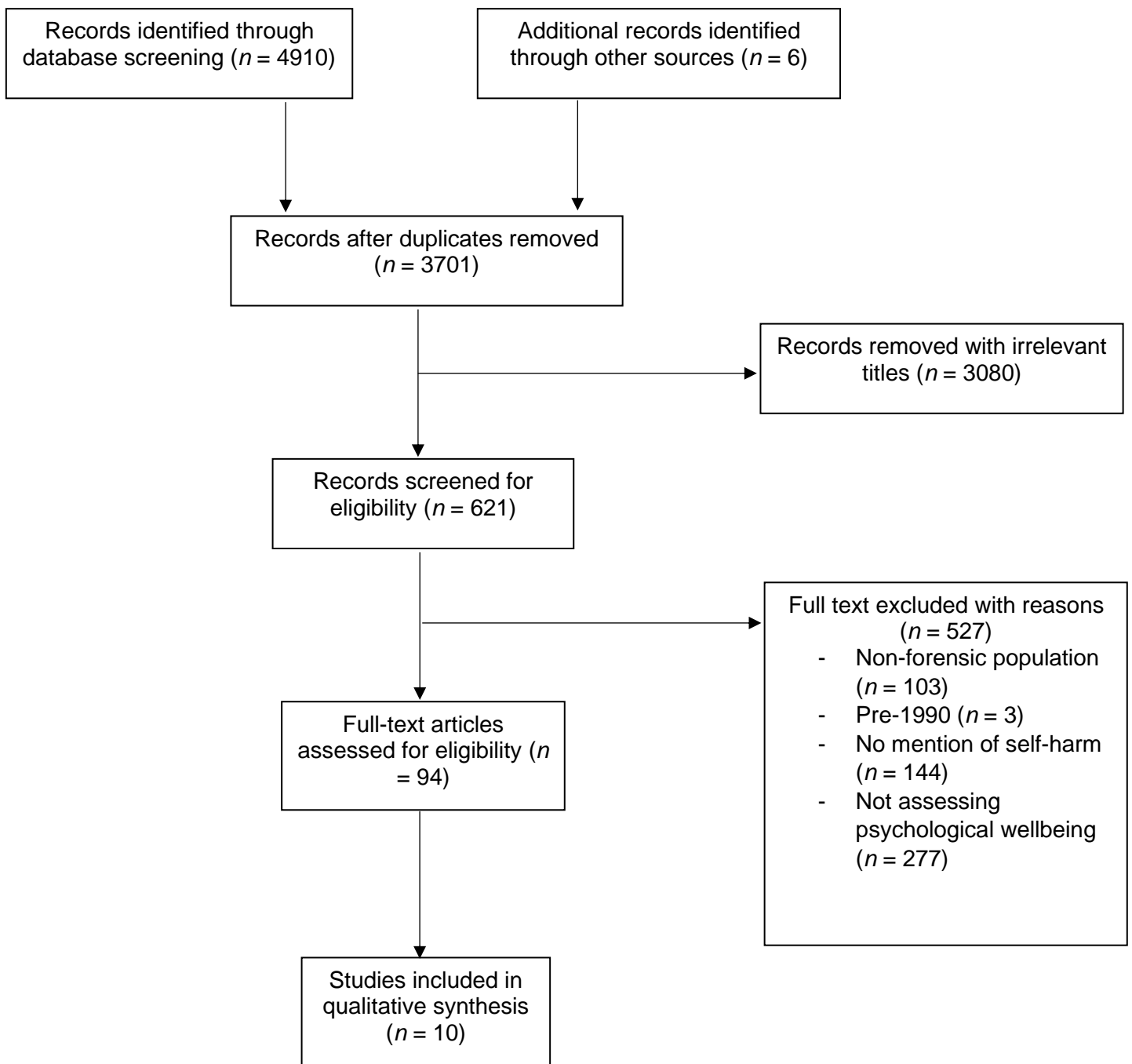
3.1. Screening Process

All studies were reviewed by one independent researcher, which highlights the possibility of researcher bias. The search of the 10 electronic bibliographic databases identified 4910 'hits'. 6 additional records were identified through handsearching related systematic reviews. Of these total 'hits', 1215 studies were duplicates downloaded from multiple databases, which were removed, leaving 3701 studies to screen for eligibility. Following an initial screening of the data, 3080 papers were removed with irrelevant titles that did not fit the PEO and inclusion criteria. 621 studies were further screened for eligibility based on review of the abstracts, incorporating the inclusion criteria. 527 of these papers were excluded: 103 of these excluded as they did not include participants working in forensic settings; 3 papers were pre-1989; 144 did not mention or measure the impact of self-harming behaviours; and

277 papers did not measure or explore staff's psychological wellbeing as an outcome. Finally, 94 papers were read in full to assess for eligibility, with 10 assessed to meet the inclusion criteria and PEO framework. See figure 1 for a diagrammatic version of study selection.

Figure 1.

Systematic Review Study Selection



3.2. Data Extraction

The data extraction form enabled the primary researcher to assess for eligibility of studies to answer the research question in a systematic manner. The data extraction form (Appendix A) was used to ensure that studies included within the review were considered consistently and transparently, reducing the risk of errors and bias and improving validity and reliability (Taylor *et al.*, 2021). Included in the data extraction form were the following factors:

- General information of the article – title/authors
- Study characteristics – aims/design
- Participant characteristics – gender/length of service
- Exposure – witnessing self-harm/responding to self-harm/management of self-harm
- Outcome – trauma symptoms/psych wellbeing/emotional responses

3.3. Quality Assessment

Studies that met the inclusion criteria (Box 1; $n = 10$) were selected for further quality assessment. Studies must have provided a clear description of male and female employees working in secure psychiatric hospitals or prison settings over the age of 18 and a clear definition of psychological responses, wellbeing, or emotional responses related to the exposure. Quality assessment of the studies were completed with a pre-defined criterion assessing the appropriateness of the methodology and research design, recruitment strategies, data collection, ethical considerations, relationships between the researcher and participants, data analysis, findings and value of the research (Appendix B), based on the checklists from the Critical Appraisal Skills Programme (CASP; 2018). CASP checklists were chosen as they provide a robust checklist to evaluate the biases of qualitative studies, which were the primary methodology used to answer the research question. Studies were assessed against a set criterion of questions on the quality assessment checklist and scored as to whether they were present or absent. The checklists were then gathered to find an

overall quality rating of the study ranging from high, moderate, or low quality. A limitation of using the CASP tool for qualitative studies is the subjectivity of whether the researcher believes the quality issue to be present (Long *et al.*, 2020). Furthermore, there is no standardised 'scoring' system to attain whether the studies are high, moderate or poor quality, and therefore this may mean that replication of the review may be inconsistent. The first author assessed the quality of all included studies, and a second reviewer (K.H.) independently assessed the quality of 20% ($n = 2$) of the studies to check inter-rater reliability. Any cases of disagreement were resolved through discussion. All studies were rated as moderate or high quality by the assessors and no studies were removed at this stage of the process.

3.4. Characteristics of Included Studies

To understand the outcomes of the review, it is important to review the characteristics of the participants within the studies included in the review.

3.4.1. Professions of Participants in Included Studies

Table 1.

Professions recruited within the included studies.

Profession	N	%
Clinical staff	83	41.5%
Prison officers	41	20.5%
Administration/managerial/team leaders	29	14.5%
Qualified learning disability nursing staff	19	9.5%
Staff nurses	16	8.0%
Nursing assistants	9	4.5%
Doctors	2	1.0%
Prison governor	1	0.5%

N=number of participants.

Table 1 illustrates the job titles of the participants of the included studies. In total there were 200 participants included across the ten included studies. ‘Clinical staff’ were identified in the papers as psychologists, social workers, psychiatrists, counsellors, and program managers, and were the most represented profession among the included studies (41.5%), with prison officers representing 20.5% of professions.

3.4.2. Settings of Studies in Included Studies

Table 2.

Settings where participants were recruited from within the included studies.

Setting	No. of participants (%)	No. of studies (%)
High secure healthcare for females	7 (3.4%)	1 (10%)
Prisons in the USA	95 (46.1%)	2 (20%)
Forensic learning disability service	25 (12.1%)	2 (20%)
Male medium secure mental health unit	11 (5.3%)	1 (10%)
Male prison in UK	39 (18.9%)	2 (20%)
Female prison in UK	29 (14.1%)	2 (20%)

N=number of studies.

Table 2 illustrates the settings represented in the included studies, highlighting the number of overall participants from each setting and the total number of studies. Two of the studies included within the review took place in prisons in the United States of America (USA), and the other eight studies were based in the UK. Four of the ten studies included in the review were conducted in secure psychiatric hospitals ranging from medium to high security, and the remaining six studies took place in prisons. The four studies conducted in secure psychiatric hospitals included one high secure healthcare service for females, two mixed gendered learning disability (LD) services, and one male medium secure unit. The studies conducted in prisons consisted of two papers based in prisons in the USA, two based in UK male prisons and two in UK female prisons. Although only two studies in the review were from the USA, 46.1% of the total participants were included within these studies.

3.4.3. Study Design of Included Studies

All papers included in the review were cross-sectional cohort studies, utilising a qualitative design to explore themes arising from interviews. One study included a mixed-methods design, interviewing participants that responded to an initial quantitative survey (DeHart *et al.*, 2009). The measures used within the quantitative component of the design were specifically created for the study, measuring the types of self-harm present in the facility in the past 6 months, number of inmates that self-harm, strategies used by staff to manage self-harm and perceptions of the reasons for self-harm. Three of the ten studies included in the review were analysed using interpretative phenomenological analysis (IPA; Smith *et al.*, 1999), five were analysed using thematic analysis (Braun & Clarke, 2006), and one study used grounded theory analysis (Strauss, 1987).

3.5. Results of Included Studies

Table 3.

Characteristics of Included Studies

Authors and country of publication	Population (n)	Setting	Design	Study aims	Outcome	Authors' conclusions	Quality Score
Beryl <i>et al.</i> (2018) UK	Team leaders (n=2); nursing assistants (n=2); staff nurses (n=3) Gender: male (n=2), female (n=5). Range of length of time in employment: 3-30 years	National high secure healthcare service for females	Qualitative: Interviews analysed using interpretative phenomenological analysis (IPA)	To examine the lived experience of nursing staff working with women detained in a high secure service.	Staff referred to feeling trepidation, apprehension and being scared to respond to incidents of self-harm. Some participants reported feeling anxiety when feeling the pressure of keeping somebody alive. Staff felt unable to help despite desperately trying to do so, reporting feeling drained by knowing that self-harm is going to happen. Staff identified feeling desensitised to self-harm. Some staff reported having dreams that made them feel anxious, feeling unable to separate work and home life.	Working with women with forensic and mental health needs is a challenge for staff, who use a range of coping methods to manage these, including gallows humour, and making sense by understanding.	High quality
DeHart <i>et al.</i> (2009) USA	Mental health professionals including clinical counsellors, human services coordinators, psychologists,	14 correctional facilities across South Carolina. Both male (83%) and female (17%)	Mixed methods: Survey addressing incidents of self-harm they had seen or heard about occurring in the past six months. Including	To explore staff perceptions and institutional responses to self-harming behaviours in correctional settings. The perceptions of correctional mental	Panic, shock, nausea and anger were the reactions described by professionals. Professionals reported blaming themselves, struggling with feelings of frustration and anger. Staff reported feeling detached and reported a continuum of emotional disengagement from	Self-harming behaviours were perceived to be both manipulation and coping strategies. This did not seem to protect professionals from frustration and anger when responding to self-harming behaviours. Emotional disengagement including increasing personal boundaries to	Moderate Quality

	<p>program managers, registered nurses, social workers and psychiatrists (n=54)</p> <p>Individual follow-up phone interview (n=18)</p> <p>Gender: 2/3rd interviewees female</p>	<p>prisons, including all security levels.</p>	<p>the types of self-harm, number of inmates who self-harm, strategies used by staff and perceptions regarding the common reasons for self-harm.</p> <p>Follow up interviews, analysed using grounded theory.</p>	<p>health staff in relation to the nature and prevalence of self-harming behaviours; perceived motivations; strategies to manage self-harming and the impact of self-harming behaviour on the staff were examined.</p>	<p>the inmates who self-harm enabling them to continue to respond to acts of self-harm.</p>	<p>experiencing emotional dissonance was reported. The authors conclude that these strategies enable staff to continue to respond to acts of self-harm. Specialised training, equipment and adequate staffing required to help staff to respond.</p>	
<p>Fish (2000) UK</p>	<p>Nursing assistants (n=4), qualified learning disability nurses (n=3), and clinical team leaders (n=2).</p> <p>Gender: N/A</p> <p>Length of service: N/A</p>	<p>Mixed medium secure learning disability service in North-West England. Two staff working with male service-user's, seven working with female service-user's.</p>	<p>Qualitative: In-depth interviews, analysed using phenomenological analysis.</p>	<p>To explore the experiences of staff working in a medium secure learning disability service, including personal and organisational responses to self-harming behaviour and how they understand these behaviours.</p>	<p>Personal responses to self-harm included self-recrimination, feelings of failure, loss of confidence, and feelings of guilt. Depending on nature of their job, staff reported different implications of self-harming. Managerial staff reported an understanding of organisational factors and concern for their staff, whereas nursing assistance talked about the personal impact of witnessing self-harming behaviour. Nursing assistant's identified feelings of worry for not identifying self-harming behaviours and concern about responses from managers. Colleagues were mentioned as the main source of support, with some participants</p>	<p>Staff report feeling highly distressed after incidents of self-harm, which is consistent with previous research stating feelings towards those who self-harm fluctuates between guilt, resentment, and sympathy. Staff perceived self-harm to be used as a coping mechanism and whilst most staff in this research had received no formal training, they recognised the complexities of self-harming behaviour. In terms of support needs, the most popular recommendation was to begin a staff support group where support and exploration of feelings can be discussed. Staff also recognised that being involved in treatment plans may help with their understanding.</p>	<p>High Quality</p>

					recommending that they should be more involved in treatment planning for service-users, whilst others believed the support should come from management.		
Fish & Reid (2011) UK	Qualified learning disability nursing staff (n=16). Gender: female service-user group: female (n=4), male (n=4) Male service-user group: female (n=4), male (n=4)	Forensic learning disability services in the UK. One working with female service-users, one working with male service-users.	Qualitative: Semi-structured interviews to explore staff's experiences and feelings, analysed using thematic analysis.	To examine results from two research projects exploring staff's experiences and feelings regarding working with service-users who self-harm: one working with female service-users in forensic medium secure; and one working with male service-users in forensic medium and low secure.	Both staff groups reported experiencing feelings of empathy, frustration, vulnerability, distress, and self-recrimination. Staff in both groups reported feeling highly distressed following an incident of self-harm. Staff reported feeling guilty for not being able to stop acts of self-harm.	Similar central themes were found between the two staff groups: types of self-harm, perceived reasons for self-harm, personal responses, treatment options, and staff support. Both staff groups reported experiencing high distress after incidents of self-harm. Experiences of anxiety, frustration, self-crimination, and guilt reported. Discussion groups and clinical supervision considered important by both groups. Both groups believed training was valuable and useful and would like more. Management support and education should sustain more positive attitudes towards self-harm, relieving guilt, personal and professional conflict, and stress.	Moderate Quality
Hargate <i>et al.</i> (2017) UK	Qualified and unqualified staff (n=5) including clinical, managerial and administration. Male service-users were also interviewed,	Medium secure mental health unit in the UK.	Qualitative: Semi-structured interviews, analysed using interpretative phenomenological analysis (IPA).	To explore the experiences of self-harm among staff and service-users within a medium-secure mental health unit.	Staff felt the impact of witnessing other's self-harming behaviour had desensitised them. Staff described feelings of trauma when service-users that they had good therapeutic relationships with engaged in self-harming behaviours. Some staff experienced feelings of guilt and anger.	Desensitisation was highlighted by staff as a coping technique. Desensitisation related to negative attitudes towards self-harm in the staff group. Peer support for staff should be facilitated to reduce negative feelings.	High Quality

	<p>but this was not included within the review.</p> <p>Gender of staff: male (n=3), female (n=2).</p> <p>Length of service: N/A</p>				<p>Staff reported experiencing a sense of loss and trauma following self-harm.</p>	<p>Staff training in self-harm prevention/management is required across forensic services.</p>	
<p>Marzano <i>et al.</i> (2015) UK</p>	<p>Correctional staff including custodial officers (n=15), nurses (n=13), and doctors (n=2).</p> <p>Gender: officer participants: female (n=5); male (n=10)</p> <p>Gender healthcare staff: female (n=6), male (n=9)</p> <p>Length of service of officer participants ranging from 1-22 years (mean age: 38)</p> <p>Length of service in</p>	<p>Male prison in the Southeast of England.</p>	<p>Qualitative: Semi-structured interviews analysed using thematic analysis.</p>	<p>To explore how those working in prisons are affected by and respond to self-harming behaviours of male prisoners.</p>	<p>Most participants described experiences of working with those who self-harm as stressful, frustrating, challenging and draining.</p> <p>Participants described the main feelings of frustration and infuriating, deriving from knowing that prisoners will continue to self-harm.</p> <p>Frustration was also associated with feelings of helplessness and low job control and not knowing how to respond, leaving participants feeling powerless.</p> <p>Dealing with the repetitive nature of self-harm was deemed to be stressful due to knowing that it will occur again.</p> <p>Eight officers resisted the idea that they have time to fulfil a caring role, and nine healthcare staff resisted and resented the expectation to be caring.</p> <p>The emotional impact of self-harm was minimised and was described as more of an irritation rather than impacting them professionally or personally.</p>	<p>Participants described a range of concerns and feelings that previous research has identified as being inherent to working with self-harmers.</p> <p>Staff responses to repetitive self-harming behaviours contravene policies and guidelines, which focus on supportive conversations, proactive and non-judgemental attitudes. These policies pay little attention to the needs of the staff to support the staff-prisoner relationships.</p> <p>However, negative reactions to self-harming behaviours are not inevitable and responses to self-harm are influenced by a variety of factors, including personal experiences, understandings of self-harm, and practicalities of managing behaviours.</p> <p>Staff need to be better supported by the organisations to deal with prisoners who self-harm to prevent staff stress and burnout.</p>	<p>High Quality</p>

	healthcare role ranging from 5 – 30 years (mean age: 40)				Having a duty of care was identified as a source of vulnerability and isolation because staff were held responsible. 11 officers and seven healthcare staff described feeling emotionally detached to self-harming behaviours. Shutting off from emotion was described as a symptom of burnout and emotional blunting, associated with absenteeism, depression and flashbacks. Five officers described flashbacks and nightmares relating to self-harming behaviours, taking it home with them and taking it out on their family. One participant reported avoiding night shifts.		
Moore <i>et al.</i> (2011) UK	Prison officers (n=7) and clinically qualified staff (n=8). Gender: female (n=9), male (n=6) Age range 20-57 (median 33 years) Length of prison experience: range 3	Two small UK prison units with high rates of self-harming behaviours	Qualitative: Semi-structured interviews including a five-minute speech sample (FMSS) about working with one nominated prisoner who engages in self-harm. Interviews were analysed using thematic analysis.	To explore expressed emotion in staff working with prisoners who self-harm.	Two of nine women and two of six men generated high expressed emotion related to the FMSS. 11 of 15 categorised as low expressed emotion. Participants high in expressed emotions provided critical comments and described feeling frustrated and helpless. Low expressed emotion may be related to emotional avoidance.	Low expressed emotion may be related to emotional avoidance to protect the individual against painful emotions. Staff rated as having low expressed emotion appeared to recognise that prisoners who self-harm had their own difficulties and attributed self-harming behaviours to this.	Moderate Quality

	months-25 years (median 6.6. years)						
Smith <i>et al.</i> (2019) USA	Prison staff who previous responded to an initial survey (n=41), including directors and mental health administrators (n=20), and psychologists and psychiatrists (n=21) Gender: N/A Length of service: N/A	Multiple prisons in the USA that provide mental health services	Qualitative: Semi-structured telephone interviews analysed using interpretative phenomenological analysis.	To explore staff perceptions and reactions towards self-harming behaviours of prisoners, including their perspective of causes, manifestations, prevention, and the impact on them.	Participants appeared to avoid discussing the causes of self-harming behaviours. When prompted, staff identified stress and a sense of hopelessness when interacting with self-harming prisoners. Some staff appeared overwhelmed by self-harming behaviours. Participants described uncertainty related to the appropriate institutional response to self-harming behaviours. Staff reported self-harm as an “irritating disturbance” to the prison environment. There was denial of participants experiencing forms of emotional distress personally. Perceived emotional trauma related to prisoner self-harm was reported as being a sign of weakness. Staff reported that they initially experienced emotions such as shock and stress but over time they became more de-sensitised and numb towards witnessing self-harming behaviours. Staff expressed a sense of hopelessness when describing the complexity and severity of self-harm.	Some self-harming behaviours that staff had witnessed were extreme and shocking and therefore it is predictable that emotional detachment is used as a coping strategy. Institutional responses were described as confusing, non-existent, and often punitive. An increase in perception of ability to effectively work with prisoners who self-harm could provide benefit to staff. Training regarding the reasons for self-harming may increase more provide more positive reactions. Staff should be encouraged to engage in support groups to provide an opportunity for collaborative problem-solving, reduce stress and improve psychological health.	Moderate Quality

					<p>Witnessing self-harm over time may have formed a defensive posture in the minds of staff, making them unable to reflect on the impact of witnessing self-harm.</p> <p>Staff appeared to be intolerant to their own emotions.</p> <p>Staff rejected any impact of prisoner self-harm on their own mental health.</p>		
<p>Sweeney <i>et al.</i> (2018) UK</p>	<p>Prison officers (n=9): including custodial manager (n=2), senior officer (n=4), prison officer (n=3)</p> <p>Gender: male (n=8), female (n=1)</p> <p>Length of service: mean 17 years</p>	<p>Category B male prison in the UK</p>	<p>Qualitative: Semi-structured interviews using thematic analysis.</p>	<p>To explore prison officers' personal experiences, thoughts, feelings, coping strategies and support related to prisoners who self-harm.</p>	<p>Eight of nine participants referred to the culture of the job as having no place for emotions and therefore not being able to access support systems following an incident. They considered accessing support to be an act of weakness that would question their competence.</p> <p>Eight participants reported using informal support from colleagues and dark humour to cope with triggered emotions and thoughts related to self-harming behaviours.</p> <p>Participants felt accountable for self-harming behaviour, leading to feelings of guilt and rumination following incidents, and the need to defend oneself.</p> <p>Lack of resources reduced the ability to provide meaningful engagement with prisoners, leading to feelings of frustration, powerlessness and anger.</p> <p>Participants referred to the first incident of witnessing self-</p>	<p>Reluctance and fear of expressing emotion is considered to harm staff well-being. The avoidance strategies utilised among participants was consistent with previous research and is likely protective against emotional distress. Prison officers described this avoidance as a necessity. Social support was limited to dark humour being used as a coping strategy due to the limited formal support. The Prison Service should enforce a policy related to regular supervision and counselling, where officers could express their emotions in a safe place. Debriefs should also be offered following incidents of self-harm to acknowledge the positive contributions of staff intervention as well as the recognising the emotional impact on staff, decreasing the stigma related to accessing support. Staff training related to self-care techniques</p>	<p>High Quality</p>

					<p>harming behaviour as the most distressing. Participants reported becoming desensitised to subsequent incidents. Fear and anxiety were triggered by incidents of self-harming behaviour, with two participants describing nightmares and flashbacks. Pride and achievement were reported by eight participants following successful intervening in self-harming behaviours.</p>	<p>should be implemented to reduce burnout.</p>	
<p>Walker <i>et al.</i> (2017) UK</p>	<p>Prison staff (n=14) including officers (n=10), prison governor (n=1) and healthcare staff (n=3)</p> <p>Gender: female (n=10), male (n=4)</p> <p>Length of service ranging from 1 year – 28 years (mean: 14)</p>	<p>Three female prisons in England</p>	<p>Qualitative: Semi-structured interviews analysed using thematic analysis.</p>	<p>To explore the impact of self-harming behaviours of imprisoned women on those who work in prisons. To examine the emotional impact, coping strategies, training and support available for those who witness self-harming behaviours.</p>	<p>Participants reported colleagues portrayed a façade of capability and did not express emotion following involvement in self-harm incidents. They reported that it was “part of the job”. Away from the prison, participants reported difficulties with coping, being impacted emotionally. Staff reported feeling ashamed that they cannot cope with witnessing self-harming behaviours. Desensitisation was reported due to the frequency of exposure to self-harming behaviours, perceiving this as advantageous to manage incidents effectively. Some participants continued to experience stress and difficulty coping after leaving work. Participants recognised that the experience of witnessing self-harm could lead to staff becoming unwell themselves.</p>	<p>Prison staff feel unable to access psychological or emotional support from their employers. A culture shift is required to allow prison staff to access support without feeling ashamed that they cannot cope with witnessing self-harming behaviours. Supervision and senior staff accessing support may encourage staff to access emotional support.</p>	<p>High Quality</p>

3.6. Primary Findings

Primary findings indicate that staff working with forensic populations experience different emotional and psychological responses to witnessing self-harm. To answer the research question regarding an overview of the responses of staff working in forensic settings, findings from healthcare staff and prison officers have been combined within this review. More specific differences of responses between prison and secure psychiatric hospital staff are further explored in the discussion of this chapter and later in chapter four. The findings in this section are separated into immediate responses and prolonged responses. *Immediate responses* refer to the emotional and psychological responses that an individual may experience when actively responding to self-harming behaviours. *Prolonged responses* refer to ongoing emotional and psychological responses that an individual may experience over a longer duration, that may continue following the immediate response. Most of the immediate responses reported within the included studies highlighted negative outcomes related to managing self-harm of service-users, with just one study indicating the presence of positive emotions (Sweeney *et al.*, 2018).

3.6.1. Immediate Responses

3.6.1.1. Fear and Anxiety

The DSM-5 identifies fear as an emotional response to real or perceived threats, whilst anxiety is defined as the anticipation of a future threat (American Psychiatric Association, 2013). Emotions such as fear and anxiety were present in five studies included within the review (Beryl *et al.*, 2018; DeHart *et al.*, 2009; Fish, 2000; Fish & Reid, 2011; Sweeney *et al.*, 2018). Beryl *et al.* (2018) found that staff referred to feelings of trepidation, apprehension and being scared to respond to incidents of self-harm when working with females in high security psychiatric hospitals, with some participants reporting feeling anxious regarding the pressure of keeping somebody alive. Professionals described feeling panic among other emotions as an initial reaction to those who engage in self-harming behaviour in correctional facilities in the USA (DeHart *et al.*, 2009). Nursing assistants working in medium secure

mixed LD services identified feelings of worry for not identifying self-harming behaviours and concern from managers relating to management of self-harm (Fish, 2000; Fish & Reid, 2011). Finally, Sweeney *et al.*'s (2018) study highlighted that fear and anxiety were triggered by incidents of self-harming behaviours in prison officers working in a category B male prison in the UK.

3.6.1.2. *Anger and Frustration*

Six studies highlighted feelings of anger and frustration related to responding to self-harming behaviours (DeHart *et al.*, 2009; Fish & Reid, 2011; Hargate *et al.*, 2017; Marzano *et al.*, 2015; Moore *et al.*, 2011; Sweeney *et al.*, 2018). Marzano *et al.* (2015) highlighted that the feelings of anger, frustration and infuriation among staff were related to not knowing how to respond to self-harming behaviours or knowing that prisoners will continue to self-harm despite intervention, also highlighted in Fish and Reid's (2011) study. Sweeney *et al.*'s (2018) study highlighted that feelings of anger and frustration were related to a lack of resources within the prison system, which reduced the ability to provide meaningful engagement with prisoners. Participants in DeHart *et al.* (2009) described feelings of frustration when attempting to reduce access to objects that can be used to self-harm. Participants who scored higher in expressed emotion relating to self-harm in Moore *et al.*'s (2011) study shared more critical comments and feelings of frustration.

3.6.1.3. *Guilt and Blaming*

Five studies referred to staff members experiencing feelings of guilt or blaming themselves for service user's self-harm (DeHart *et al.*, 2009; Fish, 2000; Fish & Reid, 2011; Hargate *et al.*, 2017; Sweeney *et al.*, 2018). Professionals highlighted blaming themselves when they felt they were unable to stop self-harming behaviours (DeHart *et al.*, 2009; Fish & Reid, 2011) and feeling that they needed to defend themselves, influencing participants in becoming more risk averse with prisoners (Sweeney *et al.*, 2018). Fish (2000) found that staff experienced a 'blame culture' within the forensic LD service following an incident of self-

harm, reporting to experience questions from management relating to how the service-user was able to self-harm and feeling blamed for not caring for them appropriately.

3.6.1.4. Powerlessness and Hopelessness

Feelings of hopelessness and powerlessness were highlighted in four studies (Marzano *et al.*, 2015; Moore *et al.*, 2011; Smith *et al.*, 2019; Sweeney *et al.*, 2018). Powerlessness was described by participants in the context of continually responding to self-harm in overcrowded and short-staffed prison environment and associated to low job control, not feeling able to help prisoners to stop self-harming and not knowing how to respond to self-harm (Marzano *et al.*, 2015; Moore *et al.*, 2011; Sweeney *et al.*, 2018). Prison officers participating in Smith *et al.*'s (2019) study expressed feelings of hopelessness due to the complexity of self-harm and having little understanding of the issue personally.

3.6.1.5. Positive Emotions

Only one study included within the review highlighted positive emotions relating to responding to self-harming behaviour (Sweeney *et al.*, 2018). Prison officers emphasized feeling pride and achievement following successfully intervening in an incident of self-harm.

3.6.2. Prolonged Responses

3.6.2.1. Desensitisation and Emotional Detachment

Desensitisation and emotional detachment were a common theme across studies, highlighted in seven papers (Beryl *et al.*, 2018; DeHart *et al.*, 2009; Hargate *et al.*, 2017; Marzano *et al.*, 2015; Moore *et al.*, 2011; Smith *et al.*, 2019; Sweeney *et al.*, 2018). Emotional detachment is defined as one being disconnected or disengaged from their own feelings, separating aspects of everyday experiences (Allen, 2001). Desensitisation is defined as a reduction in the emotional responses to repeated negative, aversive, or positive events after repeated exposure (Engelhardt *et al.*, 2011). The process of desensitisation takes place over a period of time witnessing traumatic events, for example repeatedly

witnessing the voluntary injury of one's body. Beryl *et al.* (2018) and Hargate *et al.* (2017) found staff highlighted that they became used to witnessing such acts and do not recognise the provocation of emotional responses after responding several times. Moore *et al.* (2011) concluded that participants with low expressed emotion related to self-harming behaviours may be experiencing emotional avoidance. Similarly, staff felt emotional trauma related to prisoner self-harm was a sign of weakness and therefore emotional responses were best to be avoided (Smith *et al.*, 2019). Constantly responding to and managing self-harming behaviours was felt to be part of the job and subsequent incidents of self-harm appeared to become less distressing for participants (Sweeney *et al.*, 2018). Walker *et al.* (2017) highlighted that participants noticed a façade of capability within the prison, acting as though they were not impacted or shocked by witnessing self-harm. Participants found desensitisation as being advantageous to protect themselves from emotional responses and to promote effective decision making, but also acknowledged that witnessing repeated self-harm may be psychologically damaging in the future (Walker *et al.*, 2017).

