"*IT'S LIKE THE MAD HATTER'S TEA PARTY!"* - EXPLORING EXPERIENCES OF MINDFUL INTERBEING MIRROR THERAPY AND ITS CONTRIBUTIONS TO MEANINGFUL CHANGE AMONGST PARTICIPANTS WHO HAVE PREVIOUSLY SOUGHT THERAPY.

by

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Thesis Overview

The thesis contains two chapters, followed by two press releases:

Chapter One is a meta-analytic review of the reliability of the *International Trauma Questionnaire* (ITQ). The ITQ is a self-report measure of Post-Traumatic Stress Disorder (PTSD) and Complex-PTSD. Since its publication, the ITQ has been used exponentially within clinical and research settings worldwide, yet no study has meta-analysed the ITQ's reliability. This study synthesised the internal reliability coefficients of 98 published papers. Across various modulations of the data set (for example language version of the ITQ used or study design), the ITQ's reliability for total scale and PTSD/C-PTSD subscales remained high. The findings of this study provide confidence in the ITQ's reliability to assess for PTSD and C-PTSD.

Chapter Two is an empirical research paper which explored service users' experiences of Mindful Interbeing Mirror Therapy (MIMT), a new trauma-focused psychotherapy. MIMT incorporates various psychotherapeutic techniques but uniquely involves the service user and therapist sitting in front of and interacting through a large mirror. Six participant accounts were analysed using Interpretative Phenomenological Analysis. Participants described MIMT as an intensely emotional and hopeful experience, magnified through the presence of the mirror. The mirror was also cited to make 'visible' internal processes, including metaphorical *self-parts* (suffering, critical and compassionate parts), which could be balanced. Across accounts was the importance of the therapist and therapeutic relationship in containing the experience. As the first empirical study into MIMT, the findings of this paper open new avenues for the therapeutic literature.

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CHAPTER ONE: THE RELIABILITY OF THE INTERNATIONAL TRAUMA QUESTIONNAIRE: A META-ANALYSIS

Abstract

Introduction: The International Trauma Questionnaire (ITQ) is a self-report measure to assess for the symptomology of Post-Traumatic Stress Disorder (PTSD) and Complex-PTSD. C-PTSD symptomology includes that of PTSD with additional disturbances in self-organisation (DSO). The ITQ has been used exponentially across international clinical and epidemiological research. However, no study has meta-analysed the reliability of the ITQ. This meta-analysis synthesised reliability coefficients from individual studies which have used the ITQ.

Method: A systematic search of the literature was completed. Following the removal of duplicates, 411 papers were assessed for inclusion. A total of 98 eligible studies provided reliability coefficients for the Total-ITQ scale, ITQ-PTSD, or ITQ-DSO (or all three). Risk of bias per study was also assessed to determine methodological quality.

Analysis: Using the generic inverse variance method and random effects model, the internal consistency for the Total-ITQ, ITQ-PTSD and ITQ-DSO were all estimated to be over α=0.85, suggesting high rates of internal reliability. Various modulations, including language version of ITQ, sample size, sample characteristics and reliability statistic used showed some marginal difference, but reliability rates remained consistently high. Future research should examine the test re-test reliability of the ITQ, given the paucity of available data within the literature.

Conclusion: The ITQ demonstrates high internal reliability across various study designs, settings, and language. Practitioners and researchers can be confident in the internal consistency of items within the ITQ to aid in the screening and diagnosis of PTSD and C-PTSD.

Introduction

Trauma

Originating from medical terminology, *'trauma'* describes how a piercing injury can have a cascading effect on the entire inner world (Laplanche & Pontalis, 1973). Experiences labelled as traumatic are cited as significant risk factors for various psychiatric diagnoses (D'Andrea et al., 2012; Sugaya et al., 2012), such as mood disorders (Heim & Nemeroff, 2001; Salokangas et al., 2020), psychosis (Shevlin et al., 2007), and personality difficulties (van Dijke et al., 2018). An increased frequency of traumatic experiences has also been linked to chronic physical health conditions in adulthood, such as chronic pain (Lumley & Schubiner, 2020), autoimmune conditions (Dube et al., 2009), and premature death (Happell et al., 2017). However, definitions of what constitutes as psychological trauma are vague (Marzillier, 2014), and the proliferation of trauma research has not improved term specificity (Krupnik, 2019; Winders et al., 2020). Poor differentiation between aversive or traumatic events makes it challenging to operationalise research and risks pathologising short-term responses (Weathers & Keane, 2007). Nonetheless, trauma can be broadly defined as any event that causes an individual to experience extreme helplessness and terror (Herman, 1992b), threatening their *"physical integrity*" (American Psychiatric Association, 1994).

The relationship between the specific type of traumatic experience and prolonged distress is also more complicated than cause and effect (Brewin et al., 2017; Marzillier, 2014). Intra-and interpersonal factors, for example, positive social networks (Brewin et al., 2000) and psychological resilience (Wrenn et al., 2011) may or may not [see (Allen et al.,

2021)] modulate the lasting impact. In contrast to making associations with trauma type and distress, there is greater clarity in common responses of individuals who do report prolonged distress (Marzillier, 2012). For example, Winders et al., (2020) describe the symptomology of Post-Traumatic Stress Disorder as one possible pattern of response.

Specific effects of trauma: Post-Traumatic Stress Disorder

The publication of the Diagnostic and Statistical Manual - Third Edition [DSM-III] (American Psychiatric Association, 1980) reframed "*shell-shock"* and "*desertion*" to *'Post Traumatic Stress Disorder' (PTSD)*, normalising human responses to unbearable experiences (Turnbull, 2010). Developments in the scientific literature resulted in revisions to PTSD criteria in subsequent DSM editions, however, diagnostic uncertainty persists (Marziller, 2014). The DSM-5, for example, changed their definition of a traumatic experience from "*threat to physical integrity*" to "*exposure to actual or threatened death*" (American Psychiatric Association, 2013), aiming to exclude minor events as 'traumatic', though PTSD symptomology can occur in the absence of actual or threatened death (Brewin et al., 2017; Larsen & Pacella, 2016). The DSM-5 also expanded symptom clusters to provide a more detailed description of PTSD symptomology (American Psychiatric Association, 2013) but increases symptom crossover of other diagnoses (Brewin et al., 2017; Koenen et al., 2017), such as intrusive thoughts also occurring in depression and anxiety disorders (Clark & de Silva, 1985).

Compared to the DSM, the European diagnostic equivalent, the International Classification of Diseases [ICD-11] (World Health Organisation [WHO], 2018) is considered to place greater emphasis on clinical utility and public health (Brewin et al., 2017). The ICD-11 definition, "*exposure to an event or situation (either short or long-*

term) of an extremely threatening or horrific nature" (WHO, 2018) remains required for a diagnosis of PTSD, although according to Brewin et al., (2017), specificity is improved by PTSD being defined by only three key symptoms: *Re-experiencing* the traumatic event, via intrusive memories, images, flashbacks, nightmares and associated feelings of fear which convey being 'psychologically back' to an event, [compared to more general intrusive memories in other conditions when this doesn't occur (e.g., Brewin et al., 2010)]. *Avoidance* of thoughts and memories, including activities reminiscent of the event and a continued *sense of threat* (from the original event) occurring in current situations marked by hypervigilance, also contribute to the PTSD criteria. Symptomology lasting from several weeks to years and having a functional impact is required for diagnosis (Maercker et al., 2013). Improved diagnostic clarity from the ICD-11 can aid in accurate treatment (Brewin et al., 2017).

Complex-PTSD

Complex-PTSD (C-PTSD) is reported by the ICD-11 as a distinct post-traumatic condition (WHO, 2018). As a diagnostic concept, C-PTSD was developed following separate symptomology being identified in addition to PTSD clusters (Karatzias et al., 2017). C-PTSD is thought to often follow prolonged forms of traumatic exposure (Roth et al., 1997; Terr, 1991; van der Kolk et al., 2005), or single incidents with a strong interpersonal quality, such as torture (Courtois, 2004; Herman, 1992a). As previously alluded to, the complexity between event and distress is reflected within the diagnostic criteria for C-PTSD (WHO, 2018). For example, requiring the same *"exposure to an... extremely threatening or horrific event"* as for PTSD, but differentiates through the experience of three additional symptom clusters, grouped as 'disturbances in self-

organisation' [DSO] (Karatzias, Murphy, et al., 2019): *Affect dysregulation,* meaning difficulties in soothing distressing emotions (Ford, 2021), *Negative self-concepts,* for example, viewing oneself persistently as a failure or worthless (Cloitre et al., 2018) and *difficulties in establishing and maintaining relationships* due to feeling relationally detached (Ford, 2021; Karatzias et al., 2017; Maercker et al., 2013). As with PTSD, duration of symptomology over several months and functional impairment are required, and either a diagnosis of PTSD or C-PTSD should be given, not both (Gelezelyte et al., 2022).

Issues of discriminability between a diagnosis of Borderline Personality Disorder (BPD) and C-PTSD led to its exclusion within the DSM-5 (Bryant, 2012; Resick et al., 2012). BPD and C-PTSD share a latent structure but have reported differences (Cloitre et al., 2014; R. Frost et al., 2020; Hyland et al., 2019; Jowett et al., 2020; Knefel et al., 2016). For example, R. Frost et al., (2020) argues self-concept difficulties in individuals with a diagnosis of BPD may reflect an unstable sense of self compared with C-PTSD, whereby self-concept difficulties are persistently negative (Ford et al., 2021). Similarly, relational difficulties within BPD are characterised by split relational patterns due to deep fears of abandonment, whereas individuals with C-PTSD tend to avoid relationships due to experiencing emotional detachment (Hyland et al., 2019). Effective discrimination between PTSD, C-PTSD, and BPD is critical to match interventions, increase therapeutic responsiveness and reduce the risk of iatrogenic harm (Ford & Kidd, 1998; Karatzias, Murphy, et al., 2019). Re-exposure interventions, for example, may be effective for PTSD but not helpful for C-PTSD (Karatzias & Cloitre, 2019).

International Trauma Questionnaire

The International Trauma Questionnaire [ITQ] (Cloitre et al., 2018) is considered the *"gold standard*" self-report measure assessing ICD-11 symptoms of PTSD and C-PTSD (Donat et al., 2019). The ITQ, alongside the ICD-11, aims to optimise descriptors and promote quick and accurate assessment, crucial for appropriate intervention (Bondjers et al., 2019). The development of the ITQ was based on an iterative process from expert clinical experience (Cloitre et al., 2011). An initial version of the ITQ included 23 items (Cloitre et al., 2015), though based on confirmatory factor analysis (Cloitre et al., 2018) was reduced to 12 items to maximise clinical utility (e.g., Reed, 2010). The ITQ's 12 items measure the severity of symptomology: 6 items for PTSD, 6 for C-PTSD/DSO, having 2 items measuring each of 6 respective clusters [PTSD: Re-experiencing (Re), Avoidance (Av), Sense of Threat (Th) and C-PTSD/DSO: Affect Dysregulation (AD), Negative Self-Concept (NSC) and Disturbed Relationships (DR)]. The ITQ also has an additional 3 items measuring functional impact, such as on work or relationships for both PTSD and C-PTSD, equating to a total of 18 items if administered in full (Cloitre et al., 2018).

