

DClinPsych Assignment Cover Sheet

Student Number	29538602
Module Code and Name	PSYC 8047 Research Thesis
Cohort Year	2022
Submission Date	19 May 2025
Assignment Title	Dissociation, self-states and social anxiety: relationships and measurement
Word Count (excluding abstracts, figures, tables, references and appendices)	Chapter 1: 2,474 Chapter 2: 7,148 Chapter 3: 10,392

Academic Integrity

By submitting this assignment, I confirm that:

1. I have read and understood the University's [Academic Integrity Guidance for Students](#) and that in the attached submission I have worked within the expectations of the Regulations Governing Academic Integrity.
2. I am aware that failure to act in accordance with the [Regulations Governing Academic Integrity](#) may lead to the imposition of penalties which, for the most serious cases, may include termination on the programme.
3. I consent to the University copying and distributing any or all of my work in any form and using third parties (who may be based outside the EU/EEA) to verify whether my work contains plagiarised material, and for quality assurance purposes.

Clinical Confidentiality

In submitting this assignment, I confirm that:

1. All personally identifiable information has been removed in line with data protection policies (e.g. [Data Protection Act 2018](#)) and NHS guidance (e.g. [NHS Code of Practice for Confidentiality 2003](#)).
2. All names have been changed and replaced with pseudonyms in order to protect the identity of clients, their carers and family, as well as the services and other professionals involved.
3. I have been explicit in explaining any anomaly which might cause uncertainty as to whether confidentiality has been maintained (i.e., where working with clients with multiple names).
4. Client consent has been obtained in line with [BPS Practice Guidance \(2017\)](#) to authorise the use of the work for educational purposes. This has been recorded in the clients clinical record and confirmed by the placement supervisor.

The University's Academic Integrity Regulations and Guidance can be accessed via the [University Quality Handbook](#). If you require any further guidance about academic integrity please talk to your tutor or contact the library via LibGuide@Southampton.

Academic work submitted by trainees may be used as examples for other cohorts. Please contact the module lead for the assignment if you do NOT want your work to be used of this purpose.

University of Southampton Research Repository

Copyright © and Moral Rights for this thesis and, where applicable, any accompanying data are retained by the author and/or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This thesis and the accompanying data cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder/s. The content of the thesis and accompanying research data (where applicable) must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holder/s.

When referring to this thesis and any accompanying data, full bibliographic details must be given, e.g.

Thesis: Author (Year of Submission) "Full thesis title", University of Southampton, name of the University Faculty or School or Department, PhD Thesis, pagination.

Data: Author (Year) Title. URI [dataset]

University of Southampton

Faculty of Environmental and Life Sciences

School of Psychology

Dissociation, self-states and social anxiety: relationships and measurement

DOI: <https://doi.org/10.17605/OSF.IO/5X72B>

by

Jamie Barton

ORCID ID: [0009-0000-2756-279X](https://orcid.org/0009-0000-2756-279X)

Thesis for the degree of Doctorate in Clinical Psychology

May 2025

Word count: 20,014

University of Southampton

Abstract

Faculty of Environmental and Life Sciences

School of Psychology

Thesis for the degree of Doctorate in Clinical Psychology

Dissociation, self-states and social anxiety: relationships and measurement

by

Jamie Barton

Dissociation is increasingly recognised as a transdiagnostic process with significant implications for psychological functioning and treatment outcomes. Difficulties in emotional regulation, social functioning, and therapeutic outcomes are associated with dissociative processes across a range of mental health presentations. Despite its relevance, dissociation remains poorly differentiated in much of the empirical literature, with a reliance on broad measures that offer limited insight into specific mechanisms, such as disruptions between self-states. This thesis contributes to a more refined understanding of dissociation through two complementary studies.

The first line of enquiry explored the relationship between dissociation and social anxiety, a condition characterised by disrupted self and social processing, where emerging evidence suggests dissociative experiences may be particularly relevant. A systematic review identified 17 quantitative studies that measured both dissociation and social anxiety, with a meta-analysis conducted on a subset of 11 studies, indicating a moderate positive association ($r = .39$) between the two constructs. The review also highlighted potential moderating and mediating factors including childhood trauma and emotion regulation difficulties.

Building on these findings, the second study sought to evaluate the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS), a theory-driven measure of dissociation between self-states, grounded in a cognitive model of dissociation. This validation study included 344 clinical participants and 147 non-clinical participants, enabling comparison between groups. Results supported the internal consistency, test-retest reliability, convergent validity, partial divergent validity, and five-factor structure of the D-ISS. The scale differentiated between clinical and non-

clinical groups, providing evidence for its potential clinical utility in assessing dissociation between self-states.

Both studies, built on insights from empirical and quantitative research, contribute to improving the conceptualisation and measurement of dissociation in clinical contexts. In particular, they highlight the importance of recognising and assessing dissociation across a range of mental health presentations, beyond its traditional associations with dissociative disorders and post-traumatic stress disorder. These findings have important implications for clinical assessment practices, highlighting the value of measuring specific dissociative processes, such as self-state fragmentation. Incorporating dissociation-focused measures should help to enhance case formulation and guide more targeted and effective interventions. Finally, the studies offer directions for future research, including the importance of assessing, formulating and intervening with dissociation in the context of social anxiety, and the continued development of robust measures of specific forms of dissociation.

Table of Contents

List of Tables	i
List of Figures	ii
List of Accompanying Materials.....	iii
Research Thesis: Declaration of Authorship.....	iv
Acknowledgements.....	v
Definitions and Abbreviations	vi
Chapter 1 Dissociation, self-states and social anxiety: relationships and measurement .	1
1.1 Introduction	1
1.2 Theories and models of dissociation	2
1.2.1 Trauma-focused approaches	2
1.2.2 Sociocognitive approaches.....	3
1.2.3 Cognitive approaches.....	3
1.3 Dissociation in clinical practice	4
1.3.1 Dissociation within mental health and psychopathology	4
1.3.2 The role of dissociation in treatment outcomes	4
1.3.3 Understanding and measuring dissociation beyond diagnosis	5
1.3.4 Reframing dissociation: a transdiagnostic perspective.....	5
1.4 Theoretical position and methodological approach	6
1.5 Dissemination plan.....	7
Chapter 2 The relationship between dissociation and social anxiety: a systematic review, meta-analysis and guide to future enquiry.....	8
2.1 Abstract	9
2.2 Introduction	10
2.2.1 Depersonalisation and derealisation	11
2.2.2 Dissociation and anxiety: a transdiagnostic perspective	11
2.2.3 Dissociation and social anxiety	12
2.2.4 Aim	14
2.3 Method	14
2.3.1 Preregistration and search procedure	14
2.3.2 Inclusion and exclusion criteria.....	15

2.3.3	Study selection	16
2.3.4	Data analysis plan	17
2.3.5	Quality assessment and risk of bias	18
2.4	Results	19
2.4.1	Study characteristics	19
2.4.2	Participant characteristics.....	20
2.4.3	Measures.....	20
2.4.3.1	Measures of dissociation	20
2.4.3.2	Measures of social anxiety	20
2.4.3.3	Other measures	21
2.4.4	Quality assessment	21
2.4.5	Synthesis examining the relationship between dissociation and social anxiety	33
2.4.5.1	Prevalence and association between dissociation and social anxiety	33
2.4.5.2	Factors influencing the dissociation-social anxiety relationship	33
2.4.5.3	Predictive relationship between dissociation and social anxiety	34
2.4.5.4	Clinical and non-clinical populations	34
2.4.6	Results for meta-analysis	35
2.4.6.1	Statistical analysis for the overall sample.....	35
2.4.6.2	Statistical analysis for clinical and non-clinical groups	35
2.4.6.3	Statistical analysis for subtypes of dissociation	35
2.4.6.4	Publication bias assessment	37
2.5	Discussion	38
2.5.1	Overview of findings	38
2.5.2	Clinical implications.....	39
2.5.3	Strengths and limitations	40
2.5.4	Future research	41
2.5.5	Conclusions	42
 Chapter 3 A validation study of the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample		
		43
3.1	Abstract	44
3.2	Introduction	46
3.2.1	Cognitive-behavioural model of dissociation.....	47
3.2.2	Self-states and psychopathology	48
3.2.3	Dissociation measures: conceptual and methodological considerations	50
3.2.4	Aim	52
3.3	Materials and methods	53
3.3.1	Patient and public involvement (PPI).....	53
3.3.2	Preregistration	54

3.3.3	Participants and procedures	54
3.3.4	Measures.....	56
3.3.4.1	Dissociative Integration of Self-States (D-ISS; Lord et al., 2025)	56
3.3.4.2	Dissociative Experiences Scale (DES-II; Carlson & Putnam, 1993)	57
3.3.4.3	Wessex Dissociation Scale (WDS; Kennedy et al., 2004)	57
3.3.4.4	Clinical Outcomes Routine Evaluation Outcome Measures (CORE-OM; Evans et al., 2002) ..	57
3.3.5	Analysis plan	58
3.3.5.1	Validity	58
3.3.5.2	Reliability	59
3.3.5.3	Factor analysis	59
3.3.6	Ethical considerations	60
3.3.7	Data availability.....	61
3.4	Results	61
3.4.1	Sample characteristics	61
3.4.2	Validity	61
3.4.2.1	Known-groups validity	61
3.4.2.2	Convergent and divergent validity.....	64
3.4.4	Reliability.....	65
3.4.5	Confirmatory factor analysis	66
3.5	Discussion	68
3.5.1	Strengths and limitations	70
3.5.2	Clinical implications.....	72
3.5.3	Future research	74
3.5.4	Conclusions	75
3.5.5	Key practice points.....	75
	List of References	77
	Appendix A Author Instructions for the Journal of Anxiety Disorders.....	91
	Appendix B Author Instructions for the Cognitive Behaviour Therapist.....	97
	Appendix C EPHPP Quality Assessment Ratings	99
	Appendix D Dissociation measures included in the systematic review	102
	Appendix E Social anxiety measures included in the systematic review.....	103
	Appendix F Research Advertisement Poster	104
	Appendix G Information for Clinicians	105
	Appendix H Participant Information Sheet and Online Consent Form	106

Appendix I	Qualtrics Survey Questions	111
Appendix J	Debriefing Form.....	120
Appendix K	Dissociation-Integration of Self-States Scale	122
Appendix L	Dissociative Experiences Scale	125
Appendix M	Wessex Dissociation Scale	126
Appendix N	Clinical Outcomes in Routine Evaluation	127
Appendix O	ERGO Ethical Approval and Amendments	128
Appendix P	HRA Ethical Approval and Amendments	129
Appendix Q	Sample Demographic and Mental Health Information	134

List of Tables

Table 1	Free text and subject headings	15
Table 2	Inclusion and exclusion criteria	16
Table 3	Study characteristics	22
Table 4	Key findings and quality assessment ratings.....	27
Table 5	Group comparisons between clinical and non-clinical participants.....	62
Table 6	D-ISS scores by primary mental health diagnosis.....	63
Table 7	Reliability statistics for D-ISS subscales	65
Table 8	Correlations between D-ISS and WDS subscales.....	65
Table 9	Standardised factor loadings for D-ISS items	68
Table 10	D-ISS subscales, qualitative descriptions and potential clinical examples	73

List of Figures

Figure 1	PRISMA diagram for paper selection	17
Figure 2	Forest plot for the clinical, non-clinical and pooled sample meta-analysis	36
Figure 3	Funnel plot of the meta-analysis	37
Figure 4	Cognitive model of dissociation (Kennedy et al., 2004)	47
Figure 5	A non-dissociative personality and dissociative personality, illustrating the dissociation between self-states (Kennedy et al., 2013)	49
Figure 6	Confirmatory factor analysis model	67

List of Accompanying Materials

Accompanying Information Document (*Research Thesis – Accompanying Information*, PDF)

This document includes supplementary information for Chapter 2 and 3:

Supplementary material for Chapter 2 – The relationship between dissociation and social anxiety: a systematic review, meta-analysis and guide to future enquiry

- Comprehensive Meta-Analysis (CMA): Raw data input and output report

Supplementary material for Chapter 3 – A validation study of the psychometric properties of the Dissociation-Integration of Self-States Scale in a clinical sample

- Open Science Framework preregistration for the empirical study
- SPSS output for descriptive statistics for demographic and clinical variables (e.g., age, gender, diagnosis, neurotype)
- SPSS output for group comparison tests
- SPSS output for psychometric analyses
- SPSS graphical outputs including histograms and boxplots
- SPSS AMOS model files and confirmatory factor analysis output

Research Thesis: Declaration of Authorship

Print name: Jamie Barton

Title of thesis: Self-states, dissociation and social anxiety: relationships and measurement

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission.

Signature: Jamie Barton Date: 19 May 2025

Acknowledgements

I am sincerely grateful to my research supervisors, Dr Tess Maguire and Dr Fiona Kennedy, for their continuous guidance, constructive feedback, and encouragement throughout this research. Their expertise and support have been invaluable in shaping both this thesis and my growth as a researcher. I would especially like to thank Dr Fiona Kennedy for sharing the measurement tool that formed the foundation of this research project, and for helping to spark and nurture my interest in dissociation.

Thank you also to my study skills tutor, Dorcas Taylor, who has helped me to develop my academic writing by offering a space to discuss my thoughts and reflections in relation to this research. Her alternative perspective and encouragement to think critically about my own assumptions have helped to improve both the clarity of my writing and the depth of my reflections.

I am deeply appreciative of the patient and public involvement consultants who generously shared their lived experiences of mental health and dissociation, and whose invaluable feedback helped shape the research design and process. Hearing their insights reminded me of the importance of this work during times when my own confidence wavered, and helped keep me on track

I would also like to extend my thanks to all the participants who generously took part in this study. Their willingness to contribute to this research has been invaluable, and this project would not have been possible without their time and effort.

Finally, I would like to thank my family, friends and colleagues who have continued to provide support and encouragement throughout this process, I feel very lucky to have you all and could not be more grateful for everything you've done.

As part of the reasonable adjustments provided to support my learning through the Disabled Student's Allowance (DSA); I acknowledge the use of Grammarly (Grammarly Inc., <https://www.grammarly.com>) to support proofreading, including highlighting spelling errors and suggesting grammatical improvements. I also acknowledge the use of Claude (Anthropic, <https://www.anthropic.com>), which I used to help guide me in conducting statistical analyses, as well as to refine my ideas during the writing process and review the overall structure of my work. This was used alongside resources including *Discovering statistics using IBM SPSS Statistics* (Field, 2024), University of Southampton lecture materials, and various online video tutorials.

Definitions and Abbreviations

AMOS.....	Analysis of Moment Structures
ANCOVA.....	Analysis of Covariance
ANP	Apparently Normal Part
APA	American Psychiatric Association
BPD	Borderline Personality Disorder
CAT.....	Cognitive Analytic Therapy
CBT	Cognitive Behavioural Therapy
CDS.....	Cambridge Depersonalisation Scale
CES	Curious Experiences Scale
CFA.....	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMA	Comprehensive Meta-Analysis
CORE-OM	Clinical Outcomes in Routine Evaluation – Outcome Measure
COSMIN.....	COnsensus-based Standards for the selection of health Measurement INstruments)
D-ISS.....	Dissociation-Integration of Self-States Scale
DES.....	Dissociative Experiences Scale
DID	Dissociative Identity Disorder
DSM-5	Diagnostic and Statistical Manual for Mental Disorders (5 th edition)
EFA.....	Exploratory Factor Analysis
EP	Emotional Part
EPHPP	Effective Public Health Practice Project
ERGO.....	Ethics Research Governance Online
GAD	Generalised Anxiety Disorder
HRA	Health Research Authority
ICD-10	International Classification of Diseases (10 th edition)
IRAS.....	Integrated Research Application System

Definitions and Abbreviations

LSAS	Liebowitz Social Anxiety Scale
MI.....	Modification Indices
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
OCD	Obsessive Compulsive Disorder
OSF.....	Open Science Framework
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PROSPERO.....	International Prospective Register of Systematic Review
PTSD.....	Post-Traumatic Stress Disorder
REC.....	Research Ethics Committee
RMSEA	Root Mean Square Error of Approximation
SAD	Social Anxiety Disorder
SCID-D	Structured Clinical Interview for DSM-IV Dissociative Disorders
SDM	Structural Dissociation Model
SMI.....	Severe Mental Illness
SPAI.....	Social Phobia Anxiety Inventory
SPIN.....	Social Phobia Inventory
SPS	Social Phobia Scale
SPSS	Statistical Package for the Social Sciences
TLI	Tucker-Lewis Index
WDS	Wessex Dissociation Scale
WHO	World Health Organisation

Chapter 1 Dissociation, self-states and social anxiety: relationships and measurement

1.1 Introduction

Despite decades of research, dissociation remains an underdefined and often misunderstood construct in both psychology and psychiatry. The term ‘dissociation’ has remained a semantically open notion, describing a wide variety of processes and phenomena. Dissociation can be understood in its simplest form as a separation within normally integrated mental functions, for example, memories, perceptions, emotions, or even our sense of identity (e.g., Janet, 1889).

Currently, the American Psychiatric Association [APA] defines dissociation as a “disruption and/or discontinuity in the normal integration of consciousness, memory, identity, emotions, perception, body representation, motor control, and behaviour” (APA, 2013, p. 291). The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; APA, 2013) classifies dissociative disorders as distinct trauma-related conditions. The World Health Organization [WHO] (1992) defines dissociation as the “partial or complete loss” of normally unified functions such as memory, awareness, and control of bodily movement. The *International Classification of Diseases* (10th rev.; ICD-10; WHO, 1992) does not distinguish dissociative disorders as separate diagnoses, instead classifying them under ‘conversion disorders’ (F44), emphasising psychogenic physical symptoms. While both systems acknowledge dissociation, they differ in how it is categorised and framed.

Beyond classification systems, debates have questioned whether dissociation is best understood as a dimensional or categorical phenomenon. A dimensional perspective suggests that dissociation ranges from non-pathological, everyday experiences present to some degree across the general population, for example, daydreaming (Ross et al., 1990), to more severe disruptions in identity, memory and perception, as seen in dissociative disorders. This view has been contested (e.g., Waller et al., 1996), with concerns that conflating normative dissociative experiences with pathological dissociation may obscure clinical distinctions.

Such inconsistencies in classification and theory highlight the need for broader, more integrative models of dissociation, along with refined, theory-driven measures capable of capturing its complexity across clinical and non-clinical presentations. Although traditionally linked to trauma-related disorders, dissociation is increasingly recognised as a transdiagnostic process interacting with other forms of psychopathology, including anxiety disorders (Ball et al., 1997). Social anxiety provides a particularly relevant context, given potential overlapping disruptions in psychological functioning (Cook & Newins, 2021), though these links have yet to be systematically reviewed. This thesis

contributes to refining the conceptualisation and measurement of dissociation, specifically, examining its links to other psychological difficulties and its assessment through a recently developed self-state dissociation measure.

1.2 Theories and models of dissociation

Research has identified numerous and sometimes conflicting models of dissociation. However, this chapter focuses on trauma-focused, sociocognitive, and cognitive approaches. These offer contrasting but complementary perspectives on the origins, maintenance, and phenomenology of dissociation, relevant to this research. Together, they reflect several conceptual tensions in the field and provide a foundation for understanding both clinical and subclinical dissociative experiences. However, there does exist a wide range of additional theoretical models of dissociation proposed in the literature. These include psychodynamic perspectives (Jung, 2014; van der Hart et al., 1998) and neurobiological models (Porges, 2011; Sierra & Berrios, 1998). A detailed exploration of these frameworks lies beyond the scope of the present work.

1.2.1 Trauma-focused approaches

The trauma model of dissociation emphasises psychological trauma as a risk factor for dissociative experiences. Dissociation is frequently identified in the aftermath of traumatic events (Briere, 2006), with research supporting a link between dissociation and a range of traumatic experiences across diverse patient populations (e.g., Stein et al., 2013). Notably, the prevalence of dissociation has been consistently linked to early-life trauma, including abuse (Vonderlin et al., 2018) and neglect (Vogel et al., 2009). Proponents of the trauma model describe dissociation as serving a protective function, enabling individuals to psychologically distance themselves from distressing and traumatic experiences (Dalenberg et al., 2012).

The trauma model tends to align with a categorical view of dissociation, framing pathological dissociation as a distinct clinical response to trauma, often separate from normative psychological functioning. The widespread influence of trauma-focused approaches can even be found in contemporary diagnostic tools, for example, the DSM-5 (APA, 2013) highlights the central role of trauma in the development and course of dissociative disorders. Despite providing a valuable framework for understanding the onset and function of dissociation, a potential limitation of this approach is that it does not necessarily address the underlying mechanisms for dissociation, nor help to understand dissociation in the absence of trauma. This poses a potential challenge when considering dissociative symptoms cut across many diagnoses beyond post-traumatic stress disorder (PTSD), including psychosis (e.g., Newman-Taylor & Sambrook, 2013), eating disorders (e.g., La Mela

et al., 2010), and anxiety disorders (e.g., Soffer-Dudek, 2014). Therefore, these findings suggest the need for broader, process-based models that recognise dissociation across diagnostic boundaries.

1.2.2 Sociocognitive approaches

The sociocognitive model argues that dissociation is socially constructed and consists of a broad range of sociocultural influences, including media representation (Byrne, 2013) and fantasy proneness (Lynn et al., 2019). Dissociation is viewed as a possible exaggeration of social processes like suggestion, role-playing, and subsequent reinforcement (Barnard & Teasdale, 1991). For example, dissociative identity disorder (DID), often characterised as a severe and complex presentation of dissociation, remains controversial, in part due to arguments that it may be construed as a co-creation between a therapist and client, via an iatrogenic process of suggestion (Stokoe et al., 2016). This model aligns with a dimensional perspective, challenging trauma-focused explanations and the categorical nature of diagnostic criteria. While providing an explanation for some cases of dissociation, it may underestimate the role of trauma and overlooking developmental and cognitive evidence supporting the trauma model (McFarlane, 2013). Regardless, the sociocognitive model has contributed to a more nuanced understanding by emphasising individual and environmental factors.

1.2.3 Cognitive approaches

Both trauma-focused and sociocognitive models offer valuable perspectives on its origins but offer limited insight into the psychological mechanisms underlying dissociation. In contrast, cognitive approaches shift the focus toward generating psychological hypotheses behind dissociative disorders. Cognitive accounts of dissociation have emphasised disruptions within internal psychological processes such as memory, attention, and perception, often in the context of overwhelming stress or trauma (e.g., Braun 1988).

Despite the contributions of these theoretical models, no single framework has yet fully captured the complexity and variability of dissociation as it presents across clinical and non-clinical populations. Many existing models have either focused narrowly on dissociation in the context of trauma or fail to offer clear, testable mechanisms that translate into clinical practice. In response to these gaps, the cognitive model of dissociation posited by Kennedy et al. (2004) offers a clinically intuitive framework grounded in Beck's (1996) cognitive model of personality. This approach provides a complementary perspective for understanding the relationship between personality and dissociation, establishing testable mechanisms, measurable outcomes, and maintaining scientific rigour. The Kennedy model synthesises several concepts introduced in this chapter, such as the dimensional nature of dissociation, while extending previous theories by outlining specific cognitive processes thought to

underpin dissociative experiences. The Kennedy et al. cognitive model forms the theoretical cornerstone for the empirical paper presented in Chapter 3 (see section 3.2.1 for further elaboration).

1.3 Dissociation in clinical practice

1.3.1 Dissociation within mental health and psychopathology

Despite its significance, dissociative disorders are often underdiagnosed or misdiagnosed in clinical settings (Bestel et al., 2024). Estimates suggest rates vary from 4% to 46% across clinical populations (Loewenstein, 2018). Moreover, prevalence rates of up to 50% have been observed in emergency care settings, PTSD populations (Dorahy et al., 2014), and individuals with significant histories of childhood trauma (Sar, 2011). Among individuals with borderline personality disorder, dissociation is even more common, with rates reaching up to 80% (Korzekwa et al., 2009). These substantial figures across diverse clinical populations highlight the need for improved identification and treatment of dissociative symptoms. If unaddressed, dissociation may exacerbate psychological distress and contribute to the severity of various mental health conditions.

Dissociation has been described as both a symptom and risk factor across a wide range of psychopathology. Notably, dissociation is a central feature of dissociative disorders and a diagnostic criterion for acute stress disorder, PTSD and emotionally unstable personality disorder (Loewenstein, 2018). Furthermore, dissociation has been linked to emotional dysregulation, non-suicidal self-injury, suicidality (Nester et al., 2022) and impaired social functioning (Dorahy, 2010). This highlights the importance of assessing and addressing dissociative symptoms in clinical practice and understanding their role in the aetiology and maintenance of psychological difficulties.

1.3.2 The role of dissociation in treatment outcomes

The concept of dissociation and the aetiology of dissociative disorders have received an increase in scientific and clinical interest in recent decades, driven by growing awareness of their potentially significant impact on mental health and treatment outcomes (Boyer et al., 2022). Dissociation is a feature of a number of at least several complex psychological disorders, which complicate positive therapeutic outcomes, particularly when dissociative symptoms remain unaddressed.

Empirical research supports this association; for instance, Rufer et al., (2005) found that treatment outcomes were poorer when dissociation was identified but not specifically targeted in psychological therapy. Various mechanisms have been proposed to explain this relationship. One argument is that dissociation disrupts the therapeutic alliance (Lawson et al., 2020), a key predictor of treatment success, potentially weakening the sense of rapport, connection, and emotional investment that

supports engagement with therapy. Beyond relational factors, individuals experiencing dissociation may also struggle to engage with core therapeutic and experiential processes, including habituation, reality testing and emotion regulation, limiting positive outcomes (Semiz et al., 2014). Recognising and addressing dissociative symptoms within therapy may therefore be crucial for supporting positive outcomes.

Indeed, when specific dissociative symptoms are identified and addressed within the therapeutic approach, research suggests that dissociation does not inevitably predict poorer treatment outcomes (e.g., Brand et al., 2014). Routine screening for dissociation in clinical practice may enhance outcomes by enabling clinicians to respond flexibly and tailor treatment to the needs of individuals presenting with dissociative experiences. Together, these observations underscore the need to better understand dissociation's impact on therapy processes and outcomes.

1.3.3 Understanding and measuring dissociation beyond diagnosis

Theoretical and clinical understanding of dissociation may be constrained by the quality of the tools used to assess it. A recent systematic evaluation of dissociation measures (Wainipitapong et al., 2025) identified several limitations, including gaps in content validity, limited integration of patient and clinical perspectives, and a predominant focus on trait dissociation, stable and enduring tendencies, while neglecting state dissociation, comparatively transient or situational experiences. Notably, none fully met established methodological standards for design and validation.

Furthermore, a lack of consensus on how best to conceptualise dissociation, combined with limited use of theory-driven models to guide measure development, has led to wide variation in scope, structure, and interpretability.

Despite the growing number of dissociation measures, many rely on a single total score, risking oversimplification and obscuring important symptom subtypes. The widely used Dissociative Experiences Scale (DES-II; Carlson & Putnam, 1983), now over three decades old, exemplifies these issues. Though well-established, it may no longer reflect current theoretical or clinical understandings. Compounding these limitations is the practical tension between comprehensiveness and feasibility; measures must be broad enough to capture diverse dissociative experiences while remaining concise and accessible for clinical use. Collectively, these issues may help us to understand why dissociation continues to be under-identified in both research and practice. There is a clear need for the development of tools that are not only conceptually robust but also practically useful.

1.3.4 Reframing dissociation: a transdiagnostic perspective

It is widely recognised that dissociation is not specific to dissociative disorders but instead occurs across multiple psychiatric conditions. Theoretical frameworks have highlighted the need to

reconceptualise dissociation as a broader psychological process, rather than a disorder-specific symptom (Ellickson-Larew et al., 2020). Complementing this, meta-analytic evidence demonstrates that dissociative experiences are detectable across a range of mental health presentations, including mood, anxiety and eating disorders, in addition to trauma-related conditions (Lyssenko et al., 2018).

This broader recognition of dissociation's transdiagnostic nature is also reflected in the DSM-5, which acknowledges dissociation as a feature across PTSD, panic disorder, borderline personality disorder and acute stress disorder (APA, 2013). Rethinking dissociation at the point of assessment is essential, as it forms the foundation for all subsequent clinical decisions and the care that follows. Accurate conceptualisation at this stage helps ensure that individuals are not only recognised and understood, but also directed toward interventions that are appropriately tailored and more likely to be effective (Brand, 2016).

Beyond its role as a symptom, dissociation may also contribute to the maintenance of psychopathology across diagnostic groups. For example, it can facilitate avoidance of distressing experiences, a process frequently implicated in the maintenance of psychopathology (Chawla & Ostafin, 2007). The widespread presence of dissociation across diagnostic categories highlights the value of routine assessment, to enhance case formulation, inform the development of targeted treatment strategies and help address an important gap in current clinical practice (Rădulescu et al., 2020).

1.4 Theoretical position and methodological approach

Existing literature highlights the complexity of dissociation and the limitations of current approaches to defining, measuring, and diagnosing it. In response to these challenges, I have adopted a critical realist position, recognising that psychological constructs such as dissociation and social anxiety represent meaningful aspects of human experience, grounded in 'real' underlying causal mechanisms, while accepting that our understanding of them remains inevitably incomplete (Bhaskar, 2013). This stance has guided the design and interpretation of both my systematic review and empirical research, allowing me to value quantitative insights while remaining mindful of how findings are shaped by theoretical frameworks, context, and my own clinical and research perspectives.

Throughout the research process, I engaged in critical and reflective evaluation of my work, acknowledging the strengths and limitations of my approach. Specifically, my empirical research was hypothesis-driven, rooted in previous theoretical and empirical investigations. To support transparency and integrity, I preregistered the protocols for my systematic review and empirical study, clearly identifying and justifying any post-hoc amendments and analyses. These examples of

methodological choices reflect my commitment to producing research that is both rigorous and reflexive.

This chapter has laid the conceptual and methodological foundations for the research that follows. In the chapters ahead, I explore dissociation within the context of social anxiety and undertake the validation of a novel measure of dissociation between self-states. Through this work, I aim to contribute to the refinement of how dissociation is understood, conceptualised, and measured, both as a theoretical construct and as a clinical phenomenon, informing the development of practical recommendations for clinical application.

1.5 Dissemination plan

The two research papers in this thesis are intended for publication in peer-reviewed journals. The systematic review on dissociation and social anxiety will be submitted to the Journal of Anxiety Disorders, focusing on advancing the understanding of assessment, treatment and prevention of anxiety disorders, further details can be found in Appendix A. The empirical study, developing a self-state dissociation measure grounded in a cognitive-behavioural model, will be submitted to The Cognitive Behaviour Therapist. This journal publishes research on clinical scales and interventions within cognitive behavioural therapy, its submission criteria are summarised in Appendix B.

Chapter 2 The relationship between dissociation and social anxiety: a systematic review, meta-analysis and guide to future enquiry

The following paper was written to follow the 'Journal of Anxiety Disorders' journal author guidelines.

2.1 Abstract

Dissociation and anxiety disorders frequently co-occur and may share underlying psychological mechanisms. Dissociation has been shown to negatively impact treatment outcomes for anxiety disorders, including the effectiveness of evidence-based interventions such as cognitive-behavioural therapy. Social anxiety is one of the most prevalent and impairing anxiety disorders. This systematic review aimed to examine the relationship between dissociation and social anxiety, with implications for clinical practice and future research. A systematic review and meta-analysis (International Prospective Register of Systematic Reviews reference: CRD42024531590) were conducted following PRISMA guidelines. A database search was undertaken (APA PsycINFO, Medline, ProQuest and Web of Science) to find papers utilising validated, quantitative self-report measures to examine the relationship between dissociation and social anxiety. A random effects meta-analysis model was used to assess the association between dissociation and social anxiety in both clinical and non-clinical populations. Seventeen studies were included in the systematic review and 11 studies in the final meta-analysis. The narrative synthesis suggested a complex relationship between dissociation, social anxiety, childhood trauma and emotional dysregulation. The meta-analysis found a moderate positive correlation between measures of dissociation and social anxiety in the overall sample ($r = .39$), clinical subgroup ($r = .44$) and non-clinical subgroup ($r = .36$); with considerable heterogeneity across studies. Findings suggest a moderate association between dissociation and social anxiety, particularly in clinical populations. These results highlight the relevance of assessing dissociative symptoms in socially anxious individuals and the need to examine mechanisms that underpin this association to inform theory and clinical interventions.

Highlights:

- Few studies have examined the relationship between dissociation and social anxiety; a systematic review of 17 studies was conducted to examine this further.
- A meta-analysis indicated a moderate, significant association between dissociation and social anxiety across clinical and non-clinical populations.
- Depersonalisation-derealisation symptoms were linked to social anxiety severity
- Factors including emotion regulation and childhood trauma may influence the association between dissociation and social anxiety.
- Further research is needed to clarify underlying mechanisms and causal pathways.

Keywords: Social anxiety; Dissociation; Depersonalisation; Derealisation; Systematic Review; Meta-analysis

2.2 Introduction

Social anxiety disorder (SAD) is one of the most common anxiety disorders, with lifetime prevalence rates estimated to be as high as 12% (Kessler et al., 2012). SAD is characterised by an intense fear of judgement or scrutiny from others, leading individuals to avoid social or performance situations, or endure them with significant distress. While some degree of worry when socialising is not uncommon in the general population (Stein & Stein, 2008), individuals with SAD often experience excessive worrying before, during or after social events, therefore, not only having a significant impact on social relationships but also quality of life. SAD is frequently associated with other mental health conditions, including depression, substance use disorder and other anxiety disorders (Schneier et al., 1992).

While multiple theoretical models have been proposed to explain SAD, cognitive models such as that of Clark and Wells (1995) offer a widely referenced framework for understanding the cognitive and behavioural processes associated with the disorder. These models emphasise the role of heightened self-consciousness, including negative self-processing and excessive self-focused attention on perceived flaws. Within this framework, individuals are thought to engage in safety behaviours to prevent feared outcomes. While these behaviours may offer short-term relief, they are proposed to reinforce anxiety by preventing the disconfirmation of anxious predictions (Wells et al., 2016). Unlike specific phobias, where feared stimuli are external and more easily challenged, fears in SAD are typically internal and subjective, meaning they cannot always be directly challenged or disconfirmed (Vroling & de Jong, 2009). In an effort to manage this internal threat, individuals may adopt safety behaviours such as avoiding the full experience or expression of emotions, which, while reducing distress in the moment, can contribute to the longer-term maintenance of anxiety (Kashdan et al., 2014).

The impact of SAD extends beyond individual distress to broader functional and societal consequences. Individuals with SAD often report difficulties across many aspects of their daily life, for example, social, educational and vocational impairment, alongside a lower perceived quality of life (Eng et al., 2005). Furthermore, survey data has demonstrated how the consequences of social anxiety are far-reaching, incurring a wider societal cost of decreased economic activity and financial dependence on the state (Patel et al., 2002). These challenges are compounded by the under-recognition and consequent inappropriate treatment of social anxiety, placing greater strain on health services providing these interventions (Katzelnick & Greist, 2001). Given its complexity and far-reaching impact, it is crucial to identify mechanisms that maintain SAD and tailor interventions accordingly.

2.2.1 Depersonalisation and derealisation

Alongside the cognitive and behavioural processes involved in social anxiety, emerging research has begun to explore the role of dissociative symptoms, particularly depersonalisation and derealisation. Depersonalisation-derealisation is characterised by a sense of detachment: depersonalisation involves feeling disconnected from oneself, while derealisation refers to a sense of detachment from the external world (APA, 2013). Such experiences can disrupt self-awareness, perception and emotional connection, leading to distress and functional impairment (Sierra et al., 2002).

Persistent or recurrent experiences of depersonalisation-derealisation, when accompanied by significant distress or functional impairment, are classified as depersonalisation-derealisation disorder in the DSM-5 (APA, 2013). These experiences are often characterised by emotional numbing, reduced reactivity, and a disrupted sense of connection with others (Dewe et al., 2016). Although transient depersonalisation-derealisation symptoms are relatively common, reported by up to 74% of the general population at some point in their lives and often triggered by stress or fatigue, clinically significant depersonalisation-derealisation disorder affects 1-2% of the population (Hunter et al., 2004). This prevalence is comparable to major psychiatric conditions, highlighting the substantial burden depersonalisation-derealisation places on both individuals and healthcare systems.

Despite its impact, depersonalisation-derealisation is frequently misunderstood, leading to stigma, feelings of invalidation, and delays in accurate diagnosis (Brand, 2016). These barriers mirror those encountered in SAD, where symptoms can be misinterpreted or minimised, compounding distress and delaying effective treatment (Katzelnick & Greist, 2001). In addition to these external barriers, qualitative accounts describe depersonalisation-derealisation as a profoundly isolating experience, marked by emotional numbing and detachment from both self and others (Pierorazio et al., 2024). This mental disconnection aligns with patterns observed in SAD, where fear of negative evaluation can drive individuals to mentally disengage, potentially reinforcing both conditions over time (Clark & Wells, 1995; Kashdan et al., 2014). These shared experiences of disconnection and avoidance suggest a broader link between dissociation and anxiety disorders, which has been increasingly recognised across clinical research.

2.2.2 Dissociation and anxiety: a transdiagnostic perspective

Dissociative experiences are frequently reported in individuals with anxiety disorders, for example, panic disorder (e.g., Ball, 1997), generalised anxiety disorder (e.g., Sevindik et al., 2022), obsessive-compulsive disorder (e.g., Soffer-Dudek, 2014;) and social anxiety (e.g., Belli et al., 2017), across both clinical and non-clinical populations (e.g., Sideli et al., 2023). Moreover, individuals with anxiety disorders have been shown to experience more frequent and severe dissociative states, with

dissociation severity associated with anxiety symptom severity (e.g., Pastucha et al., 2009). This relationship between dissociation and anxiety disorders was identified in and supported by a recent systematic review of existing empirical literature (Yang et al., 2023). While multiple researchers have explored this potential relationship, there remains debate regarding its nature, particularly concerning directionality and underlying mechanisms. Various theories have been proposed to explain the link between dissociation and anxiety, emphasising shared mechanisms and coping strategies.