3.6.2.2. *Flashbacks, Nightmares and Struggling Outside of Work*

Nightmares, flashbacks and struggling outside of work were highlighted in three studies (Beryl *et al.*, 2018; Marzano *et al.*, 2015; Sweeney *et al.*, 2018). Witnessing or experiencing traumatic incidents can lead to fragmented memories that may return as flashbacks, nightmares, and physical sensations (Rogers & Law, 2012). One participant working with women in a high secure establishment reported waking from dreams and feeling anxious (Beryl *et al.*, 2018). Flashbacks and nightmares in terms of seeing the faces of service-users responded to (Sweeney *et al.*, 2018), and taking work home with them, taking it out on their families and avoiding shifts (Marzano *et al.*, 2015).

3.6.2.3. *Stress and Shock*

Feelings of stress, distress and shock were present in seven studies (DeHart *et al.*, 2009; Fish, 2000; Fish & Reid, 2011; Marzano *et al.*, 2015; Smith *et al.*, 2019; Sweeney *et al.*,

2018; Walker *et al.*, 2017). Initial reactions to witnessing a service-user engage in self-harm included feelings of shock (DeHart *et al.*, 2009; Fish, 2000; Fish & Reid, 2011; Walker *et al.*, 2017). Some prison officers perceived working with self-harm as stressful due to perceiving that the self-harm will continue despite intervention and recognising that it is their role to prevent such harm from occurring; on the other hand, some prison officers felt that self-harming behaviours were minor compared to other demands of the job (Marzano *et al.*, 2015). Prison officers referred to the first time they responded to self-harming behaviours as the most distressing due to not being exposed to this behaviour before (Sweeney *et al.*, 2018). It was acknowledged that this then became pragmatic and considered as part of the job. Smith *et al.*, (2019) highlighted that there was complete rejection of any experiences of distress related to responding to self-harm and rather the stress is related to the responsibility of keeping self-harming prisoners safe.

3.6.2.4. Vulnerability and Loss of Confidence

Experiences of vulnerability and loss of confidence were described in three studies (Fish, 2000; Fish & Reid, 2011; Marzano *et al.*, 2015). Staff working with male service-users in a mild LD unit described feeling a bit vulnerable and that they needed some support (Fish & Reid, 2011). Feelings of failure, inadequacy, and a loss of confidence in their ability to deal with the situation were also highlighted (Fish, 2000). Both custodial and healthcare staff identified that holding responsibility and accountability for prisoner's self-harm potentially led to feelings of vulnerability and isolation (Marzano *et al.*, 2015).

4. Discussion

This systematic review of 10 studies emphasises that there are a varying immediate and prolonged emotional and psychological responses among staff following exposure to self-harming behaviours in forensic settings. The differences in the immediate and prolonged responses to self-harm are not clear, but may be influenced by support systems,

environment of employment, and attitudes towards self-harming behaviours (Kenning *et al.*, 2010). The primary findings suggest that immediate responses such as fear and anxiety, anger and frustration, guilt, powerlessness and hopelessness, and pride and achievement were present among staff members in forensic settings when responding to and managing self-harm. The prolonged responses of responding and managing self-harm include desensitisation, flashbacks and nightmares, stress and shock, and vulnerability and loss of confidence. There were no differences of note found between male and female participant responses related to their experiences of immediate and prolonged responses.

4.1. Prisons vs Secure Psychiatric Hospitals

Descriptions of strong immediate responses were highlighted over the 10 studies that met the inclusion criteria of this review. Conversely, there were also occurrences of staff reporting to struggle to recognise the impact of exposure; suggesting that they were desensitised and not experiencing heightened levels of emotion; and avoiding thinking about the emotional impact. Interestingly, desensitisation was highlighted by participants in all six studies based in prison settings and only mentioned in two of the four studies based in secure psychiatric hospital settings. Desensitisation or detachment from emotions among staff working in forensic settings is thought to be present to aid the prevention of vicarious trauma, allowing employees to continue with responding to potentially traumatic incidents (Slack, 2020). Within the prison system, there are often high numbers of prisoners compared to members of staff, meaning that staff are often busy, completing several roles to meet the needs of prisoners and maintain safety on the wings (King, 2007). Distance from emotions of those working in prisons may serve a function of protection, to ensure that staff can continue with their duties and complete their next task. Within secure psychiatric hospitals, numbers of service-users on a ward may be considerably less than in prisons, however their needs may be greater and multiple incidents on wards can occur in quick succession, suggesting that distance from emotions may also be protective to ensure that staff can continue with their duties and respond to the next incident. Although it may be seen as a protective factor,

it is of note that desensitisation, avoidance of emotions and detachment are also highlighted as symptoms of Post-Traumatic Stress Disorder (PTSD), which can be counterproductive in terms of processing and understanding (Litz & Gray, 2002).

The discrepancy of reporting of desensitisation between employees in secure psychiatric hospitals and prisons could be due to nature of the prison environment and the role of prison officers, compared to the more caring roles and environment within secure psychiatric hospitals. Secure psychiatric hospitals are designed to provide a safe and secure environment for those detained under the Mental Health Act (MHA; 1983, as amended 2007), whereas prisons are historically institutions designed to 'punish' individuals who have broken the law, protecting society from those who may pose a risk to others (Department of Health, 2011). Staff working in healthcare sectors of the prison environment and those employed in secure psychiatric hospitals, by nature, may be seen as more caring, despite also managing offending risks (Kenning *et al.*, 2010; Mason, 2002). Both secure psychiatric hospitals and prisons require staff to work with people who have complex needs and challenging behaviours, however although some prison officers are trained in trauma-informed care, their main responsibilities lie with security and management of offending risks. This creates some tension between security and caregiving in custodial settings, with 'care versus custody' well cited in the literature (Mills & Kendall, 2018).

The characteristics of those who work in prisons compared to those working in secure psychiatric units may differ. 'The façade of coping' as highlighted in Sweeney *et al.*'s (2018) paper suggests that working in prisons has 'no place for emotions' and that staff tend to avoid thinking about or discussing emotions, limiting access to support that is available. Hypothetically, secure psychiatric hospitals are a more trauma-informed and caring environment, suggesting that support is more readily available and there is less 'stigma' attached to seeking and accepting help (Oates *et al.*, 2020). Feeling unable to access support is likely to have a direct impact on the responses towards self-harm, with research

suggesting that prison officers attribute motives for self-harming behaviour as manipulation and attention seeking, whereas those working in healthcare are more likely to understand self-harming behaviours as regulation or self-punishment (Kenning *et al.*, 2010).

4.2. Countries of Included Studies

Despite efforts to search for literature from other countries and in other languages, it is observed that all studies included in the review are from Western societies. There are several reasons that this may have occurred, including inaccessibility to studies from other countries on the databases that were explored for this review. It may also be that there is simply limited research around psychological wellbeing of staff exposed to working with self-harm in other countries and/or cultures. One reason for this may be due to psychiatric care in the UK being overseen by the National Health Service (NHS), that pledges to prioritise the wellbeing of their employees, commissioning research to explore staff's psychological wellbeing (Oates *et al.*, 2021). Furthermore, His Majesties Prison and Probation Service (HMPPS) is regulated by government monitoring bodies that identify the wellbeing of service-users and staff as a priority, including Trauma Risk Management (TRiM), which may not be present in other countries. TRiM services are available for all HMPPS staff, based on a model of active monitoring to monitor and support staff that have been exposed to potentially traumatic events (HMPPS, 2022). General mental wellbeing of individuals in Eastern countries is under-represented in research, which may also provide an explanation as to the lack of research on staff wellbeing (Hook & Bogdanov, 2021).

4.3. Strengths and Limitations of Findings

This review answered the research question and highlighted the existing literature exploring the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff. The main strength of this review is the information power provided from qualitative research. Qualitative data allows researchers to explore open-ended questions that cannot always be quantified, particularly related to processes and patterns of behaviour, allowing

space for participants to explain their thoughts, feelings and experiences (Foley & Timonen, 2015). With regards to sample size, this review included a total of 200 participants included within the 10 studies, providing rich, in-depth accounts of the experiences of 200 staff members working in prisons and secure psychiatric hospitals. As with all qualitative data, there can be difficulties in generalising the results (Higginbottom, 2004). The experiences of the staff members included within the studies may not be representative of all staff members in the same occupations. Therefore, findings should be interpreted with care, suggesting that not all staff who are exposed to self-harming behaviours will experience the same immediate or prolonged responses as those included in the studies.

The main limitation of this review lies with the methodology of papers investigating this topic. Firstly, recruiting participants to talk about the impact of responding to and managing self-harm may lead to some biases due to the sensitive nature of the topic. Sharing the emotional impact of self-harm on the individual both professionally and personally may feel uncomfortable for some people, who may not participate and therefore their views are not heard. Similarly, those who disregard the impact of self-harm may not feel inclined to share their views, meaning that there are employees whose experiences are not highlighted. Those who choose to engage with research relating to their experiences of self-harming behaviours may hold certain characteristics and therefore biases when making generalised conclusions about the experiences of staff working in forensic settings.

Most of the studies included within this review were qualitative of nature, with one study using mixed methods to collect data regarding the nature of self-harm in the establishments and the perceived motivations for self-harm (DeHart *et al.*, 2009). The survey used within DeHart *et al.*'s study was highlighted as not being a validated tool, which generates questions around measurement and confidence errors (Dowrick *et al.*, 2015). However, the study used descriptive statistics to report the types, frequency, and prevalence of self-harm that participants had witnessed, the perceived motivations for self-harm, and the

management strategies in place, all of which this review did not consider, meaning that only the qualitative data from the study was of importance to this review.

Qualitative data is often used to gather rich, in-depth data about personal experiences; however, this does not provide statistical significance and can be subject to interviewer bias and interpretation. Interviewer bias refers to the interviewer's characteristics interacting with the participant characteristics and is particularly operant in public health research (Davis *et al*/2010). As part of the systematic process of this review, CASP checklists were used to evaluate potential biases and the overall quality of the studies, removing any studies that were rated as low quality from this review. (CASP, 2018). Furthermore, qualitative data cannot be objectively measured, meaning that the results are hard to generalised among a population. However, themes can be identified throughout categorising the data into groups, based on similarities and identifying patterns to make generalisations about the population being studied (Burnard *et al.*, 2008).

All the studies included in this review had a cross-sectional design, collecting data at a single point in time, giving researchers access to a population pool to find the prevalence of the outcome of interest (Levin, 2006). Although there is access to a greater population at any one-time, cross-sectional designs prevent evaluation of change in staff experiences and for any causal relationships to be explored (Levin, 2006), which is particularly of interest when exploring the impact of traumatic events. Further difficulties with exploring causal relationships within forensic settings is controlling the extenuating circumstances. Working in forensic settings can evoke strong emotion from various aspects of the job apart from self-harm, including managing violence and aggression, working with high distress, and listening to individuals' traumatic experiences (Dennard *et al.*, 2021). Managing these challenges daily are likely to impact emotional and psychological wellbeing, meaning it is difficult to attribute just one aspect of the job, i.e., managing and responding to self-harm to the immediate and prolonged responses experienced.

4.4. Conclusions and Implications

To the authors knowledge, this is the first systematic review to evaluate the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff. The findings suggest that staff have different experiences, some of which are consistent with trauma responses (Ozer *et al.*, 2003). Findings from this review suggest that working closely with these behaviours can have an impact on immediate and prolonged emotional and psychological responses. The findings highlight that those working in prison settings are more likely to report desensitisation and detachment from emotions than those in secure psychiatric hospitals, however this may be due to the façade of machismo and 'no place for emotion' in these establishments. Findings from this review should be interpreted with caution due to the limited amount of empirical evidence exploring staff's responses when responding to and managing self-harming behaviours. This review highlights a need to further understand staff responses to exposure to self-harming behaviours and further understanding of the implications that immediate and prolonged emotional and psychological responses have on overall wellbeing. Further research should also focus on the ability to access support, with previous research suggesting that being unable to access support at work impacting on responses and attitudes towards self-harm (Kenning *et al.*, 2010).

CHAPTER THREE:
**THE ASSESSMENT AND TREATMENT OF A FEMALE IN A MEDIUM SECURE
PSYCHIATRIC HOSPITAL WHO SELF-HARMS: A SINGLE CASE STUDY**

ABSTRACT

Background: Emotionally Unstable Personality Disorder (EUPD) is prevalent within forensic mental health settings, particularly in female settings. EUPD is characterised by the instability of interpersonal relationships, emotions, and self-image, in addition to impulsive behaviour. Behaviours that challenge can include aggression, violence, and self-harming. Dialectical behaviour therapy (DBT) is an evidence-based intervention, specifically developed for individuals with EUPD, aimed at a synthesis of both change, and acceptance to provide skills to manage emotions and behaviours.

Objective: This case study presents a 21-year-old woman referred to as client G throughout this report, residing in a female medium secure psychiatric ward and describes her engagement with weekly DBT-informed skills sessions. Objectives of the sessions were to provide DBT-informed skills to increase quality of life and decrease emotional distress and self-harming behaviours. Staff responses were also obtained within a reflective practice session, completing a formulation with the objective to increase their understanding of the function of client G's self-harming behaviours.

Assessment and Intervention: A DBT formulation and treatment hierarchy identified client G's goals for the intervention. The Clinical Outcome Routine Evaluation-Outcome Measure (CORE-OM), The Difficulty in Emotional Regulation Scale (DERS), The Barrett Impulsiveness Scale (BIS), The Borderline Symptom Checklist (BSL -23) and The Depression Anxiety Stress Scale (DASS-42) were administered pre and post intervention. Nine weekly sessions of the mindfulness and distress tolerance module were facilitated, a behavioural and behavioural monitoring was also captured within this time.

Results: Client G's scores on all outcome measures reduced, suggesting a decrease in symptomology of EUPD. The behavioural monitoring also suggested a decrease in self-

harming behaviours reducing from 26 incidents the nine-weeks before the intervention, to 5 within the period of facilitation. Triggers for client G's self-harm included perceived negative and punitive responses from staff, which were highlighted throughout the reflective practice session.

Conclusion: Results should be interpreted with caution due to confounding variables and limitations of self-report measures. Future recommendations for client G include continuation of facilitation of DBT-skills, leading to completion of emotion regulation and interpersonal effectiveness. Staff's understanding and compassion towards client G's self-harm appeared to increase with the facilitation of reflective practice and creating a formulation, highlighting the importance of training and staff support.

1. Introduction

This case study will present the assessment and treatment of a female service-user detained under section 3 of the MHA (1983, as amended in 2007) in a secure psychiatric hospital. A description of ward staff's understanding and opinions of complex and challenging behaviours, gathered within reflective practice, will also be included within the report.

1.1. Ethical Considerations

This case study is a factual account of the psychological assessment and intervention of a young woman detained in a medium secure unit under section 3 of the MHA (1983, as amended 2007). To protect anonymity, the identity of the individual has been concealed and will be referred to as client G throughout this study. Consent from the service-user was gained, which can be found in Appendix C.

1.2. Service

This case study was completed in a medium secure psychiatric ward, housing females who have had contact with the criminal justice system. The ward is situated within a hospital that is a private provider of mental health services, with funding from the NHS and social services. All service-users within the establishment are detained under the MHA (1983, as amended 2007) and are diagnosed with mental illnesses and/or personality disorders. Service-users have access to a multidisciplinary team (MDT), comprising of nursing support, occupational therapy, social work, psychiatry, and psychology.

1.3. Service-User Background

Client G is a 21-year-old female residing in a medium secure psychiatric ward, detained under the provisions of section 3 of the MHA (1983, as amended 2007). Client G has a long

psychiatric history, presenting with a diagnosis of Emotionally Unstable Personality Disorder (EUPD) with Dissocial Personality Traits, complicated by some features of Post-Traumatic Stress Disorder (PTSD) and confounded by Substance Misuse and Obsessive-Compulsive Disorder. Client G's alleged index offence is a serious violent assault on a member of staff whilst detained in an inpatient setting, which is currently under investigation by the police. Client G was known to police throughout her teenage years and has criminal convictions of criminal damage, common assault, and assault occasioning actual bodily harm. The circumstances of these convictions are reported to have been at the age of 14 years old against her carers. She has since been involved in numerous assaults on staff, often when staff attempt to intervene in attempts to self-harm, but only a few have been reported to the police.

Client G's childhood was characterised by emotional and physical abuse, neglect, and witnessing frequent domestic violence between her parents. Client G has an elder sister and two younger brothers. Her parents were both described as "heavy drinkers" and her family were known to child social services. Client G and her siblings were placed into care at the age of 13 due to parental substance misuse and neglect. Client G would often go missing and used violence towards her foster carer, leading to a break down in this placement. Client G was moved into residential care and dates the onset of hearing voices to starting after this transition. Client G's parents separated soon after when she was placed into care, but she still has contact with both parents and siblings. Client G recalls having to care for her younger siblings when her parents were under the influence and often attributes blame towards herself for not being able to keep them safe from physical abuse. Client G reports that her and her siblings were often hit, sometimes with objects, when her parents were under the influence of alcohol and cannabis. Client G also recalls that her mother would tell her that she wished she never had her and that she was a 'problem child'. Client G has been continuously detained since the age of 17 and has transferred from adolescent to adult

services, moving into forensic services at age 18 following a series of assaults and serious self-harming behaviours. At age 16, client G was raped by a boy the same age that attended the same college as her. She subsequently fell pregnant from this assault, but later miscarried the baby. Client G reports that she hears the voice of the boy that raped her and the voice of her daughter that she miscarried. Client G also has a history of substance misuse, experimenting with amphetamines, cannabis, hallucinogens, and stimulants.

Client G's self-harming behaviours began in her early teens. She has a history of overdosing, ligating, cutting herself, interfering with wounds, swallowing foreign objects, and head-banging. These behaviours have, at times, resulted in requiring emergency medical and surgical interventions, including endoscopic removal of foreign bodies. Client G recognises that some of the reasons for self-harm include hearing voices, experiencing suicidal ideation, experiencing low self-esteem, and as a coping mechanism.

1.4. Referral

Due to incidents of serious self-harm and assaults on staff when attempting to intervene, client G was referred to psychology. During an independent care review, discussions with the multidisciplinary team (MDT) highlighted that client G required intervention to address both her self-harming behaviours and incidents of aggression towards others.

2. Literature Review

The assessment and treatment for client G was guided by the available literature on EUPD, treatment for self-harming behaviours, and the theoretical model of Dialectal Behaviour Therapy (DBT).

2.1. Emotionally Unstable Personality Disorder

2.1.1. Prevalence

EUPD is characterised by the instability of interpersonal relationships, emotions, and self-image, in addition to impulsive behaviour (Bogetti & Fertuck, 2021). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) highlights nine criterion of which an individual must meet five of for a diagnosis, including efforts to avoid real or imagined abandonment; identity disturbance; inappropriate, intense anger; and recurrent suicidal behaviour (American Psychiatric Association, 2013). To meet this criterion, there are a total of 256 different official versions of EUPD, highlighting the substantial number of variations in presentation. The prevalence of EUPD in the general population is around 1.7%, however it is prevalent in around 14-28% of service-users in psychiatric hospitals and prisons (NICE, 2007). It is more common for females to be diagnosed with EUPD; however, this is a topic that has been debated in the field. Some studies suggest that there is a gender bias in the diagnosis, responsible for the higher number of diagnoses in females, even though prevalence may be equal (Bjorklund, 2009). The expression of symptoms consistent with EUPD are reported to be greater among females, including depressive, anxious and somatic symptoms (Silberschmidt *et al.*, 2014). Expression in males tends to be more outwardly aggressive, which is often subsequently labelled as dissocial personality disorder (Banzhaf *et al.*, 2012).

For a diagnosis, the symptomology of EUPD must be persistent, starting in adolescence and continuing into adulthood, problematic causing distress to the self/others, and pervasive, affecting several different areas in the person's life (American Psychiatric Association, 2013). EUPD should generally not be diagnosed in individuals under the age of 18, despite symptoms of EUPD usually developing during early adolescence. The DSM-5 identifies that diagnosing EUPD in those under the age of 18 *can* occur if symptoms of are pervasive, problematic and persistent, and not associated with developmental stages of other mental

disorders. The main disadvantage of diagnosing those under 18 with EUPD is not only the stigma attached to the label of EUPD, but a that only 40% of adolescences who were diagnosed between the ages of 15 to 18 met the criteria in a two-year follow up (Chanen *et al.*, 2004).

2.1.2. Development of EUPD

The Biosocial Theory posits that the characteristics of EUPD are rooted in biological predispositions and emotional vulnerability, exacerbated by an invalidating environment (Linehan, 1993). Initially proposed by Linehan in 1993, there have been extensions of the Biosocial Theory throughout the decades, including the application of the theory to individuals who may engage in offending behaviours (Rebellon *et al.*, 2014). Antisocial behaviours may be driven by an integration of an individual's social environment and genetics, complimenting the Biosocial Theory and providing an understanding as to why some individuals may engage in more extreme behaviours than others in similar social environments (Watts & McNulty, 2015).

The limbic system and prefrontal cortex, associated with processing emotions, memories within the brain, behavioural control, decision making and personality, have been found to have structural changes in those with a diagnosis of EUPD, which may contribute to emotional dysregulation (Nunes *et al.*, 2009). Furthermore, impulsivity has been found to have a biological basis, with studies highlighting that there was less activity in parts of the brain associated with behavioural control, reflecting the regulation difficulties associated with a diagnosis of EUPD (Chapman, 2019).

The social component of the Biosocial Theory refers to the nature of the environment that individuals experience, particularly focusing on the relationship with attachment figures.

Invalidating environments are ones where emotions are not validated, responded to, or even recognised (Grove & Crowell, 2018). Those who are more predisposed to emotional vulnerability living in invalidating environments are more likely to develop an understanding that their emotions are wrong, weird, or bad (Crowell *et al.*, 2009). This can lead to individuals perceiving that their behaviours, perspectives, emotions, and thoughts cannot be trusted. For a child to get their needs met, they may unconsciously increase the intensity of emotional expression and behaviours, forcing the environment to respond. The attachment figure will respond to prevent the intensity of emotional expression, which in turn reinforces that high levels of emotions and behaviours are required to get their needs met, patterns which continue into adulthood.

Trauma and abuse throughout childhood is thought of as an extreme form of invalidation, communicating that the individual is not deserving of basic safety or respect (Critchfield *et al.*, 2008). Adverse childhood experiences (ACEs) such as neglect and physical, emotional, and sexual abuse are some of the examples of traumatic experiences that individuals with a diagnosis of EUPD have encountered (Stepp *et al.*, 2016). ACEs have been found to affect different biological systems, suggesting a biological basis for changes to temperament, hyperarousal, and producing behavioural patterns associated with a diagnosis of EUPD (Bozzatello *et al.*, 2021). The influence of childhood trauma on the development of EUPD has been found to be mediated by insecure attachment styles and maladaptive emotional regulation (Peng *et al.*, 2020). As a result of insecure attachment styles, maladaptive emotional regulation, and impulsivity, individuals with a diagnosis of EUPD experience interpersonal difficulties, including within their relationships with clinicians or professionals (Sansone & Sansone, 2013). Building professional, therapeutic relationships with those diagnosed with EUPD can be difficult due to emotionally disconcerting behaviours, including self-harming behaviours and splitting among teams, which is characterised by idealisation and devaluation of staff (American Psychiatric Association, 2013).

2.1.3. EUPD and Self-Harming Behaviours

Self-harming and suicidal behaviours are common in the context of EUPD, with 90% of those with a diagnosis engaging in self-harming behaviours (Goodman *et al.*, 2017).

Research suggests that at least 75% of individuals who have a diagnosis of EUPD have attempted suicide (Black *et al.*, 2005). Individuals with a diagnosis of EUPD who harm themselves, or threaten to harm themselves, have different motivations and reasons for engaging in self-harming behaviours. It is important to note that self-harm is a personal and individualised act for those who engage in the behaviour, and reasons can vary among each person. Research suggests that the most prominent reason for self-harming behaviours in individuals with EUPD is to regulate strong, overwhelming emotions, a key symptom of EUPD (Taylor *et al.*, 2018). Another reason that individuals with a diagnosis of EUPD may self-harm is to communicate their emotions and suffering to others, something which is characteristically difficult for those with the diagnosis (Adshead, 2010). A final reason that individuals may engage in self-harming behaviours is to influence others, often perpetrated by fears of abandonment or rejection by those they care about (Maddock *et al.*, 2010). Despite the motivation, self-harming behaviours can not only be dangerous, but can impact the quality of one's life. Evaluating the function of the self-harming behaviours can help to tailor interventions to increase effectiveness (Thomas & Haslam, 2017).

2.2. Dialectical Behaviour Therapy (DBT)

Dialectical behaviour therapy (DBT) is an evidence-based intervention aimed at a synthesis of both change and acceptance, and to provide skills to manage emotions and behaviours (Lynch *et al.*, 2006). Although principles of cognitive behaviour therapy are used within DBT, it places less emphasis on cognitive methods and focuses on developing and practicing new skills (Amner, 2012). DBT uses a multi-pronged approach, including group therapy, individual therapy, coaching and consultation for the therapists (Linehan, 1993). Group

therapy focuses on the acquisition of skills, which are split into four core modules: mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness (Linehan, 1993). The core mindfulness module aims to enable individuals to be more aware of their thoughts, feelings and sensations in the present moment, without judging them. The emotion regulation module helps individuals to understand and manage their emotions, without becoming overwhelmed by them and without suppressing them, aiming to reduce emotional vulnerability, increase positive emotions, and change unwanted emotions. The distress tolerance module aims to tolerate difficult and uncomfortable situations, without making things worse and without harming themselves in the process. Finally, the interpersonal effectiveness module aims to increase effective communication with others, whilst maintaining respect for their own needs and rights. A large body of research suggests positive changes in individuals who have engaged with DBT, including a reduction of symptoms related to EUPD in inpatient settings (Bloom *et al.*, 2012). Furthermore, small-scale studies have identified that DBT decreases hyperactivity in the amygdala, part of the brain responsible for emotional processing, attributed to symptoms of EUPD (Goodman *et al.*, 2014).

3. Assessment

3.1. Information Gathering

Prior to working with client G, her history was reviewed to ensure familiarity with previous psychological input and current presenting problems to help with the assessment process. Documents such as previous Care Planning Approach (CPA) reports, medical reports, and the latest Historical Clinical Risk Management-20, version 3 (HCR-20; Douglas *et al.*, 2014) were reviewed, allowing insight into treatment needs. Conversations with the multi-disciplinary team (MDT) members and exploration at the time of referral indicated a need to

explore client G's self-harming and aggressive behaviours towards staff when intervening in harmful behaviours.

The initial session consisted of gaining client G's insight into her presenting problems and any treatment goals that she had. Client G identified the following goals:

Behaviours to decrease:

1. Assaults on staff and verbal aggression towards staff.
2. Self-harming behaviours and difficulties in regulating emotions.
3. Mindlessness when experiencing extreme emotion, including impulsive behaviours.

Skills to increase:

1. Mindfulness skills when experiencing high emotion, particularly when angry.
2. Interpersonal effectiveness, particularly empathy and compassion towards others.
3. Emotion regulation and distress tolerance skills, moving away from the use of self-harm.

Client G reported that she had completed DBT skills training in the past but identified that revision of pre-existing knowledge to increase and reinforce the skills was necessary.

3.2. Psychometric Assessment

Client G completed initial psychometrics to inform risk assessments and treatment pathways, identifying problems and obstacles which may obstruct client G's progression towards her goals. The initial psychometrics were directed by the service to complete with all service-users prior to engaging in interventions. Pre-intervention scores can be found in table 4.

3.2.1. Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM)

The CORE-OM addresses global distress and captures a variety of difficulties associated with mental health and beyond typical symptom measures, therefore regarded suitable for use as an initial screening tool and outcome measure (Evans *et al.*, 2002). The CORE-OM is a 34-item self-report questionnaire with statements representing four subscales: subjective well-being (4 items), symptoms (12 items), functioning (12 items), and risk (6 items; 4 risk to self items and 2 risk to others items). Items are rated on a five-point Likert scale in agreement with the statements, which are then calculated separately for each domain, some with reversed scoring. A total raw score from 0-136 is also calculated to identify overall functioning, with higher scores representing poorer functioning. Mean scores are also calculated to provide a clinical cut off to identify greater problems with distress. The risk items should not be regarded as a scale, but a clinical flag to further trigger assessment of risk. The CORE-OM has been found to be a reliable and valid instrument, with good sensitivity to change (Evans *et al.*, 2002). Internal and test-retest reliability were highlighted as good (0.75-0.95). Research also suggests that the CORE-OM is an acceptable measure to use in secure settings (Perry *et al.*, 2013). However, a majority of items in the CORE-OM are related to psychological distress and negative life situations, with only eight items positive indicators to mitigate response bias, meaning the measure may not capture positive changes or improvements (Lorentzen *et al.*, 2020).

Client G's scores for all four subscales in the assessment were above the clinical cut-off scores for females and were therefore considered to be areas of concern. The clinical significance of overall distress (minus risk) was scored as 1.90, clinically rated as moderate. This is unsurprising due to self-reports and staff observations highlighting emotional distress and difficulties with daily functioning. Client G scored above the clinical cut-off on the risk subscale, relating to harming others and harming herself, which were taken into consideration during the risk assessment.

3.2.2. The Difficulties in Emotion Regulation Scale (DERS)

The DERS is designed to assess different aspects of emotional dysregulation and therefore was deemed suitable for initial assessment with client G. The DERS is a 36-item self-report, five-point Likert scale of frequency measure, ranging from almost never to almost always (Gratz, & Roemer, 2004). There are six subscales: nonacceptance of emotional responses; difficulty engaging in goal-directed behaviour; impulse control difficulties; lack of emotional awareness; limited access to emotion regulation strategies; and lack of emotional clarity. Scores for each domain are calculated by totalling the responses, with some items being reversed scored. Higher scores indicate greater problems with emotion regulation. The DERS has been found to have good internal consistency with individuals receiving treatment related to emotional disorders (Hallion *et al.*, 2018), however like any self-report measure, the DERS may be subject to response bias and may not accurately reflect true difficulties with emotion regulation.

Client G's overall score was 139 out of a possible 180, which was 109 points higher (61%) than the lowest possible score. Impulse control difficulties were scored as the highest domain, scoring 29 out of a possible 30. This indicates that client G has some concerns regarding her ability to regulate emotions. As there is no cut-off score for the DERS, there is no definitive line between clinical and non-clinical scores, however changes can be monitored by post-treatment outcome measures.

3.2.3. The Barratt Impulsiveness Scale (BIS)

The BIS is a 30-item self-report designed to measure impulsive personality traits (Barratt, 1959). The items are yielded to six first-order factors (attention, motor, self-control, cognitive complexity, perseverance, and cognitive instability) and three second-order factors (attentional, motor, and non-planning). The items are summed to gain a score for each

domain, representing total levels of impulsivity and although there is no definitive line between clinical and non-clinical scores, higher scores indicate increased problems with impulsivity with these areas. The total score ranges from 30 to 120. Patton *et al.* (1995) found excellent internal consistency for general psychiatric service-users (Cronbach's alpha = .83).

Scores suggest that client G struggles most with 'motor impulsiveness', followed by 'non-planning impulsiveness' (26), and 'attentional impulsiveness' (20). Motor impulsiveness refers to acting without thinking, including relating to the use of violence. Non-planning impulsiveness refers to acting without thought for the future, and attentional impulsiveness refers to struggling with focusing on tasks. In total, client G scored a total of 78 out of 120, suggesting higher levels of impulsivity, particularly relating to saying or doing things in the spur of the moment.