Good convergent, concurrent, factorial and discriminative validity between PTSD and DSO clusters is reported for the ITQ across several studies (Cyr et al., 2022; Ho et al., 2020; Hyland et al., 2017; Karatzias et al., 2017; Kazlauskas et al., 2018; S. Murphy et al., 2018) and summarised within a systematic review, (Redican et al., 2021). Similar validation has also taken place for translated versions of the ITQ (e.g., Li et al., 2021; Sele et al., 2020). Since its publication in 2018, the ITQ has been used across epidemiological and clinical research in over twenty-nine countries (Cloitre et al., 2021; Cyr et al., 2022), validated and translated for use in twenty-five languages (Redican et al., 2021), including

Kinyarwanda (Mutuyimana & Maercker, 2022), German (Christen et al., 2021), Chinese (Ho et al., 2019) and Korean (Choi, Kim, et al., 2021). The ITQ has also been adapted for use with children and adolescents (ITQ-CA), showing consistent evidence of reliability and validity (Bruckmann et al., 2020; Haselgruber et al., 2020a; Kazlauskas et al., 2020; Redican, Hyland, et al., 2022; Sölva et al., 2020b)

Psychometric reliability

Establishing good-quality psychometric tools requires the evaluation of reliability and validity (Krieglstein et al., 2022). Good reliability and validity ensure the metric is meaningful and results obtained accurately pertain to what is being measured. Psychometric validity reflects a measurement's ability to measure what it intends to measure (Kimberlin & Winterstein, 2008) and reliability refers to the consistency of a measurement (Krieglstein et al., 2022). Reliability and validity are foundational for psychometric measures and examining reliability is essential to ensure a metric does not produce unstable or confounding results (Ahmed & Ishtiaq, 2021). For example, if a particular test fails to provide results consistently, it questions the precision and usefulness of the metric and continued use may result in erroneous conclusions being made.

There are several methods to assess reliability, such as measurement across people (interrater reliability) or time (test-retest reliability), for example, measuring pre-post interventions and calculating test-retest reliability via the Pearson correlation coefficient (Yen & Lo, 2002). Measuring the covariation of subscale items is often interpreted as the degree to which the items measure the same psychological construct and have internal reliability (Krieglstein et al., 2022). Internal reliability/consistency is commonly calculated using Cronbach's Alpha statistic (α). There are several interpretations of coefficient alpha

including the ratio of shared variance (across items in a sub-scale) to total variation or the average of all split-half reliabilities (Cho, 2016). A Cronbach alpha value can range from 0.00 to 1.00, with recommendations of minimally accepted reliability ranging from 0.65-0.80 (Green et al., 1977), although in psychological research, a value greater than 0.70 is considered acceptable (Taber, 2018). Multiple perspectives on reliability can assist the researcher in making more firm decisions about psychometric quality (Botella et al., 2010).

Aims of the research

Given that the ITQ is the only self-reported tool that corresponds to an internationally used diagnostic system (Cloitre et al., 2021), and is increasingly used in clinical and epidemiological research to assess for the presence and clinical consequences of trauma (e.g., Karatzias, Murphy, et al., 2019), examining the ITQ's psychometric quality is essential (Redican et al., 2021). Redican et al., (2021) recently systematically reviewed the ITQ's validity, but no study has systematically reviewed or meta-analysed the ITQ's reliability.

In contrast to systematic reviews, meta-analytic methods can collect and statistically synthesise reliability coefficients from multiple individual studies, giving researchers and clinicians greater confidence in a measure's psychometric quality (Rodriguez & Maeda, 2006). Furthermore, as the ITQ has been used internationally across many research questions and numerous populations with varying sample sizes, measuring the impact of these variables on the ITQ's reliability would also be beneficial. Consequently, the aims of the research are: (1) Investigate and synthesise the internal reliability and test re-test reliability of the ITQ across various studies which have used the ITQ measure. (2) Examine any influence of risk of bias of a paper, discrepant studies,

sample population, language of ITQ, effect of study design, types of reliability metric used and publication bias or small study effects on aggregated reliability rates and heterogeneity.

Methods

Protocol and registration

A protocol for this meta-analysis was registered with PROSPERO on 06/02/2023: CRD42023342904.

Identifying primary studies

A systematic search of the literature was carried out on 26th May 2022 using PsychINFO, Medline, Web of Science, Pubmed and Scopus databases. The search terms were purposefully inclusive of all papers which used the ITQ (Cloitre et al., 2018) across clinical, epidemiological or psychometrically focused studies (Table 1). Contrary to other reliability-focused meta-analyses (such as Porter et al., 2022), including "reliabilities" OR "reliabl*" in search terms significantly limited the search and therefore was not used. Papers obtained using a separate search including "reliabilities" OR "reliabl*" were cross-referenced to ensure they were captured in the main search.

Table 1:

Search Criteria

Construct (combined with AND)	Free Text Search Terms
International Trauma Questionnaire	"international trauma questionnaire" OR "ITQ"

Trauma	"Posttrauma*" OR "Post-trauma" OR "trauma" OR "PTSD" OR "CPTSD" OR "Complex PTSD" OR "Complex-PTSD" OR "Complex Posttrauma*" OR "Complex Post-trauma*" OR "Stress Disord*" OR "Stress-Disord*"

Eligibility criteria

The initial search yielded a total of 766 articles. Duplicates were removed (n=367) and an additional 12 papers were identified from the reference sections of the remaining papers. The final collection of 411 full-text studies were reviewed for eligibility by applying the inclusion and exclusion criteria (Table 2).

Table 2:

Inclusion/Exclusion Criteria and Justification

Inclusion Criteria	Exclusion Criteria	Justification
All papers which used the most recent iteration of the ITQ (2018 version) or translated equivalent	No full text options available via any sources, (including inter-library loans). Did not use 'international trauma questionnaire' or used a different scale with the same acronym Used a previous version of the ITQ (for example, Cloitre et al., 2015), evidenced by different number of items per scale Use of the Child and Adolescent version ITQ Use of most recent iteration of the ITQ but combined with additional questionnaire	It would be unable to calculate reliability rates or establish the details of the data used in the paper. Not relevant or appropriate to include within the present meta-analysis as would not provide original data that can be synthesised (for example, different number of items) with psychometrically validated 2018 version.

(continued)

Table 2*:* (continued)

Inclusion Criteria	Inclusion Criteria	Inclusion Criteria
Full-text English paper	Non-English paper	This is due to limited time and resource restraints to translate non-English papers
Original articles reporting unique data	No original research paper (including correction pieces, trial protocol, book chapters, commentary papers, review papers).	The focus of this review is to collate original reliability data for meta-analysis, such papers would not provide data
	No reliability data provided	
	No original reliability data provided (e.g., stating previous study reliability data)	
	Reliability reported as a range of values and not exact values	Reliability estimates for specific scales would not be possible to be calculated.
Sample Size is greater than 100 participants	Sample size is smaller than 100 participants	As outlined by Frost et al., (2007) papers with small sample sizes risk making inaccurate judgements on reliability rates. Frost et al., (2007) suggests a sample size of 200 or more is optimal for specific research on reliability. However, given articles within this analysis may not specifically be assessing reliability, a minimum sample size of 100 aimed to balance reliability research guidance and the breadth

(continued)

Table 2*:* (continued)

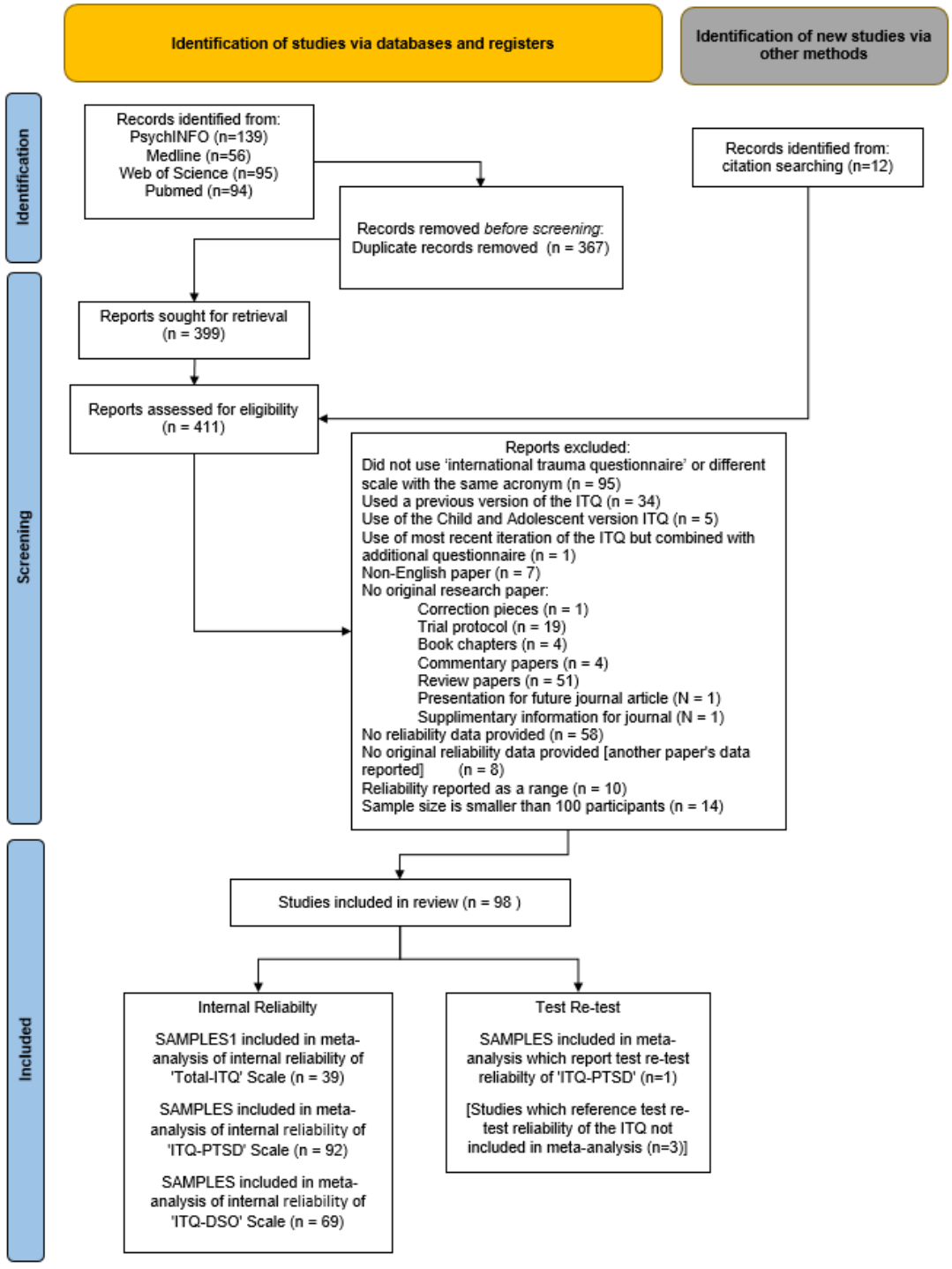
Inclusion Criteria	Inclusion Criteria	Inclusion Criteria
		of research included. The impact of sample size was considered to be assessed through the risk of bias assessment.

