Understanding Stigma Among Mental Health Clinicians: Implicit, Explicit and Dissociation-Specific Beliefs

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Thesis Portfolio Abstract

Aims: This thesis examined stigma among mental health clinicians towards people with mental health conditions. The systematic review investigated the relationship between implicit (automatic) and explicit (conscious) stigma. The empirical project focused on the explicit attitudes and beliefs of NHS clinicians concerning dissociation, including the endorsement of stigma and misinformation.

Methods: Eight databases were systematically searched to provide a review of studies investigating implicit and explicit stigma. Random-effects meta-analyses of Fisher *r*-to-*z* transformed correlations were conducted. The empirical project offered a mixed methods survey of NHS clinicians working in secondary mental healthcare. Quantitative data (e.g., rating scales) were analysed descriptively, and qualitative (free-text) data were examined using content analysis.

Results: Ten studies (1,404 clinicians) were included in the systematic review and meta-analysis. This revealed a weak, positive association between implicit and explicit stigma ($r = .13$). Moderate heterogeneity was largely accounted for by diagnostic category, with studies examining substance use disorder finding a stronger association ($r = .27$) than studies investigating other mental health conditions ($r = .08$). The empirical paper analysed responses from 135 clinicians. Awareness of dissociation was high, but confidence and training varied. Beliefs about its prevalence, severity and dangerousness appeared moderate, while dissociation was perceived as treatable and psychological. Misinformed beliefs were endorsed by some staff, and were negatively correlated with a belief that 'dissociation is caused by trauma'. Qualitative data revealed mostly neutral or supportive language, although stigmatising words were more frequently directed towards patients than dissociation itself.

Conclusions: This thesis revealed stigma to be a multifaceted construct among clinicians. It found implicit and explicit stigma to be largely distinct processes, while the empirical paper highlighted the value of mixed methods to explore the variation in attitudes, beliefs and stigma towards dissociation. This has implications for stigma theories, stigma reduction initiatives and training for clinicians.

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Chapter One: General Introduction

This chapter introduces the composition and overarching aims of the thesis portfolio to support the reader in navigating the following chapters. It provides an overview of the key concepts underpinning the thesis, including attitudes, beliefs and stigma, and explains their significance within mental health and clinician contexts. The chapter then outlines the rationale for the systematic review and empirical project.

What are Attitudes and Beliefs?

Attitudes can be defined as an enduring tendency to evaluate something with some degree of favour or disfavour (Eagly & Chaiken, 1993). This evaluation could be towards a group of people, an object, idea or behaviour, and can be held in mind without the opportunity to necessarily express it through action (Yuan et al., 2023). Beliefs are considered to be the 'building blocks' of attitudes, and are defined as propositions, convictions or confidence in something which is accepted as 'truth' (Dole & Sinatra, 2019). For example, if a mental health clinician believes that recovery from mental health conditions is possible, and that people experiencing these difficulties are valuable contributors to society, these beliefs may foster a favourable attitude of hope and optimism towards service users.

The study of attitudes has a long history in psychology, potentially dating back to 1862 when the philosopher and psychologist Herbert Spencer is first credited with using the term (Fishman et al., 2021). Indeed, Allport (1935) declared that attitudes were probably the "most distinctive and indispensable concept" in psychology, highlighting the early recognition of their importance within the field. Psychologists have long been debating the concepts of attitudes and beliefs, including how attitudinal change may occur, and how the type and strength of attitudes influence behaviours (Ajzen & Fishbein, 1977; Eccles et al., 2006). The prevailing view is that attitudes may predict behaviour through 'behavioural intention', the immediate antecedent of behaviour, which is considered a strong predictor within the theory of planned behaviour (Armitage & Conner, 2001). Although the precise

associations among attitudes, beliefs and intentions remain contested (Bechler et al., 2021), exploring these constructs among mental health clinicians remains important for understanding how they may contribute to stigma and discrimination towards their service users (Eagly & Chaiken, 2005).

What is Stigma?

Stigma has been defined in several ways. A widely cited definition is provided by Link and Phelan (2001) who describe the dynamic social process of stigma. They define stigma as being the labelling of difference (i.e., the separation of "us" and "them") and involves a collective system of three negative reactions. These include stereotypes (e.g., perceived dangerousness), prejudice (e.g., fear and anger) and discrimination (e.g., avoidance and distance) towards the stigmatised group or person. These reactions parallel the cognitive, affective and behavioural dimensions described in the social cognitive and cognitive-behavioural literature (Corrigan & Shapiro, 2010). Interestingly, these reactions have also been documented among people living with mental health conditions (Wood et al., 2017). Indeed, these individuals can experience 'self-stigma', whereby they apply stereotypes, prejudice or discrimination to themselves (i.e., viewing oneself as underserving) and this remains a key focus of clinical psychology research (Corrigan & Watson, 2002). However, for the purposes of this thesis, the emphasis will be on 'provider stigma', that is, stigmatising attitudes and beliefs held by clinicians toward people with mental health conditions.

Historically, stigma is related to the term 'stigmata' meaning a mark, scar or burn, and signifies the labelling of attribute(s) that are deeply devaluing for a person's identity (Goffman & Goffman, 2009). Negative attributes towards mental health conditions may include unpredictability, dangerousness, incompetence or weakness, along with being 'problematic' or 'untreatable' as service users (Hinshaw & Stier, 2008). In modern contexts, stigma is considered to be influenced by broader systems of power, including political, professional, economic and cultural factors (Link & Phelan,

2001). Cultural and social perspectives suggest that stigma likely threatens an individual's 'moral or social standing' within the community, reinforcing social exclusion and rejection (Yang et al., 2007).

Stigma, Attitudes and Beliefs

Some theorists have attempted to conceptualise the relationship between attitudes, beliefs and stigma (Corrigan & Penn, 1999). For instance, Corrigan et al. (2003) had considered attitudes to be a component of prejudice (e.g., a negative emotional reaction), whereas they conceptualised beliefs to be a component of stereotypes (e.g., negative assumptions about a group). However, a consensus has not yet been reached on these definitions, and it is recognised the terms 'attitudes' and 'beliefs' have occasionally been used interchangeably in stigma research (Fox et al., 2018). This is challenging, as it may hinder our theoretical understanding of the specific components that contribute to stigma. It is also debated whether clinicians who endorse stigmatising attitudes or beliefs necessarily engage in discriminatory behaviours, or whether other processes moderate their relationship (Silke et al., 2016). For instance, clinicians may exhibit compensatory positive attitudes, or respond in socially desirable ways when completing attitudinal measures, which might influence whether stigmatising cognitions result in discriminatory actions (Stuber et al., 2014). This is because clinicians may be motivated to uphold a positive self-image, or be viewed favourably by others, particularly given their professional role and context (Subu et al., 2021). Together, these considerations highlight the complex interaction between attitudes, beliefs and stigma, contributing to ongoing debates in the literature.

Theoretical Models of Stigma

Several models of stigma towards people with mental health conditions have been provided, many of which diverge in their explanations of underlying processes (see Hinshaw & Stier, 2008, for a comprehensive review). Briefly, evolutionary models propose that stigma developed as an adaptive mechanism to protect communities from potential threats, such as 'disease' or 'reduced community cohesion', by promoting the exclusion of individuals perceived to be different (Kurzban & Leary,

2001). Attribution models, on the other hand, suggest that if ‘negative' behaviours (e.g., aggression and hostility) are assigned to non-controllable factors, such as ‘disease’ or ‘genetics’, then observers are expected to show more empathy and reduced stigma (Weiner et al., 1988). When behaviours are assigned to personal control, however, then blame attributions and discrimination are expected from observers. Dual process models of stigma propose that two parallel cognitive systems underlie how people form evaluations of others (Nosek, 2005). These will be explored in detail in Chapter Two, however, a brief summary is provided below for context.

Dual process models derive from the social cognition literature. They include the dual-attitudes model (Wilson et al., 2000), the reflective-impulsive model (Strack & Deutsch, 2004), and the associative-propositional model (Gawronski & Bodenhausen, 2006). These models hypothesise that stigmatising evaluations are shaped by two ‘distinct’ but interacting cognitive processes: implicit and explicit representations. Implicit representations portray unconscious and automatic cognitions that are supposedly inaccessible to introspection (Corneille & Hütter, 2020). Explicit representations, on the other hand, are seen to denote reflective, reasoned or deliberate processes that are consciously available to report to others (Gawronski et al., 2020). These systems have been popularised as ‘fast’ (implicit) and ‘slow’ (explicit) thinking (Kahneman, 2011). Dual process models postulate that it is possible to hold two distinct evaluations towards people with mental health conditions, leading to various attitudes, beliefs and behaviours (i.e., stigmatising and non-stigmatising). These might be determined by automatic and / or deliberative cognitive processes (González-Sanguino et al., 2019).

Stigma Towards Mental Health Conditions

People living with mental health conditions have been seen to face a “twofold challenge” (Petkari et al., 2018). First, coping with the symptoms and disruptions caused by the mental health condition(s), and second, the stress caused by rejection, prejudice, and non-acceptance from society. Indeed, multiple studies have found that people with mental health conditions can experience stigma

from the general public (Corrigan & Watson, 2002; Jauch et al., 2023; Overton & Medina, 2011). A 2023 survey of 1,300 people living with conditions such as schizophrenia or bipolar disorder in the UK found that 94% reported being treated negatively, while 58% avoided seeking support due to the perceptions of others (Rethink Mental Illness, 2023). This is despite findings from the 'Attitudes to Mental Illness' survey, which showed "gradual improvements" in public knowledge, attitudes and willingness for social contact towards people with mental health conditions in England between 2008 and 2019 (Henderson et al., 2020). There are several explanations for these mixed findings, such as variation between study methodologies, stigma operating differently at individual and societal levels (Thornicroft et al., 2007), and differences between 'implicit' and 'explicit' attitudes towards mental health conditions (Stier & Hinshaw, 2007). Nonetheless, stigma is recognised as a significant "global challenge" in mental health care and requires greater research attention (Thornicroft et al., 2022).

Indeed, the consequences of stigma towards people with mental health conditions extend beyond social exclusion and rejection. It is associated with significant societal inequalities, such as limited access to essential resources like housing, healthcare, education and employment (Patel et al., 2018). It has also been related to higher healthcare disparities and mortality rates among people with mental health conditions (Kågström et al., 2025). Importantly however, the causal links between negative stereotypes, prejudice and discrimination remain unclear, potentially due to methodological challenges with conceptual clarity described previously (Livingston & Boyd, 2010). Consequently, attempts to differentiate between these components is considered "essential" for designing strategies to mitigate the effects of stigma and improve mental health outcomes (Kågström et al., 2025).

Stigma Among Mental Health Clinicians

There is growing recognition that mental health clinicians may also express stigma towards people with mental health conditions (Schulze, 2007; Wahl & Aroesty-Cohen, 2010). However, the extent or type of stigma endorsed by clinicians remains hard to establish due to variations in designs,

samples and measures, and because research remains relatively limited compared to studies of public stigma (Jauch et al., 2023). Nevertheless, stigmatising reactions by clinicians have been associated with negative clinical outcomes for people with mental health conditions, including disengagement from services, weaker therapeutic alliances and poorer mental and physical healthcare (Gupta et al., 2024; Mitchell et al., 2009; Schulze, 2007). Stigma is also incompatible with the ethical principles that guide UK mental health practice, such as respect and integrity (British Psychological Society, 2021a). Therefore, stigma is recognised as a public health concern to be further investigated among mental health clinicians (Hatzenbuehler et al., 2013).

Much of the existing literature exploring stigma among mental health clinicians has been methodologically limited according to recent scoping reviews (e.g., Jauch et al., 2023). For example, earlier studies often used heterogeneous samples that did not separate mental health clinicians from non-specialists (e.g., general physicians), or focused only on specific mental health professions such as psychiatry or psychology (e.g., Ren et al., 2025; Robb & Stone, 2016). This restricted the extent to which findings could be compared or generalised to mental health clinicians. Likewise, much of the research had been descriptive, by exploring variations in stigmatising reactions across demographic or professional groups rather than focusing on the underlying psychological mechanisms of stigma. Indeed, few studies are informed by contemporary theoretical models of stigma (e.g., dual-process models) and many rely on diverse, non-standardised measures of stigma (e.g., Valery & Prouteau, 2020). While these approaches may be informative for identifying the ‘associated factors’ of stigma, and highlight the heterogeneity of studies, they provide limited insight into the underlying cognitive or affective processes that may shape the attitudes, beliefs and behaviours of mental health clinicians. Lastly, most studies have explored stigma towards mental health conditions in general (e.g., ‘people with mental illness’), rather than specific diagnoses (Jauch et al., 2023). This is a limitation as there are certain diagnoses or conditions, such as dissociative and personality problems, that may remain

poorly understood in clinical services, and therefore require specific research and clinical attention (Gleaves & Reisinger, 2023).

Rationale for the Systematic Review Chapter

The systematic review for the thesis is presented in Chapter Two. It provides a systematic synthesis and meta-analysis of studies investigating the relationship between implicit and explicit stigma among mental health clinicians. This review was conducted because the existing literature draws on limited theoretical models of stigma, making it challenging to understand the patterns of stigma endorsed by clinicians and how these may impact clinical care outcomes for service users. In particular, dual-process theories propose that implicit and explicit evaluations of people with mental health conditions might reflect two 'related but distinct' cognitive processes (Schmidt et al., 2022). However, the extent to which these processes align and shape stigma among mental health clinicians remains unclear across studies, along with which stigma components have been explored most.

Understanding how implicit and explicit evaluations have been operationalised in the social psychology literature is important for interpreting studies among mental health clinicians. Implicit evaluations are assessed using implicit measures that aim to capture automatic, associative processes between concepts and attributes occurring outside conscious awareness (Greenwald & Banaji, 1995). These measures commonly rely on computer-based tasks that infer associations from performance indicators, including response latencies and error rates. The most prominent measure is the 'implicit association test' (IAT) (Greenwald et al., 1998). In contrast, explicit measures typically include self-report scales or clinical vignettes that are assumed to reflect deliberative, consciously held attitudes, beliefs and behaviours that are available to report to others (Dovidio et al., 2002).

Previous meta-analytic work in social psychology has shown only a small correlation between implicit and explicit measures across psychological constructs (e.g., r = .24; Hofmann et al., 2005). These findings suggest that implicit and explicit stigma processes could operate in parallel,

potentially leading to different clinician intentions and behaviours (González-Sanguino et al., 2019). However, without a systematic synthesis of how implicit and explicit processes relate to one another among mental health clinicians, it is difficult to determine whether dual-process theories adequately apply within mental health care contexts. It would also be difficult to determine the extent to which these processes impact decision-making and other behaviours among mental health clinicians.

There has also been limited critical appraisal of studies exploring implicit and explicit stigma among mental health clinicians. These include assessing for publication bias, while exploring the quality of designs, measures and sample characteristics. These factors, along with the mental health condition(s) examined and the influence of social desirability, may moderate both the strength and direction of the relationship between implicit and explicit stigma, highlighting a need for further investigation. Consequently, a systematic review and meta-analysis was warranted to statistically synthesise the available evidence on the relationship between implicit and explicit stigma, and to provide a theoretically grounded understanding of the processes underlying provider stigma.

Rationale for the Empirical Project Chapter

The empirical project is presented in Chapter Five. This sought to extend our understanding of the explicit attitudes and beliefs held by mental health clinicians towards dissociation, a common but often misunderstood mental health problem. Dissociation has been described as a transdiagnostic set of experiences, and involves the 'disruption of and / or discontinuity in the normal integration of consciousness' (The Diagnostic and Statistical Manual of Mental Disorders (5th ed; American Psychiatric Association, 2013). These experiences may include feelings of unfamiliarity, unreality or disconnection with one's surroundings, body, or mind (Černis et al., 2022).

People who experience dissociation have previously been found to encounter professional scepticism, stigma, and misdiagnosis in mental health settings (Leonard et al., 2005). Dissociation is also associated with a higher risk of self-harm (Černis et al., 2019), suicide attempts (Tanner et al.,

2017) and poorer response to psychotherapeutic interventions (Spitzer et al., 2007). Despite this, it is recognised that mental health training programmes provide little to no core content on dissociation (Courtois & Gold, 2009). There are also entrenched debates on the origins of dissociation as either a coping response to adverse events (the 'trauma model') or as the outcome of fantasy proneness and media (the 'socio-cognitive' model) (Dalenberg et al., 2020). These historical debates might have contributed to some uncertainty or scepticism towards dissociation among mental health clinicians.

However, the prior research exploring attitudes towards dissociation was conducted several decades ago (e.g., Pope et al., 1999), and studies focusing on UK mental health clinicians remain limited (e.g., Dorahy & Lewis, 2002). This is important to acknowledge, as a range of recent cultural developments may have influenced contemporary attitudes towards dissociation in the National Health Service (NHS). Indeed, recent NHS initiatives have sought to enhance the understanding of dissociation among clinicians within a trauma-informed framework and aim to reduce bias through implicit stigma campaigns (Guerrero et al., 2024; Nikopaschos et al., 2025). Nevertheless, the NHS workforce has faced unprecedented recent pressures, including the COVID-19 pandemic, financial difficulties, staff retention issues and high levels of staff burnout (Johnson et al., 2021; Juneja et al., 2025). These pressures may contribute to job dissatisfaction and reduced organisational commitment (Chen & Chen, 2018), which could in turn negatively shape clinicians' beliefs about service users viewed as more 'complex' (Del Olmo-Romero et al., 2025). Likewise, the rise of social media discourse on dissociation may have changed how these experiences are discussed and perceived in the NHS (Zhang et al., 2024). Therefore, a novel empirical study of attitudes and beliefs among clinicians towards dissociation was warranted.

Thesis Composition and Overall Aim

The thesis portfolio first aims to systematically review and meta-analyse the available evidence on the relationship between implicit and explicit stigma among mental health clinicians. A

bridging chapter will then link the main findings of the review with a more extensive rationale for developing the empirical project. This project represents the second aim of the portfolio, which is to explore the explicit attitudes and beliefs of NHS clinicians concerning dissociative experiences. This will contribute to our understanding of how clinicians conceptualise dissociation, including any misconceptions or stigmatised beliefs. Lastly, the strengths and limitations of the thesis, along with implications for research and practice, will be discussed in an extended discussion chapter.

Chapter Two: Systematic Review and Meta-Analysis

The relationship between implicit and explicit stigma of mental illness among mental health clinicians: a systematic review and meta-analysis

Written for publication in *BJPsych Open*

(Author guidelines for manuscript preparation – Appendix A)

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Abstract

Background: Mental health clinicians have been found to demonstrate stigma towards people with mental illness through both implicit and explicit methodologies. These are thought to represent distinct yet potentially related dimensions of stigma. However, among mental health clinicians, the association between implicit and explicit stigma is unclear, limiting our understanding of how these could influence clinical care outcomes.

Aim: This systematic review and meta-analysis aimed to synthesise research on the relation between implicit and explicit stigma among mental health clinicians and examine its potential moderators.

Methods: The protocol was preregistered on PROSPERO (CRD42024614725). A systematic search was conducted in PsycINFO, PsycArticles, MEDLINE, EMBASE, ProQuest Central, CINAHL, Scopus, and Web of Science. Random-effects meta-analysis of Fisher *r*-to-*z* transformed correlations were conducted along with tests of heterogeneity, moderators and publication bias. The features of implicit and explicit measures, study characteristics, methodological quality and clinical care outcomes were also extracted.

Results: Ten studies (n = 1,404 clinicians) with 11 independent samples were included. There was a statistically significant, but small, positive pooled correlation between implicit and explicit stigma measures (r = 0.13; 95% CI: 0.04 to 0.23). Heterogeneity was moderate and largely accounted for by studies examining substance use disorder, which showed a slightly stronger correlation (r = 0.27) than for other psychiatric disorders (r = 0.08). No evidence of publication bias was detected.

Conclusions: Implicit and explicit stigma appear to be weakly related, so could be considered largely distinct constructs among mental health clinicians. Findings underscore the importance of addressing implicit and explicit stigma in research and practice, which may inform stigma-reduction efforts.

Keywords: Meta-analysis, Implicit stigma, Explicit stigma, Mental illness, Mental health clinicians.

Introduction

People with mental illness[1] (PMI) often experience stigma, whereby they are believed to possess certain attributes that convey a devalued or disgraced social identity (e.g., being othered) [1]. A 2023 survey of 1,300 PMI found 88% believed stigma was still widespread in the UK, while 94% reported being treated differently due to their illness [2]. Stigma has often been studied among the general public ('public stigma') and PMI ('self-stigma') [3] and involves a system of three negative reactions or components [4]. These include negative stereotypes (e.g., perceived dangerousness), prejudice (e.g., fear) and/or discrimination (e.g., avoidance) towards mental illness [5, 6].

Recent evidence suggests that mental health clinicians may also demonstrate stigmatising reactions towards PMI ('provider stigma') [7]. For instance, a literature review of 19 studies found that some mental health clinicians endorsed beliefs that mental health patients were 'unpredictable', 'less skilled' and 'undesirable' [8]. Likewise, the frequency of discriminatory behaviour reported by patients (e.g., "being treated unfairly") in mental health settings has been found to range from 16% [9] to 44% [10]. Such different rates of stigma may be related to variations in study designs, recruitment, measures, and the specific component of stigma being explored [7]. This can make it difficult to estimate the true extent of stigma endorsed by mental health clinicians (i.e., compared to the general public). Nonetheless, stigma can have serious clinical implications across mental health services [11]. It has been linked to delayed help-seeking, inferior therapeutic alliances, and pessimistic beliefs around recovery [12-15]. Hence, provider stigma is increasingly recognised as a public health concern by some researchers [16].

Studies that examine stigma towards mental illness have commonly used explicit measures (i.e. clinical vignettes, self-report scales and experimental paradigms), with over 400 measures

[1]The term *mental illness* is used to ensure consistency with the reviewed literature, as 9/10 included studies referred to service users as people with "mental illness". The term also aligns with conventions of *BJPsych Open*, the target journal for this paper, which adopts psychiatric terminology in its author guidelines. However, it is acknowledged the term *mental illness* may evoke a primarily medical understanding of mental health difficulties, which could inadvertently reinforce stigma.

reported [17, 18]. Explicit measures assess for stigmatising reactions that are assumed to be consciously controllable, reflective and readily available to recall or report [19]. Despite their ease of implementation and strong face validity [20], explicit tools have been criticised for underplaying the stigma endorsed by mental health clinicians [1]. Indeed, some explicit measures have shown weak correlations with behavioural discrimination [21], and numerous researchers contend that explicit measures may be contaminated by external influences, such as social desirability and professional context [22]. Social desirability presents a real methodological and ethical concern as clinicians may be motivated to underreport or distort stigmatising beliefs given their role [23]. This could be to maintain a positive self-image as a carer or to be viewed more favourably by others. Hence, attempts have been made by researchers to use alternative measures of stigma, with the aim of circumventing the limitations of explicit measures [24].

Implicit measures of stigma are assumed to assess reactions that are automatic, spontaneous, and possibly outside of conscious awareness, knowledge and control [25]. There are over two dozen implicit measures used in the behavioural sciences, but the most prominent is the implicit association test (IAT) [26, 27]. Mental contents (e.g., stigmatising stereotypes) are typically inferred from performance indicators such as relative error rates, response times and response frequencies as measured from computer tasks [22]. Implicit tools aim to uncover subtle associations held by clinicians between certain concepts (e.g., a psychiatric diagnosis) and attributes (e.g., strange, gloomy etc.) that may lead to negative evaluations [28]. As some researchers assume people do not have introspective awareness about these associations, implicit tools aim to circumvent the motivational desire to conceal stigma [29].

Indeed, a recent meta-analysis by Ren et al [30] found evidence that healthcare staff displayed a significant implicit bias against PMI when meta-analysed statistically across 30 studies. However, implicit studies vary greatly in their methodologies (e.g., in their measures, concepts and

attribute words, data collection approaches, protocols, or performance metrics). Most studies are also non-specific to mental health clinicians. These can make it difficult to estimate the type or degree of implicit stigma displayed by this population.

Nevertheless, implicit stigma has been found to predict clinical outcomes. It has been associated with negative patient-staff interactions [31] and less willingness to help PMI by clinicians [32] in some contexts. However, a literature review [28] found evidence of several null correlations between implicit bias and healthcare outcomes (e.g., diagnostic and treatment decisions), concluding the relationship was complex and inconsistent across discriminatory behaviours. One potential reason for this could be that implicit and explicit stigma may have distinct conceptual underpinnings, so may uniquely relate to different clinical outcomes [33]. For example, Peris et al [34] investigated a mixed sample of 1,539 participants, most being mental health clinicians. They found that stronger explicit stigma predicted negative patient prognosis towards PMI, while stronger implicit stigma predicted the overdiagnosis of psychiatric disorders. These outcomes for patients highlight the need to investigate if implicit and explicit measures capture identical or 'distinct but related' constructs by which stigma impacts practice [35].

A growing body of social psychology literature has examined the relation between implicit and explicit tools. Hofmann and colleagues [36] conducted a meta-analysis of 126 studies looking at the association between the IAT and explicit measures, and found a small, positive correlation of .24. The authors indicated this weak correlation may be attributed to motivational biases (i.e., social desirability) on explicit tools, a lack of introspective access to implicit cognitions, variation in methods, or differences in the effort required to retrieve implicit and explicit cognitions. That said, theorists generally conclude these findings indicate there to be two distinct, but related parallel cognitive processes (implicit and explicit representations) underlying attitudes such as stigma [37].

The most prominent theories of parallel implicit and explicit processes are the dual-process theories, such as the dual attitudes model (DAM) [38], the associative-propositional evaluation model (APE) [39], and the reflective-impulsive model (RIM) [40]. Such frameworks postulate that explicit measures capture deliberative, reflective, reasoned or controlled processes [41], whereas implicit tools portray automatic, intuitive and unconscious representations that are inaccessible to introspection [42]. These systems have been popularised as 'fast thinking' (implicit) and 'slow thinking' (explicit) [43] when positively or negatively evaluating a given object [44]. Hence, some theorists propose that people can hold two distinct evaluations towards the same attitude object, thereby predicting different behaviours on the basis of whether the outcomes are automatic and impulsive, or reflective and controlled [45]. In the current clinical context, this may present as clinicians expressing stigmatising and non-stigmatising reactions, or even endorsing different components of stigma towards PMI. However, there is limited understanding and empirical testing of these implicit-explicit relations among mental health clinicians [46].

To date, only two published reviews have synthesised evidence on the relationship between implicit and explicit stigma towards mental illness [30, 47]. These provided a well-rounded overview of the degree of implicit stigma endorsed. However, both were limited to a narrative synthesis of implicit-explicit relationships, through commenting on the correlational data rather than statistically averaging these. This prompted Ren and colleagues [30] to conclude implicit-explicit relationships were complex, inconsistent and remained to be validated, thus warranting further exploration. Likewise, neither review was specific to mental health clinicians, rather, they synthesised evidence from the general public, PMI, clinicians and students as participants. Given clinicians occupy a unique role in recognising and treating mental illness, it seems important to synthesise research on the association between implicit and explicit stigma among this group [48]. This could have significant implications for our theoretical understanding of stigma, its impact within mental health settings, as well as informing stigma-reduction initiatives for clinicians [49]. Lastly, there is limited

appraisal of the methodological quality and risk of publication bias for studies exploring the implicit-explicit correlations of stigma. Hence, a systematic synthesis and evaluation of the association between these measures of stigma among clinicians is warranted.

Aims

The current review aims to address gaps in research by systematically searching and statistically pooling the correlations of implicit and explicit stigma of mental illness by mental health clinicians using a meta-analysis. This review also aims to examine if any moderators influence the relationship between implicit and explicit stigma, given the correlations may be inconsistent across studies. Further, the review will synthesise sample and study characteristics, their methodological quality, their risk of publication bias, and consider how implicit and explicit stigma measures relate to clinical outcomes. Lastly, the review will discuss the main implications of its findings for future research and practice.

Method

Protocol registration

The protocol for this systematic review and meta-analysis was preregistered on PROSPERO (registration ID: CRD42024614725) on 17 December 2024 prior to the search being conducted. It adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist [50; Appendix B].

Key terminology

Provider stigma has been previously described in the mental health literature as “stigma”, “bias”, “stereotype”, “attitude”, “prejudice” and/or “discrimination”. Hence, for this review, “stigma” refers to all types of stigmatising reactions and components to broaden our search scope for implicit and explicit tools, which is an approach applied in other systematic reviews [30, 47]. Moreover, stigma towards mental illness has been investigated either ‘generally’ (i.e., people with

mental illness as a whole) or towards specific psychiatric diagnoses (e.g., bipolar disorder, schizophrenia, substance use disorder). Studies exploring either aim were included, as long as the mental illness studied was widely recognised in diagnostic systems such as the DSM-5 [51] and ICD-11 [52], was typically managed by mental health clinicians in services, and had been considered in previous reviews on mental illness stigma.

A decision was therefore made to exclude neurodevelopmental disorders (e.g., autism, ADHD) and neurodegenerative diseases (e.g., dementia). This is consistent with previous reviews [30], as these conditions involve distinct aetiologies, trajectories, professionals, and service contexts (e.g., education or social care) [53]. Such differences may have introduced significant heterogeneity, that would limit the coherence and applicability of the review's findings on mental illness stigma by mental health clinicians. Nevertheless, it is recognised this exclusion could limit the breadth of the review and represents a trade-off between conceptual clarity and inclusivity. This must be considered when interpreting the findings.

Inclusion and exclusion criteria

The following parameters were used to determine inclusion criteria: (a) peer-reviewed articles with quantitative data; (b) provided a correlation or convertible effect size between implicit and explicit measures of stigma of mental illness at baseline; (c) reported unadjusted effect sizes; (d) available in English; (e) included samples or sub-samples of mental health clinicians; (f) conducted from any country, published between 1 January 1990 and 31 March 2025. The reason for only including articles published since 1990 was because IAT measures of bias were not available before this date [54].

Exclusion criteria were: (a) grey literature or articles not published in a peer review journal; (b) articles not available in English; (c) articles that only included qualitative data; (d) articles which were case reports at conferences, commentaries, protocols or letters; (e) books or book chapters,

magazines, newspapers, websites, blogs or abstract-only studies; (f) articles using mixed samples (e.g., clinicians and non-clinicians) and where a differentiation of sub-samples was not available in the analysis; (g) undergraduate students in health professions (e.g., medical and psychology students); (h) articles which only investigated implicit stigma, explicit stigma, or the efficacy of stigma-reduction initiatives, without looking at the relation between implicit and explicit stigma; (i) articles which focused on stigma towards neurodevelopmental or neurodegenerative conditions.

Search strategy and study selection

A scoping review was initially conducted to identify common terms used in the literature [7, 8]. Alternative search terms were devised for ‘mental health clinicians’, ‘implicit stigma’, ‘explicit stigma’ and ‘mental illness’. The final search strategy was decided by CJ and is shown in Appendix C. The search was conducted on 1 and 4 April 2025 on the following databases: PsycINFO, PsycArticles, MEDLINE Ultimate, EMBASE, ProQuest Central, CINAHL Ultimate, Scopus and Web of Science. CJ independently screened the titles, abstracts and full-texts; EK independently screened the abstracts and full-text articles. The agreement rates were 88.43% for abstracts and 88.89% for full-text articles at screening. A consensus between the reviewers (CJ and EK) was reached (100% agreement) as all discrepancies in study eligibility were resolved through discussion.

Five articles were found that used implicit and explicit measures [49, 55-58] but did not report their statistical association. The corresponding authors of these articles were emailed requesting for clarification(s) about any of their supplemental materials or unpublished datasets. However, to date, no replies have been received. Therefore, these five articles were not included in our systematic review and meta-analysis. Two additional articles were found that investigated the relationship between implicit and explicit stigma measures among medical undergraduate students [59, 60]. These two articles were not included in our systematic review and meta-analysis to ensure

that findings were specific to practising mental health clinicians. Lastly, all records identified from the reference lists and forward citations of included studies were hand-searched by CJ for eligibility.

Identification of studies

All records were exported to Zotero reference management software [61]. The initial search of the electronic databases identified 3,902 records. After duplicates were removed, 2,005 records were located and retrieved for further review. Upon screening titles and abstracts based on our eligibility criteria, 1,737 titles and 196 abstracts were excluded, meaning 72 full-text articles were assessed for eligibility. Sixty-four records were also identified through hand-searching the forward citations and reference lists of included articles. The most common reasons for exclusion were: no implicit measures reported, no sub-analysis of mental health clinicians available, and no association between implicit and explicit measures provided. Overall, 10 studies with 11 independent samples met the inclusion criteria and were included in the systematic review and meta-analysis (Fig. 1).

Data extraction

Data extraction was started by CJ on 8 April 2025. Study and sample characteristics were obtained first, including the authors, country, publication year, aim(s), component of stigma examined, design, service setting, sample composition and methodological quality (strengths and limitations). The characteristics of measures used to assess stigma were then extracted, including the procedure, concept, and attribute categories for implicit tools, and relevant characteristics (i.e., name or sub-scales) reported for explicit tools. The main outcomes extracted were the bivariate correlation coefficients (or related statistics) reported between the implicit and explicit measures of stigma of mental illness. The associated clinical outcomes of implicit and explicit stigma (e.g., decision making by mental health clinicians) were provided as secondary outcomes if these were reported in studies.

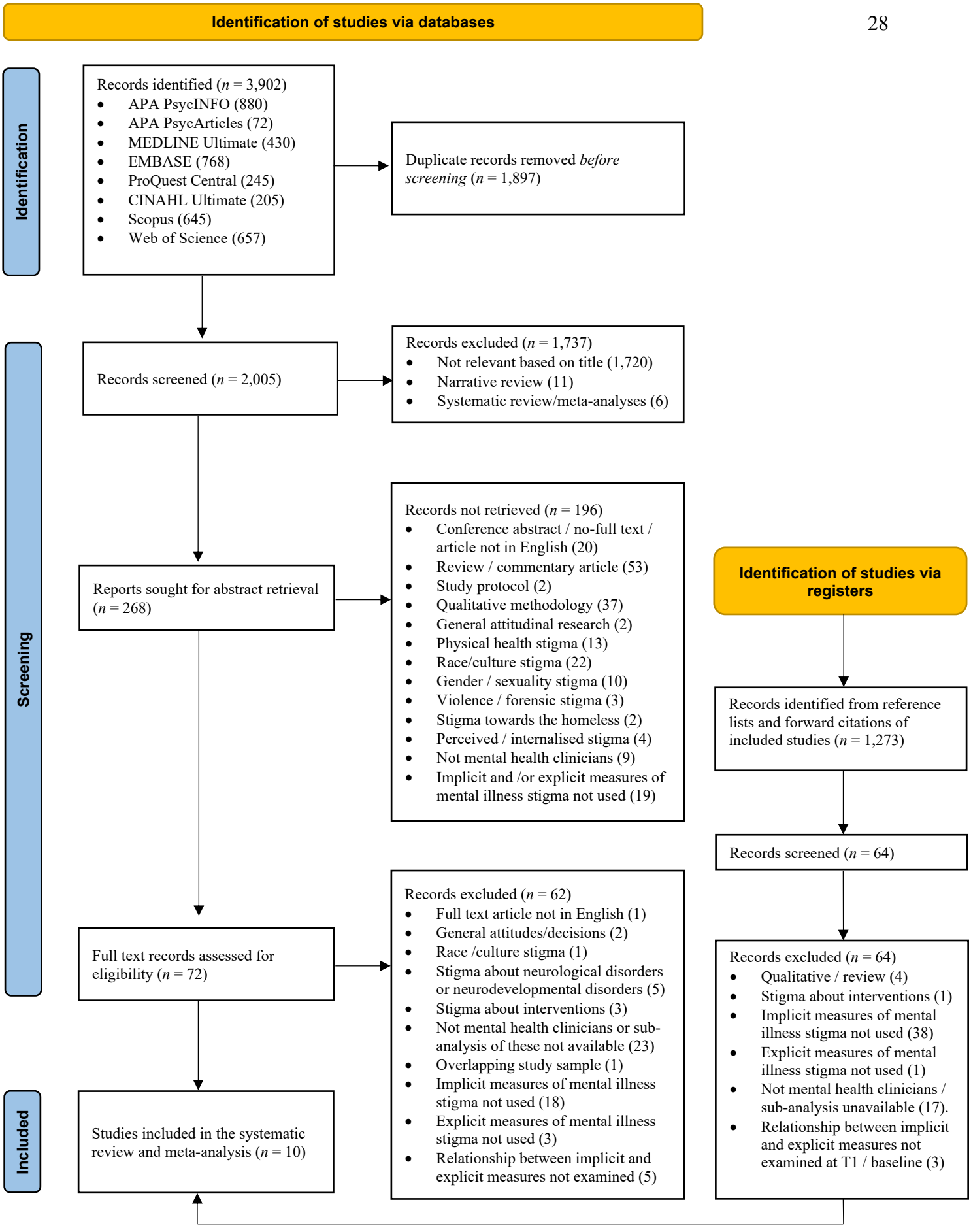


Fig. 1 PRISMA flowchart for the systematic review and meta-analysis (n = 10)

Quality assessment

The methodological quality of studies was assessed independently by CJ and EK using the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields ('QualSyst' for Quantitative Studies) [62]. This 14-item checklist assesses a range of criteria including research question(s), design, subject recruitment and characteristics, outcome measures, sample size, statistical analysis, variance estimates, control of confounding variables, results, and conclusions. Each item was rated from 0 to 2 according to whether they met the item criteria (0 = No; 1 = Partial; 2 = Yes; N/A = item not relevant).

Three items related to interventions (item 5), random allocations (item 6), and blinding (item 7) were not relevant so were removed from the calculations. Total scores were then computed by summing all sub-item scores (0-22). Higher total scores indicated stronger methodological quality. Summary percentage scores were then calculated for each study and were categorised as 'poor' (<50%), 'adequate' (50-70%), 'good' (71-79%) and 'strong' (≥80%). This approach to QualSyst appraisal ratings has been utilised effectively in other systematic reviews of implicit bias [63] and mental health research [64]. A manual was provided to assist reviewers in answering questions and calculating QualSyst scores. Small discrepancies between the reviewers (91.6%) were resolved with discussion and consensus was reached.

Statistical analysis

The meta-analysis was conducted using Jamovi computer software (version 2.7) [65]. The unadjusted *r* effect size (Pearson correlation coefficient) of the association between implicit and explicit stigma was used as the primary data for the meta-analysis when available ($n = 9$). The study correlation coefficients were transformed to Fisher *Z*s and subsequently backtransformed for ease of interpretation, which is standard practice for correlation-based meta-analyses [66]. A random-effects model was fitted to the data with 95% confidence intervals using the restricted maximum likelihood

(REML) method [67]. Cohen's criteria [68] were used to interpret the magnitude of pooled correlations as small (r = .10), medium (r = .30), or large (r≥.50) as applied in previous meta-analyses of correlational data [69]. Care was taken to ensure the sign (-/+) of each correlation was entered correctly, such that a positive r effect size meant higher implicit stigma was related to higher explicit stigma among mental health clinicians.

Data synthesis

Of the 10 studies found, 17 effect sizes were extracted and synthesised into 11 correlation coefficients (*r)* of implicit and explicit stigma using the methods described in this section. See the 'Additional Results' chapter for details of the 17 effect sizes that were synthesised and converted. One included study [70] provided a 'coefficient of determination' value for the simple linear regression conducted between implicit and explicit stigma. Here, the unadjusted R^2 value (.198) was converted into r using the formula ($r = \sqrt{.198} = .445$) [71]. When extracting data from longitudinal and/or experimental studies, only the correlations at baseline ('T1') were used to ensure effect sizes were independent.

There were five included studies that used multiple measures or sub-scales of implicit and explicit stigma and therefore provided two or more correlations for the same sample [20, 72-75]. In these cases, data points were averaged to determine an overall implicit and explicit stigma correlation per sample, which has been applied to limit effect size dependency in previous meta-analyses assessing implicit and explicit measures [36]. For one study [72], the two correlations of implicit and explicit tools were reported as non-significant, but no data was provided, so r = 0.00 was assigned as an estimate. This approach has been used in similar correlational meta-analyses [76]. Burguet and Girard [77] reported two correlation coefficients derived from separate samples, assigned randomly to two study conditions assessing implicit and explicit stigma. Hence, both effect sizes were included in the meta-analysis.

Heterogeneity and sensitivity analysis

Heterogeneity of effect sizes was assessed using I^2, while the Cochran's Q statistic was also computed [78]. I^2 determines the percentage of variation between studies as 'low' (25-49%), 'moderate' (50-74%) or 'high' (>75%). If any amount of heterogeneity was detected, a prediction interval for the true outcomes was provided. We also conducted meta-regressions to identify potential moderators of the association, which is generally recommended when heterogeneity is categorised as 'moderate' or 'high' [79]. These moderators were informed by prior implicit bias meta-analyses, including study and sample characteristics, the mental illness examined, and the characteristics of implicit and explicit measures where available [30, 36, 63]. A visual inspection of forest plots, student residuals and Cook's distances determined if studies were classified as outliers and / or influential in the model. Studies with a Cook's distance surpassing the median plus six times the interquartile range were considered influential [80]. Sensitivity analyses were conducted to evaluate if removing outlier(s) would meaningfully change the pooled effect sizes [81].

Publication bias

Publication bias was assessed through funnel plot visual inspection, the Egger's regression test [82] and the fail-safe number (fail-safe N) using the Rosenthal approach. Plot asymmetry and skewness was assumed if the Egger's test was statistically significant (p<.05), indicating publication bias.

Results

Study characteristics and aims

Table 1 displays a summary of the 10 included studies in this systematic review and meta-analysis. Studies were published between 2007 and 2024 with the majority (n = 7, 70%) published in the 2010's (2012 to 2018). Two studies [83, 84] were published in the late 2000's and only one study [77] had been published in the last five years. Studies were conducted across six high income

countries, including the United States (*n* = 3), Australia (n = 3), Canada (*n* = 1), France (*n* = 1), Italy (*n* = 1) and Japan (*n* = 1).

Four studies [72, 74, 75, 85] aimed to investigate stigma towards PMI as a whole, while six studies aimed to investigate stigma towards specific psychiatric disorders. Four of these studies explored substance use disorders [20, 70, 83, 84], one study explored schizophrenia [73], and one study explored schizophrenia and bipolar disorder in separate samples [77]. Six studies [70, 72, 74, 77, 83, 85] reported a secondary aim of evaluating the relationship between implicit and explicit stigma, while the remaining four studies did not [20, 73, 75, 84]. See 'Additional Results' for a summary of study aims and terms used to describe the component of stigma being investigated.

Components of stigma investigated

A total of 17 terms were identified in the titles and abstracts of studies that described the types of reactions being explored among mental health clinicians towards mental illness. Most terms (8/17) were neutral in tone, including "attitudes" (*n* = 7) and "emotions" (*n* = 1). Five terms reflected non-specific negative reactions, including "bias/biases" (*n* = 2), "stigmatisation" (*n* = 1), "negative images" (*n* = 1) and "infrahumanization" (*n* = 1). Infrahumanization was defined as attributing uniquely human emotions (i.e., hope, serenity) more to oneself than to PMI, compared to non-uniquely human emotions (i.e., fear), and was considered an implicit measure [77]. Four studies [74, 77, 83, 84] described the component(s) of stigma being investigated, including "prejudice" (*n* = 2), "stereotypes" (*n* = 1) and "discrimination" (*n* = 1).

Study designs

Five of the 10 studies (50%) were cross-sectional surveys, four studies (40%) were experimental, and one study (10%) reported a longitudinal design. All studies analysed primary research data.