3.2.4. The Borderline Symptom Checklist (BSL-23)

The BSL-23 was developed as an efficient way to self-report symptoms reported associated with a diagnosis of EUPD (Bohus *et al.*, 2009). The checklist consists of 23 statements scored on a 5-point Likert scale, with the service-user evaluating symptoms over the past week. A total score of 92 is possible, with higher scores indicating stronger symptoms of EUPD. The BSL-23 has been found to have excellent internal consistency, with consistency with a Cronbach's alpha of .97 (Bohus *et al.*, 2009). The also has strong convergent validity, with correlations with Beck's Depression Inventory measured as .87 (Bohus *et al.*, 2009).

Kleindienst *et al.* (2020) defined six grades of symptom severity, ranging from none to extremely high. Client G scored a total of 83, providing an average score of 3.6. falling into the extremely high symptom severity category. The BSL-23 also includes a self-rated percentage score for overall personal state, which 0% means 'absolutely down' and 100% meaning 'excellent'. Client G rated her overall state on that day as 60%. Finally, there is an

11-item assessment for problem behaviour, which provides scores ranging from 0 to 44, with higher scores also indicating increased problem behaviours. Client G scored 2 on this assessment, indicating that she was not struggling with managing difficult thoughts and emotions at the time, and that much of her potential problem behaviour was being managed.

3.2.5. The Depression Anxiety Stress Scale-42 (DASS-42)

The Depression Anxiety Stress Scale (DASS-42) is a 42-item self-report measure designed to measure three emotional states of depression, anxiety and stress, with each domain measured by 14 items (Lovibond & Lovibond, 1995). The DASS-42 is designed to evaluate the degree of which an individual is experiencing symptoms of depression, rather than providing diagnostic cut-off points. Scores fall into five categories: normal, mild, moderate, severe and extremely severe. The DASS-42 has been found to be both reliable and valid across participants from various backgrounds, with internal good consistencies for depression (Cronbach's alpha = .91), anxiety (Cronbach's alpha = .84) and stress (Cronbach's alpha = .90; Lovibond & Lovibond, 1995). Client G scored 'severe' in all of the domains, suggesting that she was experiencing problems in these areas at the time.

Table 4.

Pre-Intervention Psychometric Scores

Psychometric		Scores			
CORE-OM		Total	Mean	Cut-off	Clinical Significance
	Subjective well-being	8	2	1.77	Moderate-to-severe
	Problems/symptoms	23	1.92	1.62	Moderate
	Life functioning	22	1.83	1.30	Moderate
	Risk of harm	3	.5	.31	
	Total	56	1.64	1.50	Moderate
	Total minus risk	53	1.90	1.29	Moderate
DERS		Score			
	Non-acceptance of emotional responses	26			
	Difficulties engaging in goal-directed behaviour	18			
	Impulse control difficulties	29			
	Lack of emotional awareness	23			
	Limited access to emotion regulation strategies	28			
	Lack of emotional clarity	15			
	Overall	139			
BIS					
	Second order factors	First order factors	Score	Total Score	
	Attentional impulsiveness	Attention	11	20	
		Cognitive instability	9		
	Motor impulsiveness	Motor	25	32	
		Perseverance	7		
	Non-planning impulsiveness	Self-control	16	26	
		Cognitive complexity	10		
		Total		78	
BSL-23					
Factor		Score (M)			
How much you suffered from each problem in the past week?		83			
Overall quality of personal state during the past week		60%			
Problem behaviour		2			
DASS-42		Score	Severity		
Depression		25	Severe		
Anxiety		15	Severe		
Stress		28	Severe		

3.3. DBT Case Formulation

A DBT case formulation includes a brief history of the individual, based on the Biosocial Theory of EUPD; an outline of the primary treatment goals using the DBT hierarchy; dialectical dilemmas; and a treatment plan to help reach the identified goals (Brodsky & Stanley, 2013). These steps were followed with client G to create a collaborative formulation; however, some details have been taken out to protect her identity.

3.3.1. Biosocial Model

Biological Basis:

Emotional Vulnerability: Client G's emotions are easily triggered, particularly regarding staff responses towards her self-harming behaviours and/or aggression. This tends to lead to increased risk behaviours, at times using violence and self-harm. Client G at times expresses intent to end her life, but when reflecting on this, recognises that she does not generally have this desire. Self-harm is currently how client G regulates his emotions. She struggles to manage inconveniences, leading to disproportionate responses to the situation.

An inability to regulate emotions in proportion to events: Client G often acts on impulse when she is triggered or experiencing an increase in distressing emotions. She has difficulty in experiencing emotions without escalating or blocking them, and difficulties in regulating her behaviour to achieve goals. Client G struggles with her needs not being met, which often leads to incidents of self-harm or aggression towards the individuals caring for her.

Invalidating Environment:

Significant lack of validation of the service-user's thoughts, feelings, or perceptions: Client G grew up in an environment where her emotional needs were often neglected due to parental substance abuse, and emotional and physical abuse in the household. The neglect and abuse that client G experienced is likely to have been invalidating, possibly explaining the

increased expression of emotions in attempt to get her needs met. In terms of current living environment, Client G can at times feel that staff are not validating of her emotional distress, and rather, take away risk items to keep her safe without much explanation. Client G has complex, difficult relationships with some members of staff, which can lead to more punitive responses from the institution. Within forensic settings, rules can be inconsistent between shift patterns, which can leave client G feeling un-listened to and invalidated when she is not treated the same by different members of staff.

When the service-user shows normal distress, she is often ignored or criticised, yet when she escalates emotion or behaviour she is often reinforced: Client G reports that her mother criticised her when showing distress throughout childhood and at times calls her 'selfish' when she informs her that she has engaged in self-harming behaviours in hospital. Client G also reported that her mother continued to abuse alcohol, becoming abusive to her on the phone and asking her for money. On the other hand, client G reports that her mother often provides her with more care following incidents of harming herself, reinforcing the escalation of her behaviours. Within the hospital environment, client G reported that she is only listened to when she escalates her behaviour and staff only take her seriously when she is engaging in risky, and at times, dangerous behaviours.

When the service-user solves problems or achieves goals, their achievement is unrecognised: Within the environment of secure hospitals, positive behaviours can go unnoticed and invalidated due to staff's heavy workload. Client G therefore feels to meet her needs, she must engage in risk behaviours to be recognised.

3.3.2. Treatment Hierarchy

The treatment hierarchy organises the aims of treatment, prioritising eliminating life-threatening behaviours, followed by reducing therapy interfering behaviours and reducing

quality of life interfering behaviours respectively. These are the primary treatment targets in DBT.

Life Threatening Behaviours

Suicide attempts: Client G has engaged in tying ligatures, which indicate a desire to end her life. Although she reflects that she does not have a desire to end her life, it is apparent that in the moment she is unable to regulate her emotions and engages in behaviours that could result in suicide.

Life threatening behaviour endangering the lives of others: Client G has engaged in assaults on members of staff that include strangulation in the context of a nurse intervening in her attempt to self-harm.

Non-suicidal self-injury: Client G regularly engages in self-harm when experiencing an increase in emotional dysregulation. Self-harming behaviours include but are not limited to cutting, burning, swallowing foreign objects, ligating, headbanging, and overdosing.

Violent behaviour directed against other people or property: Client G has a history of criminal damage, common assault and assault occasioning actual bodily harm. Whilst detained in hospital, client G has used violent behaviour towards staff, other service-users, and personal and hospital property.

Feeling suicidal or thinking of suicide: When emotionally dysregulated, client G reports feeling suicidal and talks about intent to end her life.

Thinking of harming others: Thoughts to harm others appear to occur out of frustration and grievance thinking.

Therapy Interfering Behaviours

Behaviour that makes it impossible for the treatment unit to function properly: Client G can at times disrupt the ward environment when exhibiting aggression, violence or engaging in self-harming behaviours. She can threaten members and shout at members of staff, meaning at times staff cannot continue with their duties.

Non-attendance, non-compliance, not engaging, or other behaviours that wear out the therapist or reduce the therapist's motivation: Client G has missed previous psychology sessions due to being asleep or engaging in self-harming behaviour at the time. Client G can become dependent on staff to solve problems rather than taking responsibility to do this herself. Inconsistent diary card completion also provides a barrier to the treatment.

Therapy-enhancing behaviours from the service-user or therapist: Overall, client G appears motivated to engage in therapy to learn new skills to help to manage her distress. Although there have been some missed sessions, client G generally has regular attendance and mutual respect with the therapist.

Quality of Life Interfering Behaviours

Relevant quality of life interfering behaviours, in order of importance:

- Self-harming behaviours
- Verbal and physical aggression to others
- PTSD-related behaviours (e.g., flashbacks and nightmares)
- Purging food and 'water-loading', i.e., drinking too much fluid to induce vomiting.

3.3.3. Secondary Targets

A fundamental part of DBT is recognising the dialectical dilemmas that individuals with EUPD tend to experience. Dialectical dilemmas are conflicting emotional states that can both

exist at the same time (Linehan, 1993). There are three common dialectical dilemmas present within individuals diagnosed with EUPD, defined by their opposite poles. DBT focuses on finding the middle of these dilemmas to find a synthesis. The three dialectical dimensions are: emotional vulnerability verses self-invalidation; active passivity verses apparent competence; and unrelenting crisis verses inhibited grieving. Each dialectic has an extreme over expression or under expression, with the aim of therapy to find the middle ground, which are the secondary treatment targets. Figure 2 shows the dialectics and the pole descriptions.

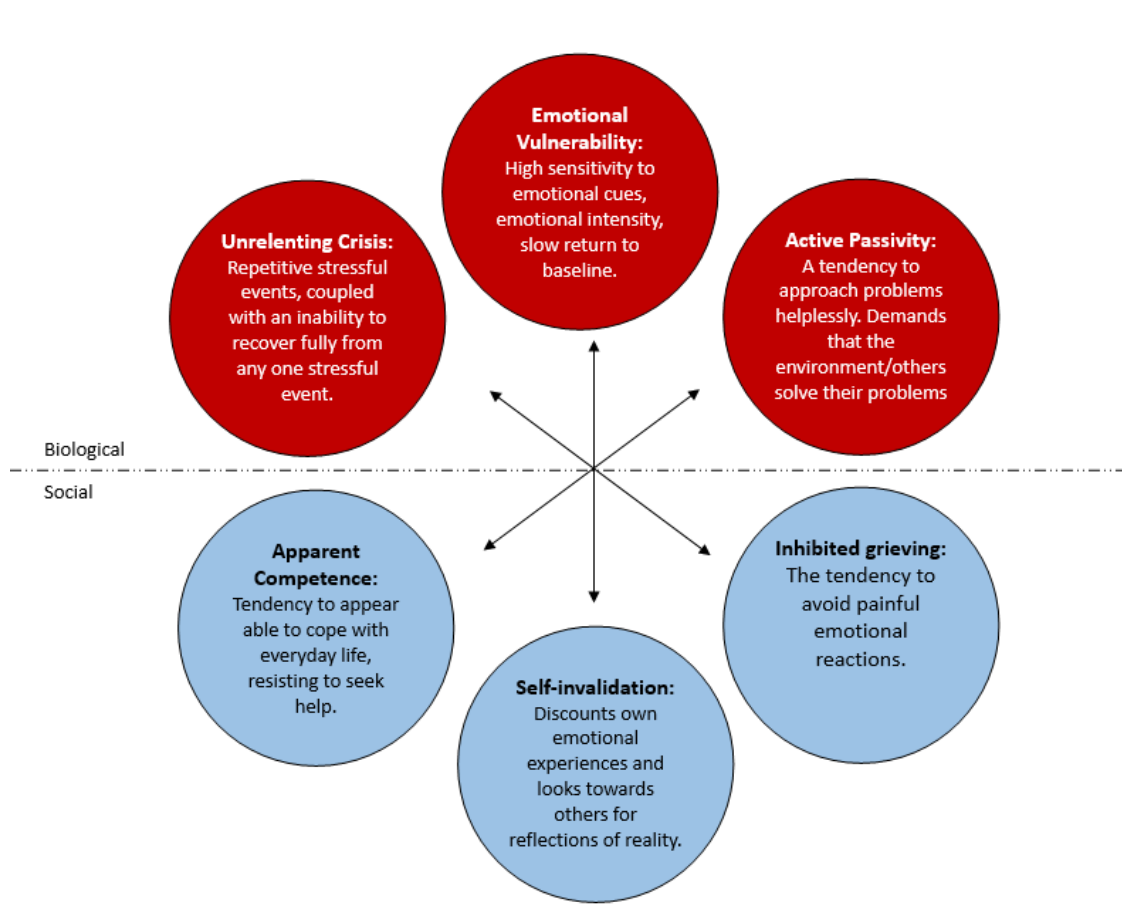
Emotional vulnerability verses self-invalidation: Client G often experiences emotions as overwhelming and stressful, that are easily triggered by environmental cues and have a slow return to emotional baseline. Similarly, client G would look towards others for reflections on her reality, not appearing to trust her own emotions and internalising the characteristics of the invalidating environment as her own. Client G shared that emotional vulnerability and self-invalidation has, in the past, led to feelings of despair, which often resulted in self-harming behaviours.

Active passivity verses apparent competence: When this dialectical dilemma was triggered, client G appeared to handle complicated situations (such as a peer self-harming in front of her) well, but then appeared to struggle with more simple difficulties (such as having the wrong food plated up for her). This made it difficult for client G to recognise her true capacity, due to fluctuating behaviours and abilities.

Unrelenting crisis verses inhibited grieving: Client G appeared to consistently experience ongoing emotional situations, often presenting as being in “crisis”. Client G could appear to present as highly dysregulated about events during one session, dismissing it as nothing to worry about by the next session. Client G would often be in a vicious cycle of emotional crisis and avoidance.

Figure 2

The dialectical dilemmas present in individuals with a diagnosis of EUPD.



4. Intervention

4.1. Rationale for Treatment

The battery of psychometrics administered to client G, along with a clinical diagnosis of EUPD, suggested that client G had difficulties with emotional regulation, tolerating distress, and managing impulsivity, which impacted on her daily functioning. As discussed throughout this Chapter and in further detail in Chapter Five, self-report measures can be subject to social desirability bias, however, to counteract this bias, staff views were taken into

consideration and provided a consistent report of difficulties in these areas (Barriera-Viruet *et al.*, 2006). DBT has been developed specifically for treating individuals who experience emotional dysregulation, with research highlighting improvement of impulsivity, interpersonal problems, substance misuse, and unhealthy coping behaviours (Haktanir & Callender, 2020). DBT is typically facilitated in formal settings, that embed and reinforce the therapy into the environment with multiple components of skills training, coaching and consultation (Linehan & Wilks, 2015). However, aspects of DBT can be applied outside of a formal setting, providing skills acquisition on an individual basis. Due to limited suitability from other service-users in the establishment, a decision to use DBT-informed principles to provide client G with skills acquisition on an individual basis was made.

The mindfulness module was facilitated for two sessions. Client G already had extensive knowledge of mindfulness, but as the foundation of DBT, it was felt necessary to revise this. DBT-skill modules can be taught in any order, however due to client G's presenting difficulties with managing her emotions in difficult situations, impulsivity, and self-harming behaviours, it was decided to facilitate the distress tolerance module first to provide crucial coping skills to replace harming behaviours. The decision to prioritise the distress tolerance module was further exacerbated by client G's report of experiencing the environment as invalidating, often leaving her feeling triggered and engaging in unhelpful behaviours. The distress tolerance module focuses on aiding individuals to cope with stress and negative emotions in an effective way, by accepting the reality of the situation and using strategies to soothe, distract or change the individual's perspective (Linehan, 1993). It was also deemed necessary for client G to complete diary cards to monitor her mood over the week to then explore this further in session, using behaviour chain analysis if unhealthy coping mechanisms were used.

4.2. Session Structure

The individual sessions typically followed a structured format to enhance effectiveness, based on the structure of the individual sessions facilitated in intensive DBT environments (Bedics *et al.*, 2013). The sessions began with a check-in, where client G discussed significant events or issues since the previous session. This allowed time to gain an understanding of client G's current mental state. An agenda was then collaboratively created involving identifying issues that client G needed to prioritise. The diary card and out of session work set from the previous week was then reviewed to help identify patterns, triggers, and progress of emotions, distress, and use of skills. The main body of the sessions consisted of skills training, teaching client G specific skills to manage emotions and cope with distress. Each session would facilitate the learning of a new skill, to then be implemented and practiced over the next week. The sessions would finish with setting out of session work, including practicing skills, journaling, or engaging in behavioural experiments, and checking in with client G's emotional state at the end of the session. It is of note that the sessions were flexible and responsive to client G's needs at the time. In total, client G attended nine DBT-informed sessions between July and October 2022, one focusing on therapy goals, two completing the mindfulness module and six completing the distress tolerance module.

4.3. Diary Card and Behaviour Chain Analyses

A weekly diary card was created for client G to complete to monitor her mood, urges to self-harm, incidents of self-harm, use of violence, and description of emotions experienced throughout the day. The diary card was collaboratively created, using pictures and traffic light systems to monitor emotional fluctuations (Appendix D). Any incidents of self-harm were then explored further in sessions, using a behaviour chain analysis (BCA). BCAs are used to understand problematic behavioural patterns and how they are influenced by various factors (Rizvi & Ritschel, 2014). The general template for a BCA includes describing the

problem behaviour in detail; identifying pre-existing vulnerabilities; identifying the event that triggered the behaviour; identifying the links of actions, thoughts, feelings, and bodily sensations; and identifying alternative solutions for each link, including identifying DBT-skills that could have been used. Client G engaged well in completing BCAs when she engaged in self-harming behaviour, however there were some circumstances where she struggled to identify the vulnerabilities or triggers for her self-harm.

4.4. Mindfulness Module Sessions

Client G attended two hour-long sessions the mindfulness module. This module is usually four sessions long, however as this was a revision of skills and not facilitated within an intensive DBT environment, the content of these session was covered promptly. Mindfulness is an essential component of DBT, focusing on developing and practicing skills to increase awareness of the present moment, reduce judgement and enhance an individual's ability to tolerate distress (Eeles & Walker, 2022). Mindfulness exercises such as breathing techniques, body scans, and meditation are taught to aid individuals to observe their thoughts, sensations, and emotions, without letting them overwhelm. These skills are developed by learning the concepts of emotion mind, rational mind, and wise mind, attributing, and recognising patterns of behaviours in each state of mind. Emotion mind refers to a state where intense and overwhelming emotions drive behaviours that may be impulsive and driven by immediate emotional reactions. Rational mind refers to an opposite state of mind, where thinking is analytical, logical, and based on facts and evidence. Decisions and behaviours are driven by reasoning and problem-solving skills. Wise mind is a state of mind where both emotion mind and rational mind integrate, balancing emotions and logic. Wise mind involves accessing intuition and inner wisdom to make decisions that are both emotionally and logically reliable. Client G attended both mindfulness sessions and reflected that she spends around 40% of the week in emotion mind, acting according to emotions rather than making wise decisions.

4.5. Distress Tolerance Module

The distress tolerance module is designed to help individuals develop strategies for tolerating and managing distressing situations, without resorting to harmful or impulsive behaviours (Linehan & Wilks, 2015). By practicing distress tolerance skills, individuals can develop resilience, reduce impulsive behaviours, and improve their overall emotional wellbeing. The distress tolerance module focuses on validating the individual's response to distressing situations, which is of particular importance when working with service-users with EUPD, who often experience inconsistent care, warmth, and security (Zanarini *et al.*, 2000). Client G attended all six of the sessions within this module, with each session focusing on a new skill. Distracting techniques are activities that involve redirecting the individual's attention away from the distressing thought or emotion, which may include listening to music, taking a shower, or watching television. The next skill included teaching self-soothing skills to provide relaxation and comfort, building on mindfulness skills and practicing breathing exercises or other activities that provide a sense of calm. The third skill taught was radical acceptance, involving fully accepting reality as it is without judgement or resistance, helping individuals to accept situations that are not within their control and cannot be changed. The IMPROVE skill stands for Imagery, Meaning, Prayer, Relaxation, One thing at a time, Vacation, and Encouragement, encouraging the individual to improve the current moment and reduce the experience of distress. The pros and cons skill involves weighing up the advantages and disadvantages of engaging in harmful, impulsive behaviours during distressing situations. Finally, the TIPP skill, which stands for Temperature Change, Intense Exercise, Paced Breathing, and Paired Muscle Relaxation, aims to be used during incidents of heightened distress to change the body's physiological response to stress.

Client G would use the skills acquisition as they were taught throughout the following weeks and would review this in the following sessions with examples of when they had worked.

Client G was able to reflect that some skills were more helpful for her than others, for

example reporting that changing her temperature by placing ice on her forehead was helpful when experiencing emotions such as rage and fury.

5. Results

5.1. Outcome Measures

Client G completed the outcome measures following facilitation of the mindfulness and distress tolerance module. Post-intervention scores can be found in table 5.

5.1.1. Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM)

Client G's scores for all four subscales post-intervention remained above the clinical cut-off scores for females and were therefore considered to be areas of concern. Client G's post-intervention scores were not considered to be of any clinical change as they remained above the clinical cut-off scores. However, it is of note that subjective well-being moved from moderate-to-severe to moderate following the facilitation of DBT-informed skills. Client G scored the same on the risk subscale, suggesting some concern in relation to harming herself and others.

5.1.2. The Difficulties in Emotion Regulation Scale (DERS)

Client G's overall score post-intervention was 118 out of a possible 180, which was 21 points lower than the pre-intervention score. Impulse control difficulties continued to be the highest domain, scoring 25 out of a possible 30, however this was 4 points lower than the pre-intervention. There was a slight decrease in scores on all domains, suggesting some improvement in her ability to regulate emotions.

5.1.3. The Barratt Impulsiveness Scale (BIS)

Scores post-intervention were similar to scores pre-intervention, suggesting that there was little change in self-reported impulsivity. Client G scores suggest that she continues to struggle most with motor impulsiveness (for example acting without thinking). In total, client G scored a total of 74 out of 120, suggesting continuing high levels of impulsivity, particularly relating to saying or doing things in the spur of the moment.

5.1.4. The Borderline Symptom Checklist (BSL-23)

Client G's post-intervention scores suggested a slight decrease in self-reported symptoms concurrent to EUPD. This score showed a change from extremely high severity of symptoms to very high severity post-intervention. Interestingly, client G scored the same (60%) on her overall quality of personal state during the past week as she did pre-intervention. Client G scored 10 in the problem behaviour assessment, suggesting an increase in difficulty managing thoughts and emotions.

5.1.5. The Depression Anxiety Stress Scale-42 (DASS-42)

Client G's scores on the DASS-42 moved from severe to moderate in all three domains. This suggests that there was some improvement in her symptoms of depression, anxiety, and stress post-intervention.

Table 5.

Post-Intervention Psychometric Scores

Psychometric		Scores			
CORE-OM		Total	Mean	Cut-off	Clinical Significance
Subjective well-being		6	1.5	1.77	Moderate
Problems/symptoms		20	1.67	1.62	Moderate
Life functioning		20	1.67	1.30	Moderate
Risk of harm		3	.5	.31	
Total		49	1.64	1.50	Moderate
Total minus risk		46	1.90	1.29	
DERS		Scores			
Non-acceptance of emotional responses		23			
Difficulties engaging in goal-directed behaviour		15			
Impulse control difficulties		25			
Lack of emotional awareness		21			
Limited access to emotion regulation strategies		20			
Lack of emotional clarity		14			
Overall		118			
BIS					
Second order factors	First order factors	Score	Total Score		
Attentional impulsiveness	Attention	10			
	Cognitive instability	9	19		
Motor impulsiveness	Motor	24			
	Perseverance	7	31		
Non-planning impulsiveness	Self-control	14			
	Cognitive complexity	10	24		
	Total		74		
BSL-23					
Factor			Score (M)		
How much you suffered from each problem in the past week?			72		
Overall quality of personal state during the past week			60%		
Problem behaviour			10		
DASS-42		Score	Severity		
Depression	20	Moderate			
Anxiety	10	Moderate			
Stress	24	Moderate			

Note: M = mean.

5.2. Responsiveness to Treatment

Client G attended all sessions offered to her, engaging in a total of nine sessions. Client G demonstrated motivation to engage with DBT-informed principles in attempt to manage her self-harming behaviours and subsequent aggression and violence. Client G did, at times, not complete her out of session work, excusing this stating that she was not in the mood or had forgotten. Client G did always complete her weekly diary card and appeared to show good reflections into the association between her emotions and impulsivity. Client G was less enthusiastic about completing BCA's and reported that having to complete BCA's for behaviours that challenge was a deterrent for engaging in harmful behaviours, suggesting that these were a protective factor, discouraging harmful behaviours.

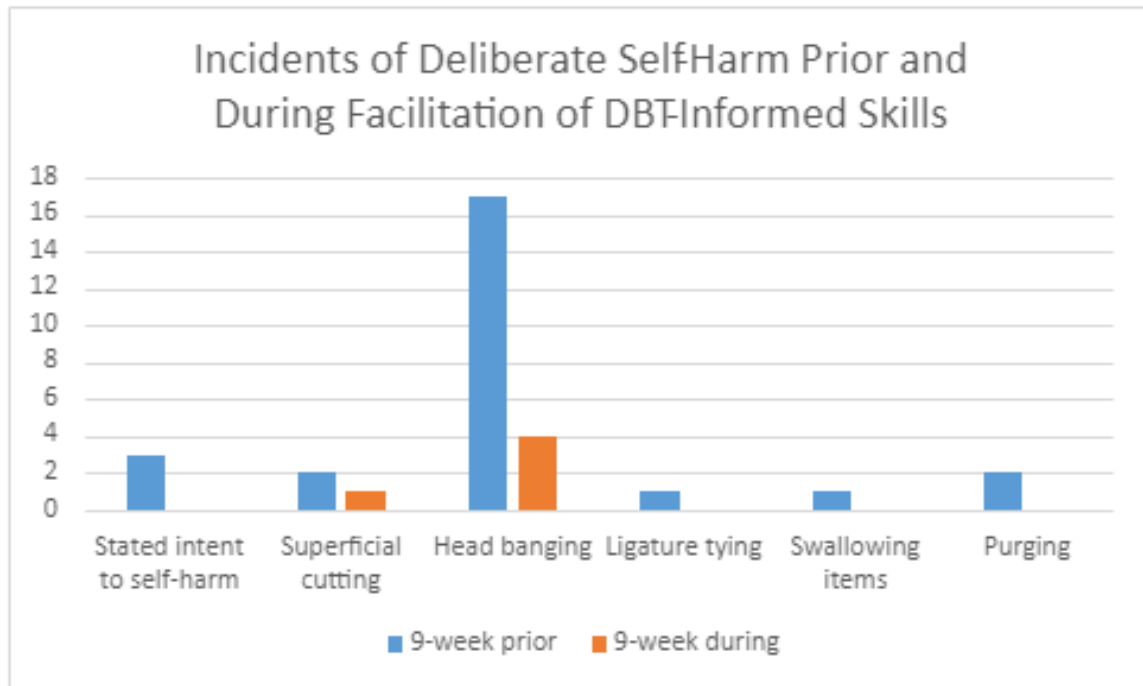
5.3. Behavioural Monitoring

The forensic female service utilised a behavioural monitoring system involving reviewing the incidents as recorded on the Incident Reporting System for each service-user on the ward. These incidents are then examined to explore the triggers for the event, the behaviour exhibited, and the consequences of the behaviour. This allows for comparisons across review periods, as well as the opportunity to add to any relevant care plans regarding the management of behaviours that challenge. Behaviours that are monitored include acts of self-harm, violence, aggression, and absconsion. For this case study, the incidents of self-harm are reported for nine weeks to therapy and are compared to the incidents of self-harm during the nine-week facilitation of distress tolerance skills.

Within the nine weeks prior to beginning DBT-informed skills practice, client G engaged in 26 incidents involving self-harm and/or threats to self-harm. These consisted of superficial cutting; head banging; ligature tying; swallowing items; and purging (see figure 3). During the facilitation of the mindfulness and distress tolerance module, client G engaged in five incidents of self-harm and/or threats to self-harm.

Figure 3

Frequency and Types of Self-Harm 9-weeks prior to intervention and 9-weeks during intervention.



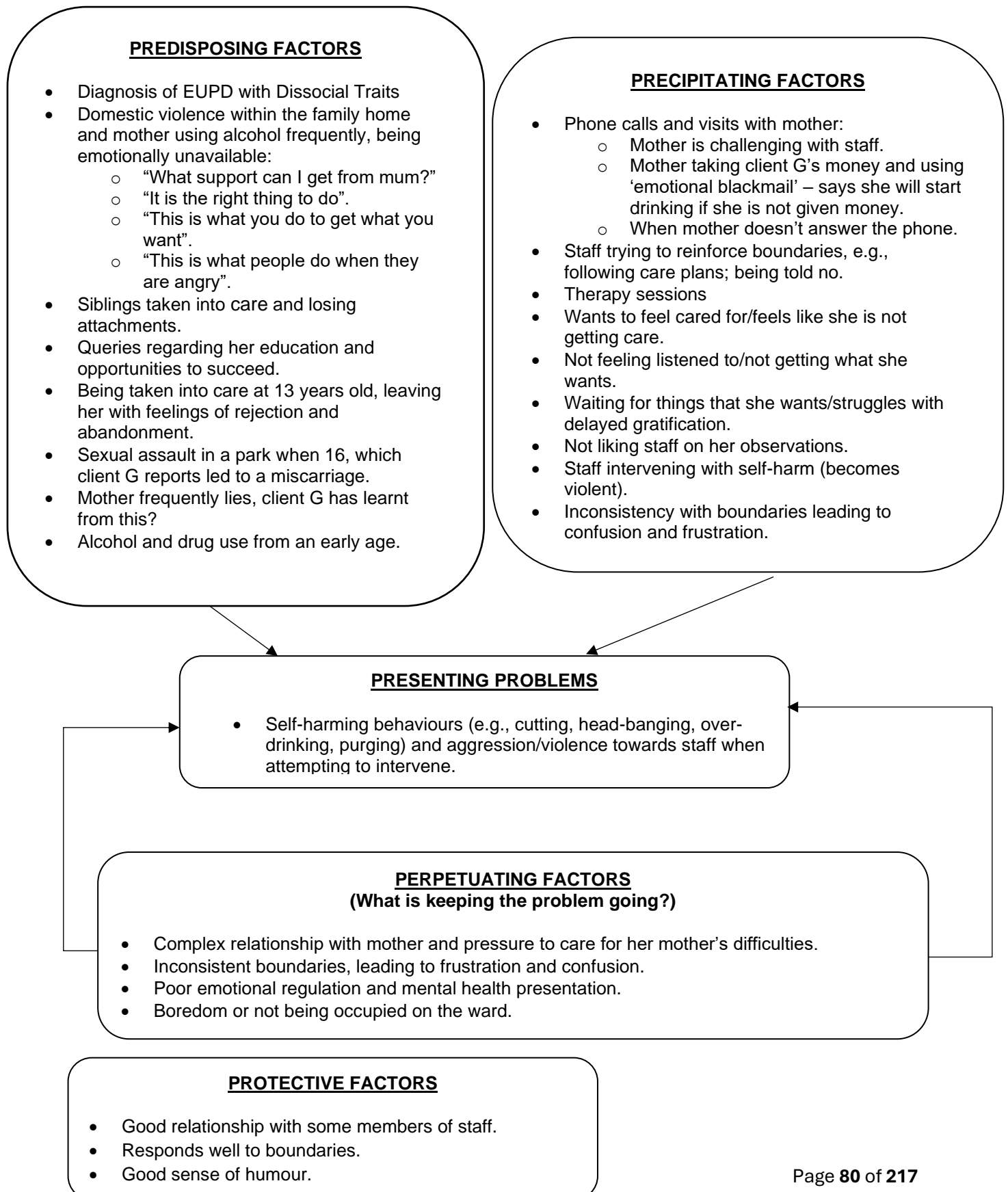
5.4. Staff Reflective Practice

Due to client G's reflections and perception of the ward being an invalidating environment, and particularly being emotionally dysregulated when she felt that staff were not meeting her needs, it felt important to explore this further with staff during reflective practice. Staff awareness of the triggers and functions of self-harm is crucial to allow individualised support and to work collaboratively to manage such triggers (Gough & Hawkins, 2000). An increase in the understanding of the function of self-harm allows staff to approach individuals with compassion and non-judgment, enhancing awareness of their responses to behaviours that challenge (Timson *et al.*, 2012). It was recognised that staff were experiencing emotional responses related to the self-harming and aggressive behaviours displayed by client G, which was negatively impacting their responses to incidents of self-harm.