Following study review, 313 papers were excluded providing a total number of 98 articles for the meta-analysis which provided internal reliability or test-retest data (Figure 1). Only the most recent iteration of the ITQ (Cloitre et al., 2018) was included in the analysis, not previous versions as it has been psychometrically optimised and has improved clinical utility (Cloitre et al., 2018), therefore, recommended over previous versions (Christen et al., 2021). Importantly, several studies reported multiple population groups (such as Ben-Ezra et al., 2020), and others reported the same group completing all three components of the ITQ (Total scale, PTSD and DSO subscales, see Table 3). Therefore, the information at the bottom of Figure 1 refers to the number of unique *samples* which contained specific reliability data per subscale, rather than individual *studies.*

The main reason for exclusion were papers which did not use the ITQ or used a different questionnaire with the same acronym. The second most common reason was no reliability coefficient being stated (n=58). During the full-text screening it was apparent that few papers reported test re-test reliability, consequently the body of the analysis would have to predominately focus on internal reliability.

Figure 1:

PRISMA flow chart of the search strategy and process of article selection based on Page et al., (2020). [[1]- Samples refers to multiple samples within the same study, this is inclusive of where the sample has been used in several studies].



Data extraction

Data extraction was completed by the author (RT) with any queries related to the process of extraction discussed within research supervision. From each paper, descriptive data was extracted, including author, population type (such as Clinical/General), sample size, country of publication, language, and version of ITQ used (Table 3). Specific focus was also placed on ascertaining if the sample collected was unique, as several separate studies reported data from the same sample which may skew the synthesis of coefficients (see the Influence of Repeated Sample Datasets section).

Internal reliability coefficients and the number of items per scale (Total-ITQ, ITQ-PTSD and ITQ-DSO[C-PTSD]) were also extracted for synthesis. Cronbach Alpha was the primary measure of internal reliability. Ten papers used alternative forms of measuring internal consistency [or did not explicitly state the use of Alpha, for example, Tian et al., (2021)] and so values were converted into alpha if required. Where reliability coefficients were presented per item (e.g., Re, Av and Th), for example by Guo et al., (2021), the researcher manually averaged the items per cluster to generate the reliability coefficient for the relevant scales (e.g., ITQ-PTSD).

Defining problematic variance

A study-level effect is considered heterogeneous if it presents with variation which cannot be attributed to true variation in the distribution of the reliability coefficients. Heterogeneity can result from methodological variation in the studies, measurement error, variation in the implementation of the ITQ or uncontrolled individual difference factors within the body of literature.

Higgins I^2 is a commonly used measure of heterogeneity, with greater values of I^2 indicating variation in effect that cannot be attributed to true variation in the reliability of the ITQ. Problematic heterogeneity was defined as a Higgins I^2 value greater than 75%. Where unacceptable or problematic heterogeneity is observed, then the focus of the subsequent analyses will be upon the identification on the sources of heterogeneity between the reliability coefficient estimates in the included studies.

Study characteristics

Table 3 presents a summary of the characteristics of the 98 published *studies* included in the meta-analysis. All the studies within this meta-analysis provided reliability coefficients for the Total-ITQ scale or ITQ-PTSD or ITQ-DSO subscales, with some providing all three coefficients. The collected data equated to 39 separate *samples* which provided the *Total-ITQ* scale, 92 samples for the *ITQ-PTSD* subscale and 69 samples for *ITQ-DSO*. Only 3 papers reported test-retest reliability values of the scales and so this metric was not meta-analysed but is reported descriptively.

Table 3:

Overview of Included Studies

Study & Sample	Reliability Coefficient			N	ITQ Type	Language	Country of Administration	Population Type
	Total-ITQ	ITQ-PTSD	ITQ-DSO					
Armour, Robinson & Ross, 2021	0.98	-	-	732	Original	English	Northern Ireland	Clinical, Adults
Ben-Ezra et al., 2020								
Ghana Sample	0.92	-	-	500	Original	English	Ghana	General, Adults
Kenyan Sample	0.93	-	-	1018	Original	English	Kenya	General, Adults
Nigeria Sample	0.93	-	-	1006	Original	English	Nigeria	General, Adults
Bergman, Maytles, Frenkel-Yosef & Shrira, 2021	-	0.73	-	131	Original	Not Stated	Israel	General, Adults
Borroni, Masci et al., 2020	-	0.78	0.81	416	Translation	Italian	Italy	Clinical, Adults
Borroni, Ruotolo et al., 2021	-	0.87	0.91	552	Translation	Italian	Italy	General, Adults
Choi, Kim & Lee., 2021	0.92	0.92	0.89	236	Translation	Korean	South Korea	General, Adults
Choi, Lee & Hyland 2021	-	0.92	0.91	800	Translation	Korean	South Korea	General, Adults
Cloitre et al., 2019	-	0.89	0.89	1839	Original	English	USA	General, Adults
Cloitre, Hyland et al., 2021	0.89	-	-	254	Original	English	USA	Clinical, Adults
Cyr et al., 2022	-	0.88	0.96	355	Translation	French	Canada	General, Adults
Dhingra et al., 2021	0.90	0.85	0.87	409	Original	English	UK	General, Adults
Dokkedahl et al., 2022	-	0.74	0.80	150	Original & Translation	English	Denmark	General, Adults
Dragan et al., 2021	-	0.90	-	1742	Translation	Polish	Poland	General, Adults
Facer-Irwin et al., 2020	-	0.92	0.90	221	Original	English	UK	General, Adults
Folke et al., 2021	-	0.89	0.88	294	Translation	Danish	Denmark	Clinical, Adults

(continued)

Table 3: (Continued)

Study & Sample	Reliability Coefficient			N	ITQ Type	Language	Country of Administration	Population Type
	Total-ITQ	ITQ-PTSD	ITQ-DSO					
Fox et al., 2022	-	0.87	0.93	456	Original	English	USA	General, Adults
Frost et al., 2019	0.93	0.91	0.92	1051	Original	English	UK	General, Adults
Frost, Murphy et al., 2020	0.86	0.84	0.81	617	Translation	Hebrew	Israel	General, Adults
Gelezelyte et al., 2022	0.93	0.86	0.89	103	Translation	Lithuanian	Lithuania	General, Adults
Gilbur & Ford, 2020	-	0.75	0.91	234	Translation	Hebrew	Israel	General, Adults
Gilbur, 2020	-	0.75	0.91	234	Translation	Hebrew	Israel	General, Adults
Gilbur, Dekel et al., 2019	-	0.75	0.91	234	Translation	Hebrew	Israel	General, Adults
Gilbur, Taft & Dekel, 2020	-	0.92	-	234	Translation	Hebrew	Israel	General, Adults
González-Mesa et al., 2021	-	0.94	-	220	Translation	Spanish	Spain	General, Adults
Greene et al., 2021	-	0.88	-	1194	Original	English	UK	General, Adults
Guo et al., 2021	-	0.87	0.84	1361	Translation	Chinese	China	General, Adults
Haahr-Pedersen et al., 2020	0.92	0.90	0.93	1839	Original	English	USA	General, Adults
Hansen et al., 2021	-	0.89	-	1099	Translation	Danish	Denmark	Clinical, Adults
Haselgruber, Knefel et al., 2021	-	0.73	0.83	122	Original	English	Austria	Clinical, Children
Haselgruber, Sölva & Lueger-Schuster, 2020	-	0.86	0.91	136	Original	English	Austria	Clinical, Children
Healy et al., 2021	0.87	-	-	166	Original	English	USA	General, Adults
Ho et al., 2020	-	0.87	0.89	1346	Translation	Chinese & Japanese	China, Hong Kong, Japan, and Taiwan	General, Adults
Ho, Hyland et al., 2021	0.93	-	-	1020	Original	English	Ireland	General, Adults
Ho, Karatzias et al., 2019	-	0.89	0.90	423	Translation	Chinese	China	General, Adults
Ho, Karatzias, Vallières et al., 2021								
English Sample	-	0.91	0.92	1051	Original	English	UK	General, Adults
Irish Sample	-	0.90	0.93	1020	Original	English	Ireland	General, Adults
Hoeboer et al., 2021	0.81	-	-	149	Original	English	Netherlands	Clinical, Adults
Hyland et al., 2019	-	0.91	0.92	546	Original	English	UK	General, Adults
Hyland, Karatzias et al., 2020	-	0.89	0.88	1003	Translation	Hebrew	Isreal	General, Adults
Hyland, Karatzias, Shevlin et al., 2021	-	0.90	0.93	1020	Original	English	Ireland	General, Adults
Hyland, Rochford et al., 2021	-	0.91	-	1032	Original	English	Ireland	General, Adults
Hyland, Shevlin et al., 2020	-	0.74	0.81	106	Original	English	UK (Scotland)	Clinical, Adults
Hyland, Vallières et al., 2021	0.93	0.90	0.93	1020	Original	English	Ireland	General, Adults
Jowett et al., 2022	-	0.90	0.93	1020	Original	English	Ireland	General, Adults
Jowett, Shevlin et al., 2021	-	0.91	-	1041	Original	English	Ireland	General, Adults
Karatzias et al., 2019	-	0.91	0.92	1051	Original	English	UK	General, Adults
Karatzias, Knefel et al., 2022	0.92	0.89	0.91	1020	Original	English	Ireland	General, Adults
Karatzias, Shevlin et al., 2021	0.86	0.76	0.84	331	Original	English	UK (Scotland)	Clinical, Adults
Karatzias, Shevlin, Fyvie et al., 2020	0.83	0.72	0.82	275	Original	English	UK (Scotland)	Clinical, Adults
Karatzias, Shevlin, Hyland et al., 2021	0.86	0.76	0.84	331	Original	English	UK (Scotland)	Clinical, Adults
Karatzias, Shevlin, Murphy et al., 2020	-	0.93	-	1041	Original	English	Ireland	General, Adults
Killikelly et al., 2020	-	0.76	-	539	Original	English	Germany, Austria, Switzerland and China	General, Adults
Kira et al., 2022	-	0.75	0.85	891	Original	English	Turkey and Syria	Clinical, Adults
Knefel et al., 2019	0.89	-	-	1591	Original & Translations	English, German, Israeli	Germany, UK, Israel and USA	General, Adults
Kvedaraite, Gelezelyte, Kairyte, Roberts and Kazlauskas, 2021	0.86	0.85	0.77	885	Original	English	Lithuania	General, Adults
Kvedaraite, Gelezelyte, Karatzias, Roberts and	0.88	0.86	0.85	280	Original	English	Lithuania	Clinical, Adults
Langtry et al., 2021	-	0.86	0.92	1300	Original	English	UK	General, Adults
Letica-Crepulja et al., 2020	-	0.77	0.89	160	Translation	Croatian	Croatia	Clinical, Adults
Levin et al., 2021	-	0.86	0.85	1142	Original	English	Israel	General, Adults
Levin, Bachem et al., 2021	-	-	-					
Ghana Sample	0.92	0.86	0.88	500	Original	English	Ghana	General, Adults
Kenyan Sample	0.93	0.85	0.89	1018	Original	English	Kenya	General, Adults
Nigerian Sample	0.93	0.84	0.88	1006	Original	English	Nigeria	General, Adults
Li et al., 2021	0.91	0.80	0.88	3478	Translation	Chinese	China	Clinical, Children
Maercker et al., 2022	-	0.91	0.85	126	Translation	German	Switzerland	General, Adults
Mahat-Shamir et al., 2019	-	0.94	0.96	343	Original	English	Israel	General, Adults
Maytles et al., 2021a	-	0.85	-	109	Original	English	Israel	General, Adults
Maytles et al., 2021b	-	0.73	-	131	Original	English	Israel	General, Adults
Møller et al., 2020	-	0.91	0.88	165	Translation	Danish	Denmark	Clinical, Adults