Table 1 Extraction table of included studies (n = 10)

Authors, country & year	Study design	Recruitment characteristics	Sample characteristics	Implicit measure(s)			Explicit measure(s)	Main correlational findings
				Procedure	**Concept words**	**Attribute words**		
Brener et al [85] **Australia** **2013**	Cross-sectional survey Data Analysis: Primary	Study Setting: Nongovernment Organization (NGO) sites specializing in providing PMI psychosocial care, recovery-based accommodation, and outreach in the community. Methods: Staff members informed by clinical team leaders at 16 sites (usual place of work). Response Rate: 98.6%	Sample Size: 74 Sample Type: Mental health care workers (profession data unknown). Gender: 55 Female (74.32%); 19 Male (25.68%) Age Average: Not Reported. Age-Range: Not Reported. Ethnicity: Not Reported.	SC-IAT 'Implicit Attitudes'	PMI	Positive vs. Negative Attributes	Feeling Thermometer Scale	r = 0.24, p<.05 Reverse coded for MA
Brener et al [83] **Australia** **2007**	Cross-sectional survey Data Analysis: Primary	Study Setting: Liver clinics, hospital drug departments, drug / alcohol facilities and GP surgeries that specialize in substance use and hepatitis C. Methods: Different facilities and GPs identified via networking.	Sample Size: 60 Sample Type: Mixed (doctors and nurses). Gender: 40 Female (66.7%); 20 Male (33.3%) Age Average: 44 (SD = 9.19) Age-Range: Not Reported.	SC-IAT 'Implicit Attitudes'	IDUs	Good vs. Bad Attributes	Feeling Thermometer Scale	r = -0.02, ns

		Response Rate: Not Specified.	Ethnicity: Not Reported.					
Burguet and Girard [77] **2024** **France** **Two Samples**	Experimental Data Analysis: Primary	Study Setting: Psychiatric services in French hospitals which include open units with outpatients or inpatients, and acute settings. Methods: Not Specified. Response Rate: Not Specified.	Sample Size (1): 103 Sample Size (2): 100 Sample Type: Mixed (nurses, psychiatrists, psychologists, sociosanitary workers, health executives). Gender: 142 Female (69.95%); 59 Male (29.06%), 2 Other (0.96%) Age Average: 42 (SD = 10.81) Age-Range: 22-70 Ethnicity: Not Reported.	Infrahumanizing Effect Paradigm (Non-IAT Procedure) 'Implicit Stigmatization'	Schizophrenia (S1) or Bipolar disorder (S2) vs Oneself	Secondary / UH Emotions vs NUH Emotion Attributes	Day's Mental Illness Stigma scale (28-items)	Schizophrenia condition: r = 0.07, ns Bipolar condition: r = -0.08, ns
Dabby et al [72] **Canada** **2015**	Cross-sectional survey Data Analysis: Primary	Study Setting: McGill University Department of Psychiatry, and professional members of the Canadian Psychiatric Association (CPA). Methods: Email invitations ('electronic mailing lists') to all potential members.	Sample Size: 103 Sample Type: Psychiatrists and psychiatry resident doctors. Gender: 50 Female (48.54%); 53 Male (51.46%) Age Average: Residents (n = 35) = 31.8 (SD = 4.7); Psychiatrists (n = 68) = 57.3 (SD = 13.9)	IAT 'Implicit Bias'	Schizophrenia vs Diabetes Mellitus	Positive vs Negative Attributes	OMS-HC (12-items) SDS (5-items)	r =0.00 used as an estimate for MA

		Response Rate: 12.1% (McGill) and 3.3% (CPA)	Pooled Mean Age = 48.6 Age-Range: Not Reported. Ethnicity: Not Reported.					
Drake et al [20] **United States** **2018**	Experimental Data Analysis: Primary	Study Setting: Educational programmes or treatment facilities for substance use. Methods: Email distribution list, word of mouth, poster adverts and contact with university heads of Addiction Programmes. Response Rate: Not Specified.	Sample Size: 44 Sample Type: Clinicians training in counselling, psychology, social work and other mental health fields. Gender: Female (65%) Age Average: 45.3 (SD = 12.6) Age-Range: 23-72 Ethnicity: 54 White (90%)	IRAP 'Implicit Attitudes' 2 / 4 Trial Types Were Extracted for the SR/MA: Addict-Positive and Addict-Negative.	Drug Addict and Healthy Person (Single Categories)	Positive vs Negative Attributes	DUSS (7-items)	Average correlation used for MA: $r = 0.337$
Omori et al [73] **Japan** **2012**	Longitudinal Data Analysis: Primary	Study Setting: Psychiatric care teams as part of a one-month psychiatry internship for medical residents in Japan. Methods: Postgraduate medical education (internship at hospital). Response Rate: Not Specified.	Sample Size: 51 Sample Type: Medical residents. Gender: 21 Female (41.17%); 30 Male (58.82%) Age Average: 28 (SD = 4.1) Age-Range: Not Reported.	IAT 'Implicit Attitudes'	Schizophrenia (Old / New term) vs Hypertension	Victim vs Criminal Attributes	Link's devaluation-discrimination scale (12-items)	Average correlation used for MA: $r = 0.1125$

			Ethnicity: Not Reported.					
Sabin et al [74] **United States** **2015**	Cross-sectional survey Data Analysis: Primary	Study Setting: Mental health outpatient services that are provided for clients receiving publicly funded mental health support. Methods: Letter and four follow up emails to 25 agencies. Response Rate: 49.3%	Sample Size: 584 Sample Type: Mixed (most being therapists, nurses, psychologists, psychiatrists or case managers and/or supervisors). Gender: Female (76%) Age Average: 44 (SD = 12.4) Age-Range: 21-71 Ethnicity: 493 White (85%)	IAT (x2) 'Implicit Stereotypes'	Mental illness vs Physical Illness	Competence vs Incompetence Attributes (IAT[1]) Curable vs Incurable Attributes (IAT[2])	Self-reported attitude measures (2-items) that correspond with IATs	Average correlation used for MA: $r = 0.08$
Stull et al [75] **United States** **2013**	Cross-sectional survey Data Analysis: Primary	Study Setting: Assertive community treatment (ACT) teams. Methods: Email invitations to ACT team leaders. Response Rate: 20.9%	Sample Size: 154 Sample Type: Mixed (nurses, psychologists, social workers, psychiatrists and educational roles). Gender: Female (77.5%) Age Average: 41.7 (SD = 11.2) Age-Range: Not Reported. Ethnicity: White (87.5%); African-American (7.5%); Hispanic (0.8%);	IAT (x3) 'Implicit Biases'	Mental illness vs Physical Illness	Good vs bad Attributes (IAT[1]) Innocent vs Blameworthy Attributes (IAT[2]) Competent vs Helpless Attributes (IAT[3])	Semantic differential scales that correspond with IATs	Average correlation used for MA: $r = 0.123$

			multiracial (0.8%); other (4.2%)					
Von Hippel et al [84] **Australia** **2008**	Experimental Data Analysis: Primary	Study Setting: D&A treatment facilities, needle and syringe exchange programs, and primary-care facilities. Methods: Not Specified. Response Rate: Not Specified.	Sample Size: 44 Sample Type: Drug and alcohol nurses. Gender: Not Reported. Age Average: Not Reported. Age-Range: Not Reported. Ethnicity: Not Reported.	SC-IAT 'Implicit Prejudice'	IDUs	Positive vs. Negative Attributes	Attitude Toward IDU Scale (9-items)	$r = 0.26$, ns
Zogmaister et al [70] **Italy** **2013**	Experimental Data Analysis: Primary	Study Setting: Treatment facilities for substance use or the homes of laypeople. Methods: Not Specified. Response Rate: Not Specified.	Sample Size: 87 Sample Type: Mixed (drug and alcohol workers, lay people and volunteers). Gender: Female (48.3%) Age Average: 39.94 (SD = 12.85) Age-Range: Not Reported. Ethnicity: Not Reported	SC-IAT 'Implicit Attitudes'	Drug Addicts	Positive vs Negative Attributes	Attitudes Toward Personality Disorders Questionnaire – Adapted to Drug Addicts (15-items)	$r = 0.445$

Abbreviations: **PMI**, People with Mental Illness; **IAT**, Implicit Association Test; **SC-IAT**, Single Category Implicit Association Test; **IDU**, Injecting Drug Users; **UH**, Uniquely Human; **NUH**, Non-Uniquely Human; **S1**, Sample 1; **S2**, Sample 2; **IRAP**, Implicit Relational Assessment Procedure; **OMS-HC**, Opening Minds Scale for Health Care; **SDS**, Social Distance Scale; **DUSS**, Drug Use Stigmatization Scale; **Attitude Toward IDU Scale**, Attitude Towards Injecting Drug Users Scale; **ns**, not statistically significant (p>.05); **N/A**, Not Applicable.

Recruitment settings, methods and response rates

Across the 10 studies, mental health clinicians were recruited from educational and clinical training settings (*n* = 2, 20%), specialist treatment facilities for substance use problems (*n* = 2, 20%), inpatient and outpatient hospital services (*n* = 2, 20%), community mental health services (*n* = 2, 20%), and mixed settings (*n* = 2, 20%). The recruitment methods were reported in seven studies and included email invitations (*n* = 4, 40%), recruitment via medical education programmes (*n* = 1, 10%), networking (n = 1, 10%), and informing clinical team leaders (*n* = 1, 10%). The response rates of clinicians were reported in four studies (M = 36.8%, SD = 38.6%, range = 3.3%-98.6%).

Sample size and professions

A total of 1,404 mental health clinicians were sampled across the 10 studies. Sample sizes ranged from *n* = 44 to *n* = 584, with an average sample size of *n* = 128 (SD = 155). Most samples were medium size (50-300 participants, 72.7%), with two small samples (1-50 participants, 18.2%) and only one large sample (>300 participants, 9.1%) identified [74]. The types and professions of mental health clinicians sampled were reported in nine studies (*n* = 1,330) with only one study [85] describing the sample generally as "mental health workers" (*n* = 74). Of these nine studies, six reported a mixed sample of mental health clinicians (*n* = 1132) such as doctors, nurses, psychologists and counsellors [20, 70, 74, 75, 77, 83]. One study [73] sampled medical (psychiatry) residents (*n* = 51), one study [72] sampled psychiatrists (*n* = 103), and one study [84] sampled drug and alcohol nurses (*n* = 44).

Demographic characteristics

The age of participants was reported in eight studies (weighted average age = 42.15 years), while the age-range was reported in three studies (21-72 years). Complete data on gender was reported in five studies (weighted percentages = 62.73% female, 36.86% male, 0.40% other). When including nine studies that reported at least the female gender statistics, the weighted sample

percentage rose to 69.25% female. The ethnicity of participants was reported in three studies (weighted ethnicity = 85.80% White).

Methodological quality appraisal

All the identified studies were included in the systematic review and meta-analysis, irrespective of their methodological quality. Six studies (60%) were rated as "strong" for methodological quality, whereas two studies (20%) were rated as "good" and two studies (20%) were rated as "adequate". No studies were rated as "poor" (i.e., quality ratings <50%). On average, the studies were rated as "strong" for quality criteria (M = 81.3%, SD = 10.9%). This implies a low risk of methodological bias. However, with the limited number of studies available, conclusions drawn from this review must be interpreted cautiously. See Table 2 for a summary of the QualSyst item scores, total scores, summary percentages, and quality level category for each study included in the systematic review and meta-analysis.

Table 2 Quality appraisal of the included studies (QualSyst)

	QualSyst items														Summary scores		
Study	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Total score (/22)**	**Score %**	**Quality level**
Brener et al [85]	2	1	2	1	na	na	na	2	1	1	1	1	2	2	16	73%	Good
Brener et al [83]	2	1	2	2	na	na	na	2	2	1	1	1	2	1	17	77%	Good
Burguet and Girard [77]	2	2	1	2	na	na	na	2	2	2	1	2	2	1	19	86%	Strong
Dabby et al [72]	2	1	2	2	na	na	na	2	1	2	1	2	2	2	19	86%	Strong
Drake et al [20]	2	1	2	2	na	na	na	2	1	2	1	2	2	2	19	86%	Strong
Omori et al [73]	2	1	1	1	na	na	na	2	1	1	2	0	2	2	15	68%	Adequate
Sabin et al [74]	2	2	2	2	na	na	na	2	2	2	2	2	2	2	22	100%	Strong

Stull et al [75]	2	1	2	2	na	na	na	2	2	1	1	1	2	2	18	82%	Strong
Von Hippel et al [84]	2	1	1	1	na	na	na	2	0	1	2	1	2	1	14	64%	Adequate
Zogmaister et al [70]	2	2	1	2	na	na	na	2	2	1	2	2	2	2	20	91%	Strong

Abbreviations: **na**, not applicable (items 5, 6 and 7).

Implicit measures

Most studies (n = 9, 90%) used an implicit association-based procedure, while one study [77] utilised the "infrahumanization" effect paradigm. Most commonly, studies used the IAT or the Single Category IAT (SC-IAT) (n = 8, 80%), with one study (10%) employing the Implicit Relational Assessment Procedure (IRAP). Two studies [74, 75] incorporated multiple IATs which explored the evaluation of different attribute categories. All studies employed 'text-based' stimuli for their concept and attribute categories, rather than visual images.

Three studies examined their 'target' concept category as mental illness in general (e.g., "mental illness", "people with mental illness" etc). Two of these studies [75, 85] used descriptors comprising of specific psychiatric disorders and symptoms (e.g., "bipolar disorder", "PTSD", "drug dependence"), whereas one study [74] used 'descriptive' and 'symbolic' stimuli (e.g., "DSM", "restraints", "asylum").

Seven studies investigated their 'target' concept category as specific psychiatric disorders, which included substance use disorder and drug addiction (n = 4), schizophrenia (n = 2), or schizophrenia and bipolar disorder (n = 1). For the six studies that used a 'comparison' concept category, some employed physical illness in general (n = 2), while others used specific physical illness categories (n = 2), such as "diabetes" or "hypertension". Two studies used comparison categories not related to physical illness, including "healthy people" (n = 1) and "oneself" (n = 1).

There were 13 attribute comparisons used across the 10 studies. Most attributes were valance-based comparisons (n = 7), such as "positive vs negative" or "good vs bad" descriptors, whereas five comparisons were related to evaluative traits, such as "liked vs. disliked", "victim vs. criminal", and "competent vs. helpless". One study [77] provided attribute comparisons of emotion ("primary" vs. "secondary" emotions) between PMI and oneself in its "infrahumanization" paradigm. See the 'Additional Results' for further details of the implicit procedure, concept and attribute categories, and the interpretation of implicit measures used across studies.

Explicit measures

Ten explicit measures of mental illness stigma were examined in relation to implicit stigma, with one study [72] reporting two measures. The explicit scales varied in length (2–28 items) and focus (e.g., social distance, discrimination, emotional reactions and attitudes toward recovery). Most measures (n = 9, 90%) were self-report questionnaires, whereas the Social Distance Scale (SDS) presented vignettes of two patients that clinicians were asked to evaluate. Two studies [74, 75] developed self-report scales designed to correspond directly with the attribute categories used in implicit measures (e.g., ratings of blameworthy/innocent, bad/good, helpless/competent). Most measures were only utilised in one study, whereas two measures were used across two studies (the Feeling Thermometer Scale, and the Opening Minds Scale for Health Care Providers (OMS-HC)). While most explicit measures had been developed for general mental health stigma research (e.g., OMS-HC, Link's Devaluation–Discrimination Scale, the SDS), three measures were developed 'ad hoc' for the study context such as an adapted version of the Attitudes Toward Personality Disorders Questionnaire [70]. See the 'Additional Results' for further details on the sub-scales, scaling and interpretation of explicit measures.

(Primary outcomes reported on next page)

Primary outcomes

Pooled correlations between implicit and explicit stigma

The summary statistics for pooled correlations are presented in Table 3. A total of $k = 11$ study samples were included in the random-effects meta-analysis. The observed Fisher *r*-to-*z* transformed correlation coefficients ranged from -0.08 to 0.48, with the majority of estimates being positive (73%). The overall weighted correlation coefficient using the random-effects model was small, $r = 0.13$ (95% CI: 0.04 to 0.23). This average effect size differed significantly from zero ($z = 2.73$, $p = .006$). Findings represent a negligibly significant, positive pooled correlation between implicit and explicit stigma. This indicates that higher implicit stigma was only weakly associated with higher explicit stigma among mental health clinicians. A forest plot of the observed correlation coefficients is presented in Fig. 2.

Table 3 Summary statistics for pooled correlations between implicit and explicit stigma

			Random effects model						
				95% CI			Heterogeneity statistics		
	k	*r*	*SE*	LL 95% CI	UL 95% CI	*p*	*Q* (d.f.)	*p*	I^2
Implicit and explicit stigma	11	0.13	0.05	0.04	0.23	.006	22.45 (10)	.013	60.74%

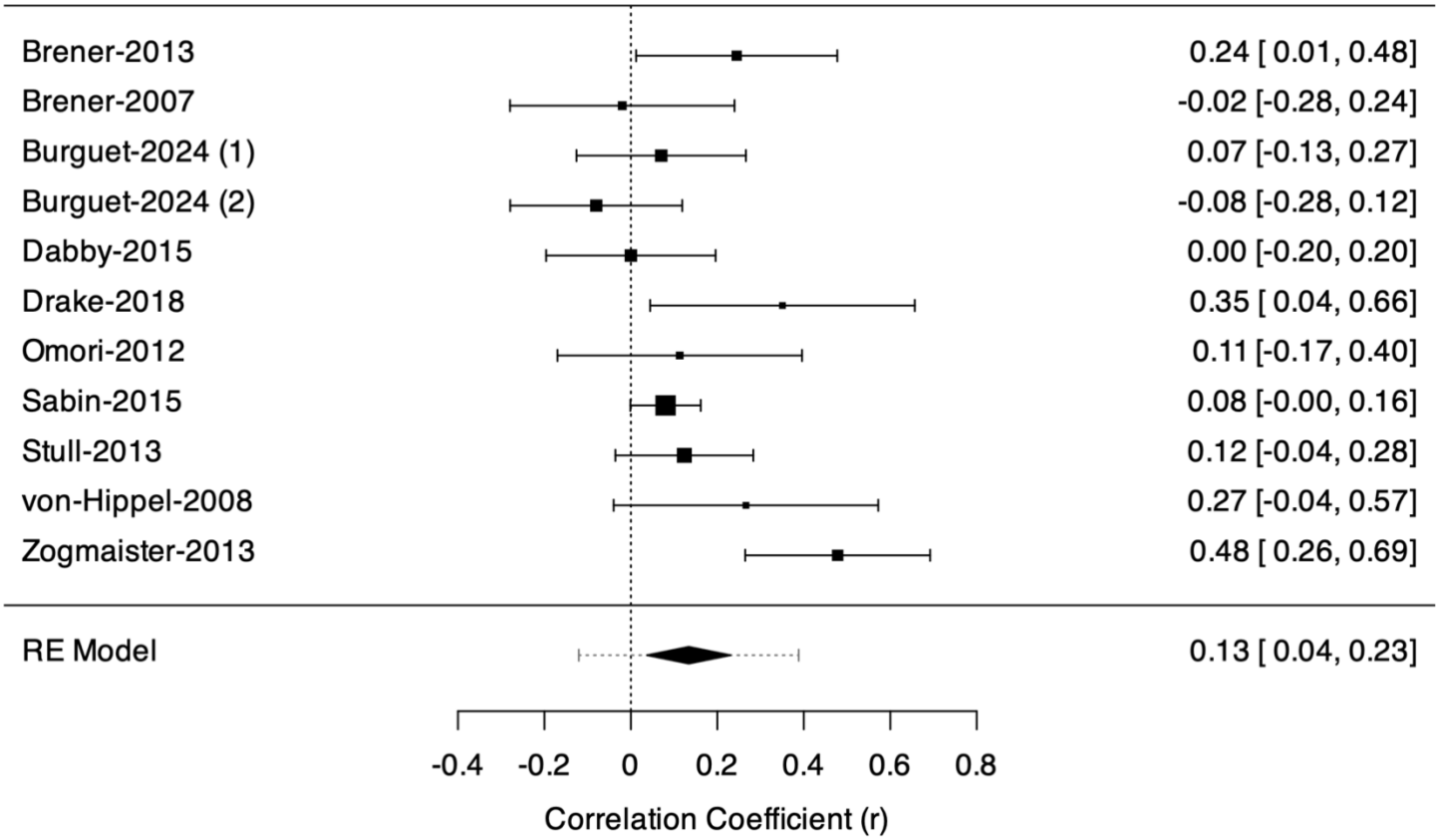
Abbreviations: **k**, number of independent samples; **r**, pooled association (estimator is restricted maximum likelihood model); **SE**, standard error; **CI**, confidence interval; **LL**, lower limit; **UL**, upper limit; **Q**, Cochran's Q; **d.f.**, degrees of freedom; **I^2**, heterogeneity.

Sensitivity analysis

An examination of the student residuals revealed that one study [70] had a value larger than ± 2.84 and may be a potential outlier in the context of this model. According to the Cook's distances, the same study [70] would be considered influential. Removing this outlier made a small difference to the direction of effect and statistical significance by slightly weakening the effect size, $r = 0.09$ (95% CI: 0.03 to 0.14), $p = .002$. Hence, the study was retained in the final analysis. See the

'Additional Results' chapter for further meta-analytic findings when the outlier study [70] was not included in the analysis.

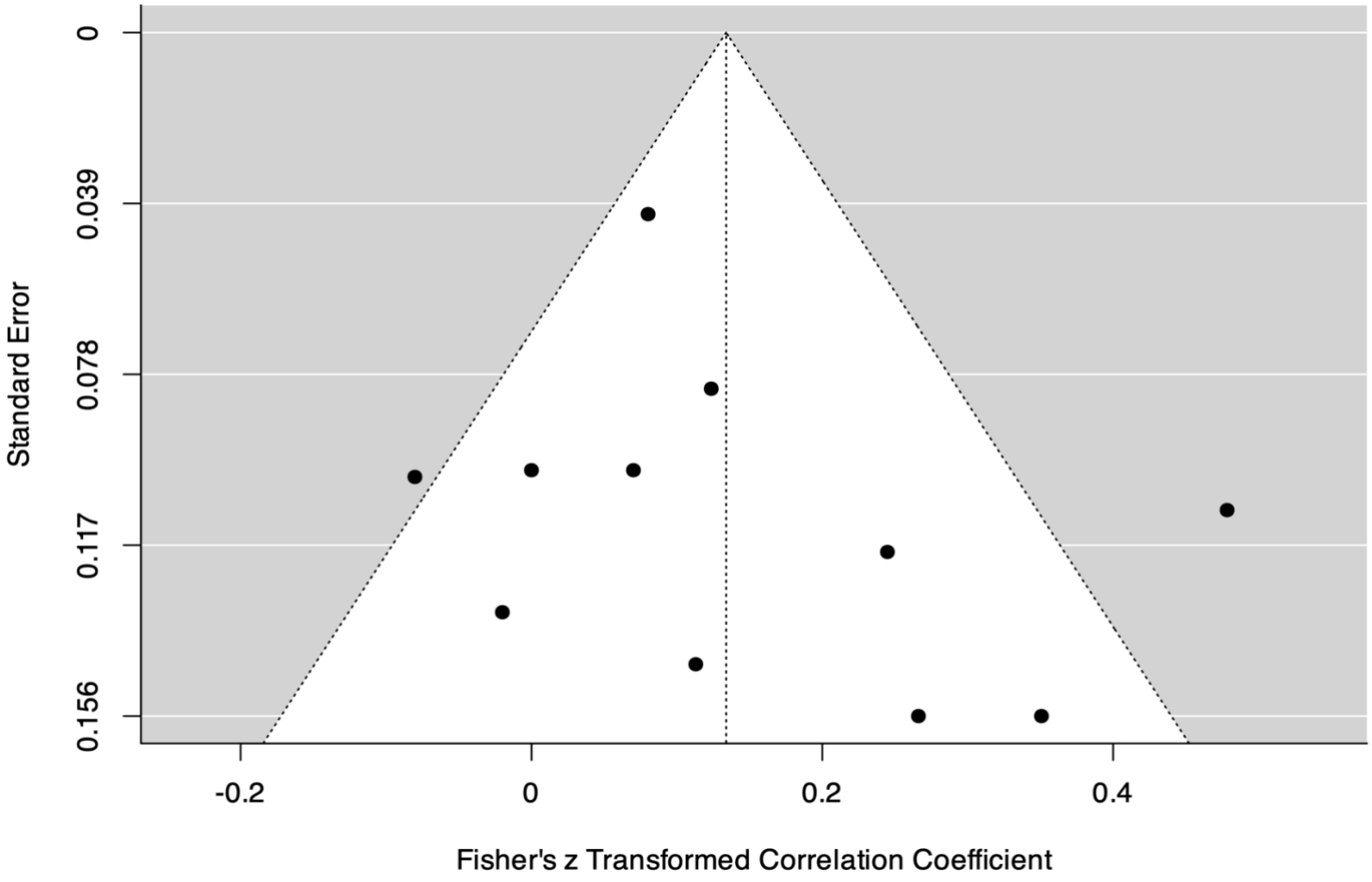
Fig. 2 Forest plot of the observed associations between implicit stigma and explicit stigma



Publication bias

The Egger's regression test was not statistically significant, $z = 1.03$, $p = .305$, indicating there to be no funnel plot asymmetry or skewness. A trim and-fill analysis did not impute any studies or alter the effect size, signifying that there was unlikely to be publication bias across the included studies. A visual inspection of the funnel plot (Fig. 3) comprising the pooled effect sizes further confirmed there to be no evidence of publication bias. The effect size appeared to be statistically robust, with the Fail-safe N calculated as 79 null studies ($p<.001$) required to make the observed p-value greater than .05.

Fig. 3 Funnel plot of the observed associations between implicit stigma and explicit stigma



Heterogeneity

According to the Q-test, the true outcomes appear to be heterogeneous (Q (10) = 22.45, p = .013, tau^2 = 0.01, I^2 = 60.74%). The heterogeneity is classified as moderate, indicating notable, but not large variance in correlations across the studies. A 95% prediction interval for the true outcomes is therefore provided (-0.12 to 0.39) and is depicted in Fig. 2. This reveals that although the average correlation coefficient is estimated to be positive, in some studies, the true outcome may be a negative correlation.

Moderator analysis

Random-effects meta-regressions were conducted to identify any moderators of the association between implicit and explicit stigma. These were conducted on: (1) the quality rating %

scores; (2) the sample size; (3) the implicit measure used (IAT or non-IAT measure); (4) the explicit measure used (direct correspondence or no direct correspondence with attribute categories from the implicit measure); (5) study design (cross-sectional or longitudinal and experimental); (6) sample type (mixed or single group sample); (7) the mental illness that studies aimed to investigate (PMI in general or specific psychiatric disorders); and specifically, (8) substance use disorders (e.g., stigma towards substance use disorders or stigma directed towards other psychiatric disorders).

Only one moderator was statistically significant, which was stigma towards substance use disorders. Indeed, studies that investigated stigma towards "substance use disorder", "drug addicts" or "injecting drug users" had a slightly stronger positive correlation (r = 0.27 [0.05, 0.49], p =.016, k = 4) than studies that investigated stigma towards other psychiatric problems (r = 0.08 [0.02, 0.13], p =.010, k = 7). After accounting for this moderator, the heterogeneity between studies largely reduced and was non-significant, Q (10) = 14.02, p =.122, I^2 = 31.60% (see Table 4).

Table 4 Moderator analyses of heterogeneity

				95% CI of *B*			
	k	*B*	*SE*	LL 95% CI	UL 95% CI	*Z*	*p*
Continuous Moderator Analysis							
Quality Ratings Percentage Scores	11	-0.00	0.01	-0.01	0.01	-0.22	.823
Heterogeneity			Q (10) = 21.86, p =.009, I^2 = 60.84%				
Sample Size	11	-0.00	0.00	-0.00	0.00	-0.57	.570
Heterogeneity			Q (10) = 21.27, p =.012, I^2 = 58.57%				
Categorical Moderator Analysis							
Implicit Measure							
Intercept	11	-0.02	0.17	-0.34	0.31	-0.11	.910

IAT Implicit Measure[a]	11	0.09	0.10	-0.10	0.30	0.97	.334
Heterogeneity			Q (10) = 20.19, p =.017, I^2 = 59.57%				
Explicit Measure							
Intercept	11	0.20	0.16	-0.12	0.51	1.22	.223
Correspondence with Implicit Attribute Categories[b]	11	-0.05	0.12	-0.29	0.19	-0.40	.692
Heterogeneity			Q (10) = 21.72, p =.010, I^2 = 61.66%				
Study Design							
Intercept	11	-0.01	0.16	-0.32	0.29	-0.07	.938
Cross-sectional[c]	11	0.10	0.10	-0.10	0.29	0.99	.322
Heterogeneity			Q (10) = 20.33, p =.016, I^2 = 60.40%				
Study Sample							
Intercept	11	0.07	0.22	-0.36	0.51	0.32	.747
Single Group Sample[d]	11	0.04	0.12	-0.20	0.28	0.30	.768
Heterogeneity			Q (10) = 22.32, p =.008, I^2 = 64.60%				
Aim of Study							
Intercept	11	0.05	0.17	-0.28	0.39	0.31	.757
Specific Psychiatric Disorders[e]	11	0.05	0.10	-0.15	0.26	0.51	.612
Heterogeneity			Q (10) = 21.48, p =.011, I^2 = 62.54%				
Substance Use Disorder or Other							
Intercept	11	-0.13	0.11	-0.36	0.09	-1.18	.239
Substance Use Disorder Only[f]	11	0.21	0.09	0.04	0.38	2.41	.016*
Heterogeneity			Q (10) = 14.02, p =.122, I^2 = 31.6%				

[a]Reference group is non-IAT measures; [b]Reference group is explicit measures not directly corresponding with attribute categories utilised in implicit measures; [c]Reference group is longitudinal or experimental designs; [d]Reference group is mixed samples of mental health clinicians; [e]Reference group is stigma towards mental illness in general; [f]Reference group is stigma towards other psychiatric disorders / problems.
*p<.05.

Secondary outcomes

Table 5 Secondary outcomes extracted across studies

Study	Clinical care outcomes	Clinician or job-related outcomes	Association with exposure to PMI
Brener et al [85]	Implicit stigma predicted reduced willingness to help PMI, but not negative emotions towards PMI. Explicit stigma predicted negative emotions, but not willingness to help.	N/A	N/A
Brener et al [83]	N/A	N/A	Higher contact with IDUs associated with more positive explicit attitudes, but implicit attitudes became more negative.
Burguet and Girard [77]	N/A	Explicit stigma did not vary by work setting, but inpatient clinicians showed higher implicit stigma towards PMI than outpatient clinicians.	N/A
Dabby et al [72]	N/A	N/A	More contact with PMI predicted positive implicit attitudes. No association with explicit attitudes.
Drake et al [20]	Implicit stigma predicted less willingness to write supportive letters towards IDUs. Explicit stigma predicted greater social distance and less willingness to provide written support.	N/A	N/A
Omori et al [73]	N/A	N/A	Implicit attitudes worsened following psychiatry residency. Explicit attitudes remained unchanged.
Sabin et al. [74]	Implicit preference for people with physical illness predicted reduced clinician competency to support PMI. Explicit bias predicted lower perceived competence among PMI.	N/A	N/A
Stull et al [75]	Stronger implicit stigma predicted greater endorsement of restrictive or controlling interventions towards PMI. Explicit stigma did not predict these outcomes.	N/A	N/A
Von Hippel et al [84]	N/A	Implicit stigma (but not explicit stigma) mediated the relationship between job-related stress among nurses and intention to change jobs when working with IDUs.	N/A
Zogmaister et al [70]	N/A	Greater discrepancy between implicit and explicit beliefs towards IDUs predicted more absenteeism and less extra work for staff. Greater congruency predicted extra work.	Professional experience (in years) increased the alignment between implicit and explicit beliefs.

Discussion

This systematic review and meta-analysis examined the association between implicit and explicit stigma of mental illness among mental health clinicians. Main findings will be discussed in this section, along with key implications for theory, clinical practice, and stigma-reduction. Strengths and limitations of the review and recommendations for future research will also be considered.

Implicit and explicit stigma correlations and theory

The main finding was that implicit stigma had a small, positive pooled correlation with explicit stigma ($r = 0.13$) according to Cohen's convention [68]. This indicates that implicit stigma was only weakly related to explicit stigma among mental health clinicians. This finding is generally consistent with previous work on the association between implicit and explicit measures [36, 86], and therefore suggests that implicit and explicit stigma may well be 'related but distinct' constructs [87]. Our findings might support the dual-process accounts of implicit and explicit representations. These theories imply that implicit attitudes reflect automatic, spontaneous or associative evaluations, whereas explicit attitudes reflect deliberative, reasoned or controlled evaluations. Therefore, implicit and explicit stigma tools may capture different dimensions of a clinician's mental representations of PMI [41, 42].

Several researchers have contended that deliberative or controlled processes involved in explicit representations reflect socially desirable responding [22]. This may be particularly true if clinicians feel motivated to maintain a positive self-image, or be viewed more favourably through underreporting any stigmatising beliefs [23]. However, the weak correlation between implicit and explicit tools may be partly accounted for by the effects of clinical training and/or the genuine choice of mental health clinicians to act more compassionately towards PMI on explicit measures, despite internalised implicit stigma [88]. Nevertheless, some studies [72] found effects in the opposite direction to a social desirability hypothesis: negative explicit but neutral implicit attitudes, which are

challenging to interpret. Likewise, our meta-analysis revealed moderate heterogeneity across correlations, as some studies reported moderate positive associations (e.g., $r = 0.35–0.45$). According to dual-process theories, these stronger correlations occur when explicit (propositional) evaluations resemble the implicit (automatic) judgements more directly. For instance, this could happen when the relative number of controlled processes influencing an explicit evaluation (e.g., social desirability) is low and spontaneity is high [88]. Unfortunately, this hypothesis could not be tested in our moderator analysis, as measures of spontaneity or social desirability were not reported for any included study.

A significant moderator of the implicit-explicit correlation was substance use disorder studies, which showed a slightly stronger association between implicit and explicit stigma than studies exploring other psychiatric disorders. This moderator accounted for the majority of observed heterogeneity found. This may be because it is more socially acceptable to be explicitly stigmatising towards substance misuse, even among clinicians, potentially due to attributions of personal blame, and because it's often an exclusion criteria from mental health services [89]. Hence, the stronger correlation may imply that when stigma is especially salient and entrenched, a clinicians' implicit and explicit attitudes may align more closely. Dual process theories might explain the finding by proposing that explicit evaluations towards substance use disorders require fewer deliberative processes (e.g., social desirability) and reflect more automatic and spontaneous judgements among clinicians [90]. In contrast, for mental illnesses such as schizophrenia or bipolar disorder, implicit and explicit measures of stigma may diverge more strongly.

Other moderators were explored that may influence the implicit-explicit correlations, such as conceptual correspondence. Dual process theories state that associations will be stronger when there is an increasing conceptual correspondence between implicit and explicit measures, potentially reflecting converging automatic appraisals, as found in prior meta-analyses [36]. We examined this through the direct correspondence of explicit measures to implicit measures on attribute categories.

However, this moderator was not significant. This may be explained by limited statistical power, as only two studies designed their implicit and explicit tools to correspond. It could also be that 'conceptual correspondence' were exhibited in methods that were not evaluated in our moderator analysis, such as a correspondence on the target categories of implicit and explicit measures, or on the component of stigma being assessed, such as cognitive, affective or behavioural reactions [91]. More broadly, however, no other moderators were significant, which again may reflect the small number of studies and effect sizes extracted.

Methodological considerations across studies

Methodological quality was generally strong, suggesting the review's findings were based on reasonably robust evidence. The absence of publication bias and minimal influence of outliers further supports the robustness of results. However, only 10 studies were included in the systematic review, highlighting a dearth of research on the relation between implicit and explicit stigma among mental health clinicians. Although some spread of countries was found, no studies were conducted among low-to-middle income countries. This could limit the generalizability of findings for countries with different sociocultural and political contexts, which may influence the formation and degree of stigma endorsed by clinicians [92].

There was some variation in the diagnosis of mental illness explored across studies, which included schizophrenia, bipolar disorder, and substance use disorders. However, no studies examined common mental health problems including anxiety or depression, or highly stigmatised psychiatric labels such as personality or dissociative disorders, emphasising a gap for future research [93]. Most studies also did not address the component of stigma being examined through implicit and explicit measures, or how these relate to one another, which aligns with findings from other reviews [7].

Response rates were only reported in four studies but were generally low, meaning samples may have introduced response bias. Most studies also recruited mixed samples of clinicians, but the correlational data was frequently not available for sub-groups. This meant we were unable to assess whether type of mental health clinician or training stage moderated the implicit-explicit relationship, which may be interesting to explore in future research. Demographic reporting was also inconsistent across studies, although from the available data, samples were largely white and female, which may limit generalizability of findings.

Most implicit measures were variants of the implicit-association paradigm. Despite this, there was considerable variation in the number of implicit tests utilised, along with different target stimuli, concept words and attribute words depending on the mental illness explored. Some studies provided a comparison category, while other studies did not, meaning that implicit stigma measures were either 'absolute' or 'relative' (i.e., compared to a physical illness comparison). This misalignment might weaken the interpretability of implicit stigma endorsement across studies and their relation to explicit measures. These measures also varied considerably, ranging from established questionnaires to ad-hoc scales. Although two explicit scales were designed to correspond directly with the implicit measures, most did not correspond directly and relied on self-report, which remains subject to social desirability. These methods may partly account for the low correlations between implicit and explicit stigma across studies.

Clinical and ethical implications

The weak correlation between implicit and explicit stigma suggests that self-reported attitudes toward PMI among clinicians do not necessarily correspond with automatic or less-controlled beliefs. However, the clinical implications of these findings are challenging to interpret given the correlational design of studies. It could mean that clinicians endorse neutral or even positive beliefs about PMI when asked by self-report, but in reality demonstrate some implicit

stigma, questioning the validity of explicit measures (i.e., through under-estimating stigma) [24]. Conversely, it could indicate that explicit stigma among clinicians is accompanied by neutral or positive implicit beliefs, or that different components of stigma are being reflected in the implicit and explicit tools administered. However, research remains unclear what processes the implicit measures actually capture, thereby questioning the validity of implicit measures (i.e., rather than assuming they capture automatic and unconscious attitudes) [22].

Determining whether implicit and explicit stigma predict different clinical outcomes is also challenging, as studies exploring this question were not systematically synthesised in the current review. This means that conclusions about the outcomes of stigma cannot be drawn from our 10 studies, as these were constrained by the review's inclusion criteria and scope. However, some outcomes were extracted and have been provided in Table 5. Findings suggest that implicit and explicit stigma may contribute to different clinical behaviours (e.g., helping intentions) and job-related outcomes (e.g., intention to change jobs) for clinicians which aligns with previous research [34]. Findings on the association between exposure to PMI and implicit or explicit stigma were inconsistent. Future reviews should examine the outcomes of implicit and explicit stigma among mental health clinicians using the appropriate search strategy to synthesise all available studies.

There may also be ethical implications arising from these findings. If implicit and explicit beliefs are only weakly related, this raises questions about transparency and self-awareness in clinical practice, particularly for clinicians who, through training and reflective work, recognise their own implicit biases yet explicitly endorse socially desirable beliefs (such as providing impartial care for PMI) [28]. This dissonance may also be uncomfortable for clinicians [94], as inconsistent implicit and explicit beliefs can predict increased stress and absenteeism from work [70]. Addressing these discrepancies is important for safeguarding equitable healthcare and for supporting the wellbeing of clinicians.

Implications for stigma reduction

Findings indicate the need for stigma-reduction efforts that consider both implicit and explicit dimensions of stigma [21]. However, it is acknowledged that stigma-reduction initiatives normally address explicit stigma only among mental health clinicians, through educational campaigns that may not always be sufficient to reduce implicit stigma [95]. Indeed, providing interventions that promoted continuum-beliefs and recovery-oriented perspectives reduced explicit stigma towards voice hearing and depression across clinician samples, but produced no change in their implicit scores [49, 58, 96]. Consequently, interventions must not assume that changing self-reported beliefs will translate into shifts in implicit beliefs, as these may be more automatic, stable, and resistant to psychoeducation [25].

Strengths and limitations

This systematic review provides the first comprehensive pooling of correlations between implicit and explicit stigma among mental health clinicians. In doing so, it directly addresses a gap highlighted in previous reviews and responds to recommendations [30, 47]. Strengths include a comprehensive search strategy, critical quality appraisal, high agreement rates between reviewers, and moderator analyses. The review also incorporated sensitivity analyses, tests of publication bias, and prediction intervals to ensure robustness of findings. Importantly, it examined studies across several clinical settings, professions and countries, all of which employed varying aims, designs, and measures of stigma, thereby broadening its scope. Finally, by linking the pooled correlations to dual-process theories and identifying substance use disorder as a key moderator, this review provides both theoretical and clinical contributions that extend beyond previous reviews.

Several limitations should be acknowledged. Most included studies were cross-sectional and only baseline correlations were extracted. This precludes conclusions about the causal relationship and temporal stability of associations between implicit and explicit stigma. Longitudinal and

experimental designs are needed to clarify if changes in one attitude system influences the other over time, along with how these systems map onto clinical decision making and outcomes for PMI. As grey literature was not included, and only English-language publications were reviewed, it is possible that relevant studies were missed through our search strategy. Studies exploring neuropsychiatric conditions (e.g., neurodevelopmental and neurodegenerative disorders) were also not extracted. This narrows the scope of our findings, despite the frequent co-occurrence of mental health symptoms in these populations [97, 98]. Finally, as this review explored group level findings, it does not capture variability among implicit and explicit associations for individual clinicians.

Future research for primary research studies

There are several avenues for future research. First, it is important for primary research to replicate the main findings among larger-scale studies with a more diverse sample of clinicians and countries to support generalisability. Second, studies may benefit from clarifying the dimensions of stigma being investigated among implicit and explicit measures, which in turn may improve our theoretical understanding, and target stigma-reduction efforts. Third, studies could explore how implicit and explicit stigma actually shape clinical outcomes for PMI in longitudinal studies. This may clarify if implicit and explicit evaluations map onto distinct causal pathways to predict different intentions and / or behaviours exhibited by mental health clinicians. These might include automatic and spontaneous behaviours, or deliberative and controlled behaviours towards PMI [45]. Fourth, primary research might be enhanced from approaches such as single-case experimental designs, to track individual changes in implicit and explicit stigma from mental health clinicians over time.

Future research for systematic reviews / meta-analyses

Future reviews could assess the social desirability, spontaneity, psychometric properties and correspondence of implicit and explicit measures across studies, along with the effort required to retrieve implicit and explicit cognitions among clinicians [36]. These variables might impact the

correlations reported. Future reviews may also wish to explore the relationship between implicit and explicit stigma for neurodevelopmental and neurodegenerative conditions, or among undergraduate students in health professions (i.e., medical students), as these were excluded in our review. It might also be valuable to investigate the relationship among students training in mental healthcare (i.e., trainee psychologists or student mental health nurses), as this could help clarify the influence of clinical training on implicit and explicit stigma, and identify opportunities for early stigma reduction.

Conclusions

This review systematically synthesised evidence from 10 studies examining the relationship between implicit and explicit stigma of mental illness among mental health clinicians. The pooled correlation was small but statistically significant (r = .13) in line with prior meta-analyses, indicating that implicit and explicit stigma might be related but largely distinct constructs. The meta-analysis showed moderate heterogeneity across studies which was mainly explained by the type of psychiatric disorder examined. Stigma towards substance use disorders showed a slightly stronger convergence between implicit and explicit measures than stigma directed towards other psychiatric disorders, although the effect was small according to Cohen's criteria. Future studies could design longitudinal or experimental studies to explore causal pathways of implicit and explicit stigma onto clinical care outcomes for PMI. Findings support the utility of including both implicit and explicit measures in research on stigma, and may have implications for clinical practice and stigma-reduction initiatives among mental health clinicians.

Required Statements for BJPsych Open

Supplementary Material: For the *BJPsych Open* article, the supplementary material (Chapter 3 and Appendix B-C) will be made publicly available online with the article (e.g., *BJPsych Open* website) or on the Open Science Framework (OSF).

Data Availability: The studies included in this review are publicly available. The data extracted that support the findings of the study are available in the supplementary material or from the corresponding author upon reasonable request.

Author's Contributions: CJ conceived the study. CJ conducted the search. CJ and EK screened titles and abstracts. CJ obtained the data. CJ and EK performed the quality appraisals. CJ processed the data and performed the meta-analysis. All authors interpreted the results. CJ wrote the first draft manuscript. All authors reviewed and revised the manuscript. All authors provided conceptual contributions and approved the final draft manuscript.

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References

[1] Hinshaw SP, Stier A. Stigma as Related to Mental Disorders. Annu Rev Clin Psychol 2008; **4**: 367–93.

[2] Rethink Mental Illness. The stigma of mental illness in numbers. [Internet]. 2023 [cited 2025 Aug12]. Available from: https://www.rethink.org/news-and-stories/media-centre/2023/05/stigma-effect-stops-three-in-five-people-experiencing-mental-illness-from-seeking-help-survey-reveals/.

[3] Seeman N, Tang S, Brown AD, Ing A. World survey of mental illness stigma. Journal of Affective Disorders 2016; **190**: 115–21.

[4] 4 Overton SL, Medina SL. The Stigma of Mental Illness. Jour of Counseling & Develop 2008; **86**: 143–51.

[5] Major B, O'Brien LT. The Social Psychology of Stigma. Annu Rev Psychol 2005; **56**: 393–421.

[6] Link BG, Phelan JC. Conceptualizing Stigma. Annu Rev Sociol 2001; **27**: 363–85.

[7] Jauch M, Occhipinti S, O'Donovan A. The stigmatization of mental illness by mental health professionals: Scoping review and bibliometric analysis. PLoS ONE 2023; **18**: e0280739.

[8] Wahl O, Aroesty-Cohen E. Attitudes of mental health professionals about mental illness: a review of the recent literature. Journal Community Psychology 2010; **38**: 49–62.

[9] Thornicroft C, Wyllie A, Thornicroft G, Mehta N. Impact of the "Like Minds, Like Mine" anti-stigma and discrimination campaign in New Zealand on anticipated and experienced discrimination. Aust N Z J Psychiatry 2014; **48**: 360–70.

[10] Gabbidon J, Farrelly S, Hatch SL, Henderson C, Williams P, Bhugra D, et al. Discrimination Attributed to Mental Illness or Race-Ethnicity by Users of Community Psychiatric Services. PS 2014; **65**: 1360–6.

[11] Reavley NJ, Mackinnon AJ, Morgan AJ, Jorm AF. Stigmatising attitudes towards people with mental disorders: A comparison of Australian health professionals with the general community. Aust N Z J Psychiatry 2014; **48**: 433–41.

[12] Crowe A, Averett P. Attitudes of Mental Health Professionals toward Mental Illness: A Deeper Understanding. Journal of Mental Health Counseling 2015; **37**: 47–62.

[13] Gupta S, Kumar A, Kathiresan P, Pakhre A, Pal A, Singh V. Mental health stigma and its relationship with mental health professionals – A narrative review and practice implications. Indian Journal of Psychiatry 2024; **66**: 336–46.

[14] Mitchell AJ, Malone D, Doebbeling CC. Quality of medical care for people with and without comorbid mental illness and substance misuse: systematic review of comparative studies. Br J Psychiatry 2009; **194**: 491–9.

[15] Henderson C, Noblett J, Parke H, Clement S, Caffrey A, Gale-Grant O, et al. Mental health-related stigma in health care and mental health-care settings. The Lancet Psychiatry 2014; **1**: 467–82.

[16] Hatzenbuehler ML, Phelan JC, Link BG. Stigma as a fundamental cause of population health inequalities. Am J Public Health 2013; **103**(5): 813–821.

[17] Fox AB, Earnshaw VA, Taverna EC, Vogt D. Conceptualizing and measuring mental illness stigma: the mental illness stigma framework and critical review of measures. Stigma and Health 2018; **3**(4): 348–376.

[18] Link BG, Yang LH, Phelan JC, Collins PY. Measuring mental illness stigma. Schizophrenia Bulletin 2004; **30**(3): 511-41.

[19] Dovidio JF, Kawakami K, Gaertner SL. Implicit and explicit prejudice and interracial interaction. Journal of Personality and Social Psychology 2002; **82**(1): 62-68.

*[20] Drake CE, Codd III RT, Terry C. Assessing the validity of implicit and explicit measures of stigma toward clients with substance use disorders among mental health practitioners. Journal of Contextual Behavioral Science 2018; **8**: 44-54.

[21] Stier A, Hinshaw SP. Explicit and implicit stigma against individuals with mental illness. Australian Psychologist 2007; **42**(2): 106-17.

[22] Corneille O, Gawronski B. Self-reports are better measurement instruments than implicit measures. Nat Rev Psychol 2024; **3**(12): 835-46.

[23] Stuber JP, Rocha A, Christian A, Link BG. Conceptions of mental illness: Attitudes of mental health professionals and the general public. PS 2014; **65**(4): 490-7.

[24] Dunton BC, Fazio RH. An individual difference measure of motivation to control prejudiced reactions. Pers Soc Psychol Bull 1997; **23**(3): 316-26.

[25] Greenwald, A. G. & Banaji, M. R. Implicit social cognition: attitudes, self-esteem, and stereotypes. Psychological Review 1995; **102**: 4–27.

[26] Greenwald, A. G., McGhee, D. E. & Schwartz, J. L. K. Measuring individual differences in implicit cognition: the implicit association test. Journal of Personality and Social Psychology 1998; **74**: 1464–1480.

[27] Gawronski B. Ten frequently asked questions about implicit measures and their frequently supposed, but not entirely correct answers. Canadian Psychology 2009; **50**(3): 141-150

[28] FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. BMC Med Ethics 2017; **18**(1): 19.

[29] Merino Y, Adams L, Hall WJ: Implicit bias and mental health professionals: priorities and directions for research. PS 2018; **69**: 723–725.

[30] Ren Y, Wang S, Fu X, Shi X. A Systematic Review and Meta-Analysis of Implicit Stigma Toward People with Mental Illness Among Different Groups: Measurement, Extent, and Correlates. PRBM 2025; **18**: 851-75.

[31] Mackay N, Barrowclough C. Accident and emergency staff's perceptions of deliberate self-harm: attributions, emotions and willingness to help. British J Clinic Psychol 2005; **44**: 255–67.

[32] Neauport A, et al. Effects of a psychiatric label on medical residents' attitudes. Int J Soc Psychiatry 2012; **58**: 485–7.

[33] Teachman BA, Wilson JG, Komarovskaya I. Implicit and explicit stigma of mental illness in diagnosed and healthy samples. Journal of Social and Clinical Psychology 2006; **25**(1): 75-95.

[34] Peris T, Teachman B, Nosek B. Implicit and explicit stigma of mental illness: Links to clinical care. Journal of Nervous & Mental Disease 2008; **196**: 752–760.

[35] Sandhu HS, Arora A, Brasch J, Streiner DL. Mental health stigma: explicit and implicit attitudes of Canadian undergraduate students, medical school students, and psychiatrists. Can J Psychiatry 2019; **64**(3): 209-17.

[36] Hofmann, W., Gawronski, B., Gschwendner, T., Le, H. & Schmitt, M. A meta-analysis on the correlation between the implicit association test and explicit self-report measures. Pers Soc Psychol Bull 2005; **31**: 1369–1385.

[37] Nosek BA. Moderators of the relationship between implicit and explicit evaluation. Journal of Experimental Psychology: General. 2005; **134**(4): 565-584.

[38] Wilson TD, Lindsey S, Schooler TY. A model of dual attitudes. Psychological Review 2000; **107**(1): 101-126.