To increase resilience and understanding of client G's behaviours that challenge, a reflective practice session was planned to create a formulation with the nursing staff on the ward. A 5P formulation was developed with the staff due to pre-existing knowledge of the model (Dudley & Kuyken, 2006; figure 3). The language used within the formulation was based on the manner provided by staff and it recorded as such to allow for accessibility for staff. The session highlighted some negative attitudes towards the function of client G's self-harming behaviours, including beliefs that she was engaging in these behaviours for manipulation and 'attention-seeking'. It was recognised that most staff had limited knowledge of client G's history and throughout the session, there appeared to be an increase in understanding and compassion towards client G's behaviours that challenge during the process. The formulation also appeared to aid staff's understanding into triggers and warning signs that client G may engage in self-harming behaviours, allowing for early intervention and prevention. Furthermore, staff reported that it was helpful to identify how the predisposing and precipitating factors linked to the perpetuation of the behaviours that challenge, encouraging understanding of such behaviours. This is in line with existing literature that suggests an understanding of self-harming behaviours can foster more compassionate responses, important in building trust and promoting effective therapeutic relationships (Akinola & Rayner, 2022). Finally, providing a space for staff to identify protective factors also aided a space for staff to explore some of the positive aspects of client G's personality, which at times can get lost when consistently managing and coping with dysregulated, maladaptive coping mechanisms.

Figure 4

A Diagrammatical Presentation of Client G's 5P Formulation



6. Discussion

6.1. Client G Progress

Client G's scores on the outcome measures suggested that her self-reported distress, impulsiveness and depressive symptoms had decreased following facilitation of the mindfulness and distress tolerance module. Although self-report measures provide unique perspectives into the individual's understanding of themselves, results should be interpreted with caution for several reasons. Firstly, the characteristics of EUPD mean that biases of identity disturbance, impulsive responding, and processing emotion-related information can impact how an individual may respond to self-reported assessments (Kaufman *et al.*, 2022). This may mean that individuals struggle to identify and name their distress and the impact that it has on them. A second limitation of using self-report measures for EUPD symptoms. Symptoms may be overstated if the service-user feels that they need to share their distress in order to get their needs met and to avoid actual or imagined abandonment, which may occur if the therapist believes they are able to manage on their own. Client G was eager to engage in DBT-skills and for these sessions to continue, therefore it may be possible that she overstated her symptoms of EUPD to ensure that she was receiving treatment and for the team to acknowledge her distress. To mitigate this, behavioural monitoring provided an overview of actual self-harm incidents to allow for less bias and to more accurately identify target behaviours that challenge. Research suggests that it is important to monitor behaviours to gain a more comprehensive understanding of an individual's behaviour and to gain insight into patterns of behaviour (Davis *et al.*, 2015).

The decrease in self-reported symptomology appears to be supported by the behavioural monitoring, highlighting a decrease in reported self-harming behaviours within the nine weeks of DBT-skills facilitation. Despite some incidents of self-harming behaviours, there was a drastic change from 26 incidents of self-harm to 5 incidents of self-harm within the

same time frame. It is unclear whether this was predominately due to the facilitation of DBT-skills and causal links cannot be concluded. It could be possible that client G was experiencing a period of stability during the nine-weeks of facilitation, and due to placement ending, it was not possible to go back and assess her current progress. The reduction in self-harming behaviours could also have been due to having contact with a professional who was validating of her distress, rather than the content of the DBT-skills themselves.

Client G's goals of reducing assaults and verbal aggression towards staff was not monitored and therefore cannot be discussed. However, her second goal of decreasing her self-harming behaviours appears to have been met during this nine-week period. Client G continued to use some self-harming behaviours and engage in some impulsiveness, continuing to self-report high levels of impulsiveness. It is important to note that practicing the DBT-skills takes time and that this is a long-term therapeutic intervention. Client G reported during the review session that she was feeling less distressed, however emotion dysregulation was still observed at times. Client G's apparent competence may have meant that she was attempting to show that things were better than they were and did not want to let anyone down by 'failing' therapy. This could be viewed as a protective factor, but could also be problematic at the end of therapy and finishing placement, in terms of not having anyone to rely on.

6.2. Future Recommendations

For optimal results, a comprehensive treatment approach should be used within a DBT environment, which was not possible at the time of intervention due to the nature of the environment that client G was residing in. At the time of submission, client G remains in medium security and since leaving the placement, the facilitation of DBT-informed skills was stopped. It is recommended that client G continue to engage with DBT-skills and to complete the emotion regulation and interpersonal effectiveness modules to gain further insight and

skills to manage difficulties in these areas. It is also recommended that client G continue to practice her DBT skills, particularly when experiencing difficult situations or emotions.

6.3. Conclusions

Client G reported that being approached with negative attitudes and responses to her self-harming behaviour can lead to further harm and aggression. During the reflective practice session with staff, some negative attitudes were highlighted but with creating a formulation and understanding the function of her self-harm, staff appeared to foster more positive insight. Client G appears to have responded well to the first module of DBT-skills, making progress in decreasing her use of self-harming behaviours. Her scores on the self-reported measures imply some improvement in her perception of symptomology related to EUPD, impulsiveness, and depression. The links between facilitation of DBT-skills and decrease in self-harming behaviours may be subject to potential unidentified confounding factors.

However, what does appear to be evidenced is that client G has responded to psychological intervention and responds well to having her distress validated and explored. Providing client G with adaptive ways to cope with difficult emotions appears to be positive. It is recommended that she continue with completing the other DBT-skills modules, with regular practice and implementation of the skills to increase positive emotions and decrease her experience of distress.

CHAPTER FOUR:
THE RELATIONSHIP BETWEEN ATTITUDES AND KNOWLEDGE OF SELF-HARM ON
TRAUMA SYMPTOMS IN FORENSIC STAFF: AN EMPIRICAL STUDY

ABSTRACT

Background: It is often the responsibility of staff working within prisons and secure psychiatric hospitals to manage the risks and consequences of self-harm, which can have an impact on staff's wellbeing.

Aims and Hypotheses: This research aimed to identify the relationship between attitudes towards deliberate self-harm, knowledge of self-harm, and trauma symptoms. It was hypothesised that more negative attitudes towards self-harm and less knowledge of self-harm would predict higher levels of trauma symptoms. It was also hypothesised that those who have attended training on self-harm will have more positive attitudes and more knowledge of self-harm; prison officers will have more negative attitudes and less knowledge of self-harm than secure psychiatric hospital staff; and those offered support following incidents of self-harm will report less trauma symptomology.

Methods: 117 participants were recruited using an online survey distributed on social media. Every participant completed the Attitudes towards Deliberate Self-Harm Questionnaire (ADSHQ; McAllister *et al.*, 2002), the Knowledge of Self-Harm Questionnaire (KSHQ; Jeffrey & Warm, 2002), and the Trauma-Symptom Checklist-40 (TSC-40; Briere & Runtz, 1989). Four regression models and three analyses of variances were completed to test the hypotheses.

Results: The overall regression model was statistically significant for anxiety ($F(5, 111) = 2.80.$, $p = .02$, $R^2 = .11$) and depression ($F(5, 111) = 2.80.$, $p = .02$, $R^2 = .11$). Coping ability was also found to be a significant unique predictor for anxiety and depression. Results indicated that participants who had attending training on self-harm had significantly higher scores on effective ability and significantly lower scores on coping ability than those who had not attended training. Secure psychiatric hospital staff had significantly higher scores on perceived confidence and effective ability than prison staff. There were no significant differences between being offered support following incidents on self-harm and trauma symptomology.

Conclusions: Findings partially met the hypotheses. An increase in positive attitudes and knowledge of self-harm indicates an increase in the presence of anxiety and depression. There are significant differences between attending training and not attending training on the attitudes towards deliberate self-harm. Significant differences were also found between prison and secure psychiatric hospitals on attitudes towards self-harm. Methodological limitations and future research directions are discussed.

1. Literature Review

Despite the function behind self-harm, when these behaviours occur in forensic populations, it is often the staff's responsibility to manage the risks and consequences. Following an incident of self-harm in prison, routines can be disrupted due to staff being redeployed from routine duties; the environment dynamics can change by other prisoners feeling neglected by staff; and safety interventions are often implemented, including removing the prisoner's belongings; all of which impact both staff and prisoners (DeHart *et al.*, 2009). Prison officers and forensic mental health staff are often first-line responders and are involved in immediate responses, such as treating self-inflicted wounds, cutting ligatures, or removing tools used to cause injury (DeHart *et al.*, 2009). Following this, staff then often have to risk assess the environment and the individual; complete relevant paperwork; and potentially increase observation levels of the service user, all of which can be time-consuming and costly (DeHart *et al.*, 2009).

1.1. Attitudes Towards Self-Harm

Frequent exposure to managing the consequences of self-harm can impact the attitudes that staff working within forensic populations have regarding self-harming behaviours (Short *et al.*, 2009). Short *et al.* (2009) suggest that prison officers label self-harm as 'genuine' and 'non-genuine', impacting the response and the attitude towards the service user. Staff who interpret self-harm behaviours as 'non-genuine' or manipulative can respond to incidents with disgust, anger, and frustration (Pannell *et al.*, 2003). This may reinforce self-harming behaviours, triggering service user's feelings of rejection and worthlessness. Sandy and Shaw (2012) found that some forensic mental health nurses understood that the management of self-harm is an integral part of their job, regularly practiced in secure psychiatric hospitals. Self-harm is common when working with service users with mental illness, personality disorders, and intellectual difficulties; therefore, staff working in secure hospital settings are more likely to anticipate these incidents. Despite these findings, conflicting research has found that some forensic mental health professionals still attribute

self-harming behaviours negatively, with some forensic mental health nurses rejecting service users as unworthy of care (Sandy & Shaw, 2012).

Attitudes towards deliberate self-harm can be measured in four dimensions: perceived confidence in assessment and referral of self-harming service-users; dealing effectively with self-harming service-users; ability to use an empathic approach; and ability to cope effectively with legal and hospital regulations that guide practice (McAllister *et al.*, 2002).

Attitudes towards deliberate self-harm are widely related to the perceived function of the self-harm. If a service user is deemed to be self-harming for reasons such as manipulation, staff's attitude during the response can often be negative (Wilstrand *et al.*, 2007).

Completing the relevant procedures and interventions for a service user whose self-harm is perceived as 'time-wasting' can leave forensic mental health and prison staff feeling angry and frustrated towards them (Shaw & Sandy, 2016).

1.2. Knowledge and Training

Forensic staff's differing attitudes towards self-harming behaviours may be due to the level of training or knowledge that staff possess. Wheatley and Austin-Payne (2009) found that staff who had more negative attitudes towards self-harm were unqualified nursing staff, who also reported an increase in worry about working with this population. The authors suggest that the knowledge that qualified staff acquire through training is related to more positive attitudes about working with this client group. Unlike qualified mental health staff, prison officers do not receive education regarding self-harming behaviours during their initial training, which may impact the responses within prison populations. Sousa *et al.* (2019) suggest that prison officer's lack of knowledge regarding the causes and functions of self-harming behaviours can impact negative attitudes, in particular perceiving self-harm as a manipulative act. Research has explored that service-level training specific to self-harm, appears to decrease negative attitudes and increase staff members skills towards service users exhibiting these behaviours (Patterson *et al.*, 2007).

Sandy and Shaw's (2012) exploration with forensic mental health staff indicated that lack of training about self-harming led to increase in stress and emotional responses.

Misconceptions about self-harming behaviour due to lack of knowledge and training has been found to be related to increased worry about the function behind the self-injurious behaviours (Crawford *et al.* 2003). Training regarding the causes and function of self-harming behaviours should be provided at an organisational level, increasing staff confidence in the management of self-harm, related to job satisfaction and less psychological distress (Short *et al.*, 2009). Kool *et al.* (2014) implemented a training package aimed at improving knowledge regarding self-harming behaviour within secure psychiatric hospitals. They found that the training increased confidence, empathy, and closeness with the service users, improving therapeutic relationships and quality of care, both of which are related to psychological wellbeing at work (Elliott & Daley, 2012). An increase in positive attitudes relating to self-harm were reported by a cohort of clinicians once provided with training on personality disorder, self-harm, and working with challenging behaviours (Commons Treloar & Lewis, 2008).

1.3. Psychological Impact of Exposure to Self-Harm

Much of the literature relating to self-harm within forensic populations explore negative and positive attitudes among staff and identify the need for training to increase awareness and positivity. However, there is little research exploring the underlying explanations for these attitudes and need for training. Morrissey *et al.* (2018) report that the experience of witnessing self-harm can be demanding and challenging for mental health nurses, therefore they may disengage themselves from experiencing emotional reactions, appearing to be responding as 'negatively' to self-harm. In forensic populations, the criminal histories of service users may also exacerbate staff's empathetic responses regarding self-harm (Dickinson & Hurley, 2011). Prison nurses tend to show more empathy towards service users who they perceive to be mentally ill, rather than those perceived to be in control of morally conflicting behaviours (Ramluggun *et al.*, 2019). Personal feelings of ethical

reasoning can impact the quality of care that staff provide to offenders who engage in self-harming behaviours.

Alongside staff's ethical dilemmas, incidents of self-harm can understandably place pressure on the systems and individuals responding. Balancing authority with understanding and compassion towards self-harming service users can cause tensions between staff members, which can result in role conflict, found to relate to psychological strain (Marzano *et al.*, 2012). Increased stress relating to the consequences of self-harm can impact the reactions that staff members have towards individuals self-harm, including high levels of frustration among feelings of powerlessness and little control (Gough & Hawkins, 2000). For some staff, the constant exposure to repeated, severe, self-harm can indeed be traumatic. Marzano *et al.* (2015) interviewed several prison officers to explore their experiences, responses, and coping mechanisms regarding repetitive self-harm. Results suggest that these participants minimised the emotional impact of witnessing the self-harming behaviours, presenting their feelings towards self-harming prisoners as an irritation rather than being affected personally. Staff who are frequently exposed to self-harming behaviours often inevitably become desensitised to the distressing nature of it (Walker *et al.*, 2017). This can be positive for staff, protecting themselves from experiencing emotional distress in every self-harming situation, which prison staff attribute to helping them keep calm in the situation. Feeling detached and emotionally numb are symptoms of compassion fatigue, defined as a secondary stress reaction from providing care to a traumatised service user (Cocker & Joss, 2016). Within Marzano *et al.*'s (2015) study, there were five officers that described flashbacks and nightmares after responding to severe self-harm, with additional difficulties at home with their families. This study also found that emotional detachment was necessary to continue with their work; a method which is often temporarily related to processing trauma (Foa & Hearst-Ikeda, 1996). Marzano *et al.* (2015) highlighted the importance of recognising negative reactions from staff to service-users, as it may be indicative of staff wellbeing, stress, and possible trauma responses. An understanding of self-harm helped to decrease negative

attitudes and views towards self-harm, but subsequently aroused difficult emotions.

Similarly, DeHart *et al.* (2009) highlighted the importance of supervision and debriefing following a traumatic incident of self-harm, aiding professional coping.

1.4. Current Research Project

There is currently limited research regarding trauma symptoms among staff following exposure to severe self-harm in forensic populations. The attitudes towards self-harm that staff members may hold have been explored, but the underlying function of negative attitudes and the reason for these attitudes are not statistically explored. Staff who have minimal training in self-harm may feel less equipped to deal with these behaviours, impacting psychological wellbeing when faced with a situation requiring confidence and compassion. This research study will aim to identify the relationship between attitudes towards deliberate self-harm, knowledge of self-harm, and trauma symptoms. This research study will also aim to recognise the difference in attitudes, knowledge and trauma symptoms related to self-harm between forensic psychiatric hospitals and prisons, with differing levels of knowledge, training, and support.

1.5. Hypotheses:

1. Those with higher levels of reported trauma symptoms will score lower on confidence, ability to manage self-harm effectively, empathy towards those who self-harm, coping ability, and will have lower levels of knowledge of self-harm.
2. Those who have attended training on self-harm will have higher levels of confidence, higher effective ability of managing self-harm, higher empathy towards those who self-harm, and higher coping ability.
3. Prison staff will have lower levels of confidence, lower effective ability of managing self-harm, lower empathy towards those who self-harm, and less coping ability.
4. Those offered support following incidents of self-harm will report less trauma symptomology.

2. Methodology

2.1. Study Design

This study used a cross-sectional design to collect data from participants at one point in time. To collect the data, a within-groups design was used where participants all completed three surveys and provided demographical information using an online digital survey platform, JISC. Prior to the collection of data, feasibility testing was completed via a presentation of the research ideas and design to the research cohort. Feedback was provided relating to the collection of participant demographics initially proposed. It was recommended to collect data relating to whether participants had attended training on self-harm to complete further statistical analysis, which was accepted.

2.2. Statistical Power

An a priori power analysis was conducted using G*Power (Faul, *et al.*, 2007) for a multiple linear regression using a large effect size, with 5 predictors. The effect size was chosen as previous research exploring trauma symptoms in staff members who have witnessed suicide found a medium effect size and an alpha of $<.05$ (Cassidy & Bruce). The calculation suggests that a sample of 92 participants will be required to achieve a power of .80 (Appendix E).

2.3. Participants

Participants were recruited using snowball sampling by advertising the study on social media sites such as LinkedIn, Reddit, Twitter and in Facebook groups. The snowball sampling technique was used to access potential participants connected to the researcher's social media and to access those who had were in Facebook groups that the researcher was a member of. This technique was used as the researcher had connections on social media and within groups on social media of those who worked in a niche population of prisons and secure psychiatric hospitals, and who would subsequently be able to share the

advertisement for research to others that they may also work with. An advert was shared on social media and those who met the criteria were encouraged to participate and share with others who met the criteria.

Participants clarified under the participant demographics the type of forensic setting that they work in; their career discipline; their exposure to witnessing or managing self-harm (i.e., daily/weekly/monthly); whether their workplace has support groups; whether they attend the support groups; and how helpful they think support groups are. All participants were above the age of 18 and both males and females were recruited. Participants were required to read and understand English sufficiently to complete the necessary scales. All participants worked in a forensic setting and were exposed to self-harming behaviours in their place of work at least once a month. Participants received the information sheet (Appendix F) containing details about the study and signed a consent form (Appendix G) opting into the research. Participants also received a debrief form following completion of the questionnaires (Appendix H). The participants were representative of the forensic population and to avoid biases, participants were invited from all disciplines from forensic settings worldwide. The benefit of recruiting participants through social media, namely LinkedIn, is that and the online questionnaires will be quick and easy to disseminate to a large forensic population worldwide, avoiding bias from a smaller forensic population.

2.4. Measures

2.3.1. Participant demographics (Appendix I): Participants were asked to provide their gender; age; the type of setting that they work in; their career discipline; their exposure to witnessing or managing self-harm (i.e., daily/weekly/monthly); whether they had attended training on self-harm; whether their workplace has support available, the type of support available; and whether they think this support is helpful. As a secondary endpoint, this information was used to categorise participants to measure the effect of demographics on

attitudes towards deliberate self-harm, knowledge of self-harm and trauma symptoms and to provide information to test hypotheses 2, 3, and 4.

2.3.2. *The Attitudes Towards Deliberate Self-Harm Questionnaire* (ADSHQ; Appendix J):

The ADSHQ is a 33-item self-report four-point Likert scale developed in 2002 to measure health providers attitudes towards the act of self-harming (McAllister *et al.*, 2002). The scale measures four dimensions of self-harm attitudes: perceived confidence in assessment and referral; ability to deal effectively with service-users; empathic approach; and ability to cope effectively with legal and hospital regulations that guide practice. Each item is scored from 1 to 4 (strongly disagree to strongly agree) which are calculated together to obtain individual scores for each dimension. There is also a score for overall attitudes towards self-harm which has as possible score range from 33-132. Nine items in the questionnaire measure perceived confidence in assessment (score range 4-36; $\alpha = .71$), with higher scores indicating a perceived ability to appropriately assess and refer service-users. Six items in the questionnaire measure perceived ability to deal effectively with service-users (score range 4-24; $\alpha = .74$), with higher scores indicating increased ability. Five items in the questionnaire measure empathic approach (score range 4-20; $\alpha = .67$), with higher scores indicating an empathic attitude. Six items in the questionnaire measure ability to cope effectively with legal and hospital regulations that guide practice (score range 4-24; $\alpha = .57$), with higher scores perceiving increased confidence with this. The Cronbach's alpha for the general scale is relatively low ($\alpha = .42$), however the four dimensions have been found to have higher reliability, ranging from .57 to .74 (McAllister *et al.*, 2002).

2.3.3. *The Knowledge of Self-Harm Questionnaire* (KSHQ; Appendix K):

The KSHQ is a 20-item five-point Likert scale developed in 2002 to assess participants understanding of self-harm. The questionnaire consists of 20 statements with 10 items deemed to be accurate perceptions of self-harm, and 10 items deemed to be myths about self-harm. Participants are asked to rate how much they agree with the statement rating from 1-5 (strongly disagree-

strongly agree). The myths about self-harm are reverse scored allowing higher scores to represent a better understanding of self-harm. A total score is calculated ranging from 20 (poor understanding of self-harm) to 100 (good understanding of self-harm). Cronbach's alpha for the scale has been calculated as .75 and the split-half reliability test as .84, suggesting good reliability (Jeffrey & Warm, 2002).

2.3.4. The Trauma Symptom Checklist-40 (TSC-40; Appendix L): The TSC-40 is 40-item self-report four-point Likert scale developed in 1989 to assess trauma-related symptoms (Briere & Runtz, 1989). The checklist measures 6 dimensions of trauma: dissociation; anxiety; depression; sexual abuse trauma index; sleep disturbance; and sexual problems. The sexual abuse trauma index and sexual problems dimensions were removed for the purpose of this study, as they are personal and not clinically or ethically relevant to this research project, subsequently creating a 34-item Likert scale. This does not affect the reliability of the scale, as established in previous research (Wright *et al.*, 2006). Participants are asked to rate how often they have experienced each of the symptoms in the last month, scoring from 0-3 (never to often). With removal of the two dimensions, the total possible score range is from 0-105. Higher scores represent increased symptoms for each dimension. Six items measure dissociation ($\alpha = .74$); nine items measure anxiety ($\alpha = .77$); nine items measure depression ($\alpha = .70$); and six items measure sleep disturbance ($\alpha = .76$). The reliability of the trauma symptom checklist is good, with Cronbach's alpha ranging from .70 to .77 (Neal & Nagle, 2013).

2.5. Procedure

This research used a predictor-outcome regression design to measure the relationship between attitudes towards deliberate self-harm and knowledge of self-harm in predicting trauma symptoms of staff working in forensic populations. No variables were manipulated during this research. Ethical approval was sought from the University of Nottingham and HMPSS Ethics Board (Appendix M) prior to distributing the online survey. An online

advertisement with a URL was shared on social media (Facebook, LinkedIn, Twitter) with the information sheets, consent form, questionnaires, and debrief for the research. This method was cost-effective and speed efficient. The potential limitations of using this method are that professionals who are not on social media were not recruited, although most professionals use forums such as LinkedIn, and can be easily accessed (Stokes *et al.*, 2019). Participants that met the criteria were encouraged to respond to the advertisement through social media and gave written consent online prior to completing the surveys.

The questionnaires completed by participants were: The Attitudes Towards Deliberate Self-Harm Questionnaire (McAllister *et al.*, 2002); The Knowledge of Self-Harm Questionnaire (Jeffrey & Warm, 2002); and The Trauma Symptoms Inventory (Briere & Runtz, 1989). The online questionnaires were easily distributed, and all questionnaires were self-report measures and are not performance measures. This may have increased the chance of social desirability and demand characteristics from participants (Barriera-Viruet *et al.*, 2006). Data was scored appropriately, kept on a password protected computer and analysed using multivariate statistics to determine the relationship between the subcategories of each scale. Previous research into trauma symptoms following self-harm in forensic populations have used interviews, which is restrictive to small populations and increases bias by the observer effect (Procter & Padfield, 1997). Interviews are also considered high in social desirability, in that individuals may not admit their struggles when faced with questions about their work and the assessment of trauma symptoms, which can be unreliable for academic research (Brunet *et al.*, 1996). By statistically analysing self-reported scales, it provides valid, reliable measures which can explore significant relationships and mediations between the predictors and outcomes.

3. Results

3.1. Participant demographics

Table 6 highlights the demographics of the participants that took part in this study. There was a total of 117 participants and of those, 16 identified as males, 99 identified as females and 2 identified as other, with a mean age of 31.16 years ($SD = 9.02$). Of the 117 participants, 42 reported working in a prison setting and 75 reported working in a secure psychiatric hospital setting. The career disciplines of participants were administrative ($n = 1$), nurses ($n = 8$), occupational therapists ($n = 7$), prison officers ($n = 10$), psychiatrist ($n = 1$), psychological therapist ($n = 54$), and support workers ($n = 36$). 35 participants reported that they were exposed to self-harming behaviours roughly 0-1 times weekly; 47 participants reported 2-5 times weekly; 24 participants reported 6-10 weekly; 7 participants reported 11-15 times weekly; and 4 participants reported 15+ times weekly. 51 participants reported that they had attended training on self-harming behaviours with the population they work with, and 66 participants reported that they had not attended training. Participants were asked to confirm the different types of support that was present in their workplace and were able to report if various options were available. Within the workplace, 67 participants reported that debriefs were available following an incident of self-harm; 61 participants reported that informal peer support was available; 52 reported that reflective practice was available; 65 participants reported that supervision was available; and 32 participants reported that no support with managing self-harming behaviours was available in their workplace. Of this, 69 participants reported that they found this support helpful, and 48 reported that they did not.

Table 6.

Demographics of the Participants in the Study

Characteristic	<i>N</i>	%	Mean (<i>SD</i>)
Gender			
Males	16	13.67	
Females	99	84.62	
Other	2	1.71	
Age			31.16 (9.02)
Setting			
Prison	42	35.90	
Secure Psychiatric Hospital	75	64.10	
Career Discipline			
Administrative Team	1	0.85	
Nurse	8	6.84	
Occupational Therapist	7	5.98	
Prison Officer	10	8.55	
Psychiatrist	1	0.85	
Psychological Therapist	54	46.15	
Support Worker	36	30.77	
Weekly frequency of exposure to self-harm			
0-1	35	29.92	
2-5	47	40.17	
6-10	24	20.51	
11-15	7	5.98	
15+	4	3.42	
Attended Training			
Yes	51	43.59	

No	66	56.41
Workplace support available		
Debrief	67	57.27
Informal peer support	61	52.14
Reflective practice	52	44.44
Supervision	65	55.55
None	32	27.35
Finding support groups helpful		
Yes	69	58.97
No	48	41.03

Note: Total participants $n = 117$. Participants could choose multiple items for ‘workplace support available’.

3.2. Multiple Regression

Four multiple linear regressions were used to explore the relationship between each of the TSC-40 subscales (dissociation, anxiety, depression, and sleep) and the predictor variables, consisting of the four ADSHQ subscales (perceived confidence, effective ability, empathic approach, and coping ability) and the KSHQ total score. The aim was to explore the variance in each of the trauma symptom subscale scores in relation to the predictors. Three Analyses of Variance were also conducted to explore the differences between training and attitudes towards self-harm; setting and attitudes towards self-harm; and whether support was offered following an incident of self-harm and trauma symptoms. With a sample size of 117 participants, sufficient power established by G* Power was ensured, detecting significant predictors of trauma symptoms and minimizing type II errors. Data was analysed using SPSS software. The means and standard deviations (SD) of each subscale can be found in table 7.

Table 7.

Means and Standard Deviations of ADSHQ, KSHQ, and TSC-40

Scale	Mean (SD)	Min-Max
ADSHQ Subscales		
Perceived Confidence	26.50 (2.68)	16-32
Effective Ability	17.01 (1.87)	12-22
Empathic Approach	8.79 (2.32)	5-19
Coping Ability	14.56 (2.86)	7-21
KSHQ Total	61.44 (6.61)	20-76
TSC-40 Subscales		
Dissociation	4.99 (3.77)	0-18
Anxiety	6.45 (4.72)	0-23
Depression	6.21 (4.15)	0-19
Sleep	7.45 (4.51)	0-18

Note: n = 117 for all variables.

3.2.1. Assumptions Test

The assumptions for all four multiple linear regression were assessed and were met; evidence of which can be found in Appendix N. The correlations between each dependent variables and independent variables were above 0, meaning linearity was not violated. The histograms of standardised residuals indicated that the data contained approximately normally distributed errors. The scatterplot of standardised residuals showed that the data met the assumptions of homogeneity of variance and linearity. The data met the assumption of independent errors for each multiple regression (see table 8 for Durbin-Watson value). Finally, the data met the assumption of collinearity (see table 8 for collinearity tolerance and VIF statistics). Table 8 demonstrates the regression models for each of the predictors for dissociation, anxiety, depression, and sleep.

3.2.2. Dissociation:

Dissociation was the first dependent variable to be assessed by the multiple linear regression model. The results of the multiple linear regression analysis revealed that none of the attitudes towards deliberate self-harm subscales (perceived confidence, effective ability, empathic approach and coping ability), and knowledge of self-harm scores were significant predictors of symptoms of dissociation. The overall model was not significant, $F(5, 111) = .63$, $p = .68$, $R^2 = .03$.

3.2.3. Anxiety:

Anxiety was entered into the multiple linear regression equation as the dependent variable. The overall regression model was statistically significant, $F(5, 111) = 2.80$, $p = .02$, $R^2 = .11$. It was found that coping ability significantly predicted anxiety ($\beta = .32$, $p < .001$). It was found that perceived confidence ($\beta = .03$, $p = .90$), effective ability ($\beta = .12$, $p = .93$), empathic

approach ($\beta = .02$, $p = .88$), and knowledge of self-harm ($\beta = .02$, $p = .95$) did not significantly predict anxiety.

3.2.4. Depression:

When depression was entered into the multiple linear regression equation as the dependent variable, the overall regression model was statistically significant, $F(5, 111) = 2.80$, $p = .02$, $R^2 = .11$. It was found that coping ability significantly predicted depression ($\beta = .29$, $p < .001$). It was found that perceived confidence ($\beta = .04$, $p = .69$), effective ability ($\beta = -.01$, $p = .94$), empathic approach ($\beta = .08$, $p = .40$), and knowledge of self-harm ($\beta = -.11$, $p = .23$) did not significantly predict depression.