(continued)

Table 3*:* (Continued)

Study & Sample	Reliability Coefficient			N	ITQ Type	Language	Country of Administration	Population Type
	Total-ITQ	ITQ-PTSD	ITQ-DSO					
Møller, Bach et al., 2021	0.83	0.76	0.81	111	Translation	Danish	Denmark	Clinical, Adults
Møller, Søgaard et al., 2021	0.85	0.71	0.81	106	Translation	Danish	Denmark	Clinical, Adults
Murphy et al., 2021	-	0.90	0.93	334	Original	English	UK	Clinical, Adults
Murphy, Shevlin et al., 2020	0.91	0.88	0.90	177	Original	English	UK	Clinical, Adults
Mutuyimana and Maercker,	-	0.93	-	261	Translation	Kinyarwanda	Rwanda	Clinical, Adults
Owczarek et al., 2020	-	0.85	0.89	2524	Original	English	Nigeria, Kenya and Ghana	General, Adults
Palgi et al., 2020	-	-	-					
Ghana Sample	0.92	-	-	500	Original	English	Ghana	General, Adults
Kenyan Sample	0.93	-	-	1018	Original	English	Kenya	General, Adults
Nigerian Sample	0.93	-	-	1006	Original	English	Nigeria	General, Adults
Panayi et al., 2022	-	0.83	0.87	151	Original	English	UK	Clinical, Adults
Panzeri et al., 2021	-	0.93	-	1034	Original	English	Italy	General, Adults
Redican et al., 2022	-	0.89	0.89	1834	Original	English	USA	General, Adults
Rink and Lipinska, 2020	0.90	0.83	0.88	576	Original	English	South Africa	General, Adults
Sandberg and Refrea, 2022	-	0.87	0.86	169	Original	English	USA	General, Adults
Schröder et al., 2021	0.95	-	-	212	Translation	German	Germany	General, Adults
Shevlin et al., 2020	-	0.90	0.93	1020	Original	English	Ireland	General, Adults
Shevlin, McBride et al., 2020	-	0.93	-	2025	Original	English	UK	General, Adults
Shrira and Felsen, 2021	-	0.86	-	297	Original	English	USA and Canada	General, Adults
Sölva, Haselgruber and Lueger-Schuster, 2020	-	0.75	0.83	140	Original	English	Austria	Clinical, Children
Somma, Krueger et al., 2021	-	-	-					
Wave 1	-	0.78	-	811	Translation	Italian	Italy	General, Adults
Wave 3	-	0.86	-	203	Translation	Italian	Italy	General, Adults
Spikol et al., 2022	0.98	0.96	0.96	638	Original	English	UK	Clinical, Adults
Tian et al., 2021	-	0.82	0.85	395	Translation	Chinese	China	General, Children
Tian, Wu et al., 2020	-	0.92	0.92	1760	Translation	Chinese	China	General, Children
Tsur and Abu-Raiya, 2020	-	0.87	0.86	837	Translation	Hebrew	Israel	General, Adults
Tsur, 2020	-	-	-					
Daughters Sample	0.86	-	-	194	Translation	Hebrew	Israel	General, Adults
Mothers Sample	0.84	-	-	194	Translation	Hebrew	Israel	General, Adults
Tsur, 2022	-	-	-					
Trauma Exposed Population	-	0.85	0.89	160	Translation	Hebrew	Israel	General, Adults
General Population	-	0.84	-	214	Translation	Hebrew	Israel	General, Adults
Tsur, Katz and Talmon, 2021	-	0.86	0.89	180	Translation	Hebrew	Israel	General, Adults
Valiente et al., 2021	-	0.79	-	1700	Original	English	Spain	General, Adults
Vallières et al., 2022	-	0.90	0.93	1020	Original	English	Ireland	General, Adults
Vang et al., 2019	0.84	0.74	0.83	284	Translation	Danish and	Denmark	Clinical, Adults
Vang, Ben-Ezra and Shevlin,	0.90	0.89	0.87	834	Original	English	Israel	General, Adults
Vazquez et al., 2021	-	0.86	-	2122	Original	English	Spain	General, Adults
Waite et al., 2022	-	0.93	-	2025	Original	English	UK	General, Adults
Yaakubov, Hoffman and Rosenbloom, 2020	-	0.78	-	163	Original	English	Israel	General, Adults

Risk of bias assessment and quality ratings

Research quality refers to a study's evidential capacity to answer the research question. Factors that affect studies' research quality include its position on the overall hierarchy of experimental designs and the presence of risk of bias factors in the implementation of the study (Higgins et al., 2011).

The included studies were assessed for risk of bias. Compared to the use of a Quality Criteria which may unintentionally merge quality of reporting with internal and external validity, a risk of bias assessment focuses solely on the internal and external validity of a study (Higgins et al., 2011). Practically this would mean a risk of bias assessment can be more specific to factors pertaining to the literature being reviewed, rather than general theoretical or conceptual considerations. For example, if a particular process (i.e., blinding) has or has not been completed may depend on how feasible it is to implement within the design of the study and the specific review topic that is being examined. Consequently, the Cochrane collaboration highly recommends a risk of bias analysis over the use of quality scales (Higgins et al., 2011). The risk of bias assessment undertaken within this review was adapted from pre-existing risk of bias frameworks, including The Cochrane Collaboration Risk of Bias Tool (Higgins et al., 2011) and the Risk of Bias Assessment Tool for Nonrandomised Studies (Kim et al., 2013).

As advised by Higgins et al., (2011), the framework assessed risk of bias in the six domains pertaining to the literature being reviewed (*selection bias, performance bias, detection bias, statistical bias, reporting bias and generalisation*), each domain is rated as low, unclear, or high risk. Accordingly, the criteria for allocating low, unclear and high risk of bias is a combination of published risk of bias criteria relating to randomised and non-randomised studies from the Cochrane Collaboration and specific criteria relating to the topic of this review. The criteria for risk of bias in the six domains are described in Table 4, and the application of, in Table 5. Where multiple samples were used in individual studies, they were assessed for risk of bias separately as may have had different risks of bias, [for example, Tsur (2022), recruited a trauma-exposed and a general

population group which may have different selection bias], resulting in 107[1] individual samples from the original number of 98 studies.

Table 4:

Domains of risk of bias and the criteria for ratings of low, unclear, and high risk.

Risk of Bias	Definition	Rated Risk of Bias
Selection bias	The ITQ (Cloitre et al., 2018) has been used across various population groups to assess for PTSD and C-PTSD symptomology. Section bias may be indicated if the impact of sample characteristics are not clearly considered. For example, where there are mixed primary diagnoses which could mean the symptomology of PTSD/C-PTSD may be misattributed. Notably, broad ranges of comorbidity in regard to primary diagnosis (25%, 50% and 75%) have been used as literature captures both clinical and general	Low risk – The sample(s) are clearly described, including if the population has been exposed to traumatic experiences. The article may provide reassurance there is no selection bias, or the sample population's primary diagnosis is clearly PTSD or C-PTSD, or a low rate of diagnosed comorbidities (<25% of the sample). The sample used is not from a specific population group (e.g., general population) Unclear risk – The sample characteristics are not clearly reported, rate of comorbidity or obscurity in the primary diagnosis is between 25-50% or the sample used is from a specific population group which may have unclear influence on reliability rates (e.g., genocide survivors).

(continued)

[1] '107 'samples' within this Risk of Bias section is different to the number of samples within the synthesis and previously displayed in Figure 1, as the *samples* obtained for risk of bias was split per study then population group first, rather than for the Analysis whereby it was ITQ-domain first then study. For example, for Risk of Bias, the Tsur (2022) study generated 2 samples, whereas for Results it resulted in 3 samples as the trauma population group completed both ITQ-PTSD and ITQ-DSO subscales, see Table 3.

Table 4 (Continued)

Risk of Bias	Definition	Rated Risk of Bias
	population samples so rigid criteria may not be appropriate.	High risk – The recruitment strategy or selection method has not been adequately or completely reported. For example, experiences of traumatic events or demographic characteristics have not been stated. This may also include where the population group's primary diagnosis is not consistent, for example over 50% of the sample group report comorbid primary diagnoses which may impact the attribution of symptomology as PTSD or C-PTSD.
Performance bias	Performance bias refers to systematic differences between and within groups in the participants motivation to complete the study. For example, participants who have been paid for participation would indicate high risk of bias.	Low risk - Participants were not rewarded for their participation in the study and does not indicate different motivating factors for participation compared to other studies. This may also include specific measures to ensure validity or bias or if a paper explicitly reports participants were not rewarded for participation. Unclear risk – Whereby it is not clear if the factors associated with a participant taking part in the study would impact the reliability coefficients. For example, if participants are noted to have an option to take place in a raffle – without this being mandatory. High risk – Participant group has been reported to have directly received

(continued)

Table 4: (Continued)

Risk of Bias	Definition	Rated Risk of Bias
		reimbursement, payment, or any alternative motivating factors for taking part in the study (i.e., student credits).
Detection bias	Detection bias refers to the ability to detect the desired outcome (reliability). The ITQ is a self-report measure and should be completed by the individual. Any alterations to the original format of assessment should be clearly defined and referenced where relevant (for example, validated language version).	Low risk – The full version of the 2018 English language questionnaire (Cloitre et al., 2018) has been used. If the 2018 version has not been used a validated language equivalent is used (i.e., Somma et al., 2021)with the same number of items[12 items (6=PTSD and 6=DSO when both elements have been completed) with an additional 6 questions split per PTSD/DSO for functional impairment)]. Unclear risk – The version of the ITQ is not reported or insufficient information is reported regarding the administration protocol. High risk – The most recent iteration of the ITQ (Cloitre et al, 2018) has not been used, referenced, or the number of items administrated is not consistent with this version. High risk may also include if the ITQ has been administered on behalf of participant.

(continued)

Table 4: (Continued)

Risk of Bias	Definition	Rated Risk of Bias
Statistical bias	Statistical bias refers to the quality of reporting of statistical information, relating to the reliability coefficient.	Low risk – established statistical methods to calculate reliability coefficients have been used (such as, Cronbach Alpha, Composite Reliability, McDonald's Omega). Unclear risk – An exact reliability coefficient is not reported, for example, a range or if some data is missing. High risk - No information is provided as to how the reliability coefficient has been calculated, or the reliability is not reported (this risk is unlikely given prior inclusion screening).
Reporting bias	Captures the completeness in reporting the sampling characteristics, descriptive statistics, and outcomes of the research study.	Low risk – There is complete reporting of sample demographics and descriptive statistics. Unclear risk – Demographic and descriptive statistics are unclear or reported but are not consistent or do not match broader text. High risk – There is no demographic data, descriptive statistics reported, or important data is missing. For example, only one subscale has been reported, when two have been administered or if one sample reliability has been used when multiple samples were included in the study

(continued)

Table 4: (Continued)

Risk of Bias	Definition	Rated Risk of Bias
Generalisability	Size of the sample relative and the ability to transfer findings to the wider population.	Low risk – Sample size is larger than 200 participants, given Frost et al., (2007) recommendation of psychometric focused research studies. Unclear risk – Sample size is between 100-200 participants. High risk – Sample size is smaller than 100 participants.