Depersonalisation-derealisation has specifically been associated with anxiety. Interest in the link between anxiety disorders and dissociative phenomena dates back to Roth's (1959) seminal work, where he introduced the 'phobic anxiety-depersonalisation syndrome,' suggesting a distinct neurotic disorder. This concept laid the groundwork for research into the co-occurrence of anxiety and dissociative symptoms, with depersonalisation-derealisation being especially prevalent in anxiety disorders. Contemporary studies have helped to develop this concept, exploring how heightened emotional states, such as those experienced during panic or social performance fears may precipitate dissociative experiences (e.g., Kolev et al. 2014; Hunter et al., 2003). Theoretical perspectives have proposed that dissociation may serve as an initial coping mechanism for overwhelming anxiety, which over time can become self-reinforcing. Cognitive behavioural approaches have contributed to this understanding by highlighting how avoidance and negative appraisals can contribute to a cycle that maintains both anxiety and dissociation. Given the intense and persistent fear of negative evaluation that characteristic of social anxiety, and the central role of avoidance-based coping strategies such as safety behaviours, this disorder may represent a particularly useful example for examining how these dynamics develop.

2.2.3 Dissociation and social anxiety

Dissociative experiences and social anxiety have traditionally been studied as distinct constructs; however, an increasing number of studies have begun to explore potential for relationships and overlap. This research has gained traction over time and now includes both clinical and non-clinical populations, as well as specific diagnostic groups; with reports that dissociation may influence how individuals experience and cope with social anxiety. While dissociation has been studied across various anxiety disorders, its role in social anxiety may be particularly significant as dissociative disorders such as depersonalisation-derealisation affect both self-perception and interpersonal connections (Dorahy et al., 2023; Liotti, 2006), factors that are especially relevant to social anxiety.

Individuals who experience moderate to high levels of social anxiety report a significant impact on their emotional wellbeing, however, many examples of socialising are often unavoidable aspects of life (e.g., school, work, family life) and must therefore be endured with severe distress. Qualitative

findings suggest that when faced with intense feelings of embarrassment in social situations, individuals report recurring themes such as escape-avoidance, derealisation, dissociation, a sense of unreality, and even a desire to 'crawl inside' oneself to avoid negative evaluation from others (Robbins & Parlavecchio, 2006). These lived experiences highlight dissociation as a potential coping strategy when individuals feel overwhelmed in social contexts.

Repeated and prolonged exposure to real or perceived social threats may trigger dissociation as a coping mechanism or internal form of avoidance, to manage these otherwise overwhelming states. This dissociative response may be adaptive in the short-term, allowing the individual to endure a situation they perceive as unbearable. However, in the longer-term, dissociation may not only contribute to but also exacerbate the cycle of avoidance that is central to social anxiety. Individuals may interpret these experiences as further evidence of their inability to function in social settings, reinforcing feelings of inadequacy and increasing their tendency to avoid such situations altogether. This hypothesis would align with established CBT models of social anxiety, which propose that safety and avoidance behaviours maintain anxiety (Wells et al., 2016)

The use of safety behaviours is common among those with SAD, involving actions or mental strategies aimed at reducing perceived threats or managing anxiety (Piccirillo et al., 2016). The conceptual overlap between dissociation and safety behaviours in social anxiety may lie in their shared function of avoiding or reducing distress in anxiety-provoking situations. This overlap is reflected in the content of established assessment tools for safety behaviours, such as the Safety Behaviour Questionnaire (SBQ; Clark, 2005), which captures both behavioural and cognitive strategies that may resemble dissociative processes. For example, the SBQ includes items such as 'blanking out or switching off mentally' and 'rehearsing sentences in your mind,' which are associated with cognitive disengagement. Other items, such as 'keeping still,' 'talking less,' 'avoiding eye contact,' and 'trying to act normal,' may reflect an emotional disconnect, wherein efforts to mask internal distress result in feelings of emotional detachment. Over time, reliance on these behaviours may unintentionally reinforce both dissociation and social anxiety, leading individuals to become increasingly disconnected from their internal experiences and dependent on these strategies to cope, ultimately maintaining avoidance cycles and impairing social functioning.

In addition, emotional experiences in social anxiety extend beyond fear. A recent systematic review by Swee et al. (2021) identified a strong positive relationship between social anxiety and shame, providing compelling support for the conceptual overlap between these experiences and the self-focus that underpin both. Shame is a painful and complex self-conscious emotion, underpinned by factors such as negative self-evaluation and heightened self-awareness (Bath, 2019). Individuals with social anxiety may attempt to suppress or disconnect from their emotional states, including shame, to avoid anticipated rejection, serving a short-term protective function. Difficulties in regulating

shame and other intense emotions could contribute to this tendency to disengage, and emotional dysregulation has been proposed as a process that may link social anxiety and dissociation (e.g., Cook & Newins, 2021). Meta-analytic data has also demonstrated a moderate association between shame and dissociation (Rudy et al., 2022). According to well-established models of dissociation, such as the trauma model (Dalenberg et al., 2012), emotions as overwhelming as shame may trigger dissociative responses as a way of psychologically detaching from distress (Kouri et al., 2023). Collectively, these findings suggest that anxiety, especially those reporting higher levels of shame, may be more vulnerable to dissociative experiences.

Given the conceptual overlap between social anxiety and dissociation, and the growing but fragmented evidence base, a comprehensive synthesis of the literature is required to clarify the extent and nature of their relationship. Understanding this relationship is important, as dissociation may contribute to the development, maintenance, and treatment response of social anxiety, particularly in individuals with comorbid presentations. Improved recognition of dissociative experiences in social anxiety could inform assessment strategies, case formulation and therapeutic approaches. By synthesising current findings, this review seeks to address the fragmented nature of the evidence base and offer insights to guide clinical practice and future research.

2.2.4 Aim

To the best of the author's knowledge, and at the time of writing, there is no known systematic review or meta-analysis focusing on the relationship between dissociation and social anxiety. This study, therefore, aimed to 1) conduct a systematic review of the quantitative literature investigating the relationship between dissociation and social anxiety; 2) evaluate the quality of the evidence using a validated quality assessment tool; and 3) provide guidance for future research in this area.

2.3 Method

2.3.1 Preregistration and search procedure

The systematic review was completed with reference to the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines (Pierorazio et al., 2024). The protocol was preregistered using the International Prospective Register of Systematic Reviews (Registration ID: CRD42024531590). Three bibliographic databases (MEDLINE, PsycINFO and Web of Science) were searched on 31 May 2024. The search included both free text and subject headings to provide a comprehensive search strategy and identify as many relevant records as possible (Aromataris & Riitano, 2014). Table 1 shows the search strategy used for each database. ProQuest Dissertation and

Theses Global (postgraduate level only), the British Library and Google Scholar were searched to identify relevant grey literature.

Dissociation can be understood as a dimensional process (e.g., Waller et al., 1996). For this review, we use the term ‘dissociation’ to refer to all dissociative experiences across the clinical and non-clinical continuum. Moreover, researchers have suggested a case for the study of ‘normal’

Table 1

Free text and subject headings

	Terms for dissociation	Terms for social anxiety
Free text	dissociati* OR depersonali* OR dereal* OR “dissociative identity disorder”	"social* anx*" OR "social anxiety disorder" OR "social phobia"
MEDLINE subject headings	(MH “Dissociative Disorders”) OR (MH “Dissociative Identity Disorder”)	(MH “Phobia, Social”)
PsycINFO subject headings	DE “Dissociation” OR DE “Dissociative Disorders” OR DE “Dissociative Amnesia” OR DE “Depersonalization/Derealization Disorder” OR DE “Dissociative Fugue”	DE “Social Anxiety” OR DE “Social Phobia”

Notes. Web of Science, ProQuest and Google Scholar do not use subject headings; therefore, only free text was used for these databases.

2.3.2 Inclusion and exclusion criteria

Dissociative processes, describing how ‘normal’ and pathological dissociative experiences are correlated, and that ‘normal’ dissociation may serve as an important developmental foundation for pathological dissociation, and should therefore be considered when researching dissociation (Dalenberg et al., 2022). Therefore, studies with clinical and/or non-clinical participants were included.

Table 2*Inclusion and exclusion criteria*

	Inclusion	Exclusion
Publication type	Published and unpublished empirical studies	Conference posters, abstracts, reviews, proposals, books, chapters and commentaries
Aims	Focus is on relationships between dissociation, social anxiety and/or anxiety disorders	Does not investigate relationships between dissociation, social anxiety and/or anxiety disorders
Participants	Adult participants, age 17 years and over	Participants under 17 years
Measures	Use of a standardised adult measure, subscale of a measure and/or assessment of dissociation Use of a standardised adult measure, subscale of a measure and/or assessment of social anxiety	Does not include standardised adult measures of dissociation and social anxiety
Study design	Quantitative research	Qualitative research, mixed method design, development of questionnaire studies, pilot studies, case studies and reviews
Analyses	Quantitative methodology to examine relationships between measurements of dissociation and anxiety disorders, which must include social anxiety	Does not focus on or have components which focus on the relationship between measurements of dissociation and social anxiety

2.3.3 Study selection

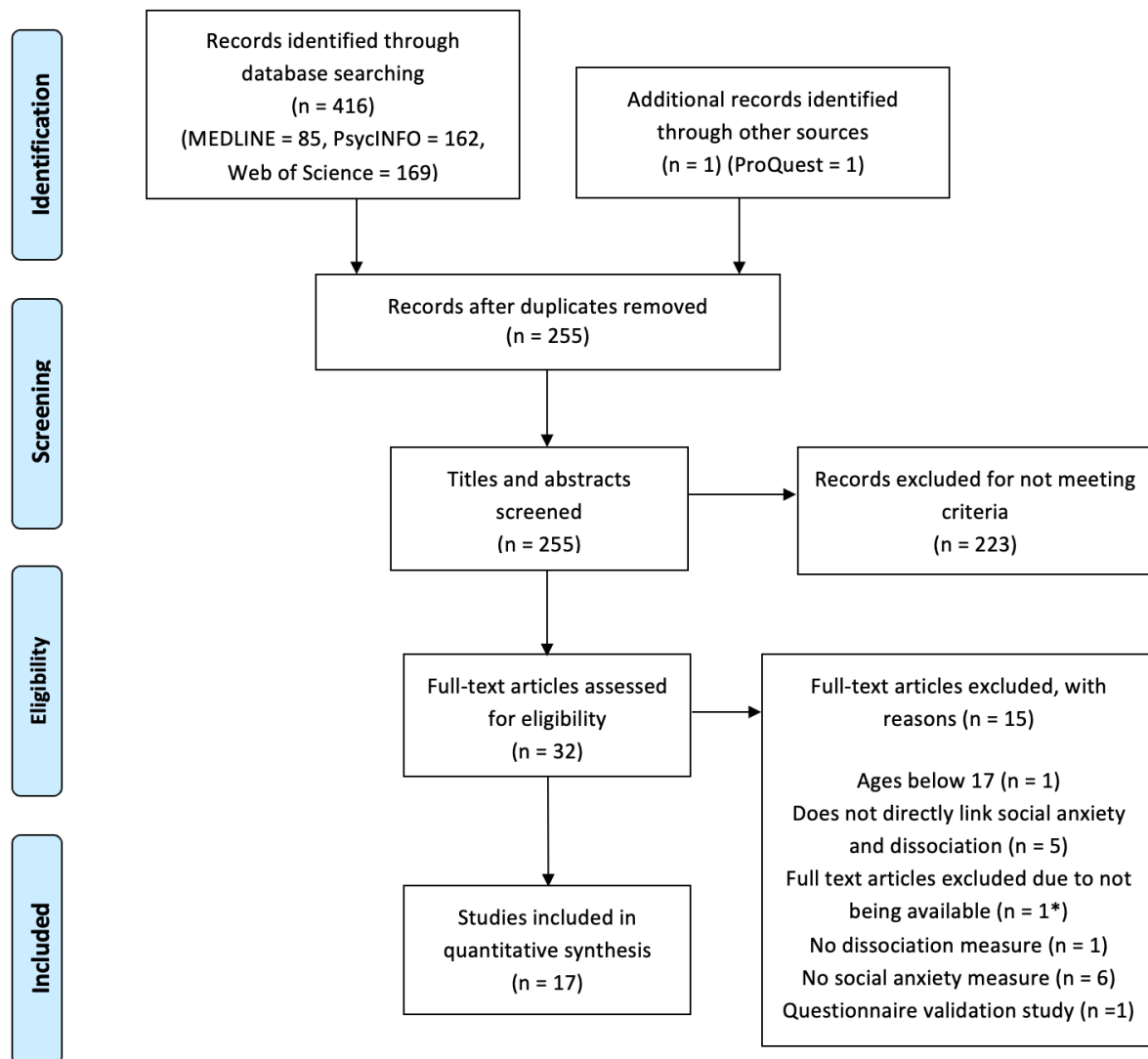
Hubmeta reference management software was used to collate search results. The search strategy yielded an initial 417 articles. Duplicates were removed, resulting in 255 remaining titles and abstract which were screened based on the inclusion and exclusion criteria. With the aim of reducing risk of bias (Stoll et al., 2019), a minimum of 20% of abstracts ($n = 50$) and full texts ($n = 21$) were double rated by an independent reviewer, resulting in good levels of agreement for both abstracts (98%) and full texts (86%), discrepancies were discussed and agreed with the second author. In addition, all

selected articles were double rated and agreed with the independent reviewer. Once final papers were selected, reference list and forward citation searches were completed by the first author.

Figure 1 illustrates the selection process as a PRISMA diagram.

Figure 1

PRISMA diagram for paper selection



* Full text was unavailable; there were no contact details for the authors and the university library could not obtain the article.

2.3.4 Data analysis plan

The primary plan for data synthesis involved conducting a narrative synthesis, following Popay et al.'s (2006) framework. Studies were grouped by relevant themes such as population type, dissociation subtypes and potential moderators.

A meta-analysis was also conducted after determining that sufficient and comparable statistical data were available (Valentine et al., 2010). Pearson's correlation coefficient (r) was selected as the effect

size metric, given that most of the studies reported correlational effects. Only studies that provided sufficient statistical data to compute or extract Pearson's r were included in the meta-analysis. Studies reporting only non-parametric correlations (e.g., Spearman's ρ) or insufficient statistical data were excluded to ensure consistency in effect size computation. This decision aligns with standard meta-analytic practices when aggregating correlation coefficients (e.g., Borenstein et al., 2009). Six studies were excluded from the meta-analysis for this reason but were retained in the broader narrative synthesis.

Several studies included in the meta-analysis reported multiple measures of social anxiety that were compared with a measure of dissociation (e.g., Hoyer et al., 2013). For these studies, the social anxiety measure selected for inclusion in the meta-analysis was chosen based on its established psychometric properties (e.g., reliability, validity). This approach was used with the aim of including the most robust and widely accepted measure for each study, thereby enhancing the consistency and comparability of the effect sizes across studies.

A meta-analysis was conducted to pool Pearson's r effect sizes using random-effects models to account for variability across studies. Comprehensive Meta-Analysis (CMA; Borenstein, 2022) software was used to conduct the meta-analysis of Pearson's r correlations. CMA applies Fisher's Z transformation to normalise the distribution of r and stabilise variances during the pooling process. The pooled effect sizes were back-transformed to Pearson's r . A random-effects model was chosen to account for variability across studies due to differences in sample characteristics, measures and methodologies. Using this model, prediction intervals were calculated to estimate the range of effect sizes expected in future studies. The CMA input dataset output report is included in the accompanying information (*Research Thesis - Accompanying Information*, submitted as a separate appendix file).

Subgroup analyses were conducted post-hoc to explore potential differences between clinical and non-clinical populations, in addition to comparisons between different measures of dissociation and depersonalisation-derealisation. These analyses were not pre-specified in the initial protocol but were introduced after confirming sufficient representation of clinical and non-clinical participants to enable comparison. Heterogeneity was assessed using the I^2 statistic and Cochran's Q -test. Finally, sensitivity analyses were performed to assess the robustness of the results. Publication bias was assessed using funnel plots and Egger's regression test.

2.3.5 Quality assessment and risk of bias

The Effective Public Health Practice Project (EPHPP) (Thomas et al., 2004) quality assessment tool has been designed to assess the methodological quality of quantitative studies in the context of public health research. The EPHPP is comprised of seven component ratings: (1) selection bias, (2) study

design, (3) confounders, (4) data collection (5) methods, (6) withdrawals and dropouts (for longitudinal studies) and (7) analysis. Components are rated as 'weak', 'moderate' or strong' based on the guidelines published by the authors, ratings are collated to produce a global rating for each component.

The EPHPP has been identified as an appropriate risk of bias tool, for assessing the quality of multiple designs of research, including non-randomised (Deeks et al., 2003), cross-sectional and observational studies (Mamikutty et al., 2021). The EPHPP tool has been found to demonstrate good content and construct validity (Thomas et al., 2004), in addition to fair inter-rater reliability for individual domains and excellent inter-rater reliability for global ratings (Armijo-Olivo et al., 2012).

Quality assessment was completed by the first author. To further reduce the risk of bias, an independent reviewer double-rated 20% of the selected articles, with good agreement (98%), discrepancies were discussed and agreed with the second author. Overall, three studies were rated as 'moderate' and 13 were rated as 'weak' (see Appendix C). It is noteworthy that several of these articles were rated lower specifically due to their use of cross-sectional study design.

2.4 Results

2.4.1 Study characteristics

Seventeen studies met inclusion criteria; Table 2 illustrates characteristics for each study, including aims, sample characteristics and quantitative measures of dissociation and social anxiety; Table 3 provides an overview of participant characteristics, key findings and limitations for each study.

These papers were published between 1997 and 2021, originating across several countries including Germany ($n = 4$), Turkey ($n = 4$), United States of America ($n = 4$), United Kingdom ($n = 2$), Brazil ($n = 1$), Israel ($n = 1$) and New Zealand ($n = 1$). Many of these studies were published in peer-reviewed journals ($n = 15$), the remaining two articles consisted of an unpublished doctoral and master's thesis, identified via Web of Science and ProQuest respectively.

Most of these studies adopted a cross-sectional design ($n = 15$), except for one randomised controlled trial (Schweden et al., 2016) and one longitudinal daily diary design Soffer-Dudek (2014) & Somer, 2018). Each of the studies included used validated quantitative measures to investigate the relationship between dissociation and social anxiety. A range of statistical analyses were used, with many including correlational and/or regression models ($n = 13$), three studies included moderation or mediated moderation to further examine dynamics between dissociation and social anxiety, including factors such as trauma and childhood maltreatment.

2.4.2 Participant characteristics

Across all 17 studies there was a total of 3,083 participants (varying from a minimum of 56 to a maximum of 451), a reported mean age of 31.4 years, age range of 17 – 85 years and 58.7% female. Six studies did not report age ranges but indicated that participants were adults over the age of 18; two studies failed to report mean age. Six of the articles included samples identified in non-clinical contexts, three of which were undergraduate psychology student populations. The 11 studies which included clinical samples were predominantly based in outpatient psychology services, however, at least two of these articles recruited participants from inpatient settings. A total of seven studies included a comparison between clinical and non-clinical samples, whereby 176 participants were identified as having a diagnosis of SAD and 164 participants were identified as healthy controls. Data related to ethnicity was only reported in five of the 17 studies and the mean percentage of White or Caucasian participants was 75.0% (range = 48.0% - 93.0%).

2.4.3 Measures

2.4.3.1 Measures of dissociation

There was a total of six measures of dissociation (see Appendix D) used across the 17 studies. Several studies included instruments specifically measuring depersonalisation and derealisation, both of which have been conceptually associated with dissociation (Holmes et al., 2005). The Cambridge Depersonalisation Scale (CDS; Sierra & Berrios, 2000) and Dissociative Experiences Scale (DES; Holmes et al., 2005) were the most commonly used instruments, identified in seven and six of the studies respectively. Furthermore, three studies included the Structured Clinical Interview for DSM-IV Dissociative Disorders (Steinberg, 1994), in addition to a quantitative measure of dissociation. Each of the measures used were standardised adult measures, demonstrating good psychometric properties.

2.4.3.2 Measures of social anxiety

There was a total of eight measures of social anxiety (see Appendix E). Five of these seventeen studies use two or more instruments to measure social anxiety. The Liebowitz Social Anxiety Scale (Liebowitz, 1987), a 24-item clinician-administered or self-report measure of social anxiety in terms of fear and avoidance, was the most commonly featured ($n = 9$) measure of social anxiety across these studies; followed by the Social Phobia Scale ($n = 4$; Mattick & Clarke, 1998), Social Interactions Anxiety Scale ($n = 3$; Mattick & Clarke, 1998) and Fear of Negative Evaluation Scale ($n = 3$; Watson & Friend, 1969). One study (Hoyer et al., 2013) included a standardised diagnosis interview to assess for symptoms of social anxiety, in addition to a self-report measure of social anxiety. Each of the measures used were standardised adult measures, demonstrating good psychometric properties.

2.4.3.3 Other measures

There were 37 additional measures used when excluding duplicates. The most common examples included the Beck Depression Inventory ($n = 4$), State-Trait Anxiety Inventory ($n = 3$) and Childhood Trauma Questionnaire ($n = 3$). A total of six studies included at least one measure of traumatic experiences.

2.4.4 Quality assessment

Overall quality ratings (see Table 3) were affected by multiple weak ratings across a range of items including selection bias, study design and confounders. Many of the studies were prevented from scoring moderate or above on the basis they did not clearly report their selection procedures, dropout rates or any attempts at identifying and/or controlling for potential confounds.

Furthermore, the majority adopted a cross-sectional design which further contributed to an overall weak rating when using the EPHPP. A smaller subset of studies (e.g., Evren et al., 2009; Schweden et al., 2016; Soffer-Dudek and Somer, 2018) were rated as moderate, with only one weak rating. These studies generally had better handling of confounders or study design but still showed limitations in areas like selection bias.

Table 3*Study characteristics*

Author(s), date, country	Aims	Participant age range (<i>Mean age</i>) and gender	Design and analysis	Dissociation measure	Social anxiety measure	Other measures
Ball et al. (1997); USA	Investigate the relationship of dissociation and anxiety in patients with panic disorder and other non-panic anxiety disorders	<i>N</i> = 56 Adults sample, age range not reported (<i>M</i> _{age} = 37.0) 53.6% female	Cross-sectional; Pearson's correlation; Hierarchical regression	Dissociative Experiences Scale	Brief-Fear of Negative Evaluation Scale Social Interaction Anxiety Scale Social Phobia Scale	Anxiety Sensitivity Index; Beck Depression Inventory; Dysfunctional Attitudes Scale; Fear Questionnaire; Personality Screening Inventory; State-Trait Anxiety Inventory; Structured Clinical Interview for DSM-III-R-Patient Edition;
Belli et al. (2017); Turkey	Investigate the relationship between social anxiety, childhood trauma, and dissociation, in patients with social anxiety disorder	<i>N</i> = 94 Participants aged 18+ <i>M</i> _{age} not reported 55.3% female	Cross-sectional; Chi-squared; ANOVA; Logistic regression	Dissociation Questionnaire; Structured Clinical Interview for DSM-IV Dissociative Disorders	Liebowitz Social Anxiety Scale	Childhood Trauma Questionnaire
Cook et al. (2020); USA	Examine whether the relationship between social anxiety, coping motives, alcohol consequences was moderated by dissociative symptoms	<i>N</i> = 320 18-45 (<i>M</i> _{age} = 21.0) 66.3% female	Cross-sectional; Moderated mediation analyses	Cambridge Depersonalisation Scale	Liebowitz Social Anxiety Scale Social Phobia Anxiety Inventory	Drinking Motives Questionnaire Revised Young-Adult Alcohol Consequences Questionnaire
Cook and Newins (2021); USA	Investigate the moderating effect of emotion regulation on social anxiety and dissociation	<i>N</i> = 572 18-57 (<i>M</i> _{age} = 20.6) 63.9% female	Cross-sectional; Linear regression Moderation	Cambridge Depersonalisation Scale	Social Phobia Anxiety Inventory	Difficulties in Emotion Regulation Scale
Evren et al. (2009); Turkey	Investigate the relationship between social anxiety and dissociative experiences among male patients with alcohol dependence as assessed after a detoxification period	<i>N</i> = 176 23-70 (<i>M</i> _{age} = 43.1) 0.0% female	Cross-sectional; ANCOVA; Linear regression	Dissociative Experiences Scale	Liebowitz Social Anxiety Scale	Beck Depression Inventory; Michigan Alcoholism Screening Test; State Trait Anxiety Inventory; Symptom Checklist-Revised

Fontenelle et al. (2007); Brazil	Compare the history of trauma and the profile and severity of dissociative symptoms of patients with OCD to those of patients with social anxiety disorder	Total $N = 64$ 17-65 ($M_{age} = 40.9$) Patients with primary diagnosis of: OCD $N = 34$, ($M_{age} = 39.1$) 67.6% female Social anxiety disorder $N = 30$, ($M_{age} = 42.6$) 43.3% female	Cross-sectional; Linear regression	Dissociative Experiences Scale	Liebowitz Social Anxiety Scale	Beck Anxiety Inventory; Beck Depression Inventory; Obsessive-Compulsive Inventory-Revised; Trauma History Questionnaire
Gül et al. (2014); Turkey	Investigate the incidence and severity of dissociative symptoms in patients with generalised social phobia, and to examine how these symptoms affect diagnosis and treatment of this disorder	Total $N = 86$ 18-55 ($M_{age} = 30.8$) General social phobia: $N = 51$ 18-49 ($M_{age} = 29.7$) 68.6% female Healthy controls: $N = 35$ 21-55 ($M_{age} = 31.9$) 54.3% female	Cross-sectional; Mann-Whitney U; Spearman's rho	Dissociation Questionnaire; Structured Clinical Interview for DSM-IV Dissociative Disorders	Liebowitz Social Anxiety Scale	None
^a Harris (2007); New Zealand	Compare dissociative experiences reported by a community sample and a sample of individuals with a range of anxiety disorders	Total $N = 94$ 18-85 ($M_{age} = 47.2$) Community control $N = 74$ 26-85 ($M_{age} = 56.7$) 56.8% female. Anxiety sample $N = 20$ 18-69 ($M_{age} = 37.7$) 65.0% female	Cross-sectional Pearson's correlation; Hierarchical regression	Curious Experiences Survey; Scale of Dissociative Activities	Social Avoidance and Distress Scale	Anxiety Sensitivity Index – Revised; Beck Anxiety Inventory; Fear Questionnaire; Penn-State Worry Questionnaire; Traumatic Events Questionnaire; PTSD Checklist; TCU Drug Screen
Hinrichsen et al. (2003); UK	Investigate levels of social anxiety across different types of eating disorders, and determine association of social anxiety with specific forms of emotional regulation (including dissociation)	Total $N = 164$ ($M_{age} = 25.1$) Age ranges not reported Non-clinical: $N = 50$ ($M_{age} = 19.8$) Restrictive anorexia: $N = 21$ ($M_{age} = 25.7$) Binge-purge anorexia: $N = 34$ ($M_{age} = 28.0$)	Cross-sectional; One-tailed correlations; (Spearman's rho)	Dissociative Experiences Scale – revised version, DES-II	Fear of Negative Evaluation Scale	Bulimic Investigatory Test

Bulimia nervosa: $N = 59$ ($M_{age} = 26.9$) All groups 100.0% female						
Hoyer et al. (2013); Germany	Investigate how frequently and intensely depersonalisation and derealisation symptoms occur during a stressful performance situation in patients with social phobia, compared with healthy controls	Total $N = 89$ ($M_{age} = 25.9$) 45.4% female Adults sample, age range not reported Patient diagnosed with social phobia: $N = 55$ ($M_{age} = 26.5$) 43.6% female Matched healthy controls: $N = 34$ ($M_{age} = 25.3$ years) 47.1% female	Cross-sectional; Independent-sample t-test; Bivariate correlational	Cambridge Depersonalisation Scale	Brief Fear of Negative Evaluation Scale Liebowitz Social Anxiety Scale; Munich-Composite International Diagnostic Interview Social Interaction Anxiety Scale Social Phobia Anxiety Inventory Social Phobia Scale	Beck Depression Inventory; German version of Cloninger's Tridimensional Personality Questionnaire; Post-Event Processing Questionnaire; Social Behaviour Questionnaire (Adapted)
Michal et al. (2005); Germany	Investigate the relationship between depersonalisation-derealisation and social anxiety using correlative and regression analyses	Total $N = 201$ 17-79 ($M_{age} = 35.4$) 69.4% female Inpatients: $N = 116$ 17-66 years ($M_{age} = 35.6$) 74.0% female Outpatients: $N = 54$ 17-79 ($M_{age} = 39.5$) 63.6% female Nonpatients: $N = 31$ 21-61 ($M_{age} = 27.3$) 61.3% female	Cross-sectional; Bivariate correlational; Linear stepwise regression	Cambridge Depersonalisation Scale (German)	Social Interaction Anxiety Scale (German); Social Phobia Scale (German)	Symptom Check-List-90-R (German)
^b Michal et al. (2006); Germany	Investigate the relationship between social phobia, depersonalisation, derealisation and shame	Total $N = 100$ Age ranges not reported ($M_{age} = 33.6$)	Cross-sectional Chi-squared; Independent t-test;	Cambridge Depersonalisation Scale;	Social Interaction Anxiety Scale Social Phobia Scale	Symptom Checklist-90-Revised

		45.0% female $N = 28$ no depersonalisation-derealisation (DD) $N = 27$ mild DD $N = 26$ moderate DD $N = 19$ severe DD $N = 55$ Comparison group (no/mild DD) ($M_{age} = 35.5$) 18.4% female $N = 45$ Pathologic group (moderate/severe DD) ($M_{age} = 31.6$) 80.0% female	Bonferroni correction	Structured Clinical Interview for DSM-IV Dissociative Disorders		
Myers and Llera (2020); USA	Investigate the relationship between social anxiety, dissociation and childhood maltreatment	$N = 198$ Age ranges not reported University students age 18 years or older ($M_{age} = 19.7$) 72% female	Cross-sectional; Multiple hierarchical regression; Moderation	Cambridge Depersonalisation Scale	Liebowitz Social Anxiety Scale	Childhood Trauma Questionnaire (Short Form)
Schweden et al. (2016); Germany	Investigate whether cognitive therapy for social anxiety disorder would effectively reduce depersonalisation and whether pre-treatment severity of depersonalisation predicted or mediated treatment outcome	Total sample $N = 61$ ($M_{age} = 25.7$) Age 18 years or older Age ranges not reported 40.1% female Patients with SAD on wait list: $N = 20$ ($M_{age} = 26.1$) 40.0% female Treatment group: $N = 20$ ($M_{age} = 24.6$) 40.0% female Healthy controls: $N = 21$ ($M_{age} = 26.4$) 42.9% female	Randomised controlled trial; Repeated measures ANOVA; Linear regression; Pearson's correlation	Cambridge Depersonalisation Scale	Liebowitz Social Anxiety Scale (German)	Trier Social Stress Test

Soffer-Dudek and Somer (2018); Israel	Explore the potential relationship(s) between maladaptive daydreaming and dissociation, OCD, depression, anxiety and social anxiety	$N = 77$ 18-60 ($M_{age} = 29.8$) 81.8% female	Longitudinal Multilevel linear modelling	Clinician Administered Dissociative States Scale	Mini Social Phobia Inventory	Obsessive Compulsive Inventory- Revised Positive and negative Affect Schedule State-Trait Anxiety Inventory
^a Welford (1999); UK	Identify a model of predictors of dissociation, investigating the relationships between dissociative experiences and a range of psychological factors	$N = 280$ 18-75 ($M_{age} = 35.0$) 70.7% female	Cross-sectional; Independent samples t-test; Multiple regression	Dissociative Experiences Scale	Fear of Negative Evaluation Scale	Beliefs About Dissociation Questionnaire; Coping Inventory for Stressful Situations; Eysenck Personality Questionnaire- Revised; Impact of Events Scale; State Anxiety Subscale from The Anxious Thoughts Inventory The Childhood Trauma Questionnaire The Self-Consciousness Scale
Yöyen and Çaylak (2023); Turkey	Investigate the predictors of childhood traumas, emotion regulation processes and dissociation in terms of social anxiety	$N = 451$ 18-55 M_{age} not reported 71.0% female	Cross-sectional; Simple linear regression; Multiple regression; Hierarchical regression	Dissociative Experiences Scale	Liebowitz Social Anxiety Scale	Childhood Trauma Scale; Emotional Regulation Processes Scale

Table 4*Key findings and quality assessment ratings*

Authors and date	Participant and service characteristics	Key findings reported	Limitations	Overall quality rating
Ball et al. (1997)	Patients presenting for treatment at the Indiana University Anxiety Disorders Centre Required to meet DSM-III-R criteria for panic disorder or another anxiety disorder 16% of participants met diagnostic criteria for social phobia.	Positive correlation between SPS scores and DES scores ($r = .40, p < .01$) SIAS correlation with the DES ($r = .29, p < .05$) BFNE correlation with the DES ($r = .32, p < .05$) SPS scores were significant predictors of DES scores ($\beta = .36, p < .05$)	Cross-sectional design 93% Caucasian sample and 7% 'ethnic minorities' Relatively small sample size	Weak
Belli et al. (2017)	Patients admitted for the first time to a Psychiatric Outpatient Unit with a clinical diagnosis of social anxiety disorder. Patients with severe physical illness, neurological diseases, major affective and psychotic disorders and substance abuse or dependence disorders were excluded.	LSAS scores and fear and avoidance sub-scale averages of the high DIS-Q group were found to be significantly higher than those of the low DIS-Q group ($p < .001$) DIS-Q scores were significant predictors of higher LSAS scores ($\beta = .94, p < .001$), Emotional abuse, sexual abuse, and emotional neglect were significant predictors of social anxiety ($p < .05$) Based on SCID-D screening, 31.91% of patients with SAD had co-morbid dissociative disorder diagnoses	Cross-sectional design Small sample size Ethnicity not reported	Weak
Cook et al. (2020)	Undergraduate psychology students, provided with course credit for their participation	Dissociation symptoms were significantly positively associated with social anxiety symptoms Positive correlation between CDS and LSAS scores ($r = .52, p < .001$) Positive correlation between CDS and SPAI scores ($r = .36, p < .001$) Dissociation did not moderate the relationship between social anxiety and consuming alcohol to cope with negative emotions	Cross-sectional design University analog sample Sample composed primarily of White, female undergraduate psychology students	Weak
Cook and Newins (2021)	Undergraduate psychology students, provided with course credit for their participation	Positive correlation between SPAI scores and CDS scores ($r = .35, p < .01$) Social anxiety was significantly positively associated with depersonalisation and derealisation ($\beta = .18, p < .001$), and	Cross-sectional design University analog sample, 76.1% of sample scored below recommended clinical cutoff for	Weak

		this relationship was stronger for patients reporting higher levels of emotional dysregulation Even at low levels of emotion regulation difficulties, social anxiety was still significantly positively associated with depersonalisation-derealisation Lack of emotional clarity and poor control over impulsive behaviour were two subscales of emotion regulation difficulties that served as significant moderators between social anxiety and depersonalisation-derealisation	probably social anxiety disorder as measured by the SPAI-23 Sample composed primarily of White, female undergraduate psychology students	
Evren et al. (2009)	The study was conducted in Bakirkoy State Hospital for Psychiatric and Neurological Diseases, Alcohol and Drug Research, Treatment and Training Centre (AMA-TEM) in Istanbul Admitted alcohol dependent, male inpatients without history of any other substance abuse All participants fit the DSM-IV diagnostic criteria for alcohol dependence	Among male alcohol-dependent patients, the dissociative subgroup had significantly higher social anxiety scores than the non-dissociative subjects The subscale scores of the LSAS were highly correlated with the DES-Taxon ($r = .38, p < .001$) for the total LSAS scores, ($r = .35, p < .001$) for the LSAS avoidance subscale, and ($r = .40, p < .001$) for the LSAS fear/anxiety subscale Among dissociative symptoms, only depersonalization and amnesia/fugue were predictors of social anxiety Higher levels of social anxiety associated with childhood abuse when compared with no childhood abuse history ($z = -2.03, p = .04$)	Cross-sectional design Male only sample Ethnicity not reported No screening for social anxiety disorder as a diagnostic group Dichotomous assessment of childhood trauma i.e., 'present' or 'absent'	Moderate
Fontenelle et al. (2007)	Individuals with OCD and SAD who sought treatment at the Anxiety and Depression Research Program of the Institute of Psychiatry of the Federal University of Rio de Janeiro	Among patients with SAD, the LSAS and the BAI scores remained significant predictors of the DES score even after controlling for the BDI (Adjusted $R^2 = .54; p < .001$)	Cross-sectional design Small sample size Ethnicity not reported Lack of a healthy control group Did not examine whether the LSAS remains a significant predictor of the DES independent of the BAI	Weak
Gül et al. (2014)	Individuals with a diagnosis of generalised social phobia who had visited a psychiatric outpatient clinic, a public hospital or a university medical faculty hospital	Significantly higher levels of dissociative symptoms reported by participants diagnosed with GSP, when compared to healthy controls ($Z = -6, p < .001$). Positive and moderately strong correlation between LSAS social anxiety scores and DIS-Q dissociation scores in patients with GSP ($r_s = .31, p < .05$) Dissociative symptoms reported more frequently in public areas by participants with GSP	Cross-sectional design Ethnicity not reported No detail provided on how patients in clinical group were diagnosed with GSP	Weak