3.2.5. Sleep:

Sleep was the final dependent variable to be assessed by the multiple linear regression model. The results of the multiple linear regression analysis revealed that none of the attitudes towards deliberate self-harm subscales (perceived confidence, effective ability, empathic approach and coping ability), and knowledge of self-harm scores were significant predictors of symptoms of dissociation. The overall model was not significant, $F(5, 111) = .86$, $p = .51$, $R^2 = .04$.

Table 8.

Tests of Linear Regression Models for Predictors of Dissociation, Anxiety, Depression and Sleep

Predictor	β	t	p	Durbin-Watson	Collinearity Tolerance	Collinearity VIF
Dissociation				2.01		
Perceived Confidence	.05	.49	.63		.90	1.12
Effective Ability	.10	.99	.33		.93	1.07
Empathic Approach	-.00	-.03	.98		.88	1.14
Coping Ability	.13	1.26	.21		.88	1.14
Knowledge	-.02	-.17	.86		.95	1.05
Anxiety				1.88		
Perceived Confidence	.03	.31	.76		.90	1.12
Effective Ability	.12	1.24	.22		.93	1.07
Empathic Approach	.02	.20	.84		.88	1.14
Coping Ability	.32	3.30	.00*		.88	1.14
Knowledge	.02	.26	.80		.95	1.05
Depression				2.27		
Perceived Confidence	.04	.40	.69		.90	1.12
Effective Ability	-.01	-.08	.94		.93	1.07
Empathic Approach	.08	.85	.40		.88	1.14
Coping Ability	.29	3.07	.00*		.88	1.14
Knowledge	-.11	1.20	.23		.95	1.05
Sleep				2.01		
Perceived Confidence	-.02	-.15	.88		.90	1.12
Effective Ability	.02	.23	.82		.93	1.07
Empathic Approach	.02	.18	.86		.88	1.14
Coping Ability	.19	1.94	.06		.88	1.14
Knowledge	-.01	-.10	.92		.95	1.05

Note: Perceived confidence, effective ability, empathic approach, and coping ability are subscales of the ADSHQ. Knowledge is the total score of the KSHQ.

* = $p < .005$.

3.3. Analysis of Variance

3.3.1. Assumptions Test

When the ADSHQ were entered into the ANOVA equation as the dependent variable, the assumption of normality and homogeneity of variances were not met. The Shapiro-Wilk test confirmed that the data was not normally distributed (Appendix O). Furthermore, homogeneity of variances were significant for empathic and coping ability, indicating that this assumption was not met (Appendix O). Therefore, a non-parametric test, Mann-Whitney U Test, was used when ADSHQ was inputted into the equation as the dependent variable. The assumptions tests previously run for the multiple regression confirmed that the assumption of normality and homogeneity were met when trauma symptoms were entered as the dependent variable. Therefore, a One-Way ANOVA was used to explore the differences between whether participants gained support following self-harming incidents and reporting of trauma symptoms.

3.3.2. Training and Attitudes towards self-harm

A Mann-Whitney U two-tailed test was performed to evaluate whether ADSHQ subscale scores differed by whether participants received training in managing self-harm. A Mann-Whitney U test was chosen as there were two independent samples within whether participants received training (yes/no). Table 9 demonstrates the mean, standard deviations, and one-way analyses of variance of attitudes towards deliberate self-harm for those who attended training, and those who did not. The results indicated that participants who had attended training on self-harm ($M = 66.74$, $n = 51$) had significantly higher scores on effective ability than those who had not attended training on self-harm ($M = 53.02$, $n = 66$), $U = 1288.50$, $z = -2.21$, $p = .03$, with a weak/moderate effect size, $r = .20$. The results also indicated that those who had attended training had significantly lower scores ($M = 51.16$, $n = 51$) on coping ability than those who did not attend training ($M = 65.06$, $n = 66$), $U = 1283.00$, $z = -2.21$, $p = .03$, with a weak/moderate effect size, $r = 0.20$. There were no significant

differences between confidence or empathic approach and whether staff had attended training on self-harm.

Table 9.

Mean, Standard Deviations, and One-Way Analyses of Variance of Attitudes Towards Self-Harm of those who Attended Training and Did Not Attend Training.

Predictor	Attended Training	Did Not Attend Training	Z-value	p
	Mean Rank	Mean Rank		
Perceived Confidence	60.50	57.84	-.42	.67
Effective Ability	66.74	53.02	-2.21	.03*
Empathic Approach	59.90	58.30	-.26	.80
Coping Ability	51.16	65.06	-2.21	.03*

Note: $n = 51$ for attended training. $n = 66$ for did not attend training. * = $p < .005$.

Perceived confidence, effective ability, empathic approach, and coping ability are subscales of the ADShQ. Knowledge is the total score of the KSHQ.

3.3.3. Setting and Attitudes towards self-harm

A Mann-Whitney U two-tailed test was performed to evaluate whether ADSHQ subscale scores differed by setting. A Mann-Whitney U test was chosen as there were two independent samples within the setting that participants worked in. Table 10 demonstrates the mean, standard deviations, and one-way analyses of variance of attitudes towards self-harm for prison staff and secure psychiatric hospital staff. The results indicated that secure psychiatric hospital staff ($M = 64.10$, $n = 75$) had significantly higher scores on perceived confidence than prison staff ($M = 49.89$, $n = 42$), $U = 1192.50$, $z = -2.19$, $p = .03$, with a weak/moderate effect size $r = .20$. The results also indicated that secure psychiatric hospital staff ($M = 64.21$, $n = 75$) had significantly higher scores on effective ability than prison staff ($M = 49.69$, $n = 42$), $U = 1184.00$, $z = -2.261$, $p = .02$, with a weak/moderate effect size $r = .21$. There were no significant differences between empathic approach or coping ability of secure psychiatric hospital staff and prison staff.

Table 10.

Mean, Standard Deviations, and One-Way Analyses of Variance of Attitudes towards Self-Harm for Prison Staff and Secure Psychiatric Hospital Staff.

Predictor	Prison Staff	Secure Psychiatric Hospital	Z-value	p
	Mean Rank	Staff Mean Rank		
Perceived Confidence	49.89	64.10	-2.19	.03*
Effective Ability	49.69	64.21	-2.26	.02*
Empathic Approach	65.70	55.25	-1.62	.11
Coping Ability	59.55	58.69	-.13	.90

Note: $n = 42$ for prison staff. $n = 75$ for secure psychiatric hospital staff. * = $p < .005$.

Perceived confidence, effective ability, empathic approach, and coping ability are subscales of the ADSHQ. Knowledge is the total score of the KSHQ.

3.3.4. Support and Trauma Symptoms

A one-way between-subjects ANOVA was used to explore the differences between whether participants were offered support ($n = 85$) or not offered support ($n = 32$) after an incident of self-harm (yes/no) and the presence of trauma symptoms. Table 11 demonstrates the mean, standard deviations, and one-way analyses of variance of trauma symptoms for those who were offered support and not offered support. There were no statistically significant differences between group means as determined by one-way ANOVA for dissociation ($F(1, 115) = .03, p = .86$); anxiety ($F(1, 115) = .98, p = .33$); depression ($F(1, 115) = 1.72, p = .19$); and sleep ($F(1, 115) = .06, p = .80$).

Table 11.
Mean, Standard Deviations, and One-Way Analyses of Variance of Trauma Symptoms for those who were Offered Support and Not Offered Support.

Predictor	Offered Support		Not Offered Support		$F(1, 115)$	p
	M	SD	M	SD		
Dissociation	4.95	3.55	5.09	4.39	.03	.86
Anxiety	6.19	4.68	7.16	4.85	.98	.33
Depression	5.91	3.96	7.03	4.60	1.72	.19
Sleep	7.52	4.38	7.28	4.89	.06	.80

Note: M = Mean. SD = Standard Deviation.

$n = 85$ for offered support. $n = 32$ for not offered support.

* = $p < .005$.

4. Discussion

This research study looked to identify the relationship between attitudes towards self-harm and knowledge of self-harm and the impact on reported trauma symptoms by staff working in prisons and secure psychiatric hospitals. Four multiple linear regressions and three analysis of variance tests were used to explore four hypotheses. This discussion will interpret and offer an explanation of the results within this research project.

4.1. Interpretation of Regression Results

It was hypothesized that the regression models would show that lower scores on ADSHQ subscales and the KSHQ would predict higher scores on the TSC-40 subscales. This hypothesis was not retained; however, the model identified some significant predictors of TSC-40 subscales.

When anxiety was entered into the equation as the dependent variable, the multiple linear regression model was found to be significant, indicating that 11% of the variance in reported anxiety was explained by perceived confidence, effective ability, empathic approach, coping ability, and knowledge of self-harm. This result contradicts existing research, which identified that more negative attitudes towards self-harm and less knowledge of self-harm were related with higher levels of trauma responses (Sandy & Shaw, 2012; Shaw & Sandy, 2016). In particular, coping ability was found to be a significant unique predictor of anxiety. The results indicate that with one unit of change in anxiety, coping ability scores will increase by 0.32 when all other predictors are held constant. An interpretation of the association between increased anxiety and increased coping ability could be related to workplace pressures and the need to continue to cope despite ongoing anxiety levels (Dennard *et al.*, 2021). An increase of ongoing pressures and constant 'firefighting' in forensic settings may lead to an increase in anxiety, but also the need to cope with this anxiety to enable staff to perform their daily duties. Furthermore, those who have better coping abilities may be more self-aware

and attuned to their anxiety levels, therefore impacting the way they perceive their situation and perceiving that they are able to manage stressful situations despite ongoing levels of higher anxiety (Coppens *et al.*, 2010).

The overall model suggests that the variables have influence over symptoms of anxiety, but in a different direction than expected. An interpretation of this could be that individual's with more positive attitudes and a good understanding of self-harm could lead to increased anxiety regarding caring for the individual, providing validation when the service-user engages in self-harm, but continuing to worry about whether the self-harming behaviours will continue. Supporting those that self-harm with positive attitudes, such as empathic approaches, confidence, and being able to cope accordingly does not necessarily alleviate the anxiety that staff may experience for the concern for the safety and wellbeing of those in their care (Gibb *et al.*, 2010). In fact, it could be argued that those who show empathy and have good knowledge about the risks related self-harm may have an increased anxiety that the individual will inflict serious harm or even end their life by suicide. Furthermore, managing self-harm can lead to ethical dilemmas, particularly related to decision-making within the workplace, which can lead to increased anxiety. The results from this study suggest that despite good knowledge of self-harm and positive attitudes towards self-harm, anxiety can still be present in those exposed to and managing such behaviours in forensic settings.

When depression was entered into the equation as the dependent variable, the multiple linear regression was also found to be significant, indicating that 11% of the variance in reported depression symptoms was explained by perceived confidence, effective ability, empathic approach, coping ability, and knowledge of self-harm. Coping ability was also found to be a significant unique predictor of depression, indicating that with one unit of change in depression, coping ability will increase by 0.29 when all other predictors are held constant. The relationship between reported coping ability and symptoms of depression can

be complex, but similar to symptoms of anxiety, having an awareness of depressive symptoms and coping skills to manage these may help to understand the positive significant relationship between the variables in this study. Personality factors, including a fear of failure and pressure to perform, leading participants to feel able to cope and possibly attempting to maintain a facade of competence, may indirectly lead to feelings of stress and worsening depression symptoms, which could also explain why depressive symptoms may increase with increased coping ability (Dunkley *et al.*, 2017). Individual's coping abilities are not static and can fluctuate depending on a variety of factors including support systems, resilience, and the current situation at hand (Roohafza *et al.*, 2014). Avoidance coping, defined as distancing oneself from the stressor, has been found to increase depressed mood, which could also explain the relationship between increased self-reported coping ability and increased symptoms of depression (Blalock & Joiner, 2000).

As with anxiety, the overall model suggests that the variables have influence over symptoms of depression, but in a different direction than expected. An understanding of these findings could be explained in line with existing research, which highlights that understanding self-harm and having compassion, confidence and an ability to cope with self-harm will over time lead to psychological strain (Marzano *et al.*, 2012). Research has highlighted that consistently responding to and managing self-harm, despite positive attitudes and knowledge of self-harming behaviours can impact on psychological distress, which would explain the predictive value of attitudes and knowledge of self-harm on depressive symptoms (Suokas *et al.*, 2008).

Attitudes towards self-harm and knowledge of self-harm were found to have no significant predictive value to dissociation or sleep within this cohort. It is of note that only 11% of the variance for both anxiety and depression were explained by the regression models, which is considered a weak explanatory model explaining human behaviour (Henseler *et al.*, 2009).

Further research could include exploring other factors that may predict trauma symptoms to further understand this relationship.

4.2. Interpretation of ANOVA Results

The second hypothesis was partially met, firstly indicating that those who attended training on self-harm had higher effective ability than those who had not. Effective ability refers to how the participants rated themselves with the ability to respond to and manage service-users who self-harm (McAllister *et al.*, 2002). This finding is consistent with previous literature acknowledging that understanding the functions of self-harm can lead to feeling more effective and equipped to support those who engage in self-harming (Wheatley & Austin-Payne, 2009). Interestingly, those who reported that they had attended training scored lower on coping ability than those who did not attend training, which was the opposite direction than hypothesized. It may be that the content of training focuses on individuals who self-harm and how staff can build skills to work with reducing self-harming incidents, rather than how they can themselves cope with managing what can be traumatic events. For example, prison training regarding self-harm primarily focuses on the process of opening and completing Assessment, Care in Custody and Teamwork (ACCT) plans, which is the planning process that staff complete with prisoners at higher risk of self-harm/suicide (Pike & George, 2019). There is little to no information regarding how to identify any difficulties that staff may be experiencing in relation to self-harming behaviours, which may explain why participants do feel less equipped to cope with self-harm. No significant differences were found with training attendance on confidence and empathy, inconsistent with existing literature (Elliott & Daley, 2012).

The third hypothesis was also partially met, indicating some significant differences between prison staff and secure psychiatric hospital staff's attitudes towards self-harm. As hypothesized, secure psychiatric hospital staff had higher scores on perceived confidence than prison staff. Perceived confidence relates to staff's certainty in assessing and managing

individuals that self-harm, which may be more established in the duties for secure psychiatric hospital staff compared to prison staff, and which is in line with existing research (Sandy & Shaw, 2012). Also meeting the hypothesis was the finding that secure psychiatric hospital staff had higher scores on effective ability than prison staff, indicating that they felt more able to effectively manage individuals who self-harm effectively. Similarly, due to the nature of secure psychiatric hospital staff's daily duties and training requirements, they may feel more equipped to manage self-harming behaviours more than prison staff, as previous literature also highlights (Sousa *et al.*, 2019). Empathic approach and coping ability were not found to have significant differences between secure psychiatric hospital staff and prison staff within this cohort of participants.

The fourth hypothesis was not met, and no significant differences were found between whether staff are offered/attended support and the presence of reported trauma symptoms, which contradicts previous research (DeHart *et al.*, 2009). This may not have been highlighted due to some of the limitations of the research, discussed below.

4.3. Limitations

The first limitation of this study is the restricted control of confounding variables. Working in forensic environments is highly stressful and alongside exposure to and management of self-harming behaviours, there are several other demands placed on staff that may lead to trauma symptoms that were not measured or controlled within this study (Elliott & Daley, 2012). Witnessing incidents of violence and other challenging behaviour can also be traumatic and therefore impact trauma symptomology within forensic staff, which may have impacted the presence of self-reported symptoms within this cohort (Morris *et al.*, 2023). Furthermore, individual characteristics such as personality factors and underlying mental health issues were not controlled within this study, all of which have been found to impact resilience to self-harm and the development of trauma symptoms following exposure to traumatic events (Lauterbach & Vrana, 2001; Stratta *et al.*, 2015). Trauma symptoms from

working in such complex environments can be hard to separate and identify one cause or correlation.

A further confounding variable that was not controlled for is the experiences of staff working in forensic settings who may have managed a death by suicide. Working in forensic settings, it is possible that staff may have experiences of responding to death by suicide and this may impact their trauma responses when managing self-harm. It would be beneficial to control for this variable in future research.

This study utilised a snowball sampling technique to recruit participants working in forensic settings via an online survey such as LinkedIn, Reddit, Twitter and in Facebook groups. As snowball sampling uses network-based convenience to promote the research, the sample that it reaches may possess some dominant characteristics of those connected with the researcher on social media. This may explain some of the gender bias presented in the study, with 99 females and only 16 males completing the study. The gender imbalance of participants within this study should be taken into account when generalising the results. Furthermore, there was an imbalance in the setting that participants worked in, with 42 working in prisons and 75 working in secure psychiatric hospitals, perhaps due to the researcher being more connected with those working in these settings than those working in prisons. This may lead to some bias with the results, particularly as self-harming behaviours may be more common in secure psychiatric hospitals and potentially leading to more staff exposure (Sandy & Shaw, 2012).

Online surveys have methodological limitations in the population which they are distributed to and respondent bias relating to motivations to be included in the study (Andrade, 2020). Although 117 participants included in the study met statistical power as identified by G*Power, findings may be limited in generalising to the population of all staff working in prisons and secure psychiatric hospitals.

Finally, there are methodological limitations in self-report measures. Trauma is a complex phenomenon, with limited capacity to make conclusions about causes or associations by using self-report. This is further discussed in Chapter Five, which critiques the TSC-40, highlighting general difficulties with measuring trauma symptoms. Other problems with self-report include social desirability bias, particularly related to denial or minimisation of symptoms when being questioned about the impact of current employment (Paulhus, 2017). There is often stigma associated with experiencing trauma symptoms in which participants may fear being misunderstood, judged, or stigmatised, which may lead to reluctance and hesitation in reporting (Vigo, 2016). Furthermore, those who continue to witness traumatic events (for example ongoing self-harm) may minimise or deny the experience to protect themselves from distress or may not recognise the symptoms as being related to trauma at all. Some may attribute their difficulties to other causes, misinterpreting their experience and therefore underreporting their experiences, which would impact the validity of the results.

4.4. Future Research Directions

To further understand and expand on the results of this study, mixed methodology could be used to gain further insight into participants attitudes, knowledge, and their experiences of trauma symptoms in relation to exposure to self-harming behaviours. It may also be helpful to control some of the confounding variables in the way of including a measurement of personality factors and resilience, adding this to the regression model to understand the predictive value of this. This would potentially help to explain some of the unexpected results and may strengthen some of the effect sizes of the findings within this study.

4.4. Conclusions

This research set to explore the relationship between attitudes towards self-harm, knowledge of self-harm, and trauma symptomology. Findings partially met the hypotheses. Depression and anxiety were explained by more positive attitudes towards self-harm, and increased knowledge of self-harm. No relationship was found between attitudes towards

self-harm, knowledge of self-harm, and dissociation and sleep. Significant differences were found between attending training and not attending training on the ability to effectively manage self-harm. Significant differences were also found between attending training and not attending training and lower feelings of perceived confidence with managing self-harm. Staff working in secure psychiatric hospitals had higher scores on perceived confidence and effective ability than prison staff. Trauma symptoms are complex to measure and understand in relation to self-harm alone. There is a need to further control potential confounding variables and to take into consideration the pressures of working within forensic settings in more detail.

CHAPTER FIVE:
A CRITIQUE OF THE TRAUMA SYMPTOM CHECKLIST-40

ABSTRACT

Background: The Trauma Symptom Checklist (TSC-40) is a widely used 40-item research measure evaluating symptomology in adults, associated with traumatic experiences in childhood or victimisation (Elliott & Briere, 1992). Although the TSC-40 is extensively used and its psychometric properties supported, no psychometric critique has yet specifically assessed its utility for research and clinically with forensic populations.

Aims: The aim of this critique was to explore the validity and reliability of the TSC-40 when used as a measure for general symptomology of trauma.

Findings: The checklist is based on the diagnostic criteria for PTSD, as defined by the DSM-5 (American Psychiatric Association, 2013). The physical, cognitive, and emotional symptoms related to PTSD are assessed using the tool, and numerous studies have identified the TSC-40 as valid and reliable to identify the presence of trauma symptoms in both research and clinical settings.

Conclusions: This critique has demonstrated that the TSC-40 is a reliable and valid tool in what is a complex concept of assessing the presence of trauma symptoms in both forensic settings and within the general population. Strengths include the time and cost-effectiveness of the measure, with no further training required to administer the TSC-40. Limitations including social desirability bias and the impact of individual characteristics are discussed.

1. Introduction

1.1. Definition of Trauma

Trauma has been studied since approximately 1900BC, when ancient writings first described symptoms that are now recognised as traumatic stress reactions (Figley *et al.*, 2017). Over time, the term 'trauma' has had various definitions in psychological literature with challenges arising due to the nuanced presentation of symptoms between individuals (Dalenberg *et al.*, 2017). In relation to trauma, researchers differ in the language used, also referring to it as a trauma response, post-traumatic stress disorder (PTSD), a trauma stress reaction, and psychological trauma (Dalenberg *et al.*, 2017).

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), post-traumatic stress disorder (PTSD) is defined as a psychological, physical, or emotional responses that are overwhelming and are caused following an event or situation (American Psychiatric Association, 2013). The DSM-5 states that the individual must have experienced exposure to actual or threatened death, severe injury, or sexual violence either directly, as a witness, or to a close family member or friend. Events precipitating symptoms of trauma include one off events, such as an accident, natural disaster, incident of violence, the violent death of a loved one, or an isolated incident of sexual assault.

Complex trauma is defined as repeated, interrelated exposure to multiple events, such as childhood abuse (sexual, physical, or emotional); living in war zones, or enduring long-term illness. Complex trauma has similar qualities to symptoms of PTSD, identified by the DSM-5 as being experienced by both adults and children older than 6 years.

1.2. Symptoms of Trauma

Symptoms of trauma are individual, and even if two people are exposed to or witnessed the same event, their symptoms of trauma do not tend to present in the exact same manner.

The DSM-5 (American Psychiatric Association, 2013) identifies four main groups of

symptoms that must be ongoing for at least a month and must interfere with multiple areas of the individual's life, including work/school and relationships:

1. Intrusion symptoms, including intrusive memories of the traumatic events, flashbacks and nightmares, psychological distress at exposure to internal or external cues resembling the traumatic event;
2. Avoidance behaviours, including avoidance of distressing memories, thoughts, or feelings about the traumatic event;
3. Changes in cognition and mood, including inability to remember parts or all the event; persistent and exaggerated negative beliefs about oneself; persistent negative emotional state; distorted thoughts relating to the cause or consequences of the event resulting in self-blame or blaming others; feelings of detachment; decrease interest in significant activities; or inability to experience positive emotions;
4. Physical reactivity, including irritable behaviour and angry outbursts; reckless or self-destructive behaviour; exaggerated startle response; hypervigilance; concentration difficulties; or sleep disturbance.

1.3. Importance of Measuring Trauma Symptoms

All human beings are susceptible to experiencing traumatic events and having a reaction or response to such events. The susceptibility of trauma symptoms varies between individuals influenced by factors such as biological vulnerability factors, previous experiences, coping skills, and support networks (SAMHSA, 2014). Biological factors including serotonin regulation, intelligence and neuropsychological functioning have been found to impact the way that individuals physiologically respond to a traumatic event, highlighting that lower levels of serotonin production are linked to increased severity of stress symptoms (Bomyea *et al.*, 2012; Connor & Davidson, 2014).

The experience of trauma and symptoms related to traumatic events is prevalent in populations worldwide, with significant costs to both individuals and societies, being recognised as a public health concern (Magruder *et al.*, 2017). In the general population, identifying trauma symptoms is crucial in understanding immediate concerns relating to harm to self or others, ongoing unsafe environments, or imminent death. It also can help to inform conceptualisation, treatment planning, monitoring progress and preventing longer term psychological difficulties.

Within forensic settings such as prisons or secure psychiatric hospitals, identifying and recognising complex trauma or trauma symptoms in service-users is essential. This helps prevent re-traumatisation, manage offending behaviours, maintain the safety of all individuals, taking into consideration vulnerable individuals that may self-harm or use substances, and to guide assessment and interventions to promote desistance from offending (Miller & Najavits, 2012). Notably, the prevalence of historical childhood emotional, physical, or sexual abuse, within individuals in UK prisons is 53% of women and 27% of men (Bradley, 2022).

Research in a medium security UK prison shows sentenced prisoners who met the criteria for PTSD, were more likely to engage in violent behaviours within the initial three months of imprisonment (Facer-Irwin *et al.*, 2023). Lifetime exposure to interpersonal trauma and the use of violence in custody was mediated by the severity of PTSD symptoms, suggesting that the identification and treatment of PTSD could reduce violent behaviours within prison populations. Another population who may also experience symptoms of trauma within forensic populations is among staff members. Vicarious trauma has been studied for over thirty years, identifying that therapists and other professions hearing about traumatic material can impact their reactions (McCann & Pearlman, 1990).

In more recent years, there is further consideration of trauma symptoms among staff working in forensic populations, recognising the impact that directly responding to potentially traumatic events can have on individuals (Slack, 2020). It is not always easy to identify when an individual may be experiencing a trauma response and therefore the assessment of these symptoms are vital to identify, support, and manage individuals on both a professional and personal level. Trauma survivors may not meet the diagnostic criteria for PTSD, but symptoms related to a trauma response may limit their ability to function normally (SAMHSA, 2014).

There are various psychometric instruments used to measure trauma symptoms. One of the first and still used today is the Trauma Symptom Checklist-40 (TSC-40; Elliott & Briere, 1992).

2. The Trauma Symptom Checklist-40 (TSC-40)

The Trauma Symptom Checklist (TSC-40) is a widely used 40-item research measure evaluating symptomology in adults, associated with traumatic experiences in childhood or victimisation (Elliott & Briere, 1992). The scale was originally developed to measure the long-term impact of childhood trauma in adulthood and the reporting period of symptoms is within the past two months. The TSC-40 is a revision of the earlier TSC-33, with additional items to increase the reliability of the Sleep Disturbance subscale, and a new Sexual Problems subscale. The TSC-40 consists of six subscales: Dissociation, Anxiety, Depression, Sexual Abuse Trauma Index, Sexual Problems, and Sleep Disturbances. Several items within the TSC-40 are used in the composition of more than one subscale, highlighting the overlap of symptoms and constructs (Rizeq *et al.*, 2020). The TSC-40 was developed to represent the diverse symptomology of trauma, beyond the more well-known PTSD symptoms highlighted in the DSM-5.

The measure is designed for research purposes exclusively and should not be used as a clinical test to diagnose PTSD in participants. The tool should only be used when conducting trauma-related research, or when individuals diagnosed with symptoms of trauma want to better understand themselves, to gather information and think about how they are impacted by each of the items on the checklist. There are no cut-offs for clinical evaluation as this is a research measure and is not normed on the general population (Briere & Runtz, 1989). The main intention for the development of the TSC-40 was to focus on abuse-related symptoms, however the authors also identify that the measure can be used to identify the long-term impact of traumatic experiences (Briere & Runtz, 1989). Although there is an abundance of research using the TSC-40 relating to the impact of child sexual and physical abuse on trauma symptoms in adulthood, there is also a wealth of research using the TSC-40 to assess symptomology related to adult trauma exposure.

2.1. Principles of the TSC-40

Each symptom item on the scale is rated according to frequency of occurrence over the past two months. Participants self-report their experience of symptoms using a 4-point Likert Scale ranging from 0 ('never') to 3 ('often'). Participants can yield a total score between 0 to 120, and individual scores on the subscales are calculated by scoring the items for each subscale. High scores indicate an increase in frequency and severity of trauma-related symptoms. It is of note that the Sexual Abuse Trauma Index items are the symptoms that are mostly correlated with sexual abuse survivors but should not be used to identify whether someone has been sexually abused. The clusters of items related to each subscale are empirically based, developed from research reporting the occurrence of trauma symptoms in those who have experienced sexual abuse (Browne & Finkelhor, 1986). Most studies exploring the psychometric properties of the TSC-40 have been based on a population of women who have experienced sexual abuse, restricting the generalisability of the findings. The tool has however since been used within different populations, including predicting intimate partner violence and vicarious trauma (Chrestman, 1995; Dutton, 1995).

2.2. The Biological Theory of Trauma

The Biological Theory of Trauma identifies that traumatic events can induce physical changes in the brain, which subsequently relate to behaviours that are documented about trauma symptoms in the psychological literature (De Bellis & Zisk, 2014). This theory suggests that experiencing traumatic events can impact memory, cognitions, emotions, and narrative, which are symptoms of PTSD highlighted within the DSM-5 (Pitts *et al.*, 2022). The TSC-40 measures the frequency of the emotional symptoms (anxiety, depression), difficulties with cognitions (desire to physically hurt others, flashbacks) and memory (spacing out, memory problems). The Biological Theory of Trauma therefore underpins the diagnostic criteria for PTSD, which the TSC-40 has developed the items to measure different elements of trauma symptomology.

3. Psychometric Properties

3.1. Reliability

Assessing the reliability of psychometric measures is essential to ensure that instruments used to assess psychological constructs are consistent, precise, and trustworthy. Reliability is assessed to understand how consistent or stable the measure is when the process of administering the measure is repeated (Prieto & Delgado, 2010). There are several tests used to measure reliability including internal consistency, measuring the stability of an instrument over time and across different situations; test re-test reliability, measuring the consistency of scores when the instrument is administered to the same group of individuals on different occasions; and inter-rater reliability, measuring the consistency or agreement of scoring among different researchers or clinicians (Price *et al.*, 2015).

Elliott and Briere (1992) measured the long-term impact of childhood sexual abuse using the TSC-40, administered to 2963 professional women in the United States of America. The

results determined overall high internal consistency ($\alpha = .90$), with subscales scoring between .62 and .77, indicating good reliability: anxiety ($\alpha = .66$), depression ($\alpha = .70$), dissociation ($\alpha = .64$), sexual abuse trauma index ($\alpha = .62$), sexual problems ($\alpha = .73$), and sleep disturbance ($\alpha = .77$). This study found that it was possible to discriminate symptomology between participants who were sexually abused and those who were not, highlighting the trustworthiness of the measure. Although initially established to measure childhood sexual abuse, a study has concluded that the tool is reliable for also measuring the trauma symptoms for those who have experienced childhood physical abuse, as well as sexual abuse (Neal & Nagle, 2013).

3.2. Validity

Measuring the validity of a psychometric measure is crucial to understand how accurately an instrument measures the intended construct. Briere and Runtz (1989) identified that the multifaceted symptomology of those who have experienced childhood sexual abuse were not measured by psychometrics at the time, hence the inclusion of diverse symptomology that is captured within the TSC-40. Although initially established to measure the long-term impacts of childhood sexual abuse, Briere and Runtz (1989) identify that the TSC-40 can be used to measure the long-term effects of different trauma experiences (Dutton, 1995).

Construct validity, referring to how well the instrument measures the intended concept, is the most commonly used method to assess validity for checklists, assessing events that typically seem reasonable (Norris & Hamblen, 2004). The TSC-40 was found to have moderate construct validity, measuring trauma symptoms across groups exposed to a variety of trauma experiences (Briere, 1996; Rizeq *et al.*, 2020). Convergent validity was established by Zlotnick *et al.* (1996), comparing the TSC-40 to various scales measuring different symptomology of trauma, including The Dissociative Experiences Scale for dissociation (Bernstein & Putnam, 1986), the Symptom Checklist 90-R for depression and anxiety (Derogatis, 1977), and the Self-Rating Traumatic Stress Scale for sexual abuse trauma and other symptoms of PTSD (Davidson, 1995). The convergent validity was established within

this study within the subscales, with dissociation, anxiety, and depression being the most highly related to a hypothesized construct. The study also established criterion-related validity in relation to childhood sexual abuse. Predictive validity of the TSC-40 was demonstrated with a wide range of traumatic experiences, including the perpetration of intimate partner violence (Dutton, 1995) and the experience of vicarious traumatisation in psychotherapists (Chrestman, 1995).