[39] Gawronski B, Bodenhausen GV. Associative and propositional processes in evaluation: an integrative review of implicit and explicit attitude change. Psychological Bulletin 2006; **132**(5): 692-731.

[40] Strack F, Deutsch R. Reflective and impulsive determinants of social behavior. Pers Soc Psychol Rev 2004; **8**(3): 220-47.

[41] Gawronski B, De Houwer J, Sherman JW. Twenty-five years of research using implicit measures. Social Cognition. 2020; **38** Suppl: 1-25.

[42] Corneille O, Hütter M. Implicit? What do you mean? A comprehensive review of the delusive implicitness construct in attitude research. Pers Soc Psychol Rev 2020; **24**(3): 212-232.

[43] Kahneman D. Thinking, fast and slow. [Internet]. 2011 [cited 2025 Aug12]. Available from https://cdn.penguin.co.uk/dam-assets/books/9780141033570/9780141033570-sample.pdf

[44] Gawronski B, Bodenhausen GV, Becker AP. I like it, because I like myself: Associative self-anchoring and post-decisional change of implicit evaluations. Journal of Experimental Social Psychology. 2007; **43**(2):221-32.

[45] González-Sanguino C, Muñoz M, Castellanos MA, Pérez-Santos E, Orihuela-Villameriel T. Study of the relationship between implicit and explicit stigmas associated with mental illness. Psychiatry Research 2019; **272**: 663-8.

[46] Vandamme A, Wullschleger A, Garbe A, Cole C, Heinz A, Bermpohl F, Mielau J, Mahler L, Montag C. The role of implicit and explicit staff attitudes in the use of coercive measures in psychiatry. Front Psychiatry 2021; **12**: 699446.

[47] Robb J, Stone JA. Implicit bias toward people with mental illness: a systematic literature review. J Rehabil 2016; **82**(4): 3–13.

[48] Carrara BS, Ventura CA, Bobbili SJ, Jacobina OM, Khenti A, Mendes IA. Stigma in health professionals towards people with mental illness: An integrative review. Archives of Psychiatric Nursing 2019; **33**(4): 311-8.

[49] Reddyhough C, Locke V, Paulik G. Changing healthcare professionals' attitudes towards voice hearers: An education intervention. Community Ment Health J 2021; **57**(5): 960-4.

[50] Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. BMJ 2009; **339**: b2535.

[51] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington: American Psychiatric Publishing; 2013.

[52] World Health Organization. Clinical descriptions and diagnostic requirements for ICD-11 mental, behavioural and neurodevelopmental disorders. World Health Organisation; 2024.

[53] Eapen V. Developmental and mental health disorders: two sides of the same coin. Asian Journal of Psychiatry 2014;**8:** 7-11.

[54] Schimmack U. The Implicit Association Test: A method in search of a construct. Perspect Psychol Sci 2021;**16**(2): 396-414.

[55] FitzGerald, C., Mumenthaler, C., Berner, D. et al. How is physicians' implicit prejudice against the obese and mentally ill moderated by specialty and experience?. BMC Med Ethics 2022; **23**: 86

[56] Deska JC, Kunstman JW, Smith AR, Witte TK, Rancourt D. Clinicians' mental representations of psychopathology are more positive and complex than the lay public but also stigmatize suicide. Professional Psychology: Research and Practice 2020; **51**(5): 425-434.

[57] Kopera M, Suszek H, Bonar E, et al. Evaluating explicit and implicit stigma of mental illness in mental health professionals and medical students. Community Ment Health J 2015; **51**(5): 628–634.

[58] Reddyhough C, Locke V, Paulik G. Tackling implicit and explicit stigma towards voice hearing in clinical psychology students before it enters the workplace: a preliminary brief educational intervention. Australian Psychologist 2024; **59**(2): 114-20.

[59] Arora A, Sandhu HS, Brasch J. The potential effect of the psychiatric clerkship and contact-based hypothesis on explicit and implicit stigmatizing attitudes of Canadian medical students towards mental illness. Acad Psychiatry 2019;**43**(6): 605-9.

[60] Wang PW, Ko CH, Chen CS, Yang YH, Lin HC, Cheng CC, Tsang HY, Wu CK, Yen CF. Changes of explicit and implicit stigma in medical students during psychiatric clerkship. Acad Psychiatry 2016; **40**(2):224-8.

[61] Zotero. Zotero Version 6.0.37. Corporation for Digital Scholarship, 2006 (https://www.zotero.org).

[62] Kmet LM, Cook LS, Lee RC. Standard quality assessment criteria for evaluating primary research papers from a variety of fields. Institute of Health Economics 2004:1–31.

[63] Antonopoulos CR, Sugden N, Saliba A. Implicit bias toward people with disability: A systematic review and meta-analysis. Rehabilitation Psychology 2023; **68**(2): 121-134.

[64] Piers R, Williams JM, Sharpe H. Can digital mental health interventions bridge the 'digital divide' for socioeconomically and digitally marginalised youth? A systematic review. Child Adoles Ment Health 2023; **28**(1): 90-104.

[65] The jamovi project (2025). jamovi. (Version 2.7) [Computer Software]. https://www.jamovi.org.

[66] Pietschnig J, Gittler G, Stieger S, Forster M, Gadek N, Gartus A, Kocsis-Bogar K, Kubicek B, Lueftenegger M, Olsen J, Prem R. Indirect (implicit) and direct (explicit) self-esteem measures are virtually unrelated: A meta-analysis of the initial preference task. PLoS One 2018; **13**(9): e0202873.

[67] Viechtbauer W. Bias and efficiency of meta-analytic variance estimators in the random-effects model. Journal of Educational and Behavioral Statistics 2005; **30**(3): 261-93.

[68] Cohen J. A power primer. Psychological Bulletin 1992; **112**: 155-159.

[69] Khossousi V, Greene D, Shafran R, Callaghan T, Dickinson S, Egan SJ. The relationship between perfectionism and self-esteem in adults: a systematic review and meta-analysis. Behav Cogn Psychother 2024; **52**(6): 646-665.

*[70] Zogmaister C, Roccato M, Borra L. Health practitioners' implicit and explicit attitudes toward drug addicts predict absenteeism and extra work. Basic and Applied Social Psychology 2013; **35**: 191-9.

[71] Ratner B. The correlation coefficient: Its values range between + 1/− 1, or do they?. J Target Meas Anal Mark 2009; **17**(2): 139-42.

*[72] Dabby L, Tranulis C, Kirmayer LJ. Explicit and implicit attitudes of Canadian psychiatrists toward people with mental illness Can J Psychiatry 2015; **60**(10): 451-9.

*[73] Omori A, Tateno A, Ideno T, Takahashi H, Kawashima Y, Takemura K, Okubo Y. Influence of contact with schizophrenia on implicit attitudes towards schizophrenia patients held by clinical residents. BMC Psychiatry 2012; **12**(1): 205.

*[74] Sabin JA, Stuber J, Rocha A, Greenwald A. Providers' implicit and explicit stereotypes about mental illnesses and clinical competencies in recovery. Social Work in Mental Health 2015; **13**(5): 495-513.

*[75] Stull LG, McGrew JH, Salyers MP, Ashburn-Nardo L. Implicit and explicit stigma of mental illness: Attitudes in an evidence-based practice. The Journal of Nervous and Mental Disease 2013; **201**(12): 1072-9.

[76] Molloy GJ, O'carroll RE, Ferguson E. Conscientiousness and medication adherence: A meta-analysis. Ann Behav Med 2014; **47**(1): 92-101.

*[77] Burguet A, Girard F. Stigma of schizophrenia and bipolar disorders: Explicit and implicit measures among mental health professionals. Stigma and Health 2024; **9**(3): 288-293.

[78] Higgins JP, Thompson SG, Deeks JJ, Altman DG. Measuring inconsistency in meta-analyses. BMJ 2003; **327**(7414): 557-60.

[79] Cuijpers P. Meta-analysis in mental health research: a practical guide. Amsterdam: Vrije Universiteit Amsterdam, 2016.

[80] McDonald B. A Teaching Note on Cook's Distance- A Guideline. Res. Letters Inform Mathe Sci 2002; **3**: 122–128.

[81] Viechtbauer W, Cheung MW. Outlier and influence diagnostics for meta-analysis. Res Synth Method 2010; **1**(2): 112-25.

[82] Egger M, Smith GD, Schneider M, Minder C. Bias in meta-analysis detected by a simple, graphical test. BMJ 1997; **315**(7109): 629-34.

*[83] Brener L, Von Hippel W, Kippax S. Prejudice among health care workers toward injecting drug users with hepatitis C: does greater contact lead to less prejudice?. International Journal of Drug Policy 2007; **18**(5): 381-7.

*[84] Von Hippel W, Brener L, Von Hippel C. Implicit prejudice toward injecting drug users predicts intentions to change jobs among drug and alcohol nurses. Psychol Sci 2008; **19**(1): 7-11.

*[85] Brener L, Rose G, Von Hippel C, Wilson H. Implicit attitudes, emotions, and helping intentions of mental health workers toward their clients. The Journal of Nervous and Mental Disease 2013; **201**(6): 460-3.

[86] Cameron CD, Brown-Iannuzzi JL, Payne BK. Sequential priming measures of implicit social cognition: A meta-analysis of associations with behavior and explicit attitudes. Pers Soc Psychol Rev 2012; **16**(4): 330-50.

[87] Schmidt K, Buchanan EM, Hall BF. Registered report: Moderators of the relationship between implicit and explicit measures of evaluation and identification. Journal of Experimental Social Psychology 2022; **100**: 104280.

[88] Fazio RH, Olson MA. Implicit measures in social cognition research: Their meaning and use. Annu Rev Psychol 2003; **54**(1): 297-327.

[89] Magnan E, Weyrich M, Miller M, Melnikow J, Moulin A, Servis M, Chadha P, Spivack S, Henry SG. Stigma against patients with substance use disorders among health care professionals and trainees and stigma-reducing interventions: a systematic review. Aca Medicine 2024; **99**(2): 221-31.

[90] Benau EM, Zavodnick JH, Jaffe RC. Initial evidence of reliability and validity of an implicit association test assessing attitudes toward individuals who use substances. The American Journal of Drug and Alcohol Abuse 2024; **50**(1): 64-74.

[91] Banse R, Seise J, Zerbes N. Implicit attitudes towards homosexuality: Reliability, validity, and controllability of the IAT. Experimental Psychology 2001; **48**(2): 145-60.

[92] Weinmann S, Koesters M. Mental health service provision in low and middle-income countries: recent developments. Current Opinion in Psychiatry 2016; **29**(4): 270-5.

[93] Hazell CM, Berry C, Bogen-Johnston L, Banerjee M. Creating a hierarchy of mental health stigma: testing the effect of psychiatric diagnosis on stigma. BJPsych Open 2022; **8**(5): e174.

[94] Gawronski B, Strack F. On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. Journal of Experimental Social Psychology 2004; **40**(4): 535-42.

[95] Carrara BS, Fernandes RH, Bobbili SJ, Ventura CA. Health care providers and people with mental illness: An integrative review on anti-stigma interventions. Int J Soc Psychiatry 2021; **67**(7): 840-53.

[96] Wang X, Lv Q, Lu M, Qu W. The effect of continuum beliefs on public stigma of depression with evidence from explicit and implicit sources. Sci Rep 2025; **15**(1): 12354.

[97] Danielsson H, Imms C, Ivarsson M, Almqvist L, Lundqvist LO, King G, Adams Lyngbäck L, Andersson AK, Arnell S, Arvidsson P, Augustine L. A systematic review of longitudinal trajectories of mental health problems in children with neurodevelopmental disabilities. J Dev Phys Disabil 2024; **36**(2): 203-42.

[98] Woolley JD, Khan BK, Murthy NK, Miller BL, Rankin KP. The diagnostic challenge of psychiatric symptoms in neurodegenerative disease: rates of and risk factors for prior psychiatric diagnosis in patients with early neurodegenerative disease. J Clin Psychiatry 2011; **72**(2): 126-133.

(*indicates the study was included in systematic review and meta-analysis).

Chapter Three: Additional Results for Systematic Review and Meta-Analysis

This chapter presents supplementary information and results that support the systematic review and meta-analysis described in Chapter 2. It includes a summary of each study's aims and stigma-related terms (Table 1), and describes the implicit and explicit measures utilised (Tables 2 and 3). Moreover, this chapter reports the meta-analytic results without the outlier study (Table 4 and Figure 1), and the 17 effect sizes extracted and pooled for the meta-analysis (Table 5).

Summary of Study Aims, Terms, Implicit and Explicit Measures

Table 1

Summary of Study Aims and Terms Used

Study	Main aims	Stigma terminology used
Brener et al. (2013)	To explore the association between implicit and explicit attitudes of healthcare workers towards people with mental health problems. To assess if implicit or explicit attitudes were independently related to helping intentions and negative emotions towards people with mental health problems	Attitudes, emotions
Brener et al. (2007)	To assess the explicit and implicit attitudes of healthcare workers towards clients who inject drugs with hepatitis C virus. To explore the association between implicit and explicit attitudes of healthcare workers and their association with client contact in drug-use treatment facilities	Prejudice, attitudes
Burguet and Girard (2024)	To measure the implicit and explicit stigmatisation of schizophrenia and bipolar disorder among mental health care personnel. To examine the correlation between implicit and explicit tools	Stigmatisation, discrimination, infrahumanization

Dabby et al. (2015)	To examine the implicit and explicit attitudes of psychiatrists and psychiatry residents towards people with mental health problems. To examine the correlations between implicit and explicit attitudes. To compare attitudes towards people with mental health problems and people with physical illness	Attitudes, bias
Drake et al. (2018)	To explore the implicit and explicit stigma of mental health students and practitioners towards clients with substance use disorders. To examine whether implicit and explicit stigma would predict social distance and willingness to write letters of support for clients with substance use disorders	Attitudes
Omori et al. (2012)	To examine the effect of re-naming the Japanese term for schizophrenia on the implicit and explicit attitudes of medical residents. To explore the influence of contact (one-month of clinical psychiatry training) on implicit and explicit attitudes towards schizophrenia	Attitudes, negative images
Sabin et al. (2015)	To explore if mental health providers held negative implicit and explicit stereotypes (incompetence and recovery incapability) about people with mental health problems. To assess if implicit and explicit stereotypes and reported competencies in rehabilitation were associated among mental health providers	Stereotypes
Stull et al. (2013)	Examine the implicit and explicit biases towards people with mental health problems among Assertive Community Treatment (ACT) staff. To explore whether implicit and explicit bias predicted the use of treatment control mechanisms	Attitudes, biases
Von Hippel et al. (2008)	To examine whether implicit prejudice towards clients who inject	Prejudice

	drugs predicted intention to change jobs, independent of explicit prejudice among drug and alcohol nurses	
Zogmaister et al. (2013)	To examine the implicit and explicit attitudes towards 'drug addicts' among health practitioners. To explore whether the inconsistency between implicit and explicit attitudes predicted absenteeism and avoidance of voluntary extra work	Attitudes

Table 2

Summary of Implicit Measures

Author	Implicit procedure	Stimuli		Interpretation
		Concept word	Attribute word	
Brener et al. (2013)	SC-IAT	'People with Mental Illness' – e.g., bipolar affected, schizophrenia affected, and PTSD affected	Positive – e.g., wonderful VERSUS Negative – e.g., awful	Higher scores on the SC-IAT represent more negative attitudes toward people with a mental illness (SD units)
Brener et al. (2007)	SC-IAT	'Injecting Drug Users' – e.g., heroin injector, speed injector, and cocaine injector	Good – e.g., beauty, joy, and wonderful VERSUS Bad – e.g., awful, misery, and terror	Lower SC-IAT scores indicated greater implicit prejudice toward IDUs (SD units)
Burguet and Girard (2024)	Infrahumanization effect Non-IAT measure	'A Person with Mental Illness' – e.g., schizophrenia OR bipolar disorder (randomized samples) VERSUS 'Oneself'	Secondary / Uniquely Human (UH) Emotions – e.g., hope, serenity, shame VERSUS Non-Uniquely Human (NUH) Emotions – e.g., joy, fear, anger	A positive value corresponded to the infrahumanization of a person with mental illness, and a negative score indicated a self-infrahumanization

Dabby et al. (2015)	IAT	'Schizophrenia' – e.g., hallucination, delusion, psychosis, paranoia VERSUS 'Diabetes' – e.g., hyperglycemia, insulin, glucose, hypoglycemia	Positive – e.g., joy, love, peace, wonderful, pleasure, glorious VERSUS Negative – e.g., agony, terrible, horrible, nasty, evil, awful, failure, hurt	Negative scores indicated a preference for diabetes mellitus, compared with schizophrenia (more stigmatising implicit attitudes), while positive scores indicated a preference for schizophrenia, compared with diabetes mellitus (less stigmatising implicit attitudes)
Drake et al. (2018)	IRAP	'Drug Addict' VERSUS 'Healthy Person'	Positive – e.g., competent, good, honest, moral, reliable and responsible VERSUS Negative – e.g., bad, failure, impulsive, lazy, liar, and sick	Four trial types: healthy-positive healthy-negative addict-positive addict-negative A positive D-IRAP score across each trial type indicated an anti-addict bias, whereas a negative D-IRAP score across each trial type indicated a pro-addict bias
Omori et al. (2012)	IAT	'Schizophrenia' - e.g., hallucination, delusion, psychiatry, bizarre, seclusion Both new term "Togo-Shitcho-Sho" ('Integration Disorder') and old term "Seishin-Bunretsu-Byo" ('Mind-Split Disease') were used VERSUS	Victim – e.g., disaster, family, accident, casualty, the bereaved VERSUS Criminal – e.g., violence, jail, murder, theft, robbery	A stronger IAT effect indicated stronger implicit negative attitudes towards schizophrenia compared to hypertension

		'Hypertension' – e.g., vessel, sphygmomanometer, antihypertensive, salt, palpitation		
Sabin et al. (2015)	IAT (x2) 1st IAT = Mental Health Competent IAT 2nd IAT = Mental Health Recovery IAT	'Mental Illness' – e.g., schizophrenia, bipolar, depression, PTSD, DSM, restraints, asylum, psychiatry VERSUS 'Physical Illness' – e.g., cancer, infection, arthritis, diabetes, CPR, dialysis, radiation, surgery	IAT 1: Competent – e.g., capable, effective, competent, working VERSUS Incompetent – e.g., helpless, useless, disabled, crippled IAT 2: Curable – e.g., recovery, curable, repair, treatment VERSUS Incurable – e.g., incurable, impossible, permanent, hopeless	A positive score indicates some degree of automatic association with physical illness (e.g., a negative stereotype of mental illness)
Stull et al. (2013)	IAT (x3) 1st IAT = Good/Bad 2nd IAT = Innocent vs Blameworthy 3rd IAT = Competent / Helpless	'Mental Illness' – e.g., depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder VERSUS 'Physical Illness' – e.g., diabetes, appendicitis, cerebral palsy, multiple sclerosis	IAT 1: Good – e.g., excellent, joyful, wonderful, great VERSUS Bad – e.g., horrible, nasty, terrible, awful IAT 2: Innocent – e.g., faultless, virtuous, innocent, guiltless VERSUS Blameworthy – e.g., culpable, At fault, guilty, blameworthy	Implicit stigma was indicated by faster responding when mental illness was associated with bad, blameworthy, and helpless category labels Higher positive scores indicated more implicit bias against people with mental illness

			IAT 3: Competent – e.g., capable, qualified, competent, able VERSUS Helpless – e.g., incompetent, helpless and unable	
Von Hippel et al. (2008)	SC-IAT	'Injecting Drug Users' – e.g., heroin injector, speed injector, and cocaine injector	Positive – e.g., beauty, joy, and wonderful VERSUS Negative – e.g., awful and misery	Higher SC-IAT scores indicated greater implicit prejudice toward IDUs (SD units)
Zogmaister et al. (2013)	SC-IAT	'Drug Addicts' – e.g., Italian equivalents of drug user, heroin user, substance abuser, drug addict and drug addiction	Positive – e.g., Italian equivalents of happiness and love VERSUS Negative – e.g., Italian equivalents of tragedy and vomit	Negative values indicated more negative attitudes toward drug addicts

Note. IAT, Implicit Association Test; SC-IAT, Single Category Implicit Association Test; IRAP, Implicit Relational Assessment Procedure.

Table 3

Summary of Explicit Measures

Measure and study	Subs-scales and example item		Scaling	Interpretation
	Sub-scales	Example item		
OMS-HC (12-items) Dabby et al. (2015)	(1) attitudes towards disclosure/help-seeking (2) attitudes toward people with mental illness	"If a person with a mental illness complains of physical symptoms, I would likely attribute this to their mental illness"	5-point Likert scale: 1 = strongly disagree; 5 = strongly agree	Higher scores indicate higher explicit stigmatising attitudes

Feeling Thermometer Scale Brener et al. (2013) Brener et al. (2007)	N/A	N/A	0 to 100° (50 represents mid-point)	"Cold'' or negative is indicated by lower numbers and ''warm'' or positive feelings is represented by higher numbers
Day's Mental Illness Stigma scale (28-items) Burguet and Girard (2024)	Interpersonal anxiety, relationship disruption, visibility, poor hygiene, treatability, professional efficacy and recovery	"I don't think it's possible to have a normal relationship with a person with schizophrenia"	0 = strongly disagree; 6= strongly agree	Higher scores indicate greater levels of mental illness explicit stigma
SDS (5-items) Dabby et al. (2015)	Two short vignette descriptions of patients. Asked to rate how willing they would be to have these two patients work closely with them on a job; live next door; spend an evening socializing; marry into the family; and as a friend	N/A	1 = definitely willing; 5= definitely unwilling	Higher scores indicate greater levels of mental illness explicit stigma
DUSS (7-items) Drake et al. (2018)	To assess stigma associated with substance users	"Substance users are weak-minded"	1 = strongly disagree; 5 = strongly agree	Higher scores indicate greater explicit stigmatising attitudes
Link's devaluation-discrimination scale (12-items) Omori et al. (2012)	Twelve statements exploring the extent to which a person believes other people will devalue or discriminate against someone with mental illness	"Most people would willingly accept a former mental patient as a close friend"	1 = strongly agree; 4 = strongly disagree	Higher scores indicate greater explicit stigmatising attitudes
Self-reported attitude measures (2-items)	In general, which type of illnesses are more likely to be curable?	N/A	5-point Likert scale: 1 = mental illnesses are	Higher scores indicate greater explicit stigmatising

Sabin et al. (2015)	In general, members of which group are more likely to be competent?		extremely more likely; 5 = physical illnesses are extremely more likely	attitudes towards mental illness
Three semantic differential scales Stull et al. (2013)	Bad / Good Blameworthy / Innocent Helpless / Competent	N/A	1 = bad / blameworthy / helpless; 7 = good / innocent / competent	Positive difference scores (e.g., helpless ratings for persons with physical illness minus ratings for persons with mental illness) indicated a negative evaluation of persons with mental illness relative to physical illness
Attitude Toward IDU Scale (9-items) Von Hippel et al. (2008)	Nine items measuring attitudes towards Injecting Drug Users (IDUs)	"I won't associate with known injecting drug users if I can help it"	5-point Likert scale: 1 = strongly disagree; 5 = strongly agree	Higher scores indicate greater explicit stigmatising attitudes towards IDUs
Attitudes Toward Drug Addicts Questionnaire (15-items). Zogmaister et al. (2013)	Warmth, liking, and interest in contact with people who are addicted to drugs	"I would feel patient when caring for patients who are addicted to drugs"	4-point Likert scale: 0 = never; 3 = always	Negative values indicated more negative attitudes toward drug addicts

Note. OMS-HC, Opening Minds Scale for Health Care; SDS, Social Distance Scale; DUSS, Drug Use Stigmatization Scale; Attitude Toward IDU Scale, Attitude Towards Injecting Drug Users Scale.

Meta-Analytic Results Without the Outlier Study (Zogmaister et al., 2013)

The summary statistics for pooled correlations are presented in Table 4. A total of $k = 10$ studies were included in the random-effects meta-analysis. The observed Fisher *r*-to-*z* transformed correlation coefficients ranged from -.08 to .35, with the majority of estimates being positive (70%). The overall weighted correlation coefficient using the random-effects model was small, $r = .09$

(95% CI: .03 to .14). This average effect size differed from zero (z = 3.11, p = .002). Findings represent a negligibly significant, positive pooled correlation between implicit and explicit stigma. This indicates that higher implicit stigma was only very weakly associated with higher explicit stigma among clinicians. A forest plot of the correlation coefficients is presented in Figure 1.

Heterogeneity

According to the Q-test, there was no significant amount of heterogeneity (Q (9) = 10.34, p = .323, tau^2 = 0.00, I^2 = 0.02%).

Table 4

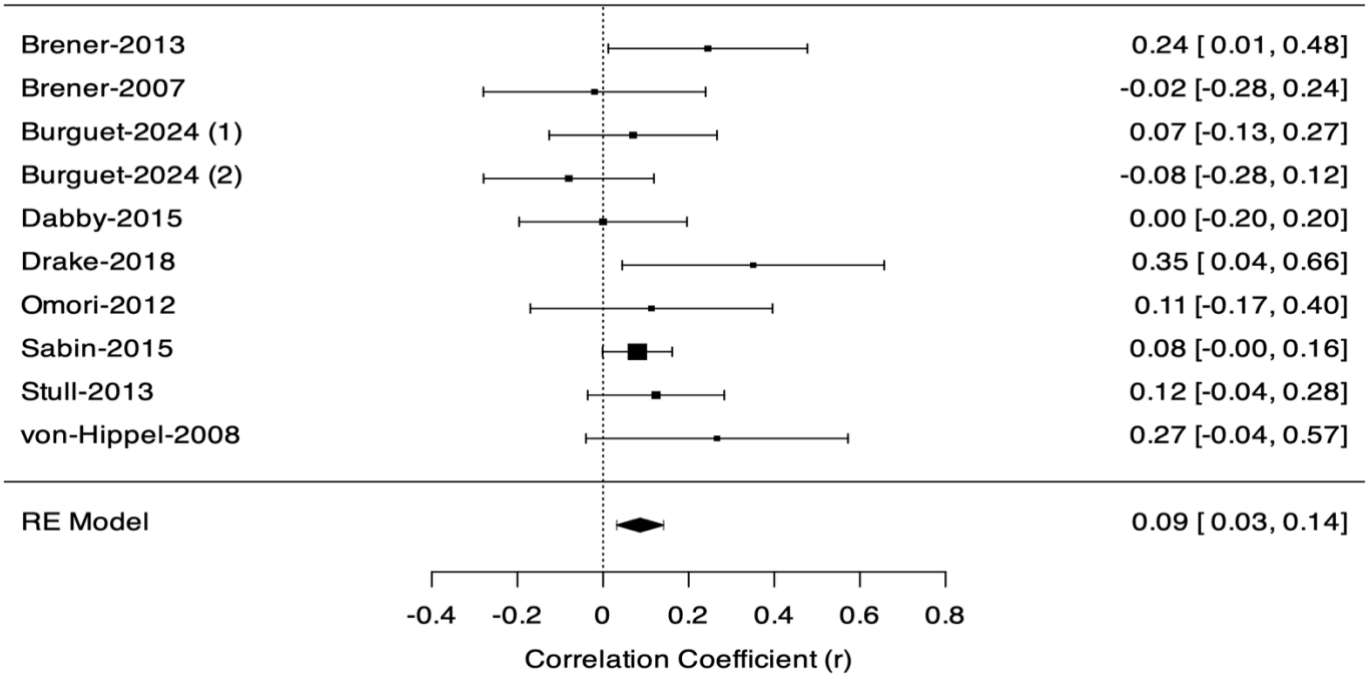
Summary Statistics For Correlations Between Implicit and Explicit Stigma Without Outlier Study

			Random effects model						
				95% CI			Heterogeneity statistics		
	k	*r*	*SE*	LL 95% CI	UL 95% CI	*p*	*Q* (d.f.)	*p*	I^2
Implicit and explicit stigma	10	.09	0.03	.03	.14	.002	10.34 (9)	.323	0.02%

Note. *k*, number of independent samples; *r*, pooled association (estimator is restricted maximum likelihood model); *SE*, standard error; CI, confidence interval; LL, lower limit; UL, upper limit; *Q*, Cochran's Q; d.f., degrees of freedom; I^2, heterogeneity. Estimator: Restricted Maximum-Likelihood.

Figure 1

Forest Plot of Associations Between Implicit Stigma and Explicit Stigma Without Outlier Study



An examination of the student residuals revealed no studies had a value larger than ± 2.81, so there was no indication of outliers in the context of this model. According to the Cook's distances, none of the studies could be considered to be overly influential either.

Publication Bias

The Egger's regression test was not statistically significant, $z = 0.91$, $p = .361$, indicating there to be no funnel plot asymmetry. A visual inspection of the funnel plot (Figure 2) comprising the pooled effect sizes further confirmed there to be no evidence of publication bias. The effect size appeared to be statistically robust, with the Fail-safe N calculated as 28 null studies ($p<.001$) to make the observed p-value greater than .05.

Figure 2

Funnel Plot of Associations Between Implicit Stigma and Explicit Stigma Without Outlier Study

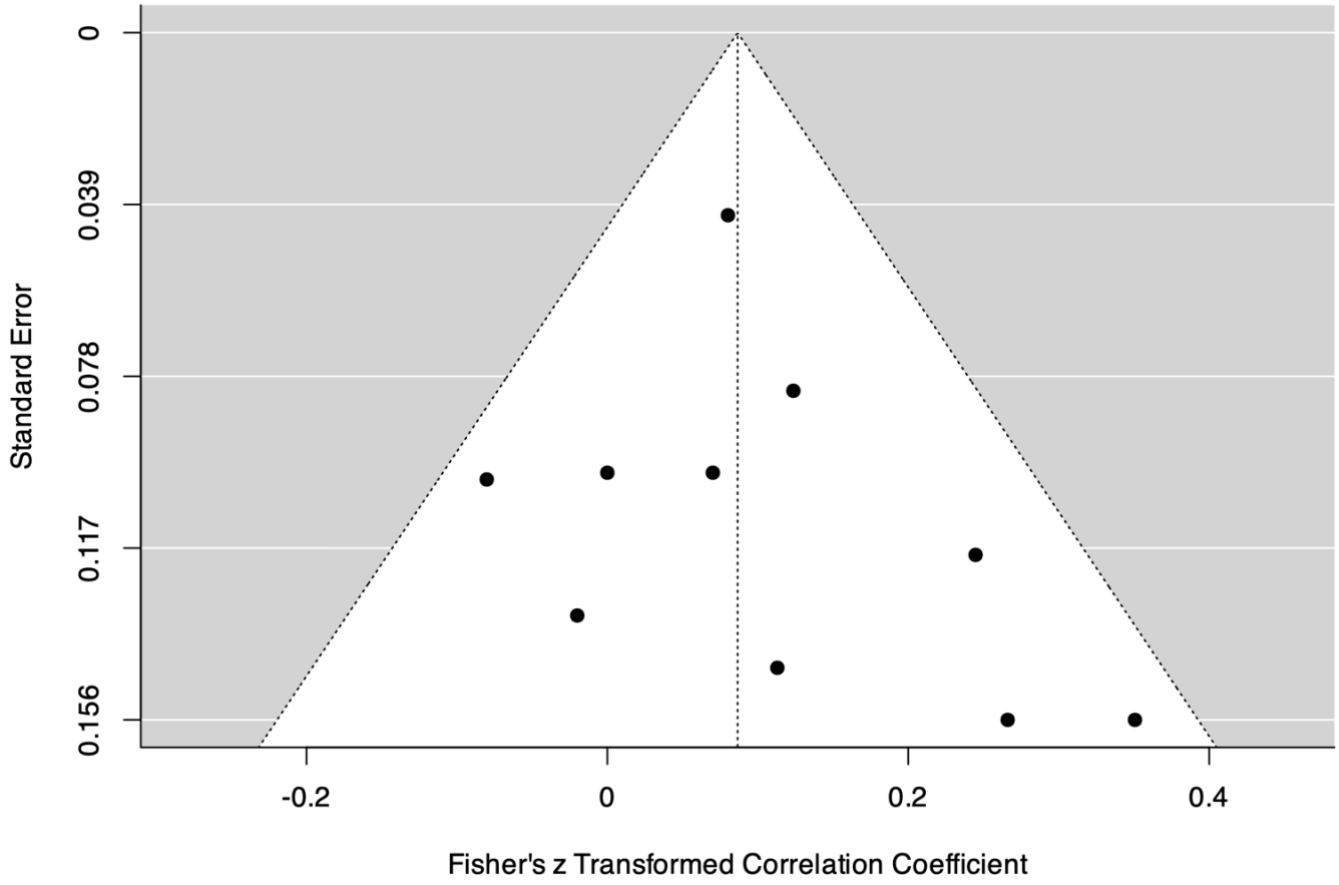


Table 5

Statistics Extracted Across Studies For The Meta-Analysis

Study	Statistics extracted for the meta-analysis (MA)		
	Sample size	Raw effect sizes extracted (n = 17)	Final effect sizes for MA (n = 11)
Brener et al. (2013)	74	r = -.24	r = .24 (reverse coded for MA, as the final effect size meant higher implicit stigma was positively related to higher explicit stigma)
Brener et al. (2007)	60	r = -.02	r = -.02
Burguet and Girard (2024) (1)	103	r = .07	r = .07
Burguet and Girard (2024) (2)	100	r = -.08	r = -.08
Dabby et al. (2015)	103	(1) r = .00; (2) r = .00	r = .00 (averaged)
Drake et al. (2018)	44	(1) r = .401; (2) r = .273	r = .337 (averaged)
Omori et al. (2012)	51	(1) r = .186; (2) r = .039	r = .113 (averaged)
Sabin et al. (2015)	584	(1) r = .07; (2) r = .09	r = .08 (averaged)

Stull et al. (2013)	154	(1) r = .17; (2) r =.19; (3) r = .01	r = .123 (averaged)
Von Hippel et al. (2008)	44	r = .26	r = .26
Zogmaister et al. (2013)	87	R^2 = .198	r = .445

Chapter Four: Bridging Chapter

The purpose of this chapter is to outline how the preceding systematic review and meta-analysis and subsequent empirical project are conceptually and methodologically related. The systematic review and meta-analysis found that implicit and explicit stigma were weakly associated among clinicians, indicating they may represent largely distinct constructs. This finding is generally consistent with the dual-process theories (Nosek, 2005), which all propose that implicit measures represent automatic or unconscious attitudes, whereas explicit measures reflect deliberative, reasoned or controlled attitudes (Corneille & Hütter, 2020; Gawronski et al., 2020). The secondary outcomes suggest that implicit and explicit stigma may contribute to different behaviours and intentions among clinicians, which although remains tentative, converges with previous studies (Peris et al., 2008). Collectively, these findings indicate the importance of investigating implicit and explicit forms of stigma towards mental health problems to better understand clinician behaviours and the experience of service users.

Indeed, explicit stigma among clinicians has been found to independently predict negative outcomes for patients (Link et al., 2004). These include poorer therapeutic alliances, delayed help-seeking and treatment drop-out (Gupta et al., 2024; Henderson et al., 2014; Mitchell et al., 2009). Importantly, explicit measures may offer some methodological advantages over implicit tools, including their strong face validity, and flexibility to explore 'nuanced' beliefs, which may be difficult to capture with the binary response options of implicit tools (Corneille & Gawronski, 2024; Drake et al., 2018). Thus, explicit measures remain an important tool when conducting research into the attitudes of mental health clinicians, so were employed exclusively for the empirical project.

However, several research gaps emerged from the systematic review and meta-analysis which have informed the subsequent empirical project. First, only a small number of included studies explored stigma towards specific mental health problems, despite research indicating the degree and

nature of stigma may vary according to diagnostic labels (Magnan et al., 2024). This is particularly relevant for conditions that are perceived to be complex or controversial, such as substance use disorders, personality disorders, and dissociation, highlighting an important gap in research.

Notably, no study in the systematic review investigated stigma towards dissociative experiences, which are controversial constructs among mental health clinicians, despite being relatively common in clinical settings (Foote et al., 2006). Indeed, previous studies have found that patients with dissociation report encountering professional scepticism, stigma and diagnostic overshadowing from mental health clinicians (Leonard et al., 2005). This may increase the risk of misdiagnosis and delayed access to the right support (Nester et al., 2022). However, the attitudes and beliefs held by clinicians towards dissociation have seldom been explored. Likewise, most studies examining dissociation preceded recent advances in trauma-informed care, the wider public and social media discourse on mental health, and the inclusion of service user perspectives (Bloomfield et al., 2020). Within this new sociocultural context, the opinions of clinicians towards dissociation may have evolved, moving beyond stigma and scepticism towards a more 'nuanced' pattern of attitudes and beliefs. However, this area remains under-explored, highlighting a need to investigate the views of clinicians towards dissociation in more recent practice (Hazell et al., 2022).

Second, no included studies in the systematic review and meta-analysis were conducted in the UK, with most research originating from North America, Europe and Australia. This means that UK clinicians operating in the NHS may be under-represented in mental health attitudinal research. The NHS is also a publicly funded healthcare system, distinct from predominantly insurance-based models such as those in North America. These differences might shape the structure of services, professional cultures and policies in ways that influence attitudes towards mental health conditions (Olson, 2006). This is important for dissociation specifically, as no UK practice guidelines currently exist (Lloyd, 2016), and only two NHS pathways are currently available for patients (Reinders &

Veltman, 2021). This context may impact the knowledge, attitudes and beliefs clinicians hold towards dissociation. Furthermore, most studies in the review included samples from psychiatry, psychology, and mental health nursing. In contrast, the NHS workforce comprises a broader range of professionals who may encounter service users with dissociation, including counsellors and psychotherapists, occupational therapists, speech and language therapists, and unregistered staff. These clinicians may vary in their theoretical orientations (Stone, 2006), levels of knowledge, and training on dissociation (Kanaan et al., 2011). Accordingly, an important focus of the empirical project was to examine the influence of professional background on clinicians' attitudes and beliefs.

Third, the systematic review and meta-analysis identified some limitations in the use of explicit measures that informed the design of the empirical project. Most included studies relied on standardised self-report stigma scales with closed response options. While these measures are easy to administer, they may limit opportunities for clinicians to elaborate on their views, and may therefore not always capture the nuance in attitudes, beliefs, or behavioural intentions towards patients with dissociation (e.g., Leonard et al., 2005). Furthermore, none of the included studies reported methods to minimise social desirability on explicit measures, which may partly explain the weak associations between explicit and implicit stigma on sensitive topics (Dunton & Fazio, 1997).

To address these issues, the empirical study introduced several methodological and procedural refinements. It employed a mixed-methods survey combining quantitative rating scales with open-text responses. This approach enabled the collection of numerical data on clinicians' attitudes and beliefs towards dissociation (e.g., perceived dangerousness and origin), alongside qualitative reflections that provided more contextual insight into their experiences. To minimise socially desirable responding on explicit measures, clinicians were reminded their responses were confidential, and that there were no right or wrong answers (Larson, 2019). Where uncertainty arose,

clinicians were encouraged to provide their ‘best guess’. This strategy was intended to reduce the variable response rates observed in previous online surveys (Couper et al., 2001).

Finally, the systematic review and meta-analysis revealed that most included studies did not specify which components of stigma were being examined among mental health clinicians, such as their cognitive, emotional and/or behavioural reactions. The subsequent empirical project attempted to address this gap. Specifically, the study explored a clinicians’ cognitive appraisals (e.g., beliefs around perceived prevalence, danger and treatability of dissociation), and affective responses (e.g., attitudes, and first thoughts and feelings towards patients with dissociation). The study also included an ‘information and misinformation’ section to explore any inaccurate beliefs / myths clinicians may hold towards dissociation, to better understand how stigma could operate in practice.

Taken together, the following chapter presents a mixed-methods online survey exploring the attitudes and beliefs held by clinicians towards dissociation in secondary mental health services. The survey aimed to capture how dissociation is understood by mental health clinicians, including any biases, misconceptions or stigmatised beliefs, as well as their views on the legitimacy, prevalence and treatment of dissociation. By exploring these domains, the survey sought to identify possible gaps in knowledge and understanding that may impact the clinical care of patients with dissociation. The survey was a collaboration between the University of East Anglia (UEA) and University of Birmingham (UoB), and formed part of a larger longitudinal project tracking changes in attitudes towards dissociation over time. The following study reports on the initial data collected from the project, with the intention to inform future training and professional resources for mental health clinicians in the NHS.

Chapter Five: Empirical Project

Attitudes and beliefs among NHS clinicians concerning dissociation

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Abstract

Introduction: Dissociation is a poorly understood experience found across mental health conditions. The history of dissociation and prior controversies in the field have highlighted scepticism and mixed perspectives among mental health clinicians. However, there is limited recent research exploring how clinicians understand and respond to dissociation. This study aimed to explore the attitudes and beliefs, knowledge, and experience of NHS clinicians concerning dissociation. This includes the language used to describe dissociation, patients with dissociation, and the endorsement of any misinformed beliefs.

Methods: A cross-sectional mixed-methods online survey was conducted as part of a larger longitudinal project ('Attitudes and Beliefs Concerning Dissociation') and distributed to NHS clinicians working in secondary mental health services. Quantitative items such as rating scales were analysed descriptively, while qualitative items (i.e., '3 words to describe dissociation') were analysed using content analysis.

Results: Survey responses from 135 clinicians were included. Clinicians reported a high awareness but variable confidence in their understanding of dissociation, and most had not received formal training on dissociation. Ratings of its prevalence, severity and dangerousness were mostly moderate but showed substantial variation, while dissociation was viewed as relatively treatable and psychological in origin. Endorsement of misinformed beliefs (i.e., 'dissociation is just a fad') was low and negatively correlated with the belief that 'dissociation is caused by trauma'. Qualitative analyses predominantly found neutral or supportive language, although stigmatising words were more frequent when describing the patients than dissociation itself. Most clinicians (91.5%) had worked with patients who experienced dissociation.

Discussion: Attitudes and beliefs were generally moderate and neutral towards dissociation. However, the wide variation in beliefs and knowledge, and the stigma endorsed towards patients with dissociation, highlights the need for improved educational provision for clinicians. Future research could consider how professional background, training and experience influences clinician views towards dissociation.

Introduction

Dissociation is considered a poorly understood and controversial construct within clinical psychology and psychiatry. It has been variously defined and conceptualised as either a set of symptoms, a psychological mechanism, or a response to traumatic events [1]. The Diagnostic and Statistical Manual of Mental Disorders (5th ed; DSM-5) [2] describes dissociation as the 'disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control and behaviour' (p. 291). It is characterised by confusing and distressing experiences, such as feelings of unreality, automaticity, or disconnection with one's surroundings, body, mind or emotions [3]. For example, some people describe a sense of profound 'oddness', like they are living 'in a bubble' or trapped in a 'simulation' [4]. This has recently been theorised as a 'felt sense of anomaly' (FSA) [5].

Dissociative experiences are common and transdiagnostic, occurring across a range of mental health problems [6]. These include (but are not limited to) post-traumatic stress disorder (PTSD) at a prevalence rate of 15-30% [7, 8], panic disorder at 24-48% [9, 10], depression at 10-60% [11, 12] and up to 50% in psychotic disorders or personality disorders [13]. The DSM-5 [2] also categorises disorders of dissociation, where the primary presenting problems are complete or partial dissociation. These include dissociative identity disorder (DID), dissociative amnesia, and depersonalisation-derealisation (DP/DR) disorder, which range from 5-58% across inpatient and community settings [14]. Prevalence studies also estimate that 26-74% of the general population have had at least one experience of DP (experiencing the self as strange or unreal) or DR (experiencing the world as strange or unreal) in their lifetime [15]. The wide range of prevalence estimates may be partly explained by the various definitions of dissociation, sample characteristics, study designs or measurement approaches, further highlighting the conceptual and methodological differences across studies.

Dissociation can impact upon clinical presentation and risk, making it highly important for clinicians to recognise [16]. Dissociation has been correlated with a higher risk of deliberate self-harm [17], suicide attempts [18, 19], illness severity [20, 21], and poorer response to therapeutic interventions [22]. Despite this, prior studies have found that mental health training programmes provide little to no core content on dissociation [23]. Such limited training may have adverse clinical implications, as it can increase the risk of under-recognition, misdiagnosis, repeat referrals, and delay in treating dissociation [24, 25]. However, there is a dearth of recent research examining the awareness, understanding of, and training in dissociation for mental health clinicians, emphasising the need for further exploration.

Previous literature from the 1990s and early 2000s described a general 'professional scepticism' towards the legitimacy of dissociation [26, 27]. For instance, Leonard et al [24] in 2005 surveyed 250 mental health staff and found that 45% regarded dissociative disorders as 'invalid' or 'dubiously valid' diagnoses, while 80% of patients with dissociation reported 'antagonistic' attitudes from their clinicians. Surveys from this period also found that only one-quarter of psychiatrists in the United States [28] and Canada [29] believed dissociative disorders were supported by 'rigorous scientific evidence'. This has been understood in the context of heightened controversy surrounding the 'recovered memory' debate of the 1990's [30]. Some clinicians viewed 'recovery' of previously inaccessible memories as evidence of dissociative processes, whereas others raised concerns that certain therapy practices might inadvertently contribute to false memories or iatrogenic presentations [31]. There was also controversy surrounding the media portrayals of multiple personality disorder (now DID) and the 'epidemic' of new cases [30]. These sociohistorical debates likely contributed to the professional scepticism regarding dissociation.

However, there is limited up-to-date research examining how clinicians perceive dissociation within contemporary mental health settings. Given ongoing debates, misconceptions, and variation in

professional background and service settings, it remains unclear what attitudes and beliefs clinicians now hold about dissociation. This is particularly important given the increased recognition of trauma-informed care and inclusion of service-user perspectives. The following sections therefore outline key theoretical and contextual factors that may contribute to contrasting or uncertain views on dissociation.

First, there remains an entrenched and hostile debate between theorists on the origins of dissociation as either a coping response to very adverse events (the 'trauma model'), or as the outcome of fantasy proneness and suggestibility, media and/or cognitive failures (the 'socio-cognitive' model) [32]. Debates also occur about the relationship between dissociation and other mental health conditions, such as psychosis. Some theorists argue that dissociation overlaps but probably differs from psychotic experiences, while others claim they are not discernible, particularly when conceptualising the positive psychotic symptoms [33]. These debates may influence beliefs around the treatment, origin or impact of dissociation [34], which may be valuable to explore alongside items about its legitimacy and prevalence.

Second, it has been argued that misconceptions about dissociation may influence the attitudes and beliefs clinicians hold. Six of these myths were detailed extensively in a review article by Brand et al [35]. For instance, Paris [36] in 2012 suggested that DID was just a 'fad' before falling out of interest due to being 'unscientific' [37]. In contrast, other authors argue there is a growing evidence base for the biology, assessment and treatment of dissociation [38], thus challenging the views of Paris [36] as being a 'misconceptualisation'. Furthermore, some authors, including those of psychology textbooks in 2013-2014, have argued that dissociation is 'rare' [39-41]. Yet, surveys reveal that dissociative experiences are common, transdiagnostic phenomena [6], and dissociative disorders appear to be just as prevalent as obsessive-compulsive disorder, bipolar disorder and psychosis [35]. Such findings are inconsistent with the belief that dissociation is rare. Therefore, it would be useful to explore if clinicians will endorse any

'myths' about dissociation, and whether these myths are statistically related. Theories of misinformation state there are cognitive and socio-affective factors that may 'correct' false beliefs among individuals [42]. These include fact-based teaching and/or experience with dissociation [43]. Exploring whether these factors influence the views clinicians may be important to inform future educational provision.