The total risk of bias for each study was calculated as the sum of each of the six domains of bias (low=2 points, unclear=1 point, high=0 points).

Table 5:

Ratings of risk of bias. Red indicates high risk of bias, amber marks an unclear risk of bias and green is a low risk of bias.

Study & Sample	Selection Bias	Performance Bias	Detection Bias	Statistical Bias	Reporting Bias	Generalisability
Armour, Robinson & Ross, 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ben-Ezra et al., 2020						
Ghana Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kenyan Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nigeria Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bergman, Maytles, Frenkel-Yosef & Shrira, 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Borroni, Masci et al., 2020	High risk	Low risk	Low risk	Low risk	Low risk	Low risk
Borroni, Ruotolo et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Choi, Kim & Lee., 2021	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Choi, Lee & Hyland 2021	Low risk	High risk	Unclear risk	Low risk	Low risk	Low risk
Cloitre et al., 2019	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Cloitre, Hyland et al., 2021	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Cyr et al., 2022	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Dhingra et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Dokkedahl et al.,	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk

(continued)

Table 5: (Continued)

Dragan et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Facer-Irwin et al.,	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Folke et al., 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Fox et al., 2022	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Frost et al., 2019	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Frost, Murphy et al., 2020	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Gelezelyte et al.,	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Gilbur & Ford, 2020	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gilbur, 2020	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gilbur, Dekel et al., 2019	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gilbur, Taft & Dekel, 2020	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
González-Mesa et al., 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Greene et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Guo et al., 2021	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Haahr-Pedersen et al., 2020	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Hansen et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Haselgruber, Knefel et al., 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Haselgruber, Sölva & Lueger-Schuster, 2020	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Healy et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Ho et al., 2020	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Ho, Hyland et al.,	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Ho, Karatzias et al., 2019	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk
Ho, Karatzias, Vallières et al., 2021						
English Sample	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Irish Sample	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Hoeboer et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Hyland et al., 2019	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hyland, Karatzias et al., 2020	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hyland, Karatzias, Shevlin et al., 2021	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Hyland, Rochford et al., 2021	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Hyland, Shevlin et al., 2020	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Hyland, Vallières et al., 2021	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Jowett et al., 2022	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Jowett, Shevlin et al., 2021	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Karatzias et al., 2019	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Karatzias, Knefel et al., 2022	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Karatzias, Shevlin et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk

Table 5: (Continued)

Study & Sample	Selection Bias	Performance Bias	Detection Bias	Statistical Bias	Reporting Bias	Generalisability
Karatzias, Shevlin, Fyvie et al., 2020	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Karatzias, Shevlin, Hyland et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Karatzias, Shevlin, Murphy et al., 2020	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Killikelly et al., 2020	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Kira et al., 2022	Unclear risk	High risk	Unclear risk	Low risk	Low risk	Low risk
Knefel et al., 2019	Low risk	Low risk	Unclear risk	Unclear risk	Low risk	Low risk
Gelezelyte, Kairyte, Roberts and Kazlauskas, 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Gelezelyte, Karatzias, Roberts and Kazlauskas, 2021	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Langtry et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Letica-Crepulja et al., 2020	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Levin et al., 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Levin, Bachem et al., 2021						
Ghana Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kenyan Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nigerian Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Li et al., 2021	Unclear risk	Low risk	High risk	Low risk	Low risk	Low risk
Maercker et al., 2021	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Mahat-Shamir et al., 2019	Unclear risk	Low risk	High risk	Low risk	Low risk	Low risk
Maytles et al., 2021a	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Maytles et al., 2021b	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Møller et al., 2020	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Møller, Bach et al., 2021	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Møller, Søgaard et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Murphy et al., 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Murphy, Shevlin et al., 2020	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Mutuyimana and Maercker, 2022	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Owczarek et al., 2020	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Palgi et al., 2020						
Ghana Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kenyan Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nigerian Sample	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Panayi et al., 2022	High risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Panzeri et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Redican et al., 2022	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Rink and Lipinska, Sandberg and Refrea, 2022	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Schröder et al., 2021	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Shevlin et al., 2020	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Shevlin, McBride et al., 2020	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Shrira and Felsen, Sölva, Haselgruber and Lueger-Schuster, Somma, Krueger et al., 2021	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk
Wave 1	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Wave 3	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Spikol et al., 2022	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tian et al., 2021	Unclear risk	Low risk	High risk	High risk	Low risk	Low risk
Tian, Wu et al., 2020	Unclear risk	Low risk	Unclear risk	High risk	Low risk	Low risk
Tsur and Abu-Raiya, 2020	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tsur, 2020						
Daughters Sample	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Mothers Sample	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk

Table 5: (Continued)

Study & Sample	Selection Bias	Performance Bias	Detection Bias	Statistical Bias	Reporting Bias	Generalisability
Tsur, 2022						
Trauma Exposed Population	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
General	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tsur, Katz and Talmon, 2021	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Valiente et al., 2021	Low risk	High risk	High risk	Low risk	Low risk	Low risk
Vallières et al., 2022	Low risk	High risk	Low risk	Low risk	Low risk	Low risk
Vang et al., 2019	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk	Low risk
Vang, Ben-Ezra and Shevlin, 2019	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk
Vazquez et al., 2021	Low risk	High risk	High risk	Low risk	Low risk	Low risk
Waite et al., 2022	Low risk	Low risk	High risk	Low risk	Low risk	Low risk
Yaakubov, Hoffman and Rosenbloom,	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk

Selection bias

There were 52 samples rated as *low risk* due to having clear sampling and recruitment processes. A slight majority of 53 samples were identified as an *unclear risk*, primarily due to the study sample being from a notably specific population group. For example, Dhingra et al., (2021) sampled only UK prison governors, and Kira et al., (2022) sampled displaced Syrian refugees, which have an unclear influence on the reliability of results. There were 2 studies identified as *high risk* due to >50% of the sample population reportedly having comorbidities with an alternative mental health condition at the recruitment stage (Borroni et al., 2021; Panayi et al., 2022) which may have impacted the ability to assess solely for PTSD/C-PTSD phenomena.

Performance bias

Most samples identified were rated as *low risk* (83) for performance bias despite an awareness that as the ITQ is a self-report measure so social desirability may be present in all studies. There were 5 studies rated as having *unclear risk* of bias due to participants

being offered a place on a raffle if desired, and 19 studies rated as *high risk* due to explicitly stating participants were reimbursed for their participation. Financial reimbursement could be considered to influence participant's responses on the measure and can be exacerbated given a large proportion of the studies used a general population who did not necessarily need to obtain a clinically significant score to participate. Interestingly, of the 19 studies rated as high risk, there is a repetition of the same samples without this being explicitly noted in the text [such as Palgi et al., (2020) and Ben-Ezra et al., (2020), see the Influence of Repeated Sample Datasets section]. Whilst publishing different papers using the same sample is not abnormal, for this meta-analysis it may skew the overall rating of risk of bias across studies.

Detection bias

Most studies were rated as *low risk* for detection bias. However, a proportion of the studies appeared to use a translated version of the most recent iteration of the ITQ but provided limited information on how the ITQ was translated and rated as *unclear risk* (27). Notably, Kvedaraite, Gelezelyte, Kairyte, et al., (2021) reported the importance of ITQ translations to increase accessibility within their discussion section, but despite having an inclusionary criterion of the sample being Lithuanian speakers, the paper does not explicitly state if the ITQ questionnaire was translated or not. There were 6 studies identified as *high risk* due to changing the wording of the original questionnaire to match the topic of study (e.g., Vazquez et al., 2021; Waite et al., 2022) or for the sample group (Li et al., 2021) but it is not specified what elements were altered. Mahat-Shamir et al., (2019) also explicitly referenced the most recent iteration of the ITQ (Cloitre et al., 2018) but reports elsewhere to have translated it and used a different number of items.

Statistical bias

Most samples were rated as *low risk* (103) for statistical bias as the studies used a known valid measure of internal reliability (such as Cronbach Alpha or Composite Reliability). There were 2 papers identified as unclear risk whereby the calculation of reliability was slightly unusual. For example, Knefel et al., (2019) presented the reliability rates of several countries of studies as a range and as all together in an exact value. For the 2 studies marked as *High Risk*, this was due to not explicitly stating how reliability was calculated and only a value was stated (Tian et al., 2020, 2021).

Reporting bias

Overall, the reporting of reliability coefficients and demographic details was good, and all papers were identified as *low risk* of reporting bias. There was a proportion of the studies which used the same samples as other papers without this being explicitly stated, however, the impact of repeated datasets is outlined in the Results section below.

Generalisability

Frost et al., (2007) suggest that sample sizes of over 200 are considered sufficient for establishing reliability and validity within clinical populations. Subsequently, 83 of the studies with sample sizes of 200 or greater were identified as *low risk* of generalisability (78%). The remaining samples (24) were rated as *unclear risk* for having a sample size between 100-200. As a sample size smaller than 100 was considered an exclusionary factor within this meta-analysis, accordingly, no studies were rated as *high risk*.

Summary

Overall, there was generally a low risk of bias throughout, with most studies scoring low risk in reporting bias, statistical bias, performance bias and generalisability. For detection bias, 69% of the studies were reported as low bias, with the remaining majority due to a lack of clarity on how the ITQ was translated. The risk of bias was more notable for selection bias, with just under half of the studies being rated as low in bias (49%). The main reasons for unclear risk of selection bias were the sample being notably specific and this having an unclear influence on reliability rates.

Results

Internal consistency of the ITQ

The literature search identified a total of 98 studies which provided alpha coefficients for internal reliability, giving a total sample size of n=141,315. The sample sizes across individual studies ranged from n=103 (Gelezelyte et al., 2022) to n=3,478 (Li et al., 2021), with specific study characteristics previously shown in Table 3.