4. Benefits and Limitations of the TSC-40

4.1. Self-Report Measure

The TSC-40 is a self-report measure which have recognisable advantages and disadvantages throughout psychological literature. Self-report measures are time- and cost-effective to administer, with the TSC-40 taking between 10 to 15 minutes to complete and can be scored within 5 to 10 minutes (Elliott & Briere, 1992). The TSC-40 is accessible to everybody, and no additional training is required to use the tool, also contributing to the time- and cost-effective nature of the tool.

Results of self-report measures are generally more reliable and valid than projective testing, which allow individuals to provide responses to ambiguous stimuli, leading to subjective results that may have a cultural bias and a lack of standardization. A projective test identifying symptoms of trauma would assume correlation between the individual's behaviours, report of symptoms, and their internal state, which is not always accurate (Wiggins & Trobst, 1998). A limitation of relying on self-report for emotional and cognitive difficulties is that the tool relies on the individual's own description of their mental impairment, relying on individuals to respond honestly (Bush *et al.*, 2014). Social desirability response bias may involve participants over or under reporting symptomology, answering in ways that portray them in a positive way (Holden & Passey, 2009). This is an issue

highlighted within the psychological literature related to self-report measures, however, it should be noted that it is almost impossible to measure the cognitive or emotional processes of another without relying on self-report.

4.2. Context

The TSC-40 is a measure for general symptomology of trauma, rather than focusing on the impact from one specific event. It has been argued that tools measuring symptoms of trauma are not aimed at measuring the cause, but rather to measure the prevalence of the outcome of these experiences, which is aligned with the construct of the TSC-40 (Schell *et al.*, 2004). Research has identified that within clinical studies using the TSC-40, there are differences of the presence of PTSD symptoms between those who have experienced traumatic events, and those who have not, highlighting the link between experiences and symptoms (Whiffen *et al.*, 1997). The TSC-40 was recognised to be sensitive to adulthood abuse as well as abuse within childhood, also identifying differences between those who have experienced sexual as well as non-sexual victimisation (Gold *et al.*, 1994). Some individuals may have encountered multiple traumatic events, with symptomology occurring from a multitude of experiences, meaning it is hard to identify the cause of such symptoms and therefore providing intervention related to specific traumatic events. It could be argued however that the symptoms of trauma can be identified and treated by providing therapeutic interventions relating to the symptomology, rather than addressing the traumatic event itself. The tool is recognised for use when people who are aware of historical traumatic experiences perhaps want to better understand themselves, taking the opportunity to reflect on their experiences and understand their symptoms within the past two months (Elliott & Briere, 1992).

The TSC-40 is designed to assess symptoms related to trauma within the time frame of the previous two months. PTSD symptoms usually begin within three months of a traumatic event and to meet the criteria for PTSD, the symptoms need to be ongoing for more than one month (National Institute of Mental Health, 2023). The two-month time frame aligns with the diagnostic criteria for PTSD, allowing for a dynamic assessment of relatively recent

symptomology, useful in capturing current distress and functioning, and providing a snapshot of the individual's symptoms in the immediate past (Newson *et al.*, 2020). Furthermore, in clinical and research settings, measuring symptoms over the past two months provides a balance between capturing recent experiences and avoiding recall bias associated with longer time frames (Wells & Horwood, 2004).

4.3. Individual Characteristics

Individual personality factors, and baseline cognitive and emotional functioning can impact the manner in which individual's experience and express symptoms related to trauma, which may impact the scores on the TSC-40 (Vallières *et al.*, 2021). Certain personality traits, for example high neuroticism, may impact how an individual perceives their symptoms, subsequently leading to over or under expression of symptomology. An individual higher in neuroticism may report an increase in emotional distress and therefore score higher on the TSC-40 (Ning *et al.*, 2017). Similarly, pre-existing mental health difficulties may impact the perception and reporting of trauma symptoms. Differences in cognitive processing may also impact on the tendency to think differently about traumatic events, for example some individual's may ruminate or engage in negative thinking patterns, impacting their perception and reporting of symptoms (Samuelson *et al.*, 2017). It has been highlighted that mental health difficulties and cognitive deficits may be related to previous traumatic experiences, all of which are therefore appropriately measured by the TSC-40 (Lewis *et al.*, 2021).

Cultural norms can impact the understanding, expression, and treatment of trauma symptoms (Patel & Hall, 2021). The TSC-40 is a tool developed in Western society and therefore interpretation of results should be sensitive when scoring the checklist for participants from different cultural groups. It is important to highlight that no psychological assessment is culture-neutral, however particularly good construct validity, high levels of internal consistency, and good concurrent and convergent validity were found on the Korean version of the TSC-40 among psychiatric outpatients (Park *et al.*, 2018). A recent study highlighted that those who experienced higher rates of race-based traumatic stress

symptoms had a higher scores on the TSC-40, suggesting a relationship between race-based trauma symptoms and traditional trauma symptoms (Roberson & Carter, 2021). Finally, consideration should be given to those who have underlying medical conditions that may impact on the under or over reporting of symptoms when administered the TSC-40. Some of the items on the TSC-40 relate to physical symptoms, for example, dizziness, memory problems, insomnia, and headaches. If required, confounding variables relating to medical issues can be controlled for, however it is of note that medical problems are more present in individuals who have been exposed to traumatic events, also described in the definition of PTSD by the DSM-5 and therefore supports the items on the TSC-40 (American Psychiatric Association, 2013; Cloitre *et al.*, 2008).

5. Discussion

This critique aimed to explore the Trauma Symptom Checklist-40 as a tool to measure symptomology following exposure or being witness to a traumatic event. Measuring symptoms of trauma is no doubt complex; however, it is essential to understand the impact on cognitions, emotions, and behaviours to avoid re-traumatisation, prevent longer term psychological difficulties, and to manage the safety of the individual and others around them in both forensic environments and among the general population (Miller & Najavits, 2012; Pitts *et al.*, 2022). The TSC-40 is based on the diagnostic criteria for PTSD, as defined by the DSM-5 (American Psychiatric Association, 2013). The physical, cognitive, and emotional symptoms related to PTSD are assessed using the tool, and numerous studies have identified the TSC-40 as a valid and reliable tool to identify the presence of trauma symptoms in both research and clinical settings (Elliott & Briere, 1992; Zlotnick *et al.*, 1996). Despite concerns of validity and reliability across cultures, good validity has been demonstrated within a sample of Korean psychiatric outpatients, suggesting some acculturation generalisation (Park *et al.*, 2018).

The TSC-40 has been recognised as a useful tool recommended for use for research purposes, and for when individuals who are aware of their historical traumatic experiences want to reflect on their experiences (Elliott & Briere, 1992). Although the tool was initially established to measure the long-term impacts of childhood sexual abuse, this critique has demonstrated that due to measuring symptomology for unspecified traumatic events, there is an abundance of research highlighting the validity and helpfulness of using the tool within different fields and for different traumatic experiences (Briere & Runtz, 1989; Chrestman, 1995; Dutton, 1995; Neal & Nagle, 2013; Park *et al.*, 2018). Benefits of the two-month time frame aligns with the diagnostic criteria for PTSD, allowing for a dynamic assessment of recent symptomology (Newson *et al.*, 2020).

As with any self-report measure, a limitation of the TSC-40 is that it may be susceptible to social desirability response bias and individual characteristics may impact the perception and understanding of symptomology, generating possible over- or under-reporting of symptoms (Holden & Passey, 2009; Ning *et al.*, 2017). Although self-report relies on honesty from the respondent, it is near impossible to measure the cognitive and/or emotional processes of an individual without assuming correlation between the individual's behaviour and their internal state, which is not always accurate (Wiggins & Trobst, 1998). The TSC-40 has been developed specifically for research purposes, helping to validate and support research hypotheses, rather than providing diagnoses in clinical settings, meaning respondents answers are often anonymous. This may help to mitigate social desirability bias. Furthermore, the tool can also be used for those who are aware of their trauma experiences and want further insight into their symptomology, which may also help to mitigate the social desirability bias.

Consideration should be given to those with underlying medical conditions, mental health difficulties, or cognitive deficits, as this may impact perceptions and understanding of symptomology leading to over- or under-reporting symptoms (Samuelson *et al.*, 2017;

Vallières *et al.*, 2021). As discussed within the systematic review in chapter one, physical deficits, such as poor sleep have been highlighted as a response to witnessing traumatic events and are therefore important to highlight. Furthermore, the DSM-5 highlights that changes in cognition, physical reactivity, intrusion symptoms, and avoidance behaviours are related to PTSD, all of which are assessed within the TSC-40 (American Psychiatric Association, 2013).

This critique has demonstrated that the TSC-40 is a reliable and valid tool in what is a complex concept of assessing the presence of trauma symptoms in both forensic settings and within the general population.

**CHAPTER SIX:
DISCUSSION**

1. Thesis Aims

The overall aim of this thesis was to address a gap in the literature relating to staff's responses and psychological wellbeing when frequently responding to self-harm in forensic settings. Specifically concentrating on conducting the research with employees working in prisons and secure psychiatric hospitals, further knowledge of a niche group of staff regularly exposed to self-harm was obtained. This group of employees appear to have been neglected in the literature and subsequently there has been insufficient understanding of forensic staff's responses following exposure to self-harm. Narrowing this gap in the literature can provide forensic organisations that work with individuals who self-harm a degree of insight into how staff may respond and how to recognise trauma symptoms in employees to keep staff safe and understand the impact on their psychological wellbeing. This thesis aimed to explore the psychological wellbeing, attitudes towards, and knowledge of self-harm of those working in prisons and secure psychiatric hospitals, with specific aims outlined as the following:

- To examine the existing literature exploring the impact of frequent exposure to self-harming behaviours on the psychological wellbeing of forensic staff.
- To outline the assessment, formulation, and intervention of a 21-year-old female residing in a medium secure psychiatric ward using Dialectical Behaviour Therapy to explore her self-harming behaviours.
- To explore the relationship between staff working in prisons and secure psychiatric hospitals' attitudes towards self-harm, knowledge of self-harm and the presence of trauma symptoms.
- To provide a critique of the Trauma Symptom Checklist-40 (Elliott & Briere, 1992) and its applicability in measuring trauma symptoms.

2. Summary and Interpretation of Findings

This thesis utilised various methods to understand each of the aims, including a systematic review (Chapter Two), a single case study (Chapter Three), an empirical research project (Chapter Four), and a critique of a tool used to measure trauma symptoms (Chapter Five).

2.1. Systematic Review Findings

To the author's knowledge, this is the first study to systematically review the literature exploring the psychological wellbeing of staff working in prisons and secure psychiatric hospitals regularly exposed to self-harm. To meet the objectives of the thesis, chapter two was guided by the research question:

- What is the impact of exposure to self-harming behaviours on the psychological wellbeing of forensic staff?

The review included ten studies aimed at exploring the responses of staff working in forensic settings managing self-harm. The limited number of studies meeting the inclusion criteria highlight that the sparse amount of research in the field, of which, mostly utilise a qualitative method to explore this topic.

The findings demonstrated that there were different immediate and prolonged psychological and emotional responses experienced by forensic staff following exposure to self-harm. The responses also appeared to differ between prison staff and secure psychiatric hospitals, with prison staff more likely to report prolonged desensitisation and detachment from emotions, and secure psychiatric hospital staff more likely to report stronger immediate emotional responses including anxiety and guilt. Regarding the discrepancies of responses reported by prison and secure psychiatric hospital staff, healthcare and hospital settings may hold individuals with more entrenched complex needs and staff may have more exposure to

regular self-harm (Laporte *et al.*, 2021). As supposedly more 'caring' environments, secure psychiatric hospitals may provide more space for staff to express their emotions, compared to prisons, where staff describe having to maintain a 'façade of coping' (Oates *et al.*, 2020; Sweeney *et al.*, 2018).

The need for support and training in responding to self-harm was identified throughout the studies included within the review. Within the UK, NHS and HMPPS policies on accessing support and training are in place to support individuals working in psychiatric care and prisons (HMPPS, 2022; Oates *et al.*, 2021). The review highlights that some staff may feel less able to access support, which may have a direct impact on responses towards self-harm (Kenning *et al.*, 2010).

The overall findings from the review highlight that: immediate responses, including fear and anxiety; anger and frustration; guilt and blaming; powerless and hopelessness; and pride and achievement; and prolonged responses, including desensitisation and emotional detachment flashbacks, nightmares and struggling outside of work; stress and shock; and vulnerability and loss of confidence were present in the findings from the ten reviews included in the review. These findings highlight that studies exploring the responses of staff indicate some powerful reactions that may be overlooked by forensic organisations.

Although it may appear to be protective, it is worth noting that desensitisation and detachment from emotions are symptoms of trauma as described by the Stress Response Theory (Horowitz, 1986). The review highlights that responding to self-harm does in fact have an impact on staff despite minimisation and detachment from active, recognised emotional and psychological symptoms (Horowitz, 1986; Litz & Gray, 2002).

2.2. Case Study Findings

To understand self-harm from the perspective from an individual who engages in self-harm, the case study explored the assessment, formulation and intervention of a female detained in a secure psychiatric hospital using DBT-informed skills. Following the findings from Chapter Two, a summary of a staff reflective practice was included to identify their understanding and attitudes towards client G and to further understand the impact of self-harming behaviours on staff in a secure psychiatric hospital. To meet the objectives of the thesis, chapter three was guided by two research questions:

- What is the effectiveness of providing a module of mindfulness and distress tolerance DBT-informed skills on the reduction of self-harm for a service-user in a medium secure psychiatric hospital?
- What is staff's understanding of a service-users repetitive self-harm in a medium secure psychiatric hospital?

Chapter Three highlights the effectiveness of the mindfulness and distress tolerance modules informed by Dialectical Behaviour Therapy (DBT; Linehan, 1993). The case study introduces Client G, a 21-year-old female diagnosed with Emotionally Unstable Personality Disorder (EUPD), detained in a medium secure psychiatric hospital who engaged in frequent violence and self-harming behaviours. The Biosocial Theory guides the assessment and formulation of client G's engagement with life threatening, therapy interfering and poor quality of life behaviours (Linehan, 1993). The assessment identified that client G's emotions were easily triggered, often acting on impulse, particularly relating to staff's response towards her self-harm. A review of client G's background identified that she grew up in a neglectful environment with parental substance abuse, further characterised by emotional and physical abuse. She reported that her mother often criticised her throughout her childhood, which continued by calling her 'selfish' when she informed her that she had engaged in self-harming behaviours in hospital. A battery of psychometrics was

administered, highlighting difficulties with emotional regulation, tolerating distress, and managing impulsivity, providing clinical rationale to administer DBT-informed skill sessions to support her with reducing life threatening behaviours and improving her daily functioning. Client G attended nine sessions, providing mindfulness and distress tolerance skills, completing a diary card and behaviour chain analyses if she had engaged in self-harm. Following the administration of these modules, the battery of psychometrics was re-administered, highlighting a decrease in self-reported symptomology. Behaviour monitoring was also used and identified that nine-weeks prior to DBT-informed sessions, client G engaged in 26 incidents of self-harm, and engaged in just 5 during the intervention period. Although it cannot be concluded that the self-reported decrease in symptomology and decrease in self-harm was due to DBT skills alone, this case study provides evidence of effectiveness for the intervention. It is important to note that practicing DBT is designed to be a long-term therapeutic intervention, and at the time of writing, client G had only completed one third of the intervention.

In terms of staff responses, it was recognised that staff were experiencing emotional reactions relating to client G's behaviours that challenge, notably her self-harming behaviours. Client G highlighted that negative attitudes towards her self-harm was often a trigger for further harm, and these attitudes and understanding were highlighted within the reflective practice session. Completing a formulation, it was recognised that the nursing staff had limited knowledge of client G's history and the development of her EUPD. Throughout the reflective practice session, it was recognised that staff's understanding and compassion towards her increased during the process when provided with information about the function of her self-harm. Although this was completed with a small number of staff in one medium secure psychiatric hospital, it provided insight into the importance of understanding a service-user's history, knowledge of self-harm, and attitudes towards self-harm on the impact of staff's negative responses.

2.3. Empirical Research Project Findings

From the findings in Chapter Two, further knowledge was required empirically to understand trauma symptoms in staff. Chapter Three also reinforced the importance of staff's knowledge and attitudes towards self-harm to not only protect staff's responses, but also to provide quality care and prevention of further harm to those in the criminal justice system. To understand this further, four multiple regressions and three analyses of variance were conducted to understand the relationship between knowledge, attitudes and trauma responses to self-harm with the following four hypotheses:

1. Those with higher levels of reported trauma symptoms will score lower on confidence, ability to manage self-harm effectively, empathy towards those who self-harm, coping ability, and will have lower levels of knowledge of self-harm.
2. Those who have attended training on self-harm have higher levels of confidence, higher effective ability of managing self-harm, higher empathy towards those who self-harm, and higher coping ability.
3. Prison staff will have lower levels of confidence, lower effective ability of managing self-harm, lower empathy towards those who self-harm, and less coping ability.
4. Those offered support following incidents of self-harm will report less trauma symptomology.

The findings from Chapter Four partially met the hypothesis 1, but in a different direction that expected. The multiple regression highlighted that higher scores on the Attitudes Towards Deliberate Self-Harm Questionnaire (ADSHQ; McAllister *et al.*, 2002) and higher scores on the Knowledge of Self-Harm Questionnaire (KSHQ; Jeffery & Warm, 2002) significantly predicted the 11% of the variance in reported anxiety and depression subscales of the Trauma Symptom Checklist-40 (TSC-40; Elliott & Briere, 1992). Coping ability was also found to be a significant unique predictor for anxiety and depression, suggesting that as perceived ability to cope with self-harm increases by one unit, there will be a 0.32 increase in

anxiety scores, and 0.29 increase in depression scores. The discussion in Chapter Three explored this relationship, providing possible explanations for the variance in anxiety and depression. An explanation offered was that those with better coping abilities may be more self-aware and attuned to their anxiety, hence providing scores that indicate coping ability may predict anxiety (Coppens *et al.*, 2010). Those with better self-reported coping ability experiencing symptoms of depression is explained by personality factors, including methods of avoidance coping, which is found to increase depressed mood and provides an explanation of this relationship (Blalock & Joiner, 2000).

Hypothesis 2 was partially met, indicating consistency with previous literature, finding that effective ability significantly increased in participants who had attended training on self-harm, compared to participants who had not. This indicates that participants who attend training are more likely to report that they are able to effectively manage incidents of self-harm. Surprisingly, findings indicate that participants who attended training on self-harm scored lower on perceived coping ability than those who had not attended training, which was the opposite direction than hypothesized. This is explained in Chapter Three by exploring the content of training and exploring the training processes in HMPPS, finding that it does not contain any information on how to manage incidents and therefore may lead to less ability to cope with managing self-harm. (Pike & George, 2019). No significant differences were found with training attendance/non-attendance on confidence and empathy, which is inconsistent with previous literature (Elliott & Daley, 2012).

Hypothesis 3 was also partially met, indicating significant higher scores in perceived confidence of managing self-harm in secure psychiatric hospital staff compared to prison staff. A second finding within this hypothesis was that secure psychiatric hospital staff had significantly higher scores on effective ability than prison staff, indicating that they felt more able to effectively manage individuals who self-harm effectively. Previous research has also

indicated both relationships, highlighting that secure psychiatric hospitals are more prone with witnessing incidents of self-harm and therefore responding to self-harm may be more established within their roles, leading to increased perceived confidence and effectively manage self-harm (Sandy & Shaw, 2012). Empathic approach and coping ability were not found to have significant differences between secure psychiatric hospital staff and prison staff within this cohort of participants.

Finally, hypothesis 4 in this empirical study was not met and no significant differences were found between whether staff were offered/attended support and the presence of reported trauma symptoms, inconsistent with previous research (DeHart *et al.*, 2009). The discussion in this chapter highlights limitations with controlling confounding variables and individual characteristics, including personality factors. The discussion highlights the methodological limitations of recruiting participants online and using self-report measures, highlighting the complexity of empirically measuring trauma symptoms.

2.4. Psychometric Critique Findings

The findings from Chapter Four highlight the complexities of quantitatively measuring general trauma symptoms. A critique of the Trauma Symptom Checklist-40 (TSC-40; Elliott & Briere, 1992) provides insight into the psychometric properties and the effectiveness of the tool. To meet the objectives of the thesis, Chapter Five was guided by one research question:

- Is the TSC-40 an effective tool to measure trauma symptoms?

Chapter Five provides an overview of the TSC-40. The TSC-40 is based on the diagnostic criteria of PTSD, developed to measure the long-term impact of childhood trauma in adulthood (Elliott & Briere, 1992). The TSC-40 is a self-report tool, asking participants to rate

the presence of symptoms within the past two months. The scale consists of six subscales: dissociation, anxiety, depression, sexual abuse trauma index, sexual problems, and sleep disturbance. The TSC-40 is designed exclusively for research purposes and should not be used as a clinical test to diagnose PTSD in participants.

Chapter Five highlights the Biological Theory of Trauma and the underpinning diagnostic criteria for PTSD, of which the TSC-40 has been developed to measure. The critique explores the psychometric properties of the TSC-40, identifying high internal consistency, moderate construct validity, and establishing convergent validity (Elliott & Briere, 1992; Rizeq *et al.*, 2018; Zlotnick *et al.*, 1996).

The chapter highlighted the strengths of the TSC-40, including the time- and cost-effectiveness of the measure, which is freely accessible to all via the internet. The measure does not require any additional training and the self-report construct allows for trauma symptoms to be identified by the participants themselves. Limitations of self-report measures are discussed, highlighting that relying on self-report for emotional and cognitive difficulties relies on honesty and awareness of participant's mental health (Wiggins & Trobst, 1998). Overall, the critique demonstrated that the TSC-40 is a reliable, valid tool in what is a complex concept of assessing the presence of trauma symptoms.

3. Implications of Findings

This thesis used different approaches to explore the psychological wellbeing of staff working with self-harm in forensic settings. The implications of the findings of this thesis are discussed as the differences between prisons and hospitals, policy and clinical implications, and research implications.

3.1. Differences Between Prison and Secure Psychiatric Hospital Staff

Throughout this thesis, it has been highlighted that there are several differences between individuals working in prisons and within secure psychiatric hospitals and their response to exposure of self-harming behaviours. Chapter Two highlights that research exploring staff wellbeing relating to self-harm exposure indicates that desensitisation and detachment from emotions are common in prisons, with more immediate emotional responses being found in the existing research exploring this phenomenon in secure psychiatric hospitals. It is also highlighted in Chapter Four that prison staff were significantly less confident and able to effectively manage self-harming behaviours than those in secure psychiatric hospitals.

As discussed throughout this thesis, there appear to be difficulties with the stigma related to voicing immediate and prolonged emotional and psychological responses in prison settings, indicating that prisons do not 'allow' space for emotions. Although it is not to state that staff working in secure psychiatric hospitals do not experience desensitisation, literature reviews throughout this thesis and findings from Chapter Two suggest that there may be more 'acceptance' that the service-users that secure psychiatric hospital staff work with are likely to self-harm and it is a key part of the role to manage these behaviours. The National Institute for Health and Care Excellence (NICE) guidelines state that it is expected for organisations who may work with individuals who self-harm, including secure psychiatric hospitals, to provide staff with training to enable them to appropriately respond to and manage these behaviours (NICE, 2022). On the other hand, HMPPS induction training predominantly focuses on search and security procedures, and managing conflict and violence (HMPPS, 2024). It is of note that from the author's experience, further training regarding working with individuals who self-harm is coming into place within HMPPS, including the roll out of mandatory training on the Assessment, Care in Custody and Teamwork plans (ACCT) and Suicide and Self-Harm Prevention (SASH) training for all HMPPS employees.

3.2. Policy and Clinical Implications

Chapter Two highlights that there is a need for organisations to recognise the impact of witnessing traumatic events on their employees, providing a space for staff to explore this further. Chapter Three highlights that having this space allows for further understanding of individual's histories and the function of their self-harm, which can impact on attitudes towards self-harm. The role of front-line staff in forensic settings often means that there is little time to process and reflect on emotions, indicated within the findings of Chapter Two. There is currently no requirement for prison officers to participate in supervision or reflective spaces (Forsyth *et al.*, 2022). Some prison establishments are beginning to implement reflective spaces to support staff, which the findings from this research, in particular Chapter Two and Three, recognises as beneficial to support forensic staff when regularly responding to self-harming behaviours. Implementing a space for staff to share any difficulties of managing repetitive self-harm in prisons could perhaps help to reduce the stigma attached to this and encourage staff to engage in Trauma Risk Management (TRIM) assessments and subsequently receive further support.

This thesis highlights the importance of staff wellbeing and provides a rationale for establishments to prioritise staff welfare and to be aware of the impact of attitudes and understanding of self-harm on trauma symptoms. The prison strategy for the next 10 years emphasises a drive in a cultural shift to improve staff's understanding of the function of self-harm and to provide staff with trauma-informed training to improve safety in prisons (Ministry of Justice, 2021). Chapter Four highlights that although individuals may perceive themselves to be coping with responding to self-harm, anxiety and depression remain present. With establishments becoming aware of this potential facade of coping, or even avoidance coping, it allows organisations to understand any negative or adverse responses, including negative attitudes towards and/or a lack of understanding self-harm. Normalising experiences and providing training regarding the responses that staff may experience when

working with self-harm, may encourage staff in secure psychiatric hospitals and prisons to highlight any difficulties, accessing support and gaining a further understanding of their responses. Ultimately, this thesis provides an argument that protecting the wellbeing of staff has an impact on the quality of care provided in establishments, responding more positively and empathically to self-harming behaviours. Similarly, witnessing staff's detached behaviour, withdrawal, or desensitisation to self-harm is highlighted in Chapter Two and by the Stress Response Model identified as a symptom of trauma (Horowitz, 1986). What may be seen on the surface as inappropriate or bizarre behaviour when faced with such traumatic events of witnessing self-harm, may be required to be further explored by managers and identified as trauma responses.

3.3. Future Research Recommendations

Throughout this thesis, future research directions were recommended from the findings in each chapter. From the findings in Chapter Two, it became apparent that the psychological wellbeing of forensic staff exposed to self-harming behaviours is a neglected phenomenon in the literature. The lack of empirical evidence within this field highlights a further need to explore the impact of exposure to self-harming behaviours among forensic staff, particularly exploring the differences between prison and secure psychiatric staff. It would also be beneficial to conduct further research to explore the underlying causes for any differences between the two staff groups, perhaps by further exploring access to support or personality characteristics and the impact that this has on psychological wellbeing.

Chapter Four highlights a need to control confounding variables when exploring the relationship between attitudes towards self-harm, knowledge of self-harm and trauma symptoms. It was highlighted that a measure of staff's personality traits may provide an exploration of some of the differences in responses and psychological wellbeing among

those working in similar settings. Future research could also explore this using a mixed methods design to gain further insight into individual characteristics and providing more detail of individual's internal processes by the gathering of qualitative data. Finally, it was recognised that those who have experienced a death by suicide by an individual in their care may also impact the manner in which they respond to self-harming behaviours and the impact that this has on their psychological wellbeing. Future research controlling this variable may also offer an explanation for some of the differences in responses.

4. Limitations and Ethical Implications

Throughout the chapters within this thesis, it has become evident that personal responses to traumatic events, namely witnessing, responding to, and managing self-harm, are a complex phenomenon that are difficult to empirically measure. A limitation highlighted through the thesis is the measurement of such construct and the characteristics of those who may wish to be involved in the exploration of the impact of witnessing self-harm. Firstly, individuals who disregard the impact of self-harm may not feel inclined to share their views, meaning that there are many employees whose experiences are not accounted for. The systematic review (Chapter Two) had a total of 200 participants within ten studies. The Ministry of Justice report that as of March 2023, there were 66,031 people employed by HMPPS, which further indicates difficulties with generalisability of the small number of participants completing research into this topic (Ministry of Justice, 2023a). Secondly, difficulties with recruiting participants are discussed throughout the thesis, particularly related to the research study (Chapter Four) highlighting the methodological limitations of online surveys and the population which they are distributed to and respondent bias relating to motivations of being included in the study (Andrade, 2020). Social desirability bias may impact the responses that participants provide, highlighted within the critique of the TSC-40 (Chapter Five). Methodological limitations of self-report measures are discussed, highlighting that

such measures rely on honesty and awareness of participant's emotional and cognitive difficulties when exploring such topic (Wiggins & Trobst, 1998).

A second limitation is the lack of control of confounding variables throughout this thesis. Individual personality differences were not considered within Chapter Four, which leads to difficulties with generalisability of the results for all staff working in prison and secure psychiatric hospital settings. As highlighted within Chapter Five, individual's personality may impact the manner in which they experience, describe, and understand symptoms of trauma, which may have impacted the way that participants responded, and the results in Chapter Four (Vallières *et al.*, 2021). Measuring and discussing trauma symptoms can in itself be traumatic for some individuals. Although ethical considerations were taken into account throughout, this thesis has highlighted that staff working in these settings responding to self-harm may be at risk of poor wellbeing. The implications of identifying trauma symptoms can raise complex ethical issues, including re-traumatisation of participants and possible participant self-diagnosis of trauma-related difficulties (Stein *et al.*, 2000). However, as discussed throughout the thesis, research has argued that identifying these symptoms and individual responses related to the management of self-harming behaviours is important to prevent staff stress, retention of staff and high turnover, and overall job performance (Oates *et al.*, 2020).

5. Conclusions

In the field of forensic psychology, emphasis is often placed on service-user's responses, understanding and functions for self-harming behaviours. This thesis presented a systematic review, single case study, an empirical study and a psychometric critique to provide greater insight into the responses of staff working in forensic settings who are exposed to self-harm. The findings demonstrate the complexities of the attitudes and responses of staff managing

self-harming behaviours and highlights a need for organisations to provide ongoing training and support. Based on the findings of this thesis, suggestions for further research directions and practice enhancements were made. It is with hope that this thesis contributes to the ongoing efforts to address staff wellbeing within forensic settings in relation to the exposure, responses, and management of self-harming behaviours.

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APPENDICES

APPENDIX A: EXTRACTION FORM TEMPLATE

Extraction item	Details
<i>Citation</i>	
<i>Reviewer</i>	
<i>Country</i>	
<i>Aims</i>	
<i>Ethics – how ethical issues were addressed</i>	
<i>Recruitment context (e.g. where people were recruited from)</i>	
<i>Data quality rating</i>	
<i>Participants</i>	
<i>Theoretical background</i>	
<i>Sampling</i>	
<i>Sample (participant) characteristics</i>	
<i>Data collection</i>	
<i>Data analysis</i>	
<i>Themes</i>	
<i>Author conclusion</i>	
<i>Recommendations</i>	

(Informed by Atkins *et al.*, 2008).

**APPENDIX B:
QUALITY ASSESSMENT TEMPLATE**

Checklist	Review			
	Yes	No	Unclear	N/A
<p>1. Was there a clear statement of the aims of the research?</p> <p>HINT: Consider what was the goal of the research why it was thought important its relevance</p>				
<p>2. Is it a qualitative methodology appropriate?</p> <p>HINT: Consider If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants Is qualitative research the tight methodology for addressing the research goal</p>				
<p>3. Was the research design appropriate to address the aims of the research?</p> <p>HINT: Consider if the researcher has justified the research design (e.g. have they discussed how they decided which method to use)</p>				
<p>4. Was the recruitment strategy appropriate to the aims of the research?</p> <p>HINT: Consider If the researcher has explained how the participants were selected If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study If there are any discussions around recruitment (e.g. why some people chose not to take part)</p>				
<p>5. Was the data collected in a way that addressed the research issue?</p> <p>If the setting for the data collection was justified</p> <ul style="list-style-type: none"> • If it is clear how data were collected (e.g. focus group, semi-structured interview etc.) 				