Third, clinicians' views on dissociation may vary according to professional background [44, 45]. Prior surveys have found that psychological staff are generally more open to 'believing' in the existence of dissociative problems (83-88%) compared to medical staff (46-75%) [46, 47]. This may be related to theoretical orientation and lack of consensus regarding a biological explanation or model for dissociation [48]. It is also recognised that biomedical models of mental ill-health, which psychiatrists usually adopt, may risk pathologising dissociation by focussing on the diagnoses and biological symptoms, rather than fully recognising the psychosocial antecedents such as severe trauma [49]. Psychologists, on the other hand, generally adopt a more formulation-driven and trauma-informed approach to supporting patients with dissociation, which may appear less stigmatising than biomedical models [50]. However, to the authors' knowledge, the views of other clinicians, such as nurses, allied health and social care staff, or unregistered staff (such as support workers and assistant psychologists) have not been explored towards dissociation [51]. This is important as most clinical staff, regardless of speciality, will likely work with people who experience dissociation, even in the absence of a formal dissociative disorder [52]. Hence, it is useful to explore the views of clinicians across multiple professional groups.

Much of the existing research on dissociation also predates more recent advances in trauma-informed care, the growing inclusion of patient perspectives, and increased professional discourses on dissociation [53]. Within this evolving context, clinicians' views towards dissociation may have shifted beyond earlier patterns of scepticism towards more varied attitudes and beliefs, yet this remains under-

explored. Notably, most prior research relied on structured surveys with quantitative scales [e.g., 46], which may not entirely capture how clinicians respond to patients with dissociation. Hence, free-text responses may offer richer insight into the descriptions, thoughts and feelings clinicians report regarding dissociation.

Finally, research on dissociation in the UK remains limited [54]. To date, just two dissociation pathways exist in the National Health Service (NHS) [55], and no clinical guidelines are specified from the National Institute for Health and Care Excellence (NICE) on dissociation [56]. This may contribute to some uncertainty among clinicians regarding their attitudes, beliefs and provision of treatment. This is concerning as preliminary evidence suggests that appropriate identification and treatment of dissociative experiences may have the potential to yield meaningful cost savings for NHS services [56].

Taken together, it is useful to explore the attitudes and beliefs NHS clinicians now hold about dissociation. This is significant for people accessing NHS services, as if clinicians endorse stigmatised views, this may negatively impact their care [57]. Understanding the views of clinicians may also inform future training on dissociation, professional resources and service development [58, 59].

This exploratory study was a collaboration between the University of East Anglia (UEA) and the University of Birmingham (UoB). The aim of the study was to understand the explicit attitudes, beliefs, and knowledge of dissociation among NHS clinicians, including any endorsement of myth-based beliefs, as well as their self-reported training and experience with dissociation. Given the exploratory nature of this study, no a priori hypotheses were specified. The main research questions (RQ) were:

RQ1: What awareness, knowledge and confidence do clinicians describe regarding dissociation, and do they report receiving any core or additional training about it?

RQ2: What attitudes and beliefs do clinicians report regarding the prevalence, problem, stigma, origin, and treatability of dissociation?

RQ3: To what extent do clinicians endorse misinformed beliefs about dissociation and do these beliefs relate to one another?

RQ4: What levels of professional and personal experience with dissociation do clinicians report?

RQ5: What thoughts and feelings do clinicians describe in relation to dissociation and patients with dissociation?

RQ6: Do clinicians' knowledge, attitudes and beliefs vary according to professional background, training and/or experience with dissociation?

Materials and Method

Design

The study consisted of one online mixed methods survey of NHS clinicians, which was pre-registered on the Open Science Framework (OSF) prior to data collection (https://osf.io/8jz4m). The study formed part of a longitudinal project (Attitudes and Beliefs Concerning Dissociation, 'ABCD'), in which undergraduate students ('ABCD Part 1'), Year 10/11 UK school students ('ABCD Part 2'), and NHS clinicians ('ABCD Part 3') are recruited and surveyed every one to two years to monitor changes in attitudes towards dissociation across 10 years. This study provided a cross-sectional analysis of the first round of data collection from the ABCD Part 3 survey (NHS clinicians).

The survey included quantitative elements such as nominal variables (e.g., 'Yes/No' responses) and numerical variables (e.g., '0-100' rating slider scales) consistent with previous attitudinal surveys on dissociation [27]. Slider scales were chosen as the resultant numerical data provides both precision and

variation in responses [60]. The study also built on previous staff surveys by using 'open-text' items to enable a better understanding of experiences and beliefs held by clinicians [61]. This is comparable to recent surveys into dissociation [62].

Participating clinicians

Participants were NHS clinicians currently employed in a patient-facing role within a secondary mental health service. We recruited from four NHS Trusts with established mental health services in the Midlands, East Anglia, and the South East of England. Participants were eligible to partake in the survey from any secondary care service, including inpatient settings, community mental health teams (CMHTs), crisis teams, and specialist services [63].

Inclusion criteria were NHS clinicians of any age, gender, or ethnicity who have had experience working in a patient-facing role (i.e., had an opportunity to directly influence care/treatment) [64]. The only exclusion was NHS staff who worked purely in an administrative role (i.e., non-clinical manager or admin support), which was assessed during the consent process.

The sample size was uncapped with the aim of receiving a minimum of 50 responses across NHS Trusts, in line with prior surveys on dissociation [24, 27, 65]. However, no sample size determination took place for this study, as there remains no standard procedure for determining the sample size for a mixed methods survey [66]. Our study was also explorative, with no hypothesis testing conducted.

Participants were recruited using convenience sampling due to its ease and accessibility in survey-based studies [67]. Participants were informed using poster adverts (Appendix E), which were placed in staff-only areas of NHS sites (i.e., kitchens, hot-desking rooms, libraries), while electronic copies were shared in 'internal' NHS email bulletins. Participants were further informed by direct email

from service managers, who circulated study adverts after being contacted by the research team (with consent). Data was collected over a seven-month period (January-July 2025).

Measures and materials

All participants undertook the same mixed methods survey which was presented on Qualtrics (https://www.qualtrics.com/uk/). Survey items (see Appendix F for survey) were co-designed by experts by experience, mental health clinicians, and the research team (see 'Additional Methods' Chapter). This patient and public involvement helped the study to be meaningful for both patients and clinicians [68].

The survey contained no psychometrically 'valid' measure of beliefs about dissociation as, to our knowledge, no existing measure is available. However, survey items were informed by generic attitude scales about mental health conditions [69, 70]. The survey was split into five sections, with four question 'blocks' (see below).

Consent and demographics

Participants were asked to provide non-identifiable demographic and work-related data after reading the Participant Information Sheet (PIS; Appendix G) and consenting to the study requirements (Appendix H). This included their age, gender, ethnicity, employing NHS Trust, work setting, years of clinical experience, registered regulatory body if applicable (e.g., 'General Medical Council'), and main professional background. We utilised both broad and narrow professional groups in accordance with prior NHS surveys [71, 72]. These included Medical (e.g., psychiatry, neurology), Nursing (e.g., mental health, general nursing), Psychological (e.g., psychologist, psychotherapist), Allied Health Professional (e.g., occupational therapy, social work), or Unregistered (e.g., support worker, assistant psychologist).

Knowledge and understanding (block 1)

Participants were asked if they had heard of dissociation before taking the survey, and if they knew what dissociation and depersonalisation meant (yes/no responses). Participants were then asked to rate their confidence in understanding these terms using 0-100 slider scales with labelled endpoints (i.e., 100-very confident; 0-not confident at all). Participants were also asked if they had received training on dissociation as part of their core qualification, or any additional training (yes/know/don't know). Other items in this block were recorded for the wider project, but were not analysed in this study.

Attitudes and beliefs (block 2)

Participants were reminded at the start of this block to answer honestly as responses remained confidential. This method is used in other surveys to minimise potential response biases such as social desirability [73]. Participants were asked to provide three words to describe dissociation, and a patient with dissociation (free text). They were then presented with 0-100 slider scales (e.g., 0-not at all; 100-extremely) to rate their agreement with various attitudes and beliefs about dissociation. These included, but were not limited to: how dangerous it is, how treatable it is, and if clinicians' attitudes were more positive or negative towards dissociation. They were also asked for their first thoughts and feelings if a patient tells them they think they have dissociation (free text).

Information and misinformation (block 3)

Participants were provided with five statements on dissociation discussed within the Brand et al article [35]. They were requested to rate these from 0 (completely disagree) to 100 (completely agree). These included: "dissociation is just a fad/trend", "Dissociation is something a minority of doctors in the USA diagnose, it's not a standard mental health problem", "Dissociation is rare", "Dissociation isn't a real mental health problem - biased doctors and/or social media convince people it is", and "Dissociation

is caused by trauma". Other items in this block included rating the perceived trustworthiness of different information sources about dissociation (see Additional Results chapter).

Experience (block 4)

Participants were asked if they believed they have worked with patients who experience / have ever experienced dissociation ('yes, no, don't know'). The block also included items on dissociative experiences among friends/relatives, and personal dissociative experiences, using the short-form Černis Felt Sense of Anomaly scale (ČEFSA-14) (Appendix I) [74]. This is a 14-item measure of dissociation characterised by a 'FSA' over the past two weeks (i.e., 'I feel detached from my emotions'). Each item is rated on a 5-point scale from 0 ('never') to 4 ('always'). It can be administered to clinical and non-clinical samples. Total scores range from 0-56 and scores of ≥29 indicate elevated FSA-dissociation. The internal consistency of the ČEFSA-14 scale in the current sample was excellent ($\alpha = .92$). The original 35-item ČEFSA scale [5] had excellent internal consistency in adult non-clinical samples ($\alpha = .86$-$.92$), and good convergent validity with the Dissociative Experiences Scale [75] ($r = .80$).

Procedure

Participants could partake by clicking on the poster link or scanning the QR code, reading the PIS, and providing consent online. The order in which the four question 'blocks' were shown was randomised. This aimed to minimise variable response rates (i.e., low response rates for items in later blocks), as it is known fatigue or time constraints can reduce motivation to answer survey items near the end [76]. Items using the '0–100' slider scales were initially positioned at the midpoint ('50') to reduce potential anchoring effects associated with pre-filled extreme values [77].

Participants were able to skip questions, or choose a 'prefer not to say' or 'don't know' option. Qualtrics reminded participants of any missed items before continuing. The median survey completion

time was 25 minutes, and a progress bar was shown. These features aimed to reduce item-missing data by increasing motivation to respond [78].

When participants had finished the study, they were invited to provide their email address for any future contact about similar projects. They were also offered entry into a prize draw to win one of 15 £20 Amazon vouchers. Email addresses were stored separately from their survey data and deleted upon request (for future contact), or after the prize draw has been administered. See Appendix J for the Budget form. Participants were provided with a debrief screen at the end, detailing different staff support services available (i.e., NHS wellbeing tools), particularly if the survey had raised any concerns.

Ethical considerations

As the study involved a collaboration between two universities, ethical approvals were obtained from the UoB Science, Technology, Engineering and Mathematics Committee (Appendix K; Reference No: ERN_1798-Jun2024) and the UEA Faculty of Medicine and Health Sciences Research FMH Ethics Committee (Appendix L; Reference No: ETH2324-3040; 01.08.2024). The UoB confirmed to sponsor the research study (Appendix M) and provide clinical research insurance (Appendix N), before gaining the NHS Health Research Authority (HRA) approval via the Integrated Research Application System (Appendix O; Reference No: 24/HRA/4823; 20.11.2025). We gained research and development (R&D) approvals from all participating NHS Trusts to access clinician-only spaces to advertise the study. A data sharing agreement was signed by the UoB and UEA (Appendix P). All procedures were performed in compliance with the UK Data Protection Act 2018 [79], the World Medical Association Declaration of Helsinki, and specific institutional guidelines. Informed consent was gained from all participants. The ethical considerations for the study are discussed in detail in Chapter Six (Additional Methods), in line with the British Psychological Society (BPS) [80] *Ethics Guidelines For Internet-Mediated Research*.

Statistical analysis

Quantitative and qualitative methods were used in accordance with our broad research questions. Data was transferred from Qualtrics upon completion of data collection (July 31 2025), and was cleaned in Microsoft Excel, before being coded and analysed on IBM SPSS Statistics. Categorical data were described using frequencies and percentages, while continuous data were described using measures of central tendency (e.g., mean, median (Mdn)) and dispersion (e.g., SD, inter-quartile range (IQR)) where appropriate. Normality assumptions for all continuous variables are presented in the 'Additional Results' chapter. Missing data was coded as missing and treated as such in all statistical analyses.

Quantitative content analysis

Free-text responses in block 2 (e.g., 3 words to describe dissociation) were treated as qualitative data and analysed using quantitative content analysis. An inductive (conventional strategy) approach to analysis was taken, meaning the code/category development reflected the content of the data, rather than pre-existing theory. This approach is useful for describing the patterns and frequencies of brief content when little is known about a topic [81]. First, two members of the research team (CJ and EK) immersed themselves in the data and noted any repetitive or salient concepts upon independent review. They also reflected on their initial impressions, to maintain rigour and ensure credibility [82, 83]. During two further meetings, CJ and EK collaboratively created manual codes to reflect the key concepts identified. These codes were then sorted into meaningful and distinct categories using 'coding manuals' for each free-text item (see Additional Methods). The manuals were supported by prior work exploring attitudes towards mental health conditions on Twitter [84-86]. A summary of our coding process is offered below.

It was agreed for a single coding manual to be used for the "three words to describe dissociation" (n = 393 words) and "three words to describe a patient with dissociation" (n = 365 words) items due to

overlap in their semantic content. Words were coded into one of three attitude categories: *Stigmatising, Supportive,* or *Neutral/symptom-based*. Coding focused on how each word appeared or was experienced by the raters, who were both mental health clinicians. Words were given a 'confidence rating' on a 0-4 scale, indicating how well it fit the assigned category, which was adapted from similar work to increase rigour [84]. Words receiving low-confidence ratings (≤ 2) were excluded from the analysis. Following this process, 390 words describing dissociation and 359 words describing a patient with dissociation were retained. Inter-rater reliability was assessed for every word, independently coded by CJ and EK. Overall basic agreement was 89.5% to 94.7% across categories, which is acceptable [87]. Discrepancies were resolved through discussion to reach consensus.

For the 'first thoughts and feelings' item ($n = 135$), free-text responses were categorised into one of three attitudes using a slightly adapted manual: *Sceptical*, *Supportive*, or *Curious*. Confidence ratings were applied, resulting in 130 responses retained for coding. Inter-rater reliability for basic agreement was 90% between CJ and EK. All discrepancies were resolved through discussion. Category-specific agreement and confidence ratings for each free-text item is provided in the 'Additional Methods'.

(Results presented on next page).

Results

A total of 197 clinicians consented online to the survey. Sixty-two clinicians did not respond past providing their demographic data, so were excluded. All available responses to question blocks were analysed, meaning 135 clinicians were included in the final sample and analysis (68.5%).

Sample characteristics

The demographic characteristics of clinicians are reported in Table 1. The mean age was 38.60 (*SD* = 10.74). Most identified as female gender (71.1%) and White ethnicity (93.3%). Table 2 shows their professional characteristics. Most reported that they were registered with a regulatory professional council or body (63%), and a range of professional backgrounds were described (Table 2 notes). Table 3 details the NHS service characteristics of clinicians. Most reported that they worked in a CMHT (50.4%) and with a mixed age range of patients (47.4%). Recruitment *n* from the four NHS Trusts (anonymised) are also described in Table 3 (range of 9-60 clinicians).

Table 1

Demographic Characteristics of Responding Clinicians (N = 135)

Demographic Characteristic	*n*	*%*	*M*	*SD*	*Range*
Age			38.6	10.74	24-65
Gender					
Male	39	28.9			
Female	96	71.1			
Ethnicity					
Asian/Asian British	2	1.5			
Black/ African/Caribbean/ Black British	1	0.7			
Mixed or Multiple Ethnic Groups	5	3.7			
White	126	93.3			
Other[a]	1	0.7			

[a] Other ethnicity category reported was Arab (*n* = 1).

Table 2

Professional Characteristics of Responding Clinicians

Professional Characteristic	*n*	%	*M*	*SD*	*Mdn*	*IQR*	*Range*
Registered with regulatory professional council?							
Yes	85	63.0					
No	46	34.1					
Prefer not to say	4	3.0					
Main professional background / role							
Medical[a]	12	8.9					
Nursing[b]	27	20.0					
Psychological[c]	39	28.9					
Allied Health and Social Care[d]	11	8.1					
Unregistered staff[e]	46	34.1					
Years in main professional role			9.89	10.02	6	11.8	0-41

[a] Medical background: Psychiatry (*n* = 9), Neuropsychiatry (*n* = 1), Paediatrics (*n* = 1) and Foundation-Year doctor (*n* = 1).

[b] Nursing background: Mental Health Nursing (*n* = 24), General Nursing (*n* = 1), Learning Disability Nursing (*n* = 1) and Nursing Health Visitor (*n* = 1).

[c] Psychological background: Psychologist (*n* = 23), Psychotherapist (*n* = 11), Clinical Associate in Psychology (*n* = 2); Educational Mental Health Practitioner (*n* = 1), and other not specified (*n* = 2).

[d] Allied Health and Social Care background: Occupational Therapy (*n* = 4), Social Work (*n* = 3), Art/Music/Drama Therapy (*n* = 3) and other not specified (*n* = 1).

[e] Unregistered staff include clinicians from different backgrounds that were not registered with a regulatory council. These included: Trainee Clinical Psychologist (*n* = 13), Assistant Psychologist (*n* = 11), Support Worker (*n* = 8), Trainee Clinical Associate in Psychology (*n* = 2), Nursing student/apprentice (*n* = 2), Lived Experience Practitioner (*n* = 2), Adult Social Care Practitioner (*n* = 1), Mental Health Welfare Advisor (*n* = 1), and other allied health and social care not specified (*n* = 6).

Table 3

NHS Service Characteristics of Responding Clinicians

NHS Service Characteristic	*n*	%
Mental healthcare setting / service		
Inpatient mental health service	24	17.8
Crisis or home treatment / resolution team	14	10.4
Community mental health team (CMHT)	68	50.4

Early intervention in psychosis team (EIP)	9	6.7
Specialist services[a]	8	5.8
Other services not listed elsewhere[b]	12	8.9
Age range of service users (years)		
0-17	25	18.5
18-64	39	28.9
65 and older	7	5.2
Mixed age range	64	47.4
Participating NHS Trust		
NHS Trust A	9	6.7
NHS Trust B	40	29.6
NHS Trust C	60	44.4
NHS Trust D	24	17.8
Prefer not to say	2	1.5

[a] Specialist services included: specialist psychotherapy service (*n* = 2), adult specialist service (*n* = 1), specialist paediatric neurorehabilitation team (*n* = 1), specialist bipolar service (*n* = 1), specialist eating disorder service (*n* = 1), specialist homelessness and comorbidity service (*n* = 1), and specialist mental health service for survivors of sexual assault (*n* = 1).
[b] Other services included: school-based services (*n* = 4), clinical placements (*n* = 4); recovery college (*n* = 1), clinical research (*n* = 1), and other not specified (*n* = 2).

Quantitative results

Knowledge and understanding

Table 4 provides responses to the 'knowledge and understanding' block. It was found that 98.5% of clinicians reported they had heard of dissociation before taking the survey, while 91.6% reported they thought they knew what dissociation is. The mean confidence rating for understanding dissociation was 65.9 (*SD* = 22.0; range = 5-100). It was also found that 72.3% of clinicians reported they thought they knew what depersonalisation is, while the mean confidence rating was 61.3 (*SD* = 23.7; range = 5-100). One-third reported they had received training on dissociation during their core training or professional qualification (32.3%), while one quarter reported they had received additional training since (24.6%).

Table 4

Knowledge and Understanding of Dissociation

Knowledge and Understanding	*n*	*%*	*M*	*SD*	*Mdn*	*IQR*	*Range*
'Have you heard of dissociation before taking this survey?'							
Yes	128	98.5					
No	2	1.5					
'Do you think you know what dissociation is?'							
Yes	120	91.6					
No	11	8.4					
'How confident do you feel about your understanding of what dissociation is?' [0-100 scale][a]			65.93	22.0	70	28	5-100
'Do you think you know what depersonalisation is?'							
Yes	94	72.3					
No	36	27.7					
'How confident do you feel about your understanding of what depersonalisation is?' [0-100 scale][b]			61.27	23.70	61	29	5-100
'Did you receive training about dissociation as part of your professional qualification / core training?'							
Yes	42	32.3					
No	79	60.8					
Don't know	9	6.9					
'Have you received additional training about dissociation since qualifying?'							
Yes	32	24.6					
No	95	73.1					
Don't know	3	2.3					

[a] This item was only presented if clinicians responded 'Yes' to the question: 'Do you think you know what dissociation is?'. For this scale, 100 is very confident, 0 is not confident at all.
[b] This item was only presented if clinicians responded 'Yes' to the question: 'Do you think you know what depersonalisation is?'. For this scale, 100 is very confident, 0 is not confident at all.

Attitudes and beliefs

Descriptive statistics for different attitudes and beliefs about dissociation are presented in Table 5. Generally mid-range ratings were reported by clinicians for beliefs about its frequency and lifetime prevalence percentage, dangerousness and problem severity. Dissociation was viewed by clinicians as relatively stigmatised but treatable, more psychological, and they greatly endorsed its inclusion in core training. Ratings of perceived 'overall' attitudes towards dissociation were slightly negative for mental health clinicians and moderately negative for young people. Wide ranges were reported across variables.

Table 5

Attitudes and Beliefs Concerning Dissociation

Attitudes and Beliefs	*n*	*M*	*SD*	*Mdn*	*IQR*	*Range*
'How common is it?' [0-100][a]	135	52.94	22.82	55	40	8-100
'How much of a problem is it?' [0-100][b]	135	57.12	22.01	60	29	0-100
'How dangerous is it?' [0-100][b]	135	50.52	26.57	50	42	0-100
'How treatable is it?' [0-100][b]	135	66.33	20.46	70	31	5-100
'How stigmatised is it?' [0-100][b]	135	64.32	25.04	70	32	3-100
'Is it more biological or more psychological?' [0-100][c]	135	74.22	19.64	80	31	10-100
'What percentage of the UK population have experienced dissociation ever in their lives?' [0-100]	132	57.69	29.01	60	54	1-100
'What percentage of the UK population have experienced dissociation in the past month?' [0-100]	131	35.24	27.24	25	36	2-100
'There is a place for dissociation in core clinical training' [0-100][d]	135	85.02	21.76	98	25	0-100
'Overall, young people's attitudes towards dissociation are' [0-100][e]	135	39.97	19.14	45	25	0-100
'Overall, mental health clinicians' attitudes towards dissociation are' [0-100][e]	135	45.75	19.63	50	20	5-100

[a] 0-does not exist; 100-extremely common.
[b] 0- not at all; 100-extremely.
[c] 0-biological; 100-psychological.
[d] 0-disagree; 100-agree.
[e] 0-negative; 100-positive.

Misinformed beliefs

Descriptive statistics (*Mdn, IQR*) and Spearman's correlations for statements about dissociation are presented in Table 6. Endorsement of misinformed beliefs (e.g., 'Dissociation is just a fad') was low on average, though wide ranges were reported (consistent with the prior block). There were statistically significant, small-to-moderate positive correlations between the myth statements, indicating that higher agreement for one myth was associated with greater endorsement for others. In contrast, endorsement of the belief 'dissociation is caused by trauma' (statement 5) was comparatively high among clinicians, and showed small negative correlations with most myth statements. This suggests that stronger endorsement of a trauma-related cause for dissociation was associated with lower agreement for myth-based beliefs.

Table 6

Descriptive Statistics and Correlations for Myth Variables (N = 133)

Variable[a]	*Mdn*	*IQR*	*Range*	1	2	3	4	5
1. 'Dissociation is just a fad/trend' [0-100][b]	0	20	0-92	-				
2. 'Dissociation is something a minority of doctors in the USA diagnose, it's not a standard mental health problem' [0-100][b]	21	50	0-89	.41**	-			
3. 'Dissociation is rare' [0-100] [b]	20	44	0-100	.32**	.25**	-		
4. 'Dissociation isn't a real mental health problem, biased doctors and/or social media convince people it is' [0-100] [b]	2	20	0-100	.61**	.39**	.21*	-	
5. 'Dissociation is caused by trauma' [0-100] [b]	75	30	0-100	-.20*	-.24**	.06	-.18*	-

[a] Spearman's rho correlations reported as data is non-parametric.
[b] 0-completely disagree; 100-completely agree.
* p <.05. ** p <.01.

Experience with dissociation

Table 7 describes the experiences of NHS clinicians with dissociation. Most (91.5%) thought they had worked with patients who experienced dissociation. Over half (57.8%) thought they have personally experienced dissociation, and 43.8% reported having a friend or relative who has experienced dissociation. The mean ČEFSA-14 score was 12.29 (*SD* = 9.04, range = 0-51), implying average levels of dissociation, with eight (6.3%) scoring in the 'elevated' range, and one (0.7%) in the 'severe' range.

Table 7

Experience with Dissociation

Experience	*n*	*%*	*M*	*SD*	*Mdn*	*IQR*	*Range*
'Do you think you have worked with patients who have ever experienced dissociation?'							
Yes	118	91.5					
No	3	2.3					
Don't know	6	4.7					
Prefer not to say	2	1.5					
'Do you think you experience / have ever experienced dissociation?'							
Yes	74	57.8					
No	38	29.7					
Don't know	14	10.9					
Prefer not to say	2	1.6					
'Do you have a friend or relative who has ever experienced dissociation?'							
Yes	56	43.8					
No	37	28.9					
Don't know	33	25.8					
Prefer not to say	2	1.5					
ČEFSA-14 scale [total score 0-56]			12.29	9.04	10	11	0-51
ČEFSA-14 scale [score ranges][a]							
Average [0-28]	119	93.0					
Elevated [29-38]	8	6.3					
Moderately severe [39-48]	0	0					
Severe [49-56]	1	0.7					

[a] The interpretive score ranges for the ČEFSA-14 scale were extracted from Černis et al [74].

Qualitative results

Three words to describe dissociation

A total of 390 words were coded. Of these, 65.1% (*n* = 254) were categorised as 'Neutral or symptom-based' (e.g., 'floating', 'trauma'), 20.0% (*n* = 78) as 'Supportive' (e.g., 'understandable', 'coping'), and 14.9% (*n* = 58) as 'Stigmatising' (e.g., 'treatment-resistant', 'generational'). See the Additional Methods for more 'example' words from each category, and the Additional Results for a 'word cloud' of the most frequent responses.

Three words to describe a patient with dissociation

A total of 359 words were coded. Of these, 56.3% (*n* = 202) were categorised as 'Neutral or symptom-based' (e.g., 'numb', 'zoned-out'), 18.9% (*n* = 68) as 'Supportive' (e.g., 'survivor', 'creative'), and 24.8% (*n* = 89) as 'Stigmatising' (e.g., 'secondary-gain', 'attention-seekers'). See the Additional Methods for more 'example' words from each category, and the Additional Results for the 'word cloud'.

First thoughts and feelings

A total of 130 responses were coded. Of these, 59.2% (*n* = 77) were categorised as 'Curious' (e.g., "Tell me more about what this looks and feels like for you"), 29.2% (*n* = 38) as 'Supportive' (e.g., "Thank you for telling me. Thinking how I can best support them"), and 11.5% (*n* = 15) as 'Sceptical' (e.g., "I don't generally believe them", "What have they been reading/watching?"). See the Additional Methods for more 'example' responses from each category.

Exploratory analysis - professional background

Psychological staff accounted for almost half the sample (48.15%) when including registered and unregistered roles, indicating the sample was not representative by professional background. Exploratory analyses were therefore conducted to evaluate whether sample composition influenced the findings.

Clinicians were grouped into (1) Medical and Nursing professions (n = 49), or (2) Psychological and Allied Health professions (n = 86) due to the small cell sizes. Unregistered staff were assigned to these groups according to their clinical role (see Additional Methods). Non-parametric tests were used (e.g., Mann-Whitney U and Fisher-Freeman-Halton Exact Tests) given the non-normal distributions of the variables. Statistical significance was determined from two-tailed tests, using an alpha level of .05.

All findings are presented in the Additional Results chapter (Tables 2 and 3). In summary, most variables did not significantly differ between professional backgrounds. However, Medical and Nursing professions showed significantly higher endorsement across myth-based beliefs about dissociation. They also used significantly more stigmatising words to describe dissociation, and patients with dissociation. Finally, they reported significantly higher confidence in their understanding of depersonalisation. Effect sizes were small for continuous (r = .00 -.25) and categorical (Cramér's V = .00 - .26) data, according to Cohen's conventions [88] and IBM Cognos Analytics [89].

Exploratory analysis – training and experience with dissociation

The 'Additional Results' chapter provides the exploratory analyses of findings as a function of (1) training, and (2) personal experience with dissociation. In summary, clinicians who received core or additional training reported higher confidence, viewed dissociation as less dangerous, more treatable, and provided fewer stigmatising words to describe dissociation. No differences were found across myth-based beliefs. The effect sizes ranged from small-to-medium for continuous data (r = .02 -.37), and weak-to-moderate for categorical data (Cramér's V = .09 - .37). Clinicians who had personal experience of dissociation reported greater confidence, higher perceived prevalence estimates, lower endorsement that dissociation was rare, and higher ČEFSA-14 scores. The effect sizes ranged from small-to-large for continuous data (η^2_H = .00 -.26), and weak-to-moderate for categorical data (Cramér's V = .08 -.39).

Discussion

This empirical study explored the explicit knowledge, attitudes, beliefs, and experiences of NHS clinicians concerning dissociation using a mixed-methods survey. The main quantitative and qualitative findings will be discussed in this section, along with implications for clinical practice and research. The strengths and limitations of the survey, and recommendations for future research will also be considered.

Quantitative findings - summary and interpretation

Clinicians reported their perceived awareness and knowledge of dissociation to be high (RQ1). However, confidence varied substantially among clinicians, and the high levels of perceived knowledge was not always matched by formal training, as only one-third received core training on dissociation and one-quarter for additional training. Although these proportions may be higher than recorded in previous studies [23], they nonetheless indicate that most clinicians received no formal training on a phenomenon that is as prevalent as obsessive–compulsive disorder and psychosis [90].

Several interpretations may explain the inconsistency between the training received, and the perceived knowledge of clinicians regarding dissociation. First, it may indicate that knowledge is shaped more by experience with dissociation than formal training. In this context, beliefs and emotive reactions to patients in practice may influence what clinicians interpret as ‘knowledge’, particularly in the absence of structured training. Second, as the knowledge ratings were assessed by self-report, our results might reflect self-selection, social desirability, or limited awareness of knowledge gaps, possibly inflating the perceived knowledge found. However, efforts were taken to mitigate biases, by reminding clinicians that our survey was “not a test” to see if they knew the “right answers”. Third, it may reveal that the training or knowledge our sample reported was possibly more superficial than indicated. This is supported by the discrepancy between awareness and confidence ratings, and the lower knowledge for depersonalisation,

which is a common dissociative experience [91]. It will be important for future studies to examine the training staff received on dissociation, and the depth of their understanding (i.e., free-text responses).

Clinicians' belief ratings for dissociation (RQ2) were generally moderate, indicating there was no strong endorsement or rejection of its prevalence, problem severity, or dangerousness. This pattern may suggest a neutral stance, but may equally reflect some uncertainty among clinicians, particularly given the scales were initially positioned at the midpoint. Supportive beliefs were also documented, as dissociation was perceived as relatively treatable and psychological in origin. This is encouraging as it suggests an openness to intervention, and aligns with contemporary-based models of dissociation [32]. However, dissociation was rated as moderately stigmatised, including among clinicians. This indicates that negative perceptions may still persist, but these appeared less pronounced than scepticism found in previous studies [24, 27]. Given the sociohistorical context of dissociation being largely stigmatised, our findings may represent a meaningful shift in attitudes and beliefs among clinicians (i.e., more acceptance of its legitimacy and trauma models). Clinicians also expressed strong support for including dissociation in core training, highlighting that current provision does not adequately reflect its perceived importance.

Endorsement of misinformed beliefs about dissociation (RQ3) was generally low, suggesting that myths about dissociation (e.g., being a fad) were uncommon among our sample. However, wide ranges were reported, meaning a minority of clinicians endorsed these beliefs more strongly than others. The positive correlations suggested misinformed beliefs may cluster, such that endorsing one sceptical belief was related to endorsing others. In contrast, supporting a trauma-related model of dissociation was high (consistent with dissociation being more psychological than biological), and was associated with a lower endorsement for misinformed beliefs. This indicates trauma-related models may serve a protective role against myths towards dissociation, although causality cannot be inferred due to the correlational design.

Most clinicians had worked with patients who experience dissociation (RQ4), indicating that dissociation is routinely encountered in NHS mental healthcare [52]. A large proportion believed they personally experienced dissociation, although ČEFSA-14 scores were typically in the average range, and many reported knowing a friend or relative who had done so. This suggests dissociation was familiar in our sample, which may explain the low endorsement that 'dissociation is rare'. It may also reflect some selection bias in our sampling approach.

Qualitative findings - summary and interpretation

The qualitative data (RQ5) broadly complemented the quantitative results, suggesting clinicians hold largely neutral and supportive attitudes towards dissociation. When describing dissociation, most words were neutral or symptom-focused, suggesting clinicians commonly conceptualised dissociation with descriptive, phenomenological words, rather than explicitly evaluative ones. This could reflect a focus on observable or lived experiences by patients (e.g., numbness, detachment) [4] and might align with formulation approaches [57]. Yet, a notable proportion of words were stigmatising. Interestingly, stigmatising words almost doubled when clinicians described patients with dissociation, rather than the phenomenon itself, suggesting stigma was more readily directed towards the patients. This distinction is important, as negative characterisations of patients (e.g., implying secondary gain or attention-seeking) may influence therapeutic engagement and decision-making [92], even if clinicians believe dissociation to be a legitimate experience.

Supportive language was also provided by clinicians, particularly when describing their first thoughts and feelings. This indicates that some staff adopt compassionate and validating perspectives towards patients who disclose dissociation. The predominance of 'curious' initial thoughts and feelings suggest clinicians respond with openness, interest, and a desire to understand the patient's experience of

dissociation. However, the presence of some sceptical responses by clinicians is noteworthy and aligns with the quantitative data. Unfortunately, such reactions may reinforce fears among patients of not being believed, an issue frequently reported for dissociative experiences [16].

Professional background, training and experience - summary and interpretation

Exploratory analyses were conducted to evaluate whether professional background influenced the main findings (RQ6). Most variables did not differ between (1) Medical and Nursing staff; and (2) Psychological and Allied Health staff. This suggests the findings were broadly robust and comparable between the two groups, despite psychological staff being over-represented in the sample. However, medical and nursing professions showed higher endorsement for misinformed beliefs about dissociation, and were more likely to use stigmatising words, although the effect sizes were small. This suggests that a more professionally representative sample may have produced slightly higher endorsement of myth-based beliefs and stigmatising language. However, future research is needed to determine this using adequately powered samples given our variable group sizes, limited statistical power, and risk of Type 1 errors from multiple comparisons. Exploratory analyses also found that receiving training and reporting personal experience with dissociation may have influenced clinician's knowledge, attitudes and beliefs (RQ6). Future research is required to ascertain whether these patterns reflect meaningful differences.

Clinical and research implications

The finding that clinicians report limited training on dissociation, despite high awareness and perceived importance, highlights the need for more teaching on dissociation in professional curricula. Training that incorporates phenomenology (e.g., depersonalisation and derealisation), trauma-informed models, curiosity, and clinical guidance may help to reduce uncertainty and stigma by clinicians [93]. It may also be helpful to address misinformed beliefs about dissociation, given these might cluster and are

endorsed by some clinicians. The tendency for stigmatising language to be applied more to patients with dissociation emphasises the importance of reflective practice, supervision, and the need for patient voice in training materials. Being aware of cognitive and emotional reactions may help to reduce scepticism.

Our results also have theoretical implications. The variation and uncertainty observed across attitudes and beliefs suggest that dissociation remains a contested construct, even among a psychology-heavy, experienced and self-selecting sample of clinicians. There appears to be support for trauma-based models. However, some responses also hint at socio-cognitive explanations (although these latter models were not explicitly tested). Findings also indicate that different components of stigma, such as prejudice (negative attitudes) and stereotypes (negative beliefs) may be shown by clinicians towards dissociation. This is consistent with theoretical models of stigma [94], although this will require further exploration.

Strengths and limitations

To the author's knowledge, this is the first contemporary study exploring the attitudes, beliefs, knowledge, and experiences of NHS clinicians regarding dissociation. The study therefore addresses a clear gap in the literature, as existing attitudinal research on dissociation was largely dated, conducted outside the UK, or focused on certain professional groups, such as psychiatrists and psychologists. By surveying mental health clinicians across different NHS Trusts, service settings and roles (including unregistered staff), our study offers a broad evaluation of clinical views on dissociation in the UK. An additional strength is the mixed-methods design. Our study combined quantitative rating scales with free-text responses, allowing both a descriptive overview of clinicians' perspectives, while also gaining qualitative insight into how dissociation is responded to in practice. Experts by experience and clinicians were also consulted when designing survey questions, thereby enhancing the relevance of our findings.

However, some limitations should be acknowledged. First, the study relied on self-report which may be impacted by self-selection, particularly given our convenience sampling and variable response rates across the NHS Trusts [95]. We attempted to minimise biased responding by asking staff to answer honestly [96] (i.e., free-text), while poster adverts encouraged different opinions to be shared. Second, the survey was cross-sectional, which limits conclusions about the causal inference or temporal stability of attitudes and beliefs over time. Third, our secondary analyses were constrained by unequal group sizes and limited statistical power, meaning true differences may not have been detected. Fourth, the sample was predominantly White, female, and nearly 50% were from psychological backgrounds (when including trainee and assistant psychology roles). This limits generalisation to the wider NHS workforce, particularly for staff from minoritised backgrounds. Finally, interpreting our findings was limited by the lack of a validated attitudinal measure. This meant that implicit (i.e., automatic) evaluations could not be investigated alongside explicit self-report. This is an important consideration, as implicit and explicit evaluations were found to be weakly related constructs [97], including among mental health clinicians (Chapter Two). As such, they may uniquely impact clinical care outcomes for patients with dissociation.

Future research

There are several avenues for future research. First, repeating the clinician survey using larger and more diverse samples of NHS staff would allow for greater granularity in subgroup analyses. This would be valuable both to replicate findings, and to explore how clinician's views might vary according to professional role, or develop in response to training, experience and service-level changes. Second, future research could compare the findings from NHS clinicians with other ABCD cohorts, including undergraduate students (Part 1) and school students (Part 2). This may help to identify similarities and differences in knowledge, attitudes or beliefs, and therefore supports the development of professional resources to work with young people who experience dissociation. Third, future studies could evaluate

whether training interventions reduce misinformation and increase confidence in managing dissociation. Fourth, future work could explore the experiences of patients with dissociation in the NHS, such as the facilitators of treatment access, as recommended by Nester et al. [62]. Finally, validating explicit and implicit measures may improve our understanding of clinician's attitudes and beliefs, including whether myth-based beliefs cluster into a psychometrically valid measure of misinformation about dissociation.

Conclusions

This survey provides a mixed-methods exploration of the attitudes and beliefs, knowledge, and experiences of 135 NHS clinicians concerning dissociation in secondary mental health settings. The clinicians reported a high awareness of dissociation, but variable confidence with their knowledge, and they received limited core training on dissociation despite advocating for its inclusion. Quantitative and qualitative findings generally indicated neutral and moderate beliefs towards dissociation, including low endorsement of misinformed beliefs, and widespread clinical exposure to patients with dissociation. However, a minority of clinicians endorsed sceptical beliefs and used stigmatising language to describe patients with dissociation. The wide variation across beliefs and knowledge suggests that dissociation continues to represent a controversial and uncertain phenomenon among clinicians. Future work could explore if theoretical orientation, professional background and experience impacts beliefs, and evaluate if training improves knowledge, reduces stigma and enhances the care of patients with dissociation.

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References

[1] Lynn SJ, Lilienfeld SO, Merckelbach H, Giesbrecht T, Van Der Kloet D. Dissociation and dissociative disorders: challenging conventional wisdom. Curr Dir Psychol Sci. 2012; 21:48–53. doi:10.1177/0963721411429457

[2] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.

[3] Černis E, Ehlers A, Freeman D. Psychological mechanisms connected to dissociation: Generating hypotheses using network analyses. Journal of Psychiatric Research. 2022; 148:165–173. doi:10.1016/j.jpsychires.2022.01.049

[4] Černis E, Freeman D, Ehlers A. Describing the indescribable: A qualitative study of dissociative experiences in psychosis. Mohr C, editor. PLoS ONE. 2020; 15:e0229091. doi:10.1371/journal.pone.0229091

[5] Černis E, Beierl E, Molodynski A, Ehlers A, Freeman D. A new perspective and assessment measure for common dissociative experiences: 'Felt Sense of Anomaly'. PLoS ONE. 2021; 16:e0247037. doi:10.1371/journal.pone.0247037

[6] Ellickson-Larew S, Stasik-O'Brien SM, Stanton K, Watson D. Dissociation as a multidimensional transdiagnostic symptom. Psychology of Consciousness: Theory, Research, and Practice. 2020; 7:126–150. doi:10.1037/cns0000218

[7] Kim D, Kim D, Lee H, Cho Y, Min JY, Kim SH. Prevalence and clinical correlates of dissociative subtype of posttraumatic stress disorder at an outpatient trauma clinic in South Korea. European Journal of Psychotraumatology. 2019; 10:1657372. doi:10.1080/20008198.2019.1657372

[8] Wolf EJ, Miller MW, Reardon AF, Ryabchenko KA, Castillo D, Freund R. A latent class analysis of dissociation and posttraumatic stress disorder: evidence for a dissociative subtype. Arch Gen Psychiatry. 2012; 69. doi:10.1001/archgenpsychiatry.2011.1574

[9] Mendoza L, Navinés R, Crippa JA, Fagundo AB, Gutierrez F, Nardi AE, et al. Depersonalization and personality in panic disorder. Comprehensive Psychiatry. 2011; 52:413–419. doi:10.1016/j.comppsych.2010.09.002

[10] Segui J, Ma´rquez M, Garcia L, Canet J, Salvador-Carulla L, Ortiz M. Depersonalization in panic disorder: A clinical study. Comprehensive Psychiatry. 2000; 41:172–178. doi:10.1016/S0010-440X(00)90044-0

[11] Fung HW, Chien WT, Lam SKK, Ross CA. Prevalence and correlates of dissociative symptoms among people with depression. Journal of Psychiatric Research. 2022; 154:132–138. doi:10.1016/j.jpsychires.2022.07.054

[12] Sar V, Akyüz G, Öztürk E, Alioğlu F. Dissociative depression among women in the community. Journal of Trauma & Dissociation. 2013; 14:423–438. doi:10.1080/15299732.2012.753654

[13] Renard SB, Huntjens RJC, Lysaker PH, Moskowitz A, Aleman A, Pijnenborg GHM. Unique and overlapping symptoms in schizophrenia spectrum and dissociative disorders in relation to models of psychopathology: a systematic review. Schizophr Bull. 2017; 43:108–121. doi:10.1093/schbul/sbw063

[14] Foote B, Smolin Y, Kaplan M, Legatt ME, Lipschitz D. Prevalence of dissociative disorders in psychiatric outpatients. The American Journal of Psychiatry. 2006; 163:623–629. doi:10.1176/appi.ajp.163.4.623

[15] Sierra M, David AS, Hunter ECM. The epidemiology of depersonalisation and derealisation. Soc Psychiatry Psychiatr Epidemiol. 2004; 39:9–18. doi:10.1007/s00127-004-0701-4

[16] Boyer SM, Caplan JE, Edwards LK. Trauma-related dissociation and the dissociative disorders. Delaware Journal of Public Health. 2022; 8:78–84. doi:10.32481/djph.2022.05.010

[17] Černis E, Chan C, Cooper M. What is the relationship between dissociation and self-harming behaviour in adolescents? Clin Psychology and Psychoth. 2019; 26:328–338. doi:10.1002/cpp.2354

[18] Tanner J, Wyss D, Perron N, Rufer M, Mueller-Pfeiffer C. Frequency and characteristics of suicide attempts in dissociative identity disorders: a 12-month follow-up study in psychiatric outpatients in Switzerland. Eur J Trauma Dissociation. 2017; 1:235–9. doi:10.1016/j.ejtd.2017.06.005

[19] Vine V, Victor SE, Mohr H, Byrd AL, Stepp SD. Adolescent suicide risk and experiences of dissociation in daily life. Psychiatry Res. 2020; 287:112870. doi:10.1016/j.psychres.2020.112870

[20] La Mela C, Maglietta M, Castellini G, Amoroso L, Lucarelli S. Dissociation in eating disorders: relationship between dissociative experiences and binge-eating episodes. Comprehensive Psychiatry. 2010; 51:393–400. doi:10.1016/j.comppsych.2009.09.008

[21] Park AH, Protopopescu A, Pogue ME, Boyd JE, O'Connor C, Lanius RA, et al. Dissociative symptoms predict severe illness presentation in Canadian public safety personnel with presumptive post-traumatic stress disorder (PTSD). Eur J Psychotraumatol. 2021; 12:1953789. doi:10.1080/20008198.2021.1953789

[22] Spitzer C, Barnow S, Freyberger HJ, Joergen Grabe H. Dissociation predicts symptom-related treatment outcome in short-term inpatient psychotherapy. Aust N Z J Psychiatry. 2007; 41:682–687. doi:10.1080/00048670701449146

[23] Courtois CA, Gold SN. The need for inclusion of psychological trauma in the professional curriculum: a call to action. Psychol Trauma. 2009; 1:3–23. doi:10.1037/a0015224

[24] Leonard D, Brann S, Tiller J. Dissociative disorders: pathways to diagnosis, clinician attitudes and their impact. Aust N Z J Psychiatry. 2005; 39:940–946. doi:10.1080/j.1440-1614.2005.01700.x

[25] Langeland W, Jepsen EKK, Brand BL, Kleven L, Loewenstein RJ, Putnam FW, et al. The economic burden of dissociative disorders: A qualitative systematic review of empirical studies. Psychological Trauma: Theory, Research, Practice, and Policy. 2020; 12:730–738. doi:10.1037/tra0000556

[26] Ginzburg K, Somer E, Tamarkin G, Kramer L. Clandestine psychopathology: unrecognized dissociative disorders in inpatient psychiatry. J Nerv Ment Dis. 2010; 198:378–381. doi:10.1097/NMD.0b013e3181da4d65

[27] Hayes JA, Mitchell JC. Mental health professionals' skepticism about multiple personality disorder. Professional Psychology: Research and Practice. 1994;25: 410–415. doi:10.1037/0735-7028.25.4.410

[28] Pope HG, Oliva PS, Hudson JI, Bodkin JA, Gruber AJ. Attitudes toward DSM-IV dissociative disorders diagnoses among board-certified American psychiatrists. Am J Psychiatry. 1999; 156:321–323. doi:10.1176/ajp.156.2.321

[29] Lalonde JK, Hudson JI, Gigante RA, Pope HG. Canadian and American psychiatrists' attitudes toward dissociative disorders diagnoses. Can J Psychiatry. 2001; 46:407–412. doi:10.1177/070674370104600504

[30] Putnam FW. A Brief History of Multiple Personality Disorder. Child and Adolescent Psychiatric Clinics of North America. 1996; 5:263–272. doi:10.1016/S1056-4993(18)30365-1

[31] Lindsay DS, Briere J. The Controversy Regarding Recovered Memories of Childhood Sexual Abuse: Pitfalls, Bridges, and Future Directions. J Interpers Violence. 1997; 12:631–647. doi:10.1177/088626097012005002

[32] Dalenberg CJ, Brand BL, Loewenstein RJ, Frewen PA, Spiegel D. Inviting scientific discourse on traumatic dissociation: progress made and obstacles to further resolution. Psychol Inj and Law. 2020; 13:135–154. doi:10.1007/s12207-020-09376-9

[33] Moskowitz A, Longden E, Varese F, Mosquera D, Read J. The nature of psychotic symptoms: traumatic in origin and dissociative in kind? In: Dorahy MJ, Gold SN, O'Neil JA, editors. *Dissociation and the dissociative disorders: past, present, future*. 2nd ed. London: Routledge; 2023. pp. 513–27.