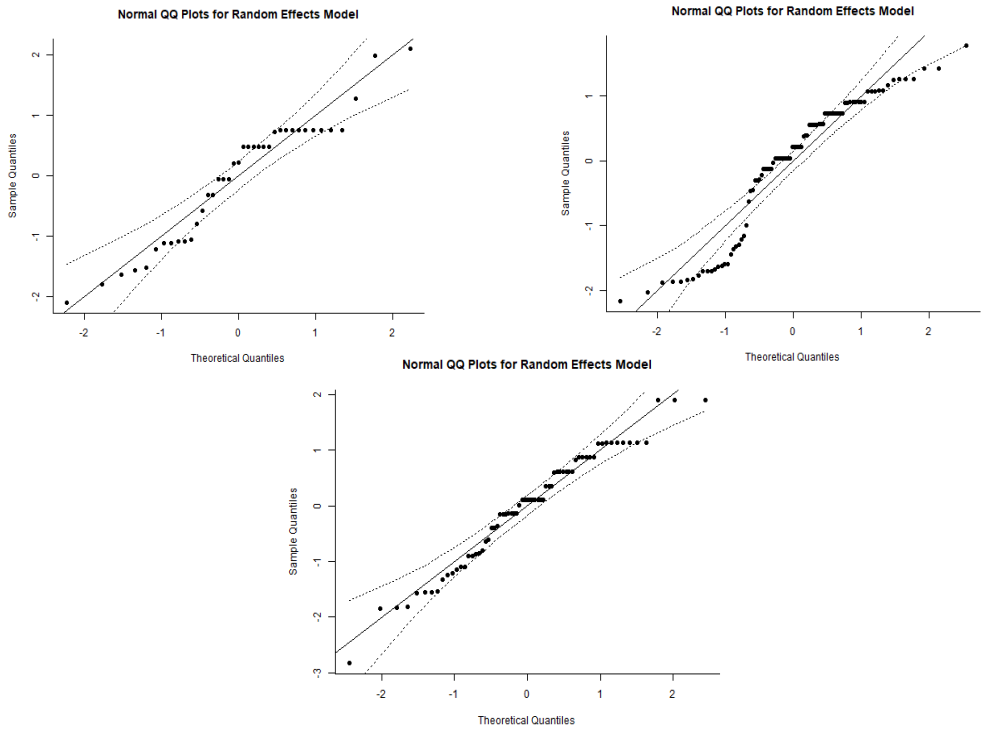
All 98 studies provided reliability coefficients for the Total-ITQ scale or ITQ-PTSD or ITQ-DSO subscales, with some providing all three. Accordingly, 39 separate samples (from the 98 studies) were identified to provide coefficients for the *Total-ITQ* scale, 92 samples for the *ITQ-PTSD* subscale and 69 samples for *ITQ-DSO*. The term *sample* refers to unique samples per ITQ (sub)scale; if 1 study reported coefficients for all 3 subscales these would be demarcated into 3 separate ‘samples’ as subscales were synthesised separately.

Selection of the meta-analytic model

The distribution of included study effects (each respective sample) within Total-ITQ, ITQ-PTSD, and ITQ-DSO are presented in Figure 2. The between-studies variance (tau^2) was calculated per scale using the restricted maximum-likelihood estimator (REML). There was evidence of non-normality in the distribution of reliability rates (per sample) for the Total-ITQ and PTSD/DSO subscales, with non-normality still present using the random effects model (Figure 2). Therefore, this indicates the use of the random effects model, calculated using the REML is an appropriate method for this data as this estimator is more robust to deviations from normality (Banks et al., 1985).

Figure 2:

QQ plot of the distribution of the reliability estimate for Total-ITQ (left), ITQ-PTSD (right) and ITQ-DSO (bottom) using the random effects model



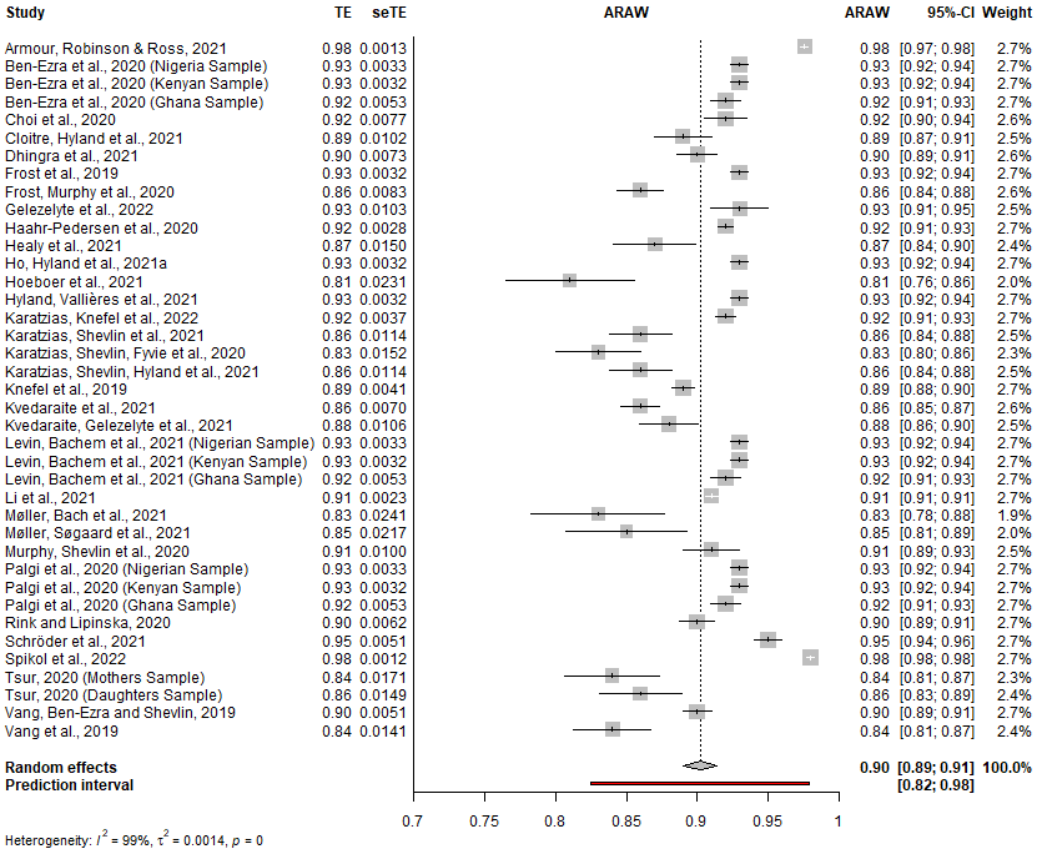
The Omnibus test

Total-ITQ

For the Total-ITQ scale, the 39 samples resulted in a collective sample size of *n*=26,685 participants. The random effects model was calculated using the generic inverse variance method and the REML estimate of between-studies variability, demonstrating an estimated internal consistency of Total-ITQ alpha (α)= 0.90 (95% CI:0.89-0.91), suggesting high reliability (Taber, 2018). However, there was considerable heterogeneity in the estimation of reliability (tau^2 = 0.0014, Higgin's I^2 = 98.8%; Q = 3169.83, p = 0) suggesting estimates of reliability in the primary samples may be biased by uncontrolled or confounding factors (Figure 3). Further analysis will therefore be upon the identification of the sources of heterogeneity between the estimates of the internal reliability of the Total-ITQ scale.

Figure 3:

Forest Plot showing Omnibus test of reliability coefficients of Total-ITQ

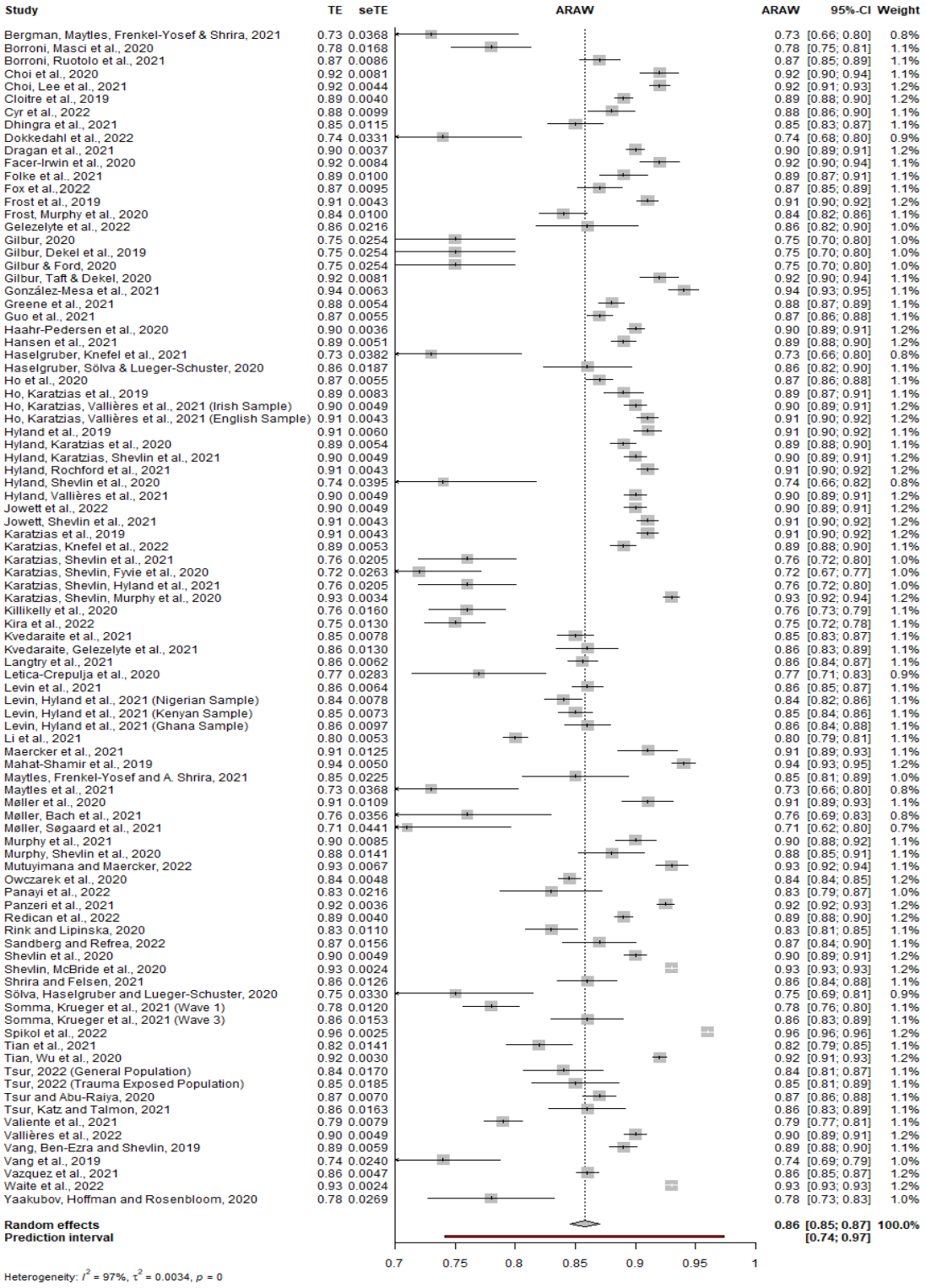


ITQ-PTSD

There were 92 *samples* which reported an ITQ-PTSD reliability coefficient, equating to a sample size of 67,134 participants. The random effects model was again calculated using the generic inverse variance method and the REML demonstrating an estimated internal consistency of ITQ-PTSD alpha (α)= 0.86 (95% CI:0.85-0.87), suggesting, again, high reliability (Taber, 2018), though marginally lower than the Total-ITQ. There was considerable heterogeneity in the estimation of reliability (tau^2 = 0.0034, Higgin's I^2 = 97%; Q = 3484.80, p = 0) suggesting estimates of reliability in the primary samples may be similarly biased by uncontrolled or confounding factors. Further analysis will therefore be upon the identification of the sources of heterogeneity between reliability estimates. In contrast to the Total-ITQ, several individual samples' confidence intervals report possible reliability coefficients less than 0.70 (Figure 4).