<ul style="list-style-type: none"> • If the researcher has justified the methods chosen • If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews are conducted, or did they use a topic guide) • If methods were modified during the study. If so, has the researcher explained how and why • If the form of data is clear (e.g. tape recordings, video material, notes etc.) • If the researcher has discussed saturation of data 				
<p>6. Has the relationship between the researcher and participants been adequately considered?</p> <p>HINT: Consider if the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location</p> <p>How the researcher responded to events during the study and whether they considered the implications of any changes in the research design</p>				
<p>7. Have ethical issues been taken into consideration?</p> <p>HINT: Consider If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained</p> <p>If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)</p> <p>If approval has been sought from the ethics committee</p>				
<p>8. Was the data analysis sufficiently rigorous?</p> <p>HINT: Consider If there is an in-depth description of the analysis process</p> <p>If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data</p> <p>Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process</p>				

<p>If sufficient data are presented to support the findings</p> <p>To what extent contradictory data are taken into account</p> <p>Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation</p>				
<p>9. Is there a clear statement of findings?</p> <p>HINT: Consider whether</p> <p>If the findings are explicit</p> <p>If there is adequate discussion of the evidence both for and against the researcher's arguments</p> <p>If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)</p> <p>If the findings are discussed in relation to the original research question</p>				
<p>10. How valuable is the research?</p> <p>HINT: Consider</p> <p>If the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research- based literature)</p> <p>If they identify new areas where research is necessary</p> <p>If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used</p>				
<p>Outcome: High/Moderate/Low Quality</p>				

**APPENDIX C:
CONSENT FORM**



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

THE UNIVERSITY OF NOTTINGHAM

DOCTORATE IN FORENSIC PSYCHOLOGY (D.FOREN.PSY)

CLIENT CONSENT TO COURSE WORK ASSIGNMENTS

I understand that Emma Gray, hereafter referred to as 'the trainee' would like my permission to use information about me to complete a course work assignment (oral case presentation and/or written case report).

I understand that the work will **not** contain any information that would reveal my personal identity i.e. my name or address; rather I will be referred to via a pseudonym or case number.


The work may be discussed in the trainee's supervision and personal development group or looked at by other trainees to help their learning.

I understand that the work will be checked by the trainee's supervisor and The University of Nottingham to see that my anonymity and confidentiality have been safeguarded.

I understand that course work assignments (and material relating to these) are kept in securely locked premises and are not available for public access.











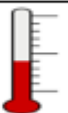
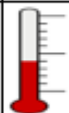
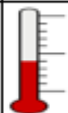
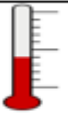

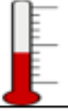
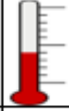
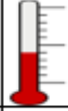
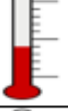

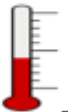
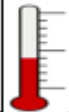
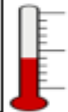
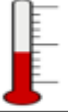

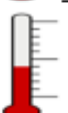
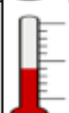
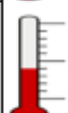
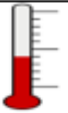

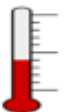
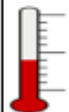
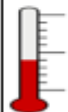
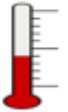

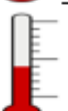
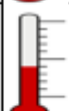
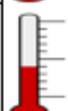
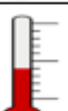

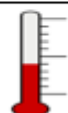
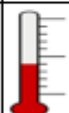
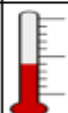
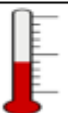
I understand that I do not have to allow information about me to be used in this way. I can change my mind and refuse my consent at any stage and this will have no effect on the treatment offered to me.

Name of Client: [REDACTED]

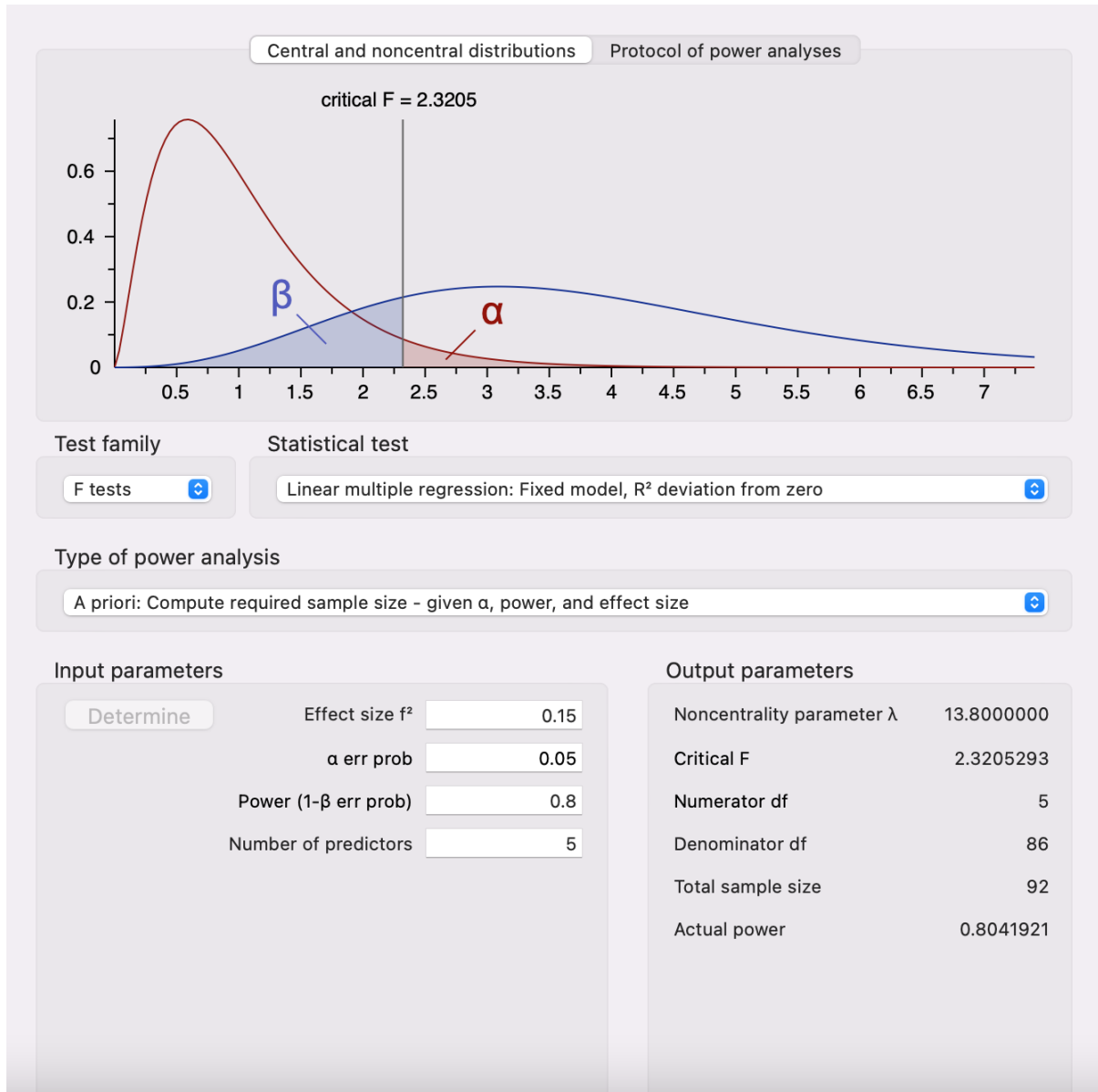
Client's signature: 

Date: 29/7/22.

**APPENDIX D:
DIARY CARD**

Day 	Urges to harm myself 	Self-harmed? 		Violent towards others? 		Used skills 		Relaxed 	Sad 	Angry 	Other Emotion 
		Y	N	Y	N	Y	N	(1-10)	(1-10)	(1-10)	(1-10)
Monday											 Emotion: Rating:
Tuesday											 Emotion: Rating:
Wednesday											 Emotion: Rating:
Thursday											 Emotion: Rating:
Friday											 Emotion: Rating:
Saturday											 Emotion: Rating:
Sunday											 Emotion: Rating:

APPENDIX E: G*POWER FOR MULTIPLE LINEAR REGRESSION



**APPENDIX F:
PARTICIPANT INFORMATION SHEET**

PARTICIPANT INFORMATION

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Trauma symptoms in forensic staff following exposure to self-harm.

Researcher/Student: Emma Gray: Emma.Gray@nottingham.ac.uk

Supervisor/Chief Investigator: Dr Elizabeth Paddock:

Elizabeth.Paddock@nottingham.ac.uk

Ethics Reference Number: FMHS 210-0321

We would like to invite you to take part in a research study about attitudes towards self-harm, knowledge of self-harm and trauma symptoms. Before you begin, we would like you to understand why the research is being done and what it involves for you.

What is the purpose of this study?

Recent statistics show that self-harm incidents in custody were at a record high in December 2019. Staff members who frequently respond and manage the aftermath of self-harm can impact the attitudes that staff have towards self-harm. Emotional detachment is often a way of managing traumatic and distressing events, which is common in those who work in prisons and forensic hospitals. Knowledge of self-harm can impact psychological wellbeing, which can lead to different ways of responding to self-harming behaviour. This research aims to identify how attitudes and knowledge of self-harm may impact psychological wellbeing. We are also looking to see the types of support that are available following self-harming incidents and whether these are helpful to those who have dealt with repetitive self-harm.

Why have I been invited?

You have been invited to take part in this study as you are over 18 and work in a prison or forensic hospital and are exposed to self-harming behaviours at least once a month. You should be able to understand English to a sufficient standard in order to understand the questionnaires.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you can save this information sheet and will be presented with some consent statements and asked to click a button to indicate your consent before entering the questionnaire study. You may change your mind about being involved at any time or decline to answer a particular question. You can stop at any point during the questionnaire before submitting your answers, by pressing the 'Exit' button / closing the browser. Your answers will only be uploaded after you have clicked the submit button at the end of the final questionnaire.

What will I be asked to do?

If you choose to take part, you will be asked to complete 3 questionnaires. These questionnaires will provide statements about your thoughts and feelings towards self-harm, how working with self-harm affects you, and a bit about yourself. You will be asked to agree or disagree with each statement.

Will the research be of any personal benefit to me?

We cannot promise the study will help you but the information we get from this study may help to understand how thoughts and feelings towards self-harm may impact psychological wellbeing for those who are regularly exposed to self-harming behaviours.

Are there any possible disadvantages or risks in taking part?

There are no perceived risks in taking part in the study, however if you do feel affected by any of the questions asked then please do not hesitate to contact any of the researchers for further support.

What will happen to the information I provide?

The data that you provide will not be identifiable to you. Only the researcher and their supervisor will have access to the data which will be stored securely and electronically. The research will be written up for post graduate research dissertation, however the data will be combined and unidentifiable to you.

Once you have completed and submitted an anonymous questionnaire, it is not possible to withdraw the data because we will not know who you are.

Results of the study will be used as a postgraduate thesis for the Doctorate in Forensic Psychology programme at University of Nottingham. The project will be aimed to be completed by August 2022.

We will follow ethical and legal practice and all information will be handled in confidence.

Under UK Data Protection laws the University is the Data Controller (legally responsible for the data security) and the Chief Investigator of this study (named above) is the Data Custodian (manages access to the data). This means we are responsible for looking after your information and using it properly. Your rights to access, change or move your information are limited as we need to manage your information in specific ways to comply with certain laws and for the research to be reliable and accurate. To safeguard your rights, we will use the minimum personally – identifiable information possible.

You can find out more about how we use your information and to read our privacy notice at:

<https://www.nottingham.ac.uk/utilities/privacy.aspx>.

The data collected for the study will be looked at and stored by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people from regulatory organisations to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

At the end of the project, all raw data will be kept securely by the University under the terms of its data protection policy after which it will be disposed of securely. The data will not be kept elsewhere

If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after your participation at the email addresses above.

What if there is a problem?

If you have any queries or complaints, please write to the Administrator, Faculty of Medicine and Health Sciences Research Ethics Committee (FMHS REC ref no 210-0321. E-mail: FMHS-ResearchEthics@nottingham.ac.uk)

We believe there are no known risks associated with this research study; however, as with any online activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this study will remain anonymous.

**APPENDIX G:
CONSENT FORM**

PARTICIPANT CONSENT

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Trauma symptoms in forensic staff following exposure to self-harm and suicidal behaviours.

Researcher: Emma Gray: Emma.Gray@nottingham.ac.uk

Supervisor: Dr Elizabeth Paddock: Elizabeth.Paddock@nottingham.ac.uk

Ethics Reference Number: FMHS 210-0321

- Have you read and understood the Participant Information? **YES/NO**
- Do you agree to participate in questionnaires about thoughts and feelings of self-harming behaviours and psychological wellbeing? **YES/NO**
- Do you know how to contact the researcher if you have questions about this study? **YES/NO**
- Do you understand that you are free to withdraw from the study without giving a reason? **YES/NO**
- Do you understand that for anonymous questionnaire studies, once you have completed the study and submitted your answers, the data cannot be withdrawn? **YES/NO**
- Do you give permission for your data from this study to be shared with other researchers in the future provided that your anonymity is protected? **YES/NO**
- Do you understand that non-identifiable data from this study including quotations might be used in academic research reports or publications? **YES/NO**
- I confirm that I am 18 years old or over. **YES/NO**

By clicking the button below, I indicate that I understand what the study involves and I agree to take part. If I do not want to participate, I can close this window/press the exit button.

**APPENDIX H:
DEBRIEF FORM**

PARTICIPANT DEBRIEF

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: The use of humour to prevent burnout in staff members working in forensic settings

Researcher: Emma Gray: Emma.Gray@nottingham.ac.uk

Supervisor: Dr Elizabeth Paddock: Elizabeth.Paddock@nottingham.ac.uk

Ethics Reference Number: FMHS 210-0321

Thank you for participating in this research.

The main aim of this study is to discover if there is a relationship between the attitudes towards deliberate self-harm and knowledge of self-harming behaviours among those who are exposed to self-harming behaviours in forensic populations, and whether this has an effect on trauma symptoms. Furthermore, demographic information has been asked to identify if there are any differences between prisons and forensic hospital settings in attitudes and knowledge of self-harm.

Any information that has been collected from you will be kept securely and anonymously and is only available only to the researcher and supervisor.

If you have any queries or complaints, please contact the student's supervisor/chief investigator in the first instance. If this does not resolve your query, please write to the Administrator, Faculty of Medicine and Health Sciences Research Ethics Committee (FMHS REC ref no 210-0321) e-mail: FMHS-ResearchEthics@nottingham.ac.uk), who will pass your query to the Chair of the Committee.

If this study has brought up any difficulties in terms of work stress or trauma around self-harming for you, please see the below self-help guides which you might find helpful:

https://everymindatwork.com/?gclid=EAIaIQobChMIImMbSg4vB7gIVir7tCh17Lw61EAAYASAAEgLNnvD_BwE

<https://www.mind.org.uk/information-support/tips-for-everyday-living/how-to-be-mentally-health-at-work/work-and-stress/>

You can also speak with your GP or ring the NHS on 111. It would also be advised to speak to your supervisor/manager if you feel you are struggling at work.

If you would like more information or have any further questions about any aspect of this study, then please contact Emma Gray: Emma.Gray@nottingham.ac.uk

**APPENDIX I:
PARTICIPANT DEMOGRAPHIC SCALE**

Gender: Male Female Other Prefer not to say

Age in nearest years: _____

Please specify the type of setting that you work in:

Prison (please provide category):

Secure-forensic hospital (please provide level of security):

Other (please specify):

Please specify your career discipline:

Prison officer

Psychological therapist

Psychiatrist

Occupational therapist

Nurse

Support worker

Administrative team (secretary, ward clerk)

Domestic/maintenance

Please specify how many times a week (roughly) you witness/manage self-harming behaviours:

0-1

1-5

6-10

11-15

15+

Have you attended any self-harm related courses/training? YES/NO

If yes, please state the name of the course/training and how long the training was:

Does your place of work have support in place following self-harming incidents?

YES/NO

If yes, please specify what type of support you receive:

Reflective practice

Supervision

Debrief

Informal support

Other (please specify)

Do you find this support helpful? YES/NO

**APPENDIX J:
THE ATTITUDES TOWARDS DELIBERATE SELF-HARM QUESTIONNAIRE
(ADSHQ; MCALLISTER *ET AL.*, 2002)**

ADSHQ

INSTRUCTIONS: Take the time to read the following statements carefully and indicate how strongly you agree or disagree with each one. Please answer by circling the appropriate number using the scale below.

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
1. Overall, I am satisfied with the control I have in dealing with deliberate self harm patients in my unit	1	2	3	4
2. There is really no way I can help solve some of the problems the deliberate self harm patient has	1	2	3	4
3. Sometimes I feel that I'm being used by deliberate self harm patients	1	2	3	4
4. There is little I can do to help deliberate self harm patients change many of the events that take place in their lives	1	2	3	4
5. I often feel helpless in dealing with the problems that deliberate self harm patients have	1	2	3	4
6. Sometimes I feel that I'm being used by the hospital system	1	2	3	4
7. What happens to me in this job mostly depends on me	1	2	3	4
8. I feel useful when working with deliberate self harm patients	1	2	3	4
9. The way the hospital system works effectively encourages repetition of deliberate self harm behaviour	1	2	3	4
10. I feel as though I have the appropriate knowledge in first aid skills to help deliberate self harm patients	1	2	3	4
11. Self harm patients just clog up the system	1	2	3	4
12. Knowledge of referral sources is important when dealing with deliberate self harm patients	1	2	3	4
13. Assessing risk of future deliberate self harm is an important skill for me to have	1	2	3	4
14. Dealing with self harm patients is a waste of the health care professional's time	1	2	3	4
15. I deal effectively with deliberate self harm patients	1	2	3	4

cont'd...

	1	2	3	4
	Strongly Disagree	Disagree	Agree	Strongly Agree
16. The hospital system impedes my ability to work effectively with deliberate self harm patients	1	2	3	4
17. Patients who deliberately self harm have been hurt and damaged in the past ..	1	2	3	4
18. When a patient presents again with deliberate self harm, I actively use actions calculated to discourage her or him from coming back	1	2	3	4
19. Ongoing education and training would be useful in helping me deal appropriately with deliberate self harm patients	1	2	3	4
20. Risk assessment is an important skill for me to have	1	2	3	4
21. Patients who deliberately self harm are just attention seekers	1	2	3	4
22. Sometimes, when all other actions have failed, I feel the need to go to extremes when dealing with deliberate self harm patients	1	2	3	4
23. I feel as though I have the appropriate knowledge in counselling skills to help deliberate self harm patients	1	2	3	4
24. Referral of deliberate self harm patients to external consultant services for further assessment or treatment is an effective course of action	1	2	3	4
25. Self harm patients are just using ineffective coping mechanisms	1	2	3	4
26. I feel as though I have the appropriate knowledge in communication skills to help deliberate self harm patients	1	2	3	4
27. I feel sorry for patients who deliberately self harm	1	2	3	4
28. Providing deliberate self harm patients information about community support groups is a good idea	1	2	3	4
29. Self harm patients are victims of some other social problems	1	2	3	4
30. Patients who deliberately self harm are in desperate need of help	1	2	3	4
31. The legal system impedes my ability to work effectively with deliberate self harm patients	1	2	3	4
32. I feel that patients who self-harm are treated less seriously by the medical staff than patients who present with serious medical problems	1	2	3	4
33. Sometimes people self harm because their cultural beliefs condone this practice when they are dealing with traumatic issues	1	2	3	4

**APPENDIX K:
THE KNOWLEDGE OF SELF-HARM QUESTIONNAIRE
(KSHQ; JEFFERY & WARM, 2002)**

In this survey, the term self-injury will be used. Self-mutilation, deliberate self-mutilation, cutting, self-harm and deliberate self-harm are other terms used to identify this behaviour. Based on your current knowledge of self-injury, please answer the following questions:

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. Self-injury is a form of communication					
2. Self-injury is a sign of madness/mental illness*					
3. Self-injury can provide a way of staying in control					
4. Self-injury can provide distraction from thinking					
5. People who self-injure will 'grow out of it' eventually*					
6. Self-injury is a manipulative act*					
7. Self-injury can obtain feelings of euphoria					
8. Self-injury is a 'woman's problem'*					
9. Self-injury can provide a release for anger					
10. Self-injury expresses emotional pain					
11. The best way to deal with people who self-injure is to make them stop*					
12. People who self-injure have a history of sexual abuse*					

13. Self-injury is a failed suicide attempt*					
14. Self-injury can provide an individual with help in dealing with problems					
15. Self-injury is a coping strategy					
16. Self-injury is attention-seeking*					
17. Self-injury is helps a person maintain a sense of identity					
18. Everybody who self-injures suffers from Munchausen's Disease (self-inflicted injuries which are calculated to produce specific symptoms that will lead to medical hospital admissions) *					
19. Self-injury can provide escape from depression					
20. People who self-injure need psychiatric hospitalisation*					

* = reverse score – add together with total scores from accurate statements to obtain an overall score. Scores range from 20 (poor understanding) to 100 (good understanding)
Cronbach's alpha coefficient .75 and split-half reliability test .84.

**APPENDIX L:
THE TRAUMA SYMPTOMS CHECKLIST-40
(TSC-40; BRIERE & RUNTZ, 1989)**

Note: Sexual Abuse Trauma Index and Sexual Problems items have been removed and score adjusted to reflect this.

How often have you experienced each of the following in the last month? Please circle one number, 0-3.

Symptom	Never - - - - - Often			
	0	1	2	3
1. Headaches				
2. Insomnia				
3. Weight loss (without dieting)				
4. Stomach problems				
5. Feeling isolated from others				
6. "Flashbacks" (sudden, vivid, distracting memories)				
7. Restless sleep				
8. Low sex drive				
9. Anxiety attacks				
10. Loneliness				
11. Nightmares				
12. "Spacing out" (going away in your mind)				
13. Sadness				
14. Dizziness				
15. Trouble controlling your temper				
16. Waking up early in the morning				
17. Uncontrollable crying				
18. Fear of men				
19. Not feeling rested in the morning				
20. Trouble getting along with others				
21. Memory problems				
22. Desire to physically hurt yourself				
23. Fear of women				
24. Waking up in the middle of the night				
25. Passing out				
26. Feeling that things are "unreal"				
27. Unnecessary or over-frequent washing				
28. Feelings of inferiority				
29. Feeling tense all the time				
30. Desire to physically hurt others				
31. Feelings of guilt				
32. Feeling that you are not always in your body				
33. Having trouble breathing				

Dissociation – 6, 12, 14, 21, 26, 32

Anxiety – 1, 4, 9, 14, 18, 23, 27, 29, 33

Depression – 2, 3, 8, 13, 16, 17, 22, 28, 31

Sleep Disturbance – 2, 7, 11, 16, 19, 24

**APPENDIX M:
UNIVERSITY OF NOTTINGHAM AND HMPPS ETHICAL APPROVAL**



**Faculty of Medicine & Health Sciences
Research Ethics Committee**

Faculty Hub
Room E41, E Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH
Email: FMHS-ResearchEthics@nottingham.ac.uk

15 April 2021

Emma Gray
Doctorate in Forensic Psychology Student
Centre for Forensic and Family Psychology
Division of Psychiatry and Applied Psychology
School of Medicine
Room B23, Yang Fujia Building
University of Nottingham Jubilee Campus
Wollaton Road, Nottingham
NG8 1BB

Dear Ms Gray

Ethics Reference No: FMHS 210-0321 – please always quote	
Study Title: Trauma Symptoms in Forensic Staff Following Exposure to Self-Harm And Suicidal Behaviours.	
Chief Investigator/Supervisor: Dr Elizabeth Paddock, Assistant Professor of Forensic Psychology	
Lead Investigators/student: Emma Gray, DForenPsy student, School of Medicine	
Proposed Start Date: 01.04.2021	Proposed End Date: 31.07.2022

Thank you for submitting the above application which was considered at the meeting on 26 March 2021 and the following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 05.03.2021

These have been reviewed and are satisfactory and the project has been given a favourable ethics opinion.

A favourable ethics opinion has been given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely



Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

28/09/2022

FINAL APPROVAL

Ref: 2022-191

Title: Trauma symptoms in forensic staff following exposure to self-harming behaviours

Dear Emma Gray,

The National Research Committee (NRC) is pleased to provide final approval for your research project. The terms and conditions below will continue to apply to your research project.

Please note that the decision to grant access to prison establishments or Probation Service regions (and the offenders and practitioners within these establishments/regions) ultimately lies with the Governing Governor/Director of the establishment or the Probation Service Regional Probation Director of the region concerned. If establishments/regions are to be approached as part of the research, a copy of this letter must be attached to the request to prove that the NRC has approved the study in principle. The decision to grant access to existing data lies with the Information Asset Owners (IAOs) for each data source and the researchers should abide by the data sharing conditions stipulated by each IAO.

Please note that a MoJ/HMPPS policy lead may wish to contact you to discuss the findings of your research. If requested, your contact details will be passed on and the policy lead will contact you directly.

Please quote your NRC reference number in all future correspondence.

Yours sincerely,

Grace Fleck
National Research Committee

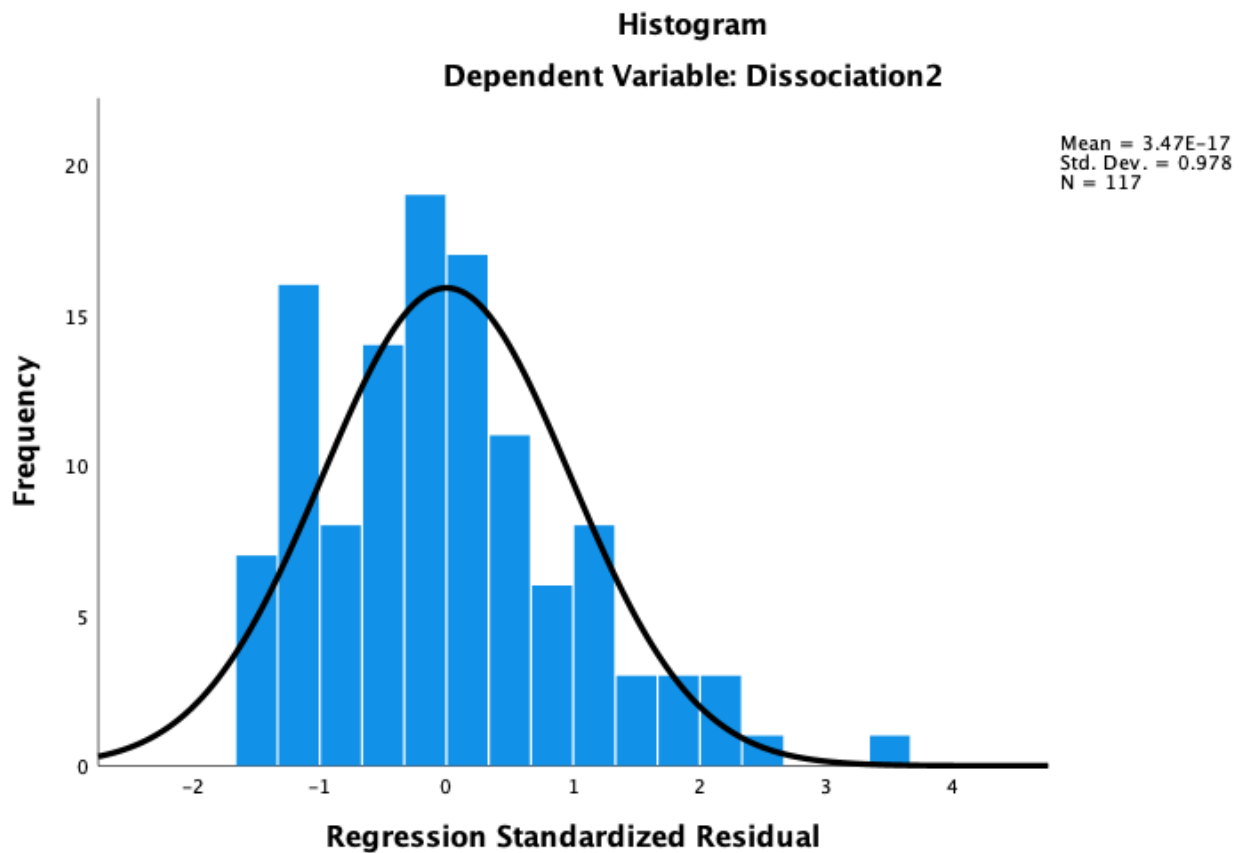
APPENDIX N ASSUMPTIONS FOR MULTIPLE LINEAR REGRESSION

Dependent Variable: Dissociation

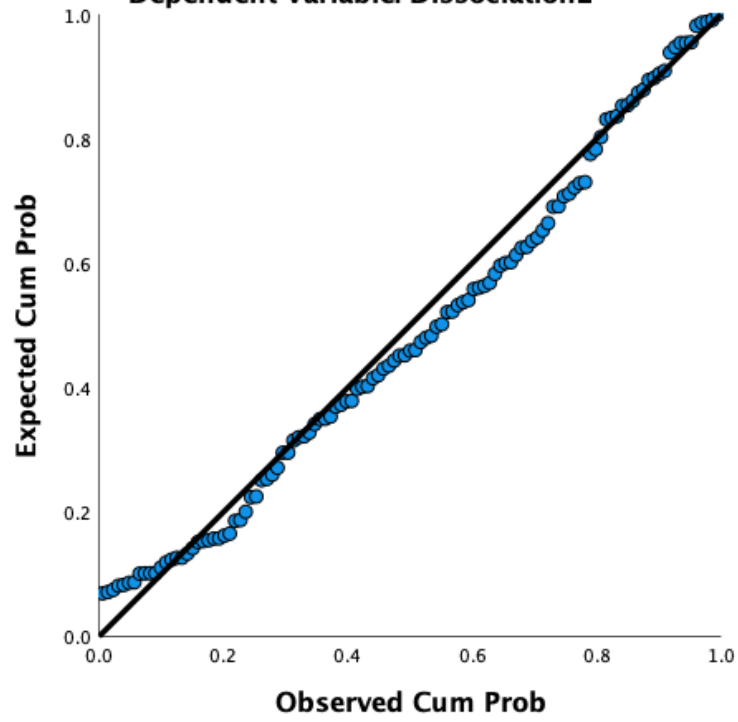
Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	ADSHQConfidence2	ADSHQEffective2	ADSHQEmpathic2	ADSHQCopingAbility2	KSHTotal2
1	1	5.892	1.000	.00	.00	.00	.00	.00	.00
	2	.057	10.189	.00	.01	.02	.77	.00	.00
	3	.030	14.062	.00	.00	.04	.10	.87	.01
	4	.011	23.127	.00	.00	.39	.05	.02	.58
	5	.008	27.577	.00	.80	.22	.03	.08	.18
	6	.003	44.786	1.00	.19	.33	.05	.02	.22