[34] Dalenberg CJ, Brand BL, Gleaves DH, Dorahy MJ, Loewenstein RJ, Cardeña E, et al. Evaluation of the evidence for the trauma and fantasy models of dissociation. Psychol Bull. 2012; 138:550–588. doi:10.1037/a0027447

[35] Brand BL, Sar V, Stavropoulos P, Krüger C, Korzekwa M, Martínez-Taboas A, et al. Separating fact from fiction: An empirical examination of six myths About dissociative identity disorder. Harv Rev Psychiatry. 2016; 24:257–270. doi:10.1097/HRP.0000000000000100

[36] Paris J. The rise and fall of dissociative identity disorder. J Nerv Ment Dis. 2012; 200:1076–1079. doi:10.1097/NMD.0b013e318275d285

[37] McHugh P. Do fads ever die? J Nerv Ment Dis. 2013; 201:357–358. doi:10.1097/NMD.0b013e318288d2b5

[38] Dorahy MJ, Brand BL, Şar V, Krüger C, Stavropoulos P, Martínez-Taboas A, et al. Dissociative identity disorder: An empirical overview. Aust N Z J Psychiatry. 2014; 48:402–417. doi:10.1177/0004867414527523

[39] Modestin J, Ebner G, Junghan M, Erni T. Dissociative experiences and dissociative disorders in acute psychiatric inpatients. Comprehensive Psychiatry. 1996; 37:355–361. doi:10.1016/S0010-440X(96)90017-6

[40] Beidel D, Bulik C, Stanley M. Abnormal psychology. 3rd ed. Upper Saddle River, NJ: Pearson Education, 2014.

[41] Butcher J, Mineka S, Hooley J. Abnormal psychology. 15th ed. Upper Saddle River, NJ: Pearson Education, 2013.

[42] Ecker UKH, Lewandowsky S, Cook J, Schmid P, Fazio LK, Brashier N, et al. The psychological drivers of misinformation belief and its resistance to correction. Nat Rev Psychol. 2022 ;1:13–29. doi:10.1038/s44159-021-00006-y

[43] Chien WT, Fung HW. The challenges in diagnosis and treatment of dissociative disorders. Alpha Psychiat. 2022; 23(2):45–6. doi:10.5152/alphapsychiatry.2022.0001

[44] Dorahy MJ, Lewis CA, Mulholland C. The detection of dissociative identity disorder by Northern Irish clinical psychologists and psychiatrists: a cinical vignettes study. Journal of Trauma & Dissociation. 2006; 6:39–50. doi:10.1300/J229v06n04_03

[45] Kluft RP. Current issues in dissociative identity disorder. J Psychiatr Pract. 1999; 5:3–19. doi:10.1097/00131746-199901000-00001

[46] Dunn GE, Paolo AM, Ryan JJ, Van Fleet JN. Belief in the existence of multiple personality disorder among psychologists and psychiatrists. J Clin Psychol. 1994; 50:454–457. doi:10.1002/1097-4679(199405)50:3<454::AID-JCLP2270500317>3.0.CO;2-9

[47] Dorahy MJ, Lewis CA. Dissociative identity disorder in northern Ireland: A survey of attitudes and experience among clinical psychologists and psychiatrists. J Nerv Ment Dis. 2002; 190:707–710. doi:10.1097/00005053-200210000-00009

[48] Krause-Utz A, Frost R, Winter D, Elzinga BM. Dissociation and Alterations in Brain Function and Structure: Implications for Borderline Personality Disorder. Curr Psychiatry Rep. 2017; 19:6. doi:10.1007/s11920-017-0757-y

[49] O'Dwyer C, Tarzia L, Fernbacher S, Hegarty K. Health professionals' experiences of providing trauma-informed care in acute psychiatric inpatient settings: A scoping review. Trauma, Violence, & Abuse. 2021; 22:1057–1067. doi:10.1177/1524838020903064

[50] Sweeney A, Clement S, Filson B, Kennedy A. Trauma-informed mental healthcare in the UK: what is it and how can we further its development? Mental Health Review Journal. 2016; 21:174–192. doi:10.1108/MHRJ-01-2015-0006

[51] Kanaan RA, Armstrong D, Wessely SC. Neurologists' understanding and management of conversion disorder. *J Neurol Neurosurg Psychiatry*. 2011;82:961–6. doi:10.1136/jnnp.2010.233114.

[52] Stone J. Dissociation: what is it and why is it important? Pract Neurol. 2006; 6:308–313. doi:10.1136/jnnp.2006.101287

[53] Bloomfield MAP, Yusuf FNIB, Srinivasan R, Kelleher I, Bell V, Pitman A. Trauma-informed care for adult survivors of developmental trauma with psychotic and dissociative symptoms: a systematic review of intervention studies. The Lancet Psychiatry. 2020; 7:449–462. doi:10.1016/S2215-0366(20)30041-9

[54] Reinders AATS, Young AH, Veltman DJ. Biomarkers of dissociation. BJPsych Open. 2023; 9(4):e119. doi:10.1192/bjo.2023.511

[55] Reinders AATS, Veltman DJ. Dissociative identity disorder: out of the shadows at last? Br J Psychiatry. 2021; 219:413–414. doi:10.1192/bjp.2020.168

[56] Lloyd M. Reducing the cost of dissociative identity disorder: Measuring the effectiveness of specialized treatment by frequency of contacts with mental health services. Journal of Trauma & Dissociation. 2016; 17:362–370. doi:10.1080/15299732.2015.1108947

[57] Pierorazio NA, Robertson JL, Nester MS, Brand BL. "They thought I was just making it up": Dissociative individuals' understandings of their dissociation, perceptions of their clinicians' conceptualizations of dissociation, and discrepancies between them. Psychological Trauma: Theory, Research, Practice, and Policy. 2026; 18:121–130. doi:10.1037/tra0001800

[58] Gleaves DH, Reisinger BAA. Stigma regarding dissociative disorders. Journal of Trauma & Dissociation. 2023; 24:317–320. doi:10.1080/15299732.2023.2191240

[59] Sadler MS, Meagor EL, Kaye KE. Stereotypes of mental disorders differ in competence and warmth. Social Science & Medicine. 2012; 74:915–922. doi:10.1016/j.socscimed.2011.12.019

[60] Chyung SYY, Swanson I, Roberts K, Hankinson A. Evidence-based survey design: the use of continuous rating scales in surveys. Perf Improv. 2018; 57:38–48. doi:10.1002/pfi.21763

[61]Hammarberg K, Kirkman M, De Lacey S. Qualitative research methods: when to use them and how to judge them. Hum Reprod. 2016; 31:498–501. doi:10.1093/humrep/dev334

[62] Nester MS, Hawkins SL, Brand BL. Barriers to accessing and continuing mental health treatment among individuals with dissociative symptoms. Eur J Psychotraumatol. 2022; 13:2031594. doi:10.1080/20008198.2022.2031594

[63] Liberati E, Richards N, Willars J, Scott D, Boydell N, Parker J, et al. A qualitative study of experiences of NHS mental healthcare workers during the Covid-19 pandemic. BMC Psychiatry. 2021; 21:250. doi:10.1186/s12888-021-03261-8

[64] Rudolph JE, Zhong Y, Duggal P, Mehta SH, Lau B. Defining representativeness of study samples in medical and population health research. BMJ Med. 2023; 2:e000399. doi:10.1136/bmjmed-2022-000399

[65] Cormier JF, Thelen MH. Professional skepticism of multiple personality disorder. Professional Psychology: Research and Practice. 1998; 29:163–167. doi:10.1037/0735-7028.29.2.163

[66] Kaur M. Application of mixed method approach in public health research. Indian J Community Med. 2016; 41:93. doi:10.4103/0970-0218.173495

[67] Stratton SJ. Population research: convenience sampling strategies. Prehospital and Disaster Medicine. 2021; 36:373–374. doi:10.1017/S1049023X21000649

[68] Pizzo E, Doyle C, Matthews R, Barlow J. Patient and public involvement: how much do we spend and what are the benefits? Health Expectations. 2015; 18:1918–1926. doi:10.1111/hex.12204

[69] Gabbidon J, Clement S, Van Nieuwenhuizen A, Kassam A, Brohan E, Norman I, et al. Mental Illness: Clinicians' Attitudes (MICA) Scale—psychometric properties of a version for healthcare students and professionals. Psychiatry Research. 2013; 206:81–87. doi:10.1016/j.psychres.2012.09.028

[70] Schafer T, Wood S, Williams R. A survey into student nurses' attitudes towards mental illness: Implications for nurse training. Nurse Education Today. 2011; 31:328–332. doi:10.1016/j.nedt.2010.06.010

[71] Rose N, Kent S, Rose J. Health professionals' attitudes and emotions towards working with adults with intellectual disability (ID) and mental ill health. J Intellect Disabil Res. 2012; 56:854–864. doi:10.1111/j.1365-2788.2011.01476.x

[72] Waugh W, Lethem C, Sherring S, Henderson C. Exploring experiences of and attitudes towards mental illness and disclosure amongst health care professionals: a qualitative study. Journal of Mental Health. 2017; 26:457–463. doi:10.1080/09638237.2017.1322184

[73] Larson RB. Controlling social desirability bias. International Journal of Market Research. 2019; 61:534–547. doi:10.1177/1470785318805305

[74] Černis E, Loe BS, Lofthouse K, Waite P, Molodynski A, Ehlers A, et al. Measuring dissociation across adolescence and adulthood: developing the short-form Černis Felt Sense of Anomaly scale (ČEFSA-14). Behav Cogn Psychother. 2024; 52:163–177. doi:10.1017/S1352465823000498

[75] Carlson EB, Putnam FW. An update on the Dissociative Experiences Scale. *Dissociation: Progress in the Dissociative Disorders*. 1993; 6(1):16–27.

[76] Blair G, Imai K, Zhou Y-Y. Design and analysis of the randomized response technique. Journal of the American Statistical Association. 2015; 110:1304–1319. doi:10.1080/01621459.2015.1050028

[77] Funke F, Reips U-D, Thomas RK. Sliders for the smart: type of rating scale on the web interacts with educational level. Social Science Computer Review. 2011; 29:221–231. doi:10.1177/0894439310376896

[78] Couper MP, Traugott MW, Lamias MJ. Web survey design and administration. Public Opinion Quarterly. 2001; 65:230–253. doi:10.1086/322199

[79] Data Protection Act 2018, c. 12. [Internet]. 2018 [cited 2024 Jun 4]. Available from: https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted

[80] British Psychological Society. Ethics guidelines for internet-mediated research. 2021 [cited 2024 Jun 4]. Available from: https://explore.bps.org.uk/content/report-guideline/bpsrep.2021.rep155/chapter/bpsrep.2021.rep155.5

[81] Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. 2005 Nov; 15(9):1277–88. doi:10.1177/1049732305276687

[82] Tufford L, Newman P. Bracketing in Qualitative Research. Qualitative Social Work. 2012; 11:80–96. doi:10.1177/1473325010368316

[83] Bengtsson M. How to plan and perform a qualitative study using content analysis. NursingPlus Open. 2016; 2:8–14. doi:10.1016/j.npls.2016.01.001

[84] Thirkettle C, Oduola S, McEntegart L, Beazley P. Using Twitter to Compare Attitudes Towards Schizophrenia and Psychosis: Investigating the Prevalence of Stigma. Mental Health Science. 2025; 3:e70026. doi:10.1002/mhs2.70026

[85] Passerello GL, Hazelwood JE, Lawrie S. Using Twitter to assess attitudes to schizophrenia and psychosis. BJPsych Bull. 2019; 43:158–166. doi:10.1192/bjb.2018.115

[86] Reavley NJ, Pilkington PD. Use of Twitter to monitor attitudes toward depression and schizophrenia: an exploratory study. PeerJ. 2014; 2:e647. doi:10.7717/peerj.647

[87] Huxley K (2020) Content analysis, quantitative. In: Atkinson P, Delamont S, Cernat A, Sakshaug JW, Williams RA (ed) SAGE research methods foundations. SAGE Publications Limited

[88] Cohen J. A power primer. In: Kazdin AE, editor. Methodological issues and strategies in clinical research (4th ed). Washington: American Psychological Association; 2016. pp. 279–284. doi:10.1037/14805-018

[89] IBM (2025). Cramér's V. https://www.ibm.com/docs/en/cognos-analytics/11.1.0?topic=terms-cramrs-v; 2025 [accessed 10 January 2026].

[90] Simeon D, Putnam F. Pathological Dissociation in The National Comorbidity Survey Replication (NCS-R): Prevalence, Morbidity, Comorbidity, and Childhood Maltreatment. Journal of Trauma & Dissociation. 2022; 23:490–503. doi:10.1080/15299732.2022.2064580

[91] Schäfer J. Depersonalization/derealization disorder: A comprehensive theoretical formulation. European Journal of Trauma & Dissociation. 2025; 9:100597. doi:10.1016/j.ejtd.2025.100597

[92] Gupta S, Kumar A, Kathiresan P, Pakhre A, Pal A, Singh V. Mental health stigma and its relationship with mental health professionals – A narrative review and practice implications. Indian Journal of Psychiatry. 2024; 66:336–346. doi:10.4103/indianjpsychiatry.indianjpsychiatry_412_23

[93] Bestel NSA, Williamson DC, Tirlea L, Mackelprang JL. Dissociation training and symptom identification accuracy among Australian psychologists. Psychological Trauma: Theory, Research, Practice, and Policy. 2025; 17:1707–1716. doi:10.1037/tra0001717

[94] Corrigan P, Markowitz FE, Watson A, Rowan D, Kubiak MA. An Attribution Model of Public Discrimination Towards Persons with Mental Illness. Journal of Health and Social Behavior. 2003; 44:162. doi:10.2307/1519806

[95] Keiding N, Louis TA. Web-Based Enrollment and Other Types of Self-Selection in Surveys and Studies: Consequences for Generalizability. Annu Rev Stat Appl. 2018; 5:25–47. doi:10.1146/annurev-statistics-031017-100127

[96] Durmaz A, Dursun İ, Kabadayi ET. Mitigating the Effects of Social Desirability Bias in Self-Report Surveys: Classical and New Techniques. In: Baran ML, Jones JE, editors. Advances in Library and Information Science. IGI Global; 2020. pp. 146–185. doi:10.4018/978-1-7998-1025-4.ch007

[97] Hofmann W, Gawronski B, Gschwendner T, Le H, Schmitt M. A Meta-Analysis on the Correlation Between the Implicit Association Test and Explicit Self-Report Measures. Pers Soc Psychol Bull. 2005; 31:1369–1385. doi:10.1177/0146167205275613

Chapter Six: Additional Methods for Empirical Project

This chapter presents supplementary material that supports the methods of the empirical project described in Chapter 5. It includes details of the patient and public involvement (PPI), an extended discussion of ethical considerations, the coding manuals and professionals categories.

Patient and Public Involvement (PPI)

PPI informed the development of the survey. Expert clinicians were invited to review survey items and suggest refinements (or additions) based on their clinical experience with dissociation. For example, items on the knowledge and understanding of depersonalisation were suggested. A person with lived experience also provided feedback and refinements to enhance the relevance of the survey. For example, the '3 words' items were suggested. Finally, researchers with relevant methodological expertise reviewed the survey to ensure a mixed-methods design and analysis was suitable. Feedback from all contributors were incorporated prior to data collection.

Ethical Considerations

The ethical considerations are discussed in accordance with the British Psychological Society (BPS, 2021b) Ethics Guidelines For Internet-Mediated Research, the BPS (2021c) Code of Human Research Ethics, and Data Protection Act (2018).

Respect for Autonomy, Privacy and Dignity

Informed consent was sought from participants to use de-identified data and anonymised quotes for publications in peer-reviewed journals. Participants were free to withdraw at any time without giving a reason by closing the web address. However, they were informed their answers may be saved and included in the analysis. They were reminded not to include identifiable information in their answers, and every endeavour was taken to maintain confidentiality (e.g., redacting identifiable

data or IP addresses before analysis, storing names and emails separately from answers and deleting these after the prize draw). Participants could request their name and email to be deleted at any time by contacting the research team. Qualtrics is compliant with the Data Protection Act (2018) by encrypting and deleting survey data when it is downloaded and transferred into storage. This survey data was stored on a secure UoB and UEA server upon completion and the anonymised dataset was accessible only to the research team (using a data sharing agreement form). All data was stored with password protection for 10 years upon publication. Participants were informed of the research aims.

Scientific Integrity

This concerns the quality, control and validity of our study. Although non-experimental, we hoped the use of randomised question blocks, reminders to answer honestly, skippable and 'prefer not to say' options, and use of rating-scales minimised the potential for inaccurate or misleading survey results (Mayer, 2021). We also considered the impact of 'bots' completing the survey. We hoped that free-text items and checking for repetitions helped to mitigate bots (Storozuk et al., 2020).

Social Responsibility

We hoped the broad staff eligibility criteria minimised any under-representation of clinicians or views about dissociation. The prize draw also provided some compensation for the time and effort to finish the survey but not disproportionally large as to promote coercion (Millum & Garnett, 2019).

Maximising Benefit and Minimising Harm

In addition to the burden of completing the survey, as staff are busy, we accepted that some items may be sensitive. This includes the 'experience' of dissociation block, which may potentially result in some distress. To support with any negative reactions, participants were shown a debrief screen at the end, providing support services available. These included links to NHS staff support websites, the text support service 'shout', and recommendations to contact a GP, the Samaritans or 999 if an emergency. Staff had an option to skip most items.

Coding Manuals for Qualitative Data

'If you had to choose 3 words to describe dissociation / a patient with dissociation, what would they be?' [free text]

Manual was supported by Passarello et al. (2019); Reavley et al. (2014); and Thirkettle et al. (2025)

Exclusion criteria

Prior to full coding, each word will be screened and excluded based on the following criteria:

- Lack of context: where the word is unable to be understood or categorised.
- Non-English: where the word is not in English.

Coding framework

Each word is coded into one of three attitude categories:

- Stigmatising
- Supportive
- Neutral or symptom-based

General guidance for coding:

- Ratings focus on **how the reader may experience the word** as a mental health clinician (e.g., does the word 'appear' stigmatising, supportive, or neutral?).
- If the intended meaning of the word is not clear, consider whether it is still possible to categorise the word (e.g., does it 'appear' supportive?). Overall confidence ratings may be lower in these cases (i.e., ≤ 2/4).
- Do not google the word to check for understanding or its intended meaning.
- During coding, take at least a 10 minute break for every hour of coding.

Confidence ratings (0-4) are the following:

- 4 = category clearly relevant and applies to this word.
- 3 = probably relevant and applies, but some doubt as to context or intended meaning.
- 2 = may apply, but significant uncertainty as to meaning.
- 1 = probably does not apply.
- 0 = not relevant and does not apply.

Words with a rating of ≤ 2 will be **excluded** from the analysis.

Table 1

Coding Framework for Survey Questions: '3 Words'

Attitude category - choose one; rate confidence from 0-4			
		Example words	
Attitude category	Definition	Dissociation	Patient with dissociation
Stigmatising	A word that expresses a negative attitude or belief towards dissociation / a patient with dissociation.	• Complex • Treatment-resistant • Generational • Strange	• Secondary-gain • Attention-seekers • Naive • Unstable
Supportive	A word that is <u>unambiguously</u> supportive OR promotes a reduction in stigma towards dissociation / a patient with dissociation.	• Understandable • Coping • Protective • Common	• Survivor • Creative • Resilient • Compassion
Neutral or symptom-based	A word that expresses a neutral attitude or belief, OR describes a symptom for dissociation / a patient with dissociation.	• Detachment • Trauma • Floating • Distant	• Traumatised • Disconnected • Zoned-out • Numb

Table 2

Confidence Ratings in Classification of Words (CJ)

Confidence rating	Survey questions		Overall confidence rating across questions
	3 words to describe dissociation	3 words to describe a patient with dissociation	
4 - category clearly relevant and applies to this word	89.1% 350/393	69.0% 252/365	79.4% 602/758
3 - probably relevant and applies, but some doubt as to context or intended meaning	10.2% 40/393	29.3% 107/365	19.4% 147/758
2 - may apply, but significant uncertainty as to meaning	0% 0/393	0.6% 2/365	0.3% 2/758

1 - probably does not apply	0.3% 1/393	0.8% 3/365	0.9% 4/758
0 - not relevant and does not apply	0.5% 2/393	0.3% 1/365	0.4% 3/758
Total words coded	390	359	

Table 3

Category-Specific Agreement for Inter-Rater Reliability: 3 Words (CJ & EK)

Survey questions	Agreement for attitude categories			Overall-agreement (across categories)
	Stigmatising	Supportive	Neutral or symptom-based	
If you had to choose 3 words to describe dissociation, what would they be? [free text]	82.8% 48/58	93.6% 73/78	89.8% 228/254	89.5% 349/390
If you had to choose 3 words to describe a patient with dissociation, what would they be? [free text]	86.5% 77/89	100% 68/68	96.5% 195/202	94.7% 340/359

Note. Percentages refer to basic agreement. All words were selected for inter-rater reliability.

‘You are talking with a patient, and they tell you that they think they have dissociation…

What are your very first thoughts and feelings in response to this?’ [free text]

Manual was supported by Passarello et al. (2019); Reavley et al. (2014); and Thirkettle et al. (2025)

Exclusion criteria

Prior to full coding, each response will be screened and excluded based on the following criteria:

- Lack of context: where the response is unable to be understood or categorised by the reader.
- Non-English: where the response is not in English.
- Repetition: where the content of the response is identical to another response in the dataset.

Coding framework

Each response is coded into one of three attitude categories:

- Sceptical
- Supportive
- Curious

General guidance for coding:

- Ratings focus on **how the reader may experience the response** as a mental health clinician (e.g., does the response 'appear' sceptical, supportive, or curious?).
- If the intended meaning of the response is not clear, consider whether it is still possible to categorise the response (e.g., does it 'appear' supportive?). Overall confidence ratings may be lower in these cases (i.e., ≤ 2/4).
- Do not google words in the response to check for understanding or its intended meaning.
- During coding, take at least a 10 minute break for every hour of coding.

Confidence ratings (0-4) are the following:

- 4 = category clearly relevant and applies to this response.
- 3 = probably relevant and applies, but some doubt as to context or intended meaning.
- 2 = may apply, but significant uncertainty as to meaning.
- 1 = probably does not apply.
- 0 = not relevant and does not apply.

Responses with a rating of ≤ 2 will be **excluded** from the analysis.

Table 4

Coding Framework for Survey Question: First Thoughts and Feelings

Attitude category	Definition	Example responses
Sceptical	The clinician expresses scepticism, doubt, diagnostic uncertainty, or suspicion about the patient's self-report of having dissociation. This stance may include references to social media influence, secondary gain, or questioning the legitimacy of the claim they have dissociation (e.g., it appears stigmatising; a negative attitude or belief).	• "Are they really dissociating or have they seen something in the media?" • "Likely tied to a personality disorder. Likely secondary gain". • "I don't generally believe them".

		• "What have they been reading/watching? This might take some unpicking".
Supportive	The clinician unambiguously expresses support (e.g., empathy, validation, reassurance), OR is anti-stigmatising, by promoting a reduction in stigma to help the patient. This stance may include normalising the experience of dissociation, offering comfort, or planning interventions.	• "Offer reassurance that it is a 'thing' and ask them if they can describe how they feel". • "Empathy as I believe I have experienced dissociation and can understand how unpleasant it can be". • "Thank you for telling me. Thinking how I can best support them". • "My first thoughts would be empathy and concern for the person's well-being".
Curious	The clinician expresses a desire to explore, understand, or gather information about the patient's experience of dissociation. Curiosity may be shown through questions, wondering, or interest in the meaning, triggers/cause and context of dissociation, OR through expressing a neutral and inquisitive stance (e.g., without an emotional judgment or tone).	• "I want to explore this further, particularly their understanding of dissociation". • "What does this physically feel like?" • "I am interested to know how they make sense of this". • "Tell me more about what this looks and feels like for you".

Table 5

Confidence Ratings in Classification of Responses to 'First Thoughts and Feelings' (CJ)

Confidence rating	'What are your very first thoughts and feelings in response to this? [free text]'
4 - category clearly relevant and applies to this response	69.6% 94/135
3 - probably relevant and applies, but some doubt as to context or intended meaning	26.7% 36/135
2 - may apply, but significant uncertainty as to meaning	1.5% 2/135

1 - probably does not apply	1.5% 2/135
0 - not relevant and does not apply	0.7% 1/135
Total responses coded	130

Table 6

Category-Specific Agreement for Inter-Rater Reliability: First Thoughts and Feelings (CJ & EK)

Survey question	Agreement for attitude categories			Overall-agreement (across categories)
	Sceptical	Supportive	Curious	
What are your very first thoughts and feelings in response to this? [free text]	80% 12/15	89.5% 34/38	92.2% 71/77	90% 117/130

Note. Percentages refer to basic agreement. All responses were selected for inter-rater reliability.

Table 7

Group Allocation of Professional Roles For Exploratory Analysis (Binary Split)

Medical and Nursing (*n* = 49)	Psychological and Allied Health (*n* = 86)
Registered Medical (*n* = 12)	Registered Psychological (*n* = 39)
Registered Nursing (*n* = 27)	Registered Allied Health and Social Care (*n* = 11)
Support Worker (*n* = 8)	Trainee Clinical Psychologist (*n* = 13)
Nursing student/apprentice (*n* = 2)	Trainee Clinical Associate in Psychology (*n* = 2)
	Assistant Psychologist (*n* = 11)
	Lived Experience Practitioner (*n* = 2)
	Adult Social Care Practitioner (*n* = 1)
	Mental Health Welfare Advisor (*n* = 1)
	Other allied health/social care not specified (*n* = 6)

Chapter Seven: Additional Results for Empirical Project

This chapter presents supplementary material that supports the results of the empirical project described in Chapter 5. This includes the trustworthiness of different information sources on dissociation, the exploration of main findings by professional background, training and experience with dissociation, word clouds for the '3 words' responses, and the normality assumption tests for all quantitative continuous variables.

Trustworthiness of Different Information Sources

Table 1

Trustworthiness of Different Information Sources About Dissociation

Information Sources	*n*	%	Pearson's Chi-Square (χ^2)	Effect size (*Cohen's* ω)
Film			97.65*	.86
Completely untrustworthy	32	24.1		
Somewhat untrustworthy	80	60.2		
Neutral / unsure	14	10.5		
Somewhat trustworthy	7	5.3		
Completely trustworthy	0	0		
TV series			93.27*	.84
Completely untrustworthy	33	25.0		
Somewhat untrustworthy	78	59.1		
Neutral / unsure	15	11.4		
Somewhat trustworthy	6	4.5		
Completely trustworthy	0	0		
Fiction books			54.73*	.64
Completely untrustworthy	33	25.0		
Somewhat untrustworthy	67	50.8		
Neutral / unsure	22	16.7		
Somewhat trustworthy	10	7.6		
Completely trustworthy	0	0		
Traditional news (e.g., tv, newspapers, radio)			89.22*	.82
Completely untrustworthy	14	10.5		
Somewhat untrustworthy	65	48.9		
Neutral / unsure	33	24.8		
Somewhat trustworthy	20	15		
Completely trustworthy	1	0.8		
Online news			89.67*	.82

Completely untrustworthy	21	15.8		
Somewhat untrustworthy	66	49.6		
Neutral / unsure	30	22.6		
Somewhat trustworthy	15	11.3		
Completely trustworthy	1	0.8		
Facebook/Meta			73.27*	.75
Completely untrustworthy	55	41.7		
Somewhat untrustworthy	60	45.5		
Neutral / unsure	10	7.6		
Somewhat trustworthy	7	5.2		
Completely trustworthy	0	0		
Telegram			74.92*	.76
Completely untrustworthy	45	34.6		
Somewhat untrustworthy	38	29.2		
Neutral / unsure	43	33.1		
Somewhat trustworthy	3	2.3		
Completely trustworthy	1	0.8		
Instagram			58.68*	.67
Completely untrustworthy	49	37.7		
Somewhat untrustworthy	59	45.4		
Neutral / unsure	13	10.0		
Somewhat trustworthy	9	6.9		
Completely trustworthy	0	0		
TikTok			63.35*	.70
Completely untrustworthy	57	43.5		
Somewhat untrustworthy	54	41.2		
Neutral / unsure	10	7.6		
Somewhat trustworthy	10	7.6		
Completely trustworthy	0	0		
Twitter/X			58.04*	.67
Completely untrustworthy	54	41.2		
Somewhat untrustworthy	55	42.0		
Neutral / unsure	13	9.9		
Somewhat trustworthy	9	6.9		

Completely trustworthy	0	0		
YouTube			19.08*	.38
Completely untrustworthy	31	23.7		
Somewhat untrustworthy	53	40.5		
Neutral / unsure	28	21.4		
Somewhat trustworthy	19	14.4		
Completely trustworthy	0	0		
Reddit			30.80*	.49
Completely untrustworthy	37	28.5		
Somewhat untrustworthy	54	41.5		
Neutral / unsure	29	22.3		
Somewhat trustworthy	10	7.7		
Completely trustworthy	0	0		
Other[a]			2.06 (p = .560)	.35
Completely untrustworthy	0	0		
Somewhat untrustworthy	4	23.5		
Neutral / unsure	5	29.4		
Somewhat trustworthy	6	35.3		
Completely trustworthy	2	11.8		

[a] Other included: journal articles/research publications (n = 5), NICE guidelines (n = 1), online medical website (n = 1), Google (n = 1) and other not specified (n = 9).
*p<.001.

Summary: The frequency of reporting 'somewhat' or 'complete' trustworthiness was low across sources (range = 3.1%-15.8%). Entertainment media (e.g., film, TV series, fiction books) and social media platforms (e.g., Facebook, Instagram, TikTok) were predominantly rated as 'untrustworthy' sources of information, whereas traditional news and online news drew mixed ratings, with more ratings of uncertainty and some endorsement of trustworthiness for these sources.

Exploration of Main Findings by Professional Background

Table 2

Continuous Variables by Professional Background

Variable	Main professional background				*Mann-Whitney U* statistic	Effect size *(r)*
	Medical and Nursing		Psychological and Allied Health			
Block 1	*Median*	*IQR*	*Median*	*IQR*		
Confidence in understanding of dissociation	79.5	35	70	20	1487.0 p =.312	.09
Confidence in understanding of depersonalisation	70.5	40	56	25	719.5 p =.017*	.25
Block 2	*Median*	*IQR*	*Median*	*IQR*		
How common is dissociation	60	40	52.5	39	2219.5 p =.606	.04
How much of a problem is dissociation	60	39	60	20	2356.0 p =.253	.09
How dangerous is dissociation	59	50	49.5	42	1824.5 p =.196	.11
How treatable is dissociation	63	37	70	28	2447.0 p =.119	.13
How stigmatised is dissociation	72.5	36	69.5	31	1990.0 p =.592	.05
Is dissociation more biological or psychological	79.5	43	80	30	2102.5 p =.983	.00
What % of UK population have ever experienced dissociation (in their lives)	60	59	60	48	2252.5 p =.263	.09
What % of UK population have experienced dissociation (past month)	29	43	25	33	2058.5 p =.617	.04

Overall, young people's attitudes to dissociation are..	50	25	40	25	1811.5 p =.169	.11
Overall, clinician's attitudes to dissociation are..	50	20	50	20	2175.0 p =.753	.03
There is a place for dissociation in core clinical training	90	30	100	20	2487.0 p =.064	.16
Block 3	*Median*	*IQR*	*Median*	*IQR*		
Dissociation is just a fad	10	29	0	17	1609.0 p =.024*	.20
Dissociation is something a minority of doctors diagnose…	29	41	19.5	37	1631.5; p =.044*	.17
Dissociation is rare	25	45	20	36	1632.0 p =.046*	.17
Dissociation is caused by trauma	80	24	74	27	1619.0 p =.040*	.18
Dissociation isn't a real mental health problem…	7	36	0	19	1647.5 p =.043*	.18
Block 4	*Median*	*IQR*	*Median*	*IQR*		
ČEFSA-14 scale total score	10.5	13.5	10	11	1964.0 p =.698	.03

Note. $r \approx .10$ = small association; $r \approx .30$ = medium association; $r \approx .50$ = large association.
*p<.05.

(Categorical variables by professional background presented on next page)

Table 3

Categorical Variables by Professional Background

Variable	Main professional background				Fisher's Exact test (two-tailed *p*-value)	Effect size (Cramér's *V*)
	Medical and Nursing		Psychological and Allied Health			
Block 1	*n*	%	*n*	%		
Have you heard of dissociation					*p* = .535	.09
Yes	47	100	81	97.6		
No	*0*	0	2	2.4		
Do you think you know what dissociation is					*p* = 1.000	.00
Yes	44	91.7	76	91.6		
No	4	8.3	7	8.4		
Do you think you know what depersonalisation is					*p* = 1.000	.00
Yes	34	72.3	60	72.3		
No	13	27.7	23	27.7		
Did you receive core training on dissociation					*p* = .451	.11
Yes	12	25.5	30	36.1		
No	31	66.0	48	57.8		
Don't know	4	8.5	5	6.0		
Did you receive additional training on dissociation					*p* = .210	.16
Yes	9	19.1	23	27.7		
No	38	80.9	57	68.7		
Don't know	0	0	3	3.6		
Block 2	*n*	%	*n*	%		
3 words to describe dissociation:					*p*<.001**	.20
Stigmatising	31	21.8	27	10.9		
Supportive	16	11.3	62	25.0		
Neutral	95	66.9	159	64.1		
3 words to describe a patient with dissociation:					*p*<.001**	.20
Stigmatising	43	34.4	45	19.3		
Supportive	14	11.2	54	23.2		
Neutral	68	54.4	134	57.5		
First thoughts and feelings:					*p* = 1.000	.02
Sceptical	5	10.9	10	11.9		
Supportive	14	30.4	24	28.6		
Curious	27	58.7	50	59.5		

Block 4	*n*	%	*n*	%		
Do you think you have worked with patients with dissociation					*p* = .082	.22
Yes	40	85.1	78	95.1		
No	1	2.1	2	2.4		
Don't know	4	8.5	2	2.4		
Prefer not to say	2	4.3	0	0		
Do you think you experience / have ever experienced dissociation					*p* = .028*	.26
Yes	27	58.7	47	57.3		
No	18	39.1	20	24.4		
Don't know	1	2.2	13	15.9		
Prefer not to say	0	0	2	2.4		
Do you have a friend or a relative who experiences has ever experienced dissociation					*p* = .423	.14
Yes	18	39.1	38	46.3		
No	17	37.0	20	24.4		
Don't know	10	21.7	23	28.0		
Prefer not to say	1	2.2	1	1.2		
ČEFSA-14 scale score					*p* = .420	.13
Average	43	93.5	76	92.7		
Elevated	2	4.3	6	7.3		
Severe	1	2.2	0	0		

Note. $V \leq .20$ = weak association; .21–.59 = moderate association; ≥.60 = strong association.
*$p<.05$. **$p<.001$.

(Exploration of main findings by training on dissociation presented on next page)

Exploration of Quantitative Variables by Training on Dissociation

Table 4

Continuous Variables by Training on Dissociation

Variable	Received core and / or additional training on dissociation				*Mann-Whitney U statistic*	Effect size *(r)*
	Yes		No			
Block 1	*Median*	*IQR*	*Median*	*IQR*		
Confidence in understanding of dissociation	75	25	64.5	28	1058.5, $p<.001$**	.35
Confidence in understanding of depersonalisation	67	36	50	29	788.5, $p=.019$*	.24
Block 2	*Median*	*IQR*	*Median*	*IQR*		
How common is dissociation	55.5	39	50	40	1816, $p=.228$	.11
How much of a problem is dissociation	59	30	60	25	2306, $p=.269$	.09
How dangerous is dissociation	32.5	40	60	40	2971, $p<.001$**	.37
How treatable is dissociation	76.5	26	65	29	1410, $p=.002$*	.27
How stigmatised is dissociation	66	29	70	38	2385, $p=.141$	.20
Is dissociation more biological or psychological	80	27	77	40	1862, $p=.245$	.10
What % of UK population have ever experienced dissociation in their lives	70	50	50	49	1484.5, $p=.008$*	.23
What % of UK population have experienced dissociation in the past month	25.5	35	25	40	1834.5, $p=.383$	.07

Overall, young people's attitudes to dissociation..	47	23	42	30	1902, p =.417	.07
Overall, clinician's attitudes to dissociation..	50	14	43	24	1867, p =.330	.08
There is a place for dissociation in core clinical training	100	20	92.5	25	1903, p =.397	.07
Block 3	*Median*	*IQR*	*Median*	*IQR*		
Dissociation is just a fad	0	10	7	20	2273, p =.242	.10
Dissociation is something a minority of doctors diagnose…	22	50	21	50	2123, p =.704	.03
Dissociation is rare	19.5	37	24	41	2381, p =.107	.14
Dissociation is caused by trauma	75.5	34	75	28	2000, p =.834	.02
Dissociation isn't a real mental health problem…	1.5	20	4	20	2085.5, p =.835	.02
Block 4	*Median*	*IQR*	*Median*	*IQR*		
ČEFSA-14 scale total score	10	9.75	11.5	13	2281, p =.203	.11

*p<.05. **p<.001.

(Categorical variables by training on dissociation presented on next page)

Table 5

Categorical Variables by Training on Dissociation

Variable	Received core and / or additional training on dissociation				*Fisher-Freeman-Halton Exact test* (two-tailed p-value)	Effect size (Cramér's *V*)
	Yes		No			
Block 1	*n*	%	*n*	%		
Have you heard of dissociation					$p = .506$	.11
Yes	56	100	72	97.3		
No	0	0	2	2.7		
Do you think you know what dissociation is					$p = .005$*	.25
Yes	56	100	64	86.5		
No	0	0	10	13.5		
Do you think you know what depersonalisation is					$p<.001$*	.37
Yes	51	91.1	43	58.1		
No	5	8.9	31	41.9		
Block 4	*n*	%	*n*	%		
Do you think you have worked with patients with dissociation					$p = .130$	.21
Yes	54	96.4	64	88.9		
No	0	0	3	4.2		
Don't know	1	1.8	5	6.9		
Prefer not to say	1	1.8	0	0		
Do you think you experience / have ever experienced dissociation					$p = .652$	.13
Yes	35	62.5	39	54.2		
No	15	26.8	23	31.9		
Don't know	6	10.7	8	11.1		
Prefer not to say	0	0	2	2.8		

Do you have a friend or a relative who experiences / has ever experienced dissociation					$p = .766$	.09
Yes	25	44.6	31	43.1		
No	18	32.1	19	26.3		
Don't know	12	21.4	21	29.2		
Prefer not to say	1	1.8	1	1.4		
ČEFSA-14 Scale severity score					$p = .464$	.13
Average	54	96.4	65	90.3		
Elevated	2	3.6	6	8.3		
Severe	0	0	1	1.4		

*$p<.01$.

(Exploration of main findings by experience with dissociation presented on next page)

Exploration of Quantitative Variables by Experience with Dissociation

Table 6

Continuous Variables by Experience with Dissociation

Variable	'Do you think you experience / have ever experienced dissociation?'						*Kruskal-Wallis Test statistic*	Effect size (η^2_H)
	Yes		No		Don't know			
Block 1	*Median*	*IQR*	*Median*	*IQR*	*Median*	*IQR*		
Confidence in understanding of dissociation	70	29	70	28	55	28	6.501, p = .039*	.04
Confidence in understanding of depersonalisation	68	34	56	38	50	18	5.388, p = .068	.04
Block 2	*Median*	*IQR*	*Median*	*IQR*	*Median*	*IQR*		
How common is dissociation	63.5	33	39.5	41	37.5	33	12.681, p = .002*	.09
How much of a problem is dissociation	60	20	60	33	59	23	0.012, p = .994	.02
How dangerous is dissociation	50	49	58	42	45	51	4.223, p = .121	.02
How treatable is dissociation	70.5	26	69.5	30	73.5	36	1.718, p = .423	.00
How stigmatised is dissociation	65	40	75.5	31	69.5	29	3.627, p = .163	.01
Is dissociation more biological or psychological	80.5	39	79.5	39	77.5	21	0.564, p = .754	.01
What % of UK population have ever experienced dissociation in their lives	77	40	32	44	40	24	30.487, p<.001**	.23

What % of UK population have experienced dissociation in the past month	34	41	17	31	15	19	19.351, p<.001**	.14
Overall, young people's attitudes to dissociation..	50	22	31	30	42.5	23	3.768, p = .152	.01
Overall, clinician's attitudes to dissociation..	50	27	40	23	50	10	4.680, p = .096	.02
There is a place for dissociation in core clinical training	100	20	85	32	96	19	7.324, p = .026*	.04
Block 3	*Median*	*IQR*	*Median*	*IQR*	*Median*	*IQR*		
Dissociation is just a fad	0	19	7.5	20	2.5	23	2.496, p = .287	.00
Dissociation is something a minority of doctors diagnose…	19.5	50	28.5	40	20.5	35	2.771, p = .250	.01
Dissociation is rare	15	36	27	40	30.5	42	6.477, p = .039*	.04
Dissociation is caused by trauma	75	32	80	20	70	32	2.761, p = .251	.01
Dissociation isn't a real mental health problem…	0	21	3.5	19	5	20	0.325, p = .850	.01
Block 4	*Median*	*IQR*	*Median*	*IQR*	*Median*	*IQR*		
ČEFSA-14 scale total score	14.5	14.25	4.5	8	8	4.75	34.420, p<.001**	.26

Note. $\eta^2_H \leq .05$ = small effect; .06–.13 = medium effect; ≥.14 = large effect.
*p<.05. **p<.001.

(Categorical variables by experience with dissociation presented on next page)

Table 7

Categorical Variables by Experience with Dissociation

Variable	'Do you think you experience / have ever experienced dissociation?'						*Fisher-Freeman-Halton Exact test* (two-tailed *p*-value)	Effect size (Cramér's *V*)
	Yes		No		Don't know			
Block 1	*n*	%	*n*	%	*n*	%		
Have you heard of dissociation							*p* = 1.000	.08
Yes	73	98.6	38	100	14	100		
No	1	1.4	0	0	0	0		
Do you think you know what dissociation is							*p* = .458	.10
Yes	69	93.2	36	94.7	12	85.7		
No	5	6.8	2	5.3	2	14.3		
Do you think you know what depersonalisation is							*p* = .028*	.24
Yes	60	81.1	25	65.8	7	50		
No	14	18.9	13	34.2	7	50		
Did you receive core training on dissociation							*p* = .632	.12
Yes	25	33.8	11	28.9	6	42.9		
No	43	58.1	26	68.4	8	57.1		
Don't know	6	8.1	1	2.6	0	0		
Did you receive additional training on dissociation							*p* = .215	.15
Yes	23	31.1	7	18.4	2	14.3		
No	49	66.2	31	81.6	11	78.6		
Don't know	2	2.7	0	0	1	7.1		

Do you think you have worked with patients with dissociation							p = .027*	.21
Yes	72	97.3	32	84.2	13	92.9		
No	2	2.7	1	2.6	0	0		
Don't know	0	0	4	10.5	1	7.1		
Prefer not to say	0	0	1	2.6	0	0		
Do you have a friend or a relative who experiences / has ever experienced dissociation							p<.001**	.39
Yes	43	58.1	8	21.1	4	28.6		
No	10	13.5	24	63.2	3	21.4		
Don't know	21	28.4	5	13.2	7	50		
Prefer not to say	0	0	1	2.5	0	0		
Block 4	*n*	*%*	*n*	*%*	*n*	*%*		
ČEFSA-14 scale severity score							p =.183	.15
Average	66	89.2	38	100	14	100		
Elevated	7	9.5	0	0	0	0		
Severe	1	1.4	0	0	0	0		

*p<.05. **p<.001.

Word Clouds for Qualitative Data ('3 Words')

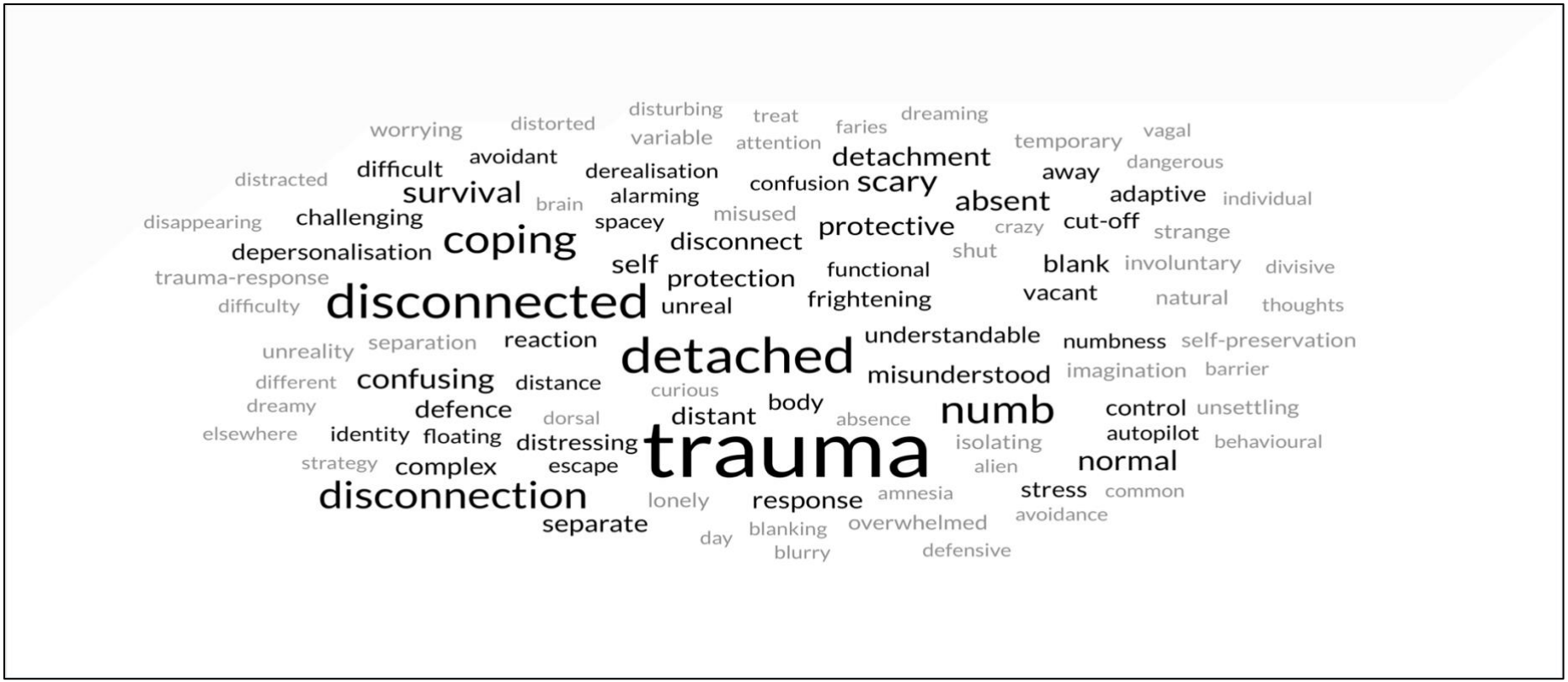
Question: 'If you had to choose 3 words to describe dissociation, what would they be?' [free text].

393 words were provided by 135 participants; **390** words were coded in the quantitative content analysis.