Harris (2007)	Anxiety sample including adults diagnosed with one or more anxiety disorders recruited from an Anxiety Disorders Unit, Agoraphobic Support Group and private practice	Increased symptoms of anxiety, in particular social phobia, panic, posttraumatic stress and generalised anxiety were associated with increased levels of dissociation Significant positive correlations between SADS-SA and the SADS across the combined ($r = .62, p < .001$), community ($r = .44, p < .001$) and anxiety samples ($r = .56, p < .01$) Significant positive correlations between SADS-SA and the CES across the combined ($r = .43, p < .001$) and community ($r = .29, p < .01$) samples but not the anxiety sample ($r = .36, p = ns$) Symptoms of agoraphobia (FQ-AG), social phobia (FQ-SPL, $\beta = -.29, p = .02$) and (SADS $\beta = .19, p = .07$) and posttraumatic stress (PTSD Checklist for DSM-5) scores appeared to contribute most to the prediction of dissociation, while symptoms of generalised anxiety (Penn State Worry Questionnaire) did not Only symptoms of social phobia and posttraumatic stress were associated with symptoms relating to dissociative amnesia Symptoms of depersonalisation / derealisation and absorption were most strongly associated with increased anxiety	Cross-sectional design Convenience sampling Community and anxiety groups not matched based on demographic variables 94.6% and 80.0% New Zealand European ethnicity for community and anxiety samples respectively 93.25% of community sample over the age of 40 years and 55% of anxiety sample under the age of 40 years No formal index of psychopathology administered with community sample Retrospective self-reporting of symptoms	Weak
Hinrichsen et al. (2003)	Patients were recruited during assessment for treatment at a specialist eating disorders clinic	Social anxiety was linked to dissociation levels ($r_s = .40, p < .05$) among patients presenting with restrictive anorexia nervosa, however, this relationship was not observed in healthy controls or patients presenting with either binge-purge anorexia or bulimia nervosa	Cross-sectional design Female only sample Ethnicity not reported Only measuring fear of negative evaluation, other facets of social anxiety not considered Social anxiety measure limited to 'true' and 'false' responses	Weak
Hoyer et al. (2013)	Patients with a diagnosis of social phobia, diagnosed using the Munich-Composite International Diagnostic Interview, recruited via an outpatient clinic of the Institute of Clinical Psychology and Psychotherapy of the Technische Universitaet Dresden. Healthy controls, matched on age and gender, were recruited via advertisement.	Depersonalisation symptoms were more frequent in social phobia patients (92%) than in controls (52%) during a social performance situation, and the difference reached a high effect size of $d > 1$ CDS scores were highly positively correlated with social anxiety measured using the Brief SPS ($r = .39, p < .01$), safety behaviours ($r = .66, p < .01$) and post-event processing ($r = .65, p < .01$)	Cross-sectional design Ethnicity not reported 14% ($n = 9$) of eligible patients withdrew from the study, including 4.7% ($n = 3$) withdrawing due to fear of the social stress test, therefore, the sample may not be	Weak

			representative for all SP patients seeking help Artificial creation of social stress	
Michal et al. (2005)	Inpatients from the Clinic of Psychosomatic Medicine and Psychotherapy, Goethe University, Frankfurt Outpatients with epilepsy from the Clinic of Neurology, Goethe University, Frankfurt Nonpatients (students and staff).	Social phobia was significantly more prevalent in the patients with pathological depersonalisation Depersonalisation measured using the CDS correlated highly with social anxiety measured using the SIAS ($r = .53, p < .001$) and SPS ($r = .62, p < .001$) In the subsamples, the partial correlation coefficients (controlled for the GSI) of CDS with the social anxiety scales were as follows: psychotherapy inpatients (SIAS, $r_{GSI} .34, p < .001$; SPS, $r_{GSI} .38, p < .001$), nonpatients (SIAS, $r_{GSI} .31, p = .09$; SPS, $r_{GSI} .40, p = .03$) Situations of interpersonal proximity (SIAS) ' <i>I feel tense if I am alone with another person</i> ' were significantly associated with depersonalisation, adjusted ($R^2_{adj} = .52, p < .001$)	Cross-sectional design Ethnicity not reported Groups not matched on demographics No systematic exploration for mental disorders of the epilepsy patients and nonpatients	Weak
Michal et al. (2006)	Patients recruited from the ward of the Clinic for Psychosomatic Medicine and Psychotherapy at the University of Frankfurt	SIAS scores were significantly higher in the patients with pathological depersonalisation when compared to patients without or with mild levels of depersonalisation ($p = .001$) Patients with pathological depersonalisation-derealisation showed a significantly larger extent of social anxieties (SIAS, SPS) and shame (ISS)	Cross-sectional design Ethnicity not reported Non-significant p values reported as 'ns', exact figures not reported Only explored SCID content associated with depersonalisation and derealisation	Weak
Myers and Llera (2020)	Undergraduate psychology students	LSAS total scores were the only significant predictor of CDS scores in the full model. ($\beta = .39, p < .001$) Demographic variables and panic severity were not significant predictors of dissociative severity, only upon adding LSAS scores did the model's predictive value significant increase Those with higher levels of social anxiety reported experiencing dissociative symptoms more frequently and for a longer duration than those with lower levels of social anxiety	Cross-sectional design Non-clinical status of sample, reporting relatively low levels of childhood maltreatment and dissociation Questionnaire data reliant on retrospective self-reporting of experiences Assessed for trait, but not state levels of social anxiety	Weak

Schweden et al. (2016)	Participants recruited from an outpatient clinic of the Institute of Clinical Psychology and Psychotherapy of the Technische Universität Dresden (Germany) Inclusion criteria for patients were a principal diagnosis of SAD, assessed with Munich-Composite International Diagnostic Interview and a total score higher than 30 on the LSAS	Cognitive therapy reduced the severity of depersonalisation during acute social stress in patients with social anxiety disorder Before treatment, depersonalisation was higher in patients with social anxiety disorder compared to healthy controls $U(40, 21) = -4.14, p < .001, d = 1.23$. Non-significant and positive correlation between LSAS and CDS scores ($r = .41, p = .070$) Significant and positive correlation between LSAS and CDS scores post-treatment ($r = .55, p = .012$)	Ethnicity not reported Small sample size and therefore lower statistical power Dissociation measure (CDS) does not differentiate between depersonalisation and derealisation	Moderate
Soffer-Dudek and Somer (2018)	Individuals defining themselves as maladaptive daydreamers, including members of online forums for individuals reporting experiences of maladaptive daydreaming	Significant and positive correlation between Mini SPIN scores and CADSS scores ($r = .53, p \leq .001$)	Ethnicity not reported Online study using self-report measures Convenience sampling, including online forums and participants who had reached out to the second author with an interest in research participation	Moderate
Welford (1999)	General adult population Recruited by convenience sampling	Measures and subscales for social anxiety were found to be positively correlated with DES total scores Significant and positive correlation between FNE scores and DES scores ($r = .20, p = .002$)	Cross-sectional design Ethnicity not reported Convenience sampling Response rate of 54.9% and 44.4% for study 1 and 2 respectively Beliefs About Dissociation questionnaire has not been tested for validity and reliability	Weak
Yöyen and Çaylak (2023)	Non-clinical sample recruited via snowball sampling method 9.3% of sample receiving psychiatric and/or psychological support	Positive correlation between DES scores and LSAS ($r = .21, p < .05$) In the hierarchical regression analysis, it was determined that childhood traumas ($\beta = .271, p = .05$) and dissociative experiences ($\beta = .291, p = .001$) had a positive effect on social anxiety, while emotion regulation skills ($\beta = -.144, p = .011$) had a negative effect. An increase in dissociative experiences was associated with an increase in social anxiety symptoms	Cross-sectional design Ethnicity not reported Snowball sampling method Non-clinical sample Majority female sample The Conflict Tactics Scale collects retrospective information about age 0-18 years of their lives, while	Weak

answering these items people may
have a recall bias.

Note. CDS = Cambridge Depersonalisation Scale; CADSS = Clinician Administered Dissociative States Scale; CES = Curious Experiences Survey; DIS-Q = Dissociation Questionnaire; DES = Dissociative Experiences Scale; SADS = Scale of Dissociative Activities; SCID-D = Structured Clinical Interview for DSM-IV Dissociative Disorders; BFNE = Brief Fear of Negative Evaluation Scale; FNE = Fear of Negative Evaluation Scale; LSAS = Liebowitz Social Anxiety Scale; Mini-SPIN = Mini Social Phobia Inventory; SADS-SA = Social Avoidance and Distress Scale – Social Anxiety subscale; SIAS = Social Interaction Anxiety Scale; SPAI = Social Phobia Anxiety Inventory; SPS = Social Phobia Scale.

2.4.5 Synthesis examining the relationship between dissociation and social anxiety

2.4.5.1 Prevalence and association between dissociation and social anxiety

Two studies reported that dissociation was more prevalent among patients diagnosed with social anxiety, when compared with healthy controls. Gül et al. (2014) found that patients diagnosed with generalised social phobia ($M = 2.44$, $SD = 0.59$) reported significantly higher levels of dissociation ($Z = -6.00$, $p < .001$) using the DIS-Q, when compared to healthy controls ($M = 1.67$, $SD = 0.38$). Hoyer et al. (2013) provided findings consistent with this trend, identifying that of their social phobia sample, 92.9% reported moderate depersonalisation-derealisation symptoms during an acute social stress task, while 76.4% endorsed at least one severe symptom.

Similarly, Michal et al. (2006) identified social anxiety as more prevalent in samples presenting with pathological levels of dissociation, with 66.7% of participants with pathological depersonalisation exceeding clinical cut-offs social anxiety, in contrast to 27.3% of participants with sub-clinical dissociation ($\chi^2 = 13.97$, $df = 1$, $p < .001$). When coupled with the findings from Gül et al. (2014) and Hoyer et al. (2013), these results point to a potential co-prevalence between dissociation and social anxiety, observed across both social anxiety and dissociative presentations.

Three studies (Cook and Newins, 2021; Hoyer et al., 2013; Michal et al., 2005) explicitly linked self-reported depersonalisation-derealisation, as measured by the Cambridge Depersonalisation Scale, with higher levels of social anxiety. Across these studies, significant moderate to strong positive correlations were reported between depersonalisation-derealisation and social anxiety scores, ranging from $r = .35$ to $r = .62$, $p < .01$ to $p < .001$. This indicates that as depersonalisation-derealisation severity increases, social anxiety symptoms increase.

2.4.5.2 Factors influencing the dissociation-social anxiety relationship

2.4.5.2.1 Emotion regulation

A single study showed that emotional regulation moderated the relationship between social anxiety and depersonalisation-derealisation. The association between these constructs was stronger at higher levels of emotional regulation difficulties ($b = 0.27$, $p < .001$). However, the relationship did also remain significant at low levels emotion regulation difficulties ($b = 0.10$, $p < .05$); suggesting that other factors may also contribute to this link. Yöyen and Çaylak (2023) provided another perspective on the interplay between the processes, identifying a negative association between emotional regulation skills and social anxiety ($\beta = -.144$, $p = .011$), thus, proficiency in emotion regulation may help reduce the severity of social anxiety symptoms.

2.4.5.2.2 Childhood trauma

Belli et al. (2017) identified associations childhood trauma and social anxiety ($\beta = .34, p < .05$), highlighting specific examples of abuse including emotional abuse, sexual abuse, and emotional neglect. Similarly, Evren et al. (2009) reported that a history of childhood abuse was associated with increased social anxiety scores among alcohol-dependent men ($\beta = .16, p < .05$). On the other hand, Yöyen and Çaylak (2023) observed a general relationship between childhood trauma and social anxiety in a non-clinical sample, with dissociation representing the strongest predictor of social anxiety symptoms in their analysis ($\beta = .291, p < .001$). Interestingly, Belli et al. (2016) and Yöyen and Çaylak (2023) described dissociation as a possible mediator in the relationship between childhood trauma and social anxiety, although they did not conduct formal mediation analyses. Evren et al. (2009) noted independent associations between trauma, dissociation and social anxiety but didn't investigate this directly. These findings were observed in both clinical and non-clinical populations; the specific forms of trauma and strength of the relationships varied across studies.

2.4.5.3 Predictive relationship between dissociation and social anxiety

Three studies identified social anxiety as a significant positive predictor of dissociation, with effect sizes ranging from $\beta = .18$ to $\beta = .39$, indicating a small to moderate effect. (Ball et al., 1997; Cook and Newins, 2021; Myers and Llera, 2020). Moreover, three studies illustrated the reverse relationship, dissociation as a predictor of social anxiety (Belli et al., 2017; Evren et al., 2009; Yöyen and Çaylak, 2023). Reported effect sizes varied considerably, ranging from a moderate effect ($\beta = .291, p = .001$; Yöyen and Çaylak, 2023) to a large effect ($\beta = .94, p < .001$; Belli et al., 2017). However, given the relatively small number of longitudinal studies and the predominantly cross-sectional nature of the evidence-base, the direction of the relationship between dissociation and social anxiety remains unclear.

2.4.5.4 Clinical and non-clinical populations

Across the 17 included studies, eleven clinical samples were examined, including patients with social anxiety disorder, anxiety disorders, pathological dissociation, or related clinical presentations (Ball et al., 1997; Belli et al., 2017; Evren et al., 2009; Fontenelle et al., 2007; Gül et al., 2014; Harris, 2007; Hinrichsen et al., 2003; Hoyer et al., 2013; Michal et al., 2005; Michal et al., 2006; Schweden et al., 2016). For these studies, correlations between dissociation and social anxiety were generally moderate to strong and ranged from $r = .31$ to $r = .53$. Additionally, ten non-clinical samples were reported, including undergraduate and community participants (Cook et al., 2020; Cook & Newins, 2021; Myers & Llera, 2020; Soffer-Dudek & Somer, 2018; Welford, 1999; Yöyen & Çaylak, 2023), as well as healthy control groups within mixed designs (Harris, 2007; Hoyer et al., 2013; Michal et al., 2005; Schweden et al., 2016). These non-clinical studies reported generally weaker associations, with

correlations typically ranging from $r = .20$ to $r = .53$. Therefore, these findings suggest that while a positive relationship between dissociation and social anxiety exists across populations, it appears more pronounced in clinical samples.

2.4.6 Results for meta-analysis

2.4.6.1 Statistical analysis for the overall sample

The meta-analysis results for the overall relationship between dissociation and social anxiety are presented in Figure 2. A total of 11 studies were eligible (Ball et al., 1997; Cook et al., 2020; Cook & Newins, 2021; Evren et al., 2009; Harris, 2007; Hoyer et al., 2013; Michal et al., 2005; Schweden et al., 2016; Soffer-Dudek et al., 2018; Welford, 1999; Yöyen & Çaylak, 2023), for a total of 2,038 participants (230 clinical and 1,808 non-clinical). Effect sizes, expressed as Pearson's r , were pooled to provide an overall estimate for each subgroup and the entire dataset. The analysis showed a significant association, with a summary effect of $r = .39$ (95% CI [.30, .47], $p < .001$). The overall prediction interval ranged from .033 to .658, indicating that future studies may observe correlations from negligible to large positive associations. These results indicate a moderate association between dissociation and social anxiety, based on Cohen's (1988) criteria (i.e., $r \geq .30$ indicates a 'moderate' effect).

2.4.6.2 Statistical analysis for clinical and non-clinical groups

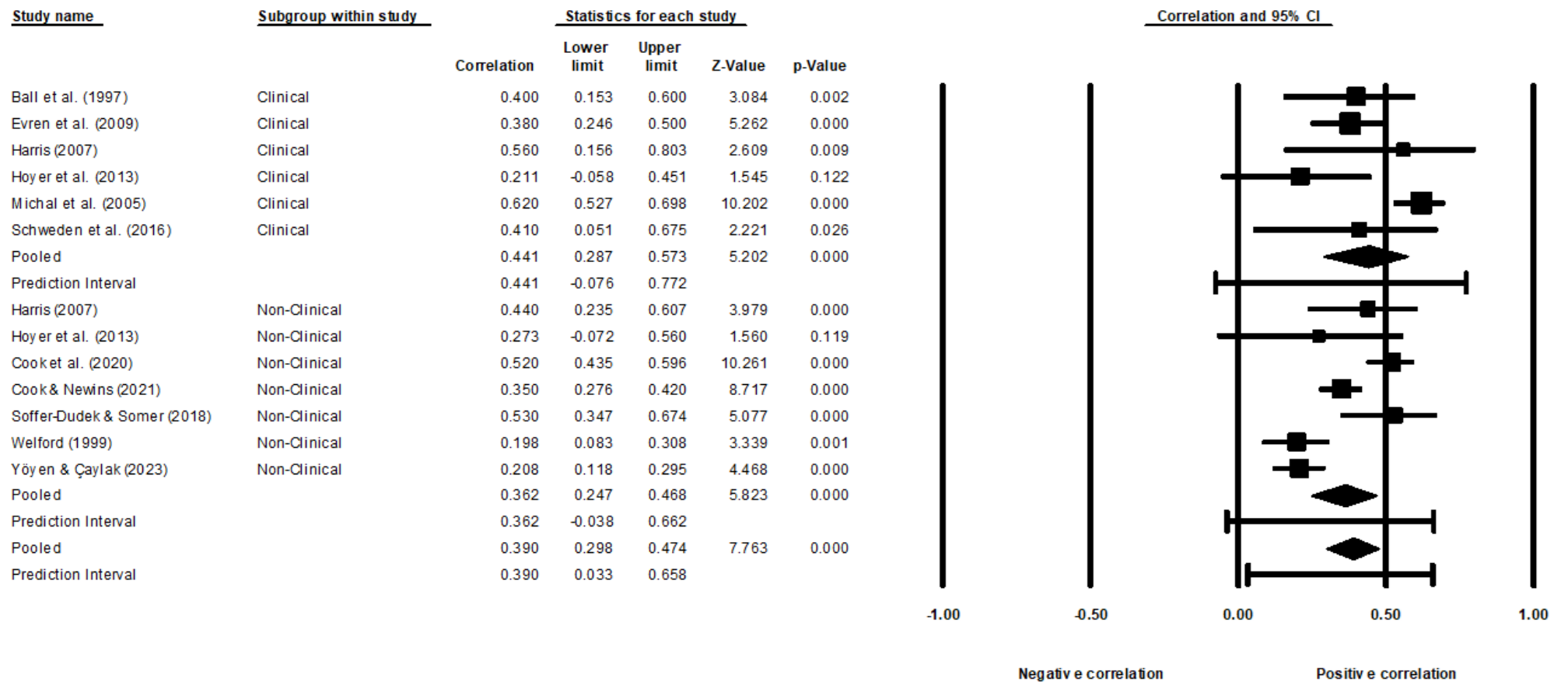
Results for the clinical and non-clinical subgroup analyses are presented in Figure 2. There was a positive association between dissociation and social anxiety in both clinical ($r = .44$, 95% [.29, 0.57], $p < .001$) and non-clinical ($r = .36$, 95% [.25, .47], $p < .001$). Although the positive relationship between dissociation and social anxiety was stronger in clinical populations, this difference between subgroups was not significant ($Q = 0.72$, $df = 1$, $p = .40$). Additionally, there was no evidence of heterogeneity between the subgroups, with an I^2 value of 0%, indicating that the studies within each group were highly consistent.

2.4.6.3 Statistical analysis for subtypes of dissociation

Results across both subgroups indicated positive moderate association between social anxiety measures and depersonalisation-derealisation measured using the Cambridge Depersonalisation Scale ($r = .43$, 95% [.29, .55], $p < .001$). The association between social anxiety measures and dissociative experiences as measured by the broader scoped Dissociative Experiences Scale was lower by comparison but still indicated a positive moderate relationship ($r = .26$, 95% [.18, .34], $p < .001$).

Figure 2

Forest plot for the clinical, non-clinical and pooled sample meta-analysis



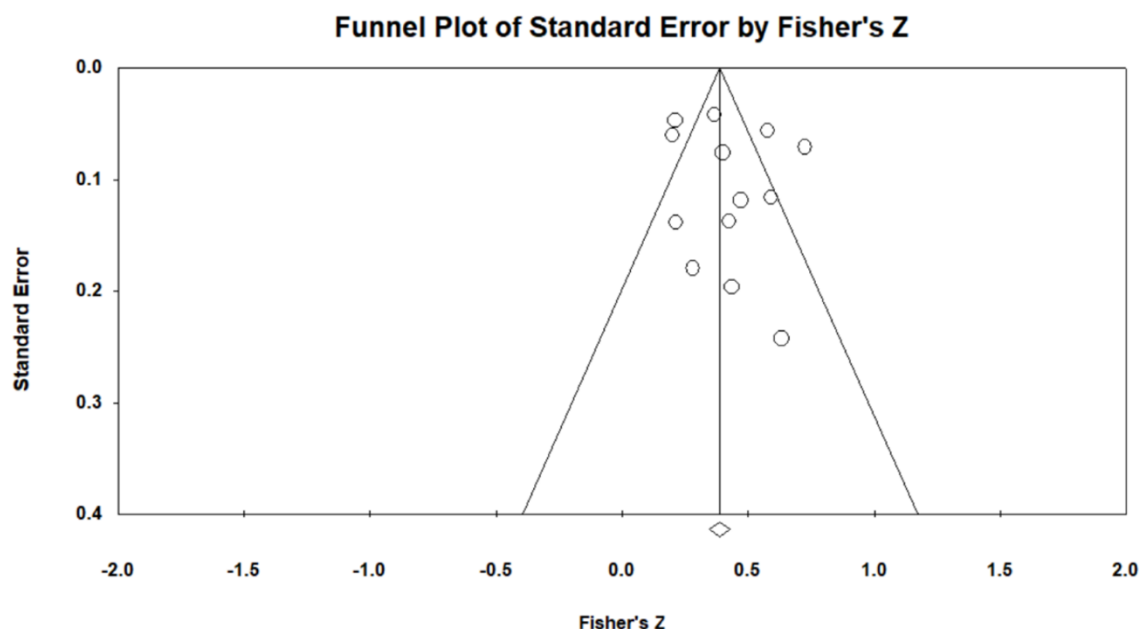
2.4.6.4 Publication bias assessment

Heterogeneity analyses for the overall sample of studies indicated significant variability and substantial heterogeneity across studies ($Q = 64.62$, $df = 12$, $p < .001$, $I^2 = 81\%$). Examination of heterogeneity statistics with both subgroup analyses yielded similar considerable statical inconsistency (clinical $I^2 = 70\%$ and non-clinical $I^2 = 84\%$).

An Egger's regression test (Egger et al., 1997) assessed publication bias across the overall sample ($t = .74$; $p = .48$), indicating no significant asymmetry in the funnel plot (see Figure 3) and therefore no evidence of publication bias. This finding was supported by a visual inspection of the funnel plot which also suggested an absence of asymmetry.

Figure 3

Funnel plot of the meta-analysis



One study removed analyses were carried out using CMA to assess whether any of the studies had a disproportionate influence over the meta-analytic results. The point estimate of the overall correlation remained relatively consistent, regardless of which study was removed, indicating that no single study overly influenced the results. Furthermore, all Z-values remained highly significant ($p < .001$) in every composition of the analysis. This sensitivity testing demonstrates the robustness of these meta-analytic results, with the ability to retain statistical significance when individual studies were removed.

2.5 Discussion

2.5.1 Overview of findings

The aim of this systematic review and meta-analysis was to synthesise the existing quantitative literature exploring the relationship between dissociation and social anxiety; evaluate the quality of the evidence using a validated quality assessment tool and present a guide for future enquiry to advance dissociation and social anxiety research. The review identified 17 studies examining the relationship between dissociation and social anxiety. Of these, 11 were included in the meta-analysis, based on the similarity of their effect size computations. Across both clinical and non-clinical populations, the findings consistently demonstrated a significant positive association between symptoms of dissociation and social anxiety, with moderate effect sizes observed in the pooled analyses. By systematically examining this relationship, the review addresses a critical gap in the literature, with potential benefits for both theoretical understanding and clinical practice.

The findings of this meta-analysis further add that the strength of this association varied depending on both the sample type and subtype of dissociation measured. Specifically, stronger associations were observed in clinical samples and when focusing specifically on depersonalisation-derealisation symptoms. One explanation is that individuals in clinical populations are more likely to experience severe and pervasive symptoms (Putnam et al., 1996), which may heighten the observed association between dissociation and social anxiety. In particular, the perceptual and emotional disconnection characteristic of depersonalisation-derealisation may disrupt the sense of self and emotional connection needed for social interaction. This sense of disconnection from the self may mirror the 'observer perspective' described in cognitive models of social anxiety, where individuals perceive themselves from an external viewpoint during social interactions (Clark & Wells, 1995). Such phenomenological similarities may help to explain the particularly strong relationship between depersonalisation-derealisation symptoms and social anxiety observed in the included studies.

The present review identified at least two potential moderators for the relationship between dissociation and social anxiety. Emotion regulation difficulties were positively associated with both dissociation and social anxiety severity, suggesting that difficulties managing emotional experiences may increase vulnerability to dissociative responses in socially threatening situations. Similarly, childhood trauma was identified as a potential factor contributing to dissociation and social anxiety, although formal mediation analyses were limited.

Overall, the review highlights that dissociative symptoms, particularly depersonalisation-derealisation, may represent both a consequence of and a maintaining factor for social anxiety. This underlines the importance of recognising dissociation in clinical assessments and interventions for

social anxiety and supports calls for future longitudinal and mechanism-focused research to clarify the pathways linking these experiences.

2.5.2 Clinical implications

While causality cannot be established, the consistency of the association highlights the clinical importance of recognising dissociation as a potentially significant factor in the experience and treatment of social anxiety symptoms. Therefore, clinicians should consider assessing for dissociative experiences in individuals presenting with social anxiety. Notably, the stronger association between social anxiety and depersonalisation-derealisation points to the value of assessing these specific experiences during clinical evaluation. Including targeted questions about depersonalisation-derealisation symptoms could help identify individuals who may benefit from interventions addressing both conditions, particularly in cases where dissociation exacerbates social anxiety and/or serves as a coping strategy. While the underlying mechanisms remain to be fully understood, dissociation could potentially be an important clinical factor that can inform both case formulation and treatment planning.

Beyond assessment, the findings of this review also provide a rationale for considering dissociation as a potential target within psychological interventions for clients with social anxiety. Educating clients about this possible connection could serve as a normalising experience, helping individuals understand that dissociative symptoms may arise as a response to social anxiety or stress. Incorporating strategies that specifically address dissociative experiences, such as grounding techniques, could further support clients in managing their symptoms and enhancing therapeutic progress. This is especially important given that dissociation, when overlooked, has been associated with poorer treatment outcomes, potentially undermining emotional engagement and participation in therapy (Spitzer et al., 2007). Nevertheless, further research is required to evaluate these recommendations and establish the efficacy of integrated treatment strategies.

Moreover, several studies reviewed in this synthesis highlighted the potential role of emotional regulation (e.g., Yöyen and Çaylak, 2023) and trauma history (e.g., Belli et al., 2017) in the relationship between dissociation and social anxiety. These findings are consistent with theoretical frameworks suggesting that early adverse experiences, such as childhood abuse or neglect, may disrupt emotion regulation processes and increase vulnerability to both dissociation and anxiety disorders in later in life (Soenke et al., 2010). They also reinforce the potential value of trauma-informed care and the integration of emotion regulation strategies within psychological interventions for social anxiety, particularly for clients presenting with co-occurring dissociative symptoms. Considering trauma history and emotion regulation capacity during formulation may help inform more personalised and clinically relevant interventions. By targeting these underlying processes, such

approaches could enhance treatment outcomes by addressing the factors that contribute to both dissociation and social anxiety.

2.5.3 Strengths and limitations

Although this review advances our understanding of the dissociation-social anxiety relationship through systematic synthesis and meta-analysis, several important limitations may affect the interpretation and generalisability of the findings. Most notably, the samples included in the reviewed studies predominantly reflect White, Caucasian populations from Western countries, primarily Europe and the United States, limiting the applicability of results to non-Western and global majority populations; a trend which has been identified in leading medical journals (e.g., Sumathipala et al., 2004). Data related to ethnicity were only reported in five of the 17 studies, with a mean percentage of White or Caucasian participants at 75.0% (range = 48.0% - 93.0%). Cultural and ethnic factors have been shown to influence the expression of dissociation (Krüger, 2020), social anxiety (Hofmann et al., 2010) and patterns of coping with stress across cultures (Somer, 2006). Therefore, this underrepresentation of diverse ethnic groups restricts the generalisability of the findings.

The quality assessment using the EPHPP provided a structured framework for assessing study quality across the quantitative designs included in this review. However, several limitations became apparent while using this tool. Most studies (14 of 17) were rated as “weak”, reflecting a possible floor effect that limited more nuanced differentiation between studies of varying quality. This outcome was largely driven by the EPHPP’s scoring system, whereby any study receiving two or more “weak” ratings across the six domains automatically received an overall “weak” classification, regardless of performance in other areas. Furthermore, the EPHPP’s public health research focus does not necessarily fully align with psychological research priorities. For instance, the tool’s heavy penalisation of convenience sampling and cross-sectional designs reflects intervention-focused research priorities, whereas these approaches may be methodologically appropriate for exploratory studies examining relationships between psychological constructs.

Despite a random-effects model being used to account for between-study differences, substantial heterogeneity was observed across the studies included in the meta-analysis ($I^2 = 81\%$). While a moderate overall association between dissociation and social anxiety was observed, subgroup analyses did not account for this heterogeneity. The wide prediction interval (.033 to .658) highlights this variability, suggesting future effect sizes may range from negligible to large positive associations, depending on study context and population characteristics. This pattern of unexplained heterogeneity may indicate the influence of unmeasured moderators such as trauma history and emotional regulation processes and further emphasises the importance of interpreting the pooled estimate cautiously.

2.5.4 Future research

A key aim of this systematic review and meta-analysis was to identify gaps in the existing literature and highlight areas for future research to advance our understanding of the relationship between dissociation and social anxiety. Although this review found preliminary support for a relationship between these constructs, further studies are required to strengthen the evidence base and examine the underlying mechanisms and clinical implications in more depth.

The overrepresentation of cross-sectional designs in the current literature limits our ability to draw conclusions about directionality or causality. Despite such studies providing valuable insights into the relationship between dissociation and social anxiety, they are limited in their ability to establish causal inferences or directionality (Wang & Cheng, 2020). As a result, it remains unclear whether social anxiety leads to dissociation, whether dissociation contributes to social anxiety, or if both are influenced by other underlying factors. To address this limitation, future research should aim to improve the methodological quality by adopting longitudinal and experimental designs. Such approaches would allow for a more thorough investigation of the temporal and potential causal nature of the relationship, while also meeting higher quality standards for future reviews.

In addition to improving study designs, several methodological enhancements would strengthen the evidence base. Greater consistency in the selection and reporting of measurement tools is also needed. Where feasible, studies should incorporate multi-method approaches, for example, combining self-report scales with structured clinical interviews, to further strengthen construct validity. Moreover, improved reporting practices regarding recruitment procedures, participant flow, and dropout rates would enhance the interpretation and replicability of findings. It is also important that research is replicated using diverse samples; this includes not only ethnic diversity but also variation in age, gender identity, socioeconomic status, neurotype and ability status. Comprehensive reporting of these characteristics, which has been inconsistently addressed in current literature, would further enhance the transparency of future findings.

While this review identified a positive association between dissociation and social anxiety, several studies also highlighted the potential influence of childhood trauma and emotion regulation difficulties. Future research should aim to clarify the mechanisms underlying this relationship by investigating potential moderators and mediators, to clarify how and under what conditions dissociation and social anxiety are most strongly related. Identifying these mechanisms could help to clarify barriers to therapeutic change and inform the development of more personalised approaches to treatment.

Our understanding of these mechanisms is not only important from a theoretical perspective but also has clinical implications for improving psychological interventions. The observed link between

dissociation and social anxiety raises important questions about how dissociative symptoms may influence treatment response. While some have speculated that high levels of dissociation might interfere with therapeutic engagement (e.g., Rufer et al., 2005), early treatment studies, such as Schweden et al. (2016), found that symptoms of depersonalisation-derealisation significantly reduced in response to cognitive therapy for social anxiety disorder, suggesting that dissociation may be responsive to intervention. Building on this, studies could explore whether incorporating dissociation-focused strategies, such as grounding techniques or emotion regulation training, alongside established treatments like CBT improves clinical outcomes. Understanding whether dissociation acts as a predictor, mediator or moderator of treatment response may help to guide clinical decision-making and support efforts to calibrate interventions to better meet individual needs.

2.5.5 Conclusions

This systematic review and meta-analysis provide an important foundation for understanding the relationship between dissociation and social anxiety, identifying a consistent moderate association across clinical and non-clinical populations. These findings provide preliminary support for the importance of recognising dissociative symptoms as a meaningful feature in social anxiety, with potential implications for both assessment and treatment. For clinicians, this highlights the value of routine screening for dissociation, particularly depersonalisation-derealisation, and incorporating targeted strategies, such as psychoeducation, grounding techniques and emotion regulation interventions, to enhance therapeutic engagement and outcomes. For researchers, these findings point to the need for longitudinal and mechanism-focused studies to clarify the causal pathways between dissociation and social anxiety, and to evaluate the efficacy of integrated treatment approaches. Together, these insights can support more nuanced understanding and improved care for individuals experiencing these co-occurring difficulties.

Chapter 3 A validation study of the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample

The following paper was written to follow the 'Cognitive Behaviour Therapist' journal author guidelines.

3.1 Abstract

Background: Dissociation is a transdiagnostic phenomenon affecting individuals across mental health conditions, often disrupting functioning, emotional regulation and therapeutic engagement. Despite its clinical relevance, existing measures of dissociation rarely distinguish between dissociative processes. The Dissociation-Integration of Self-States Scale (D-ISS) is a theoretically grounded measure, developed within a cognitive-behavioural framework, for assessing dissociation between self-states, understood as distinct patterns of thought, emotion and behaviour associated with different parts of the self. However, its psychometric properties remain to be fully validated in clinical populations.

Aims: This study aimed to address this gap by examining the validity, reliability, and factor structure of the D-ISS in a clinical sample, while also comparing scores with a non-clinical sample.

Method: Comparisons of D-ISS scores and additional measures of dissociation and psychological distress were conducted between 344 clinical and 147 non-clinical individuals, and different diagnostic groups. Internal consistency, test-retest reliability, convergent and divergent validity were examined within the clinical sample. A confirmatory factor analysis (CFA) was used to examine the existing D-ISS five-factor model.

Results: D-ISS scores were significantly higher in the clinical group, though the effect size was small. Higher D-ISS scores were also observed in diagnostic groups such as dissociative, panic, and personality disorders. The D-ISS demonstrated good internal consistency and test-retest reliability. Moderate correlations with another dissociation measure supported convergent validity, while weaker and variable associations with a conceptually distinct dissociation measure supported partial divergent validity. The CFA indicated good model fit for the proposed five-factor structure.

Conclusions: These findings support the D-ISS as a reliable and valid tool for assessing dissociation between self-states in clinical populations. By capturing disruptions in self-state integration, the D-ISS offers added value beyond general dissociation measures. Its multidimensional structure and sensitivity to between-group differences suggest potential clinical utility. Future research should explore its use across diagnoses and cultural contexts, incorporating qualitative perspectives.

Key learning aims:

- To understand the cognitive-behavioural model of dissociation and the Dissociation-Integration of Self-States Scale (D-ISS).

- To investigate the psychometric properties of the D-ISS with a clinical sample, while also comparing scores with a non-clinical group.
- To explore variability in D-ISS scores across mental health diagnoses, and identify conditions associated with increased dissociation.
- To consider the clinical utility of the D-ISS in assessment, formulation and treatment planning for individuals experiencing dissociation between self-states.
- To consider the limitations in dissociation research and identify directions for future validation of the D-ISS and cognitive-behavioural model of dissociation.

Keywords: Dissociation; Scale Development; Factor Analysis; Psychometric; Self-states; Personality, Cognitive; Mental Health

3.2 Introduction

The term ‘dissociation’ has been used to describe a wide variety of psychological processes, characterised by a failure to integrate information and experiences in a normal way (Janet, 1907). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association [APA], 2013) defines dissociation as a ‘disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behaviour’ (p.291). Dissociative symptoms appear in many disorders (Lyssenko et al., 2018), and can lead to functional impairments, significant distress and disruption to quality of life. Scientific interest in the research of dissociation and aetiology of dissociative disorders has increased in recent decades. While dissociation has been extensively studied, its underlying mechanisms remain elusive, with current models often presenting different frameworks.

One influential framework, the structural dissociation model (SDM; van der Hart et al. (1998), conceptualises dissociation as a developmental consequence of complex trauma that results in fragmentation of the personality into distinct subsystems. According to this model, these subsystems typically divide into the Apparently Normal Part (ANP), which manages everyday functioning while avoiding trauma content, and one or more Emotional Parts (EPs), which contain traumatic material and associated emotional responses. The SDM proposes a hierarchy of dissociative phenomena across primary, secondary, and tertiary levels, reflecting increasing complexity of personality fragmentation. Despite its clinical utility and theoretical richness, the SDM lacks standardised measurement tools to empirically evaluate its constructs and mechanisms.

This measurement gap demonstrates a broader limitation across dissociation research, specifically, the absence of testable mechanisms that can inform evidence-based interventions. While other areas of clinical psychology have developed robust empirical models with clear therapeutic implications, such as the various disorder-specific Cognitive Behavioural Therapy (CBT) approaches (e.g., Clark, 1986; Dugas et al., 1998; Ehlers & Clark, 2000), to date, models of dissociation have rarely focused on the underlying psychological mechanisms that maintain dissociative experiences, leaving a notable gap in the literature. This disconnect has significant implications for clinical practice, as evidence-based approaches require not only descriptive theories but also identification of modifiable mechanisms that can be targeted in treatment.

While the present study does not claim to fully address this gap, it aims to contribute to this area of research by investigating a new, theory-driven measure of between-mode dissociation, grounded in the cognitive model of dissociation. Specifically, this paper examines a cognitive-behavioural conceptualisation of dissociation that offers testable mechanisms within an established psychological

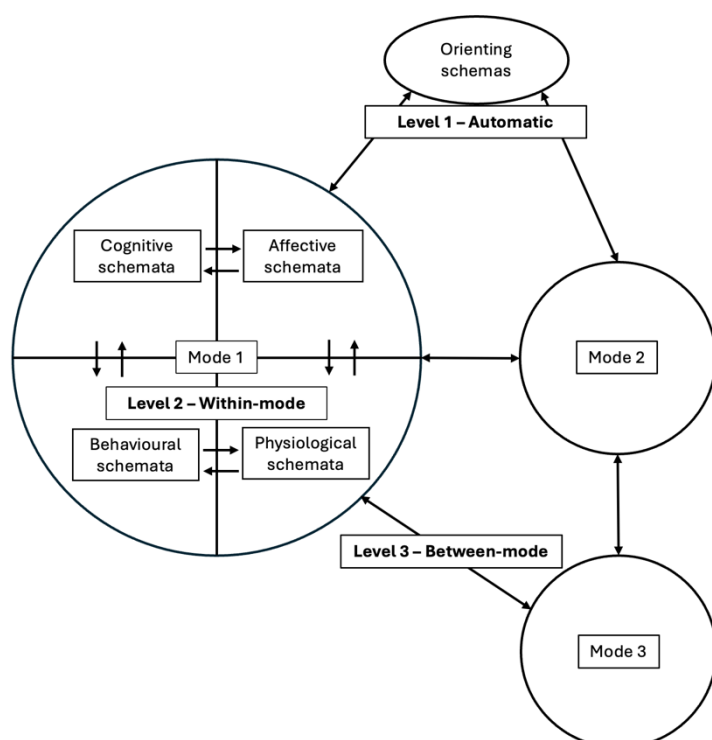
framework. We first outline this cognitive-behavioural model of dissociation (Kennedy et al., 2004), explore its relevance to the concept of self-states in psychopathology, and then evaluate current assessment approaches before introducing a novel measure designed to capture dissociation between self-states. This work seeks to advance both theoretical understanding of dissociative processes and provide clinicians with more precise tools for assessment and intervention.