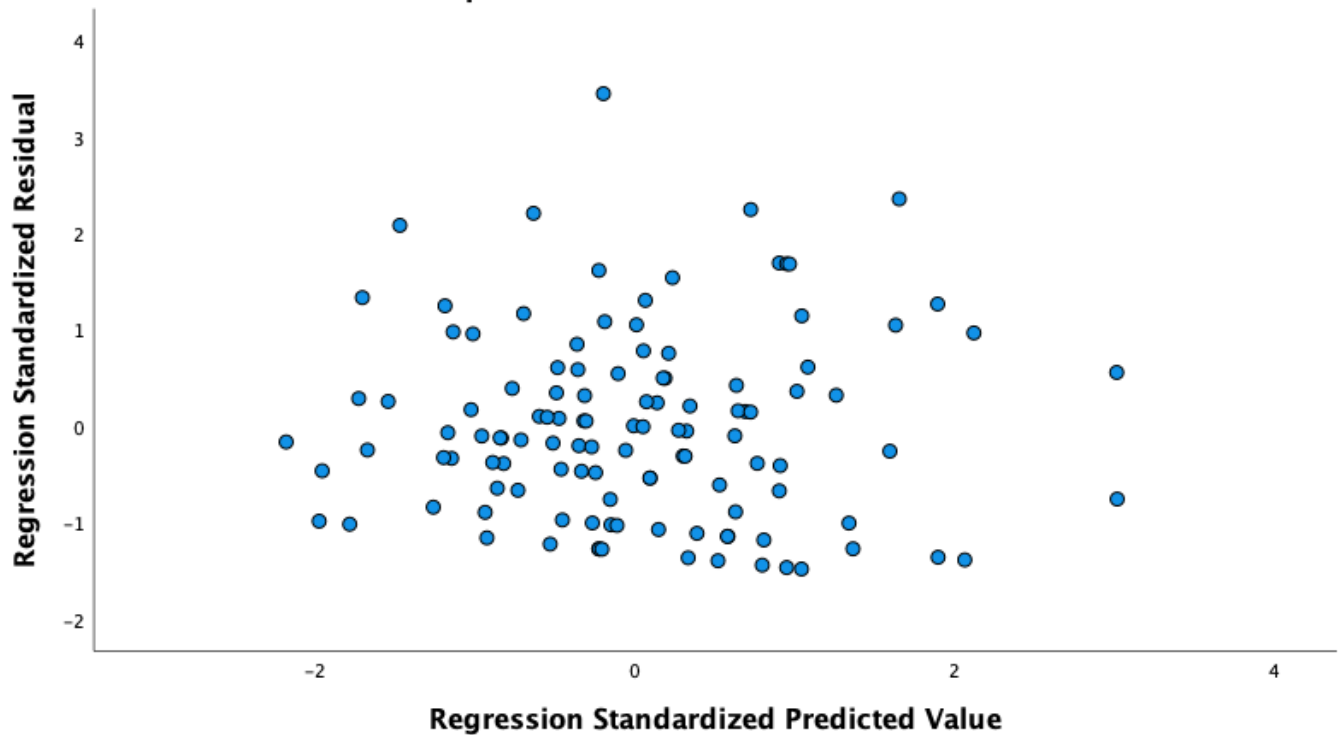
a. Dependent Variable: Dissociation2



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Dissociation2



Scatterplot
Dependent Variable: Dissociation2



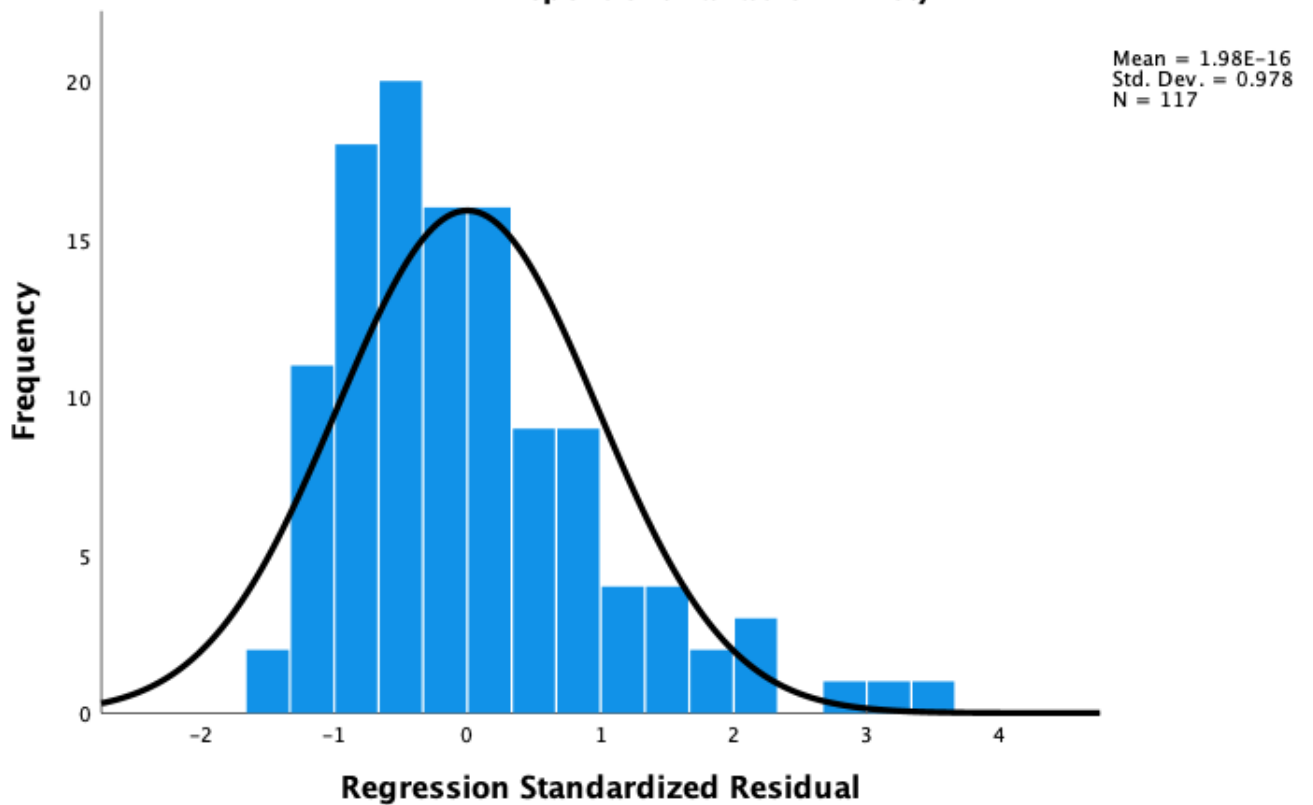
Dependent Variable: Anxiety

Collinearity Diagnostics^a

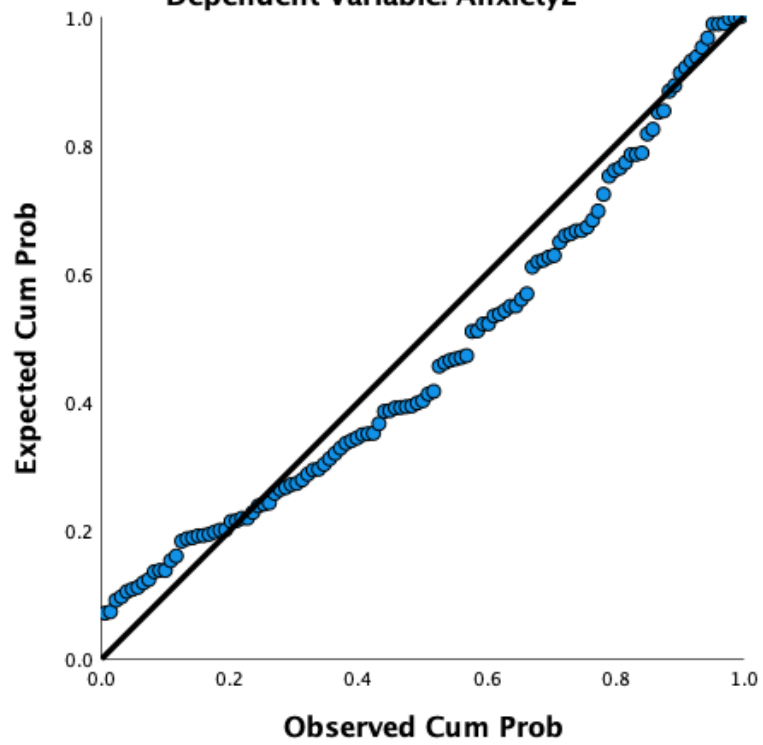
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	ADSHQConfidence2	ADSHQEffective2	ADSHQEmpathic2	ADSHQCopingAbility2	KSHTotal2	
1	1	5.892	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.057	10.189	.00	.01	.02	.77	.00	.00	.00
	3	.030	14.062	.00	.00	.04	.10	.87	.01	.01
	4	.011	23.127	.00	.00	.39	.05	.02	.58	.02
	5	.008	27.577	.00	.80	.22	.03	.08	.18	.02
	6	.003	44.786	1.00	.19	.33	.05	.02	.22	.02

a. Dependent Variable: Anxiety2

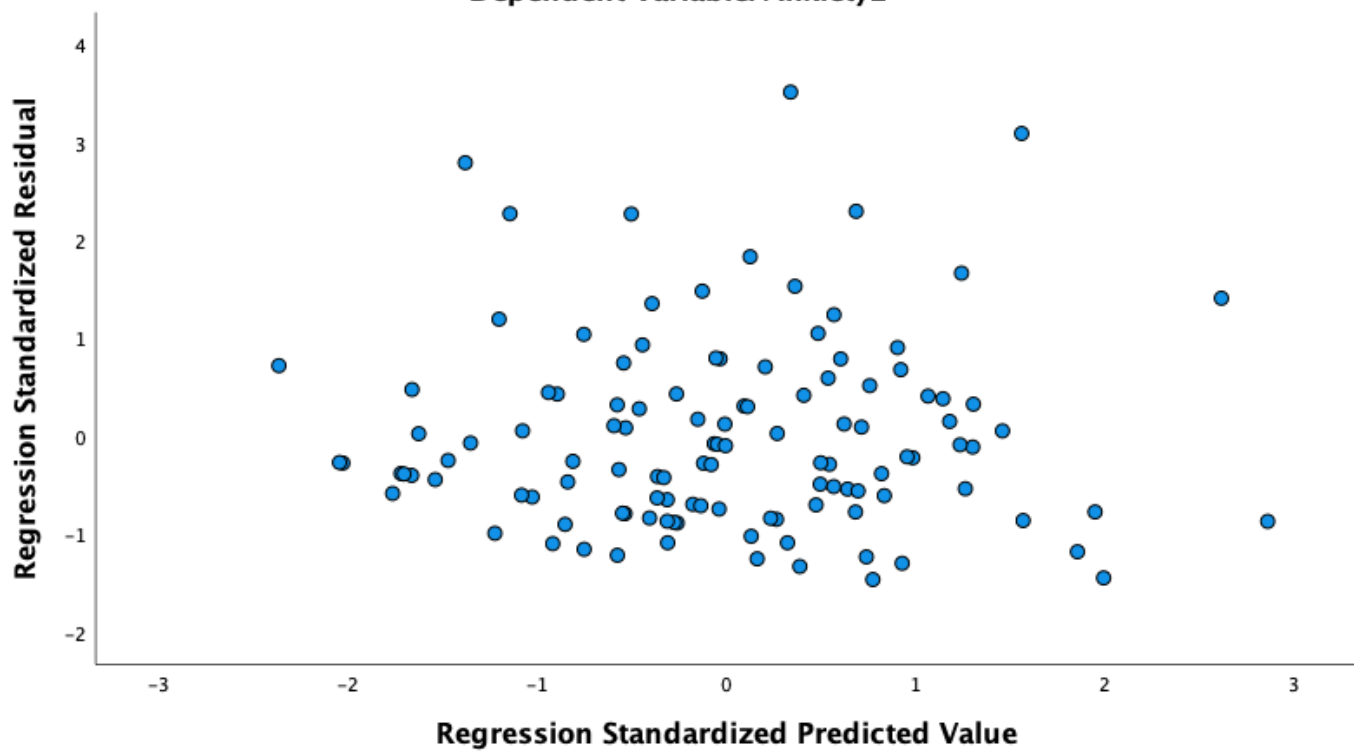
Histogram
Dependent Variable: Anxiety2



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Anxiety2



Scatterplot
Dependent Variable: Anxiety2



Dependent Variable: Depression

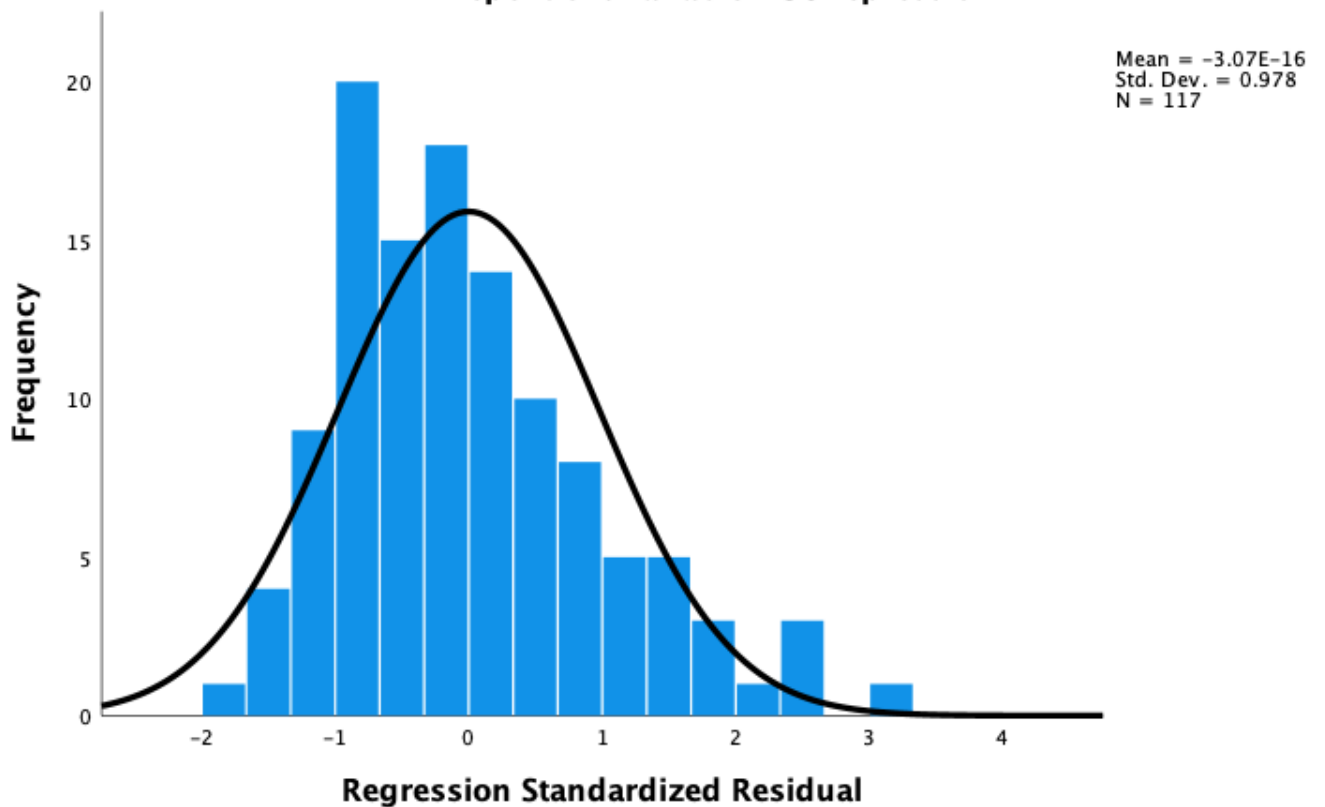
Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	ADSHQConfidence2	ADSHQEffective2	ADSHQEmpathic2	ADSHQCopingAbility2	KSHTotal2	
1	1	5.892	1.000	.00	.00	.00	.00	.00	.00	
	2	.057	10.189	.00	.01	.02	.77	.00	.00	
	3	.030	14.062	.00	.00	.04	.10	.87	.01	
	4	.011	23.127	.00	.00	.39	.05	.02	.58	
	5	.008	27.577	.00	.80	.22	.03	.08	.18	
	6	.003	44.786	1.00	.19	.33	.05	.02	.22	

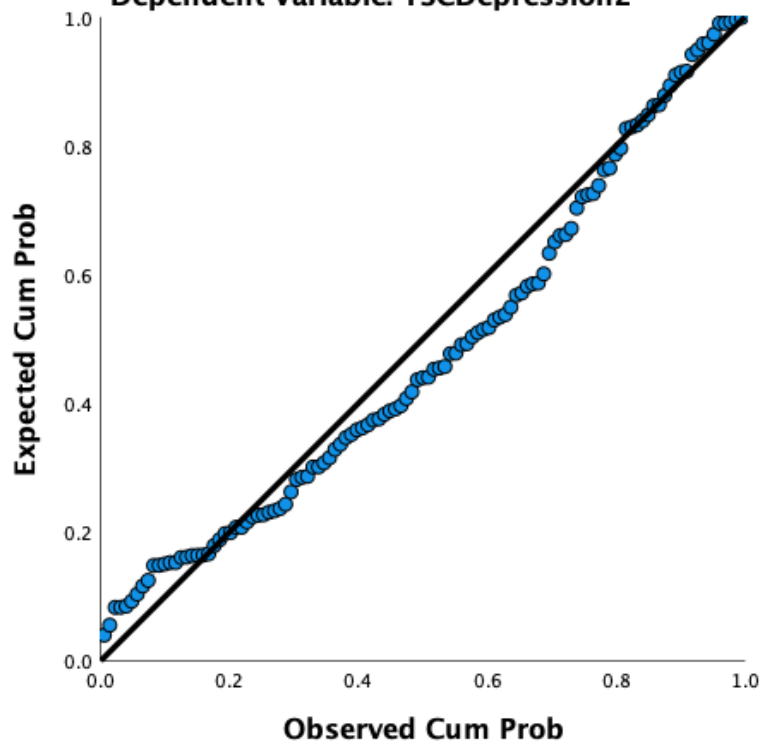
a. Dependent Variable: TSCDepression2

Histogram

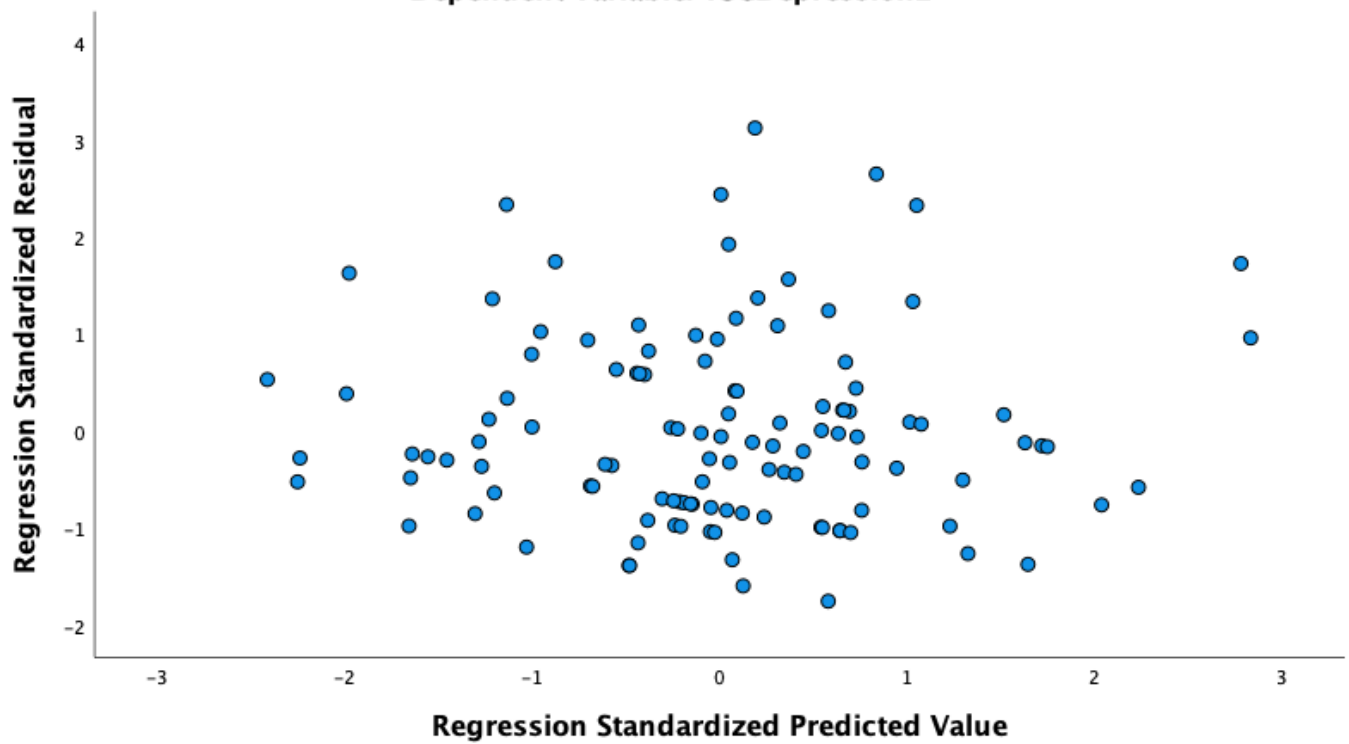
Dependent Variable: TSCDepression2



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: TSCDepression2



Scatterplot
Dependent Variable: TSCDepression2



Dependent Variable: Sleep

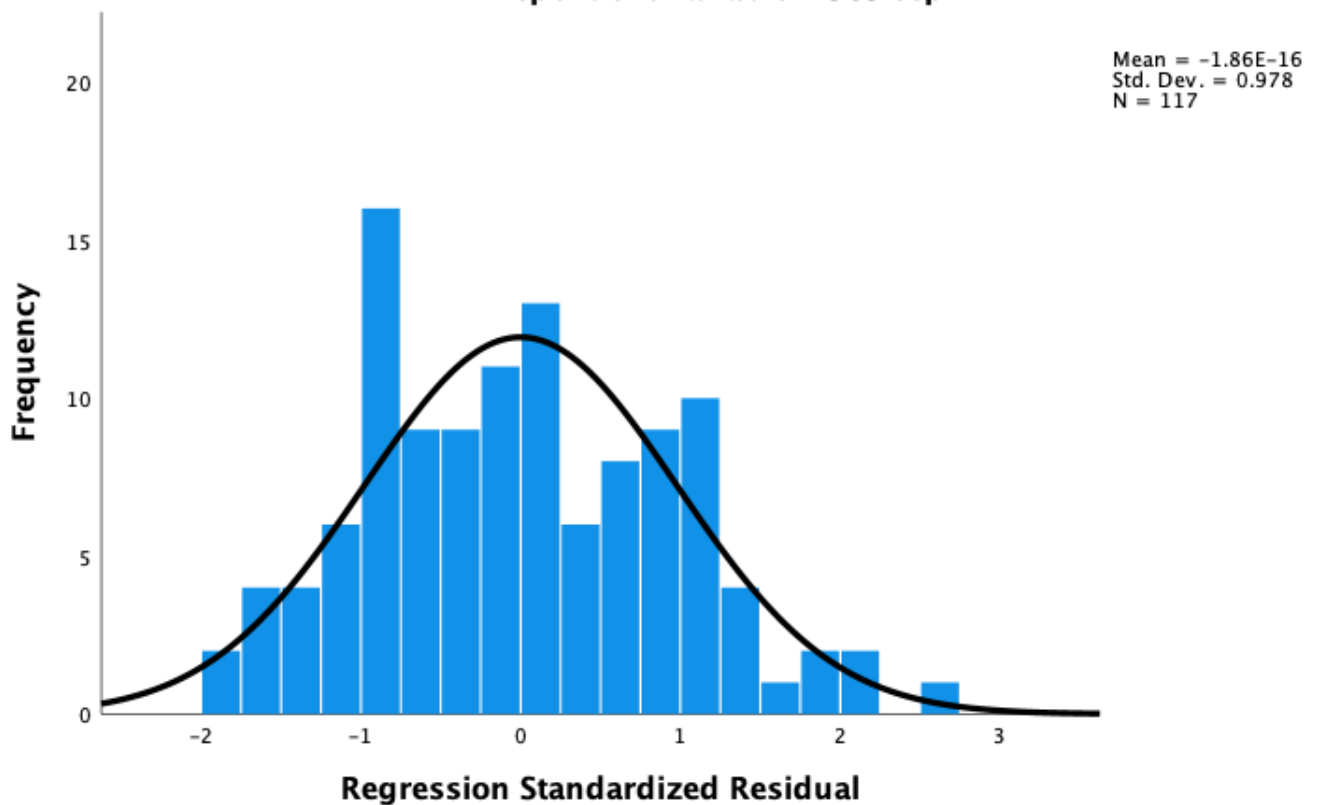
Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	ADSHQConfidence2	ADSHQEffectiveness2	ADSHQEmpathic2	ADSHQCopingAbility2	KSHTotal2	
1	1	5.892	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.057	10.189	.00	.01	.02	.77	.00	.00	.00
	3	.030	14.062	.00	.00	.04	.10	.87	.01	.01
	4	.011	23.127	.00	.00	.39	.05	.02	.58	.02
	5	.008	27.577	.00	.80	.22	.03	.08	.18	.02
	6	.003	44.786	1.00	.19	.33	.05	.02	.22	.02

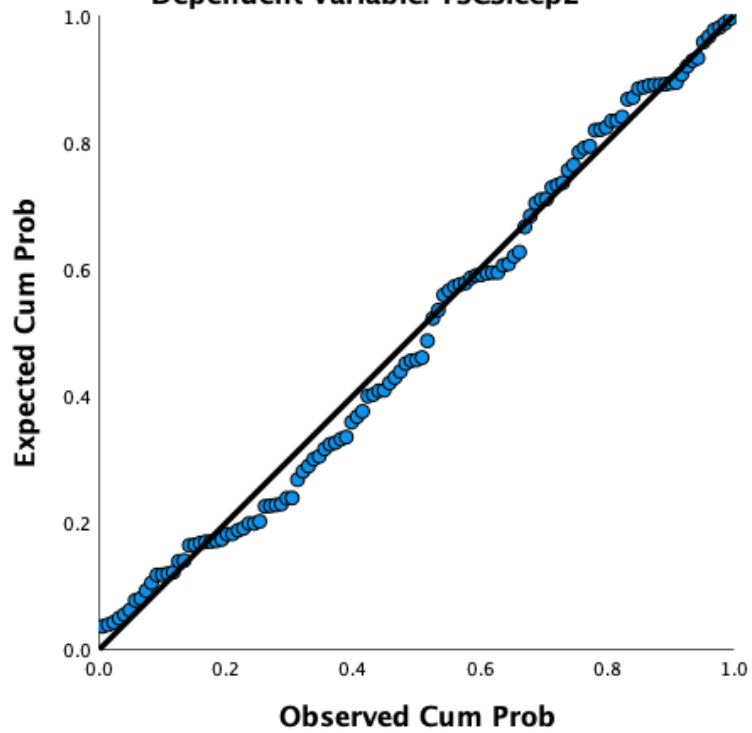
a. Dependent Variable: TSCSleep2

Histogram

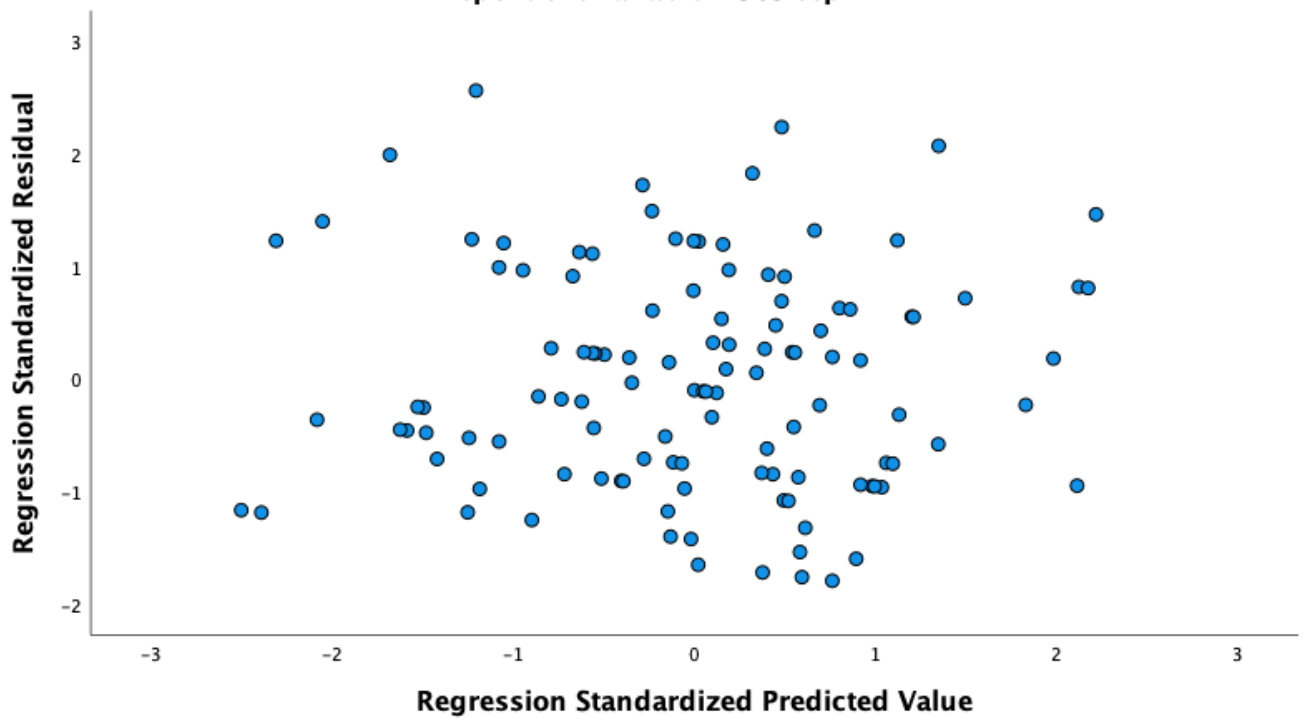
Dependent Variable: TSCSleep2



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: TSCSleep2



Scatterplot
Dependent Variable: TSCSleep2



**APPENDIX O:
ASSUMPTIONS FOR ANOVA**

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ADSHQConfidence2	.103	117	.004	.955	117	.001
ADSHQEffective2	.160	117	.000	.965	117	.004
ADSHQEmpathic2	.157	117	.000	.890	117	.000
ADSHQCopingAbility2	.099	117	.007	.979	117	.067

a. Lilliefors Significance Correction

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
ADSHQConfidence2	Based on Mean	2.098	1	115	.150
	Based on Median	1.989	1	115	.161
	Based on Median and with adjusted df	1.989	1	99.957	.162
	Based on trimmed mean	1.955	1	115	.165
ADSHQEffective2	Based on Mean	1.856	1	115	.176
	Based on Median	1.152	1	115	.285
	Based on Median and with adjusted df	1.152	1	109.445	.286
	Based on trimmed mean	1.873	1	115	.174
ADSHQEmpathic2	Based on Mean	5.250	1	115	.024
	Based on Median	4.023	1	115	.047
	Based on Median and with adjusted df	4.023	1	94.686	.048
	Based on trimmed mean	4.396	1	115	.038
ADSHQCopingAbility2	Based on Mean	4.066	1	115	.046
	Based on Median	3.545	1	115	.062
	Based on Median and with adjusted df	3.545	1	107.421	.062
	Based on trimmed mean	3.966	1	115	.049