Below is a word cloud of 100 words from the list of 390 words. The most common words were trauma (*n* = 32), detached (*n* = 17), disconnected (*n* = 16), coping (*n* = 12), numb (*n* = 12) and disconnection (*n* = 11). There appeared to be a mixture of supportive words, neutral/symptom-based words and stigmatising words. (https://www.freewordcloudgenerator.com).

Figure 1

Word Cloud for '3 Words to Describe Dissociation'



Question: **'**If you had to choose 3 words to describe a patient with dissociation, what would they be?' [free text].

365 words were provided by 135 participants; **359** words were coded in the quantitative content analysis.

Below is a word cloud of 100 words from the list of 359 words. The most common words were traumatised (*n* = 34), trauma (*n* = 21), disconnected (*n* = 17), complex (*n* = 10) and confused (*n* = 10). There appeared to be a mixture of supportive words, neutral/symptom-based words and stigmatising words (https://www.freewordcloudgenerator.com/).

Figure 2

Word Cloud for '3 Words to Describe a Patient With Dissociation'



Exploration of Qualitative Variables by Training on Dissociation

Table 8

Qualitative Responses by Training on Dissociation

Variable	Received core and / or additional training on dissociation				*Fisher-Freeman-Halton Exact test* (two-tailed *p*-value)	Effect size (Cramér's *V*)
	Yes		No			
Qualitative responses coded	*n*	*%*	*n*	*%*		
'If you had to choose 3 words to describe dissociation, what would they be?' [free-text]					$p = .004$*	.17
Stigmatising	15	9.0	42	19.5		
Supportive	42	25.3	35	16.3		
Neutral	109	65.7	138	64.2		
'If you had to choose 3 words to describe a patient with dissociation, what would they be?' [free-text]					$p = .121$	.11
Stigmatising	32	21.1	54	27.3		
Supportive	36	23.6	31	15.6		
Neutral	84	55.3	113	57.1		
'You are talking with a patient, and they tell you that they have dissociation…What are your very first thoughts and feelings in response to this?' [free text]					$p = .455$	.12
Sceptical	4	7.1	10	14.1		
Supportive	18	32.1	19	26.8		
Curious	34	60.7	42	59.1		

*$p<.01$.

Exploration of Qualitative Variables by Experience with Dissociation

Table 9

Qualitative Responses by Experience with Dissociation

Variable	'Do you think you experience / have ever experienced dissociation?'						*Fisher-Freeman-Halton Exact test* (two-tailed *p*-value)	Effect size (Cramér's *V*)
	Yes		No		Don't know			
Qualitative responses coded	*n*	%	*n*	%	*n*	%		
'If you had to choose 3 words to describe dissociation, what would they be?' [free-text]							*p* =.013*	.18
Stigmatising	36	16.4	18	16.5	0	0		
Supportive	38	17.4	24	22.0	12	30.8		
Neutral	145	66.2	67	61.5	27	69.2		
'If you had to choose 3 words to describe a patient with dissociation, what would they be?' [free-text]							*p*<.001**	.18
Stigmatising	43	21.7	35	35.0	3	8.1		
Supportive	48	24.3	8	8.0	7	18.9		
Neutral	107	54.0	57	57.0	27	73.0		
'You are talking with a patient, and they tell you that they think they have dissociation…What are your very first thoughts and feelings in response to this?' [free text]							*p* = .193	.15
Sceptical	5	6.9	6	15.8	2	14.3		
Supportive	20	27.8	14	36.8	2	14.3		
Curious	47	65.3	18	47.4	10	71.4		

*p<.05. **p<.001.

Normality Assumption Tests for Quantitative Continuous Variables

Normality assumptions for quantitative data were assessed using skewness and kurtosis values, formal normality tests (e.g., Shapiro-Wilk), and visual inspection of distributions and plots. Recommendations for reporting practices provided by Field (2018).

Table 10

Skewness, Kurtosis, Visual Inspections and Test of Normality for Continuous Variables

Variable	Skewness	Kurtosis	Kolmogorov-Smirnov	Shapiro-Wilk	Visual inspection	Recommendations
Block 1						
Years spent in main professional role	1.39	1.13	$D(132) = .220$ $p<.001$	$W(132) = .816$ $p<.001$	Histogram: positively skewed Normal Q-Q plot: systematic curves Outliers: 6	Report the mean, median, *SD* and *IQR*
Confidence in understanding of dissociation	-0.58	0.04	$D(93) = .114$ $p = .005$	$W(93) = .953$ $p = .002$	Histogram: some negative skew Normal Q-Q plot: some curving, mostly normal Outliers: 0	Report the mean and *SD*

Confidence in understanding of depersonalisation	-0.29	-0.30	*D*(93) = .122 *p* = .002	*W*(93) = .963 *p* = .010	Histogram: some clustering on middle value Normal Q-Q plot: some curving, mostly normal Outliers: 2	Report the mean and *SD*
Block 2						
How common is it	0.01	-0.99	*D*(135) = .108 *p*<.001	*W*(135) = .965 *p* =.002	Histogram: multiple peaks, uneven spread Normal Q-Q plot: mostly normal Outliers: 0	Report the mean, median, *SD* and *IQR*
How much of a problem is it	-0.44	0.09	*D*(135) = .115 *p*<.001	*W*(135) = .971 *p* =.005	Histogram: evidence of mild negative skew Normal Q-Q plot: some curving Outliers: 3	Report the mean and *SD*
How dangerous is it	0.01	-0.98	*D*(135) = .079 *p* = .037	*W*(135) = .969 *p* =.004	Histogram: broad, possibly bimodal Normal Q-Q plot: appears normal Outliers: 0	Report the mean and *SD*

How treatable is it	-0.54	-0.21	$D(135) = .115$ $p<.001$	$W(135) = .963$ $p<.001$	Histogram: some negative skew, asymmetric Normal Q-Q plot: some curving Outliers: 0	Report the mean, median, *SD* and *IQR*
How stigmatised is it	-0.55	-0.45	$D(135) = .100$ $p = .002$	$W(135) = .952$ $p<.001$	Histogram: some mild skew, wide spread, no bell shape Normal Q-Q plot: some curving Outliers: 0	Report the mean, median, *SD* and *IQR*
Is it more biological or psychological	-0.69	-0.05	$D(135) = .138$ $p<.001$	$W(135) = .919$ $p<.001$	Histogram: negative skew, narrow spread Normal Q-Q plot: some curving Outliers: 0	Report the mean, median, *SD* and *IQR*
What percentage of the UK population have experienced dissociation ever in their lives	-0.17	-1.22	$D(132) = .111$ $p<.001$	$W(132) = .942$ $p<.001$	Histogram: Uniform distribution, extreme values at both ends Normal Q-Q plot: some curving	Report the mean, median, *SD* and *IQR*

					Outliers: 0	
What percentage of the UK population have experienced dissociation in the past month	0.89	-0.06	*D*(131) = .154 *p*<.001	*W*(131) = .900 *p*<.001	Histogram: strong positive skew, outliers Normal Q-Q plot: clear curving Outliers: 0	Report the mean, median, *SD* and *IQR*
Overall, young people's attitudes towards dissociation are..	0.17	0.21	*D*(135) = .248 *p*<.001	*W*(135) = .951 *p*<.001	Histogram: strong clustering in middle value, asymmetric dispersion Normal Q-Q plot: some curving Outliers: 2	Report the mean, median, *SD* and *IQR*
Overall, clinician's attitudes towards dissociation are..	0.43	0.19	*D*(135) = .182 *p*<.001	*W*(135) = .960 *p*<.001	Histogram: slight right skew, some clustering in middle value Normal Q-Q plot: some curving Outliers: 10	Report the mean, median, *SD* and *IQR*
There is a place for dissociation in core clinical training	-1.85	3.75	*D*(135) = .248 *p*<.001	*W*(135) = .736 *p*<.001	Histogram: significantly negatively skewed, ceiling effect evident	Report the mean, median, *SD* and *IQR*

					Normal Q-Q plot: significant curving Outliers: 5	
Block 3						
Dissociation is just a fad	1.89	3.43	*D*(133) = .256 *p*<.001	*W*(133) = .707 *p*<.001	Histogram: Extreme positive skew Normal Q-Q plot: significant curving Outliers: 7	Report median and *IQR*
Dissociation is something a minority of doctors diagnose…	0.70	-0.57	*D*(133) = .146 *p*<.001	*W*(133) = .889 *p*<.001	Histogram: Positively skewed, heavy clustering at low values and peak at mid-scale Normal Q-Q plot: some curving Outliers: 0	Report median and *IQR*
Dissociation is rare	0.80	-0.21	*D*(133) = .135 *p*<.001	*W*(133) = .904 *p*<.001	Histogram: skewed, bi-modal and asymmetric Normal Q-Q plot: some curving Outliers: 0	Report median and *IQR*

Dissociation is caused by trauma	-0.95	1.17	$D(133) = .102$ $p = .002$	$W(133) = .928$ $p<.001$	Histogram: strong negative skew Normal Q-Q plot: significant curving Outliers: 3	Report median and *IQR*
Dissociation isn't a real mental health problem…	2.06	3.87	$D(133) = .268$ $p<.001$	$W(133) = .674$ $p<.001$	Histogram: strong positive skew Normal Q-Q plot: significant curving Outliers: 11	Report median and *IQR*
Block 4						
ČEFSA-14 scale (total score)	1.07	1.59	$D(128) = .122$ $p<.001$	$W(128) = .921$ $p<.001$	Histogram: Positively skewed Normal Q-Q plot: some curving Outliers: 1	Report the mean, median, *SD* and *IQR*

Chapter Eight: Extended Discussion

This chapter provides an extended discussion of the thesis. It considers the main findings of the systematic review/meta-analysis, empirical paper, their strengths and limitations, alternative approaches, as well as the clinical and research implications for clinical psychology. Finally, the researcher's reflections on completing the thesis and overall conclusions are presented.

Summary of Main Findings

Systematic Review

The systematic review and meta-analysis examined the association between implicit and explicit stigma among mental health clinicians, addressing a long-standing gap in the literature. It highlighted a dearth of published research assessing the relationship between implicit and explicit stigma (10 studies), with no study published in the UK to date. Nevertheless, the limited evidence base was methodologically strong according to the QualSyst criteria (e.g., with no evidence of publication bias and only a minimal influence of outliers). Overall, the meta-analysis found a small but statistically significant correlation (r = .13) between implicit and explicit stigma, highlighting these constructs were only weakly related among mental health clinicians. Therefore, they could be considered largely distinct constructs. This supports the dual-process theories of implicit and explicit representations of stigma among mental health clinicians (González-Sanguino et al., 2019).

However, a significant moderate heterogeneity was present across the study designs, samples, measurements and associations reported. Indeed, the 95% prediction interval of the true correlation crossed zero, and this varied widely, from a slightly negative to moderately positive relationship (r = -.12 to .39). For instance, studies examining substance use disorder showed a slightly stronger correlation (r = .27) than for other psychiatric disorders such as schizophrenia. This finding can be difficult to interpret given the correlational design of studies, but some theorists propose that it could

be more ‘socially acceptable’ to be explicitly stigmatising to people with substance misuse (Magnan et al., 2024). This might lead to a stronger alignment between the implicit and explicit beliefs.

Implicit stigma was frequently measured using the IAT, or an implicit association-based measure, which varied substantially in procedure, stimuli, target and comparison categories. The explicit measures of stigma also varied in their content, length and response options, and only two studies used explicit measures designed to correspond directly to implicit attributes. Generally, the studies did not report the component of stigma being investigated (e.g., stereotypes, prejudice or discrimination) by the implicit or explicit measure of stigma. This limited the interpretability and comparability of findings across studies, as well as their relation to theories of stigma. Likewise, the response rates were generally low across studies, meaning the 1,404 clinicians included in the review may not fully represent the population of mental health clinicians. The review did not systematically synthesise the clinical outcomes of stigma, although data suggested that implicit and explicit stigma may influence different behavioural intentions and job-related outcomes among clinicians.

Empirical Project

The empirical project provided an up-to-date survey exploring the explicit attitudes and beliefs of NHS clinicians concerning dissociation. The paper offered new insight into professional perspectives within UK mental health services. Clinicians reported high awareness of dissociation, but showed only moderate (and highly variable) confidence in their knowledge. Formal training on dissociation was limited, despite strong advocation for its inclusion in curricula. Belief ratings were generally moderate, indicating neither strong endorsement nor rejection of dissociation’s prevalence, severity or dangerousness. However, dissociation was viewed as fairly treatable and psychological, aligning with trauma-informed models stated in the thesis introduction (Nikopaschos et al., 2025).

Endorsement of misinformed beliefs was low on average. However, wide variation across clinicians potentially reflected the ongoing uncertainty and controversy surrounding dissociation

(described earlier in the thesis). Qualitative responses further illustrated this pattern. While neutral or supportive language predominated, stigmatising terminology was more commonly applied to patients with dissociation than the phenomenon itself. This likely amplifies the "twofold challenge" faced by people with mental health conditions (Petkari et al., 2018). Stereotypes (e.g., negative or myth-based beliefs) and prejudice (e.g., negative attitudes) were reported by a minority of clinicians, indicating that cognitive and affective components of stigma may operate in some views towards dissociation (Corrigan & Shapiro, 2010). Most staff had also worked with patients who experience dissociation, suggesting it is a common, transdiagnostic experience found across mental health services.

Strengths of the Thesis Portfolio

Systematic Review

A key strength of the review is that it provides the first systematic pooling of correlations between implicit and explicit stigma among mental health clinicians, directly addressing a gap highlighted in the literature. The review moves beyond previous narrative discussions of implicit-explicit correlations by offering the first meta-analytic synthesis of studies investigating this enquiry among mental health clinicians. It also employed a rigorous search strategy, by drawing on multiple databases and search terms to capture the diverse terminology used to describe implicit and explicit stigma. This enhanced the breadth of the review and reduced the risk of overlooking relevant studies. The review process also provided high inter-rater agreement at screening, data extraction and quality appraisal stages, increasing our confidence in the reliability of study selection and the extracted data.

Methodologically, the review demonstrated several strengths compared to previous work on clinician stigma. It incorporated a formal critical appraisal using the QualSyst tool, which indicated the included studies were generally of strong methodological quality. Our synthesis was strengthened by a range of additional statistical tests, including sensitivity analyses, tests for publication bias and the calculation of a 95% prediction interval, allowing for a more robust interpretation of our findings.

The inclusion of moderator analyses also allowed our review to identify substance use disorder as a key moderator in which implicit and explicit stigma align more strongly, offering novel clinical and theoretical insights. Research was drawn from several countries, healthcare settings, and professional groups of mental health clinicians, thereby broadening the scope of the review's findings.

Finally, the review makes a valuable theoretical contribution by linking the findings to dual-process models. By demonstrating only a weak association between implicit and explicit stigma, the review provides empirical support for the 'related but distinct' dimensions of these constructs among mental health staff (Schmidt et al., 2022). This has implications for how stigma is conceptualised and addressed in mental health settings. It also highlights the potential for implicit and explicit processes to differentially influence the intentions and behaviours of mental health clinicians. However, it is recognised that firm conclusions about these secondary outcomes could not be drawn because of our search strategy and synthesis.

Empirical Project

A key strength of the empirical project is its mixed-methods design. The quantitative items provided a descriptive overview of attitudes, beliefs, and knowledge, while the free-text data offered insight into how clinicians conceptualise dissociation and respond to patients. Our content analysis then enabled these qualitative responses to be coded and systematically summarised. This approach complemented our quantitative findings, and supported the interpretation of brief free-text data. The survey was also pre-registered on the OSF, which enhances the reproducibility and methodological rigour of findings, alongside our transparent reporting of descriptive statistics. The survey was also co-designed by clinicians and experts by experience, which improves the meaningfulness of results and supports best practice in contemporary mental health research (Lloyd et al., 2024). Accordingly, our findings add value for developing clinical resources, services and directing future research.

Another strength was our attempt to broaden the representation of mental health clinicians in research on dissociation. Unlike previous studies, which focused on psychiatrists and psychologists, this project recruited clinicians across multiple NHS Trusts, service settings, and professional roles, including nurses, allied health professionals and unregistered staff. This provided a snapshot of the multidisciplinary workforce that encounters dissociation in NHS secondary mental health services.

Finally, the empirical project complemented the theoretical aims of the thesis. By focusing on explicit attitudes and beliefs, and their relation to stigma, it offers theoretical clarity when comparing findings from the systematic review on implicit and explicit stigma (and their impact on clinical care outcomes). Indeed, the empirical project exemplifies how the cognitive and affective components of explicit stigma may operate among clinicians (e.g., first thoughts and feelings when patients report they think they have dissociation). It also provides a rationale for future research into the 'implicit evaluations' of clinicians towards dissociation, given these may operate through different processes.

Limitations of the Thesis Portfolio

Systematic Review

Several limitations of the systematic review should be acknowledged. First, half of all studies were cross-sectional, and only baseline correlations were extracted for the meta-analysis. As a result, the review cannot draw conclusions about the causal direction, developmental trajectory, or temporal stability of the relationship between implicit and explicit stigma. Longitudinal and / or experimental designs are required to clarify whether changes in implicit or explicit stigma influence the other over time, and how these systems may differentially map onto clinical outcomes. These include decision-making, behavioural intentions and health outcomes for service users with mental health conditions.

Second, although the search strategy was comprehensive, the review was limited to English-language and peer-reviewed literature. This raises the possibility that relevant correlational findings from non-English-speaking contexts or unpublished datasets were excluded from our analysis. Given

the international variation in stigmatising attitudes toward mental health conditions (Stefanovics et al., 2016), restricting our search may have possibly limited the global generalisability of our findings. This might have also been exacerbated by the small sample sizes and response rates across studies, as these factors can limit statistical power and reduce the accuracy of correlational estimates.

Third, the review did not extract studies examining neuropsychiatric conditions, such as neurodevelopmental or neurodegenerative disorders. Considering the substantial overlap between mental ill-health and neuropsychiatric conditions (Taslim et al., 2024), as well as evidence of stigma towards these conditions among mental health clinicians (e.g., Begley et al., 2023; Kelly & Barnes-Holmes, 2013), this exclusion may limit the generalisability of our findings towards broader mental health presentations. Furthermore, our review excluded studies examining associative stigma, which is stigma experienced by clinicians as a result of working with people with mental health problems. This is a limitation because associative stigma has been found to impact clinician attitudes and care delivery for service users, in addition to resilience and job satisfaction outcomes (Njaka et al., 2023). Hence, excluding this topic meant the review may not have captured the broader contextual factors shaping the implicit and explicit stigma of mental health clinicians.

Fourth, there was considerable variation in how implicit and explicit stigma were reportedly conceptualised and measured across studies, and there was limited reporting on which components of stigma were captured. This lack of conceptual clarity reduces comparability between studies and may have contributed to some of the heterogeneity observed in the meta-analysis. Finally, although the review provided a pooled correlational estimate at the ‘group’ level, it did not capture within-person variability in implicit-explicit relationships among mental health clinicians. Given that implicit and explicit attitudes can diverge within an individual depending on context, cognitive load, training, or emotional state (e.g., Huntsinger, 2013; Payne et al., 2008; Yokota et al., 2025), future research using more idiographic designs may help to explore how these processes interact in mental health practice.

Empirical Project

The study employed an online, cross-sectional design completed through self-report. This restricted the ability to infer causal associations between attitudes, beliefs, knowledge and experience of dissociation and how clinicians' perspectives evolved over time. Saying this, however, future data collection from the larger longitudinal project will allow colleagues to track changes in attitudes and beliefs, offering insight into how these develop in clinical practice. Self-report data is also vulnerable to response bias, particularly when completed in professional settings. Although confidentiality was emphasised, it is possible that sceptical attitudes went underreported, and it remains difficult to know if staff completed the online survey alone or answered the items truthfully. For instance, clinicians could have searched online for definitions of dissociation or case examples. We also did not include an objective 'knowledge check' to evaluate whether clinicians actually knew what dissociation was.

Furthermore, our survey did not incorporate any validated measures of attitudes and beliefs by clinicians, as these had not been adapted for dissociation. While our items were informed by prior surveys and relevant theoretical literature, their psychometric properties (e.g., reliability, validity, factor structure) remain untested. This limits the interpretation of our findings and comparison with other studies including our systematic review. The use of our slider response scales may have also encouraged midpoint responding, which may partially account for some moderate ratings observed.

The sample was also predominantly White, female and potentially quite psychologically-focused (e.g., many unregistered staff were assistant or trainee psychologists). This might limit the extent to which findings can be generalised to the NHS workforce and could account for the strong endorsement of trauma-informed models of dissociation. Representation also varied across Trusts, professional roles and service settings. This raises the potential for self-selection bias, particularly as response rates for these characteristics were not monitored during our data collection (due to our convenience sampling approach). The uneven distribution of characteristics also created statistical

challenges. For instance, the exploratory analyses were not always powered for formal hypothesis testing, and effect sizes may have been obscured by small or unequal subgroup sizes. Consequently, the extent to which differences between groups were meaningful remained uncertain in the study.

Finally, our qualitative findings might have been constrained by the brevity of free-text responses and the analytic approach chosen. Single-word descriptors and short statements limited the depth of interpretation regarding clinicians' cognitive and emotional responses to patients who report dissociation. Moreover, quantitative content analysis is mostly descriptive, capturing the frequency and 'surface' of language rather than its underlying meaning. A thematic analysis may have offered richer detail and greater nuance by exploring recurring patterns of attitudes and beliefs (Vaismoradi et al., 2013). However, this was not utilised given the format and frequency of clinician's responses. Overall, these limitations highlight the need for longitudinal, representative and theoretically-driven research to improve our understanding of clinicians' attitudes and beliefs about dissociation.

Broad Research Approach and Alternative Methodologies

The Research Conducted

This section evaluates the work carried out across the thesis portfolio. One strength of the portfolio is its coherence. The systematic review and empirical project were conceptually aligned, both focusing on attitudes and stigma processes among mental health clinicians within services. The review first established a theoretical basis regarding implicit and explicit representations of stigma. The empirical study then applied this through focusing on the explicit attitudes, beliefs and stigma of clinicians towards dissociation in NHS practice (an under-explored area). The empirical project also addressed some methodological limitations identified in the review. It introduced a mixed-methods design, broad sampling approach, and methods to minimise survey bias (e.g., social desirability) to strengthen and extend the evidence base among mental health clinicians. Another strength lies in the translational focus of the thesis. Both projects addressed how stigma may operate among clinicians

towards mental health conditions. The thesis therefore contributes not only to psychological theory, but also to service development and professional training. Co-designing the survey of the empirical project further strengthens the value of our findings.

However, weaknesses of the work conducted should be acknowledged. The thesis prioritised feasibility and scope over depth when understanding stigma in practice. For example, the review had relied on published correlational data on stigma, meaning conclusions about the precise mechanisms by which implicit and explicit stigma operate among clinicians were not investigated. Likewise, the mixed-methods approach of the empirical project captured a relatively descriptive understanding of stigma towards dissociation in NHS contexts. Indeed, the responses analysed were brief and did not allow for detailed exploration of meaning-making processes among NHS clinicians. Therefore, the knowledge generated within this thesis reflected the methodological decisions taken, the limitations of the wider literature, and the feasibility of conducting research within a professional doctorate.

Broad Methodological Approach

The thesis portfolio largely operated within a positivist / realist paradigm. The systematic review employed meta-analytic techniques to estimate pooled effect sizes, while the empirical study used a descriptive survey, complemented by a 'small *q*' quantitative content analysis. This approach prioritised breadth, statistical aggregation and replicability over the in-depth exploration typical of 'Big *Q*' qualitative research (Braun & Clarke, 2013). This offered some advantages. First, pooling effect sizes in the review provided quantitative support for the dual-process theories of stigma among clinicians beyond a narrative synthesis alone. Second, the sampling methods of the empirical project allowed responses from a large and multidisciplinary NHS sample, facilitating exploration of broad patterns regarding attitudes and beliefs concerning dissociation. These results were complemented by free-text data which were converted to numerical representation, and analysed quantitatively.

However, this positivist orientation limited the type of knowledge produced in the thesis. By focusing on measurable attitudes and pooled relationships, the thesis conceptualised stigma primarily as an observable and quantifiable construct. Other epistemological orientations, such as relativist or critical-realist approaches, may have conceptualised stigma differently. For instance, by prioritising how staff 'construct' stigma in clinical narratives, or exploring how different perspectives and the clinical context (e.g., service pressures or historical debates) may have shaped attitudes and beliefs. Hence, our positivist orientation restricted insight into how stigma might arise and enact in practice.

Alternative Approaches

Several alternative methodologies could have addressed our research questions. A qualitative design for our empirical project, such as interpretative phenomenological analysis, thematic analysis, or grounded theory, may have provided detailed insight into the experiences and professional context of clinicians' attitudes and beliefs on dissociation. For instance, in-depth interviews or focus groups could have explored the processes underlying stigma (e.g., social, individual, cognitive, emotive and behavioural) that may not always be accessible through survey methods. However, these approaches would have likely reduced the sample size, and, by their nature, the generalisability of our findings.

Experimental methodologies also represent an alternative approach. Vignette-based designs that manipulate variables such as 'diagnostic labels' and 'patient histories' could have examined the causal influences of clinician's attitudes and beliefs concerning dissociation. Similarly, longitudinal or pre-post designs could have tested whether training or reflective practice programmes influence beliefs over time. Finally, a systematic review of longitudinal (rather than cross-sectional) studies would have enabled more robust conclusions about the temporal and causal mechanisms underlying implicit and explicit stigma, to contribute to and develop the dual-process theories among clinicians.

Stronger integration across the two projects could also have been achieved in the thesis (e.g., by including implicit measures within the empirical study). Indeed, an adapted implicit association

task (IAT) that investigated automatic evaluations towards dissociation would have enabled a direct test of the correlation between implicit and explicit stigma among a sample of UK clinicians, thereby addressing a key gap identified in the systematic review. However, to the best of our knowledge, an IAT for dissociation has not been developed. This could be an avenue for future research. Other suggestions for future research were described in detail in the main project chapters and therefore are not repeated in this Extended Discussion.

Implications for Clinical Psychology

Systematic Review

Several clinical and research implications can be derived from the systematic review and meta-analysis. The finding that implicit and explicit stigma were only weakly related suggests that consciously endorsed attitudes may not always align with automatic evaluations toward people with mental health conditions. This highlights the potential utility of 'reflective spaces' for clinicians, to explore their explicit and less-controlled reactions, including clinical supervision, team formulations, and reflective groups, which are emerging NHS practices (Galway et al., 2025; Hartley, 2021). These spaces are particularly important in high-pressure environments, such as NHS mental health services (e.g., Mandangu et al., 2025), where time constraints, high workload and burnout may well increase reliance on automatic judgements for clinicians (Job et al., 2024). However, given there are debates about whether people can legitimately access implicit cognition (Morris & Kurdi, 2023; Schimmack, 2021), it remains unclear to what extent clinicians would be able to reflect on and even modify these evaluations (FitzGerald & Hurst, 2017). Furthermore, if clinicians explicitly report 'compassionate' values, but express automatic negative reactions towards their service users, such discrepancies may produce discomfort (Muschalik et al., 2019) or disengagement from practice and reflective spaces, which has ethical implications (Zogmaister et al., 2013). Hence, addressing these discrepancies is important not only for reducing bias, but also for supporting the wellbeing of clinicians at work.

The identification of substance use disorder as a significant moderator is also relevant for clinical psychology. This is because the stronger alignment between implicit and explicit attitudes might mean that stigma is more entrenched in the cognitive representation of mental health problems that have cultural attributions of personal blame and responsibility (Vederhus et al., 2016). This may make it more acceptable for clinicians to express explicit stigma to substance misuse compared to other mental health problems (Magnan et al., 2024). It also reveals how attribution theory and dual-process models might align to explain the formation of provider stigma, and how these can be used to target stigma-reduction approaches. These include the 'responsibility without blame' framework for addictions (Pickard, 2017). However, it is important to acknowledge that the stronger association between implicit and explicit stigma, and cultural attributions of blame, are only hypothesised links in substance use disorders, as these relationships were not directly tested across any included study. Likewise, only four studies explored substance use disorder, potentially limiting statistical power, and there was a wide 95% confidence interval for the correlation reported [.05, .49]. This indicates the true correlation could be very weak to moderate, highlighting uncertainty and the need for more research on how substance misuse and other disorders may moderate implicit-explicit relationships.

The systematic review also has implications for theory and measurement in clinical psychology. The weak pooled association supports dual-process theories that conceptualise implicit and explicit attitudes as 'related but largely distinct' systems. This reinforces the need to explore both representations of stigma in clinical research, service evaluations, and for training in clinical psychology. This would support clinicians to better understand the role of conscious and automatic cognitions on attitudes towards people with mental health problems. The review also demonstrates the need for improved psychometric measurement across research, such as transparent reporting of the components of stigma being measured, in addition to the reliability and validity of implicit and explicit measures. Strengthening these methodologies may enhance the accuracy by which stigma is assessed among clinicians and may help to enhance theoretical models of provider stigma.

The review also highlighted there were no studies exploring the relationship between implicit and explicit stigma for conditions perceived to be highly stigmatised (i.e., explicitly). These include personality disorders, complex post-traumatic stress disorder and dissociation (Hazell et al., 2022). This presents an opportunity to explore if implicit-explicit correlations varied according to these categories. One could hypothesise that we may find a stronger correlation between implicit and explicit stigma for highly stigmatised conditions, like substance use disorders. Furthermore, there is some evidence that public attitudes toward mental health conditions may have worsened in recent years (Ronaldson & Henderson, 2025). Yet, it is not known how sociocultural factors influence the implicit and explicit attitudes of clinicians, highlighting the need for future research on this topic.

Ultimately, the findings from our systematic review and meta-analysis could support the development of stigma-reduction initiatives across mental health services. By clarifying the weak relationship between implicit and explicit stigma, our review provides a theoretical foundation for training that targets both representations among clinicians. Addressing implicit stigma may require experiential, interactive and reflective approaches, in addition to the educational-based training used for explicit stigma (Grammoustianou et al., 2025; Reddyhough et al., 2024). Doing so could help to reduce bias in clinical decision-making, and promote better outcomes for service users.

Empirical Project

Our findings highlight that dissociation remains a clinically relevant, but inconsistently understood phenomenon among NHS clinicians. Although awareness of dissociation was high, confidence and formal training were variable, and belief ratings implied some uncertainty regarding its prevalence, severity and danger. This emphasises a clear need to provide accessible education on dissociation in core and additional training, and to strengthen the knowledge and skills of clinicians.

Given that dissociation can be confusing and distressing for service users, clinicians should feel confident to assess safely, give accurate and validating explanations, and agree a management

plan (Pierorazio et al., 2025). However, achieving this may be challenging in the absence of national guidelines for dissociation. Training that integrates phenomenological accounts of dissociation (e.g., a felt sense of anomaly), trauma-informed models, and practical guidance might reduce uncertainty and the risk of stigmatisation. Practical exercises could include role plays of clinical interactions and information-gathering (e.g., administering psychometrics such as the ČEFSA-14 scale), formulating with service users, and providing evidenced-based interventions including grounding and cognitive-behavioural skills (e.g., Hunter et al., 2023). Encouragingly, our study found moderate endorsement that dissociation was treatable and psychological, indicating an openness to psychological models and interventions that psychologists are well placed promote in the NHS (Crockford et al., 2026).

However, the substantial variation found in ratings of misinformed beliefs about dissociation suggests that some scepticism persists among NHS clinicians. Addressing misinformation, such as through psychoeducation or targeted 'myth busting' teaching sessions, may help to reduce the spread and impact of inaccurate beliefs (Brand et al., 2019). Notably, several myths were found to cluster, indicating that challenging one myth may help to weaken others, making such interventions practical.

NHS services might also benefit from resources to support clinicians in conversations with service users, carers, and colleagues about dissociation (e.g., clinical guides and accessible booklets). This is relevant within the current sociocultural context in which dissociation is increasingly being discussed by young people and on social media (Greene et al., 2023). Co-production with experts by experience throughout this process will ensure that emerging resources are meaningful, empowering, and accessible to the needs and language of people with dissociation (Nester et al., 2022).

The qualitative findings also have significant implications. While many clinicians used neutral or supportive language, stigmatising descriptors were more common when describing the patients rather than dissociation itself. This distinction suggests that cognitive and affective reactions (components of stereotypes and prejudice in stigma theory), may arise most when clinicians interact

with service users, which aligns with stigma being a dynamic social process (Link & Phelan, 2001). Such negative reactions could influence therapeutic rapport, empathy, and decision-making. As such, clinical psychologists may have a role in running reflective groups to help staff notice their reactions to service users with dissociation, whilst modelling curiosity and compassion.

Theoretically, our findings suggest dissociation remains a contested construct within clinical psychology. Wide variation across beliefs indicate that different conceptualisations of dissociation (e.g., trauma and socio-cognitive models) may exist among NHS clinicians. This reinforces the need for clearer integration of trauma models into core training programmes, and for research to examine how professional background, experience and clinical setting may influence attitudes and beliefs.

Researcher Reflections

Completing this doctoral thesis has shaped my understanding of mental health stigma and my identity as a Trainee Clinical Psychologist in the UK. It was interesting to learn that explicit and implicit attitudes might only be weakly relate, and that implicit biases may still persist, even among well-intentioned and supportive mental health professionals. This raised questions about the realities of working in high-pressure environments such as the NHS and the ethical implications for staff who support people with mental ill-health.

I am working to understand my own implicit and explicit attitudes towards people with mental health conditions, by participating in freely available IATs from the 'Project Implicit' website (Nosek et al., 2007). Being able to reflect critically on these processes will support me to provide the best psychological care for service users. I have noticed I am more mindful of my clinical decisions too, along with the rules, assumptions and attitudes that shape my decisions. I have also developed an interest in reflective practice groups across my placements, which have assisted me to discuss topics such as professional and cultural biases, diversity, transference and perfectionism. Engaging in these

topics have enabled me to cultivate a greater self-awareness, tolerate uncertainty, and remain open to clinical and academic feedback. These are qualities I feel are essential for my ongoing training.

The process of conducting the systematic review was initially anxiety provoking, particularly as I had not statistically pooled research data for a meta-analysis before. This provided a significant process of education, first through independently learning how to pool correlations using the 'Meta Analysis via Shiny' (MAVIS) software (Aydin et al., 2015). This software supported me to learn how to produce random-effects models and moderator analyses by providing publicly available 'test' data from a previously published meta-analysis (Molloy et al., 2014). I then used this knowledge to conduct my own meta-analysis for my systematic review using 'Jamovi' (The Jamovi Project, 2025). Completing these analyses brought a real sense of achievement as a researcher, while the discovery of new knowledge was very rewarding. However, my systematic synthesis highlighted significant heterogeneity in the literature, which I found challenging at times. I realised that research on implicit and explicit stigma was methodologically inconsistent, making it difficult to compare and contrast findings. This process increased my appreciation of the research process involved in the design and measurement of constructs within clinical psychology. I learnt why reviews and meta-analyses were such useful tools to synthesise a range of studies to better inform the evidence base in psychology.

Conducting the empirical study helped me appreciate the complexity of attitudes and beliefs among clinicians towards dissociation. A key learning point was the importance of mixed-methods. While the rating-scales suggested generally neutral to supportive attitudes towards dissociation, the qualitative responses revealed a more nuanced perspective. The language used by some clinicians reflected curiosity and validation, whereas other terms were stigmatising (e.g., "attention-seeking"). As a personal reflection, I was somewhat surprised that clinicians were willing to report such beliefs on a survey. This could indicate a degree of self-selection, whereby clinicians who felt comfortable expressing their views (whether supportive or critical) were more likely to participate. It might also

suggest that our methods to minimise social desirability was effective. Nevertheless, it implied that stigma-reduction and trauma-informed care initiatives need to be prioritised.

The qualitative sections of the empirical study was also an important learning experience, as I had not previously conducted a content analysis. Developing the coding framework required careful engagement with the recent literature, support from colleagues, and reflection on how 'meaning' can be categorised and interpreted. I became increasingly aware of my assumptions during much of the coding process, particularly when interpreting 'emotive' terms. This emphasised the importance of reflexivity, inter-rater reliability, and transparency in qualitative research. The process also improved my knowledge of how to design 'free-text' survey questions to minimise response biases.

Conducting research within NHS services also highlighted to me the practical challenges of engaging busy clinicians in research activity. Recruitment across multiple Trusts required persistence and flexibility, particularly given the competing demands on staff and service pressures. Engaging staff outside of psychology, some of whom may have less familiarity or confidence with research procedures, encouraged me to reflect on issues of accessibility, communication and power. I became more aware of the importance of creating space for staff across bands and disciplines to share their perspectives, particularly those whose voices may be under-represented in research. This helped me learn that research in NHS settings should be methodologically rigorous, collaborative and inclusive.

Overall Conclusions

This thesis portfolio offered a contemporary examination of stigma among mental health clinicians. Its particular focus on the implicit and explicit dimensions of stigma, and attitudes and beliefs concerning dissociation, has important clinical and theoretical implications for the field. The systematic review and meta-analysis found that implicit and explicit stigma were only weakly related among mental health clinicians. This supports dual-process models of stigma and the need to address conscious and automatic evaluations for stigma reduction. The empirical project extended this work

by presenting a mixed-methods survey of NHS clinicians about dissociation, which is a controversial and misunderstood mental health condition. Findings revealed a high awareness of dissociation but wide variation in the explicit knowledge, attitudes and beliefs of staff, including occasional stigma, scepticism and misinformed beliefs towards service users. This has implications for co-developing clinical resources and professional training on dissociation. Overall, the thesis portfolio advances our understanding of the multifaceted nature of clinician stigma and offers direction for future research.

References for Optional and Additional Chapters

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888-918. https://doi.org/10.1037/0033-2909.84.5.888

Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), Handbook of social psychology (pp. 798–844). Worcester, MA: Clark University Press.

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499. https://doi.org/10.1348/014466601164939

Aydin, B., Mizumoto, A., & Hamilton, W. K. (2015). MAVIS: Meta Analysis via Shiny. http://dx.doi.org/10.13140/RG.2.1.3316.7205

Bechler, C. J., Tormala, Z. L., & Rucker, D. D. (2021). The attitude–behavior relationship revisited. *Psychological Science*, 32(8), 1285-1297. https://doi.org/10.1177/0956797621995206

Begley, R., Farrell, L., Lyttle, N., Alty, J., Curran, D., Williams, S., & Graham, C. D. (2023). Clinicians' implicit and explicit attitudes about the legitimacy of functional neurological disorders correlate with referral decisions. *British Journal of Health Psychology*, 28(2), 604-618. https://doi.org/10.1111/bjhp.12643

Bloomfield, M. A., Yusuf, F. N., Srinivasan, R., Kelleher, I., Bell, V., & Pitman, A. (2020). Trauma-informed care for adult survivors of developmental trauma with psychotic and dissociative symptoms: a systematic review of intervention studies. *The Lancet Psychiatry*, 7, 449-462. https://doi.org/10.1016/S2215-0366(20)30041-9

Brand, B. L., Schielke, H. J., Putnam, K. T., Putnam, F. W., Loewenstein, R. J., Myrick, A., Jepsen, E. K. K., Langeland, W., Steele, K., Classen, C. C., & Lanius, R. A. (2019). An Online

Educational Program for Individuals With Dissociative Disorders and Their Clinicians: 1-Year and 2-Year Follow-Up. *Journal of Traumatic Stress*, *32*(1), 156–166. https://doi.org/10.1002/jts.22370

British Psychological Society (2021a). Code of human research ethics. Retrieved 04 June 2024 from www.bps.org.uk/sites/ www.bps.org.uk/files/Policy/Policy%20%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf

British Psychological Society (2021b). Ethics guidelines for internet-mediated research. Retrieved 04 June 2024 from https://explore.bps.org.uk/content/report-guideline/bpsrep.2021.rep155/chapter/bpsrep.2021.rep155.5

British Psychological Society (2021c). Code of ethics and conduct. Retrieved 04 May 2025 from https://www.bps.org.uk/guideline/code-ethics-and-conduct

Braun, V., & Clarke, V. (Associate P. in S. S. (2013). *Successful qualitative research : a practical guide for beginners / Virginia Braun & Victoria Clarke*. SAGE Publications Ltd.

Černis, E., Chan, C., & Cooper, M. (2019). What is the relationship between dissociation and self-harming behaviour in adolescents?. *Clinical Psychology & Psychotherapy*, 26, 328-338. https://doi.org/10.1002/cpp.2354

Černis, E., Ehlers, A., & Freeman, D. (2022). Psychological mechanisms connected to dissociation: Generating hypotheses using network analyses. *Journal of Psychiatric Research*, 148, 165-173. https://doi.org/10.1016/j.jpsychires.2022.01.049

Chen, S. C., & Chen, C. F. (2018). Antecedents and consequences of nurses' burnout: Leadership effectiveness and emotional intelligence as moderators. *Management Decision*, 56(4), 777-792. https://doi.org/10.1108/MD-10-2016-0694

Corneille, O., & Gawronski, B. (2024). Self-reports are better measurement instruments than implicit measures. *Nature Reviews Psychology*, 3(12), 835-846. https://doi.org/10.1038/s44159-024-00376-z

Corneille, O., & Hütter, M. (2020). Implicit? What do you mean? A comprehensive review of the delusive implicitness construct in attitude research. *Personality and Social Psychology Review*, 24(3), 212-232. https://doi.org/10.1177/1088868320911325

Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist*, 54(9), 765–776. https://doi.org/10.1037/0003-066X.54.9.765

Corrigan, P. W., & Shapiro, J. R. (2010). Measuring the impact of programs that challenge the public stigma of mental illness. *Clinical Psychology Review*, 30(8), 907-922. https://doi.org/10.1016/j.cpr.2010.06.004

Corrigan, P. W., & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry*, 1(1), 16-20.

Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., & Kubiak, M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, 162-179. https://doi.org/10.2307/1519806

Couper, M. P., Traugott, M. W., & Lamias, M. J. (2001). Web survey design and administration. *Public Opinion Quarterly*, 65(2), 230-253. https://doi.org/10.1086/322199

Courtois, C. A., & Gold, S. N. (2009). The need for inclusion of psychological trauma in the professional curriculum: A call to action. *Psychological Trauma: Theory, Research, Practice, and Policy*, 1, 3-23. https://doi.org/10.1037/a0015224

Crockford, H. A., Goodwin, M., & Langthorne, P. (Eds). (2026). *Working with dissociation in clinical practice: Guidance for mental health professionals and multidisciplinary teams*. Routledge.

Dalenberg, C. J., Brand, B. L., Loewenstein, R. J., Frewen, P. A., & Spiegel, D. (2020). Inviting scientific discourse on traumatic dissociation: Progress made and obstacles to further resolution. *Psychological Injury and Law*, 13, 135-154. https://doi.org/10.1007/s12207-020-09376-9

Data Protection Act 2018, c. 12. Retrieved 04 June 2024 from https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted

Del Olmo-Romero, F., Rebolleda-Gil, C., Varandas, P., Martín-Carrasco, M., González-Blanco, M., Perna, G., ... & Inter NOS Working Group. (2025). Burnout in mental health professionals and its relation with their attitudes towards mental illness. *The European Journal of Psychiatry*, 39(2), 100289. https://doi.org/10.1016/j.ejpsy.2024.100289

Dole, J. A., & Sinatra, G. M. (2019). Social psychology research on beliefs and attitudes: Implications for research on learning from text. In R. Garner & P.A Alexander (Eds.), *Beliefs about text and instruction with text* (1st ed., pp. 245-264). Routledge. https://doi.org/10.4324/9780203812068

Dorahy, M. J., & Lewis, C. A. (2002). Dissociative identity disorder in Northern Ireland: a survey of attitudes and experience among clinical psychologists and psychiatrists. *The Journal of Nervous and Mental Disease*, 190(10), 707-710.

Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, 82(1), 62-68. https://doi.org/10.1037/0022-3514.82.1.62

Drake, C. E., Codd III, R. T., & Terry, C. (2018). Assessing the validity of implicit and explicit measures of stigma toward clients with substance use disorders among mental health practitioners. *Journal of Contextual Behavioral Science*, 8, 44-54. https://doi.org/10.1016/j.jcbs.2018.03.005

Dunton, B. C., & Fazio, R. H. (1997). An individual difference measure of motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin*, 23(3), 316-326. https://doi.org/10.1177/0146167297233009

Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. Harcourt, Brace and Jonanovich College Publishers

Eagly, A. H., & Chaiken, S. (2005). Attitude research in the 21st century: The current state of knowledge. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 743-767). Lawrence Erlbaum Associates.

Eccles, M. P., Hrisos, S., Francis, J., Kaner, E. F., Dickinson, H. O., Beyer, F., & Johnston, M. (2006). Do self-reported intentions predict clinicians' behaviour: a systematic review. *Implementation Science*, 1(1), 28. https://doi.org/10.1186/1748-5908-1-28

Field, A. (2018). *Discovering statistics using IBM SPSS statistics / Andy Field.* (uea.1015821231; Fifth edition.). SAGE Publications; UEA Library catalogue. https://research.ebsco.com/linkprocessor/plink?id=50cb98de-f7e3-33fe-9767-f7d71371ad88

Fishman, J., Yang, C., & Mandell, D. (2021). Attitude theory and measurement in implementation science: a secondary review of empirical studies and opportunities for advancement. *Implementation Science*, 16(1), 87. https://doi.org/10.1186/s13012-021-01153-9

FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC Medical Ethics*, 18(1), 19. https://doi.org/10.1186/s12910-017-0179-8

Foote, B., Smolin, Y., Kaplan, M., Legatt, M. E., & Lipschitz, D. (2006). Prevalence of dissociative disorders in psychiatric outpatients. *American Journal of Psychiatry*, 163, 623-629. doi: 10.1176/ajp.2006.163.4.623

Fox, A. B., Earnshaw, V. A., Taverna, E. C., & Vogt, D. (2018). Conceptualizing and measuring mental illness stigma: The mental illness stigma framework and critical review of measures. *Stigma and Health*, 3(4), 348-376. https://doi.org/10.1037/sah0000104

Galway, R., Wilkinson, D., Mistry, D., Beryl, R., Mackay, K. L., Gaynor, B., ... & White, J. P. (2025). Rapid review of facilitating reflective practice groups with staff in adult inpatient mental health settings. *Reflective Practice*, 26, 277-291. https://doi.org/10.1080/14623943.2024.2426281

Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: an integrative review of implicit and explicit attitude change. *Psychological Bulletin*, 132(5), 692-731. https://doi.org/10.1037/0033-2909.132.5.692

Gawronski, B., De Houwer, J., & Sherman, J. W. (2020). Twenty-five years of research using implicit measures. *Social Cognition*, *38*(Supplement), s1-s25. https://doi.org/10.1521/soco.2020.38.supp.s1

Gleaves, D. H., & Reisinger, B. A. (2023). Stigma regarding dissociative disorders. *Journal of Trauma &* Dissociation, 24(3), 317-320. https://doi.org/10.1080/15299732.2023.2191240

Goffman, E., & Goffman, E. (2009). Stigma: Notes on the Management of Spoiled Identity. Goffman, Erving. Touchstone.