3.2.1 Cognitive-behavioural model of dissociation

Kennedy et al. (2004) highlighted the lack of a clear theoretical model of dissociation and the influence this had on the development of dissociation measures over time. Kennedy and her colleagues proposed a cognitive-behavioural model of dissociation (see Figure 1) based on Beck's (1996) cognitive theory of personality and psychopathology. Beck proposed that personality could be viewed as a collection of interconnected 'modes', and that each mode is comprised of schemas responsible for processing cognitive, emotional, behavioural, and physiological information, which is used to generate corresponding responses.

Figure 4

Cognitive model of dissociation (Kennedy et al., 2004), representing the personality structure and different stages of dissociation in terms of automatic processes, within modes and between modes



These modes and schemas are thought to interact through a communicative network, allowing information to be exchanged within and between the modes. Clusters of modes associated with the interpretation of and responses to environmental and social contexts, may develop relatively separately in early childhood, before synthesising into a unified and relatively stable sense of self

(Harter, 2015). This cognitive behavioural framework provides a foundation for understanding the underlying cognitive mechanisms and dimensional properties of dissociation, while informing the development of targeted cognitive-behavioural interventions.

In this model, dissociation occurs when otherwise integrative mental processes become "decoupled", disrupting the flow of information. Kennedy et al. (2004) identified three levels at which this decoupling can occur: during early, automatic processing (level one); within individual modes (level two); and between different modes (level three). The model provides a unique perspective for understanding a range of dissociative experiences, in terms of different cognitive processes, including information processing and synthesis. Level one, automatic dissociation, involves disruption of the early associative processing of information, resulting in traumatic memories being stored in an abnormal and fragmented fashion. This disruption to automatic processing may provide an approach to understanding the distressing and intrusive symptoms of PTSD, such as flashbacks. On the other hand, level two, within-mode dissociation involves a breakdown in the associative links between schemas (cognitive, affective, behavioural and physiological) operating within a mode. Dissociation at this level may help to explain dissociative experiences in terms of different schemata, for example, intrusive thoughts, flattened affect, ritualistic behaviour or medically unexplained loss of function.

Level three, between-mode dissociation involves the partial or complete separation of personality modes, or "self-states" and is linked

to severe psychopathology. This form of dissociation may manifest as amnesia, impulsive behaviours or, in extreme cases, the emergence of distinct identities or alter personalities due to complete decoupling between modes. A dissociated self-state is characterised by a compartmentalised cluster of modes with its own conscious control system (see Figure 5). Dissociated self-states provide an approach to understanding experiences of confused identity and state-switching, as observed in clinical presentations, including personality disorders (Ryle, 2007) and dissociative disorders (Barlow & Chu, 2014).

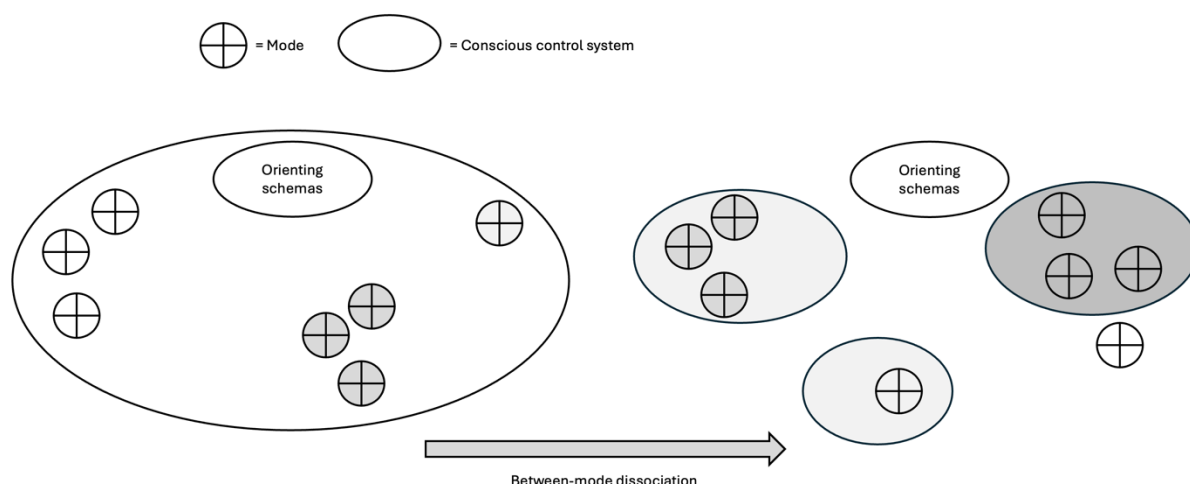
3.2.2 Self-states and psychopathology

The concept of self-states is a recurring theme across various psychotherapeutic methodologies, but despite its theoretical prominence, it remains relatively unexplored. The author's own understanding of self-states is that they are different aspects or configurations of the self that emerge in response to various situations, relational and emotional contexts. Variations in self-states are a normative part of functioning, for example, an individual who feels like a completely different person at work compared to at home. Importantly, self-states are a distinct process from transient changes in mood, instead they refer to how we understand ourselves in terms of feelings, ways of thinking, behaving and relating. Consequently, self-states shape how individuals perceive themselves and interact with

the world. While some individuals experience subtle and flexible shifts between self-states, others may perceive more pronounced distinctions, sometimes to the extent of feeling as though separate selves exist within a single body. In extreme cases, difficulties in regulating self-state transitions may contribute to experiences of dissociation.

Figure 5

A non-dissociative personality (left) and dissociative personality (right), illustrating the dissociation between self-states, within separate control systems (Kennedy et al., 2013)



It is noteworthy that personality compartmentalisation has repeatedly been linked to increased psychological vulnerability, difficulties in interpersonal functioning, and the use of less adaptive emotion regulation strategies (e.g., Granieri et al., 2018). As such, a range of psychological models and interventions have been developed to support clinicians when working with self-states. Jung (1960) for instance, viewed dissociation as a natural fragmentation of the psyche, involving autonomous complexes that can influence behaviour outside of conscious control. Transactional Analysis (TA; Berne, 1961) similarly proposes a structural model of personality involving ego states, each reflecting a distinct and consistent pattern of responding. In Internal Family Systems (IFS; Schwartz & Sweezy, 2019), the mind is composed of 'parts' that can become polarised or burdened, particularly in response to trauma. Schema therapy (Young et al., 2003) also draws on a multi-self-perspective, proposing individuals shift between distinct schema modes, driven by early maladaptive schemas, placing an extensive focus on aversive childhood experiences and unmet needs. Other models have applied the concept of self-states to specific clinical presentations; Ryle's (2007) Multiple Self-States Model, developed within the framework of Cognitive Analytic Therapy (CAT), offers a formulation for understanding identity disturbance and emotional dysregulation in borderline personality disorder (BPD). These perspectives, while theoretically diverse, converge on the view that self-experience is not always unified.

While such models highlight the adaptive and relational functions of distinct self-states, other approaches have drawn attention to the ways in which these states can become fragmented, rigid, or disconnected. This is particularly relevant in contexts where self-states are shaped by adverse experiences or maladaptive schema activation, contributing to a breakdown in internal coherence. As previously outlined in the cognitive model of dissociation (Kennedy et al., 2004), fragmentation between poorly integrated modes may manifest as distinct self-states. This framework offers a clinically meaningful lens for understanding dissociative experiences that involve disrupted continuity of self across contexts. (Zepinic, 2016, p. 89) vividly captures the subjective intensity of this phenomenon, describing it as the “fracturing of the soul and spirit” or a “broken connection in terms of meaning and existence.” These accounts highlight the potential impact of self-state fragmentation and the importance of developing tools to proactively assess these processes in both research and clinical settings.

For clinicians aiming to engage with different self-states and dissociation between self-states, noticing and exploring them within the therapeutic process becomes essential. However, this process can present a challenge, whereby self-states can often go unnoticed in the fabric of everyday human behaviour. Consequently, a growing number of standardised measures have been developed with the aim of identifying self-states (Lobbestael et al., 2010), and their properties (Loffredo et al., 2004). Pollock et al. (2001) developed the Personality Structure Questionnaire (PSQ), a measure of identity disturbance within the MSSM framework. While capturing identity disturbance more generally, these existing measures do not incorporate the dissociative processes underlying fragmentation and compartmentalisation of self-states.

3.2.3 Dissociation measures: conceptual and methodological considerations

Accurately measuring dissociation is essential given its documented prevalence (Foote et al., 2006), transdiagnostic relevance across multiple forms of psychopathology, and potential to negatively affect treatment outcomes (Spitzer et al., 2007). As outlined in the introductory chapter (1.4), dissociation is frequently overlooked and misdiagnosed, underscoring the need for reliable assessment tools to ensure it is appropriately identified and addressed in both research and clinical practice.

One major challenge for clinicians is that dissociation may operate as a latent process (Blevins et al., 2014), expressed through various psychological experiences and behaviour, rather than as a clearly identifiable syndrome. It involves processes of decoupling and detachment, which can result in diverse presentations across mental health services. As a result, its effects are more likely to be observed without dissociation being explicitly recognised, particularly outside of formally diagnosed dissociative disorders, where no specific diagnostic label captures its influence. This may contribute

to it being frequently overlooked in clinical settings, therefore increasing the risk of misdiagnosis and inappropriate treatment (Coons, 1998). Few mental health professionals receive trauma-informed systematic training in the assessment and treatment of psychological problems, this is especially true in the case of identifying and responding to dissociative reactions (B. Brand, 2016). Failure to identify and address pathological dissociation has been associated with reduced effectiveness of many psychological interventions and poor therapeutic outcomes (Kleindienst et al., 2011). Thus, dissociation should be assessed and identified in the early stages of treatment, closely monitored, and targeted at a relatively high priority (Bae et al., 2016).

A recent systematic review and evaluation of existing measures of dissociation (Wainipitapong et al., 2025) identified at least 44 published measures, however, none demonstrated all of the necessary criteria for the COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN) checklist (Mokkink et al., 2018) for robust psychometric properties and high methodological quality. These findings underscore the significant limitations found across existing dissociation measures and emphasise the need for future development and refinement of these clinical tools. Moreover, many existing dissociation scales have focused on generalised measures of dissociation, without distinguishing between specific types of dissociation. Kennedy et al. (2004) described how existing measures have illustrated a lack of a clear theoretical model of dissociation, with many simply replicating DSM (American Psychiatric Association & American Psychiatric Association, 2013) criteria. Therefore, sharing many principles of the medical model of mental health, for example, endorsing a categorical rather than continuum approach to dissociation.

This critique can be applied to many widely recognised and frequently used measures of dissociation, for example, the Dissociative Experiences Scale (Carlson & Putnam, 1993). Although the DES demonstrates strong psychometric properties (Van IJzendoorn & Schuengel, 1996), it is now several decades old, like many other well-established measures, and has not since been updated to reflect more contemporary research on the measurement of dissociation. Moreover, a limitation of the DES is its lack of a consistent subscale structure (Van IJzendoorn & Schuengel, 1996), therefore, failing to differentiate between distinct subtypes or levels of severity. As a result, the DES and similar measures provide limited insight into the multidimensional nature of dissociative experiences and may oversimplify an otherwise complex phenomenon.

While developing their cognitive model of dissociation, Kennedy et al. (2004) designed the 40-item Wessex Dissociation Scale (WDS), influenced by factors including clinical experience and their own cognitive framework. The WDS provided an opportunity to operationalise the model and generate empirical data as a means of testing these theoretical assumptions. The measure comprised of three distinct subscales, in line with the three levels or stages of dissociation proposed by the model: automatic, within-mode and between-mode dissociation. The WDS provided a promising and

theoretically driven measure of dissociation, effectively capturing levels one and two of the cognitive model. However, its ability to assess between-mode dissociation was limited, as indicated by the poor factor loadings for this subscale. Kennedy and colleagues identified this as an important issue for future research to address, especially when considering the severe and enduring mental health presentations associated dissociation between self-states

Building on these limitations, subsequent research sought to develop a measure that could more effectively capture between-mode dissociation, or dissociation between self-states. Recognising the clinical significance of this construct, (Lord et al., 2025) refined their approach, developing the Dissociative-Integration of Self-States (D-ISS). The D-ISS was designed to provide a psychometrically robust assessment of dissociation between self-states, addressing the measurement gaps identified in the WDS. Lord et al. (2025) conducted a preliminary validation of the D-ISS using a sample of individuals reporting mental health difficulties but who did not necessarily have formal clinical diagnoses; no validation was conducted with a non-clinical sample. While this provided initial support for the measure's psychometric properties, the absence of a well-defined clinical and non-clinical sample limited applicability to populations where dissociation is more severe and functionally impairing.

Given that dissociative experiences are often more pronounced in severity and chronicity in clinical populations (Rafiq et al., 2018), further validation of the D-ISS within a clinical sample is essential to establish its robustness, diagnostic utility, and clinical relevance. Moreover, best practice guidelines recommend that scales intended for measuring complex phenomena and for use in clinical settings should be tested on patient samples early in the validation process, rather than solely on the general population (Clark & Watson, 2016). This research therefore addresses a specific gap in the validation of the D-ISS while simultaneously contributing to the broader field of dissociation measurement by offering a theoretically driven instrument that has been empirically validated across both clinical and non-clinical populations. By examining the D-ISS in this context, this study aims to strengthen the assessment of dissociative symptoms and advance our understanding of how these experiences manifest across different populations, supporting more targeted and effective clinical interventions.

3.2.4 Aim

Given the importance of accurately assessing dissociative phenomena, our aim was to assess the psychometric properties and existing factor structure of the D-ISS with a sample of participants reporting having a mental health diagnosis provided by a mental health professional, including patients accessing National Health Service (NHS) mental health services. An additional aim, introduced following the submission of the initial research protocol, was to evaluate the measure

with a non-clinical sample, exploring the differences in D-ISS scores between clinical and non-clinical populations.

To evaluate the D-ISS, the following research hypotheses were developed specifically for the clinical sample to examine its reliability, validity, and factor structure within this population.

1. Validity
 - a. The clinical sample will score significantly higher on the D-ISS than the non-clinical sample, supporting known-groups validity.
 - b. The clinical sample will report significantly higher psychological distress on the CORE-OM than the non-clinical sample, supporting validity of the group classification.
 - c. The D-ISS will show convergent validity, demonstrating moderate to strong correlation with the DES-II, an established and widely used measure of dissociation.
 - d. The D-ISS will show divergent validity, demonstrating weaker correlations with the WDS subscales, which do not explicitly measure between-mode dissociation, therefore, providing support that the D-ISS captures distinct dissociative experiences.
2. Reliability
 - a. The D-ISS will have good internal reliability.
 - b. The D-ISS will have good test-retest reliability.
3. Factor structure
 - a. The confirmatory factor analysis will support the five-factor structure of the D-ISS proposed by Lord et al. (2025), demonstrating good model fit and provide evidence for structural validity in a clinical population.

3.3 Materials and methods

3.3.1 Patient and public involvement (PPI)

Four members of the public, recruited via social media, each self-reporting a mental health diagnosis, volunteered to participate in PPI by contacting the researcher directly. These individuals provided valuable feedback on the research design and materials to ensure the study was relevant and accessible to the target population. Each consultant was reimbursed for their time and contributions with a £15 Amazon voucher.

As part of their role, the consultants reviewed the Dissociation Integration of Self-States Scale (D-ISS) and provided feedback on its clarity and relevance. They indicated how they were able to understand the individual items included in the measure, highlighting that the introductory paragraph defining the concept of "self-states" was helpful and improved their confidence when answering questions

which made direct reference to self-states. Based on their input, the introductory paragraph was slightly adapted to emphasise that self-states are more than simply shifts in mood, providing additional clarification to help participants develop a deeper understanding of this term as it appeared throughout the measure.

3.3.2 Preregistration

The study protocol was preregistered 1 October 2024 using Open Science Framework (OSF) Registries (osf.io/5x72b). Preregistration included the study's hypotheses, research objectives, participant inclusion criteria, study design, and planned analyses, which originally focused on a clinical sample. To strengthen the robustness of the findings, a non-clinical sample of psychology undergraduate students who self-reported having no current or previous mental health diagnosis was subsequently included. This addition enabled a more comprehensive investigation of the psychometric properties of the Dissociation Integration of Self-States Scale (D-ISS) across both clinical and non-clinical populations. The inclusion of the non-clinical sample was documented to ensure transparency.

3.3.3 Participants and procedures

A total of 511 participants responded to the online survey, 491 (96.1%) answered all questionnaires. The total sample included a clinical sample of 344 participants reporting at least one formal mental health diagnosis from a qualified mental health professional, and a non-clinical sample of 147 psychology undergraduate students reporting no past or current mental health diagnosis. A summary of demographic characteristics and descriptive statistics for the clinical and non-clinical samples is shown in Appendix H. Participants had to be age 18-65 years, able to read and write in English, and able to access the online questionnaires. Participants in the clinical sample had to have at least one mental health diagnosis, diagnosed by a mental health professional. Whereas non-clinical participants had to have no previous or current mental health diagnoses.

The clinical sample was recruited through multiple sources: (1) NHS secondary care outpatient services (e.g., community mental health teams and early intervention for psychosis services) and private mental health services in Southeast England, and (2) the wider community via online platforms, including Prolific (UK only), WeParticipated, SurveyCircle, and social media. Due to practical challenges with NHS recruitment, a total of six participants were recruited via NHS services, while the majority of the clinical sample ($n = 338$) was recruited through online platforms. A poster was designed to advertise the study and promote participant recruitment (see Appendix F). The non-clinical sample was recruited via Sona, an online platform used by the University of Southampton to facilitate participant recruitment for research.

The lead researcher visited staff at several local NHS community mental health teams to promote participant recruitment. Clinicians in NHS and private settings reviewed their caseloads to identify eligible patients and shared study information with them. A brief guidance document for the research process was produced for clinicians (see Appendix G) to refer to when meeting with patients. Clinical and non-clinical participants recruited via online methods self-identified as eligible based on the study's inclusion criteria. Recruitment efforts were designed to achieve a diverse sample, encompassing both clinical and non-clinical participants, to enhance the study's generalisability.

NHS patients were provided with a copy of the participant information sheet, shown in Appendix H, and were prompted to contact their clinician to request a Quick Response (QR) code to access the online survey. Clinicians were instructed to only share the QR code if there were no identifiable concerns regarding their capacity to provide informed consent to participate in the study.

Participants recruited via non-NHS online methods were assumed to have the capacity to provide consent, in accordance with the Mental Capacity Act (2005) and were therefore given direct access to the weblink and QR for the online survey. Informed consent was obtained electronically from all participants through a form attached to the participant information sheet.

When participants had provided consent, they were routed to the demographic, mental health and study measures shown in Appendix I. Responses to all questionnaire items were mandatory to ensure data completeness; however, participants could select "prefer not to say" for demographic or sensitive questions. Upon completing the initial survey, participants were redirected to a debriefing form, shown in Appendix J, that provided details about the study, including relevant signposting for mental health support if required.

Participants were also directed to a secondary survey where they could indicate their willingness to repeat the measures after two weeks. Each participant was assigned a unique ID to link their responses across both time points while ensuring confidentiality. The test-retest sample size ($n = 71$) was in line with the widely accepted recommendation of 50-100 participants (e.g., Bonett, 2002; Mokkink et al., 2010). A two-week test-retest interval was chosen based on published guidelines (Streiner et al., 2024) for psychological scales measuring stable traits.

NHS and private patients received a £5 shopping voucher after completing the questionnaires at each time point (maximum £10 shopping vouchers). Participants recruited via the wider community were entered into a prize draw to win one of ten £10 shopping vouchers for each time point (maximum prize draw for two of twenty £10 shopping vouchers). Participants recruited via Prolific were paid based on the payment recommendation guidance published by Prolific. Psychology undergraduate students from the non-clinical sample were rewarded with participation credits,

which could later be used to recruit participants for their own research projects through the same platform, this was not a mandatory requirement for their studies and therefore remained optional.

3.3.4 Measures

The survey collected data on age, gender, ethnicity, primary and secondary mental health diagnoses, previous and current mental health treatment, and neurodevelopmental conditions (diagnosed and self-diagnosed). In the event participants reported multiple mental health diagnoses, they were asked to indicate their primary diagnosis based on the condition which had the most significant impact on their daily life. Diagnoses were selected from a pre-determined list based on DSM-5 categories, with an option to enter diagnoses as free-text if not listed.

3.3.4.1 Dissociative Integration of Self-States (D-ISS; Lord et al., 2025)

The D-ISS, shown in Appendix K, was developed using the cognitive-behavioural model of dissociation to assess between-mode dissociation, or dissociation between self-states. Item generation was a collaborative effort between the third author, a Consultant Clinical Psychologist specialising in dissociation, and a Trainee Clinical Psychologist as part of their doctoral thesis. Key clinical targets for change when working with between-mode dissociation, as frequently identified in clinical practice, were considered by the expert group. These included an individual's awareness, acceptance, and choice / control of their self-states, the degree of differentiation or psychological distance between self-states and finally, the extent to which self-states were integrated into the self as opposed to separate or 'othered.' These deliberations informed the development of an initial pool of over 60 items. After multiple revisions, and consultation with individuals reporting lived experience of mental health difficulties, a final pool of 55 items was identified.

Lord et al. (2025) conducted an exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), to refine the D-ISS from the original 55 items to a final version consisting of 25 items. The final model included five factors, each represented by five items. These factors were named: (1) Lack of Acceptance, (2) Lack of Awareness, (3) Lack of Integration, (4) Difference/Distance, and (5) Lack of Control. This refinement process ensured that the D-ISS captured the core constructs of dissociation between self-states while maintaining strong psychometric properties. Within a population of adults reporting 'mental health difficulties', the D-ISS has been shown to demonstrate good reliability (Cronbach's $\alpha = .865$), and moderate ($r = .50 - .75$) to good ($r = .75 - .90$) test-retest reliability (Lord et al., 2025).

It is noteworthy that following the initial development of the D-ISS, in preparation for the current study, item five, *"I am not aware of all of the self-states"*, was amended to *"I am not always aware of some of the self-states"*, with the intention of improving clarity and accessibility for participants. The

wording of the item was revised following PPI consultation and discussion between the lead researcher and their co-supervisors, with the aim of improving clarity and ensuring the item was accessible to participants.

3.3.4.2 Dissociative Experiences Scale (DES-II; Carlson & Putnam, 1993)

The DES-II, shown in Appendix L, is a self-report measure for dissociative experiences. This scale consists of 28 self-rated items, used to measure the severity of symptoms of dissociation in clinical populations. The DES-II measures a wide range of dissociative experiences including problematic experiences and 'normal' experience, for example, daydreaming. Specifically, the measure has three sub-scales 1) amnesia factor, 2) depersonalisation/derealisation factor and 3) absorption factor. The measure has been shown to demonstrate appropriate internal consistency (Cronbach's $\alpha = .930$) and convergent validity ($r = .67$) with conceptually close measures (Ijzendoorn & Schuengel, 1996). The DES-II also includes an eight-item measure (drawn from items of the DES-II), providing an individual percentage score to indicate the likelihood of pathological dissociation.

3.3.4.3 Wessex Dissociation Scale (WDS; Kennedy et al., 2004)

The WDS, shown in Appendix M, is a self-reported measure of dissociation. This scale consists of 40 items, based on the Kennedy et al. (2004) cognitive model of dissociation, conceptualising dissociation as a disruption in information processing occurring at three stages: automatic, within-mode, and between-mode. Based on this model, the WDS was designed to include three corresponding subscales: automatic (11 items), within-mode (12 items), and between-mode (17 items). Although confirmatory factor analysis did not support the original three-stage cognitive model, exploratory factor analysis identified an alternative three-factor structure that partially overlapped with the model: (1) hallucination and pseudo-hallucination symptoms, (2) cognitive blanking, intrusive experiences, and affective numbing, and (3) somatoform dissociation. The psychometric properties of the WDS have been investigated within a non-clinical and clinical population, demonstrating good internal consistency (Cronbach's $\alpha = .899 - .947$), and convergent validity ($r = .65 - .80$) with the DES-II, without overlapping. The WDS has been shown to demonstrate stronger positive correlations with scales reflecting schizoid, histrionic and aggressive personality pathologies, when compared to the DES-II.

3.3.4.4 Clinical Outcomes Routine Evaluation Outcome Measures (CORE-OM; Evans et al., 2002)

The CORE-OM, shown in Appendix N, is a commonly used self-rated measure of global psychological distress, consisting of 34 items providing a 'snapshot' of the past week, covering four dimensions including 1) subjective wellbeing, 2) problems/symptoms, 3) life functioning and 4) risk/harm. The

CORE-OM has been validated with samples from the general population, in addition to NHS primary and secondary care, and in older person mental health settings. The measure has been shown to demonstrate appropriate internal consistency (Cronbach's $\alpha = .94$) and convergent validity ($r = .63 - .85$) with conceptually close measures.

The CORE-OM was included to assess general psychological distress across both clinical and non-clinical samples. This measure was used to confirm expected differences in overall distress between groups, providing support for the validity of the sample classifications.

3.3.5 Analysis plan

The data analysis focused on evaluating the psychometric properties of the D-ISS. Data were initially exported from Qualtrics and pooled in Microsoft Excel for organisation and cleaning, before being transferred to SPSS Version 30.0 for statistical analysis. Descriptive statistics were calculated for demographic and mental health data, providing an overview of the sample characteristics. Analyses of the psychometric properties of the D-ISS, including validity, reliability, and factor structure, were conducted exclusively within the clinical sample unless otherwise stated, as this was the primary focus of the study. Full SPSS output is provided in the accompanying information document (*Research Thesis - Accompanying Information*, submitted as a separate appendix file).

The psychometric evaluation of the D-ISS was informed by key domains outlined in the COSMIN guidelines for studies on measurement properties (Mokkink et al., 2018), including structural validity, internal consistency and internal reliability. While the COSMIN Risk of Bias checklist was not formally applied, the framework supported the selection of analyses and the clarity of methodological reporting. This approach also enabled broad comparison with the domains assessed in a recent systematic review of dissociation measures by Wainipitapong et al. (2025), which similarly focused on structural validity, internal consistency, reliability and content validity

3.3.5.1 Validity

Prior to conducting group comparisons, assumptions of normality and the presence of outliers were assessed using the Shapiro-Wilk test, visual inspection of histograms, and boxplots as well as skewness and kurtosis values. Skewness and kurtosis values for all continuous variables fell within the acceptable range of ± 2 (George & Mallery, 2019) and histograms showed approximately normal distributions, supporting the use of parametric tests. Group comparisons were conducted to examine differences in D-ISS, DES-II, WDS and CORE-OM scores between clinical and non-clinical participants. Specifically, known-groups validity was assessed by comparing the D-ISS scores across groups expected to differ in dissociative experiences, with the hypothesis that clinical participants would

report significantly higher D-ISS scores. These analyses provided an initial test of the D-ISS's ability to distinguish between relevant populations.

Pearson's correlation coefficients were used to examine relationships between measures to investigate convergent and divergent validity of the D-ISS. Convergent validity would be assessed by examining correlations between the D-ISS and DES-II, where both measures were designed with the aim of measuring dissociative experiences, therefore, moderate to strong relationships were expected. Divergent validity was assessed by comparing the D-ISS and WDS subscales. Since the D-ISS was designed to measure between-mode dissociation, conceptually distinct from the automatic and within-mode dissociation captured by the WDS and given that the WDS failed to demonstrate stable factor loadings for its between-mode subscale, only weak to moderate correlations were expected between the subscales of these measures. Therefore, while some conceptual overlap may exist, strong correlations between the D-ISS and WDS subscales were not anticipated.

3.3.5.2 Reliability

Reliability was assessed, including internal consistency and test-retest reliability, to ensure the scale's accuracy and stability over time. Internal consistency was measured using Cronbach's alpha and inter-item correlations. Cronbach's alpha was calculated to evaluate the overall reliability of the D-ISS and the reliability of each of the five subscales. This approach helped to ensure a thorough assessment of the D-ISS's reliability, providing an understanding of the overall cohesiveness of its items and the consistency of its subscales.

Test-retest reliability was assessed using intraclass correlation coefficients (ICCs). A two-way mixed-effects model for single measures based on absolute agreement was used to evaluate the consistency of D-ISS scores across two time points. The ICC is a widely used measure for assessing reliability in psychological measures, as it accounts for both agreement and consistency across repeated measurements (Koo & Li, 2016; Shrout & Fleiss, 1979). The interpretation of ICC values followed established guidelines: values below .50 indicating poor reliability, between .50 and .75 moderate reliability, between .75 and .90 good reliability, and above .90 excellent reliability.

3.3.5.3 Factor analysis

The confirmatory factor analysis (CFA) was conducted using SPSS AMOS Version 29.0. The CFA aimed to test the previously identified 25-item, five-factor model proposed by Lord et al. (2025) to determine whether this structure could be replicated in the current study's clinical sample. This approach was used to evaluate the generalisability and robustness of the established model across different clinical populations.

The CFA was conducted using the Maximum Likelihood (ML) estimation method, which was appropriate given the sample size and the assumption of multivariate normality (Byrne, 2013). Model fit was evaluated using several fit indices, including the Comparative Fit Index ($CFI \geq .90$), Tucker-Lewis Index ($TLI \geq .90$), Root Mean Square Error of Approximation ($RMSEA \leq .08$), following established guidelines. The recommended values for CFA model fit indices were used, specifically, $CFI > .90$, $TLI > .90$, $RMSEA < .08$ (Hu & Bentler, 1999) and $\chi^2/df < 3.0$ (Kline, 2023).

General guidelines for CFA sample size vary, with several sources recommending a minimum threshold of 100-200 participants for the purpose of factor analysis (e.g., MacCallum et al., 1999). As our model consisted of five factors, with five items per factor, past research (e.g., Kline, 2023) supports stable estimation with 200-300 participants in similar models. The clinical sample ($n = 344$) is therefore expected to provide reliable parameter estimates and can be classified as “good” (Comrey & Lee, 1992).

3.3.6 Ethical considerations

Ethical approval was obtained from the University of Southampton Ethics and Research Governance Committee (ERGO ID: 90495), shown in Appendix O. Additional approval was granted by the NHS Research Ethics Committee (REC), NHS Health Research Authority (HRA) (IRAS ID: 335221), and the relevant local NHS Trust Research and Development Department, shown in Appendix P. All study procedures adhered to General Data Protection Regulation (GDPR) and the University of Southampton's data protection policies. Participants were informed beforehand that the survey included potentially emotive items about dissociation and mental health. Appropriate signposting to support services was provided within the participant information sheet, questionnaires, and debriefing form.

Participants provided electronic informed consent after reviewing the study information sheet. For participants recruited through NHS and private mental health services, clinicians were instructed to not share the research information with patients if there were any queries regarding their capacity to consent. Community and online participants were assumed to have capacity unless otherwise indicated in line with the Mental Capacity Act (2005, s. 1 (2)). They were informed of their right to withdraw from the study at any time without providing a reason, with their data being excluded from analysis upon withdrawal.

Participants' anonymity was maintained throughout the study. To ensure that identifying information (email addresses provided for the purpose of the voucher incentive and test-retest phase of the study) was not linked to questionnaire responses, participants submitted their email separately via a secondary online form if they wished to receive a voucher or participate in the test-retest phase. This

secondary form was stored separately from the main dataset, and no identifying information was included in the questionnaire responses. Data were securely stored and processed in compliance with General Data Protection Regulation (GDPR) and British Psychological Society (BPS) ethical guidelines.

3.3.7 Data availability

The dataset supporting the findings of this study has been deposited in the University of Southampton's Institutional Repository, available at <https://doi.org/10.5258/SOTON/D3490>.

3.4 Results

3.4.1 Sample characteristics

Most participants identified as female (76.0%) and White - English, Welsh, Scottish, Northern Irish or British (67.8%). Participants confirmed they were age 18-65 years ($M = 28.6$, $SD = 11.6$). There was an observable age difference between the groups, specifically, the non-clinical sample was younger ($M = 19.5$, $SD = 2.0$) compared to the clinical sample ($M = 32.5$, $SD = 11.8$). Gender distribution varied between the groups, with a higher proportion of female non-clinical participants (88.4%) compared to the clinical sample (70.6%).

Clinical participants were categorised into their diagnosis based on self-reported primary diagnosis. The most frequently reported diagnoses were depression (25.0%), GAD (20.9%), PTSD (10.5%), personality disorders (10.2%), bipolar disorder (7.3%), social anxiety disorder (5.2%) and OCD (5.2%). Secondary mental health diagnoses were reported by 82.6% of the clinical sample. Furthermore, the clinical sample reported higher levels of diagnosed neurodiversity (31.4%) as opposed to the non-clinical group (5.9%). As expected, most non-clinical participants reported less use of psychological and / or pharmacological treatment for their mental health, 4.0% currently and 36.1% previously having accessed treatment. In contrast, most of the clinical sample were accessing treatment for their mental health, with 73.3% currently and 97.7% previously having accessed treatment. A summary of the demographic and mental health characteristics across the total sample, as well as clinical and non-clinical subsamples is shown in Appendix Q.

3.4.2 Validity

3.4.2.1 Known-groups validity

Visual inspection of the boxplots showed that there were no outliers for the total D-ISS or CORE-OM scores in either the clinical or non-clinical groups. Mild outliers were identified in WDS scores within

the clinical sample, and in DES-II scores across both groups. No extreme outliers were detected in any of the measures. All data points were retained for analysis, as they appeared to reflect genuine variability within the sample, and there was no evidence of data entry error (Field, 2024).

A Mann-Whitney U test was used for age comparison as normality assumptions were not met for this variable, finding a significant difference in age between both groups ($U = 5447.00$, $z = -13.83$, $p < .001$), the clinical group ($Mdn = 30.00$) was significantly older than the non-clinical group ($Mdn = 19.00$), this difference is understandable given that the non-clinical sample consisted of psychology undergraduate students. A Fisher-Freeman-Halton Exact test indicated a significant difference in gender distribution between the clinical and non-clinical group, $p < .001$, but no significant difference in ethnicity distribution, $p = .160$.

An independent samples t-test identified that D-ISS scores were significantly higher in the Clinical group ($M = 40.50$, $SD = 13.70$) than the non-clinical group ($M = 35.93$, $SD = 13.04$), $t(489) = 3.44$, $p < .001$. A post-hoc one-way ANCOVA was conducted to determine whether this significant difference in D-ISS scores between the clinical and non-clinical samples remained after controlling for age and gender. These findings showed that D-ISS scores remained significantly higher in the clinical group compared to the non-clinical group, ($F(1, 482) = 5.40$, $p = .021$, $\eta^2 = .011$). The covariate, gender, was significantly related to D-ISS scores, ($F(5, 482) = 4.23$, $p < .001$, $\eta^2 = .042$), whereas age was not, ($F(9, 482) = 3.31$, $p = .069$, $\eta^2 = .007$).

Homogeneity of variances was assessed using Levene's test. Where this assumption was violated, Welch's t-tests were used. A series of t-tests were conducted to compare the DES-II, WDS and CORE-OM scores for the clinical and non-clinical groups (see Table 5). Mean DES-II Taxon ($t(341.23) = 3.01$, $p = .003$), total WDS ($t(344.90) = 6.28$, $p < .001$) and total CORE-OM ($t(324.72) = 6.81$, $p < .001$) scores were all significantly higher in the clinical group compared to the non-clinical group. However, no significant difference was found for mean DES-II scores ($t(323.40) = 1.36$, $p = .175$).

Table 5

Independent samples t-tests comparing clinical and non-clinical groups across measures

Measure	Group	<i>M (SD)</i>	<i>t (df)</i>	<i>p</i>	Cohen's <i>d</i>
Total D-ISS	Clinical	40.50 (13.70)	3.44 (489)	<.001**	0.34
	Non-clinical	35.93 (13.04)			
Mean DES-II	Clinical	27.60 (18.29)	1.36 (323.40)	.175	0.13
	Non-clinical	25.41 (15.47)			

Mean DES-II	Clinical	21.94 (19.04)	3.01 (341.23)	.003*	0.27
Taxon	Non-clinical	17.06 (15.23)			
Total WDS	Clinical	71.22 (28.80)	6.28 (344.90)	<.001**	0.56
	Non-clinical	55.91 (22.79)			
Total CORE-	Clinical	59.38 (23.78)	6.81 (324.72)	<.001**	0.63
OM	Non-clinical	45.14 (20.03)			

* $p < .05$, ** $p < .01$

While significant differences were found between clinical and non-clinical groups across most measures used in the present study, the observed effect sizes ranged from small to medium ($d = 0.13$ to $d = 0.63$), with the D-ISS showing a small-to-medium effect ($d = 0.34$). Sensitivity analysis using G*Power 3.1 indicated that the study was powered to detect effects of $d = .28$. Therefore, non-significant findings, for example, mean DES-II scores, may be due to limited statistical power rather than the absence of an effect.

Descriptive statistics illustrated the preliminary differences in D-ISS scores across the different primary mental health diagnoses reported by participants. While the highest D-ISS score was observed in the dissociative disorder group ($M = 54.00$, $SD = 15.36$), there were a range of diagnostic groups which also reported higher D-ISS scores including panic disorder ($M = 41.50$, $SD = 17.73$), personality disorder ($M = 45.43$, $SD = 13.96$) and bipolar disorder ($M = 45.92$, $SD = 15.23$). These findings also indicate that D-ISS scores showed wider variability in the panic disorder and personality disorder groups. In contrast, participants in the eating disorders ($M = 41.26$, $SD = 9.80$) and social anxiety disorder ($M = 40.72$, $SD = 8.45$) groups reported more consistent and uniform responses when using the measure. The descriptive statistics for the D-ISS across primary mental health diagnoses ($N \geq 5$) is shown in Table 6. Due to small sample sizes in several of the diagnostic groups, these results should be interpreted with caution and viewed as preliminary.

Table 6

D-ISS scores by primary mental health diagnosis ($N \geq 5$)

Primary diagnosis	<i>N</i>	<i>M (SD)</i>	Minimum - Maximum
Bipolar disorder	25	45.92 (15.23)	16 - 76
Depression	86	39.64 (14.71)	3 - 69
Dissociative disorder	7	54.00 (15.36)	25 - 72
Eating disorder	14	41.36 (9.80)	22 - 54

Generalised anxiety disorder	72	37.81 (12.44)	11 - 67
Health anxiety	5	29.80 (11.78)	15 - 48
Obsessive-compulsive disorder	18	40.17 (13.92)	15 - 63
Panic disorder	6	41.50 (17.73)	9 - 55
Personality disorder	35	45.34 (13.96)	18 - 75
Post-traumatic stress disorder	36	36.44 (10.89)	14 - 59
Social anxiety disorder	18	40.72 (8.45)	28 - 59

Given the potential relevance of diagnostic group differences, a post-hoc independent samples t-test was conducted to compare D-ISS scores between the GAD ($n = 72$) and Severe Mental Illness ($n = 64$) groups within the clinical sample. While this analysis was not initially planned, it was identified as a valuable comparison to explore dissociative experiences across different diagnostic categories. The SMI group was defined as participants reporting either bipolar disorder, personality disorder, or psychotic disorder e.g., schizophrenia, as their primary mental health diagnoses. Results showed that SMI participants ($M = 46.06$, $SD = 14.15$) had significantly higher D-ISS scores than GAD participants ($M = 37.81$, $SD = 12.44$; $t(126.38) = -3.59$, $p < .001$). A post-hoc power analysis confirmed that the test had adequate power ($1 - \beta = .94$), suggesting the sample size was sufficient to detect the observed effect.