Figure 4:

Forest Plot showing Omnibus test of reliability coefficients for ITQ-PTSD

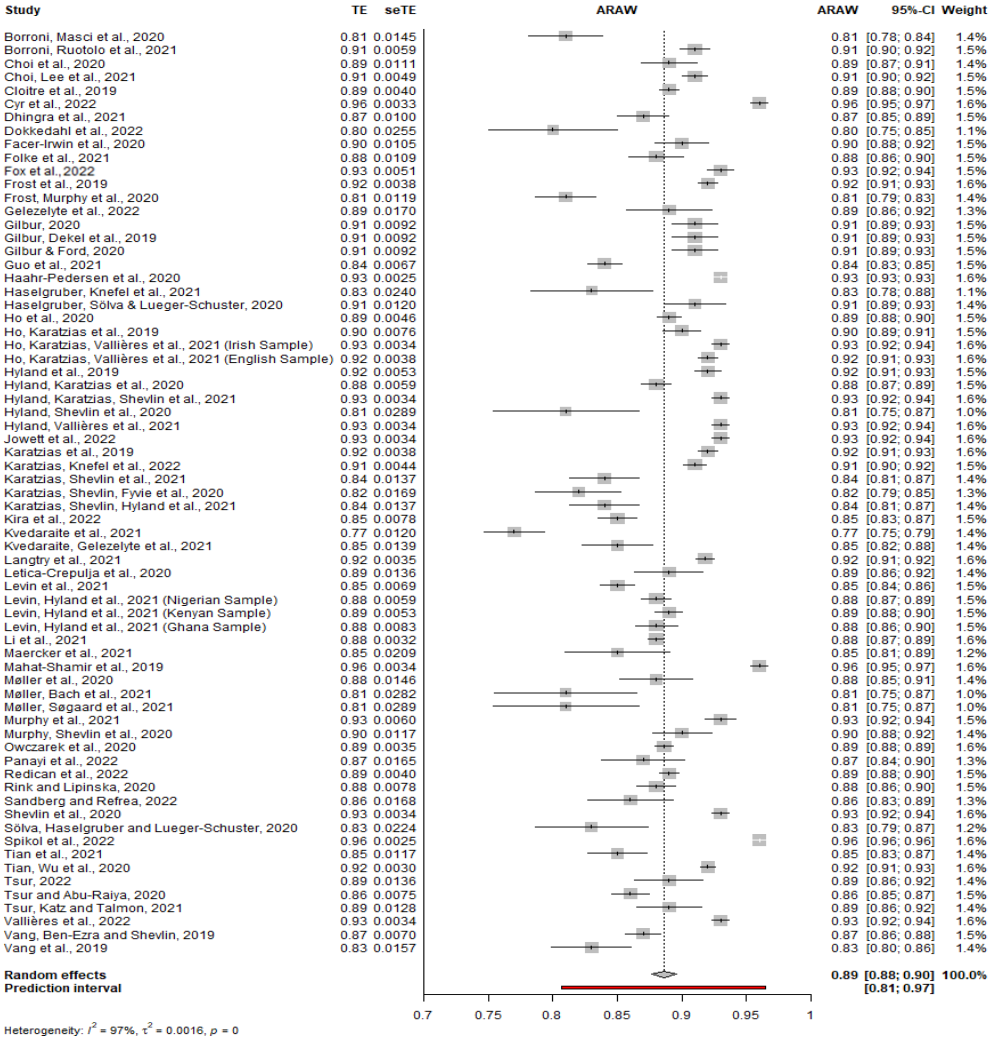


ITQ-DSO

From the original 98 studies, 69 samples (*n*=47,766) provided internal reliability data for the ITQ-DSO subscale. The random effects model was again calculated using the generic inverse variance method and the REML resulting in an estimated internal consistency of ITQ-DSO alpha (α)= 0.89 (95% CI:0.88-0.90) suggesting high reliability (Taber, 2018) [Figure 5]. Considerable heterogeneity in the estimation of reliability (tau^2 = 0.0016, Higgin's I^2 = 97%; Q = 2318.89, p = 0) is reported, suggesting estimates of reliability in the primary samples may be biased by uncontrolled or confounding factors. Further analysis will equally explore heterogeneity.

Figure 5*:*

Forest Plot showing Omnibus test of reliability coefficients of ITQ-DSO



Influence of repeated sample datasets

As identified within the risk of bias assessment, several studies utilised the same population sample for different research questions, evidenced by equal demographic data and recruitment processes (e.g., Ben-Ezra et al., 2020; Levin, Bachem, et al., 2021; Levin, Hyland, et al., 2021; Palgi et al., 2021). In some papers it is less clear, for example slightly different reliability rates being reported, but extremely similar sampling processes and equal demographic data (such as Cloitre et al., 2019; Haahr-Pedersen et al., 2020; Ho, Karatzias, et al., 2021; Karatzias et al., 2022).

On cautious review of the total 98 studies collected (encompassing Total-ITQ, ITD-PTSD and ITQ-DSO data), 29 studies may have published repeated sample and reliability data. Although authors may publish multiple studies with the same sample to examine different research questions, this issue is unique to this meta-analysis as the inclusion of repeated samples may have an undue influence on the reliability estimate and heterogeneity. Consequently, to examine in greater detail, the papers which appeared to repeat a sample were removed and one study which could capture the excluded data was arbitrarily chosen to remain (often due to alphabetical order). For example, Cloitre et al., (2019) remained within the analysis, but Fox et al., (2022) and Haahr-Pedersen et al., (2020) were excluded. The individual studies which were excluded and their affiliated studies which remained in the following analysis are detailed in Table 6.

Table 6:

Comparison of excluded studies due to repetition of reliability data and affiliated studies which remained in the analysis

Excluded Studies	Affiliated Studies which remained
Fox et al., 2022	Cloitre et al., 2019
Haahr-Pedersen et al., 2020	
Gilbur, 2020	
Gilbur and Ford, 2020	Gilbur, Dekel et al., 2019
Gilbur, Taft & Dekel, 2020	
Ho, Karatzias et al., 2019	Ho et al., 2020
Ho, Karatzias, Vallières et al., 2021	
Hyland et al., 2019	Frost et al., 2019
Hyland, Karatzias, Shevlin et al., 2021	
Karatzias et al., 2019	
Hyland, Vallières et al., 2021	
Jowett et al., 2022	
Karatzias, Knefel et al., 2022	Ho, Karatzias, Vallières et al., 2021
Shevlin et al., 2020	
Vallières et al., 2022	
Karatzias, Shevlin, Hyland et al., 2021	Karatzias, Shevlin et al., 2021
Levin, Bachem et al., 2021	Ben-Ezra et al., 2020
Palgi et al., 2020	
Karatzias, Shevlin, Murphy et al., 2020	Jowett, Shevlin et al., 2021
Owczarek et al., 2020	Levin, Hyland et al., 2021

When considering the exclusion of repeated datasets per individual ITQ subscales (previously denoted as '*samples'*), for Total-ITQ: 10 samples were excluded from the 39 samples (26%) resulting in 29 samples. For ITQ-PTSD: 18 samples were excluded from 92 (20%) resulting in 74, and for ITQ-DSO: 16 samples were excluded from 69 (23%) resulting in 53 samples. Interestingly, recalculating reliability estimates of the original

dataset and repeated samples via the generic inverse variance method and the REML demonstrated only small differences in the overall meta-analytic synthesis and in the measures of heterogeneity (see Table 7).

Table 7:

Meta-analytic estimates after removal of nonunique data

	All 98 studies					Unique Samples Only				
Subscale	EFF-ECT	95% CI	K	tau^2	I^2	EFF-ECT	95% CI	K	tau^2	I^2
Total-ITQ	0.90	0.89-0.91	39	0.0014	99%	0.90	0.88-0.91	29	0.0017	99%
ITQ-PTSD	0.86	0.85-0.87	92	0.0034	97%	0.85	0.84-0.87	74	0.0035	98%
ITQ-DSO	0.89	0.88-0.90	69	0.0016	97%	0.88	0.87-0.89	53	0.0016	97%

Heterogeneity due to sample characteristics

The impact of influential primary samples

The impact of any influential samples was assessed using a *leave-one-out* analysis whereby the random effects model was calculated with each of the studies removed in turn and the change in weighted average reliability effect size (i.e., influence) and heterogeneity (i.e., discrepancy). The result of this leave-one-out analysis for the Total-ITQ, ITQ-PTSD and ITQ-DSO is presented on the Baujat plot (Baujat et al., 2002) in Figure 6.

Influential and discrepant samples for each respective scale were excluded [Total-ITQ: (Armour et al., 2021; Hoeboer et al., 2021; Karatzias, Shevlin, Fyvie, et al., 2020; Spikol et al., 2022); ITQ-PTSD: (Karatzias, Shevlin, Fyvie, et al., 2020) & ITQ-DSO: (Kvedaraite, Gelezelyte, Kairyte, et al., 2021)] and the corrected weighted average alpha coefficient was calculated.

Figure 6:

Baujat diagnostic plot of sources of heterogeneity. The vertical axis reports the influence of a particular sample on the overall effect and the horizontal axis reports the discrepancy with the rest of the literature. Total-ITQ is displayed on the left, ITQ-PTSD right, and ITQ-DSO bottom.

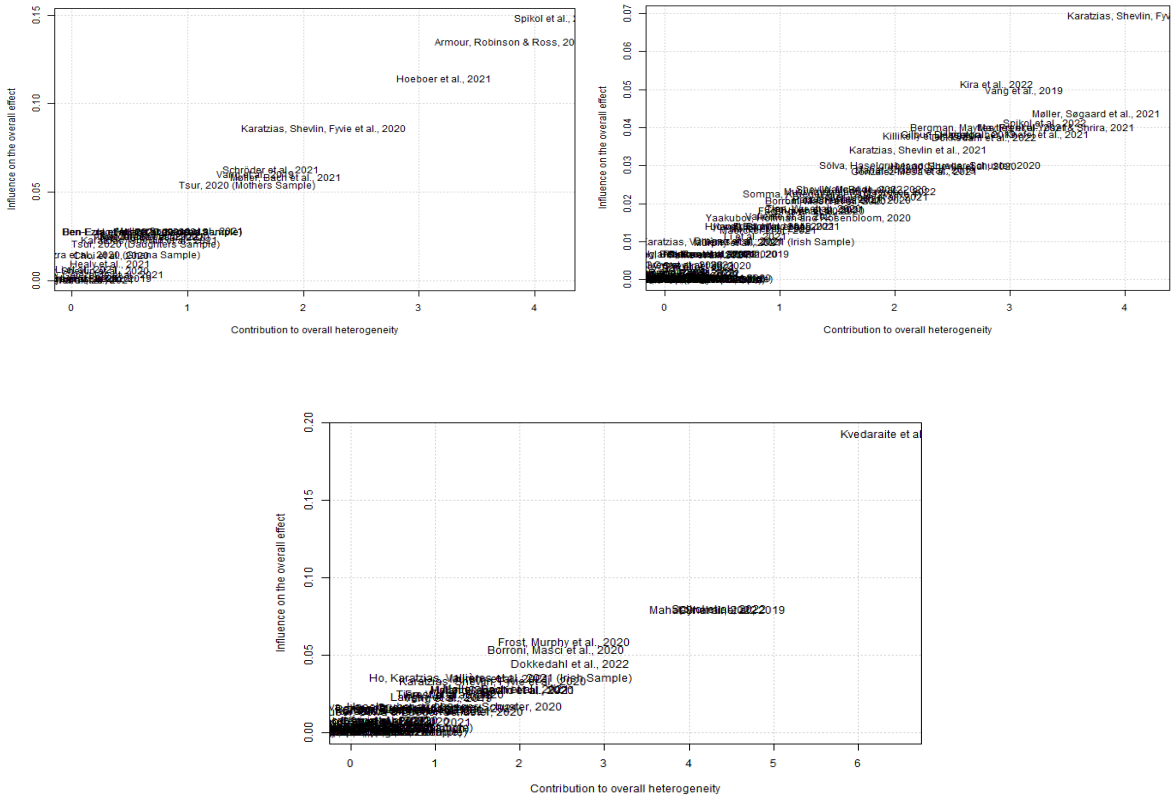


Table 8:

Omnibus test re-examined with the exclusion of possible influential samples

Subscale	Original Omnibus Effect	95%CI	I^2	Number of studies removed	Corrected Effect	95% CI	I^2
Total-ITQ	0.90	0.88-0.91	99%	4	0.89	0.88-0.91	94%
ITQ-PTSD	0.85	0.84-0.87	98%	1	0.85	0.84-0.87	98%
ITQ-DSO	0.88	0.87-0.89	97%	1	0.88	0.87-0.89	97%

The effect of risk of bias in the primary samples

To assess the impact of risk of bias upon heterogeneity, a series of subgroup analyses were conducted relative to the reliability rates and the risk of bias ratings of "*low risk*" and "*any risk"* (unclear risk and high risk of bias combined) for each of the six types of methodological bias (Tables 9-11), split per scale:

Total-ITQ

Generalisability bias for the Total-ITQ was the only risk of bias criteria evidenced as having statistically significant differences (X^2 =5.36, p=0.02), (Table 9, Figure 7).