González-Sanguino, C., Muñoz, M., Castellanos, M. A., Pérez-Santos, E., & Orihuela-Villameriel, T. (2019). Study of the relationship between implicit and explicit stigmas associated with mental illness. *Psychiatry Research*, 272, 663-668. https://doi.org/10.1016/j.psychres.2018.12.172

Grammoustianou, M., Maccarone, S., Gillanders, E., Menvielle, G., Preau, M., Ginguene, S., ... & Franzoi, M. A. (2025). Tackling healthcare providers bias: a systematic review of interventions with implications for inclusive clinical research. *EClinicalMedicine*, 89. doi: 10.1016/j.eclinm.2025.103513

Greene, A. K., Maloul, E. K., Norling, H. N., Palazzolo, L. A., & Brownstone, L. M. (2023). Systems and selves: An exploratory examination of dissociative identity disorder on TikTok. *Qualitative Psychology*, *10*(3), 420–434. https://doi.org/10.1037/qup0000248

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review*, 102(1), 4-27. https://doi.org/10.1037/0033-295X.102.1.4

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: the implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464-1480. https://doi.org/10.1037/0022-3514.74.6.1464

Guerrero, Z., Iruretagoyena, B., Parry, S., & Henderson, C. (2024). Anti-stigma advocacy for health professionals: a systematic review. *Journal of Mental Health*, 33(3), 394-414. https://doi.org/10.1080/09638237.2023.2182421

Gupta, S., Kumar, A., Kathiresan, P., Pakhre, A., Pal, A., & Singh, V. (2024). Mental health stigma and its relationship with mental health professionals–A narrative review and practice implications. *Indian Journal of Psychiatry*, 66(4), 336-346. doi: 10.4103/indianjpsychiatry.indianjpsychiatry_412_23

Hartley, S. (2021). Using team formulation in mental health practice. *Mental Health Practice*, 24(2), 34-41. doi: 10.7748/mhp.2021.e1516

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*, 103(5), 813-821. https://doi.org/10.2105/AJPH.2012.301069

Hazell, C. M., Berry, C., Bogen-Johnston, L., & Banerjee, M. (2022). Creating a hierarchy of mental health stigma: testing the effect of psychiatric diagnosis on stigma. *BJPsych Open*, 8(5), e174. https://doi.org/10.1192/bjo.2022.578

Henderson, C., Noblett, J., Parke, H., Clement, S., Caffrey, A., Gale-Grant, O., ... & Thornicroft, G. (2014). Mental health-related stigma in health care and mental health-care settings. *The Lancet Psychiatry*, 1(6), 467-482. doi: 10.1016/S2215-0366(14)00023-6

Henderson, C., Potts, L., & Robinson, E. J. (2020). Mental illness stigma after a decade of Time to Change England: inequalities as targets for further improvement. *European Journal of Public Health*, 30(3), 497-503. https://doi.org/10.1093/eurpub/ckaa013

Hinshaw, S. P., & Stier, A. (2008). Stigma as related to mental disorders. *Annual Review of Clinical Psychology,* 4(1), 367-393. https://doi.org/10.1146/annurev.clinpsy.4.022007.141245

Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the Implicit Association Test and explicit self-report

measures. *Personality and Social Psychology Bulletin*, *31*(10), 1369-1385. https://doi.org/10.1177/0146167205275613

Hunter, E. C. M., Wong, C. L. M., Gafoor, R., Lewis, G., & David, A. S. (2023). Cognitive Behaviour Therapy (CBT) for Depersonalization Derealization Disorder (DDD): A self-controlled cross-over study of waiting list vs. active treatment. *Cognitive Behaviour Therapy*, *52*(6), 672–685. https://doi.org/10.1080/16506073.2023.2255744

Huntsinger, J. R. (2013). Anger enhances correspondence between implicit and explicit attitudes. *Emotion*, 13(2), 350-357. https://doi.org/10.1037/a0029974

Jauch, M., Occhipinti, S., & O'Donovan, A. (2023). The stigmatization of mental illness by mental health professionals: Scoping review and bibliometric analysis. *PloS One*, 18(1), e0280739. https://doi.org/10.1371/journal.pone.0280739

Job, C., Adenipekun, B., Cleves, A., Gill, P., & Samuriwo, R. (2024). Health professionals implicit bias of patients with low socioeconomic status (SES) and its effects on clinical decision-making: a scoping review. *BMJ Open*, 14(7), e081723. https://doi.org/10.1136/bmjopen-2023-081723

Johnson, S., Dalton-Locke, C., Vera San Juan, N., Foye, U., Oram, S., Papamichail, A., ... & Simpson, A. (2021). Impact on mental health care and on mental health service users of the COVID-19 pandemic: a mixed methods survey of UK mental health care staff. *Social Psychiatry and Psychiatric Epidemiology*, 56(1), 25-37. https://doi.org/10.1007/s00127-020-01927-4

Juneja, S., Nah, R., & Heath, J. (2025). An exploration of staff wellbeing and burnout within a UK-based NHS mental health inpatient unit: a service evaluation. *British Journal of Mental Health Nursing*, 14(2), 1-11. https://doi.org/10.12968/bjmh.2023.0034

Kågström, A., Guerrero, Z., Aliev, A. A., Tomášková, H., Rüsch, N., Ouali, U., ... & Winkler, P. (2025). Mental health stigma and its consequences: a systematic scoping review of pathways to discrimination and adverse outcomes. *eClinicalMedicine*, 89. doi: 10.1016/j.eclinm.2025.103588

Kahneman, D. (2012). *Thinking, fast and slow / Daniel Kahneman*. Penguin Books.

Kanaan, R. A., Armstrong, D., & Wessely, S. C. (2011). Neurologists' understanding and management of conversion disorder. *Journal of Neurology, Neurosurgery & Psychiatry*, 82, 961-966. https://doi.org/10.1136/jnnp.2010.233114

Kelly, A., & Barnes-Holmes, D. (2013). Implicit attitudes towards children with autism versus normally developing children as predictors of professional burnout and psychopathology. *Research in Developmental Disabilities*, 34(1), 17-28. https://doi.org/10.1016/j.ridd.2012.07.018

Kurzban, R., & Leary, M. R. (2001). Evolutionary origins of stigmatization: the functions of social exclusion. *Psychological Bulletin*, 127(2), 187-208. https://doi.org/10.1037/0033-2909.127.2.187

Larson, R. B. (2019). Controlling social desirability bias. *International Journal of Market Research*, 61, 534-547. https://doi.org/10.1177/147078531880530

Leonard, D., Brann, S., & Tiller, J. (2005). Dissociative disorders: Pathways to diagnosis, clinician attitudes and their impact. *Australian & New Zealand Journal of Psychiatry*, 39, 940-946. https://doi.org/10.1080/j.1440-1614.2005.01700.x

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27(1), 363-385. https://doi.org/10.1146/annurev.soc.27.1.363

Link, B. G., Yang, L. H., Phelan, J. C., & Collins, P. Y. (2004). Measuring mental illness stigma. *Schizophrenia Bulletin*, 30(3), 511-541. https://doi.org/10.1093/oxfordjournals.schbul.a007098

Livingston, J. D., & Boyd, J. E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. *Social Science & Medicine*, 71(12), 2150-2161. https://doi.org/10.1016/j.socscimed.2010.09.030

Lloyd, A., Wu, T. (Chin-Han), Lucas, L., Agunbiade, A., Saleh, R., Fearon, P., & Viding, E. (2024). No decision about me, without me: Collaborating with young people in mental health research. *JCPP Advances*, *4*(4), e12291. https://doi.org/10.1002/jcv2.12291

Lloyd, M. (2016). Reducing the cost of dissociative identity disorder: Measuring the effectiveness of specialized treatment by frequency of contacts with mental health services. *Journal of Trauma & Dissociation*, 17, 362-370. https://doi.org/10.1080/15299732.2015.1108947

Magnan, E., Weyrich, M., Miller, M., Melnikow, J., Moulin, A., Servis, M., ... & Henry, S. G. (2024). Stigma against patients with substance use disorders among health care professionals and trainees and stigma-reducing interventions: a systematic review. *Academic Medicine*, 99(2), 221-231. doi: 10.1097/ACM.0000000000005467

Mandangu, C., Ramos, A. M., Sengupta, M., Bender, R., El-Hayani, R., Hasan, I., ... & Havsteen-Franklin, D. (2025). Implicit bias in referrals to relational psychological therapies: review and recommendations for mental health services. *Frontiers in Public Health*, 12, 1469439. https://doi.org/10.3389/fpubh.2024.1469439

Mayer, A. (2021). Reducing respondents' perceptions of bias in survey research. *Methodological Innovations*, 14(3). https://doi.org/10.1177/2059799121105595

Millum, J., & Garnett, M. (2019). How payment for research participation can be coercive. *The American Journal of Bioethics*, 19(9), 21-31. https://doi.org/10.1080/15265161.2019.1630497

Mitchell, A. J., Malone, D., & Doebbeling, C. C. (2009). Quality of medical care for people with and without comorbid mental illness and substance misuse: systematic review of comparative studies. *The British Journal of Psychiatry*, 194(6), 491-499. https://doi.org/10.1192/bjp.bp.107.045732

Molloy, G. J., O'carroll, R. E., & Ferguson, E. (2014). Conscientiousness and medication adherence: A meta-analysis. *Annals of Behavioral Medicine*, 47(1), 92-101. https://doi.org/10.1007/s12160-013-9524-4

Morris, A., & Kurdi, B. (2023). Awareness of implicit attitudes: Large-scale investigations of mechanism and scope. *Journal of Experimental Psychology: General*, 152(12), 3311-3343. https://doi.org/10.1037/xge0001464

Muschalik, C., Elfeddali, I., Candel, M. J., Crutzen, R., & de Vries, H. (2019). Does the discrepancy between implicit and explicit attitudes moderate the relationships between explicit attitude and (intention to) being physically active?. *BMC Psychology*, 7(1), 52. https://doi.org/10.1186/s40359-019-0322-z

Nester, M. S., Hawkins, S. L., & Brand, B. L. (2022). Barriers to accessing and continuing mental health treatment among individuals with dissociative symptoms. *European Journal of Psychotraumatology*, *13*(1), 2031594. https://doi.org/10.1080/20008198.2022.2031594

Nikopaschos, F., Gibbons, O., Bailey, E., Foxall, A., Giachero, C., & Burrell, G. (2025). Trauma-Informed Care on mental health wards: staff and service user perspectives. *Frontiers in Psychology*, 16, 1578821. https://doi.org/10.3389/fpsyg.2025.1578821

Njaka, S., Ogbodo, B. A., Okpua, N. C., & Uwa, A. N. (2023). A systematic review on prevalence and perceived impacts of associative stigma on mental health professionals. *International Journal of Africa Nursing Sciences*, 18, 100533. https://doi.org/10.1016/j.ijans.2023.100533

Nosek, B. A. (2005). Moderators of the relationship between implicit and explicit evaluation. *Journal of Experimental Psychology: General*, 134(4), 565-584. https://doi.org/10.1037/0096-3445.134.4.565

Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ranganath, K. A., ... & Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18(1), 36-88. https://doi.org/10.1080/10463280701489053

Olson, R. P. (2006). *Mental Health Systems Compared : Great Britain, Norway, Canada, and the United States / edited by R. Paul Olson*. Charles C Thomas Publisher, LTD.

Overton, S. L., & Medina, S. L. (2008). The stigma of mental illness. *Journal of Counseling & Development*, 86(2), 143-151. https://doi.org/10.1002/j.1556-6678.2008.tb00491.x

Passerello, G. L., Hazelwood, J. E., & Lawrie, S. (2019). Using Twitter to assess attitudes to schizophrenia and psychosis. *BJPsych Bulletin*, *43*(4), 158–166. https://doi.org/10.1192/bjb.2018.115

Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., ... & Unützer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553-1598. https://doi.org/10.1016/S0140-6736(18)31612-X

Payne, B. K., Burkley, M. A., & Stokes, M. B. (2008). Why do implicit and explicit attitude tests diverge? The role of structural fit. *Journal of Personality and Social Psychology*, 94(1), 16-31. https://doi.org/10.1037/0022-3514.94.1.16

Peris, T. S., Teachman, B. A., & Nosek, B. A. (2008). Implicit and explicit stigma of mental illness: Links to clinical care. *The Journal of Nervous and Mental Disease*, 196(10), 752-760. doi: 10.1097/NMD.0b013e3181879dfd

Petkari, E., Masedo Gutierrez, A. I., Xavier, M., & Moreno Küstner, B. (2018). The influence of clerkship on students' stigma towards mental illness: a meta-analysis. *Medical Education*, 52(7), 694-704. https://doi.org/10.1111/medu.13548

Pickard, H. (2017). Responsibility without blame for addiction. *Neuroethics*, 10(1), 169-180. https://doi.org/10.1007/s12152-016-9295-2

Pierorazio, N. A., Brand, B. L., & Goldenson, J. (2025). Dissociation-informed assessment: Process-related guidance. *Psychological Trauma: Theory, Research, Practice, and Policy*. https://doi.org/10.1037/tra0001997

Pope Jr, H. G., Oliva, P. S., Hudson, J. I., Bodkin, J. A., & Gruber, A. J. (1999). Attitudes toward DSM-IV dissociative disorders diagnoses among board-certified American psychiatrists. *American Journal of Psychiatry*, 156, 321-323. https://doi.org/10.1176/ajp.156.2.321

Reavley, N. J., & Pilkington, P. D. (2014). Use of Twitter to monitor attitudes toward depression and schizophrenia: An exploratory study. *PeerJ*, *2*, e647. https://doi.org/10.7717/peerj.647

Reddyhough, C., Locke, V., & Paulik, G. (2024). Tackling implicit and explicit stigma towards voice hearing in clinical psychology students before it enters the workplace: a preliminary brief educational intervention. *Australian Psychologist*, 59(2), 114-120. https://doi.org/10.1080/00050067.2023.2256455

Reinders, A. A., & Veltman, D. J. (2021). Dissociative identity disorder: out of the shadows at last?. *The British Journal of Psychiatry*, 219, 413-414. https://doi.org/10.1192/bjp.2020.168

Ren, Y., Wang, S., Fu, X., & Shi, X. (2025). A Systematic Review and Meta-Analysis of Implicit Stigma Toward People with Mental Illness Among Different Groups: Measurement, Extent, and Correlates. *Psychology Research and Behavior Management*, 851-875. https://doi.org/10.2147/PRBM.S503942

Rethink Mental Illness. (2023, May). *The stigma of mental illness in numbers*. Retrieved August 12, 2025, from https://www.rethink.org/news-and-stories/media-centre/2023/05/stigma-effect-stops-three-in-five-people-experiencing-mental-illness-from-seeking-help-survey-reveals/

Robb, J., & Stone, J. (2016). Implicit bias toward people with mental illness: A systematic literature review. *Journal of Rehabilitation*, 82(4), 3-13.

Ronaldson, A., & Henderson, C. (2025). One year later: Tracking the continued growth of mental illness stigma in England. *medRxiv*, 2025-10. https://doi.org/10.1101/2025.10.10.25337746

Schimmack, U. (2021). Invalid claims about the validity of implicit association tests by prisoners of the implicit social-cognition paradigm. *Perspectives on Psychological Science*, 16(2), 435-442. https://doi.org/10.1177/174569162199186

Schmidt, K., Buchanan, E. M., & Hall, B. F. (2022). Registered report: Moderators of the relationship between implicit and explicit measures of evaluation and identification. *Journal of Experimental Social Psychology*, 100, 104280. https://doi.org/10.1016/j.jesp.2021.104280

Schulze, B. (2007). Stigma and mental health professionals: A review of the evidence on an intricate relationship. *International Review of Psychiatry*, 19(2), 137-155. https://doi.org/10.1080/09540260701278929

Silke, C., Swords, L., & Heary, C. (2016). The development of an empirical model of mental health stigma in adolescents. *Psychiatry Research*, 242, 262-270. https://doi.org/10.1016/j.psychres.2016.05.033

Spitzer, C., Barnow, S., Freyberger, H. J., & Joergen Grabe, H. (2007). Dissociation predicts symptom-related treatment outcome in short-term inpatient psychotherapy. *Australian & New Zealand Journal of Psychiatry*, *41*, 682-687. https://doi.org/10.1080/00048670701449146

Stefanovics, E., He, H., Ofori-Atta, A., Cavalcanti, M. T., Neto, H. R., Makanjuola, V., ... & Rosenheck, R. (2016). Cross-national analysis of beliefs and attitude toward mental illness among medical professionals from five countries. *Psychiatric Quarterly*, 87(1), 63-73. https://doi.org/10.1007/s11126-015-9363-5

Stier, A., & Hinshaw, S. P. (2007). Explicit and implicit stigma against individuals with mental illness. *Australian Psychologist*, 42(2), 106-117. https://doi.org/10.1080/00050060701280599

Stone, J. (2006). Dissociation: what is it and why is it important?. *Practical Neurology*, 6, 308-313. https://doi.org/10.1136/jnnp.2006.101287

Storozuk, A., Ashley, M., Delage, V., & Maloney, E. A. (2020). Got bots? Practical recommendations to protect online survey data from bot attacks. *The Quantitative Methods for Psychology*, 16, 472-481. doi: 10.20982/tqmp.16.5.p472

Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, 8(3), 220-247. https://doi.org/10.1207/s15327957pspr0803_1

Stuber, J. P., Rocha, A., Christian, A., & Link, B. G. (2014). Conceptions of mental illness: Attitudes of mental health professionals and the general public. *Psychiatric Services*, 65(4), 490-497. https://doi.org/10.1176/appi.ps.201300136

Subu, M. A., Wati, D. F., Netrida, N., Priscilla, V., Dias, J. M., Abraham, M. S., ... & Al-Yateem, N. (2021). Types of stigma experienced by patients with mental illness and mental health nurses in Indonesia: a qualitative content analysis. *International Journal of Mental Health Systems*, 15(1), 77. https://doi.org/10.1186/s13033-021-00502-x

Tanner, J., Wyss, D., Perron, N., Rufer, M., & Mueller-Pfeiffer, C. (2017). Frequency and characteristics of suicide attempts in dissociative identity disorders: A 12-month follow-up study in psychiatric outpatients in Switzerland. *European Journal of Trauma & Dissociation*, 1, 235-239. https://doi.org/10.1016/j.ejtd.2017.06.005

Taslim, S., Shadmani, S., Saleem, A. R., Kumar, A., Brahma, F. N. U., Blank, N., ... & Blank IV, N. (2024). Neuropsychiatric disorders: bridging the gap between neurology and psychiatry. *Cureus*, 16(1), e51655. doi: 10.7759/cureus.51655

The Jamovi Project (2025). jamovi (Version 2.7) [Computer software]. https://www.jamovi.org

Thirkettle, C., Oduola, S., McEntegart, L., & Beazley, P. (2025). Using Twitter to Compare Attitudes Towards Schizophrenia and Psychosis: Investigating the Prevalence of Stigma. *Mental Health Science*, *3*(3), e70026. https://doi.org/10.1002/mhs2.70026

Thornicroft, G., Rose, D., Kassam, A., & Sartorius, N. (2007). Stigma: ignorance, prejudice or discrimination?. *The British Journal of Psychiatry*, 190(3), 192-193. https://doi.org/10.1192/bjp.bp.106.025791

Thornicroft, G., Sunkel, C., Aliev, A. A., Baker, S., Brohan, E., El Chammay, R., ... & Winkler, P. (2022). The Lancet Commission on ending stigma and discrimination in mental health. *The Lancet*, 400(10361), 1438-1480. doi: 10.1016/S0140-6736(22)01470-2

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, *15*(3), 398–405. https://doi.org/10.1111/nhs.12048

Valery, K. M., & Prouteau, A. (2020). Schizophrenia stigma in mental health professionals and associated factors: A systematic review. *Psychiatry Research*, 290, 113068. https://doi.org/10.1016/j.psychres.2020.113068

Vederhus, J. K., Clausen, T., & Humphreys, K. (2016). Assessing understandings of substance use disorders among Norwegian treatment professionals, patients and the general public. *BMC Health Services Research*, 16(1), 52. https://doi.org/10.1186/s12913-016-1306-9

Wahl, O., & Aroesty-Cohen, E. (2010). Attitudes of mental health professionals about mental illness: A review of the recent literature. *Journal of Community Psychology*, 38(1), 49-62 https://doi.org/10.1002/jcop.20351

Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748. https://doi.org/10.1037/0022-3514.55.5.738

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review*, *107*(1), 101-126. https://doi.org/10.1037/0033-295X.107.1.101

Wood, L., Byrne, R., & Morrison, A. P. (2017). An integrative cognitive model of internalized stigma in psychosis. *Behavioural and Cognitive Psychotherapy*, 45(6), 545-560. https://doi.org/10.1017/S1352465817000224

Yang, L. H., Kleinman, A., Link, B. G., Phelan, J. C., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science & Medicine*, 64(7), 1524-1535. https://doi.org/10.1016/j.socscimed.2006.11.013

Yokota, S., Sasaki, G., Fujiwara, A., Waki, T., Sueyoshi, A., Kubo, S., & Takeda, K. (2025). Exploring the impact of training on explicit and implicit attitudes toward autism spectrum disorder and physical disabilities in university students. *Research in Developmental Disabilities*, 164, 105068. https://doi.org/10.1016/j.ridd.2025.105068

Yuan, Y., Sun, R., Zuo, J., & Chen, X. (2023). A new explanation for the attitude-behavior inconsistency based on the contextualized attitude. *Behavioral Sciences*, 13(3), 223. https://doi.org/10.3390/bs13030223

Zhang, Z., Morgan, A., Armstrong, G., Campbell, A., & Reavley, N. (2024). Public mental illness disclosure on social media and the effects on stigma toward people with mental illness: A systematic review. *Stigma and Health*. https://doi.org/10.1037/sah0000531

Zogmaister, C., Roccato, M., & Borra, L. (2013). Health practitioners' implicit and explicit attitudes toward drug addicts predict absenteeism and extra work. *Basic and Applied Social Psychology*, 35(2), 191-199. https://doi.org/10.1080/01973533.2013.764300

Appendices

Appendix A. Author Guidelines for BJPsych Open

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- MOOSE guidelines.(opens in a new tab): **meta-analyses of observational studies in epidemiology**
- CHEERS guidelines(opens in a new tab): **economic evaluations** (submit a completed checklist(opens in a new tab))
- SAGER Guidelines(opens in a new tab): We encourage authors to consult the Sex and Gender Equity in Research (SAGER) Guidelines for reporting sex and gender information in study design, data analyses, results and interpretation. Authors should use

the terms sex and gender carefully in order to avoid confusing both terms and include separate reporting and interpretation of the data by sex and gender. If sex and/or gender information are not reported, this should be explained.

- PPI Guidelines(opens in a new tab): The journal encourages active patient and public involvement (PPI) in research. If appropriate, please report PPI in your manuscript using GRIPP2-LF, a longer checklist for studies where PPI forms the primary focus of a study or GRIPP2-SF, a short checklist for studies where PPI is a secondary or tertiary focus.

Statistics

Attention should be paid to providing a clear description of study designs and objectives, and evidence that the statistical procedures used were both appropriate for the hypotheses tested and correctly interpreted. The statistical analyses should be planned before data are collected and full explanations given for any post hoc analyses carried out. The value of test statistics used (e.g. t, F-ratio) should be given as well as their significance levels so that their derivation can be understood. Standard deviations and errors should not be reported as ± but should be specified and referred to in parentheses.

Trends should not be reported unless they have been supported by appropriate statistical analyses for trends. The use of percentages to report results from small samples is discouraged, other than where this facilitates comparisons. The number of decimal places to which numbers are given should reflect the accuracy of the determination and estimates of error should be given for statistics. Use of confidence intervals is encouraged but not mandatory. Authors are encouraged to include estimates of statistical power where appropriate. To report a difference as being statistically significant is generally insufficient, and comment should be made about the magnitude and direction of change.

Qualitative research

BJPsych Open welcomes submissions of reports of qualitative research relevant to the scope of the journal. These manuscripts will be evaluated in terms of design, conduct and reporting of the study, which need to be of sufficient quality and merit to warrant inclusion in *BJPsych Open*.

The Editorial team recognises that the term 'qualitative research' encompasses diverse methods, manuscripts will be evaluated based on the appropriateness of the selected framework, the coherence of the report and its adherence to quality criteria consistent with the methodology and method as follows:

Epistemological and/or theoretical frameworks

- The epistemological underpinnings and/or theoretical framework are made explicit and applied consistently

Study design and method

- The research goal is clear, justified and in context regarding the literature
- The approach matches the purpose of research and is justified
- Methods of sampling, data collection, data management and analysis are made explicit and consistent with the methodology
- Analytical and interpretative processes are described in full

Findings, discussion and implications

- Findings represent the depth and breadth of data
- Findings and interpretations are supported by the data
- Direct quotations, exemplars or other data presentations are used judiciously to illustrate the findings
- Findings are presented in a way that is consistent with the methodology, method and study aims
- Authors are appropriately cautious about knowledge claims
- Findings are explored theoretically and applications discussed

Process issues

- The report provides an account of reflexive practice in keeping with the methodology.

Use of artificial intelligence (AI) tools

We acknowledge the increasing use of artificial intelligence (AI) tools in the research and writing processes. To ensure transparency, we expect any such use to be declared and described fully to readers, and to comply with our plagiarism policy and best practices regarding citation and acknowledgements. We do not consider artificial intelligence (AI) tools to meet the accountability requirements of authorship, and therefore generative AI tools such as ChatGPT and similar should not be listed as an author on any submitted content.

In particular, any use of an AI tool:

- **to generate images** within the manuscript should be accompanied by a full description of the process used, and declared clearly in the image caption(s)
- **to generate text** within the manuscript should be accompanied by a full description of the process used, include appropriate and valid references and citations, and be declared in the manuscript's Acknowledgements.
- **to analyse or extract insights** from data or other materials, for example through the use of text and data mining, should be accompanied by a full description of the process used, including details and appropriate citation of any dataset(s) or other material analysed in all relevant and appropriate areas of the manuscript.
- must not present ideas, words, data, or other material produced by third parties without appropriate acknowledgement or permission.

Descriptions of AI processes used should include at minimum the version of the tool/algorithm used, where it can be accessed, any proprietary information relevant to the use of the tool/algorithm, any modifications of the tool made by the researchers (such as the addition of data to a tool's public corpus), and the date(s) it was used for the purpose(s) described. Any relevant competing interests or potential bias arising as a consequence of the tool/algorithm's use should be transparently declared and may be discussed in the article.

English language editing services

Authors, particularly those whose first language is not English, may wish to have their English-language manuscripts checked by a native speaker before submission. This step is optional, but may

help to ensure that the academic content of the paper is fully understood by the Editor and any reviewers.

In order to help prospective authors to prepare for submission and to reach their publication goals, Cambridge University Press offers a range of high-quality manuscript preparation services, including language editing. You can find out more on our language services page.

Author Hub

You can find guides for many aspects of publishing with Cambridge at Author Hub, our suite of resources for Cambridge authors.

Appendix B. PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 16
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 17
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pages 19-21
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 21-22
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Pages 22-23
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 23
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Page 23
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Page 23
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 24
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Page 26
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Page 26
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Page 26
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	N/A
Synthesis	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention	Pages 22-

Section and Topic	Item #	Checklist item	Location where item is reported
methods		characteristics and comparing against the planned groups for each synthesis (item #5)).	23
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Page 23
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	N/A
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	N/A
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Page 26
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Pages 24-25
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	N/A
Study characteristics	17	Cite each included study and present its characteristics.	Pages 30-36
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Page 29
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Pages 30-45
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Page 29
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Pages 30-45
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Pages 27-29, 37
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Pages 30-36

Section and Topic	Item #	Checklist item	Location where item is reported
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 46-49
	23b	Discuss any limitations of the evidence included in the review.	Pages 50-53
	23c	Discuss any limitations of the review processes used.	Page 53
	23d	Discuss implications of the results for practice, policy, and future research.	Pages 53-55
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Page 22
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 22
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 16
Competing interests	26	Declare any competing interests of review authors.	Page 16
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	N/A

Appendix C. Full Search Strategy

1. Mental Health Clinician terms
(“"clinician*" OR “professional*” OR “provider*” OR “practitioner*” OR “staff*”)

2. Implicit Stigma terms
(“implicit*” OR “unconscious*” OR “subconscious*" OR “automatic*” OR “IAT” OR “GNAT” OR “SACS”)

3. Explicit Stigma terms
(“explicit*” OR "stigma*" OR “stereotyp*” OR "bias*" OR "prejud*" OR "attitude*")

4. Mental Illness terms
(“mental*” OR “psychiatri*” OR “psych* dis*” OR “psych* ill*” OR “psych* condition*” OR “substance*” OR “addict*")

Final Search Strategy

“1 AND 2 AND 3 AND 4” [Manually Filter: Publication Year: 1990-2025; Peer Reviewed; English Language; Population Group: Human]

Appendix D. Author Guidelines for PLoS ONE

Style and Format

File format
Manuscript files can be in the following formats: DOC, DOCX, or RTF. Microsoft Word documents should not be locked or protected.

LaTeX manuscripts must be submitted as PDFs. Read the LaTeX guidelines.

Length
Manuscripts can be any length. There are no restrictions on word count, number of figures, or amount of supporting information.

We encourage you to present and discuss your findings concisely.

Font
Use a standard font size and any standard font, except for the font named "Symbol". To add symbols to the manuscript, use the Insert → Symbol function in your word processor or paste in the appropriate Unicode character.

Headings
Limit manuscript sections and sub-sections to 3 heading levels. Make sure heading levels are clearly indicated in the manuscript text.
Layout and spacing
Manuscript text should be double-spaced.

Do not format text in multiple columns.

Page and line numbers
Include page numbers and line numbers in the manuscript file. Use continuous line numbers (do not restart the numbering on each page).
Footnotes
Footnotes are not permitted. If your manuscript contains footnotes, move the information into the main text or the reference list, depending on the content.
Language
Manuscripts must be submitted in English.

You may submit translations of the manuscript or abstract as supporting information. Read the supporting information guidelines.

Abbreviations
Define abbreviations upon first appearance in the text.

Do not use non-standard abbreviations unless they appear at least three times in the text.

Keep abbreviations to a minimum.

Reference style
PLOS uses "Vancouver" style, as outlined in the ICMJE sample references.

See reference formatting examples and additional instructions below.

Equations
We recommend using MathType for display and inline equations, as it will provide the most reliable outcome. If this is not possible, Equation Editor or Microsoft's Insert→Equation function is acceptable.

Avoid using MathType, Equation Editor, or the Insert→Equation function to insert single variables (e.g., "$a^2 + b^2 = c^2$"), Greek or other symbols (e.g., β, Δ, or ′ [prime]), or mathematical operators (e.g., x, ≥, or ±) in running text. Wherever possible, insert single symbols as normal text with the correct Unicode (hex) values.

Do not use MathType, Equation Editor, or the Insert→Equation function for only a portion of an equation. Rather, ensure that the entire equation is included. Equations should not contain a mix of different equation tools. Avoid "hybrid" inline or display equations, in which part is text and part is MathType, or part is MathType and part is Equation Editor.

Nomenclature
Use correct and established nomenclature wherever possible.

Units of measurement: Use SI units. If you do not use these exclusively, provide the SI value in parentheses after each value. Read more about SI units.

Drugs: Provide the Recommended International Non-Proprietary Name (rINN).

Species names: Write in italics (e.g., Homo sapiens). Write out in full the genus and species, both in the title of the manuscript and at the first mention of an organism in a paper. After first mention, the first letter of the genus name followed by the full species name may be used (e.g., H. sapiens).

Genes, mutations, genotypes, and alleles: Write in italics. Use the recommended name by consulting the appropriate genetic nomenclature database (e.g., HGNC for human genes; we strongly recommend using this tool to check against previously approved names). It is sometimes advisable to indicate the synonyms for the gene the first time it appears in the text. Gene prefixes such as those used for oncogenes or cellular localization should be shown in roman typeface (e.g., v-fes, c-MYC).

Allergens: The systematic allergen nomenclature of the World Health Organization/International Union of Immunological Societies (WHO/IUIS) Allergen Nomenclature Sub-committee should be used for manuscripts that include the description or use of allergenic proteins. For manuscripts describing new allergens, the systematic name of the allergen should be approved by the WHO/IUIS Allergen Nomenclature Sub-Committee prior to manuscript publication. Examples of the systematic allergen nomenclature can be found at the WHO/IUIS Allergen Nomenclature site.

Copyediting manuscripts

Prior to submission, authors who believe their manuscripts would benefit from professional editing are encouraged to use language-editing and copyediting services. Obtaining this service is the responsibility of the author, and should be done before initial submission. These services can be found on the web using search terms like "scientific editing service" or "manuscript editing service."

Submissions are not copyedited before publication.

Submissions that do not meet the *PLOS One* publication criterion for language standards may be rejected.

Manuscripts should be organized as follows. Instructions for each element appear below the list.

Beginning section	*The following elements are required, in order:* • Title page: List title, authors, and affiliations as first page of the manuscript • Abstract • Introduction
Middle section	*The following elements can be renamed as needed and presented in any order:* • Materials and Methods • Results • Discussion • Conclusions (optional)
Ending section	*The following elements are required, in order:* • Acknowledgments • References • Supporting information captions (if applicable)
Other elements	• Figure captions are inserted immediately after the first paragraph in which the figure is cited. Figure files are uploaded separately. • Tables are inserted immediately after the first paragraph in which they are cited. • Supporting information files are uploaded separately.

Parts of a Submission

Title

Include a full title and a short title for the manuscript.

Title	Length	Guidelines	Examples
Full title	250 characters	Specific, descriptive, concise, and comprehensible to readers outside the field	Impact of cigarette smoke exposure on innate immunity: A *Caenorhabditis elegans* model Solar drinking water disinfection (SODIS) to reduce childhood diarrhoea in rural Bolivia: A cluster-randomized, controlled trial
Short title	100 characters	State the topic of the study	Cigarette smoke exposure and innate immunity SODIS and childhood diarrhoea

Titles should be written in sentence case (only the first word of the text, proper nouns, and genus names are capitalized). Avoid specialist abbreviations if possible. For clinical trials, systematic reviews, or meta-analyses, the subtitle should include the study design.

Author List
Authorship requirements

All authors must meet the criteria for authorship as outlined in the authorship policy. Those who contributed to the work but do not meet the criteria for authorship can be mentioned in the Acknowledgments. Read more about Acknowledgments.

The corresponding author must provide an ORCID iD at the time of submission by entering it in the user profile in the submission system. Read more about ORCID.
Author names and affiliations
Enter author names on the title page of the manuscript and in the online submission system.
On the title page, write author names in the following order:

- First name (or initials, if used)
- Middle name (or initials, if used)
- Last name (surname, family name)

Each author on the list must have an affiliation. The affiliation includes department, university, or organizational affiliation and its location, including city, state/province (if applicable), and country. Authors have the option to include a current address in addition to the address of their affiliation at the time of the study. The current address should be listed in the byline and clearly labeled "current address." At a minimum, the address must include the author's current institution, city, and country. If an author has multiple affiliations, enter all affiliations on the title page only. In the submission system, enter only the preferred or primary affiliation. Author affiliations will be listed in the typeset PDF article in the same order that authors are listed in the submission.
Author names will be published exactly as they appear in the manuscript file. Please double-check the information carefully to make sure it is correct.

Corresponding author

The submitting author is automatically designated as the corresponding author in the submission system. The corresponding author is the primary contact for the journal office and the only author able to view or change the manuscript while it is under editorial consideration.
The corresponding author role may be transferred to another coauthor. However, note that transferring the corresponding author role also transfers access to the manuscript. (To designate a new corresponding author while the manuscript is still under consideration, watch the video tutorial below.)
Only one corresponding author can be designated in the submission system, but this does not restrict the number of corresponding authors that may be listed on the article in the event of publication. Whoever is designated as a corresponding author on the title page of the manuscript file will be listed as such upon publication. Include an email address for each corresponding author listed on the title page of the manuscript.

Consortia and group authorship

If a manuscript is submitted on behalf of a consortium or group, include its name in the manuscript byline. Do not add it to the author list in the submission system. You may include the full list of members in the Acknowledgments or in a supporting information file.
PubMed only indexes individual consortium or group author members listed in the article byline. If included, these individuals must qualify for authorship according to our criteria.
Read the group authorship policy.

Author contributions

Provide at minimum one contribution for each author in the submission system. Use the CRediT taxonomy to describe each contribution. Read the policy and the full list of roles.
Contributions will be published with the final article, and they should accurately reflect contributions to the work. The submitting author is responsible for completing this information at submission, and we expect that all authors will have reviewed, discussed, and agreed to their individual contributions ahead of this time.

PLOS One will contact all authors by email at submission to ensure that they are aware of the submission.

Cover Letter

Upload a cover letter as a separate file in the online system. The length limit is 1 page.
The cover letter should include the following information:

- Summarize the study's contribution to the scientific literature
- Relate the study to previously published work
- Specify the type of article (for example, research article, systematic review, meta-analysis, clinical trial)
- Describe any prior interactions with PLOS regarding the submitted manuscript
- Suggest appropriate Academic Editors to handle your manuscript (see the full list of Academic Editors)
- List any opposed reviewers

Title page

The title, authors, and affiliations should all be included on a title page as the first page of the manuscript file.

Abstract

The Abstract comes after the title page in the manuscript file. The abstract text is also entered in a separate field in the submission system.

The Abstract should:

- Describe the main objective(s) of the study
- Explain how the study was done, including any model organisms used, without methodological detail
- Summarize the most important results and their significance
- Not exceed 300 words

Abstracts should not include:

- Citations
- Abbreviations, if possible

Introduction

The introduction should:

- Provide background that puts the manuscript into context and allows readers outside the field to understand the purpose and significance of the study
- Define the problem addressed and why it is important
- Include a brief review of the key literature
- Note any relevant controversies or disagreements in the field
- Conclude with a brief statement of the overall aim of the work and a comment about whether that aim was achieved

Materials and Methods

The Materials and Methods section should provide enough detail to allow suitably skilled investigators to fully replicate your study. Specific information and/or protocols for new methods should be included in detail. If materials, methods, and protocols are well established, authors may cite articles where those protocols are described in detail, but the submission should include sufficient information to be understood independent of these references.

Supporting reproducibility with protocols

To enhance the reproducibility of your results, we recommend and encourage you to make your protocols public. There are several options:
Protocols associated with Research Articles
Protocol documents may be uploaded as Supporting Information or linked from the Methods section of the article. For laboratory protocols, we recommend protocols.io. Include the DOI link in the Methods section of your manuscript using the following format: http://dx.doi.org/10.17504/protocols.io.[PROTOCOL DOI]. This allows editors and reviewers to consult the detailed step-by-step protocol when evaluating your manuscript. You can choose to keep the protocol private on the protocols.io platform until your article is published—at which time it will be published automatically.

Protocols published in their own right

PLOS One offers two options for publishing stand-alone protocol articles: Lab Protocols that describe reusable methodologies and Study Protocols that describe detailed plans and proposals for research projects. Specific guidelines apply to the submission of Lab Protocol and Study Protocol manuscripts. Read the detailed instructions for submitting Lab Protocols and Study Protocols.

Results, Discussion, Conclusions

These sections may all be separate, or may be combined to create a mixed Results/Discussion section (commonly labeled “Results and Discussion”) or a mixed Discussion/Conclusions section (commonly labeled “Discussion”). These sections may be further divided into subsections, each with a concise subheading, as appropriate. These sections have no word limit, but the language should be clear and concise.

Together, these sections should describe the results of the experiments, the interpretation of these results, and the conclusions that can be drawn.
Authors should explain how the results relate to the hypothesis presented as the basis of the study and provide a succinct explanation of the implications of the findings, particularly in relation to previous related studies and potential future directions for research.

PLOS One editorial decisions do not rely on perceived significance or impact, so authors should avoid overstating their conclusions. See the *PLOS One* Criteria for Publication for more information.

Acknowledgments

Those who contributed to the work but do not meet our authorship criteria should be listed in the Acknowledgments with a description of the contribution.
Authors are responsible for ensuring that anyone named in the Acknowledgments agrees to be named.
PLOS journals publicly acknowledge the indispensable efforts of our editors and reviewers on an annual basis. To ensure equitable recognition and avoid any appearance of partiality, do not include editors or peer reviewers—named or unnamed—in the Acknowledgments.

Do not include funding sources in the Acknowledgments or anywhere else in the manuscript file. Funding information should only be entered in the financial disclosure section of the submission system.

References

Any and all available works can be cited in the reference list. Acceptable sources include:

- Published or accepted manuscripts
- Manuscripts on preprint servers, providing the manuscript has a citable DOI or arXiv URL.

Do not cite the following sources in the reference list:

- Unavailable and unpublished work, including manuscripts that have been submitted but not yet accepted (e.g., "unpublished work," "data not shown"). Instead, include those data as supplementary material or deposit the data in a publicly available database.
- Personal communications (these should be supported by a letter from the relevant authors but not included in the reference list)
- Submitted research should not rely upon retracted research. You should avoid citing retracted articles unless you need to discuss retracted work to provide historical context for your submitted research. If it is necessary to discuss retracted work, state the article's retracted status in your article's text and reference list.

Ensure that your reference list includes full and current bibliography details for every cited work at the time of your article's submission (and publication, if accepted). If cited work is corrected, retracted, or marked with an expression of concern before your article is published, and if you feel it is appropriate to cite the work even in light of the post-publication notice, include in your manuscript citations and full references for both the affected article and the post-publication notice. Email the journal office if you have questions.

References are listed at the end of the manuscript and numbered in the order that they appear in the text. In the text, cite the reference number in square brackets (e.g., "We used the techniques developed by our colleagues [19] to analyze the data"). PLOS uses the numbered citation (citation-sequence) method and first six authors, et al.
Do not include citations in abstracts.
Make sure the parts of the manuscript are in the correct order *before* ordering the citations.

Formatting references

Because all references will be linked electronically as much as possible to the papers they cite, proper formatting of references is crucial.
PLOS uses the reference style outlined by the International Committee of Medical Journal Editors (ICMJE), also referred to as the "Vancouver" style. Example formats are listed below. Additional examples are in the ICMJE sample references.

A reference management tool, EndNote, offers a current style file that can assist you with the formatting of your references. If you have problems with any reference management program, please contact the source company's technical support.

Journal name abbreviations should be those found in the National Center for Biotechnology Information (NCBI) databases.

Supporting information

Authors can submit essential supporting files and multimedia files along with their manuscripts. All supporting information will be subject to peer review. All file types can be submitted, but files must be smaller than 20 MB in size.

Authors may use almost any description as the item name for a supporting information file as long as it contains an "S" and number. For example, "S1 Appendix" and "S2 Appendix," "S1 Table" and "S2 Table," and so forth. Supporting information files are published exactly as provided, and are not copyedited.

Supporting information captions

List supporting information captions at the end of the manuscript file. Do not submit captions in a separate file.
The file number and name are required in a caption, and we highly recommend including a one-line title as well. You may also include a legend in your caption, but it is not required.

Figures

Do not include figures in the main manuscript file. Each figure must be prepared and submitted as an individual file.

Cite figures in ascending numeric order at first appearance in the manuscript file.
Read the guidelines for figures and requirements for reporting blot and gel results.

Figure captions

Figure captions must be inserted in the text of the manuscript, immediately following the paragraph in which the figure is first cited (read order). Do not include captions as part of the figure files themselves or submit them in a separate document.
At a minimum, include the following in your figure captions:

- A figure label with Arabic numerals, and "Figure" abbreviated to "Fig" (e.g. Fig 1, Fig 2, Fig 3, etc). Match the label of your figure with the name of the file uploaded at submission (e.g. a figure citation of "Fig 1" must refer to a figure file named "Fig1.tif").

- A concise, descriptive title

The caption may also include a legend as needed.
Read more about figure captions.

Tables

Cite tables in ascending numeric order upon first appearance in the manuscript file.
Place each table in your manuscript file directly after the paragraph in which it is first cited (read order). Do not submit your tables in separate files.
Tables require a label (e.g., "Table 1") and brief descriptive title to be placed above the table. Place legends, footnotes, and other text below the table.
Read the guidelines for tables.

Statistical reporting

Manuscripts submitted to *PLOS One* are expected to report statistical methods in sufficient detail for others to replicate the analysis performed. Ensure that results are rigorously reported in accordance with community standards and that statistical methods employed are appropriate for the study design. Consult the following resources for additional guidance:

- SAMPL guidelines, for general guidance on statistical reporting
- *PLOS One* guidelines, for clinical trials requirements
- *PLOS One* guidelines, for systematic review and meta-analysis requirements
- EQUATOR, for specific reporting guidelines for a range of other study types

Reporting of statistical methods

In the methods, include a section on statistical analysis that reports a detailed description of the statistical methods. In this section:

- List the name and version of any software package used, alongside any relevant references
- Describe technical details or procedures required to reproduce the analysis
- Provide the repository identifier for any code used in the analysis (See our code-sharing policy.)

Statistical reporting guidelines:

- Identify research design and independent variables as being between- or within-subjects
- For pre-processed data:
    - Describe any analysis carried out to confirm the data meets the assumptions of the analysis performed (e.g. linearity, co-linearity, normality of the distribution).
    - If data were transformed include this information, with a reason for doing so and a description of the transformation performed
- Provide details of how outliers were treated and your analysis, both with the full dataset and with the outliers removed
- If relevant, describe how missing/excluded data were handled
- Define the threshold for significance (alpha)
- If appropriate, provide sample sizes, along with a description of how they were determined. If a sample size calculation was performed, specify the inputs for power, effect size and alpha. Where relevant, report the number of independent replications for each experiment.
- For analyses of variance (ANOVAs), detail any post hoc tests that were performed

- Include details of any corrections applied to account for multiple comparisons. If corrections were not applied, include a justification for not doing so
- Describe all options for statistical procedures. For example, if t-tests were performed, state whether these were one- or two-tailed. Include details of the type of t-test conducted (e.g. one sample, within-/between-subjects).
- For step-wise multiple regression analyses:
    - Report the alpha level used
    - Discuss whether the variables were assessed for collinearity and interaction
    - Describe the variable selection process by which the final model was developed (e.g., forward-stepwise; best subset). See SAMPL guidelines.
- For Bayesian analysis explain the choice of prior trial probabilities and how they were selected. Markov chain Monte Carlo settings should be reported.

Reporting of statistical results

Results must be rigorously and appropriately reported, in keeping with community standards.

- Units of measurement. Clearly define measurement units in all tables and figures.
- Properties of distribution. It should be clear from the text which measures of variance (standard deviation, standard error of the mean, confidence intervals) and central tendency (mean, median) are being presented.
- Regression analyses. Include the full results of any regression analysis performed as a supplementary file. Include all estimated regression coefficients, their standard error, p-values, and confidence intervals, as well as the measures of goodness of fit.
- Reporting parameters. Test statistics (F/t/r) and associated degrees of freedom should be provided. Effect sizes and confidence intervals should be reported where appropriate. If percentages are provided, the numerator and denominator should also be given.
- P-values. Report exact p-values for all values greater than or equal to 0.001. P-values less than 0.001 may be expressed as $p < 0.001$, or as exponentials in studies of genetic associations.
- Displaying data in plots. Format plots so that they accurately depict the sample distribution. 3D effects in plots can bias and hinder interpretation of values, so avoid them in cases where regular plots are sufficient to display the data.
- Open data. As explained in PLOS's Data Policy, be sure to make individual data points, underlying graphs and summary statistics available at the time of publication. Data can be deposited in a repository or included within the Supporting Information files.

Data reporting

All data and related metadata underlying the findings reported in a submitted manuscript should be deposited in an appropriate public repository, unless already provided as part of the submitted article. See instructions on providing underlying data to support blot and gel results.
Read our policy on data availability.

Repositories may be either subject-specific (where these exist) and accept specific types of structured data, or generalist repositories that accept multiple data types. We recommend that authors select repositories appropriate to their field. Repositories may be subject-specific (e.g., GenBank for sequences and PDB for structures), general, or institutional, as long as DOIs or accession numbers are provided and the data are at least as open as CC BY. Authors are encouraged to select repositories that meet accepted criteria as trustworthy digital repositories, such as criteria of the

Centre for Research Libraries or Data Seal of Approval. Large, international databases are more likely to persist than small, local ones.