3.4.2.2 Convergent and divergent validity

To assess convergent validity, the relationship between mean DES-II scores and total D-ISS scores was examined, revealing a significant moderate correlation ($r(342) = .31$, $p < .001$).

To assess divergent validity, Pearson's correlations were conducted between the D-ISS and WDS subscales (see Table 7). The total D-ISS and WDS scores shared a significant moderate correlation ($r(342) = .46$, $p < .001$). The Awareness subscale of the D-ISS did not significantly correlate with any WDS subscales ($r = -.064$ to $-.098$). The Integration subscale showed weak correlations with WDS subscales, with a small but significant correlation for the WDS within-mode subscale ($r(342) = .107$, $p < .05$) and non-significant correlations with the automatic ($r = (342) .06$, $p = .258$) and between-mode ($r(342) = .08$, $p = .162$) subscales. The D-ISS Control subscale demonstrated weak correlations with WDS subscales, with the lowest correlation observed for the between-mode subscale ($r(342) = .01$, $p = .860$). In contrast, the D-ISS Difference and Acceptance subscales showed stronger correlations with WDS subscales, particularly with the within-mode subscale (Difference: $r(342) = .566$, $p < .001$; Acceptance: $r(342) = .386$, $p < .001$).

Although the analysis plan initially focused on examining D-ISS and WDS correlations within the clinical sample, the unexpected strength of some associations prompted an additional, unplanned analysis of the non-clinical sample. This exploratory comparison aimed to assess whether the observed correlations might be attributable to the clinical nature of the sample. Correlations between D-ISS and WDS subscales were generally stronger in the clinical sample compared to the non-clinical sample, where relationships were typically weaker or non-significant, particularly for the difference and control subscales.

Table 7

Pearson correlations between D-ISS and WDS subscales

D-ISS subscale	WDS subscale		
	Automatic	Within	Between
Awareness	-.064 (-.020)	-.098 (-.016)	-.092 (-.013)
Integration	.061 (.146)	.107* (.249**)	.076 (.041)
Difference	.281** (.078)	.566** (.171*)	.228** (.234**)
Acceptance	.441** (.433**)	.386** (.422**)	.123* (.291**)
Control	.316** (.244**)	.248** (.112)	.010 (-.023)

Note. Clinical sample correlations shown; non-clinical correlations in parentheses

* $p < .05$, ** $p < .01$

3.4.3 Reliability

The overall internal consistency of the D-ISS, based on data collected from the clinical sample, was good (Cronbach's $\alpha = .855$). Moreover, each of the five subscales demonstrated acceptable to excellent reliability (Cronbach's α 's .738 - .923; Field, 2024). Similarly, test-retest reliability for total D-ISS scores was also good (ICC = .778, 95% CI [.644, .862]), the subscales achieved ICC values ranging from .727 to .864, indicating moderate to good test-retest reliability (Koo & Li, 2016). Statistics measuring the reliability of the subscales comprising the D-ISS are shown in Table 7.

Table 8

Cronbach's α and test-retest reliability for the D-ISS subscales

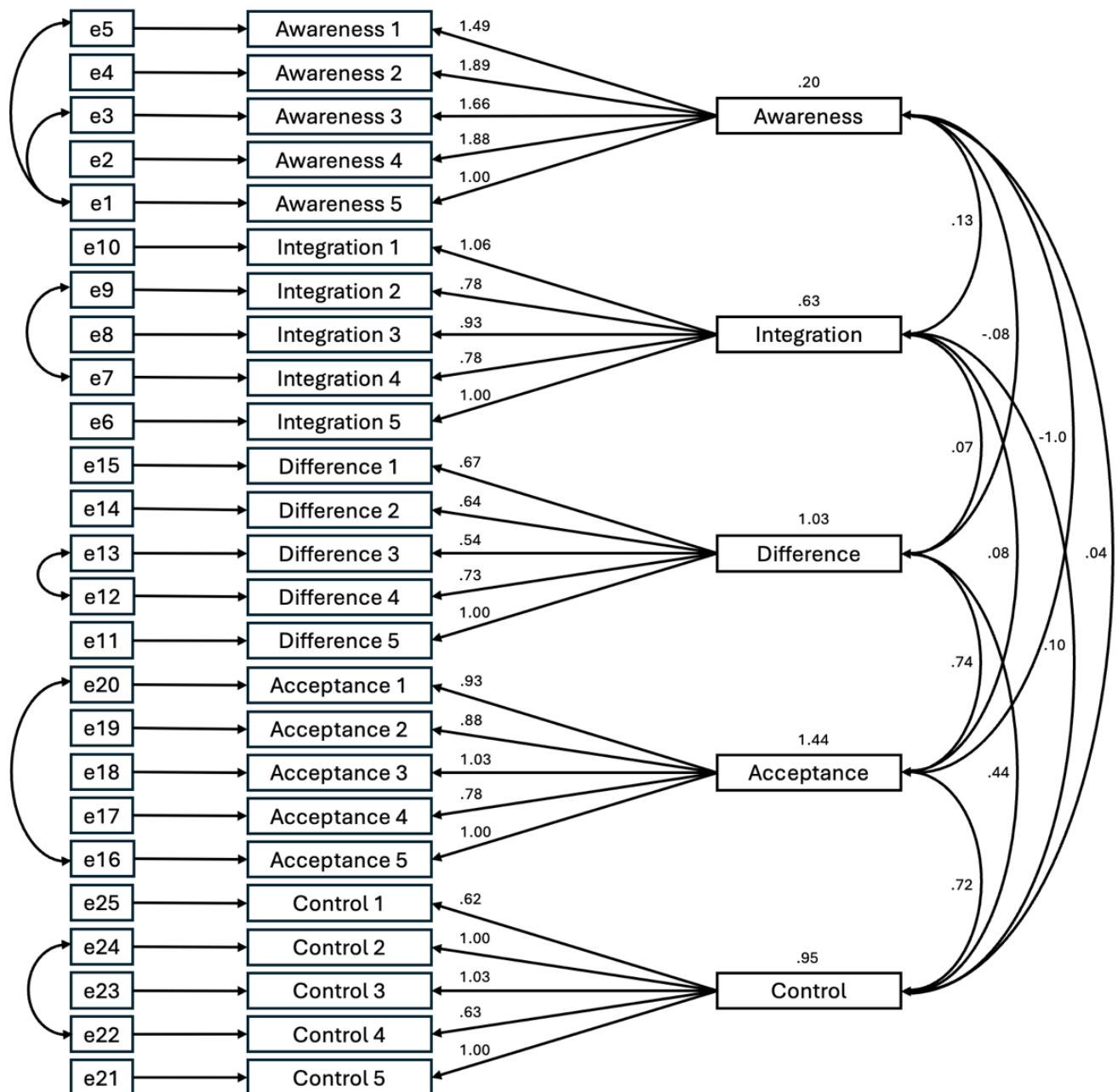
D-ISS subscale	Cronbach's alpha	ICC	Confidence interval (95%)
Awareness	.827	.778**	.475 - .757

Integration	.885	.727**	.563 - .830
Difference	.738	.864**	.782 - .915
Acceptance	.923	.850**	.760 - .907
Control	.889	.762**	.619 - .852

Note. ICC: Intra-class correlation coefficient. ** $p < .001$.

3.4.4 Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted to test the D-ISS five-factor structure proposed by Lord et al. (2025). The initial model demonstrated a poor fit ($\chi^2(265) = 816.172$, $p < .001$, $\chi^2/df = 3.08$, CFI = .876, TLI = .857, RMSEA = .071) with the CFI and TLI failing to satisfy the recommended .90 cutoff. Modification indices greater than 10 and expected parameter changes above .10 were reviewed for potential within-factor error covariances, in line with recommended structural equation modelling practice (e.g., Byrne, 2013). Consequently, six respecification steps were identified and no cross-factor error covariances were added to maintain the theoretical clarity of each factor. Following respecification, the model fit improved significantly, demonstrating an overall acceptable fit ($\chi^2(259) = 608.135$, $p < .001$, $\chi^2/df = 2.35$, CFI = .922, TLI = .909, RMSEA = .063). A visual representation of the final five-factor model is shown in Figure 6. It is noteworthy, that these findings closely aligned with the initial poor model fit, respecification process and final acceptable model fit reported by Lord et al. (2025).

Figure 6*Confirmatory factor analysis model*

All items' standardised factor loadings were above the 'acceptable' threshold of .50, except for item five ($\lambda = .387$). Other than item five, final standardised factor loadings ranged from .531 to .901, suggesting moderate to strong item-factor relationships (Hair et al., 2020). Standardised factor loadings for each D-ISS item are shown in Table 9.

Table 9*Standardised factor loadings for D-ISS items*

Factor	Item	Standardised factor loadings (λ)
Awareness	1. I am very aware of having different self-states	.693
	2. I know when I have shifted from one self-state to another	.800
	3. I am aware of all the different self-states	.707
	4. I can tell when I have been in one self-state and then in another	.809
	5. I am not always aware of some of the self-states	.387
Integration	6. I feel that the self-states are combined to form me as a whole	.760
	7. The self-states are integrated together	.595
	8. The self-states are all aspects of the same person	.774
	9. The self-states feel connected together in some way	.655
	10. I am formed of all the self-states	.814
Difference	11. The different self-states have different names	.554
	12. When I'm in one self-states I don't remember what happened when I was in a different self-state	.594
	13. Some self-states are male, and some are female	.538
	14. Some self-states are children, some are more grown up	.541
	15. Some self-states are dangerous to me or other people	.786
Acceptance	16. I would like to get rid of some self-states	.830
	17. The self-states cause problems in my life	.812
	18. I hate some self-states	.899
	19. I feel like punishing some self-states	.704
	20. I would like some self-states to disappear	.871
Control	21. I have control over moving between self-states	.531
	22. I have no choice over whether I move between self-states	.820
	23. I cannot control whether I end up in one self-state or another	.889
	24. I can choose what self-state I am in in any situation	.559
	25. I have no choice about what self-state I am in	.838

3.5 Discussion

The present study sought to provide a comprehensive assessment of the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) using a clinical sample of participants reporting a broad range of mental health diagnoses, while also comparing this data with a non-clinical sample reporting no previous or current mental health diagnoses. The recently developed D-

ISS, underpinned by the cognitive model of dissociation (Kennedy et al. 2004), was developed to facilitate the assessment, formulation and treatment planning of interventions for psychopathology involving dissociation between modes, or self-states. Previous analysis of the D-ISS has identified a five-factor structure, proposing that the D-ISS captures distinct cognitive processes including awareness, integration, differentiation, control and acceptance of self-states (Lord et al., 2025).

We examined the D-ISS according to several hypotheses in terms of group comparisons, reliability, validity and factor structure. The first hypothesis proposed that the clinical sample would score significantly higher than the non-clinical sample when using the D-ISS. As predicted, the clinical sample did produce significantly higher D-ISS scores, albeit with a small effect size. Furthermore, there was a significant difference in D-ISS scores between the two groups when controlling for age and gender differences. These findings provide evidence for the known-groups validity of the D-ISS, as the measure successfully differentiated between participants with and without self-reported formal mental health diagnoses, defined as diagnoses previously received from a qualified mental health professional.

The second hypothesis focused on examining the convergent and divergent validity of the D-ISS with a clinical sample. This hypothesis predicted that the D-ISS would demonstrate convergent validity in the form of a moderate to strong correlation with the DES-II, a validated and widely used measure of dissociation. The D-ISS demonstrated a significant and moderate correlation with both the DES-II and DES-II Taxon. The moderate positive correlation between the D-ISS and DES-II suggests partial convergence and that while the two measures are related, they are not assessing the same construct.

Divergent validity was assessed by comparing the D-ISS with the WDS automatic and within-mode subscales, both conceptually different processes to between-mode dissociation but derived using the same cognitive-behavioural of dissociation (Kennedy et al., 2004). D-ISS awareness and integration subscales shared non-significant weak correlations with WDS subscales. D-ISS subscales showed especially weak correlations with the WDS between-mode subscale. Lord et al. (2025) reported similar findings, highlighting that when developing the WDS, Kennedy et al. (2004) identified poor factor loadings for the between-mode subscale. Given that the D-ISS was developed to address this measurement gap, weak correlations with the WDS between-mode subscale do not undermine its validity but rather highlight the limitations of the WDS. This pattern aligns with the theoretical distinction between the two measures, reinforcing the notion that the D-ISS is not simply duplicating existing dissociation measures but instead capturing unique dissociative features.

Nevertheless, the higher correlations observed between the D-ISS difference, acceptance, and control subscales and the WDS automatic and within-mode subscales complicate the claim for strict divergent validity, suggesting some degree of shared variance between these measures. Kennedy et al. (2004), in critical appraisal of their own model, acknowledged the challenges of conceptualising

dissociation as occurring in three entirely discrete stages, noting that many dissociative symptoms may span multiple stages and involve complex interactions between processes. Therefore, some level of shared variance between these measures is expected, rather than indicating a fundamental flaw in the distinction between them.

Interestingly, Lord et al. (2025) reported near zero correlations between each D-ISS and WDS subscales using a sample reporting 'mental health difficulties', whereas moderate correlations emerged in this sample reporting formal mental health diagnoses. One explanation for this discrepancy is that dissociation is a more structured and clinically relevant construct in those meeting a clinical threshold. Previous research suggests that dissociative experiences may be qualitatively different in clinical populations, where they are more likely to be persistent, distressing, and functionally impairing (e.g., Van IJzendoorn & Schuengel, 1996). In contrast, dissociative tendencies in non-clinical samples may be more transient and less well-differentiated, making it difficult to detect meaningful associations between dissociative subtypes.

The third hypothesis stated that the D-ISS would demonstrate both internal consistency and test-retest reliability. Our results provided support for this prediction, in the form of a good Cronbach's α rating, indicating that the overall scale and items within each subscale were consistently measuring the same underlying constructs. Moreover, the scale demonstrated moderate to good test-retest reliability identified using ICC, indicating consistent measurement across time points.

The fourth and final hypothesis focused on the D-ISS confirmatory factor analysis (CFA), predicting a good model fit for the five-factor structure identified by Lord et al. (2025) using EFA and CFA. The CFA results showed an initial poor fit, several respecifications based on modification indices improved model fit to an acceptable level, with acceptable standardised factor loadings for all but one item. These findings build on those of Lord et al. (2025), supporting our hypothesis that the D-ISS structure can be replicated in a clinical population. However, this finding must be interpreted while bearing in mind that model respecifications were necessary, and one weak item was identified, thus highlighting the importance of ongoing refinement and validation of the D-ISS.

3.5.1 Strengths and limitations

The present research study has developed the work of Lord et al. (2025), with the aim of addressing several limitations identified in their initial investigation of the D-ISS. A key strength of this study was the early introduction of patient and public involvement (PPI), ensuring that members of the public with lived experience of mental health were consulted to provide feedback for the measures and research design. This feedback proved invaluable, leading to revisions in the introductory paragraph and the definition of self-states to better clarify the distinction between mood changes and transitions between self-states. This revision was particularly important given that the validity and

clinical utility of the D-ISS are dependent upon users understanding and relating to the concept of self-states. By refining the introductory explanation based on PPI feedback, we aimed to enhance clarity and ensure that respondents could accurately interpret and engage with the measure.

In addition to PPI input, the study was guided by core COSMIN principles for evaluating measurement properties, including structural validity, internal consistency and test-retest reliability. These aspects were assessed using established statistical methods and reported using recommended standards, helping to improve the clarity and completeness of methodological reporting. However, structured procedures for evaluating content validity, such as qualitative interviews or clinician feedback, were not undertaken due to constraints in the scope and resources of the present study. This reflects a wider limitation in dissociation literature, as noted by Wainipitapong et al. (2005). Future research should address this using formal qualitative methods to evaluate item relevance, clarity, and coverage in collaboration with both service users and professionals.

The classification of participants into clinical and non-clinical groups in this study was based on self-reported formal diagnoses, defined as participants indicating that they had previously received a diagnosis from a qualified mental health professional. This approach was selected to facilitate online recruitment, though it may be vulnerable to inaccuracies such as misremembering, misinterpretation or reporting informal labels (Kessler et al., 1999). Nonetheless, online studies utilising self-endorsement of psychiatric disorders have demonstrated how this approach still provides a valuable resource for diagnostic classification, when interpreted with caution and bearing in mind that some self-reported diagnoses are associated with higher rates of false positives (Sordo Vieira et al., 2022). Classification may also have been complicated by the high prevalence of co-occurring conditions and the requirement for participants to self-select a primary diagnosis.

Additionally, all data were collected via self-report measures, which are efficient and widely used in psychological research, but may be prone to recall bias and limited in their ability to fully capture complex constructs such as dissociation. Previous research has also raised concerns about participants' experiences of self-report measures, with findings suggesting that some outcome measures feel cognitively demanding and misaligned with recovery-focused principles (Bibb & McFerran, 2017). This highlights the importance of designing tools that are accessible and respectful of lived experience, something which we aimed to address through our early use of PPI, as previously described, which informed refinements to the language and framing of the D-ISS.

We faced challenges in recruiting participants directly from NHS services. While we did not identify a specific barrier, we recognise that time pressures and resource constraints may have limited clinicians' capacity to support recruitment. One possible contributing factor was the method of survey distribution. NHS staff raised concerns about the use of a QR code and online survey, indicating that this approach could have reduced the study's accessibility, therefore, influencing the

characteristics of the sample, for instance, by limiting participation from older patients or individuals from backgrounds associated with lower socioeconomic status without access to smart devices. As a result, most of our clinical sample was instead recruited through online platforms such as Prolific. While this approach enabled efficient access to a diverse sample, it may limit the generalisability of our findings to NHS service users, whose experiences may differ from those participating in online research.

Finally, it is important to note that the majority of the overall sample identified as White British, female and with a mean age of 28.6 years. Therefore, the findings from the present study may not fully capture the dissociative experiences of individuals from diverse racial and cultural backgrounds, those who do not identify as female, or individuals across different age groups. This limitation is important to note when considering the predominantly Eurocentric history of dissociation research and the underrepresentation of global majority populations (Sordo Vieira et al., 2022). It is crucial that future research aims to address this methodological shortcoming, especially when considering the richness of cross-cultural perspectives on dissociation which highlight the potential significance of sociocultural factors, including, but not limited to religion and spirituality (Maraldi et al., 2017)

3.5.2 Clinical implications

To the author's knowledge, the D-ISS is the first empirically validated measure of between-mode dissociation. Given its five-factor structure, it provides a detailed profile of between-mode dissociative experiences, which may offer greater clinical utility than existing measures that primarily assess overall dissociation without differentiating between processes. The D-ISS may be particularly useful for identifying individuals with severe dissociative difficulties who may not meet full criteria for dissociative disorders but still experience clinically significant self-state instability. Beyond dissociative disorders, elevated D-ISS scores were also observed among participants reporting personality disorders, bipolar disorder, panic disorder and social anxiety disorder. This aligns with previous findings (e.g., Lyssenko et al., 2018) and supports the use of the D-ISS across a range of clinical presentations, reinforcing its potential utility for screening and assessment.

The D-ISS successfully distinguished clinical from non-clinical participants, supporting its known-groups validity. This suggests that it can be a valuable screening tool for clinicians to identify individuals experiencing clinically significant dissociation. However, the small effect sizes observed in group comparisons indicate that the D-ISS should not be used as a standalone diagnostic tool for dissociative disorders or other mental health conditions. Instead, it may be more appropriately used as a measure to inform clinical formulation and guide intervention planning, alongside broader clinical judgement and assessment methods. Furthermore, the D-ISS demonstrated good reliability, providing further support for its use as a measure of change, to track progress over the course of

therapy. This may be particularly relevant in interventions that target self-state awareness and integration, including schema therapy, parts work in EMDR, and cognitive analytic therapy.

The D-ISS also revealed differences in dissociative experiences between clinical subgroups, specifically, increased D-ISS scores for participants reporting severe mental illness (SMI) compared to generalised anxiety disorder (GAD). Therefore, dissociation between self-states may be more pronounced in individuals with conditions characterised by affective dysregulation and trauma histories, compared to anxiety-based disorders, where dissociation may be less central. These findings provide evidence to suggest that clinicians working with SMI populations should assess for dissociation, including between-mode dissociation, facilitating the incorporation of dissociation-specific and integration-based interventions where appropriate.

The wide variability in D-ISS scores within the panic and personality disorder groups suggests that dissociation between self-states may not be a core feature for all individuals with these diagnoses. Instead, it may reflect distinct subgroups characterised by higher levels of dissociation, similar to how a dissociative subtype has been proposed for PTSD. This possibility is consistent with evidence that dissociation is influenced by factors such as anxiety severity (Pastucha et al., 2009) and trauma exposure (Marshall et al., 2000). These findings highlight the importance of individualised assessment and the value of measures like the D-ISS in identifying clinically relevant dissociation that may otherwise go unrecognised.

Taken together, the findings from this study suggest that the measure may offer a valuable entry point for clinicians seeking to engage with dissociative self-states in routine practice. While therapeutic approaches that explicitly work with parts of the self are often reserved for specialist settings or require additional training, the accessibility of a structured, self-report tool may help to bridge this gap. By supporting the identification and formulation of dissociative processes, the measure may enable a wider range of therapists to incorporate this perspective into their clinical work.

Table 10

D-ISS subscales, qualitative descriptions and potential clinical examples

Subscale	Description	Associated clinical features
Awareness	Level of awareness of all the self-states and transitioning between them	Lack of insight, confusion about internal experiences
Integration	Extent to which the self-states form a unified and cohesive sense of self	Fragmented identity, depersonalisation, poor sense of self

Difference	Degrees of difference or ‘psychological distance’ between self-states	Identity confusion, sense of multiple self-states or personalities in one body
Acceptance	Relationships or emotional connections with self-states, for example, disapproval or rejection of self-states	Feelings of shame and guilt, self-critical thinking, sense of inner conflict
Control	Capacity to influence or transition between self-states, and to choose which self-state to be in	Feeling ‘taken over’ or powerless in experience of self-states

3.5.3 Future research

While the present research has started the process of investigating use of the D-ISS with specific clinical subgroups, the relatively small subgroup sample sizes limit statistical power. As a result, we combined different diagnoses (e.g., bipolar disorder, personality disorder, and psychotic disorders) into broader categories, such as Severe Mental Illness (SMI), to facilitate comparisons. While this approach allowed for statistical analysis, it may have obscured important diagnostic nuances and within-group variability. Further exploration of the D-ISS in specific clinical populations, and with sufficient sample sizes, will be essential in enhancing our understanding of the measure’s applicability and the role of between-mode dissociation across different mental health presentations. This line of research may help clarify the clinical utility of the D-ISS in distinguishing dissociative subtypes within diagnostic groups and informing evidence-based intervention approaches.

Measurement tools used as part of psychological assessment can play a significant role in the planning, execution and review of interventions. Psychological measures such as the D-ISS have the potential to serve as therapeutic interventions in their own right, especially when personalised with collaborative feedback and used to facilitate a shared understanding between clinician and client (Poston & Hanson, 2010). Future research investigating the capacity of the D-ISS in informing treatment planning and goal setting will help to shed light on the measure’s utility in routine clinical practice. Given its five-factor structure, the subscales may help clinicians to identify specific domains of difficulty and tailor interventions accordingly. For example, using the awareness subscale to guide interventions aimed at increasing recognition of self-states, or the acceptance subscale to target self-states associated with increased psychological distress. Future studies could build on this by exploring the use of the D-ISS as a psychological outcome measure, examining whether it is sensitive to change over time when interventions specifically target the five distinct processes identified in the D-ISS factor model.

A notable limitation in the present study that warrants further investigation is the modification of the wording of item five, which may have influenced factor loadings. However, this change may have inadvertently altered the conceptual nuance of the item, potentially affecting how it was interpreted and endorsed, resulting in the poor factor loading identified by the current study. Notably, in the validation study of Lord et al. (2025), using the original wording, the item loaded well onto its intended factor, suggesting that our revised phrasing may have weakened its alignment with the underlying construct. Future research should investigate whether this revised version of the item consistently performs poorly across clinical samples. If the issue persists, it may be necessary to either revert to the original wording or consider removing the item altogether to preserve the internal consistency and structural validity of the measure.

Additionally, PPI feedback helped to feature the potential role for qualitative research to investigate participants' comprehension and understanding of the measure. This approach may help to offer a richer understanding of the variability and underlying processes for this subtype of dissociation. This is particularly important given recent qualitative findings (Pierorazio et al., 2024), highlighting that individuals experiencing dissociation often report feeling misunderstood or overlooked when seeking professional support. Ensuring that the D-ISS accurately reflects the lived experiences of those with dissociative difficulties could help bridge this gap, improving clinical recognition and patient-centred care.

3.5.4 Conclusions

The present study supports the D-ISS as a promising tool for measuring between-mode dissociation across a range of mental health conditions. It offers a nuanced understanding of dissociation that goes beyond existing measures, making it potentially valuable for assessment, formulation, and intervention planning. The five subscales offer a structured framework for identifying specific disruptions in the awareness, difference, integration, acceptance and control of self-states. The D-ISS represents an advancement in dissociation research, offering a more nuanced, process-driven assessment compared to traditional dissociation measures. While further research is needed to refine its applicability across diverse clinical populations, its theoretical foundation and psychometric properties make it a valuable tool for both research and clinical assessment of dissociative processes.

3.5.5 Key practice points

- The D-ISS offers clinicians a structured tool, grounded in cognitive-behavioural theory, for identifying and formulating dissociation between self-states across a range of conditions.
- The D-ISS demonstrates good psychometric properties in a clinical population, supporting its reliability and validity for use in mental health settings.

- The D-ISS subscales including awareness, integration, difference, acceptance and control can guide targeted formulation and treatment planning by identifying specific dissociative processes.

List of References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
- Armijo-Olivo, S., Stiles, C. R., Hagen, N. A., Biondo, P. D., & Cummings, G. G. (2012). Assessment of study quality for systematic reviews: A comparison of the Cochrane Collaboration Risk of Bias Tool and the Effective Public Health Practice Project Quality Assessment Tool: methodological research. *Journal of Evaluation in Clinical Practice*, 18(1), 12–18. <https://doi.org/10.1111/j.1365-2753.2010.01516.x>
- Aromataris, E., & Riitano, D. (2014). Systematic reviews: Constructing a search strategy and searching for evidence. *The American Journal of Nursing*, 114(5), 49-56. <https://doi.org/10.1097/01.NAJ.0000446779.99522.f6>
- Bae, H., Kim, D., & Park, Y. C. (2016). Dissociation predicts treatment response in eye-movement desensitization and reprocessing for posttraumatic stress disorder. *Journal of Trauma & Dissociation*, 17(1), 112–130. <https://doi.org/10.1080/15299732.2015.1037039>
- Ball, S., Robinson, A., Shekhar, A., & Walsh, K. (1997). Dissociative symptoms in panic disorder. *Journal of Nervous and Mental Disease*, 185(12), 755–760. <https://doi.org/10.1097/00005053-199712000-00006>
- Barlow, M. R., & Chu, J. A. (2014). Measuring fragmentation in dissociative identity disorder: The integration measure and relationship to switching and time in therapy. *European Journal of Psychotraumatology*, 5(1), 22250. <https://doi.org/10.3402/ejpt.v5.22250>
- Bath, H. (2019). Pain and the unspoken emotion: shame. *International Journal of Child, Youth and Family Studies*, 10(2–3), Article 2–3. <https://doi.org/10.18357/ijcyfs102-3201918856>
- Beck, A. T. (1996). Beyond belief: A theory of modes, personality, and psychopathology. In P. M. Salkovskis (Ed.), *Frontiers of cognitive therapy* (pp. 1–25). The Guilford Press.
- Belli, H., Akbudak, M., Ural, C., Solmaz, M., Dogan, Z., & Konkan, R. (2017). Is there a complex relation between social anxiety disorder, childhood traumatic experiences and dissociation? *Nordic Journal of Psychiatry*, 71(1), 55–60. <https://doi.org/10.1080/08039488.2016.1218050>
- Berne, D. E. (2016). *Transactional analysis in psychotherapy: A Systematic individual and social psychiatry*. Pickle Partners Publishing.

- Bestel, N. S. A., Williamson, D. C., Tirlea, L., & Mackelprang, J. L. (2024). Dissociation training and symptom identification accuracy among Australian psychologists. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi.org/10.1037/tra0001717>
- Bhaskar, R. (2013). *A realist theory of science*. Routledge. <https://doi.org/10.4324/9780203090732>
- Bibb, J., & McFerran, K. S. (2017). The Challenges of Using Self-Report Measures with People with Severe Mental Illness: Four Participants' Experiences of the Research Process. *Community Mental Health Journal*, 53(6), 747–754. <https://doi.org/10.1007/s10597-017-0127-6>
- Blevins, C. A., Weathers, F. W., & Witte, T. K. (2014). Dissociation and posttraumatic stress disorder: A latent profile analysis. *Journal of Traumatic Stress*, 27(4), 388–396. <https://doi.org/10.1002/jts.21933>
- Bonett, D. G. (2002). Sample Size Requirements for Testing and Estimating Coefficient Alpha. *Journal of Educational and Behavioral Statistics*, 27(4), 335–340. <https://doi.org/10.3102/10769986027004335>
- Borenstein, M. (2022). Comprehensive meta-analysis software. In J. P. T. Higgins, J. Thomas, J. Chandler, M. Cumpston, T. Li, M. J. Page, & V. A. Welch (Eds.), *Systematic reviews in health research* (pp. 535–548). John Wiley & Sons. <https://doi.org/10.1002/9781119099369.ch27>
- Boyer, S. M., Caplan, J. E., & Edwards, L. K. (2022). Trauma-Related Dissociation and the Dissociative Disorders: *Delaware Journal of Public Health*, 8(2), 78–84. <https://doi.org/10.32481/djph.2022.05.010>
- Brand, B. L. (2016). The necessity of clinical training in trauma and dissociation. *Journal of Anxiety and Depression*, 5(4). <https://doi.org/10.4172/2167-1044.1000251>.
- Brand, B. L., Loewenstein, R. J., & Spiegel, D. (2014). Dispelling Myths About Dissociative Identity Disorder Treatment: An Empirically Based Approach. *Psychiatry: Interpersonal and Biological Processes*, 77(2), 169–189. <https://doi.org/10.1521/psyc.2014.77.2.169>
- Braun, B. G. (1988). The BASK model of dissociation. *Dissociation: Progress in the Dissociative Disorders*, 1(1), 4–23.
- Bremner, J. D., Krystal, J. H., Putnam, F. W., Southwick, S. M., Marmar, C., Charney, D. S., & Mazure, C. M. (1998). Measurement of dissociative states with the clinician-administered dissociative states scale (CADSS). *Journal of traumatic stress*, 11, 125–136. <https://doi.org/10.1023/A:1024465317902>
- Briere, J. (2006). Dissociative Symptoms and Trauma Exposure: Specificity, Affect Dysregulation, and Posttraumatic Stress. *The Journal of Nervous and Mental Disease*, 194(2), 78. <https://doi.org/10.1097/01.nmd.0000198139.47371.54>

- Byrne, B. M. (2013). *Structural Equation Modeling with Mplus: Basic Concepts, Applications, and Programming*. Routledge. <https://doi.org/10.4324/9780203807644>
- Carlson, E. B., & Putnam, F. W. (1993). An update on the dissociative experiences scale. *Dissociation: Progress in the Dissociative Disorders*.
- Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology*, 63(9), 871–890. <https://doi.org/10.1002/jclp.20400>
- Clark, D. M. (1986). A cognitive approach to panic. *Behaviour Research and Therapy*, 24(4), 461–470. [https://doi.org/10.1016/0005-7967\(86\)90011-2](https://doi.org/10.1016/0005-7967(86)90011-2)
- Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). The Guilford Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Collins, K. A., Westra, H. A., Dozois, D. J., & Stewart, S. H. (2005). The validity of the brief version of the Fear of Negative Evaluation Scale. *Journal of anxiety disorders*, 19(3), 345–359. <https://doi.org/10.1016/j.janxdis.2004.02.003>
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Psychology press.
- Cook, M. A., & Newins, A. R. (2021). Social anxiety and dissociation: The moderating role of emotion regulation. *Motivation and Emotion*, 45(3), 345–353. <https://doi.org/10.1007/s11031-021-09875-5>
- Coons, P. M. (1998). The dissociative disorders. Rarely considered and underdiagnosed. *The Psychiatric Clinics of North America*, 21(3), 637–648. [https://doi.org/10.1016/s0193-953x\(05\)70028-9](https://doi.org/10.1016/s0193-953x(05)70028-9)
- Dalenberg, C. J., Brand, B. L., Gleaves, D. H., Dorahy, M. J., Loewenstein, R. J., Cardeña, E., Frewen, P. A., Carlson, E. B., & Spiegel, D. (2012). Evaluation of the evidence for the trauma and fantasy models of dissociation. *Psychological Bulletin*, 138(3), 550–588. <https://doi.org/10.1037/a0027447>
- Dalenberg, C. J., Katz, R. R., Thompson, K. J., & Paulson, K. (2022). The Case for the Study of “Normal” Dissociation Processes. In *Dissociation and the Dissociative Disorders* (2nd ed.). Routledge.
- Deeks, J. J., Dinnes, J., D’Amico, R., Sowden, A. J., Sakarovich, C., Song, F., Petticrew, M., Altman, D. G., International Stroke Trial Collaborative Group, & European Carotid Surgery Trial Collaborative Group. (2003). Evaluating non-randomised intervention studies. *Health Technology Assessment (Winchester, England)*, 7(27), iii–x, 1–173. <https://doi.org/10.3310/hta7270>

- Dewe, H., Watson, D. G., & Braithwaite, J. J. (2016). Uncomfortably numb: new evidence for suppressed emotional reactivity in response to body-threats in those predisposed to sub-clinical dissociative experiences. *Cognitive neuropsychiatry*, 21(5), 377-401.
<https://doi.org/10.1080/13546805.2016.1212703>
- Dorahy, M. J. (2010). The impact of dissociation, shame, and guilt on interpersonal relationships in chronically traumatized individuals: A pilot study. *Journal of Traumatic Stress*, 23(5), 653–656.
<https://doi.org/10.1002/jts.20564>
- Dorahy, M. J., Brand, B. L., Şar, V., Krüger, C., Stavropoulos, P., Martínez-Taboas, A., Lewis-Fernández, R., & Middleton, W. (2014). Dissociative identity disorder: An empirical overview. *Australian & New Zealand Journal of Psychiatry*, 48(5), 402–417. <https://doi.org/10.1177/0004867414527523>
- Dorahy, M. J., Yogeeswaran, K., & Middleton, W. (2023). Dissociation-Induced Shame in Those with a Dissociative Disorder: Assessing the Impact of Relationship context using Vignettes. *Journal of Trauma & Dissociation*, 24(5), 674–691. <https://doi.org/10.1080/15299732.2023.2195402>
- Dugas, M. J., Gagnon, F., Ladouceur, R., & Freeston, M. H. (1998). Generalized anxiety disorder: A preliminary test of a conceptual model. *Behaviour Research and Therapy*, 36(2), 215–226.
[https://doi.org/10.1016/S0005-7967\(97\)00070-3](https://doi.org/10.1016/S0005-7967(97)00070-3)
- Egger, M., Smith, G. D., Schneider, M., & Minder, C. (1997). Bias in meta-analysis detected by a simple, graphical test. *bmj*, 315(7109), 629-634. <https://doi.org/10.1136/bmj.315.7109.629>
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38(4), 319–345. [https://doi.org/10.1016/S0005-7967\(99\)00123-0](https://doi.org/10.1016/S0005-7967(99)00123-0)
- Ellickson-Larew, S., Stasik-O'Brien, S. M., Stanton, K., & Watson, D. (2020). Dissociation as a multidimensional transdiagnostic symptom. *Psychology of Consciousness: Theory, Research, and Practice*, 7(2), 126–150. <https://doi.org/10.1037/cns0000218>
- Eng, W., Coles, M. E., Heimberg, R. G., & Safren, S. A. (2005). Domains of life satisfaction in social anxiety disorder: Relation to symptoms and response to cognitive-behavioral therapy. *Journal of Anxiety Disorders*, 19(2), 143–156. <https://doi.org/10.1016/j.janxdis.2004.01.007>
- Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry*, 180(1), 51–60. <https://doi.org/10.1192/bjp.180.1.51>
- Evren, C., Sar, V., Dalbudak, E., Oncu, F., & Cakmak, D. (2009). Social anxiety and dissociation among male patients with alcohol dependency. *Psychiatry research*, 165(3), 273-280.
<https://doi.org/10.1016/j.psychres.2007.10.016>

- Field, A. (2024). *Discovering Statistics Using IBM SPSS Statistics* (6th ed.). SAGE Publications.
- Foote, B., Smolin, Y., Kaplan, M., Legatt, M. E., & Lipschitz, D. (2006). Prevalence of Dissociative Disorders in Psychiatric Outpatients. *American Journal of Psychiatry*, 163(4), 623–629.
<https://doi.org/10.1176/ajp.2006.163.4.623>
- George, D., & Mallery, P. (2019). *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference* (16th ed.). Routledge. <https://doi.org/10.4324/9780429056765>
- Goldberg, L. R. (1999). The Curious Experiences Survey, a revised version of the Dissociative Experiences Scale: Factor structure, reliability, and relations to demographic and personality variables. *Psychological Assessment*, 11(2), 134. <https://doi.org/10.1037/1040-3590.11.2.134>
- Granieri, A., Guglielmucci, F., Costanzo, A., Caretti, V., & Schimmenti, A. (2018). Trauma-Related Dissociation Is Linked With Maladaptive Personality Functioning. *Frontiers in Psychiatry*, 9.
<https://doi.org/10.3389/fpsy.2018.00206>
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110.
<https://doi.org/10.1016/j.jbusres.2019.11.069>
- Harter, S. (2015). *The Construction of the Self, Second Edition: Developmental and Sociocultural Foundations*. Guilford Publications.
- Heimberg, R. G., Horner, K. J., Juster, H. R., Safren, S. A., Brown, E. J., Schneier, F. R., & Liebowitz, M. R. (1999). Psychometric properties of the Liebowitz social anxiety scale. *Psychological medicine*, 29(1), 199-212. <https://doi.org/10.1017/S0033291798007879>
- Hofmann, S. G., Anu Asnaani, M. a., & Hinton, D. E. (2010). Cultural aspects in social anxiety and social anxiety disorder. *Depression and Anxiety*, 27(12), 1117–1127. <https://doi.org/10.1002/da.20759>
- Holmes, E. A., Brown, R. J., Mansell, W., Fearon, R. P., Hunter, E. C. M., Frasquilho, F., & Oakley, D. A. (2005). Are there two qualitatively distinct forms of dissociation? A review and some clinical implications. *Clinical Psychology Review*, 25(1), 1–23. <https://doi.org/10.1016/j.cpr.2004.08.006>
- Hoyer, J., Braeuer, D., Crawcour, S., Klumbies, E., & Kirschbaum, C. (2013). Depersonalization/derealization during acute social stress in social phobia. *Journal of anxiety disorders*, 27(2), 178-187.
<https://doi.org/10.1016/j.janxdis.2013.01.002>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
<https://doi.org/10.1080/10705519909540118>

- Hunter, E. C. M., Phillips, M. L., Chalder, T., Sierra, M., & David, A. S. (2003). Depersonalisation disorder: A cognitive-behavioural conceptualisation. *Behaviour Research and Therapy*, 41(12), 1451–1467.
[https://doi.org/10.1016/S0005-7967\(03\)00066-4](https://doi.org/10.1016/S0005-7967(03)00066-4)
- Jacobson, N. C., & Newman, M. G. (2017). Anxiety and depression as bidirectional risk factors for one another: A meta-analysis of longitudinal studies. *Psychological bulletin*, 143(11), 1155.
<https://doi.org/10.1037/bul0000111>
- Janet, P. (1907). *The major symptoms of hysteria: Fifteen lectures given in the medical school of Harvard University*. Macmillan.
- Jung, C. G. (2014). *The Structure and Dynamics of the Psyche*. Routledge.
- Kashdan, T. B., Goodman, F. R., Machell, K. A., Kleiman, E. M., Monfort, S. S., Ciarrochi, J., & Nezlek, J. B. (2014). A contextual approach to experiential avoidance and social anxiety: Evidence from an experimental interaction and daily interactions of people with social anxiety disorder. *Emotion*, 14(4), 769–781. <https://doi.org/10.1037/a0035935>
- Katzelnick, D. J., & Greist, J. H. (2001). Social anxiety disorder: an unrecognized problem in primary care. *Journal of Clinical Psychiatry*, 62, 11-16.
- Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International Journal of Methods in Psychiatric Research*, 21(3), 169–184.
<https://doi.org/10.1002/mpr.1359>
- Kleindienst, N., Limberger, M. F., Ebner-Priemer, U. W., Keibel-Mauchnik, J., Dyer, A., Berger, M., Schmahl, C., & Bohus, M. (2011). Dissociation predicts poor response to dialectical behavioral therapy in female patients with borderline personality disorder. *Journal of Personality Disorders*, 25(4), 432–447.
<https://doi.org/10.1521/pedi.2011.25.4.432>
- Kline, R. B. (2023). *Principles and Practice of Structural Equation Modeling*. Guilford Publications.
- Kolev, O. I., Georgieva-Zhostova, S. O., & Berthoz, A. (2014). Anxiety changes depersonalization and derealization symptoms in vestibular patients. *Behavioural Neurology*, 2014 (1), Article 847054.
<https://doi.org/10.1155/2014/847054>
- Koo, T. K., & Li, M. Y. (2016). A guideline of Selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 2(15), 155–163.
<https://doi.org/10.1016/j.jcm.2016.02.012>

- Korzekwa, M. I., Dell, P. F., Links, P. S., Thabane, L., & Fougere, P. (2009). Dissociation in Borderline Personality Disorder: A Detailed Look. *Journal of Trauma & Dissociation*, 10(3), 346–367. <https://doi.org/10.1080/15299730902956838>
- Kouri, N., D'Andrea, W., Brown, A. D., & Siegle, G. J. (2023). Shame-induced dissociation: An experimental study of experiential avoidance. *Psychological Trauma: Theory, Research, Practice, and Policy*, 15(4), 547.
- Krüger, C. (2020). Culture, trauma and dissociation: A broadening perspective for our field. *Journal of Trauma & Dissociation*, 21(1), 1–13. <https://doi.org/10.1080/15299732.2020.1675134>
- La Mela, C., Maglietta, M., Castellini, G., Amoroso, L., & Lucarelli, S. (2010). Dissociation in eating disorders: Relationship between dissociative experiences and binge-eating episodes. *Comprehensive Psychiatry*, 51(4), 393–400. <https://doi.org/10.1016/j.comppsy.2009.09.008>
- Lawson, D. M., Skidmore, S. T., & Akay-Sullivan, S. (2020). The Influence of Trauma Symptoms on the Therapeutic Alliance Across Treatment. *Journal of Counseling & Development*, 98(1), 29–40. <https://doi.org/10.1002/jcad.12297>
- Lewis-Fernández, R., Martínez-Taboas, A., Sar, V., Patel, S., & Boatín, A. (2007). The cross-cultural assessment of dissociation. In J. P. Wilson & C. S. Tang (Eds.), *Cross-Cultural Assessment of Psychological Trauma and PTSD* (pp. 279–317). Springer. https://doi.org/10.1007/978-0-387-70990-1_12
- Lilienfeld, S. O., Kirsch, I., Sarbin, T. R., Lynn, S. J., Chaves, J. F., Ganaway, G. K., & Powell, R. A. (1999). Dissociative identity disorder and the sociocognitive model: Recalling the lessons of the past. *Psychological Bulletin*, 125(5), 507–523. <https://doi.org/10.1037/0033-2909.125.5.507>
- Liotti, G. (2006). A Model of Dissociation Based on Attachment Theory and Research. *Journal of Trauma & Dissociation*, 7(4), 55–73. https://doi.org/10.1300/J229v07n04_04
- Lobbetael, J., Vreeswijk, M. van, Spinhoven, P., Schouten, E., & Arntz, A. (2010). Reliability and validity of the short schema mode inventory (SMI). *Behavioural and Cognitive Psychotherapy*, 38(4), 437–458. <https://doi.org/10.1017/S1352465810000226>
- Loewenstein, R. J. (2018). Dissociation debates: Everything you know is wrong. *Dialogues in Clinical Neuroscience*, 20(3), 229–242
- Loffredo, D. A., Harrington, Rick, Munoz, Martin K., & Knowles, L. R. (2004). The Ego State Questionnaire-Revised. *Transactional Analysis Journal*, 34(1), 90–95. <https://doi.org/10.1177/036215370403400110>

- Lord, C., Kennedy, F., Smart, K., & Maguire, T. (2025). Developing a scale to measure dissociation between self-states (the Dissociation-Integration of Self States Scale, D-ISS Scale). *The Cognitive Behaviour Therapist*, 18, e18. <https://doi.org/10.1017/S1754470X25000042>
- Lynn, S. J., Maxwell, R., Merckelbach, H., Lilienfeld, S. O., van Heugten-van der Kloet, D., & Miskovic, V. (2019). Dissociation and its disorders: Competing models, future directions, and a way forward. *Clinical Psychology Review*, 73, 101755. <https://doi.org/10.1016/j.cpr.2019.101755>
- Lyssenko, L., Schmahl, C., Bockhacker, L., Vonderlin, R., Bohus, M., & Kleindienst, N. (2018). Dissociation in psychiatric disorders: A meta-analysis of studies using the dissociative experiences scale. *American Journal of Psychiatry*, 175(1), 37–46. <https://doi.org/10.1176/appi.ajp.2017.17010025>
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1), 84.
- Mamikutty, R., Aly, A. S., & Marhazlinda, J. (2021). Selecting risk of bias tools for observational studies for a systematic review of anthropometric measurements and dental caries among children. *International Journal of Environmental Research and Public Health*, 18(16), Article 8623. <https://doi.org/10.3390/ijerph18168623>
- Maraldi, E. de O., Krippner, S., Barros, M. C. M., & Cunha, A. (2017). Dissociation from a cross-cultural perspective: Implications of studies in Brazil. *The Journal of Nervous and Mental Disease*, 205(7), 558. <https://doi.org/10.1097/NMD.0000000000000694>
- Marshall, R. D., Schneier, F. R., Lin, S.-H., Simpson, H. B., Vermes, D., & Liebowitz, M. (2000). Childhood trauma and dissociative symptoms in panic disorder. *American Journal of Psychiatry*, 157(3), 451–453. <https://doi.org/10.1176/appi.ajp.157.3.451>
- Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36(4), 455–470. [https://doi.org/10.1016/S0005-7967\(97\)10031-6](https://doi.org/10.1016/S0005-7967(97)10031-6)
- Mayer, J. L., & Farmer, R. F. (2003). The development and psychometric evaluation of a new measure of dissociative activities. *Journal of Personality Assessment*, 80(2), 185-196. https://doi.org/10.1207/S15327752JPA8002_07
- McFarlane, A. C. (2013). Biology Not Culture Explains Dissociation in Posttraumatic Stress Disorder. *Biological Psychiatry*, 73(4), 296–297. <https://doi.org/10.1016/j.biopsych.2012.11.026>
- Mental Capacity Act 2005, c. 9. (2005). <https://www.legislation.gov.uk/ukpga/2005/9/contents>

- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. *Annals of Internal Medicine*, 151(4), 264–269. <https://doi.org/10.7326/0003-4819-151-4-200908180-00135>
- Mokkink, L. B., de Vet, H. C. W., Prinsen, C. A. C., Patrick, D. L., Alonso, J., Bouter, L. M., & Terwee, C. B. (2018). COSMIN Risk of Bias checklist for systematic reviews of Patient-Reported Outcome Measures. *Quality of Life Research*, 27(5), 1171–1179. <https://doi.org/10.1007/s11136-017-1765-4>
- Nester, M. S., Brand ,Bethany L., Schielke ,Hugo J., & and Kumar, S. (2022). An examination of the relations between emotion dysregulation, dissociation, and self-injury among dissociative disorder patients. *European Journal of Psychotraumatology*, 13(1), 2031592. <https://doi.org/10.1080/20008198.2022.2031592>
- Newman-Taylor, K., & Sambrook, S. (2013). The role of dissociation in psychosis. In F. Kennedy, H. Kennerley, & D. Pearson (Eds.), *Cognitive behavioural approaches to the understanding and treatment of dissociation* (pp. 119–132). Routledge.
- Pastucha, P., Prasko, J., Grambal, A., Latalova, K., Sigmundova, Z., Sykorova, T., & Tichackova, A. (2009). Panic disorder and dissociation: Comparison with healthy controls. *Neuro Endocrinology Letters*, 30(6), 774–778.
- Patel, A., Knapp, M., Henderson, J., & Baldwin, D. (2002). The economic consequences of social phobia. *Journal of Affective Disorders*, 68(2), 221–233. [https://doi.org/10.1016/S0165-0327\(00\)00323-2](https://doi.org/10.1016/S0165-0327(00)00323-2)
- Piccirillo, M. L., Taylor Dryman, M., & Heimberg, R. G. (2016). Safety Behaviors in Adults With Social Anxiety: Review and Future Directions. *Behavior Therapy*, 47(5), 675–687. <https://doi.org/10.1016/j.beth.2015.11.005>
- Pierorazio, N. A., Robertson, J. L., Nester, M. S., & Brand, B. L. (2024). “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*. <https://doi.org/10.1037/tra0001800>
- Pollock, P. H., Broadbent, M., Clarke, S., Dorrian, A., & Ryle, A. (2001). The personality structure questionnaire (PSQ): A measure of the multiple self states model of identity disturbance in cognitive analytic therapy. *Clinical Psychology & Psychotherapy*, 8(1), 59–72. <https://doi.org/10.1002/cpp.250>
- Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., & Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC methods programme* (Version 1). ESRC Methods Programme.

- Porges, S. W. (2011). *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-regulation* (Norton Series on Interpersonal Neurobiology). W. W. Norton & Company.
- Poston, J. M., & Hanson, W. E. (2010). Meta-analysis of psychological assessment as a therapeutic intervention. *Psychological Assessment*, 22(2), 203–212. <https://doi.org/10.1037/a0018679>
- Putnam, F. W., Carlson, E. B., Ross, C. A., Anderson, G., Clark, P., Torem, M., Bowman, E. S., Coons, P., Chu, J. A., Dill, D. L., Loewenstein, R. J., & Braun, B. G. (1996). Patterns of Dissociation in Clinical and Nonclinical Samples. *The Journal of Nervous and Mental Disease*, 184(11), 673. <https://doi.org/10.1097/00005053-199611000-00004>
- Rădulescu, I. D., Ciubara, A. B., Moraru, C., Burlea, S. L., & Ciubară, A. (2020). Evaluating the impact of dissociation in psychiatric disorders. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 11(3Sup1), Article 132. <https://doi.org/10.18662/brain/11.3Sup1/132>
- Rafiq, S., Campodonico, C., & Varese, F. (2018). The relationship between childhood adversities and dissociation in severe mental illness: A meta-analytic review. *Acta Psychiatrica Scandinavica*, 138(6), 509–525. <https://doi.org/10.1111/acps.12969>
- Robbins, B. D., & Parlavecchio, H. (2006). The unwanted exposure of the self: A phenomenological study of embarrassment. *The Humanistic Psychologist*, 34(4), 321–345. https://doi.org/10.1207/s15473333thp3404_3
- Ross, C. A., Joshi, S., & Currie, R. (1990). Dissociative experiences in the general population. *American Journal of Psychiatry*, 147(11), 1547–1552.
- Roth, M. (1959). The phobic anxiety-depersonalization syndrome [Abridged]. *Proceedings of the Royal Society of Medicine*, 52(8), 587–595. <https://doi.org/10.1177/003591575905200802>
- Rudy, J. A., McKernan, S., Kouri, N., & D'Andrea, W. (2022). A meta-analysis of the association between shame and dissociation. *Journal of Traumatic Stress*, 35(5), 1318–1333. <https://doi.org/10.1002/jts.22854>
- Rufer, M., Held, D., Cremer, J., Fricke, S., Moritz, S., Peter, H., & Hand, I. (2005). Dissociation as a predictor of cognitive behavior therapy outcome in patients with obsessive-compulsive disorder. *Psychotherapy and Psychosomatics*, 75(1), 40–46. <https://doi.org/10.1159/000089225>
- Ryle, A. (2007). Investigating the phenomenology of Borderline Personality Disorder with the States Description Procedure: Clinical implications. *Clinical Psychology & Psychotherapy*, 14(5), 329–341. <https://doi.org/10.1002/cpp.543>

- Sar, V. (2011). Epidemiology of dissociative disorders: An overview. *Epidemiology Research International*, 2011(1), 404538. <https://doi.org/10.1155/2011/404538>
- Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social phobia: comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, 49(4), 282–288. <https://doi.org/10.1001/archpsyc.1992.01820040034004>
- Schwartz, R. C., & Sweezy, M. (2019). Internal Family Systems Therapy. Guilford Publications.
- Seeley-Wait, E., Abbott, M. J., & Rapee, R. M. (2009). Psychometric properties of the mini-social phobia inventory. *Primary Care Companion to the Journal of Clinical Psychiatry*, 11(5), 231. <https://doi.org/10.4088/PCC.07m00576>
- Semiz, U. B., Inanc, L., & Bezgin, C. H. (2014). Are trauma and dissociation related to treatment resistance in patients with obsessive–compulsive disorder? *Social Psychiatry and Psychiatric Epidemiology*, 49(8), 1287–1296. <https://doi.org/10.1007/s00127-013-0787-7>
- Sevindik, M., Nazlı, Ş. B., & Koçak, O. M. (2022). Dissociative symptoms in generalized anxiety disorder and panic disorder and its relationship with temperament-character features. *Journal of Biotechnology and Strategic Health Research*, 6(1), Article 1. <https://doi.org/10.34084/bshr.1052430>
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420–428. <https://doi.org/10.1037/0033-2909.86.2.420>
- Sierra, M., & Berrios, G. E. (1998). Depersonalization: Neurobiological perspectives. *Biological Psychiatry*, 44(9), 898–908. [https://doi.org/10.1016/S0006-3223\(98\)00015-8](https://doi.org/10.1016/S0006-3223(98)00015-8)
- Sierra, M., & Berrios, G. E. (2000). The Cambridge Depersonalisation Scale: A new instrument for the measurement of depersonalisation. *Psychiatry Research*, 93(2), 153–164. [https://doi.org/10.1016/S0165-1781\(00\)00100-1](https://doi.org/10.1016/S0165-1781(00)00100-1)
- Soenke, M., Hahn, K. S., Tull, M. T., & Gratz, K. L. (2010). Exploring the Relationship Between Childhood Abuse and Analogue Generalized Anxiety Disorder: The Mediating Role of Emotion Dysregulation. *Cognitive Therapy and Research*, 34(5), 401–412. <https://doi.org/10.1007/s10608-009-9264-8>
- Soffer-Dudek, N. (2014). Dissociation and dissociative mechanisms in panic disorder, obsessive–compulsive disorder, and depression: A review and heuristic framework. *Psychology of Consciousness: Theory, Research, and Practice*, 1(3), 243–270. <https://doi.org/10.1037/cns0000023>
- Soffer-Dudek, N., & Somer, E. (2018). Trapped in a daydream: Daily elevations in maladaptive daydreaming are associated with daily psychopathological symptoms. *Frontiers in Psychiatry*, 9, 377254. <https://doi.org/10.3389/fpsy.2018.00194>

- Somer, E. (2006). Culture-Bound Dissociation: A Comparative Analysis. *Psychiatric Clinics*, 29(1), 213–226.
<https://doi.org/10.1016/j.psc.2005.10.009>
- Sordo Vieira, L., Nguyen, B., Nutley, S. K., Bertolace, L., Ordway, A., Simpson, H., Zakrzewski, J., Jean Gilles, M. E., Nosheny, R., Weiner, M., Mackin, R. S., & Mathews, C. A. (2022). Self-reporting of psychiatric illness in an online patient registry is a good indicator of the existence of psychiatric illness. *Journal of Psychiatric Research*, 151, 34–41. <https://doi.org/10.1016/j.jpsychires.2022.03.022>
- Spitzer, C., Barnow, S., Freyberger, H. J., & Joergen Grabe, H. J. (2007). Dissociation predicts symptom-related treatment outcome in short-term inpatient psychotherapy. *Australian & New Zealand Journal of Psychiatry*, 41(8), 682–687. <https://doi.org/10.1080/00048670701449146>
- Stein, D. J., Koenen, K. C., Friedman, M. J., Hill, E., McLaughlin, K. A., Petukhova, M., Ruscio, A. M., Shahly, V., Spiegel, D., Borges, G., Bunting, B., Caldas-de-Almeida, J. M., de Girolamo, G., Demyttenaere, K., Florescu, S., Haro, J. M., Karam, E. G., Kovess-Masfety, V., Lee, S., ... Kessler, R. C. (2013). Dissociation in posttraumatic stress disorder: Evidence from the world mental health surveys. *Biological Psychiatry*, 73(4), 302–312. <https://doi.org/10.1016/j.biopsych.2012.08.022>
- Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The Lancet*, 371(9618), 1115–1125.
[https://doi.org/10.1016/S0140-6736\(08\)60488-2](https://doi.org/10.1016/S0140-6736(08)60488-2)
- Steinberg, M. (1994). *Interviewer's Guide to the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D)*. American Psychiatric Publishing.
- Stokoe, N., Stopa, L., & Maguire, T. (2016). Dissociative identity disorder: Fact, fantasy or invalid? *British Journal of Mental Health Nursing*, 5(4), 168–175. <https://doi.org/10.12968/bjmh.2016.5.4.168>
- Stoll, C., Izadi, S., Fowler, S., Green, P., Suls, J., & Colditz, G. A. (2019). The value of a second reviewer for study selection in systematic reviews. *Research Synthesis Methods*, 10(4), 539.
<https://doi.org/10.1002/jrsm.1369>
- Streiner, D. L., Norman, G. R., & Cairney, J. (2024). *Health Measurement Scales: A practical guide to their development and use*. (6th ed.). Oxford University Press.
- Sumathipala, A., Siribaddana, S., & Patel, V. (2004). Under-representation of developing countries in the research literature: Ethical issues arising from a survey of five leading medical journals. *BMC Medical Ethics*, 5(1), 5. <https://doi.org/10.1186/1472-6939-5-5>
- Swee, M. B., Hudson, C. C., & Heimberg, R. G. (2021). Examining the relationship between shame and social anxiety disorder: A systematic review. *Clinical Psychology Review*, 90, 102088.
<https://doi.org/10.1016/j.cpr.2021.102088>

- Thomas, B. h., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A process for systematically reviewing the literature: Providing the research evidence for public health nursing interventions. *Worldviews on Evidence-Based Nursing*, 1(3), 176–184. <https://doi.org/10.1111/j.1524-475X.2004.04006.x>
- Turner, S. M., Stanley, M. A., Beidel, D. C., & Bond, L. (1989). The social phobia and anxiety inventory: construct validity. *Journal of Psychopathology and Behavioral Assessment*, 11(3), 221-234. <https://doi.org/10.1007/BF00960494>
- Valentine, J. C., Pigott, T. D., & Rothstein, H. R. (2010). How many studies do you need? A primer on statistical power for meta-analysis. *Journal of Educational and Behavioral Statistics*, 35(2), 215-247.
- van der Hart, O., van der Kolk, B. A., & Boon, S. (1998). Treatment of dissociative disorders. In Trauma, memory, and dissociation (pp. 253–283). American Psychiatric Association.
- Vanderlinden, J., Van Dyck, R., Vandereycken, W., Vertommen, H., & Jan Verkes, R. (1993). The dissociation questionnaire (DIS-Q): Development and characteristics of a new self-report questionnaire. *Clinical Psychology & Psychotherapy*, 1(1), 21-27. <https://doi.org/10.1002/cpp.5640010105>
- Van IJzendoorn, M. H., & Schuengel, C. (1996). The measurement of dissociation in normal and clinical populations: Meta-analytic validation of the Dissociative Experiences Scale (DES). *Clinical Psychology Review*, 16(5), 365–382.
- Vogel, M., Spitzer, C., Kuwert, P., Möller, B., Freyberger, H. J., & Grabe, H. J. (2009). Association of childhood neglect with adult Dissociation in schizophrenic inpatients. *Psychopathology*, 42(2), 124–130. <https://doi.org/10.1159/000204763>
- Vonderlin, R., Kleindienst, N., Alpers, G. W., Bohus, M., Lyssenko, L., & Schmahl, C. (2018). Dissociation in victims of childhood abuse or neglect: A meta-analytic review. *Psychological Medicine*, 48(15), 2467–2476. <https://doi.org/10.1017/S0033291718000740>
- Vroling, M. S., & de Jong, P. J. (2009). Deductive Reasoning and Social Anxiety: Evidence for a Fear-confirming Belief Bias. *Cognitive Therapy and Research*, 33(6), 633–644. <https://doi.org/10.1007/s10608-008-9220-z>
- Wainipitapong, S., Millman, L. S. M., Huang, X., Wieder, L., Terhune, D. B., & Pick, S. (2025). Assessing dissociation: A systematic review and evaluation of existing measures. *Journal of Psychiatric Research*, 181, 91–98. <https://doi.org/10.1016/j.jpsychires.2024.11.040>
- Waller, N., Putnam, F. W., & Carlson, E. B. (1996). Types of dissociation and dissociative types: A taxometric analysis of dissociative experiences. *Psychological Methods*, 1(3), 300–321. <https://doi.org/10.1037/1082-989X.1.3.300>

- Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1, Supplement), S65–S71. <https://doi.org/10.1016/j.chest.2020.03.012>
- Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448–457. <https://doi.org/10.1037/h0027806>
- Wells, A., Clark, D. M., Salkovskis, P., Ludgate, J., Hackmann, A., & Gelder, M. (2016). Social Phobia: The Role of In-Situation Safety Behaviors in Maintaining Anxiety and Negative Beliefs – Republished Article. *Behavior Therapy*, 47(5), 669–674. <https://doi.org/10.1016/j.beth.2016.08.010>
- Yang, J., Millman, L. S. M., David, A. S., & Hunter, E. C. M. (2023). The prevalence of depersonalization-derealization disorder: A systematic review. *Journal of Trauma & Dissociation*, 24(1), 8–41. <https://doi.org/10.1080/15299732.2022.2079796>
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. Guilford Press.
- Yöyen, E., & Çaylak, İ. A. (2023). Investigation of Childhood Traumas, Emotion Regulation Processes and Dissociation as Predictives of Social Anxiety. *Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi*, 5(4), 303-312. <https://doi.org/10.35365/ctjpp.23.4.02>
- Zepinic, V. (2016). Disintegration of the Self-Structure Caused by Severe Trauma. *Psychology and Behavioral Sciences*, 5(4), Article 4. <https://doi.org/10.11648/j.pbs.20160504.12>

Appendix A Author Instructions for the Journal of Anxiety Disorders

About the journal

Aims and scope

Journal of Anxiety Disorders is a peer-reviewed journal dedicated to advancing the understanding, assessment, treatment, and prevention of anxiety disorders. The journal welcomes submissions on all aspects of anxiety disorders included in the current diagnostic classification system as well as on disorders formerly categorized as anxiety disorders (e.g., obsessive-compulsive disorder, posttraumatic stress disorder). Topics of interest related to anxiety disorders include **behavioral**, cognitive and biological assessments; diagnosis and classification; neuroscience and genetics; sociocultural considerations; mechanisms and comorbidities; epidemiology; psychosocial and psychopharmacological treatments; prevention; implementation science; theoretical advancement; and policy. Methodologies can include clinical trials, experimental paradigms, intensive longitudinal designs, mixed methods or qualitative approaches, among others. Review articles that adhere to rigorous, recommended guidelines, are preferably pre-registered, and significantly contribute to advancing knowledge in the field are also appropriate for submission. Theoretical advancements are also appropriate for submission.

The mission of the journal is three-fold. One goal is to promote **translational work** in anxiety disorders research, so that we can effectively bridge the gap between basic science, clinical research, implementation, practice, and policy. Another goal is to encourage **interdisciplinary research** integrating perspectives from diverse fields (e.g., psychology, psychiatry, neuroscience, genetics, social work, public health) and from different stakeholders (e.g., researchers, providers, funders, policy makers) to foster a comprehensive understanding of and interventions for anxiety disorders. The last goal is to enhance a **global focus**, welcoming research on diverse populations and across cultural contexts.

Article types

Manuscripts based on original research are limited to 6000 words of main text (i.e., not including cover page, Abstract, and references) and reviews, meta-analyses, and theoretical treatises will be limited to 8000 words of main text (i.e., not including cover page, Abstract, and references). Tables and figures will be limited to 5 each, regardless of manuscript type. Longer manuscripts may be considered on occasion where there is a strong and compelling rationale supported by editorial pre-approval.

Peer review

This journal follows a single anonymized review process. Your submission will initially be assessed by our editors to determine suitability for publication in this journal. If your submission is deemed suitable, it will typically be sent to a minimum of two reviewers for an independent expert assessment of the scientific quality. The decision as to whether your article is accepted or rejected will be taken by our editors.

Read more about [peer review](#).

Our editors are not involved in making decisions about papers which:

- they have written themselves.
- have been written by family members or colleagues.
- relate to products or services in which they have an interest.

Any such submissions will be subject to the journal's usual procedures and peer review will be handled independently of the editor involved and their research group. Read more about [editor duties](#).

Authors may submit a formal appeal request to the editorial decision, provided the it meets the requirements and follows the procedure outlined in [Elsevier's Appeal Policy](#). Only one appeal per submission will be considered and the appeal decision will be final.

Special issues and article collections

The peer review process for special issues and article collections follows the same process as outlined above for regular submissions, except, a guest editor may send the submissions out to the reviewers and may recommend a decision to the journal editor. The journal editor oversees the peer review process of all special issues and article collections to ensure the high standards of publishing ethics and responsiveness are respected and is responsible for the final decision regarding acceptance or rejection of articles.

Open access

We refer you to our [open access information page](#) to learn about open access options for this journal.

Ethics and policies

Ethics in publishing

Authors must follow ethical guidelines stated in [Elsevier's Publishing Ethics Policy](#).

Submission declaration

When authors submit an article to an Elsevier journal it is implied that:

- the work described has not been published previously except in the form of a preprint, an abstract, a published lecture, academic thesis or registered report. See our policy on [multiple, redundant or concurrent publication](#).
- the article is not under consideration for publication elsewhere.
- the article's publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out.
- if accepted, the article will not be published elsewhere in the same form, in English or in any other language, including electronically, without the written consent of the copyright-holder.

To verify compliance with our journal publishing policies, we may check your manuscript with our screening tools.

Authorship

All authors should have made substantial contributions to [all](#) of the following:

1. The conception and design of the study, or acquisition of data, or analysis and interpretation of data.
2. Drafting the article or revising it critically for important intellectual content.
3. Final approval of the version to be submitted.

Authors should appoint a corresponding author to communicate with the journal during the editorial process. All authors should agree to be accountable for all aspects of the work to ensure that the questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Changes to authorship

The editors of this journal generally will not consider changes to authorship once a manuscript has been submitted. It is important that authors carefully consider the authorship list and order of authors and provide a definitive author list at original submission.

The policy of this journal around authorship changes:

- All authors must be listed in the manuscript and their details [entered into](#) the submission system.
- Any addition, deletion or rearrangement of author names in the authorship list should only be made prior to acceptance, and only if approved by the journal editor.
- Requests to change authorship should be made by the corresponding author, who must provide the reason for the request to the journal editor with written confirmation from all authors, including any authors being added or removed, that they agree with the addition, removal or rearrangement.
- All requests to change authorship must be submitted using [this form](#). Requests which do not comply with the instructions outlined in the form will not be considered.
- Only in exceptional circumstances will the journal editor consider the addition, deletion or rearrangement of authors post acceptance.
- Publication of the manuscript may be paused while a change in authorship request is being considered.
- Any authorship [change](#) requests approved by the journal editor will result in a corrigendum if the manuscript has already been published.
- Any unauthorised authorship changes may result in the rejection of the article, or retraction, if the article has already been published.

Appendix A

Declaration of competing interests

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence or bias their work. Examples of potential competing interests include:

- Employment
- Consultancies
- Stock ownership
- Honoraria
- Paid expert testimony
- Patent applications or registrations
- Grants or any other funding

The [declarations tool](#) should always be completed.

Authors with no competing interests to declare should select the option, "I have nothing to declare".

The resulting Word document containing your declaration should be uploaded at the "attach/upload files" step in the submission process. It is important that the Word document is saved in the .doc/.docx file format. Author signatures are not required.

Funding sources

Authors must disclose any funding sources who provided financial support for the conduct of the research and/or preparation of the article. The role of sponsors, if any, should be declared in relation to the study design, collection, analysis and interpretation of data, writing of the report and decision to submit the article for publication. If funding sources had no such involvement this should be stated in your submission.

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants, scholarships and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of generative AI in scientific writing

Authors must declare the use of generative AI in scientific writing upon submission of the paper. The following guidance refers only to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process:

- Generative AI and AI-assisted technologies should only be used in the writing process to improve the readability and language of the manuscript.
- The technology must be applied with human oversight and control and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. Authors are ultimately responsible and accountable for the contents of the work.
- Authors must not list or cite AI and AI-assisted technologies as an author or co-author on the manuscript since authorship implies responsibilities and tasks that can only be attributed to and performed by humans.

The use of generative AI and AI-assisted technologies in scientific writing must be declared by adding a statement at the end of the manuscript when the paper is first submitted. The statement will appear in the published work and should be placed in a new section before the references list. An example:

- Title of new section: Declaration of generative AI and AI-assisted technologies in the writing process.

- Statement: During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.

The declaration does not apply to the use of basic tools, such as tools used to check grammar, spelling and references. If you have nothing to disclose, you do not need to add a statement.

Please read Elsevier's author policy on the use of generative AI and AI-assisted technologies, which can be found in our [GenAI Policies for journals](#).

Please note: to protect authors' rights and the confidentiality of their research, this journal does not currently allow the use of generative AI or AI-assisted technologies such as ChatGPT or similar services by reviewers or editors in the peer review and manuscript evaluation process, as is stated in our [GenAI Policies for journals](#). We are actively evaluating compliant AI tools and may revise this policy in the future.

Preprints

Preprint sharing

Authors may share preprints in line with Elsevier's [article sharing policy](#). Sharing preprints, such as on a preprint server, will not count as prior publication.

We advise you to read our policy on [multiple, redundant or concurrent publication](#).

Free preprint posting on SSRN

In support of [open science](#) this journal offers authors a free preprint posting service on [SSRN](#) to ensure early registration and dissemination of research and facilitate early citations and collaboration. Posting to SSRN is subject to SSRN's standard checks.

You will be provided with the option to release your manuscript on SSRN during the submission process. Agreeing to this option will have no effect on the editorial process or outcome, and your manuscript will remain publicly available and free to read on SSRN whether our editors accept or reject your manuscript.

You will receive an email when your preprint is posted online on [SSRN](#) and a Digital Object Identifier (DOI) is assigned.

Corresponding authors must seek approval from all co-authors before agreeing to release a manuscript publicly on SSRN.

We advise you to read about [SSRN](#), including the [SSRN Terms of Use](#) and [SSRN FAQs](#) before selecting this option.

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Authors should ensure their work uses inclusive language throughout and contains nothing which might imply one individual is superior to another on the grounds of:

- age
- gender
- race
- ethnicity
- culture
- sexual orientation
- disability or health condition

We recommend avoiding the use of descriptors about personal attributes unless they are relevant and valid. Write for gender neutrality with the use of plural nouns ("clinicians, patients/clients") as default. Wherever possible, avoid using "he, she," or "he/she."

No assumptions should be made about the beliefs of readers and writing should be free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions.

Appendix A

These guidelines are meant as a point of reference to help you identify appropriate language but are by no means exhaustive or definitive.

Reporting sex- and gender-based analyses

There is no single, universally agreed-upon set of guidelines for defining sex and gender. We offer the following guidance:

- Sex and gender-based analyses (SGBA) should be integrated into research design when research involves or pertains to humans, animals or eukaryotic cells. This should be done in accordance with any requirements set by funders or sponsors and best practices within a field.
- Sex and/or gender dimensions of the research should be addressed within the article or declared as a limitation to the generalizability of the research.
- Definitions of sex and/or gender applied should be explicitly stated to enhance the precision, rigor and reproducibility of the research and to avoid ambiguity or conflation of terms and the constructs to which they refer.

We advise you to read the [Sex and Gender Equity in Research \(SAGER\) guidelines](#) and the [SAGER checklist](#) (PDF) on the EASE website, which offer systematic approaches to the use of sex and gender information in study design, data analysis, outcome reporting and research interpretation.

For further information we suggest reading the rationale behind and recommended [use of the SAGER guidelines](#).

Definitions of sex and/or gender

We ask authors to define how sex and gender have been used in their research and publication. Some guidance:

- Sex generally refers to a set of biological attributes that are associated with physical and physiological features such as chromosomal genotype, hormonal levels, internal and external anatomy. A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth") and is in most cases based solely on the visible external anatomy of a newborn. In reality, sex categorizations include people who are intersex/have differences of sex development (DSD).
- Gender generally refers to socially constructed roles, behaviors and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society.

Jurisdictional claims

Elsevier respects the decisions taken by its authors as to how they choose to designate territories and identify their affiliations in their published content. Elsevier's policy is to take a neutral position with respect to territorial disputes or jurisdictional claims, including, but not limited to, maps and institutional affiliations. For journals that Elsevier publishes on behalf of a [third party](#) owner, the owner may set its own policy on these issues.

- Maps: Readers should be able to locate any study areas shown within maps using common mapping platforms. Maps should only show the area actually studied and authors should not include a location map which displays a larger area than the bounding box of the study area. Authors should add a note clearly stating that "*map lines delineate study areas and do not necessarily depict accepted national boundaries*". During the review process, Elsevier's editors may request authors to change maps if these guidelines are not followed.
- Institutional affiliations: Authors should use either the full, standard title of their institution or the standard abbreviation of the institutional name so that the institutional name can be independently verified for research integrity purposes.

Writing and formatting

File format

We ask you to provide editable source files for your entire submission (including figures, tables and text graphics). Some guidelines:

- Save files in an editable format, using the extension .doc/.docx for Word files and .tex for LaTeX files. A PDF is not an acceptable source file.
- Lay out text in a single-column format.

- Remove any strikethrough and underlined text from your manuscript, unless it has scientific significance related to your article.
- Use spell-check and grammar-check functions to avoid errors.

We advise you to read our [Step-by-step guide to publishing with Elsevier](#).

Title page

You are required to include the following details in the title page information:

- Article title. Article titles should be concise and informative. Please avoid abbreviations and formulae, where possible, unless they are established and widely understood, e.g., DNA).
- Author names. Provide the given name(s) and family name(s) of each author. The order of authors should match the order in the submission system. Carefully check that all names are accurately spelled. If needed, you can add your name between parentheses in your own script after the English transliteration.
- Affiliations. Add affiliation addresses, referring to where the work was carried out, below the author names. Indicate affiliations using a lower-case superscript letter immediately after the author's name and in front of the corresponding address. Ensure that you provide the full postal address of each affiliation, including the country name and, if available, the email address of each author.
- Corresponding author. Clearly indicate who will handle correspondence for your article at all stages of the refereeing and publication process and also post-publication. This responsibility includes answering any future queries about your results, data, methodology and materials. It is important that the email address and contact details of your corresponding author are kept up to date during the submission and publication process.
- Present/permanent address. If an author has moved since the work described in your article was carried out, or the author was visiting during that time, a "present address" (or "permanent address") can be indicated by a footnote to the author's name. The address where the author carried out the work must be retained as their main affiliation address. Use superscript Arabic numerals for such footnotes.

Abstract

You are required to provide a concise and factual abstract which does not exceed 250 words. The abstract should briefly state the purpose of your research, principal results and major conclusions. Some guidelines:

- Abstracts must be able to stand alone as abstracts are often presented separately from the article.
- Avoid references. If any are essential to include, ensure that you cite the author(s) and year(s).
- Avoid non-standard or uncommon abbreviations. If any are essential to include, ensure they are defined within your abstract at first mention.

Keywords

You are required to provide 1 to 7 keywords for indexing purposes. Keywords should be written in English. Please try to avoid keywords consisting of multiple words (using "and" or "of").