Striking image

You can choose to upload a "Striking Image" that we may use to represent your article online in places like the journal homepage or in search results.
The striking image must be derived from a figure or supporting information file from the submission, i.e., a cropped portion of an image or the entire image. Striking images should ideally be high resolution, eye-catching, single panel images, and should ideally avoid containing added details such as text, scale bars, and arrows.
If no striking image is uploaded, we will designate a figure from the submission as the striking image.
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Additional information requested at submission

Financial disclosure statement

This information should describe sources of funding that have supported the work. It is important to gather these details prior to submission because your financial disclosure statement cannot be changed after initial submission without journal approval. If your manuscript is published, your statement will appear in the Funding section of the article.
Enter this statement in the Financial Disclosure section of the submission form. Do not include it in your manuscript file.
The statement should include:

- Specific grant numbers
- Initials of authors who received each award
- Full names of commercial companies that funded the study or authors
- Initials of authors who received salary or other funding from commercial companies
- URLs to sponsors' websites

Also state whether any sponsors or funders (other than the named authors) played any role in:

- Study design
- Data collection and analysis
- Decision to publish
- Preparation of the manuscript

If they had no role in the research, include this sentence: "The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript."
If the study was unfunded, include this sentence as the Financial Disclosure statement: "The author(s) received no specific funding for this work." Read our policy on disclosure of funding sources.

Competing interests

This information should not be in your manuscript file; you will provide it via our submission system. All potential competing interests must be declared in full. If the submission is related to any patents, patent applications, or products in development or for market, these details, including patent numbers and titles, must be disclosed in full.Read our policy on competing interests.

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For manuscripts disputing previously published work, it is *PLOS One* policy to invite a signed review by the disputed author during the peer review process. This procedure is aimed at ensuring a thorough, transparent, and productive review process.
If the disputed author chooses to submit a review, it must be returned in a timely fashion and contain a full declaration of all competing interests. The Academic Editor will consider any such reviews in light of the competing interest.

Authors submitting manuscripts disputing previous work should explain the relationship between the manuscripts in their cover letter, and will be required to confirm that they accept the conditions of this review policy before the manuscript is considered further.

Related manuscripts

Upon submission, authors must confirm that the manuscript, or any related manuscript, is not currently under consideration or accepted elsewhere. If related work has been submitted to *PLOS One* or elsewhere, authors must include a copy with the submitted article. Reviewers will be asked to comment on the overlap between related submissions.
We strongly discourage the unnecessary division of related work into separate manuscripts, and we will not consider manuscripts that are divided into "parts." Each submission to *PLOS One* must be written as an independent unit and should not rely on any work that has not already been accepted for publication. If related manuscripts are submitted to *PLOS One*, the authors may be advised to combine them into a single manuscript at the editor's discretion.
Read our policies on related manuscripts.

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Guidelines for human subjects research

All research involving human participants must have been approved by the authors' Institutional Review Board (IRB) or by equivalent ethics committee(s), and must have been conducted according to the principles expressed in the Declaration of Helsinki. Authors should be able to submit, upon request, a statement from the IRB or ethics committee indicating approval of the research. We

reserve the right to reject work that we believe has not been conducted to a high ethical standard, even when formal approval has been obtained.

Subjects must have been properly instructed and have indicated that they consent to participate by signing the appropriate informed consent paperwork. Authors may be asked to submit a blank, sample copy of a subject consent form. If consent was verbal instead of written, or if consent could not be obtained, the authors must explain the reason in the manuscript, and the use of verbal consent or the lack of consent must have been approved by the IRB or ethics committee.

All efforts should be made to protect patient privacy and anonymity. Identifying information, including photos, should not be included in the manuscript unless the information is crucial and the individual has provided written consent by completing the Consent Form for Publication in a PLOS Journal (PDF). Download additional translations of the form here. More information about patient privacy, anonymity, and informed consent can be found in the International Committee of Medical Journal Editors (ICMJE) Privacy and Confidentiality guidelines.

Manuscripts should conform to the following reporting guidelines:

- Studies of diagnostic accuracy: STARD
- Observational studies: STROBE
- Microarray experiments: MIAME
- Other types of health-related research: Consult the EQUATOR web site for appropriate reporting guidelines

Methods sections of papers on research using human subjects or samples must include ethics statements that specify:

- **The name of the approving institutional review board or equivalent committee(s)**. If approval was not obtained, the authors must provide a detailed statement explaining why it was not needed
- **Whether informed consent was written or oral**. If informed consent was oral, it must be stated in the manuscript:
    - Why written consent could not be obtained
    - That the Institutional Review Board (IRB) approved use of oral consent
    - How oral consent was documented

For studies involving humans categorized by race/ethnicity, age, disease/disabilities, religion, sex/gender, sexual orientation, or other socially constructed groupings, authors should:

- Explicitly describe their methods of categorizing human populations
- Define categories in as much detail as the study protocol allows
- Justify their choices of definitions and categories, including for example whether any rules of human categorization were required by their funding agency
- Explain whether (and if so, how) they controlled for confounding variables such as socioeconomic status, nutrition, environmental exposures, or similar factors in their analysis

In addition, outmoded terms and potentially stigmatizing labels should be changed to more current, acceptable terminology. Examples: “Caucasian” should be changed to “white” or “of [Western] European descent” (as appropriate); “cancer victims” should be changed to “patients with cancer.” For papers that include identifying, or potentially identifying, information, authors must download the Consent Form for Publication in a PLOS Journal, which the individual, parent, or guardian must sign once they have read the paper and been informed about the terms of PLOS open-access license. The signed consent form should not be submitted with the manuscript, but authors should securely

file it in the individual's case notes and the methods section of the manuscript should explicitly state that consent authorization for publication is on file, using wording like:

The individual in this manuscript has given written informed consent (as outlined in PLOS consent form) to publish these case details.

For more information about *PLOS One* policies regarding human subjects research, see the Publication Criteria and Editorial Policies.

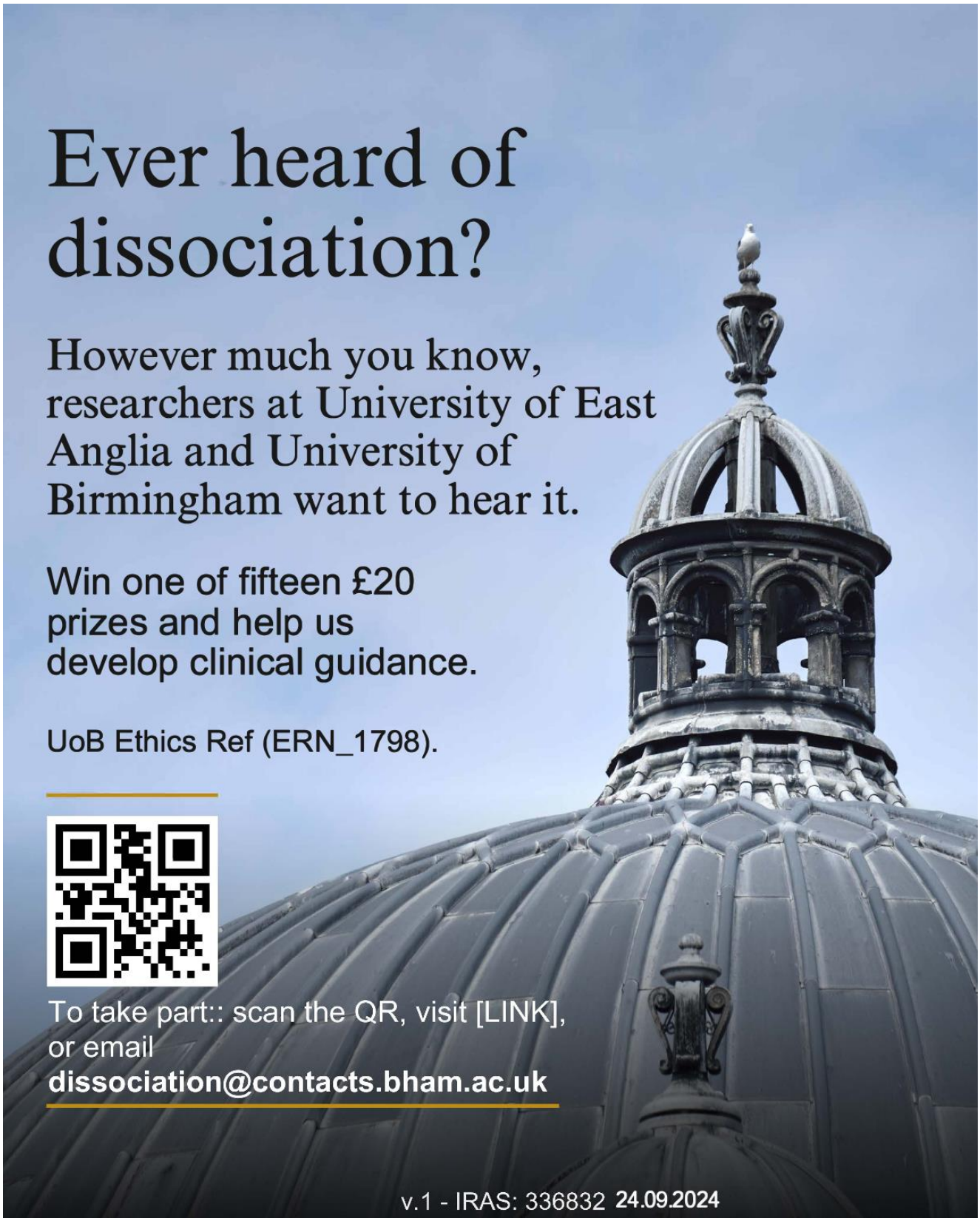
Manuscripts describing observational clinical studies are subject to all policies regarding human research and community standards for reporting observational research as outlined by the STROBE statement. Furthermore, authors submitting work of this nature should pay special attention to the following requirements:

- If the submitted manuscript is very similar to previous work, authors must provide a sound scientific rationale for the submitted work and clearly reference and discuss the existing literature.
- The sampling strategy and eligibility criteria of enrolled subjects should be described in sufficient detail.
- Sample size calculations should be justified with relevant inputs defined.
- Independent and dependent variables considered for statistical analysis should be clearly defined and justified.
- The validity and reliability testing of self-developed data collection tools should be reported.
- Conclusions should be appropriate for the study design, with indications on how the study results will contribute to the base of academic knowledge.

Guidelines for qualitative research

Qualitative research studies use non-quantitative methods to address a defined research question that may not be accessible by quantitative methods, such as people's interpretations, experiences, and perspectives. The analysis methods are explicit, systematic, and reproducible, but the results do not involve numerical values or use statistics. Examples of qualitative data sources include, but are not limited to, interviews, text documents, audio/video recordings, and free-form answers to questionnaires and surveys. Qualitative research studies should be reported in accordance to the Consolidated criteria for reporting qualitative research (COREQ) checklist or Standards for reporting qualitative research (SRQR) checklist.

Appendix E. Poster Adverts for Empirical Study




v.1 - IRAS: 336832
Skeptic? Expert? Neither?
Whatever your opinions about dissociation, researchers at the University of East Anglia and the University of Birmingham want to hear them.
Win one of fifteen £20 prizes and help us develop clinical guidance.
UoB Ethics Ref (ERN_1798).
To take part: scan the QR code, visit https://bit.ly/4g72sje, or email dissociation@contacts.bham.ac.uk

Appendix F. Qualtrics Survey for Empirical Project

Consent	PIS
	Informed consent statements
Demographics	*This section asks about you, so that we can understand who took part in this survey. Please answer as many questions as you can. All of your responses are confidential.*
	Age
	Gender [m/f/non-binary/other/prefer not to say]
	Ethnicity • Prefer not to say • Asian / Asian British ▪ Indian ▪ Pakistani ▪ Bangladeshi ▪ Chinese ▪ Other Asian background • Black / African / Caribbean / Black British ▪ African ▪ Caribbean ▪ Any other Black / African / Caribbean background • Mixed or Multiple ethnic groups ▪ Black Caribbean & White ▪ Black African & White ▪ Asian & White ▪ Other Mixed / Multiple ethnic background • White ▪ English / Welsh / Scottish / Northern Irish / British ▪ Irish ▪ Gypsy or Irish Traveller ▪ Roma ▪ Polish ▪ Other White background • Other ▪ Arab ▪ Other: [Free text box]
	Are you registered with a regulatory professional council (e.g., HCPC, GMC, NMC etc.)? [yes/no/prefer not to say]
	Which of the below most closely describes your main professional background? (If you have more than one, please answer based on which is most relevant to your current role). [list of mental health professions / 'other' with free text box / prefer not to say] The list will include medical, nursing, psychology and allied health professionals (e.g., social work).
	How many years have you worked in your main profession? ['free text box' – years / prefer not to say]
	Which NHS Trust do you work for? [drop down of those that have agreed to participate]
	Which of the below most closely describes the mental healthcare setting / service you work in? [acute or inpatient setting / community mental health team (CMHT) / early intervention for psychosis (EIP) team / crisis or home treatment team / diagnostic or assessment service / secure forensic service / liaison team / 'other' with free text box / prefer not to say]
	Which age-range of service users do you work with? (If you work with multiple age-ranges, you may select more than one listed).

NB: The next four blocks ("Knowledge & Understanding"; "Attitudes & Beliefs"; "Information & Misinformation" and "Experience") will be randomised to mitigate against the latter questions being affected by drop-out.

Knowledge & Understanding	*We are interested in understanding how much people already know about dissociation. This means we are also interested in understanding how much people don't know, and what people might guess if they don't know or are unsure – it is not a test to see if you know the "right" answers. Please answer the following questions based on what you already know, without looking anything up, and give your best guess if you are not sure.*
	Had you heard of dissociation before taking this survey? [Y/N] If yes, where have you heard about it most? [Free text] If yes, have you heard any specific terms used in relation to dissociation? [Free text]
	Do you think you know what dissociation is? [Y/N] If yes, how confident do you feel about your understanding of what dissociation is? [0-100 scale] If yes, what do you think dissociation is? [Free text]
	Do you think you know what depersonalisation is? [Y/N] If yes, how confident do you feel about your understanding of what depersonalisation is? [0-100 scale] If yes, what do you think depersonalisation is? [Free text]
	Did you receive training about dissociation as part of your professional qualification / core training? [Y/N/Don't know] If yes, please give a very brief summary of this (e.g., when/how long ago, how much time spent, who provided the training.) [Free text]
	Have you received any additional training about dissociation since qualifying / your core training? [Y/N/Don't know] If yes, please give a brief summary of this (e.g., when/how long ago, how much time spent, who provided the training.) [Free text]
	Before we move on, is there anything more you would like to tell us about your **knowledge and understanding** of dissociation, or about any of your answers on this page? (NB: we ask questions about whether you have had any *experience* of dissociation on the final page). [Free text]
Attitudes and Beliefs	*We are interested in understanding what people think about dissociation. This means we are interested in negative as well as positive attitudes and opinions about dissociation. Please answer the following questions honestly. If you are unsure, please give your best guess. All of your answers are confidential.*
	If you had to choose 3 words to describe dissociation, what would they be? [free text]
	If you had to choose 3 words to describe a patient with dissociation, what would they be? [free text]
	If we view dissociation as a mental health problem (like Depression, Schizophrenia, OCD, etc.):
	How common is it? [0-does not exist; 100-extremely common]
	How much of a problem is it? [0- not at all; 100-extremely]
	How dangerous is it? [0- not at all; 100-extremely]
	How treatable is it? [0- not at all; 100-extremely]
	How stigmatised is it? [0- not at all; 100-extremely]
	Is it more biological ("nature": e.g., genetics, brain chemistry or function) or more psychological ("nurture": the results of your life experiences and outlook)? [bipolar 0-100 scale with one label on each end]
	What percentage of the UK population have experienced dissociation ever in their lives? [0-100]
	What percentage of the UK population have experienced dissociation in the past month? [0-100]
	You are talking with a patient, and they tell you that they think they have dissociation…
	What are your very first thoughts and feelings in response to this? [free text]
	If they asked for advice, what would you suggest they do? [free text]
	What treatment and/or support plan might be indicated? [free text]

	Overall, young people's attitudes towards dissociation are: Negative - Positive [bipolar 0-100 scale with one label on each end]
	Overall, mental health clinicians' attitudes towards dissociation are: Negative - Positive [bipolar 0-100 scale with one label on each end]
	"There is a place for dissociation in core clinical training" [bipolar scale from 0 (disagree) to 100 (agree)]
	Before we move on, is there anything more you would like to tell us about your **attitudes towards and beliefs about** dissociation, or about any of your answers on this page? [Free text]
Information and Misinformation	How trustworthy do you think the following are as a source of information about dissociation? (And please indicate whether or not you use these yourself (for any reasons, not only as sources of information)). [list of media & social media outlets + Y/N/prefer not to say Q re: personal use] [film, TV series, fiction books, news (traditional: TV, radio, newspapers), news (new: e.g., online), Meta/Facebook, Instagram, Telegram, TikTok, Twitter, YouTube, Reddit, Other [free text] [x4]]
	If you had to choose 3 words to describe how dissociation is portrayed on social media, what would they be? [free text]
	Where would you advise a patient to go to get trustworthy, accurate information about dissociation? [Free text]
	How much do you believe that…? [0-completely disagree; 100-completely agree]
	"Dissociation is just a fad / trend"
	"Dissociation is something a minority of doctors in the USA diagnose, it's not a standard mental health problem"
	"Dissociation is rare"
	"Dissociation is caused by trauma"
	"Dissociation isn't a real mental health problem – biased doctors and/or social media convince people it is"
	What do you think are some common myths (incorrect beliefs) many patients have about dissociation? [Free text]
	What do you think are some common myths (incorrect beliefs) many NHS staff have about dissociation? [Free text]
	Before we move on, is there anything more you would like to tell us about **information and misinformation** in relation to dissociation, or about any of your answers on this page? [Free text]
Experience	Do you think you have worked with service users who experience / have ever experienced dissociation? [Y/N/Don't know/Prefer not to say]
	Do you think you experience / have ever experienced dissociation? [Y/N/Don't know/Prefer not to say]
	Do you have a friend or relative who experiences / has experienced dissociation? [Y/N/Don't know/Prefer not to say]
	ČEFSA-14 scale [see corresponding document]
	This is the last page of questions. Before we finish, is there anything more you would like to tell us about **your experience** of dissociation, or about any of your answers on this page? (Please note that we cannot give clinical advice or offer crisis care). [Free text]
	Thank you for participating! We appreciate your time and effort. Your responses will help us understand the beliefs and attitudes different groups of people hold about dissociation. **Please click NEXT to FINISH the survey.**
Prize Draw	If you would like to hear about similar research in future, please enter your name and email address below. This is entirely voluntary. If supplied, your name and email address will be stored securely, separately from your answers, and deleted at your request if you email dissociation@contacts.bham.ac.uk

	• Name [free text box] • Email address [free text box] • Some of our future studies may require attending a study session at the University of Birmingham – would you be interested in hearing about studies requiring this? □ Yes, and I could visit UoB if required □ No, I only want to hear about online / remote studies.
	To enter the prize draw to win one of fifteen £20 Amazon vouchers, please enter your name and email address below. - Name [free text box] - Email address [free text box] *Your name and email address will be stored separately from your answers, and will be deleted after the survey is closed and the winners contacted.*
	Resources for support will be shown on the next page.
Debrief screen	**THANK YOU** **for participating in this survey** Your responses have now been saved. If this study has raised any concerns for you, please consult your staff information portal or line manager for advice about the support services available to you. For specific support relating to dissociation, Unreal is a UK charity for Depersonalisation Disorder (www.unrealuk.org). For staff support across the NHS, including staff wellbeing hubs and wellbeing apps, information is provided by NHS England (https://www.england.nhs.uk/supporting-our-nhs-people/support-now/). There is a free and confidential text support service for NHS staff run by the UK Charity Shout, which you can access by texting **FRONTLINE to 85258** for support 24/7. You can also contact your GP or a helpline, such as Samaritans (a 24/7 free telephone support service via 116 123). **In the case of an emergency please call 999 or attend your local A&E.**

Appendix G. Participant Information Sheet

School of Psychology
University of Birmingham
Edgbaston
B15 2TT

Norwich Medical School
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Attitudes & Beliefs Concerning Dissociation (ABCD) (Part 3 – Clinicians)

This study is being carried out by Dr Emma Černis, Assistant Professor of Clinical Psychology at the University of Birmingham, UK.
This study is sponsored and insured by the University of Birmingham, and has received ethical approval from the University of Birmingham ethics committee. The study has also received approval from the Health Research Authority.
If you have any questions about the study after reading the information below, please contact Dr Emma Černis by emailing dissociation@contacts.bham.ac.uk or Christopher Jones by emailing C.Jones15@uea.ac.uk

Study Purpose
This study is for anyone who has a patient-facing role in an NHS secondary mental health service. It is made up of one online survey. This survey will be repeated once every 2 years. You are free to participate in more than one recruitment round.
The purpose of this research is to find out more about what NHS staff understand by the term 'dissociation': including their attitudes, beliefs, attitudes, and opinions about it.
To get a representative view, we want to hear from as broad a range of people as possible: this means we also want to hear from people who are unfamiliar with the term 'dissociation', and those who may consider it to be iatrogenic, or not a real disorder/problem.
You will be able to skip questions, or select "I don't know", although we would be very interested in hearing your best guesses to as many questions as possible – this is not a test of accuracy, or "right" or "wrong".
You do not have to have had any experience of working with someone with dissociation to participate in the study. We would really like as many people as possible to participate, as all perspectives are equally helpful to our research.
If you agree to take part in the research, you will be asked to complete an online consent form first. You will then be asked to complete an online survey. This survey will contain demographic questions, questions about your understanding of the term 'dissociation', your attitudes towards and beliefs about it, your opinions about where to find accurate information about dissociation, and your own personal experience of it (if any). Many questions will be "free text" boxes – where you can type your response like a conversation. You do not need to worry about spelling or formatting in these answers: you can use bullet points if you like. However, please do write in English. You can write as much or as little as you like in these boxes, and you can suggest answers even if you do not feel confident that they are right – we want to hear anything you have to say about this topic!
The whole survey will take approximately 25 minutes to complete. It would help us if you complete as many of the questions as possible, although you may skip questions if necessary.

Do I have to take part?
Participation is voluntary. You do not have to take part.
You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have. We need to manage your records in specific ways for the research to be reliable. This means that we won't be able to let you see or change the data we hold about you.
Please remember that during the survey, you can take a break at any time if you would like.

Prize Draw
As a thank you to participants who complete the survey, you will be offered the chance to enter a prize draw to win one of 15 £20 Amazon shopping vouchers.
To enter the draw, please supply your email at the end of the final survey. Please note that this email will be stored separately from your answers and therefore your responses will remain anonymous. Email addresses supplied for the purpose of the prize draw will be deleted once the winner is chosen and the survey closed.

Future Research
At the end of this survey, you will be asked whether you would like to be emailed about similar research we run in the future. This is entirely voluntary. If supplied, your email address will be stored securely, separately from your answers, and deleted at your request (see below).

Risks and Aftercare
Unfortunately, we will not be able to follow up with you individually after this study. In the event that you feel upset after completing the study, or find that some questions or aspects of the study triggered distress, please reach out to the relevant service for support. Your line manager or staff information portal should be able to advise on this if you are unsure.
For specific support relating to dissociation, Unreal is a UK charity for Depersonalisation Disorder (www.unrealuk.org).

For staff support from your local NHS Trust, please consult your line manager or staff information portal for resources.
For staff support across the NHS, including staff wellbeing hubs and wellbeing apps, information is provided by NHS England (https://www.england.nhs.uk/supporting-our-nhs-people/support-now/).
There is a free and confidential text support service for NHS staff run by the UK Charity Shout, which you can access by texting **FRONTLINE to 85258** for support 24/7.
You can also contact your GP or a helpline, such as Samaritans (a 24/7 free telephone support service via 116 123). In the case of an emergency please call 999.

How will my data be used?
We will need to use information from you for this research project.
This information will include the information from the survey. People will use this information to do the research or to check your records to make sure that the research is being done properly.
People who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead.
We will keep all information about you safe and secure.
Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.
It will not be possible to identify you from the answers you give. We will use all reasonable endeavours to keep your answers confidential. The University of Birmingham are collaborating with

the University of East Anglia for this study. Your data such as the survey responses and your email address if provided, will be stored securely at the University of Birmingham and University of East Anglia. Your IP address will not be stored.

Some initial anonymised data will be analysed and written up by clinical psychology doctoral students at the University of Birmingham and University of East Anglia for their research projects. The main findings, including anonymised quotations, will be published in a peer-reviewed journal, and will be incorporated into presentations (e.g., for the purposes of training clinicians, or presenting the findings at scientific conferences). A summary of study results will be sent to the service/team managers of all participating NHS Trusts who will circulate the summary of findings to their teams for dissemination. This will be written in lay language.

A version of the final anonymous dataset will be made freely available to other researchers online via the Open Science Framework. The findings of this project will be published as original research in peer-reviewed scientific journals, to facilitate future research and clinical care. No personally identifiable information will be included in any of these publications.
At the end of the project, this data will be kept for ten years after publication before being deleted. An anonymised version of the data may also be used by the research team in other ethically-approved research studies within this timeframe.

Email addresses provided for the prize draw or future contact will be stored separately from the survey responses and will never be passed on to third parties. Email addresses for the prize draw will be deleted as soon as the study is complete and the draw has been conducted. Email addresses will be deleted if you email dissociation@contacts.bham.ac.uk to request your details to be deleted.

Who will have access to my data? (Fair Processing Statement)
This information is being collected as part of a research project by Dr Emma Černis in the School of Psychology in the University of Birmingham. The information which you supply and that which may be collected as part of the research project will be entered into a filing system or database and will only be accessed by authorised personnel involved in the project. The information will be retained by the University of Birmingham and will only be used for the purpose of research, and statistical and audit purposes. By supplying this information, you are consenting to the University storing your information for the purposes stated above. The information will be processed by the University of Birmingham in accordance with the provisions of the Data Protection Act 2018. No identifiable personal data will be published.
For the duration of the study, the online survey platform will also be a data controller with respect to your personal data. Qualtrics is an online survey platform, which is GDPR-compliant and adheres to the EU-US Privacy Shield Framework. It encrypts data as it is transferred into storage at the University of Birmingham. At end of the study, the encrypted data on Qualtrics will be deleted and Qualtrics will not continue to store data on its servers.

Where can you find out more about how your information is used?
You can find out more about how we use your information:

- By asking one of the research team:
  - Christopher Jones C.Jones15@uea.ac.uk
  - Dr Emma Černis dissociation@contacts.bham.ac.uk
- Or by emailing dataprotection@contacts.bham.ac.uk

What if there is a problem?

If you have a concern about any aspect of this project, please speak to the relevant researcher (Dr Emma Černis, dissociation@contacts.bham.ac.uk), who will do their best to answer your query. The researcher should acknowledge your concern within 10 working days and give you an indication of how they intend to deal with it. If you remain unhappy or wish to make a formal complaint, please contact Mrs Sue Cottam (Research Ethics Manager), who will seek to resolve the matter swiftly (s.l.cottam@bham.ac.uk).

Appendix H. Consent Form for Participants

School of Psychology
University of Birmingham
Edgbaston
B15 2TT

Norwich Medical School
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Attitudes & Beliefs Concerning Dissociation (ABCD) (Part 3 – Clinicians)

Consent

Before you can proceed to the survey, please confirm the following by checking the boxes. If you have decided not to take part, clicking "I do not give consent" will exit the survey, or you may close the browser window.

□ I confirm I have read and understood the information sheet for this study.

□ I confirm that I work in a patient-facing role in an NHS mental health service/team and not in a purely administrative or professional services role and I am aged between 18-80 years old.

□ I confirm that I understand that participating is voluntary, and that I am free to exit or withdraw from this study at any time.

□ I confirm that I understand that it will not be possible to withdraw or delete any data I provide in this survey once it has been entered.

□ I confirm that I understand my anonymised quotations may be used in scientific publications, but this will not include any identifiable information.

□ I confirm that I understand my anonymised data may be used by the research team for other ethically-approved research studies.

□ I confirm that I understand that my data will be included in an anonymised version of the final dataset that will be published on the Open Science Framework platform after the study closes.

□ I understand data collected for the study will be shared with the University of East Anglia for analysis.

If you have read the information above, and agree to participate with the understanding that the data (including any personal data) you submit will be processed accordingly, please check the relevant box below to indicate whether you volunteer to participate:

□ I understand the above, and I consent to take part in this study.

OR:

□ I do not give consent *(This will exit the survey)*

Appendix I. Černis Felt Sense of Anomaly Scale: Short-Form (ČEFSA-14)

Please read the following items and rate how often you have experienced these over the past **TWO WEEKS** using the following rating:

0	1	2	3	4
Never	Rarely	Sometimes	Often	Always

Please note that this should NOT be whilst under the influence of drugs, alcohol or legal highs.

		Never	Rarely	Sometimes	Often	Always
1.	I don't fully experience emotions.	0	1	2	3	4
2.	I feel disconnected from the world around me.	0	1	2	3	4
3.	I'm absorbed in my own world and don't notice what is happening around me.	0	1	2	3	4
4.	My personality changes seemingly at random.	0	1	2	3	4
5.	I feel disconnected from other people.	0	1	2	3	4
6.	I find myself drifting off into my own world when I'm with others.	0	1	2	3	4
7.	My body (or parts of it) feels unreal or strange.	0	1	2	3	4
8.	I feel detached from my emotions.	0	1	2	3	4
9.	I act like someone else without meaning to.	0	1	2	3	4
10.	People I know seem unfamiliar.	0	1	2	3	4
11.	I feel as though other people stop existing when I can't see them.	0	1	2	3	4
12.	My body feels numb.	0	1	2	3	4
13.	Things I've done many times before seem new or unfamiliar.	0	1	2	3	4
14.	I feel like an alien or a ghost.	0	1	2	3	4

Černis, E., Loe, B. S., Lofthouse, K., Waite, P., Molodynski, A., Ehlers, A., & Freeman, D. (2024). Measuring dissociation across adolescence and adulthood: developing the short-form Černis Felt Sense of Anomaly scale (ČEFSA-14). *Behavioural and Cognitive Psychotherapy*, 52, 163-177. https://doi.org/10.1017/S1352465823000498

Appendix J. Budget Approval Form

UEA DOCTORATE IN CLINICAL PSYCHOLOGY THESIS FUNDING REQUEST FORM (FOR SUBMISSION AFTER THESIS PROPOSAL ASSIGNMENT PASSED)

This form should be completed using the 'Guidelines for the ClinPsyD Thesis Budget'.
The overall total should not exceed £400 and each cost requested must be fully justified.

Trainee name: Christopher Jones

Title of project: Attitudes and Beliefs Among NHS Clinicians Concerning Dissociation

Item description (Please provide specific detail about the item under the appropriate subsections)	**Unit cost (£.p)**	**Quantity**	**Overall Cost (£)** (unit cost x quantity)	**Justification** (where necessary)
Patient and Public Involvement (PPI) activities				
N/A				
		Subtotal:		
Participant Payments/token of gratitude/prize draw (e.g. shopping vouchers)				
Amazon shopping vouchers for prize draw	£20.00	15	£300.00	Prize draw as incentive to partake in the research. Our recruitment will be uncapped, meaning we may recruit many participants (minimum of 100 respondents, 50 from each NHS Trust). This means there would be a maximum of 15% chance of winning a voucher, if the minimum number of participants have been achieved.
		Subtotal:	£300.00	
Consumables (including printing/photocopying, questionnaires, etc)				
Printing of Physical Study Flyers/Posters	£0.25 per poster in colour	20	£5.00	To aid recruitment across the NHS Trusts.
		Subtotal:	£5.00	

Services (e.g. online recruitment or advertising charges, creation of materials, transcription)				
N/A				
			Subtotal:	
Software (please note that software will only be funded in exceptional circumstances, as per guidance)				
N/A				
			Subtotal:	
Equipment (please check whether relevant equipment is already available within Department)				
N/A				
			Subtotal:	
			OVERALL TOTAL:	£305.00

New Budget Request? **Yes** / No
Submitting budget for PPI costs only (pre-ethical approval)? Yes / **No**
Resubmitted Budget Request? Yes / **No**

Original amount requested: N/A
New amount requested: N/A
Explanation of difference between original and new amounts requested: N/A

Joint budget with another trainee? Yes / **No**
If yes, name of trainee:

Has proof of ethical approval been attached: **Yes** / No **(UEA, UoB and HRA Approvals attached in email).** NHS funded trainee: **Yes** / No

Trainee: I confirm that: 1. I have read and followed the thesis budget guidance in preparing this proposed budget, 2. All expenses are reasonable, necessary and justified in line with the guidance

Signed: 

Date: 02.12.2024

Print name: Christopher Jones

Primary supervisor: I confirm that: 1. I have been consulted on this trainee's budget, 2. I have checked that all expenses are reasonable, necessary and justified in line with the guidance, and 3. I support the proposed budget.

Signed: 

Date: 07.06.2024

Print name: Dr Eleftherios Kipoulas
(Primary Research Supervisor)

Office use only

Approved? YES Amount approved (if different to above):

If no, please detail required changes

Signed: 

Date: 17.12.24

(PGR Director ClinPsyD)

Appendix K. Confirmation Letter from the University of Birmingham STEM Research Ethics Committee

Dear Emma Cernis

RE: ABCD (Part 3)

UNIVERSITY OF BIRMINGHAM

Application for Ethical Review: ERN_1798-Jun2024

Thank you for your application for ethical review for the above project, which was reviewed by the Science, Technology, Engineering and Mathematics Committee. On behalf of the Committee, **I confirm that this study now has ethical approval.**

Please be aware that this project also requires Sponsor authorisation prior to submission to the Health Research Authority (HRA). The Research Governance Team has been informed that the ethical approval is granted and will be in touch with you shortly. If you wish to contact the Research Governance Team directly please use researchgovernance@contacts.bham.ac.uk
Any adverse events occurring during the study should be promptly brought to the Committee's attention by the Principal Investigator and may necessitate further ethical review and/or reporting to the HRA.

Please ensure that the relevant requirements within the University's Code of Practice for Research and the information and guidance provided on the University's ethics webpages (available at https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/ResearchEthics/Links-and-Resources.aspx) are adhered to. Please be aware that whilst Health and Safety (H&S) issues may be considered during the ethical review process, you are still required to follow the University's guidance on H&S and to ensure that H&S risk assessments have been carried out as appropriate. For further information about this, please contact your School H&S representative or the University's H&S Unit at healthandsafety@contacts.bham.ac.uk.

Kind regards,
The Co-Chairs of the Science, Technology, Engineering and Mathematics Committee
E-mail: ethics-queries@contacts.bham.ac.uk

Appendix L. Confirmation Letter from the UEA FMH Research Ethics Committee

University of East Anglia
Norwich Research Park
Norwich. NR4 7TJ
Email: ethicsmonitor@uea.ac.uk
Web: www.uea.ac.uk



Study title: Attitudes and Beliefs Concerning Dissociation (ABCD) Among NHS Clinicians.

Application ID: ETH2324-3040

Dear Christopher,

Your application was considered on 1st August 2024 by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee).

The decision is: **approved**.

You are therefore able to start your project subject to any other necessary approvals being given.
If your study involves NHS staff and facilities, you will require Health Research Authority (HRA) governance approval before you can start this project (even though you did not require NHS-REC ethics approval). Please consult the HRA webpage about the application required, which is submitted through the IRAS system.

This approval will expire on **3rd March 2026**.
Please note that your project is granted ethics approval only for the length of time identified above. Any extension to a project must obtain ethics approval by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) before continuing.

It is a requirement of this ethics approval that you should report any adverse events which occur during your project to the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) as soon as possible. An adverse event is one which was not anticipated in the research design, and which could potentially cause risk or harm to the participants or the researcher, or which reveals potential risks in the treatment under evaluation. For research involving animals, it may be the unintended death of an animal after trapping or carrying out a procedure.

Any amendments to your submitted project in terms of design, sample, data collection, focus etc. should be notified to the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) in advance to ensure ethical compliance. If the amendments are substantial a new application may be required.

Approval by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) should not be taken as evidence that your study is compliant with the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018. If you need guidance on how to make your study UK GDPR compliant, please contact the UEA Data Protection Officer (dataprotection@uea.ac.uk).

Please can you send your report once your project is completed to the FMH S-REC (fmh.ethics@uea.ac.uk).

I would like to wish you every success with your project.
On behalf of the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee)

Yours sincerely,
Dr Paul Linsley

Appendix M. Confirmation Sponsor Letter from the University of Birmingham

Dr Emma Cernis
School of Psychology
University of Birmingham



UNIVERSITY OF BIRMINGHAM

Friday, 8 November 2024

Dear Dr Emma Cernis

Project Title: Attitudes and Beliefs Concerning Dissociation (Part 3 - Clinicians)
IRAS ID: 336832
Sponsor Reference: RG_24-025
UoB Ethics Reference: ERN_1798

Under the requirements of UK Policy Framework for Health and Social Care Research, the University of Birmingham agrees to act as Sponsor for this project. Sponsorship is subject to you obtaining a favourable ethical opinion, HRA approval and NHS R&D management approval where appropriate.
As Chief Investigator, you must ensure that local study recruitment does not commence until all applicable approvals have been obtained. Where a study is or becomes multi-site you are responsible for ensuring that recruitment at external sites does not commence until local approvals have been obtained.

Following receipt of all relevant approvals, you should ensure that any subsequent amendments are notified to the Sponsor, REC, HRA and relevant NHS R&D Office(s), and that an annual progress report is submitted to the Sponsor, REC and NHS R&D departments where requested.

Please ensure you are familiar with the University of Birmingham Code of Practice for Research (http://www.birmingham.ac.uk/Documents/university/legal/research.pdf) and any appropriate College or School guidelines.

Finally please contact researchgovernance@contacts.bham.ac.uk should you have any queries.

You may show this letter to external organisations.

Yours sincerely

PP. Gill – Stokes

Dr Birgit Whitman
Head of Research Governance and Integrity

Appendix N. Confirmation of Clinical Research Insurance from the University of Birmingham

To Whom It May Concern,

Friday, 8 November 2024

UNIVERSITY OF BIRMINGHAM

Dear Sir / Madam,

Project Title: Attitudes and Beliefs Concerning Dissociation (Part 3 - Clinicians)

Sponsor Reference: RG_24-025

The University currently arranges Clinical Research Insurance through membership of UMAL, this cover is renewable annually on 1st August and the University ensures that there are no gaps in cover.

We confirm that the University will arrange insurance for the above research for the duration of the research project involving human participants including legal liability cover. This will be subject to the terms, conditions and exceptions of the relevant liability insurance policies as detailed in the current trial documentation.

The University will provide notification if there are any changes to the provider in a particular year or if the indemnity limits change. Copies of the trial specific annual confirmatory letters will be available upon request.

Yours faithfully,

PP.

Dr Birgit Whitman
Head of Research Governance and Integrity

Appendix O. Confirmation of HRA and Health and Care Research Wales (HCRW) Approval

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Emma Cernis
School of Psychology

University of Birmingham
Edgbaston
B15 2TT

Email: approvals@hra.nhs.uk
HCRW.approvals@wales.nhs.uk

20 November 2024

Dear Dr Cernis

HRA and Health and Care

Study title:	**Attitudes and Beliefs Concerning Dissociation (Part 3 - Clinicians)**
IRAS project ID:	**336832**
REC reference:	**24/HRA/4823**
Sponsor	**Head of Research Ethics, Governance and Integrity, University of Birmingham**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?

HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including

this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The *"After HRA Approval – guidance for sponsors and investigators"* document on the HRA website gives detailed guidance on reporting expectations for studies with HRA and HCRW Approval, including:

- Registration of Research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. Contact details are below.

Your IRAS project ID is **336832**. Please quote this on all correspondence.

Yours sincerely,

Michelle Ahmed

Approvals Specialist

Email: approvals@hra.nhs.uk

Copy to: Dr Birgit Whitman

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Contract/Study Agreement template [PIC agreement]	1	06 November 2024
Copies of materials calling attention of potential participants to the research [Recruitment poster]	1	24 September 2024
Copies of materials calling attention of potential participants to the research [Alternative recruitement poster]	1	24 September 2024
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Clinical Trials insurance]	1	01 August 2024

IRAS Application Form [IRAS_Form_14112024]		14 November 2024
Letter from sponsor [Sponsor Letter]	1	11 November 2024
Non-validated questionnaire [Mixed methods survey]	3	25 May 2024
Other [Insurance Letter]	1	11 November 2024
Other [Sponsor liability cover]	1	01 August 2024
Participant consent form [ICF]	4	31 July 2024
Participant information sheet (PIS) [PIS]	4	20 September 2024
Research protocol or project proposal [Protocol]	3	19 July 2024
Summary CV for Chief Investigator (CI) [CI CV (Emma Cernis)]	1	04 July 2024
Summary CV for student [Student CV (Christopher Jones)]	1	19 June 2024
Validated questionnaire [CEFSA-14 scale]	1	06 November 2024

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
Activities at NHS organisations will involve PIC activity only, including the identification of participants, database searches and the mailing out of study documentation.	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study in accordance with the contracting expectations detailed. Due to the nature of the activities involved, organisations will be expected to provide that confirmation to the sponsor Within **35 days** of receipt of the local information pack After	The sponsor has provided the appropriate model non-commercial PIC agreement that it intends to use as a contract between itself and NHS organisations acting as their Participant Identification Centres (PICs).	Sponsor is not providing funding to PICs.	The Chief Investigator will be responsible for all study activities performed at PICs.	Where an external individual will be conducting any of the research activities that will be undertaken at this site type then they would be expected to hold a Letter of Access. This should be issued be on the basis of a Research Passport (if university employed) or an NHS to NHS confirmation of pre-engagement checks letter (if NHS employed). These should confirm Occupational Health Clearance. These should confirm standard DBS checks.
	HRA/HCRW Approval has been issued. If the organisation is not able to formally confirm capacity and capability within this timeframe, they must inform the sponsor of this and provide a justification. If the sponsor is not satisfied with the justification, then the sponsor may escalate to the National Coordinating Function where the participating NHS organisation is located.				

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they intend to apply for inclusion on the NIHR CRN Portfolio.

Appendix P. Data Sharing / Project Agreement between UoB and UEA For Empirical Project

UoB Ref: **3187724**

UNIVERSITY OF BIRMINGHAM

PROJECT AGREEMENT

Between

THE UNIVERSITY OF BIRMINGHAM

and

UNIVERSITY OF EAST ANGLIA

UoB Ref: **3187724**

IN WITNESS WHEREOF the Parties have executed this Agreement on the date of the last signature

For and on behalf of THE UNIVERSITY OF BIRMINGHAM

Signed by:
Signature: Chris Bradley
8DF149735DE84C5...

Name: Chris Bradley

Title: Research Support Manager

Date: 09-Sep-2025

For and on behalf of UNIVERSITY OF EAST ANGLIA

DocuSigned by:
Signature: Katt Riley
52CB9C2F7F4644B...

Name: Katt Riley

Title: Contracts Officer

Date: 09-Sep-2025

UoB Ref: **3187724**

THIS PROJECT AGREEMENT is made on the date of the last signature between

1. **THE UNIVERSITY OF BIRMINGHAM**, a charitable body registered in England under registration number RC000645 incorporated under Royal Charter and having its main administrative offices at Edgbaston, Birmingham, B15 2TT, ("the University"); and

2. **UNIVERSITY OF EAST ANGLIA**, having a registered office at Norwich Research Park, Norwich NR4 7TJ, ("the Partner Institution")

hereinafter referred to as the "**Parties**" or either one thereof as "**Party**".

Whereas:

a) The University is the Sponsor as defined in the UK Policy Framework for Health and Social Care Research 2017 on the Study titled "Attitudes and Beliefs Concerning Dissociation – Part 3: Clinicians" as described in the Study Protocol annexed hereto as Schedule 1;

b) The University wishes the Partner Institution to carry out a portion of the Study (the "Allocated Work") as envisaged in the Study Protocol and the Partner Institution warrants that it has the necessary skills and has allocated sufficient resources to accomplish the Allocated Work.

NOW, THEREFORE, it is hereby agreed as follows:

1. DEFINITIONS AND INTERPRETATION

1.1. The words and phrases below shall have the following meanings:

Agreement	shall mean this agreement and any schedules or appendixes incorporated herein;
Allocated Work	shall mean the work defined in Schedule 2 hereto attached;
Background IP	shall mean any IP or know-how controlled or owned by any Party prior to the date of commencement of this Agreement or IP generated by any of the Parties independently of the Study and controlled or owned by that Party or any IP to which the Party has the necessary rights for the purpose of the Allocated Work;
Chief Investigator	shall mean the person who takes overall responsibility for the design, conduct and reporting of the Study and who, for the purposes of this Study shall mean Dr Emma Černis of the University;
Confidential Information	all and any information, documents, data and opinions disclosed by a Party to the other Party (or otherwise acquired by one Party pursuant to this Agreement) including without limitation commercial, financial or proprietary material, pricing, inventions, formulations, compositions of matter, data, formulae, algorithms, processes, operating methods and procedures, results, designs, drawings, specifications, industrial and or IP, computer programmes or other software and any other confidential information relating to the Allocated Work and/or the Study whether in oral, written, electronic, graphic or digitised format; or disclosed pursuant to discussions with any of the officers, employees, students, honorary members of staff, agents, advisors or consultants of a Party and whether or not marked or indicated as confidential;
Data Protection Laws	shall have the meaning as defined in Schedule 3;

DATA PROTECTION PARTICULARS

Name of Study under which Personal Data were collected	Attitudes and Beliefs Concerning Dissociation (Part 3 - Clinicians)
Details of data being Processed	• Email addresses; • Demographic (age, gender, ethnicity); • Qualitative, and quantitative data from NHS staff regarding their working context, and attitudes/beliefs towards dissociation (a specific subset of mental health presentations).
The purpose of the Processing	To provide the Services as part of successfully undertaking the Study
The type of Personal Data being Processed	Demographic details (age, gender, ethnicity). Working context (professional background, type of working team).
The categories of Data Subjects	Working age adults with capacity to consent (NHS staff).
The nature of Processing	Email addresses of mental health clinicians from five NHS Trusts in England will be processed as part of the project. These include clinicians currently working in a patient-facing caregiving role (e.g., assessment, duty, treatment, but not purely administrative) in an NHS secondary care mental health service. We are seeking a total of 50 respondents from each NHS Trust, meaning the personal data (email addresses) of up to 250 respondents may be collected for the project. If supplied, the email address of respondents will be stored securely and separately from answers as soon as it is practical in line with the General Data Protection Regulation (GDPR) and Data Protection Act 2018 Data will be collected / recorded using the online software platform Qualtrics. If respondents supply their email address, data will be de-identified by unlinking their email address fields from the data fields during download. Once downloaded from Qualtrics, data will be stored on a secure University server for data analysis and deleted from Qualtrics. Qualtrics is GDPR-compliant and adheres to the EU-US Privacy Shield Framework. It encrypts data as it is transferred into storage and does not continue to store data on its servers after it is deleted Data will be de-identified / fully anonymised at the stage of download onto the University server. This will be after the initial data collection period. Research Personnel will complete analysis of Research Data on behalf of Partner Institution and will have access to full dataset collected including data not yet anonymised via the removal of email addresses for the purposes of a prize draw and future research contact. Any data transfer for this purpose will take

	place securely in accordance with the terms of this Agreement, University IT Policies and Data Protection Laws.
Data Retention/Deletion Period and Process	Data will not be used by the Partner Institution for purposes other than the Services without the expressed written permission of the University. The data provided to the Partner Institution will be destroyed upon completion of the Services. Data will be stored on the University servers for 10 years after completion of the Study in accordance with the University IT policies and applicable laws.
Locations (including the geographic region) in which the Personal Data may be Processed by the Partner Institution and/or any Sub-Processor	England, UK only.