We recommend that you only use abbreviations in keywords if they are firmly established in the field.

Highlights

You are required to provide article highlights at submission.

Highlights are a short collection of bullet points that should capture the novel results of your research as well as any new methods used during your study. Highlights will help increase the discoverability of your article via search engines. Some guidelines:

- Submit highlights as a separate editable file in the online submission system with the word "highlights" included in the file name.
- Highlights should consist of 3 to 5 bullet points, each a maximum of 85 characters, including spaces.

We encourage you to view example [article highlights](#) and read about the benefits of their inclusion.

Appendix A

Graphical abstract

You are encouraged to provide a graphical abstract at submission.

The graphical abstract should summarize the contents of your article in a concise, pictorial form which is designed to capture the attention of a wide readership. A graphical abstract will help draw more attention to your online article and support readers in digesting your research. Some guidelines:

- Submit your graphical abstract as a separate file in the online submission system.
- Ensure the image is a minimum of 531 x 1328 pixels (h x w) or proportionally more and is readable at a size of 5 x 13 cm using a regular screen resolution of 96 dpi.
- Our preferred file types for graphical abstracts are TIFF, EPS, PDF or MS Office files.

We encourage you to view example [graphical abstracts](#) and read about the benefits of including them.

Math formulae

- Submit math equations as editable text, not as images.
- Present simple formulae in line with normal text, where possible.
- Use the solidus (/) instead of a horizontal line for small fractional terms such as X/Y.
- Present variables in italics.
- Denote powers of e by exp.
- Display equations separately from your text, numbering them consecutively in the order they are referred to within your text.

Tables

Tables must be submitted as editable text, not as images. Some guidelines:

- Place tables next to the relevant text or on a separate page(s) at the end of your article.
- Cite all tables in the manuscript text.
- Number tables consecutively according to their appearance in the text.
- Please provide captions along with the tables.
- Place any table notes below the table body.
- Avoid vertical rules and shading within table cells.

We recommend that you use tables sparingly, ensuring that any data presented in tables is not duplicating results described elsewhere in the article.

Figures, images and artwork

Figures, images, artwork, diagrams and other graphical media must be supplied as separate files along with the manuscript. We recommend that you read our detailed [artwork and media instructions](#). Some excerpts:

When submitting artwork:

- Cite all images in the manuscript text.
- Number images according to the sequence they appear within your article.
- Submit each image as a separate file using a logical naming convention for your files (for example, Figure_1, Figure_2 etc).
- Please provide captions for all figures, images, and artwork.
- Text graphics may be embedded in the text at the appropriate position. If you are working with LaTeX, text graphics may also be embedded in the file.

Artwork formats

When your artwork is finalized, "save as" or convert your electronic artwork to the formats listed below [taking into account](#) the given resolution requirements for line drawings, halftones, and line/halftone combinations:

- Vector drawings: Save as EPS or PDF files embedding the font or saving the text as "graphics."
- [Color](#) or grayscale photographs (halftones): Save as TIFF, JPG or PNG files using a minimum of 300 dpi (for single column: min. 1063 pixels, full page width: 2244 pixels).
- Bitmapped line drawings: Save as TIFF, JPG or PNG files using a minimum of 1000 dpi (for single column: min. 3543 pixels, full page width: 7480 pixels).
- Combinations bitmapped line/halftones ([color](#) or grayscale): Save as TIFF, JPG or PNG files using a minimum of 500 dpi (for single column: min. 1772 pixels, full page width: 3740 pixels).

Please do not submit:

- files that are too low in resolution (for example, files optimized for screen use such as GIF, BMP, PICT or WPG files).
- disproportionately large images compared to font size, as text may become unreadable.

Figure captions

All images must have a caption. A caption should consist of a brief title (not displayed on the figure itself) and a description of the image. We advise you to keep the amount of text in any image to a minimum, though any symbols and abbreviations used should be explained.

Provide captions in a separate file.

Color artwork

If you submit usable [color](#) figures with your accepted article, we will ensure that they appear in [color](#) online.

Please ensure that [color](#) images are accessible to all, including those with impaired [color](#) vision. Learn more about [color and web accessibility](#).

Generative AI and Figures, images and artwork

Please read our policy on the use of generative AI and AI-assisted tools in figures, images and artwork, which can be found in Elsevier's [GenAI Policies for Journals](#). This policy states:

- We do not permit the use of Generative AI or AI-assisted tools to create or alter images in submitted manuscripts.
- The only exception is if the use of AI or AI-assisted tools is part of the research design or methods (for example, in the field of biomedical imaging). If this is the case, such use must be described in a reproducible manner in the methods section, including the name of the model or tool, version and extension numbers, and manufacturer.
- The use of generative AI or AI-assisted tools in the production of artwork such as for graphical abstracts is not permitted. The use of generative AI in the production of cover art may in some cases be allowed, if the author obtains prior permission from the journal editor and publisher, can demonstrate that all necessary rights have been cleared for the use of the relevant material, and ensures that there is correct content attribution.

Supplementary material

We encourage the use of supplementary materials such as applications, images and sound clips to enhance research. Some guidelines:

- Supplementary material should be accurate and relevant to the research.
- Cite all supplementary files in the manuscript text.
- Submit supplementary materials at the same time as your article. Be aware that all supplementary materials provided will appear online in the exact same file type as received. These files will not be formatted or typeset by the production team.
- Include a concise, descriptive caption for each supplementary file describing its content.
- Provide updated files if at any stage of the publication process you wish to make changes to submitted supplementary materials.
- Do not make annotations or corrections to a previous version of a supplementary file.
- Switch off the option to track changes in Microsoft Office files. If tracked changes are left on, they will appear in your published version.

Appendix A

Video

This journal accepts video material and animation sequences to support and enhance your scientific research. We encourage you to include links to video or animation files within articles. Some guidelines:

- When including video or animation file links within your article, refer to the video or animation content by adding a note in your text where the file should be placed.
- Clearly label files ensuring the given file name is directly related to the file content.
- Provide files in one of our [recommended file formats](#). Files should be within our preferred maximum file size of 150 MB per file, 1 GB in total.
- Provide "stills" for each of your files. These will be used as standard icons to personalize the link to your video data. You can choose any frame from your video or animation or make a separate image.
- Provide text (for both the electronic and the print version) to be placed in the portions of your article that refer to the video content. This is essential text, as video and animation files cannot be embedded in the print version of the journal.

We publish all video and animation files supplied in the electronic version of your article.

For more detailed instructions, we recommend that you read our guidelines on [submitting video content to be included in the body of an article](#).

Research data

We are committed to supporting the storage of, access to and discovery of research data, and our [research data policy](#) sets out the principles guiding how we work with the research community to support a more efficient and transparent research process.

Research data refers to the results of observations or experimentation that validate research findings, which may also include software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Please read our guidelines on [sharing research data](#) for more information on depositing, sharing and using research data and other relevant research materials.

For this journal, the following instructions from our [research data guidelines](#) apply.

Option B: Research data deposit, citation and linking

You are **encouraged** to:

- Deposit your research data in a relevant data repository.
- Cite and link to this dataset in your article.
- If this is not possible, make a statement explaining why research data cannot be shared.

Data statement

To foster transparency, you are encouraged to state the availability of any data at submission.

Ensuring data is available may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you can state the reason why (e.g., your research data includes sensitive or confidential information such as patient data) during the submission process. This statement will appear with your published article on ScienceDirect.

Read more about the importance and benefits of providing a [data statement](#).

Data linking

Linking to the data underlying your work increases your exposure and may lead to new collaborations. It also provides readers with a better understanding of the described research.

If your research data has been made available in a data repository there are [a number of](#) ways your article can be linked directly to the dataset:

- Provide a link to your dataset when prompted during the online submission process.
- For some data repositories, a repository banner will automatically appear next to your published article on ScienceDirect.
- You can also link relevant data or entities within the text of your article [through the use of](#) identifiers. Use the following format: Database: 12345 (e.g. TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Learn more about [linking research data and research articles in ScienceDirect](#).

Research Elements

This journal enables the publication of research objects (e.g. data, methods, protocols, software and hardware) related to original research in [Elsevier's Research Elements journals](#).

Research Elements are peer-reviewed, open access journals which make research objects findable, accessible and reusable. By providing detailed descriptions of objects and their application with links to the original research article, your research objects can be placed into context within your article.

You will be alerted during submission to the opportunity to submit a manuscript to one of the Research Elements journals. Your Research Elements article can be prepared by you, or by one of your collaborators.

Article structure

Article sections

- Divide your article into clearly defined and numbered sections. Number subsections 1.1 (then 1.1.1, 1.1.2, ...), then 1.2, etc.
- Use the numbering format when cross-referencing within your article. Do not just refer to "the text."
- You may give subsections a brief heading. Headings should appear on a separate line.
- Do not include the article abstract within section numbering.

Theory and calculation

The theory section should lay the foundation for further work by extending the background you provided in the introduction to your article. The calculation section should represent a practical development from a theoretical basis.

Glossary

Please provide definitions of field-specific terms used in your article, in a separate list.

Acknowledgements

Include any individuals who provided you with help during your research, such as help with language, writing or proof reading, in the acknowledgements section. Acknowledgements should be placed in a separate section which appears directly before the reference list. Do not include acknowledgements on your title page, as a footnote to your title, or anywhere else in your article other than in the separate acknowledgements section.

Author contributions: ~~CRediT~~

Corresponding authors are required to acknowledge co-author contributions using ~~CRediT~~ ([Contributor Roles Taxonomy](#)) roles:

- Conceptualization
- Data curation
- Formal analysis
- Funding acquisition
- Investigation
- Methodology
- Project administration
- Resources
- Software

Appendix A

- Supervision
- Validation
- Visualization
- Writing – original draft
- Writing – review and editing

Not all [CRediT](#) roles will apply to every manuscript and some authors may contribute through multiple roles.

We advise you to read [more about CRediT](#) and view an [example of a CRediT author statement](#).

Funding sources

Authors must disclose any funding sources who provided financial support for the conduct of the research and/or preparation of the article. The role of sponsors, if any, should be declared in relation to the study design, collection, analysis and interpretation of data, writing of the report and decision to submit the article for publication. If funding sources had no such involvement this should be stated in your submission.

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers [xxxx](#), [yyyy](#)]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number [zzzz](#)]; and the United States Institutes of Peace [grant number [aaaa](#)].

It is not necessary to include detailed descriptions on the program or type of grants, scholarships and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Appendices

We ask you to use the following format for appendices:

- Identify individual appendices within your article using the format: A, B, etc.
- Give separate numbering to formulae and equations within appendices using formats such as Eq. (A.1), Eq. (A.2), etc. and in subsequent appendices, Eq. (B.1), Eq. (B. 2) etc. In a similar way, give separate numbering to tables and figures using formats such as Table A.1; Fig. A.1, etc.

References

References within text

Any references cited within your article should also be present in your reference list and vice versa. Some guidelines:

- References cited in your abstract must be given in full.
- We recommend that you do not include unpublished results and personal communications in your reference list, though you may mention them in the text of your article.
- Any unpublished results and personal communications included in your reference list must follow the standard reference style of the journal. In substitution of the publication date add "unpublished results" or "personal communication."
- References cited as "in press" imply that the item has been accepted for publication.

Linking to cited sources will increase the discoverability of your research.

Before submission, check that all data provided in your reference list are correct, including any references which have been copied. Providing correct reference data allows us to link to abstracting and indexing services such as Scopus, [Crossref](#) and PubMed. Any incorrect surnames, journal or book titles, publication years or pagination within your references may prevent link creation.

We encourage the use of Digital Object Identifiers (DOIs) as reference links as they provide a permanent link to the electronic article referenced.

Reference format

This journal does not [set](#) strict requirements on reference formatting at submission. Some guidelines:

- References can be in any style or format [as long as](#) the style is consistent.
- Author names, journal or book titles, chapter or article titles, year of publication, volume numbers, article numbers or pagination must be included, where applicable.
- Use of DOIs is recommended.

Our journal reference style will be applied to your article after acceptance, at proof stage. If required, at this stage we will ask you to correct or supply any missing reference data.

Web references

When listing web references, as a minimum you should provide the full URL and the date when the reference was last accessed. Additional information (e.g. DOI, author names, dates or reference to a source publication) should also be provided, if known.

You can list web references separately under a new heading directly after your reference list or include them in your reference list.

Data references

We encourage you to cite underlying or relevant datasets within article text and to list data references in the reference list.

When citing data references, you should include:

- author name(s)
- dataset title
- data repository
- version (where available)
- year
- global persistent identifier

Add [dataset] immediately before your reference. This will help us to properly identify the dataset. The [dataset] identifier will not appear in your published article.

Preprint references

We ask you to mark preprints clearly. You should include the word "preprint" or the name of the preprint server as part of your reference and provide the preprint DOI.

Where a preprint has subsequently become available as a peer-reviewed publication, use the formal publication as your reference.

If there are preprints that are central to your work or that cover crucial developments in the topic, but they are not yet formally published, you may reference the preprint.

Reference management software

Most Elsevier journals have their reference template available in popular reference management software products. These include products that support [Citation Style Language \(CSL\)](#) such as [Mendeley Reference Manager](#).

If you use a citation plug-in from these products, select the relevant journal template and all your citations and bibliographies will automatically be formatted in the journal style. We advise you to [remove all field codes](#) before submitting your manuscript to any reference management software product.

Appendix B Author Instructions for the Cognitive Behaviour Therapist



| Browse Services Open research Institution Login Search

Home > Journals > the Cognitive Behaviour Therapist > Journal information > Author instructions

English | Français

the Cognitive Behaviour Therapist

Search the Cognitive Behaviour Therapist

Search within full text

Other actions



(<http://www.babcp.com/Default.aspx>)

www.babcp.com

Published on behalf of the British Association for Behavioural and Cognitive Psychotherapies

Author instructions

Aims and Scope

The *Cognitive Behaviour Therapist* is published for the British Association for Behavioural and Cognitive Psychotherapies and is the sister journal to *Behavioural and Cognitive Psychotherapy* (<https://www.cambridge.org/core/journals/behavioural-and-cognitive-psychotherapy>)

The *Cognitive Behaviour Therapist* is an interdisciplinary peer reviewed journal aimed at CBT practitioners. Published online, the journal will publish a range of types of papers (see below for a full description of each) that support CBT therapists in improving their delivery of CBT, supervision and training and/or develop our knowledge and understanding of CBT across all areas.

A particular feature of the journal is that its electronic nature is designed to ensure timeliness of publication and professional debate whilst also ensuring rigorous standards in the dissemination of high-quality materials with relevance to the practice of the cognitive and behaviour therapies.

Editorial Governance

The *Cognitive Behaviour Therapist* encompasses most areas of human behaviour and experience, and represents many different research methods, from quantitative to qualitative research, how to flexibly implement specific clinical interventions right through to detailed case studies. Under the guidance of its editorial board the *Cognitive Behaviour Therapist* aims to reflect and influence the continuing changes in the concepts, methodology, and techniques within the cognitive and behaviour therapies.

Editorial Statement – scope of journal content

The Editors welcome authoritative contributions from people involved, in the practice, research, education, training and supervision in the cognitive and behaviour therapies. Articles must be original and focused upon cognitive and/or behaviour therapy. There is no formal word limit but concision is recommended.

In terms of subject areas, our scope includes

- the delivery of CBT
- supervision of CBT
- training in CBT
- service model and forms of delivery of CBT.

Papers on these subject areas may fit within any of the types of papers detailed below.

Papers should be submitted online at <https://mc.manuscriptcentral.com/cbt> (<https://mc.manuscriptcentral.com/cbt>)

Manuscripts should be submitted with any identifiers removed for blind review. If authors fail to omit identifiers, anonymised review cannot be guaranteed.

The Editor-in-Chief and Editorial Team will make an initial decision on whether submitted papers fall within the remit of the journal and/or are of sufficient interest and importance to warrant full review.

Types of Paper

Original Research*

Research evidence is at the heart of the practice of cognitive and behavioural psychotherapists. Original research will be published that directly relevant to the practice of CBT, such as the therapeutic relationship, therapeutic process and the evaluation of therapeutic strategies and techniques. It is expected that such reports meet both the necessary standards of scientific rigour and the journal's requirement of clear implications for the practice of CBT. Consequently, the description of the research and the presentation of results should be sufficiently brief to enable sufficient discussion of the practice implications. Consideration will be given to quantitative, qualitative and mixed approaches given appropriate fit between the question, methodology and research methods chosen.

For examples see:

Hutton, J., Ellett, L., & Berry, K. (2017). Adult attachment and paranoia: An experimental investigation. *The Cognitive Behaviour Therapist*, 10, E4. doi:10.1017/S1754470X17000058

Kobori, O., Salkovskis, P., Pagdin, R., Read, J., & Halldorsson, B. (2017). Carer's perception of and reaction to reassurance seeking in obsessive compulsive disorder. *The Cognitive Behaviour Therapist*, 10, E7. doi:10.1017/S1754470X17000095

McManus, F., Leung, C., Muse, K., & Williams, J. (2014). Understanding 'cyberchondria': An interpretive phenomenological analysis of the purpose, methods and impact of seeking health information online for those with health anxiety. *The Cognitive Behaviour Therapist*, 7, E21. doi:10.1017/S1754470X14000270

This category of paper type could also include single-case experimental design research or a case series.

For example see:

Thomson, C., Wilson, R., Collerton, D., Freeston, M., & Dudley, R. (2017). Cognitive behavioural therapy for visual hallucinations: An investigation using a single-case experimental design. *The Cognitive Behaviour Therapist*, 10, E10. doi:10.1017/S1754470X17000174

Empirically Grounded Clinical Guidance Papers*

Some of the most widely-read and discussed papers in tCBT have been those that are the synthesis of clinical experience, using informed reasoning to link limited direct evidence in the field with evidence from wider fields.

tCBT is very keen to consider submission of such papers in relevant fields that are of interest to CBT therapists, supervisors and trainers. These tend to be written by experts in the field and are designed to solve specific practical problems or clarify gaps in our knowledge. Ideally they lead to practical implications and recommendations whilst generating hypotheses for future research.

For examples see:

Barton, S., Armstrong, P., Wicks, L., Freeman, E., & Meyer, T. (2017). Treating complex depression with cognitive behavioural therapy. *the Cognitive Behaviour Therapist*, 10, E17.

Appendix B

Duffy, M., & Wild, J. (2017). A cognitive approach to persistent complex bereavement disorder (PCBD). *the Cognitive Behaviour Therapist*, 10, E16.

Freeston, M., Tiplady, A., Mawn, L., Bottesi, G., & Thwaites, S. (2020). Towards a model of uncertainty distress in the context of Coronavirus (COVID-19). *The Cognitive Behaviour Therapist*, 13, E31. doi:10.1017/S1754470X2000029X

Freeston, M., Thwaites, R., & Bennett-Levy, J. (2019). 'Courses for Horses': Designing, adapting and implementing self-practice/self-reflection programmes. *The Cognitive Behaviour Therapist*, 12, E28.

Menzies, R., & Menzies, R. (2020). Death anxiety in the time of COVID-19: Theoretical explanations and clinical implications. *The Cognitive Behaviour Therapist*, 13, E19. doi:10.1017/S1754470X20000215

Murray, H., Merritt, C., & Grey, N. (2015). Returning to the scene of the trauma in PTSD treatment - why, how and when? *the Cognitive Behaviour Therapist*, 8, 1–12.

Murray, H., Pethania, Y., & Medin, E. (2021). Survivor guilt: A cognitive approach. *The Cognitive Behaviour Therapist*, 14, E28. doi:10.1017/S1754470X21000246

Warnock-Parkes, E., Wild, J., Thew, G., Kerr, A., Grey, N., Stott, R., . . . Clark, D. (2020). Treating social anxiety disorder remotely with cognitive therapy. *The Cognitive Behaviour Therapist*, 13, E30. doi:10.1017/S1754470X2000032X

Young, K., Chessell, Z., Chisholm, A., Brady, F., Akbar, S., Vann, M., . . . Dixon, L. (2021). A cognitive behavioural therapy (CBT) approach for working with strong feelings of guilt after traumatic events. *The Cognitive Behaviour Therapist*, 14, E26. doi:10.1017/S1754470X21000192

Case Studies*

Dissemination of effective practice will be promoted through the publication of case studies that involve CBT with individuals, couples, groups and families. A suggested template is provided which is designed to ensure sufficient information is provided to allow other therapists to replicate successful therapy. All articles must include 3-5 learning objectives that will be achieved through reading the article. At the end of each paper a summary of the main practice points should be included with suggestions for follow-up reading. This stipulation is in keeping with the practitioner and professional development aims of the journal.

The case study should contribute to the development of theory or clinical practice, and feed into CBT practice as a whole rather than just relating to the specific case. Case studies should generally follow this structure:

- Abstract
- Key Learning Points
- Introduction: including an outline of theoretical research and clinical literature relevant to the case
- Presenting problem: including information on the presenting problem and associated goals of treatment, diagnosis, relevant history and development of problems, scores on standard and idiographic measures, relevant history
- Formulation: including a relevant theory-based CBT model used as a framework.
- Course of therapy: including methods used linked to theory and assessment of progress; difficulties encountered and any innovations in therapy
- Outcome: including clinical change, progress towards goals, change to measures, plans for follow-up
- Discussion: including relating to theory and evidence-base as well as reflections on own practice; implications for therapy and recommendations for other clinicians
- Key Practice Points
- Further Reading

For examples see:

Bernstein, R., Angell, K., & Dehle, C. (2013). A brief course of cognitive behavioural therapy for the treatment of misophonia: A case example. *The Cognitive Behaviour Therapist*, 6, E10. doi:10.1017/S1754470X13000172

Jenkins, P. (2017). Can temporary cessation of CBT really be therapeutic? A case study. *The Cognitive Behaviour Therapist*, 10, E8. doi:10.1017/S1754470X17000101

In addition to clinical case studies, there may be case studies related to training or supervision which would require a slightly amended structure to the one outline above.

Invited Papers*

At times tCBT will invite papers on specific issues where there is a gap in the clinical literature. This may involve commissioning papers directly from experts in a particular area or this may be a call to the wider CBT community.

Reviews*

Reviews of historical, contemporary, or innovative approaches to practice are also sought providing that they demonstrate relevance to the practice of the current cognitive and behavioural psychotherapies. Prospective authors for review papers should initially discuss their proposals with the Editor-in-Chief.

Reviews of Assessment Tools and Methods*

Reviews of clinical scales and other assessment methods will also be considered.

These reviews should provide the practitioner with a review of a scale's or other tool's purpose and properties, sufficient information to know how and when to use it, and how to interpret the results and make use of them. All articles must include a set of 3-5 learning objectives that will be achieved through reading the paper. At the end of each paper a summary of the main points from the paper must be included with suggestions for follow-up reading. This stipulation is in keeping with the practitioner and professional development aims of the journal.

For examples see:

Hyland, P., Shevlin, M., Adamson, G., & Boduszek, D. (2013). The factor structure and composite reliability of the Profile of Emotional Distress. *The Cognitive Behaviour Therapist*, 6, E15. doi:10.1017/S1754470X13000214

Reiser, R., Cliffe, T., & Milne, D. (2018). An improved competence rating scale for CBT Supervision: Short-SAGE. *The Cognitive Behaviour Therapist*, 11, E7. doi:10.1017/S1754470X18000065

Service Models, Forms of Delivery and Cultural Adaptations of CBT*

The service model is the clinical and operational framework that exists to support the therapist with the delivery of cognitive behavioural therapies. Description and evaluation of innovative clinical service models (both in the UK and internationally) and delivery formats that can be generalised to other services will be considered for publication. Audits will only be considered if they are of wider interest and value in informing the work of other services.

tCBT is keen to publish research that either expands the evidence base for previously under-represented groups or work that describes and evaluates cultural adaptations that are required for different populations.

For examples see:

Jankowska, M. (2019). Cultural modifications of cognitive behavioural treatment of social anxiety among culturally diverse clients: A systematic literature review. *The Cognitive Behaviour Therapist*, 12, E7. doi:10.1017/S1754470X18000211

King, D., & Said, G. (2019). Working with unaccompanied asylum-seeking young people: Cultural considerations and acceptability of a cognitive behavioural group approach. *The Cognitive Behaviour Therapist*, 12, E11. doi:10.1017/S1754470X18000260

Thew, G. (2020). IAPT and the internet: The current and future role of therapist-guided internet interventions within routine care settings. *The Cognitive Behaviour Therapist*, 13, E4. doi:10.1017/S1754470X20000033

Thew, G., MacCallam, J., Salkovskis, P., & Suntharalingam, J. (2017). Developing and evaluating psychological provision in the acute hospital setting for patients with chronic respiratory disease. *The Cognitive Behaviour Therapist*, 10, E5. doi:10.1017/S1754470X17000071

Education and Supervision*

The dissemination of effective cognitive and behaviour therapy through evidence based education and supervision strategies is important to ensure that service users receive proficient therapy and therapists remain up to date. This section will explore educational models, evaluations of innovative education strategies and approaches to the supervision of practice within the cognitive and behavioural psychotherapies. All articles must include a set of 3-5 learning objectives that will be achieved through reading the paper. At the end of each paper a summary of the main points from the paper must be included with suggestions for follow-up reading. This stipulation is in keeping with the practitioner and professional development aims of the journal.

Appendix C EPHPP Quality Assessment Ratings

Author(s)	Selection bias	Study design	Confounders	Data collection methods	Withdrawals and dropouts	Analysis	Global rating
Ball et al. (1997)	W	W	W	S	N/A	S	W
Belli et al. (2017)	M	W	W	S	N/A	S	W
Cook and Newins (2021)	W	W	W	S	N/A	S	W
Cook et al. (2020)	W	W	W	S	N/A	S	W
Evren et al. (2009)	S	W	S	S	N/A	S	M
Gül et al. (2014)	W	W	W	S	N/A	S	W

Appendix C

Harris (2007)	W	W	S	S	N/A	S	W
Hinrichsen et al. (2003)	W	W	W	S	N/A	S	W
Hoyer et al. (2013)	W	W	S	S	N/A	S	W
Michal et al. (2005)	W	W	W	S	N/A	S	W
Michal et al. (2006)	W	W	S	S	N/A	S	W
Myers and Llera (2020)	W	W	W	S	N/A	S	W
Schweden et al. (2016)	M	S	W	S	N/A	S	M
Soffer-Dudek and Somer (2018)	W	M	M	S	M	S	M

Appendix C

Welford (1999)	W	W	W	S	N/A	S	W
Yöyen and Çaylak (2023)	W	W	M	S	N/A	S	W

Appendix D Dissociation measures included in the systematic review

Study count in review	Measure (authors)	Construct measured	Number of items	Cronbach's α (source)
6	Cambridge Depersonalisation Scale (Sierra & Berrios, 2000)	Depersonalisation and derealisation	29	.89 (Sierra & Berrios, 2000)
1	Clinician Administered Dissociative States Scale (Bremner et al., 1998)	State dissociation	27	.94 (Bremner et al., 1998)
1	Curious Experiences Survey (, 1999))	Trait dissociation	31	.90 (Goldberg, 1999)
2	Dissociation Questionnaire (Vanderlinden et al., 1993)	Trait dissociation	30	.96 (Vanderlinden et al., 1993)
6	Dissociative Experiences Scale (Carlson & Putnam, 1993)	Trait dissociation	28	.93 (Ijzendoorn & Schuengel, 1996)
1	Scale of Dissociative Activities (Mayer & Farmer, 2010)	Everyday dissociative behaviours	63	.95 (Mayer & Farmer, 2010)

Note. All measures listed above are self-report questionnaires. Three studies in this review also used the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D; Steinberg, 1994).

Appendix E Social anxiety measures included in the systematic review

Study count in review	Measure (authors)	Construct measured	Number of items	Cronbach's α (source)
2	Brief Fear of Negative Evaluation Scale (Leary, 1983)	Fear of negative evaluation	12	.97 (Collins et al., 2005)
2	Fear of Negative Evaluation Scale (Watson & Friend, 1969)	Fear of negative evaluation	30	KR-20 = .94 (Watson & Friend, 1969)
9	Liebowitz Social Anxiety Scale (Liebowitz, 1987)	Social anxiety (fear and avoidance)	24	.96 (Heimberg et al., 1999)
1	Mini Social Phobia Inventory (Connor et al., 2001)	General social phobia symptoms	3	.91 (Seeley-Wait et al., 2009)
1	Social Avoidance and Distress Scale (Watson & Friend, 1969)	Social avoidance and distress	28	KR-20 = .94 (Watson & Friend, 1969)
4	Social Interaction Anxiety Scale (Mattick & Clarke, 1998)	Social interaction anxiety	20	.88-.93 (Mattick & Clarke, 1998)
3	Social Phobia Anxiety Inventory (Turner et al., 1989)	Trait social anxiety	45	.85-.96 (Turner et al., 1989)
4	Social Phobia Scale (Mattick & Clarke, 1998)	Fear of scrutiny/performance anxiety	20	.89-.94 (Mattick & Clarke, 1998)

Note. All measures listed above are self-report questionnaires. One study in this review also used the Munich-Composite International Diagnostic Interview (M-CIDI; Wittchen & Pfister, 1997)

Appendix F Research Advertisement Poster

RESEARCH PARTICIPANTS NEEDED How We Measure Dissociation and Personality

WHAT IS THIS STUDY ABOUT?

- Dissociation is a disconnection between a person's thoughts, memories, feelings, actions or sense of who they are.
- We are researching a new measure of dissociation and personality.



WHO CAN TAKE PART?

- Adults, aged between 18-65 years.
- Diagnosed with at least one mental health condition by a mental health professional.
- Ability to read and write English.

WHAT DOES IT INVOLVE?

- Complete four questionnaires about dissociation and mental health experiences.
- Complete the same questionnaires again 14 days later.
- 20-30 minutes each time you complete the four questionnaires.

BENEFITS OF TAKING PART?

Enter a prize draw for a chance of winning 1 of 10 £10

Amazon vouchers each time you complete the survey (the survey can be completed up to two times).



WANT MORE INFORMATION?

If you're interested in taking part, scan the QR code
or use the URL below.

https://southampton.qualtrics.com/jfe/form/SV_b8lghJ2ELuHOqwu



ERGO: 90495; IRAS: 335221

11.08.2024; Version 3

Email: D-ISS@soton.ac.uk



Hampshire and
Isle of Wight Healthcare
NHS Foundation Trust



University of
Southampton

Appendix G Information for Clinicians

RESEARCH PARTICIPANTS WANTED – CAN YOU AND/OR YOUR TEAM HELP?



RESEARCH TOPIC AND AIMS

The Dissociation Integration of Self-States Scale (D-ISS) is a 25-item self-report measure, developed to measure dissociation between 'self-states'. This measure can be used to identify dissociation in terms of personality and sense of self. The measure includes a comprehensive definition of self-states to allow patients to be able to complete this form with or without the assistance of a clinician.

This measure has previously been validated with a non-clinical sample. The aim of this study is to assess the psychometric properties (e.g. validity, reliability, and sub-scales) of the D-ISS within a clinical sample. We are aiming to recruit a minimum of 100 participants across multiple organisations including the NHS and private sector.

INCLUSION CRITERIA

- Adults aged between 18-65 years
- Diagnosed with at least one mental health condition by a mental health professional
- Able to read and understand English to contribute to the data collection required for the research
- Able to complete an online survey using a device such as a smart phone, tablet, or computer
- Capacity to consent to participating in the study

WHAT TO EXPECT (FOR CLINICIANS AND PATIENTS)

Clinicians would share a handout (provided by the research team) with eligible patients, which includes a QR code and link for participants to access the online participant information sheet, consent form and survey. If a key worker is concerned about a patient's capacity and therefore identifies a need to request a formal capacity assessment for consenting to and accessing this research, we would require this to be undertaken within the NHS service by a suitably qualified professional, prior to them accessing this study. Participants will be asked to complete an online survey consisting of several measures of dissociation and mental health:

- Brief demographic form (age, gender, ethnicity and mental health diagnoses)
- Dissociative Experiences Scale (DES-II)
- Wessex Dissociation Scale (WDS)
- Dissociation Integration of Self-States Scale (D-ISS)
- Clinical Routines in Routine Evaluation (CORE-OM)

Based on PPI feedback, we expect completing the online survey to take up to 20-30 minutes for most participants. **Participants can complete the survey in their own time, to minimise the impact on services and clinicians. Participants will have the option of completing the survey a second time two weeks later.** Participants will be debriefed and provided signposting information for supportive services/charities including Mind and the Samaritans. **Participants will be encouraged to speak to their key worker/clinician if they are experiencing distress and require further support.**

CONFIDENTIALITY AND ANONYMITY

Only the research team and University of Southampton will have access to the survey data, the data is anonymised upon submission, therefore we will be unable to identify participants based on their data.

TO SAY THANK YOU...

- **Participants will receive a £5 Amazon voucher when completing the survey for the first time and an additional £5 Amazon voucher if they opt to complete the survey again two weeks later.**
- Clinicians supporting our recruitment effort will be sent a copy of the findings and final report, in addition to a digital copy of the D-ISS with scoring instructions.

ETHICAL APPROVAL

This research is sponsored by the University of Southampton and will receive governance approval from the University of Southampton (ERGO: 90945) and ethical approval from the Health Research Authority (IRAS: 33521).

CONTACTS

Please contact the D-ISS research team if you want to be involved and/or have any queries (D-ISS@soton.ac.uk).

Appendix H Participant Information Sheet and Online Consent Form

Participant Information Sheet

Study Title: Investigating the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample

Researcher(s): Jamie Barton, Dr Tess Maguire and Dr Fiona Kennedy

ERGO number: 90495

IRAS number: 335221

You are being invited to take part in the above research study. To help you decide whether you would like to take part or not, it is important that you understand why the research is being done and what it will involve. Please read the information below carefully and ask questions if anything is not clear or you would like more information before you decide to take part in this research. You may like to discuss it with others, but it is up to you to decide whether or not to take part. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

My name is Jamie Barton, and I am a Trainee Clinical Psychologist and Postgraduate Researcher at the University of Southampton. This research represents the thesis project required to be awarded a Doctorate in Clinical Psychology (DClinPsych). This research will be overseen by the School of Psychology within the university and has been fully sponsored by the University of Southampton.

This study examines the measurement of dissociation, the experience of personality, and the potential impact of mental health on these phenomena. Previous research suggests a connection between dissociation and poorer treatment outcomes in psychological therapy. Thus, early detection and intervention for dissociation are crucial in the provision of psychological therapy.

The purpose of this study is to assess a new scale for identifying and measuring dissociation in terms of sense of identity or 'self-states', which currently there is a lack of measure for in clinical practice. The data collected will help our understanding of whether this new scale reliably measures individual's experiences and whether it is a valid measure for this population.

What is dissociation?

Dissociation can be defined as a disconnection between a person's thoughts, memories, feelings, actions, or sense of who they are. Many people may experience dissociation during their life and everyone's experience of dissociation is different.

Why have I been asked to participate?

You are being invited to participate in this study because you are aged 18+ and have identified that you have a mental health diagnosis provided by a mental health professional. You do not need to have a dissociative disorder to participate in this study.

What will happen to me if I take part?

You will be invited to complete four brief anonymised questionnaires, now, and again in two weeks' time.

Questionnaires will be completed online; access will be provided via a QR code and/or hyperlink. The questionnaires will consist of items in relation to demographics, dissociative experiences, self-understanding, and emotional

distress. **This process should take approximately 20-30 minutes.** You will be asked to ensure that you have submitted a response for ALL questions before moving on to the next form.

You will be redirected to a separate online form after completing the questionnaires, you will have the option to provide your email address if you would like the researcher to send you a new online link to complete the same set of online questionnaires a second time 14 days later. **Your anonymity cannot be guaranteed if you choose to provide your email address, however, this information will be stored separately from your questionnaire data on a secure, password protected laptop.**

You will be presented with a 5-digit participant ID number. Please make a note of this unique number and keep it somewhere safe, as you will need this if you opt to complete the second part of the research study.

After you have completed the online questionnaires, you will be asked to indicate whether you consent to the researcher contacting you via email to share a URL hyperlink to complete the same set of online questionnaires again 14 days later. Please remember you will need to provide your 5-digit participant ID number to complete the second part of the research study.

Please do not hesitate to contact the researcher (contact details shown below) if you have any difficulties attempting to access the online webforms. After you have completed and submitted all five forms you will be provided with a debrief, providing further information about the study and how your data will contribute to this research.

Are there any benefits in my taking part?

There may not be any immediate benefits to take part in the study, however, participation in the study will allow for contribution to research on how we measure and understand dissociative experiences for patients accessing mental health services. You will have the opportunity to enter a prize draw to win 1 of 10 £10 Amazon vouchers as a thank you for taking part in the study. You will have the opportunity to also be entered into a second prize draw to win another 1 of 10 £10 Amazon vouchers if you opt to complete the survey a second time 14 days later. Both prize draws will be carried out when data has concluded (estimated March-April 2025).

What data will be collected?

Data will be collected via online questionnaire webforms, using Qualtrics, a cloud-based platform. Data will include relevant demographic information (age, gender, race and ethnicity) and responses for several self-report measures of dissociative experiences and emotional distress. It will not be possible to identify you from this data.

You will be asked to complete a separate form after having completed the online questionnaires, to enter the prize draw(s) to win 1 of 10 £10 Amazon vouchers. This is to ensure that your email address is collected and stored separately from your questionnaire data.

The questionnaires you will be asked to complete involve rating how statements best apply to you on various numbered scales. All data will be stored securely on the university server and accessed remotely via a password-protected computer or laptop, in line with university data policy and GDPR. The University of Southampton conducts research to the highest standards of ethics and research integrity. In accordance with our Research Data Management Policy, data will be held for 10 years after the study has finished when it will be securely destroyed.

Will my participation be confidential?

Your participation and the information we collect about you during the research will be kept strictly confidential. Only members of the research team and responsible members of the University of Southampton may be given access to data about you for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access to your data. These people have a duty to keep your

information, as a research participant, strictly confidential. Furthermore, it will not be possible to identify you from the data collected.

Do I have to take part?

No, it is entirely up to you to decide whether to take part. If you decide you want to take part, you will need to sign an online consent form to show you have agreed to take part.

What happens if I change my mind?

You have the right to change your mind and withdraw at any time without giving a reason and without your participant rights or experience of care being affected. If you email the researcher at D-ISS@soton.ac.uk, and provide your 5-digit participant ID (provided to you when accessing the online questionnaires), the researcher will be able to manually remove your questionnaire data. **Please note that due to the researcher's academic deadlines and commitments, you must contact them before 1st April 2025 if you wish for your questionnaire data to be removed from the final report.** Please note that by emailing the researcher and providing your participant ID, you are effectively forfeiting your anonymity, but this is only so that your data can be removed from the research study and deleted.

Please note, if you are unable to provide your 5-digit participant ID, the researcher will be unable remove your questionnaire data, as the data is anonymised, and we cannot trace the information back to you without your participant ID. In this instance, we will keep the anonymised information about you that we have already obtained for the purposes of achieving the objectives of the study only.

What will happen to the results of the research?

Your personal details will remain strictly confidential. The results of our study will be published in a research report. Research findings made available in any reports or publications will not include information that can directly identify you. This report will be submitted for marking by module staff and moderation by university staff. External examiners may also request a copy of this report if needed.

With your consent, to make the most of your participation and support efficient advancements in science, any anonymised data/samples may be used for future research. We cannot tell you at this moment in time what this research will entail or what analyses will be carried out but we can ensure you that all appropriate legal, ethical and other approval will be in place. For practical reasons your consent will not be sought again. Your data will not be used for commercial purposes.

Unless any further action is required to resolve any complaints or appeals against the study, all data will be destroyed after a ten-year period following the study's conclusion, in compliance with the University of Southampton's data storage policy. Access may need to be extended for the University of Southampton's Ethics Committee and any other relevant authorities in the event of an audit, complaint or appeal against the study.

Where can I get more information?

For more information about this study, please contact the researchers: Jamie Barton and Tess Maguire (D-ISS@soton.ac.uk).

If you have any questions regarding the conduct or ethics of this study, you are advised to contact the following:

Chair of the Ethics Committee
Psychology University of Southampton
Southampton
SO17 1BJ
Phone: +44 (0)23 8059 3856
Email: fshs-rso@soton.ac.uk

What happens if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researchers (D-ISS@soton.ac.uk) who will do their best to answer your questions. If you remain unhappy or have a complaint about any aspect of this

study, please contact the University of Southampton Head of Research Ethics and Clinical Governance (023 8059 5058, rgoinfo@soton.ac.uk).

Are there any risks involved?

It is very important that you feel safe and supported during your participation in this study. Participation will not involve any physical risks. If you experience discomfort or distress from completing the online questionnaires, you can contact the following services for support:

The Samaritans offer free support to anyone over the telephone any time of the day. Tel – 116 123 Website – www.samaritans.org

National Suicide Prevention Helpline offers free support to anyone with thoughts of suicide any time of the day. Tel – 0800 689 5652 Website: <https://www.spbristol.org/NSPHUK>

HOPELINEUK offers free support to those under the age of 35 who are experiencing thoughts of suicide. The line is open from 9am-12am (midnight). Tel – 0800 068 4141 Website – <https://www.papyrus-uk.org/contact-us/>

The following websites provide freely accessible self-help resources aimed at supporting individuals who are experiencing mental health difficulties:

NHS Self Help Guides - www.selfhelpguides.nth.nhs.uk/southampton

Mind - www.mind.org.uk

If you continue to feel distressed following taking part in this study, you can also discuss this with the research supervisor, Dr Tess Maguire at D-ISS@soton.ac.uk.

Data Protection Privacy Notice

The University of Southampton conducts research to the highest standards of research integrity. As a publicly funded organisation, the University has to ensure that it is in the public interest when we use personally-identifiable information about people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use information about you in the ways needed, and for the purposes specified, to conduct and complete the research project. Under data protection law, 'Personal data' means any information that relates to and is capable of identifying a living individual. The University's data protection policy governing the use of personal data by the University can be found on its website (<https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page>).

This Participant Information Sheet tells you what data will be collected for this project and whether this includes any personal data. Please ask the research team if you have any questions or are unclear what data is being collected about you. Our privacy notice for research participants provides more information on how the University of Southampton collects and uses your personal data when you take part in one of our research projects and can be found at

<http://www.southampton.ac.uk/assets/sharepoint/intranet/Is/Public/Research%20and%20Integrity%20Privacy%20Notice/Privacy%20Notice%20for%20Research%20Participants.pdf>

Any personal data we collect in this study will be used only for the purposes of carrying out our research and will be handled according to the University's policies in line with data protection law. If any personal data is used from which you can be identified directly, it will not be disclosed to anyone else without your consent unless the University of Southampton is required by law to disclose it.

Data protection law requires us to have a valid legal reason ('lawful basis') to process and use your Personal data. The lawful basis for processing personal information in this research study is for the performance of a task carried out in the public interest. Personal data collected for research will not be used for any other purpose. For the

purposes of data protection law, the University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your information and using it properly.

To safeguard your rights, we will use the minimum personal data necessary to achieve our research study objectives. Your data protection rights – such as to access, change, or transfer such information - may be limited, however, in order for the research output to be reliable and accurate. The University will not do anything with your personal data that you would not reasonably expect.

If you have any questions about how your personal data is used, or wish to exercise any of your rights, please consult the University's data protection webpage (<https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page>) where you can make a request using our online form. If you need further assistance, please contact the University's Data Protection Officer (data.protection@soton.ac.uk).

Thank you for reading this information sheet and considering taking part in this research.

I have read and understood the information on this form, I am aged 18 or over and agree to take part in this survey.

☐ Yes (Continue)

☐ No (Exit)

End of Block: PIS and Consent

Appendix I Qualtrics Survey Questions

Start of Block: CAPTCHA

Before you proceed to the survey, please complete the CAPTCHA below.

End of Block: CAPTCHA

Start of Block: Eligibility

I have a mental health diagnosis or diagnoses, diagnosed by a mental health professional (e.g. Psychiatrist, Psychologist, Mental Health Nurse, Psychotherapist, Counsellor).

☐ Yes

☐ No

End of Block: Eligibility

Start of Block: Retest Code

Please make a note of the 5-digit participant ID code shown below and keep this safe, as you will need to provide this information if you opt to complete the survey again in 14 days. Participant ID: [\\${e://Field/Random%20ID}](#)

End of Block: Retest Code

Start of Block: Demographics

What is your age in years?

What gender do you identify as?

- ☐ Male
 - ☐ Female
 - ☐ Transgender Male
 - ☐ Transgender Female
 - ☐ Gender Variant/Non-Conforming
 - ☐ Not Listed
-

What is your ethnicity?

- ☐ Arab
- ☐ Asian or Asian British - Indian
- ☐ Asian or Asian British - Pakistani
- ☐ Asian or Asian British - Bangladeshi
- ☐ Asian or Asian British - Chinese
- ☐ Asian or Asian British - any other Asian background
- ☐ Black or Black British - Caribbean
- ☐ Black or Black British - African
- ☐ Black or Black British - any other Black background
- ☐ Mixed - White and Black Caribbean
- ☐ Mixed - White and Black African
- ☐ Mixed - White and Asian
- ☐ Any other Mixed or multiple ethnic background
- ☐ White - English, Welsh, Scottish, Northern Irish or British

- ☐ White - Irish
- ☐ White - Gypsy or Irish Traveler
- ☐ White - Roma
- ☐ Any other White background
- ☐ Any other ethnic group

End of Block: Demographics

Start of Block: Mental Health Diagnoses

Please indicate your diagnosed mental health condition, if you have multiple diagnoses please indicate **the diagnosis which has the most significant impact on your daily life**. You can also select 'Not listed (please specify)' or 'Prefer not to say'. **Please select one option from the list below.**

- ☐ Depression
- ☐ Social Anxiety Disorder (Social Phobia)
- ☐ Panic Disorder
- ☐ Generalised Anxiety Disorder (GAD)
- ☐ Health Anxiety (Illness Anxiety Disorder)
- ☐ Agoraphobia
- ☐ Specific Phobia
- ☐ Obsessive-Compulsive Disorder (OCD)
- ☐ Hoarding Disorder
- ☐ Eating Disorder e.g. Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder
- ☐ Body Dysmorphic Disorder (BDD)
- ☐ Personality Disorder e.g. Emotionally Unstable Personality Disorder (EUPD)

Appendix I

- ☐ Post-Traumatic Stress Disorder (PTSD)
- ☐ Bipolar Disorder
- ☐ Psychosis (Includes Psychotic Disorders e.g. Schizophrenia)
- ☐ Dissociative Disorder e.g. Depersonalisation Disorder, Derealisation Disorder and Dissociative Identity Disorder (DID)
- ☐ Conversion Disorder (Functional Neurological Symptom Disorder)
- ☐ Substance Use Disorder (SUD)
- ☐ Gambling Disorder
- ☐ Not listed (Please specify)
- ☐ Prefer not to say

Please indicate whether you have **any other diagnosed mental health condition(s), in addition to the diagnosis you have indicated in the previous question.** You can also select the option 'Prefer not to say', 'Not sure' or 'None'. **You can select multiple options from the list below.**

- ☐ Depression
- ☐ Social Anxiety Disorder (Social Phobia)
- ☐ Panic Disorder
- ☐ Generalised Anxiety Disorder (GAD)
- ☐ Health Anxiety (Illness Anxiety Disorder)
- ☐ Agoraphobia
- ☐ Specific Phobia
- ☐ Obsessive-Compulsive Disorder (OCD)
- ☐ Hoarding Disorder
- ☐ Eating Disorder e.g. Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder

Appendix I

- ☐ Body Dysmorphic Disorder (BDD)
 - ☐ Personality Disorder e.g. Emotionally Unstable Personality Disorder (EUPD)
 - ☐ Post-Traumatic Stress Disorder (PTSD)
 - ☐ Bipolar Disorder
 - ☐ Psychosis (Includes Psychotic Disorders e.g. Schizophrenia)
 - ☐ Dissociative Disorder e.g. Depersonalisation Disorder, Derealisation Disorder and Dissociative Identity Disorder (DID)
 - ☐ Conversion Disorder (Functional Neurological Symptom Disorder)
 - ☐ Substance Use Disorder (SUD)
 - ☐ Gambling Disorder
 - ☐ Not listed (Please specify)
 - ☐ Prefer not to say
 - ☐ Not sure
 - ☐ None
-

Appendix I

Please indicate whether you have **previously** accessed treatment for your mental health (e.g. psychological talking therapy and/or medication).

- ☐ Yes - Psychological therapy and medication
- ☐ Yes - Psychological therapy only
- ☐ Yes - Medication only
- ☐ No
- ☐ Not sure
- ☐ Prefer not to say

Please indicate whether you are **currently** accessing treatment for your mental health (e.g. psychological talking therapy and/or medication).

- ☐ Yes - Psychological therapy and medication
- ☐ Yes - Psychological therapy only
- ☐ Yes - Medication only
- ☐ No
- ☐ Not sure
- ☐ Prefer not to say

End of Block: Mental Health Diagnoses

Start of Block: Neurodiversity

Appendix I

Please indicate whether you have a **diagnosed neurodevelopmental condition**. You can also select the option 'Self-diagnosed', 'Prefer not to say', 'Not sure' or 'None'. **You can select multiple options from the list below.**

- ☐ Autism
- ☐ Attention-Deficit/Hyperactivity Disorder
- ☐ Dyslexia
- ☐ Dyscalculia
- ☐ Dyspraxia
- ☐ Tourette's and Tic Disorders
- ☐ Learning Disability
- ☐ Self-diagnosed (Please specify)
- ☐ Not listed (Please specify)
- ☐ Prefer not to say
- ☐ Not sure
- ☐ None

End of Block: Neurodiversity

Start of Block: DES-II

End of Block: DES-II

Start of Block: D-ISS

End of Block: D-ISS

Start of Block: WDS

End of Block: WDS

Start of Block: CORE-OM

Further support

As this survey could be a sensitive or an emotive topic due to it centering around mental health experiences, below are some mental health support lines for various different populations if you feel like it would be useful for you to contact them: • The Samaritans offer free support to anyone over the telephone any time of the day. Tel – 116 123 Website – www.samaritans.org • National Suicide Prevention Helpline offers free support to anyone with thoughts of suicide any time of the day. Tel – 0800 689 5652 Website: <https://www.spbristol.org/NSPHUK> • HOPELINEUK offers free support to those under the age of 35 who are experiencing thoughts of suicide. The line is open from 9am-12am (midnight). Tel – 0800 068 4141 Website – <https://www.papyrus-uk.org/contact-us/> The following websites provide freely accessible self-help resources aimed at supporting individuals who are experiencing mental health difficulties: • NHS Self Help Guides - www.selfhelpguides.nth.nhs.uk/southampton • Mind - www.mind.org.uk If you continue to feel distressed following taking part in this study, you can also discuss this with the research supervisor, Dr Tess Maguire via email: D-ISS@soton.ac.uk

End of Block: CORE-OM

Participants redirected to separate Qualtrics form for prize draw and debriefing form

Start of Block: Default Question Block

Please note, this a separate form from the questionnaires you have just completed, this is so that you can provide your email address to enter the prize draw, whilst also maintaining the anonymity of your questionnaire data. If you have any queries about this separate form and how your data is stored/protected, please do not hesitate to contact the research team by emailing D-ISS@soton.ac.uk

Appendix I

I would like to receive a copy of the research results and final report.

- ☐ No
- ☐ Yes
-

I would like the researcher to send me a link in 14 days' time via email, so that I can complete the survey again, to therefore enter an **additional** prize draw for a chance of winning one of ten £10 Amazon vouchers.

- ☐ No
- ☐ Yes
-

To enter a prize draw to win one of ten £10 Amazon vouchers (and if you selected 'yes' for either of the previous questions), **please provide your email address in the box shown below.** Please note, your email address will be stored separately from your questionnaire data. If you are a winner of either of the two prize draws, the researcher will aim to send you your Amazon voucher(s) via email by March-April 2025, after data collection is completed.

Please ensure you have read the Debriefing Form (shown below), before then submitting this form by clicking/tapping the arrow button at the bottom of the page.

Appendix J Debriefing Form

Debriefing Form

Study Title: Investigating the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample

Researcher(s): Jamie Barton, Dr Tess Maguire and Dr Fiona Kennedy

Ethics/ERGO number: 90495

IRAS number: 335221

University email(s): D-ISS@soton.ac.uk

Version and date: Version 1.0, 10.04.24

Thank you for taking part in our research project. Your contribution is very valuable and greatly appreciated.

Purpose of the study

The aim of this research is to assess a new scale for measuring dissociation in terms of sense of identity or 'self-states' with participants who have a mental health diagnosis. We hope that by developing new approaches to understanding and measuring different types of dissociation, that this will help patients and clinicians to have a shared understanding of the patient's experience of dissociation and psychological coping mechanisms for stress. This important information can therefore then be taken into consideration, for example, when providing psychological assessment and/or therapy. Your data will help our understanding individual's different experiences of dissociation, personality, and sense of self, in addition to whether the new measure can be considered a reliable and valid option for clinicians to use in clinical practice with their patients.

Confidentiality

Results of this study will not include your name or any other identifying characteristics.

Study results

If you would like to receive a copy of the final report, please use the anonymous URL link https://southampton.qualtrics.com/jfe/form/SV_9zYfGb4i24VNJDE, which will take you to a separate survey to collect your contact details. It is up to you whether you would like to receive study results.

Further support

As this survey could be a sensitive or an emotive topic due to it centering around mental health experiences, below are some mental health support lines for various different populations if you feel like it would be useful for you to contact them:

- The Samaritans offer free support to anyone over the telephone any time of the day. Tel – 116 123 Website – www.samaritans.org
- National Suicide Prevention Helpline offers free support to anyone with thoughts of suicide any time of the day. Tel – 0800 689 5652 Website: <https://www.spbristol.org/NSPHUK>
- HOPELINEUK offers free support to those under the age of 35 who are experiencing thoughts of suicide. The line is open from 9am-12am (midnight). Tel – 0800 068 4141 Website – <https://www.papyrus-uk.org/contact-us/> The

following websites provide freely accessible self-help resources aimed at supporting individuals who are experiencing mental health difficulties:

- NHS Self Help Guides - www.selfhelpguides.nth.nhs.uk/southampton
- Mind - www.mind.org.uk If you continue to feel distressed following taking part in this study, you can also discuss this with the research supervisor, Dr Tess Maguire via email: D-ISS@soton.ac.uk

Further reading

If you would like to learn more about this area of research, you can refer to the following resources: Kennedy, F., Clarke, S., Stopa, L., Bell, L., Rouse, H., Ainsworth, C., ... & Waller, G. (2004). Towards a cognitive model and measure of dissociation. *Journal of Behavior Therapy and Experimental Psychiatry*, 35(1), 25-48.

Further information

If you have any concerns or questions about this study, you should speak to the researchers (D-ISS@soton.ac.uk) who will do their best to answer your questions.

If you remain unhappy or would like to make a formal complaint, please contact the Head of Research Integrity and Governance, University of Southampton, by emailing: rgoinfo@soton.ac.uk, or calling: + 44 2380 595058. Please quote the Ethics/ERGO number which can be found at the top of this form. Please note that if you participated in an anonymous survey, by making a complaint, you might be no longer anonymous.

Thank you again for your participation in this research

Appendix K Dissociation-Integration of Self-States Scale

Dissociation-Integration of Self-States Scale (D-ISS)

Name: 	Date:
---	---

We all have different aspects or parts of ourselves, different ways of being in different situations. These are sometimes called 'self-states'. These self-states involve a sense of identity, choice, values, and will. For example, when we go to work, we are in a different self-state than when we are with our friends or studying or interacting with our family. We all behave and think differently in different situations. A self-state is more than simply a shift in mood, self-states are distinguished by how we understand ourselves in terms of feelings, ways of thinking, behaving, and relating. Some of us have bigger differences between self-states and some of us find it hard to remain in control of which self-state we are in. Some people even feel that they have very separate self-states, they might feel they have different selves residing within one body. We are interested in your awareness of self-states and your perceptions of them.

Please indicate your level of agreement with the following statements

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
AW						
1	I am very aware of having different self-states	4	3	2	1	0
2	I know when I have shifted from one self-state to another	4	3	2	1	0
3	I am aware of all the different self-states	4	3	2	1	0
4	I can tell when I have been in one self-state and then in another	4	3	2	1	0
5	I am not always aware of some of the self-states	0	1	2	3	4
IN						
6	I feel that the self-states are combined to form me as a whole	4	3	2	1	0
7	The self-states are integrated together	4	3	2	1	0
8	The self-states are all aspects of me as a person	4	3	2	1	0
9	The self-states feel connected together in some way	4	3	2	1	0
10	I am formed of all the self-states	4	3	2	1	0

Appendix K

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
DI						
11	The different self-states have different names	0	1	2	3	4
12	When I'm in one self-state I often don't remember what happened when I was in a different self-state	0	1	2	3	4
13	Some self-states are <u>male</u> and some are female	0	1	2	3	4
14	Some self-states are children, some are more grown up	0	1	2	3	4
15	Some self-states are dangerous to me or other people	0	1	2	3	4
AC						
16	I would like to get rid of some self-states	0	1	2	3	4
17	The self-states cause problems in my life	0	1	2	3	4
18	I hate some self-states	0	1	2	3	4
19	I feel like punishing some self-states	0	1	2	3	4
20	I would like some self-states to disappear	0	1	2	3	4
CO						
21	I have control over moving between self-states	4	3	2	1	0
22	I have no choice over whether I move between self-states	0	1	2	3	4
23	I cannot control whether I end up in one self-state or another	0	1	2	3	4
24	I can choose what self-state I am in in any situation	4	3	2	1	0
25	I have no choice about what self-state I am in	0	1	2	3	4

D-ISS Scoring Instructions

Calculate the score for each 5-item subscale.

Items 1-5:	Awareness of self-states The extent to which the person knows about all the different self-states they experience.
Items 6-10:	Integration of self-states into a coherent overall sense of self The extent to which the person's self-states cohere together into an overall whole.
Items 11-15:	Difference/Distance between self-states The degree of difference between self-states and the psychological 'distance' between them.
Items 16-20:	Acceptance of self-states The extent to which the person is content with all their self-states.
Items 21-25:	Choice/Control The person's ability to control shifting between self-states and to choose which self-state to be in at a given time.

For each subscale there is a score of 0-20. The maximum overall score for the D-ISS is 100. The higher the score, the more dissociation between self-states.

Scores for each subscale, as well as individual items, can be used to inform clinical formulation and treatment planning, review of progress and outcome assessment.

Subscale		Score
AW	Awareness	
IN	Integration	
DI	Difference/Distance	
AC	Acceptance	
CO	Control/Choice	
Total D-ISS Score		
Comments		

Appendix L Dissociative Experiences Scale

Reproduced from:

Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174(12), 727–735. <https://doi.org/10.1097/00005053-198612000-00004>

Dissociative Experiences Scale-II (DES-II) Eve Bernstein Carlson, Ph.D. & Frank W. Putnam, M.D.

Directions: This questionnaire consists of twenty-eight questions about experiences that you may have in your daily life. We are interested in how often you have these experiences. It is important, however, that your answers show how often these experiences happen to you when you are not under the influence of alcohol or drugs. To answer the questions, please determine to what degree the experience described in the question applies to you, and circle the number to show what percentage of the time you have the experience.

For example: 0% 10 20 30 40 50 60 70 80 90 100%
(Never) (Always)

1. **Some people have the experience of driving or riding in a car or bus or subway and suddenly realizing that they don't remember what has happened during all or part of the trip.** Circle a number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

2. **Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was said.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

3. **Some people have the experience of finding themselves in a place and have no idea how they got there.** Circle a number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

4. **Some people have the experience of finding themselves dressed in clothes that they don't remember putting on.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

5. **Some people have the experience of finding new things among their belongings that they do not remember buying.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

6. **Some people sometimes find that they are approached by people that they do not know, who call them by another name or insist that they have met them before.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

7. **Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something and they actually see themselves as if they were looking at another person.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

8. **Some people are told that they sometimes do not recognize friends of family members.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

21. **Some people sometimes find that when they are alone they talk out loud to themselves.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

22. **Some people find that in one situation they may act so differently compared with another situation that they feel almost as if they were two different people.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

23. **Some people sometimes find that in certain situations they are able to do things with amazing ease and spontaneity that would usually be difficult for them (for example, sports, work, social situations, etc.).** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

24. **Some people sometimes find that they cannot remember whether they have done something or have just thought about doing that thing (for example, not knowing whether they have just mailed a letter or have just thought about mailing it).** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

25. **Some people find evidence that they have done things that they do not remember doing.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

26. **Some people sometimes find writings, drawings, or notes among their belongings that they must have done but cannot remember doing.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

27. **Some people sometimes find that they hear voices inside their head that tell them to do things or comment on things that they are doing.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

28. **Some people sometimes feel as if they are looking at the world through a fog, so that people and objects appear far away or unclear.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

9. **Some people find that they have no memory for some important events in their lives (for example, a wedding or graduation).** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

10. **Some people have the experience of being accused of lying when they do not think that they have lied.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

11. **Some people have the experience of looking in a mirror and not recognizing themselves.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

12. **Some people have the experience of feeling that other people, objects, and the world around them are not real.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

13. **Some people have the experience of feeling that their body does not seem to belong to them.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

14. **Some people have the experience of sometimes remembering a past event so vividly that they feel as if they were reliving that event.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

15. **Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamed them.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

16. **Some people have the experience of being in a familiar place but finding it strange and unfamiliar.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

17. **Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

18. **Some people find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

19. **Some people find that they sometimes are able to ignore pain.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

20. **Some people find that they sometimes sit staring off into space, thinking of nothing, and are not aware of the passage of time.** Circle the number to show what percentage of the time this happens to you.

0% 10 20 30 40 50 60 70 80 90 100%

Appendix M Wessex Dissociation Scale

Reproduced from:

Kennedy, F., Clarke, S., Stopa, L., Bell, L., Rouse, H., Ainsworth, C., ... & Waller, G. (2004). Towards a cognitive model and measure of dissociation. *Journal of Behavior Therapy and Experimental Psychiatry*, 35(1), 25-48.

<https://doi.org/10.1016/j.jbtep.2004.01.002>

A.1. Wessex Dissociation Scale (WDS)

This questionnaire asks about experiences that you may have in your daily life. Please indicate, by ticking one of the boxes, how often you have experiences like these. It is important that your answers state how often you have these experiences when you are *not* under the influence of alcohol or drugs.

	Never	Rarely	Sometimes	Often	Very Often	All the time
1 Unwanted images from my past come into my head <i>Automatic</i>						
2 I hear voices when no-one has actually said anything <i>Within</i>						
3 Other people describe meetings that we have had but that I cannot remember						
4 Unwanted memories come into my head <i>Automatic</i>						
5 My personality is very different in different situations <i>Automatic</i>						
6 My mood can change very rapidly <i>Automatic</i>						
7 I have vivid and realistic nightmares <i>Automatic</i>						
8 I don't always remember what people have said to me						
9 I feel physical pain, but it does not seem to bother me as much as other people <i>Between</i>						
10 I smell things that are not actually there <i>Within</i>						
11 I remember bits of past experiences, but cannot them together						
12 I have arguments with myself						

31 I sometimes look at myself as though I were another person						
32 Things around me do not seem real <i>Within</i>						
33 I do not seem to feel anything at all						
34 I taste something that I have not eaten <i>Within</i>						
35 I find myself unable to think about things however hard I try						
36 I talk to myself as if I was another person <i>Within</i>						
37 I do not feel physical pain as much as other people <i>Between</i>						
38 I hear things that are not actually there <i>Within</i>						
39 I find myself in situations or places with no memory of how I got there						
40 It is absolutely essential that I do some things in a certain way						

Scoring: never = 0; rarely = 1; sometimes = 2; often = 3; very often = 4; all the time = 5; final score = total score / 40.

13 I do not seem to be as upset by things as I should be <i>Between</i>						
14 I act without thinking						
15 I do not really seem to get angry <i>Between</i>						
16 I just feel numb and empty inside <i>Automatic</i>						
17 I notice myself doing things that do not make sense						
18 Sometimes I feel relaxed and sometimes I feel very tense, even though the situation is the same <i>Automatic</i>						
19 Even though it makes no sense, I believe that doing certain things can prevent disaster						
20 I have unexplained aches and pains						
21 It feels as if there is more than one of me <i>Within</i>						
22 Unwanted thoughts come into my head <i>Automatic</i>						
23 My mind just goes blank <i>Automatic</i>						
24 I feel touched by something that is not actually there <i>Within</i>						
25 I have big gaps in my memory						
26 I see something that is not actually there <i>Within</i>						
27 My body does not feel like my own						
28 I cannot control my urges						
29 I feel detached from reality <i>Automatic</i>						
30 Chunks of time seem to disappear without my being able to account for them						

Appendix N Clinical Outcomes in Routine Evaluation

Reproduced from:

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry*, 180(1), 51–60. <https://doi.org/10.1192/bjp.180.1.51>

Over the last week ...

	Not at all	Only occasionally	Sometimes	Often	Most or all the time	
1 I have felt terribly alone and isolated	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
2 I have felt tense, anxious or nervous	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
3 I have felt I have someone to turn to for support when needed	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
4 I have felt O.K. about myself	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ W
5 I have felt totally lacking in energy and enthusiasm	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
6 I have been physically violent to others	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R
7 I have felt able to cope when things go wrong	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
8 I have been troubled by aches, pains or other physical problems	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
9 I have thought of hurting myself	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R
10 Talking to people has felt too much for me	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
11 Tension and anxiety have prevented me doing important things	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
12 I have been happy with the things I have done	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
13 I have been disturbed by unwanted thoughts and feelings	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
14 I have felt like crying	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ W

Over the last week ...

	Not at all	Only occasionally	Sometimes	Often	Most or all the time	No answer
15 I have felt panic or terror	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
16 I made plans to end my life	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R
17 I have felt overwhelmed by my problems	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ W
18 I have had difficulty getting to sleep or staying asleep	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
19 I have felt warmth or affection for someone	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
20 My problems have been impossible to put to one side	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
21 I have been able to do most things I needed to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
22 I have threatened or intimidated another person	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R
23 I have felt despairing or hopeless	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
24 I have thought it would be better if I were dead	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R
25 I have felt criticised by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
26 I have thought I have no friends	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
27 I have felt unhappy	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
28 Unwanted images or memories have been distressing me	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
29 I have been irritable when with other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
30 I have thought I am to blame for my problems and difficulties	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ P
31 I have felt optimistic about my future	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ W
32 I have achieved the things I wanted to	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0	☒ F
33 I have felt humiliated or shamed by other people	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ F
34 I have hurt myself physically or taken dangerous risks with my health	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☒ R

Appendix O ERGO Ethical Approval and Amendments

90495 - Investigating the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample

Submission Overview

Submission Questionnaire

Attachments

History

Details

Status

Category

Submitter's Faculty

Approved

Category 

Faculty of Environmental and Life Sciences (FELS)

Latest Review Comments

06/06/2024 21:51:16 - RIG: Approved

Comments:

Dear Researcher

I am pleased to inform you that full Governance approval has now been granted by the Research Ethics and Governance Team. We wish you success with your study. Please now continue and submit your IRAS application.

13/12/2024 13:56:18 - RIG: Approved

Comments:

Thank you for the submission of this amendment to:

1. Change to research protocol to reflect that researcher Tess Maguire is Chief Investigator (CI). Research protocol was accidentally signed by Jamie Barton as CI when this should have been signed by Tess Maguire. Research protocol has been updated to include Tess Maguires signature as CI.

2. The research study will be updated to expand inclusion/exclusion critiera for a non-clinical subgroup (participants with no past or current mental health diagnosis).

3. To further support recruitment of clinical participants and provide an opportunity to recruit non-clinical participants, University of Southampton undergraduate psychology students will be recruited via the University of Southampton SONA platform.

Sponsor approves this as a Category A substantial amendment and REC review is required. Please complete Section 3 of the Amendment Tool adding Linda Hammond and rgoinfo@soton.ac.uk and Lock for Submission.

You should then submit via the HRA portal (following instructions on the Submission Guidance tab).

Category A amendments have implications for, or affects, all participating NHS/HSC organisations hosting the research project.

If all relevant regulatory approvals are in place and there has been no objection from site, category A amendments can be implemented after 35 days.

Category A amendments may be implemented sooner than 35 days in cases where all regulatory approvals have been issued and where the NHS/HSC organisation has confirmed that the amendment may be implemented prior to this date.

128

Appendix P HRA Ethical Approval and Amendments



10 September 2024

Dear Dr Maguire

**HRA and Health and Care
Research Wales (HCRW)
Approval Letter**

Study title: Investigating the psychometric properties of the
Dissociation-Integration of Self-States Scale (D-ISS) in a
clinical sample

IRAS project ID: 335221

Protocol number: 90945

REC reference: 24/WA/0213

Sponsor University of Southampton

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 standard conditions document “[After Ethical Review – guidance for sponsors and investigators](#)”, issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, 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?

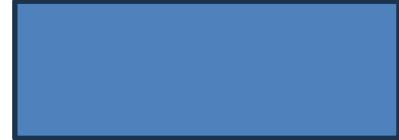
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **335221**. Please quote this on all correspondence.

Yours sincerely,



Wales Research Ethics Committee 4
Wrexham



6th January 2025



Dear Dr Maguire

Study title: Investigating the psychometric properties of the
Dissociation-Integration of Self-States Scale (D-ISS) in a
clinical sample
REC reference: 24/WA/0213
Protocol number: 90945
Amendment number: 90495.A2 Modified Amendment
Amendment date: 03 January 2025
IRAS project ID: 335221

Thank you for submitting the above amendment, which was received on 6th January 2025. It is noted that this is a modification of an amendment previously rejected by the Committee (our letter of 3rd January 2025 refers).

The modified amendment has been considered on behalf of the Committee by the Chair and Vice-Chair.

Ethical opinion

I am pleased to confirm that the Committee has given a favourable ethical opinion of the modified amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved are:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Completed Amendment Tool [IRAS substantial amendment]	1.0	13 December 2024
Letter from sponsor [Confirmation from sponsor approving amendment]	1.0	13 December 2024
Notice of Modified Amendment [Amendment Tool for Modified Amendment]		03 January 2025
Participant information sheet (PIS) [D-ISS PIS Clinical (Undergraduate SONA)]	1.0	09 December 2024
Participant information sheet (PIS) [D-ISS PIS Non-Clinical (Undergraduate SONA)]	1.0	09 December 2024

Participant information sheet (PIS) [D-ISS PIS Non-Clinical (Community)]	1.0	09 December 2024
Research protocol or project proposal [Thesis Research Protocol]	6.0	03 January 2025

The Sub-Committee did note that the Participant Information Sheets (PIS) did not state that the study had been reviewed and approved by Wales REC 4, and so requested that you just add a statement in to this effect i.e. "This study has received a Favourable ethical Opinion from Wales REC 4". There is no need to confirm when this has been done.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

HRA Learning

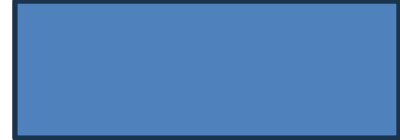
We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at: <https://www.hra.nhs.uk/planning-and-improving-research/learning/>

IRAS Project ID - 335221: Please quote this number on all correspondence

Yours sincerely



Wales Research Ethics Committee 4
Wrexham



Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England/ Wales until you receive HRA/ HCRW Approval.

9th September 2024



Dear Dr Maguire

Study title:	Investigating the psychometric properties of the Dissociation-Integration of Self-States Scale (D-ISS) in a clinical sample
REC reference:	24/WA/0213
Protocol number:	90945
IRAS project ID:	335221

Thank you for your letter of 6th September 2024, responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved on behalf of the PR sub-committee.

Confirmation of ethical opinion

On behalf of the Research Ethics Committee (REC), I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Appendix Q Sample Demographic and Mental Health Information

Demographic characteristics		Sample group <i>N</i> (%)		
		Total	Clinical	Non-clinical
<i>N</i>		491 (100.0)	344 (70.1%)	147 (29.9)
Gender				
	Female	373 (76.0)	243 (70.6)	130 (88.4)
	Male	101 (20.6)	84 (24.4)	17 (11.6)
	Transgender Female	2 (0.4)	2 (0.6)	0 (0.0)
	Transgender Male	5 (1.0)	5 (1.5)	0 (0.0)
	Gender Variant/Non-Conforming	8 (1.6)	8 (2.3)	0 (0.0)
	Not Listed	2 (0.4)	2 (0.6)	0 (0.0)
Age	<i>M</i> (SD)	28.6 (11.6)	32.5 (11.8)	19.5 (2.0)
	Minimum – Maximum	18-65	18-65	18-39
Ethnicity				
	Arab	3 (0.6)	1 (0.3)	2 (1.4)
	Asian or Asian British – Bangladeshi	8 (1.6)	5 (1.5)	3 (2.0)
	Asian or Asian British – Chinese	13 (2.6)	8 (2.3)	5 (3.4)
	Asian or Asian British – Indian	9 (1.8)	5 (1.5)	4 (2.7)
	Asian or Asian British – Pakistani	5 (1.0)	1 (0.3)	4 (2.7)
	Asian or Asian British – any other Asian background	7 (1.4)	3 (0.9)	4 (2.7)
	Black or Black British – African	14 (2.9)	11 (3.2)	3 (2.0)
	Black or Black British – Caribbean	8 (1.6)	7 (2.0)	1 (0.7)
	Black or Black British – any other Black background	3 (0.6)	3 (0.9)	0 (0.0)
	Mixed Other	1 (0.2)	1 (0.3)	0 (0.0)
	Mixed – White and Asian	4 (0.8)	2 (0.6)	2 (1.4)
	Mixed – White and Black African	4 (0.8)	2 (0.6)	2 (1.4)
	Mixed – White and Black Caribbean	13 (2.6)	8 (2.3)	5 (3.4)
	White – English, Welsh, Scottish, Northern Irish or British	333 (67.8)	245 (71.2)	88 (59.9)
	White – Irish	5 (1.0)	4 (1.2)	1 (0.7)
	Any other Mixed or multiple ethnic background	11 (2.3)	7 (2.1)	4 (2.7)
	Any other White background	43 (9.1)	25 (7.6)	18 (12.2)
	Any other ethnic group (Greek Cypriot)	1 (0.2)	1 (0.3)	0 (0.0)
	Any other ethnic group (not specified)	2 (0.4)	1 (0.3)	1 (0.7)
Primary mental health diagnosis				

Appendix Q

Agoraphobia	-	3 (0.9)	-
Bipolar disorder	-	25 (7.3)	-
Body dysmorphic disorder	-	2 (0.6)	-
Depression	-	86 (25.0)	-
Dissociative disorder	-	7 (2.0)	-
Eating disorder	-	14 (4.1)	-
Functional neurological disorder	-	1 (0.3)	-
Gambling disorder	-	1 (0.3)	-
Generalised anxiety disorder	-	72 (20.9)	-
Health anxiety	-	5 (1.5)	-
Obsessive compulsive disorder	-	18 (5.2)	-
Panic disorder	-	6 (1.7)	-
Personality disorder	-	35 (10.2)	-
Post-traumatic stress disorder	-	36 (10.5)	-
Psychosis	-	4 (1.2)	-
Psychosomatic disorder	-	1 (0.3)	-
Schizoaffective disorder	-	3 (0.9)	-
Social phobia	-	18 (5.2)	-
Specific phobia	-	1 (0.3)	-
Substance use disorder	-	2 (0.6)	-
Trichotillomania	-	1 (0.3)	-
Prefer not to say	-	1 (0.3)	-
None (non-clinical)	-	0 (0.0)	147 (100.0)
Previous treatment			
Yes – psychological therapy and medication	259 (52.7)	255 (74.1)	4 (2.7)
Yes – psychological therapy only	103 (21.0)	55 (16.0)	48 (32.7)
Yes – medication only	27 (5.5)	26 (7.6)	1 (0.7)
None	95 (19.3)	6 (1.7)	89 (60.5)
Not sure	6 (1.2)	2 (0.6)	4 (2.7)
Prefer not to say	1 (0.2)	0 (0.0)	1 (0.7)
Current treatment			
Yes – psychological therapy and medication	76 (15.5)	76 (22.1)	0 (0.0)
Yes – psychological therapy only	46 (9.4)	43 (12.5)	3 (2.0)
Yes – medication only	136 (27.7)	133 (38.7)	3 (2.0)
None	226 (46.0)	86 (25.0)	140 (95.2)
Not sure	2 (0.4)	1 (0.3)	1 (0.7)
Prefer not to say	5 (1.0)	5 (1.5)	0 (0.0)
Neurotype			
Neurodivergent (diagnosed)	120 (24.6)	112 (31.9)	9 (5.9)
Neurodivergent (self-diagnosed)	47 (9.5)	42 (12.3)	5 (3.5)
No reported neurodevelopmental condition	249 (50.7)	146 (42.4)	103 (70.1)

Appendix Q

Not sure	65 (13.2)	41 (12.5)	23 (15.7)
Prefer not to say	10 (2.0)	3 (0.9)	7 (4.8)