Table 9:

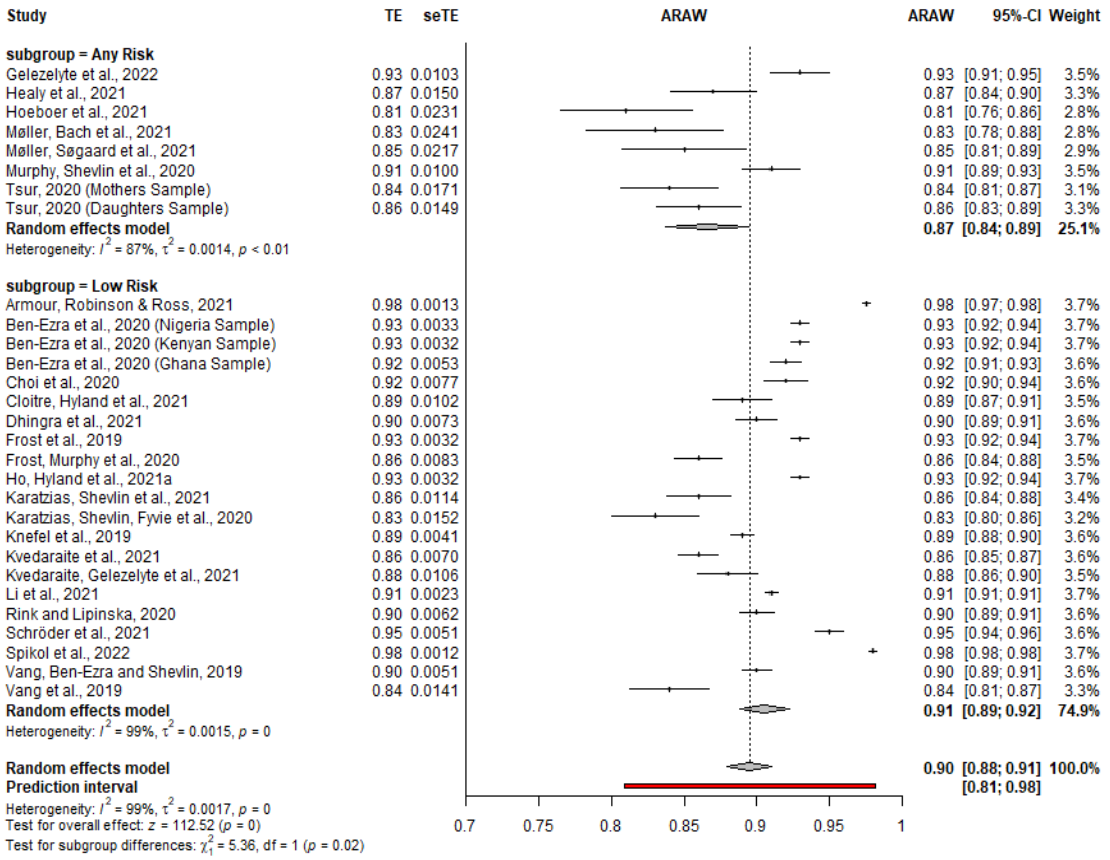
Subgroup analysis of Total-ITQ and relative risk of bias

	Low Risk			Any Risk				
Total-ITQ	EFFECT	95% CI	k	EFFECT	95% CI	K	X^2	P
Selection bias	0.89	0.87-0.91	15	0.90	0.88-0.92	14	0.53	0.46
Performance bias	0.89	0.88-0.91	27	0.91	0.87-0.95	2	0.64	0.43
Detection bias	0.90	0.88-0.92	19	0.88	0.87-0.90	10	1.23	0.27
Statistical bias	0.90	0.88-0.91	27	0.87	0.82-0.92	2	1.35	0.25
Reporting bias	0.90	0.88-0.91	29	-	-	-	-	-
Generalisability bias	0.91	0.89-0.92	21	0.87	0.84-0.89	8	5.36	0.02

There were 8 samples rated high risk of this bias due to their sample sizes being smaller than 200, suggesting a smaller sample size may underestimate the reliability of the Total-ITQ (0.87, 95%CI=0.84-0.89), consistent with Frost et al., (2007) who suggested a sample of >200 is needed for measuring reliability robustly. However, differences were marginal, and reliability remains high (>0.87).

Figure 7:

Forest Plot showing Generalisability Bias for Total-ITQ

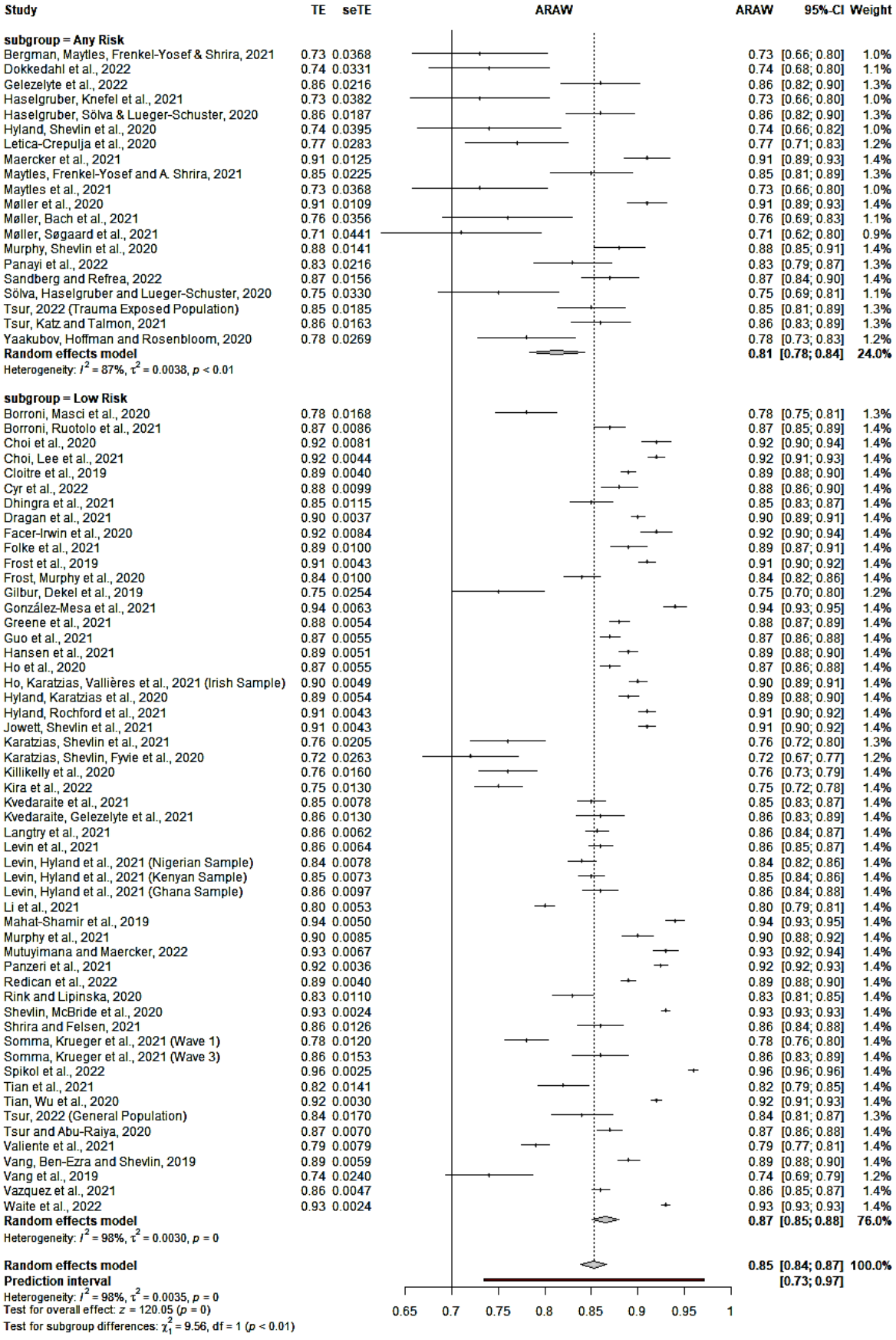


ITQ-PTSD

Similar to the Total-ITQ, generalisability bias was evidenced on the ITQ-PTSD subscale to yield a statistically (X^2 =9.56, p=<0.01) lower reliability estimate α=0.81 (95%CI=0.78-0.84) for those marked as 'any risk' (Table 10, Figure 8). A reliability estimate of 0.81 is still within high rates of reliability but is a notable reduction.

Figure 8:

Forest Plot showing Generalisability Bias for ITQ-PTSD



On further analysis of the 20 papers identified as any risk, all report a sample size of fewer than 200 participants indicative of unclear generalisability bias, but 16 of the 20 also had unclear-high selection bias, linked with selective sampling (such as Gelezelyte et al., 2022). Furthermore, 9 had unclear detection bias due to unclear methods of translating the ITQ, suggesting the quality of selection and detection may subtly influence reliability estimates and heterogeneity.

Table 10:

Subgroup analysis of ITQ-PTSD and relative risk of bias

	Low Risk			Any Risk				
ITQ-PTSD	EFFECT	95% CI	k	EFFECT	95% CI	k	X^2	P
Selection bias	0.86	0.83-0.88	30	0.85	0.83-0.87	44	0.20	0.65
Performance bias	0.85	0.84-0.87	63	0.87	0.84-0.90	11	1.10	0.30
Detection bias	0.85	0.84-0.87	44	0.85	0.83-0.87	30	0.10	0.75
Statistical bias	0.85	0.84-0.87	71	0.83	0.73-0.93	3	0.23	0.63
Reporting bias	0.85	0.84-0.87	74	-	-	-	-	-
Generalisability bias	0.87	0.85-0.88	54	0.81	0.78-0.84	20	9.56	<0.01

ITQ-DSO

Unlike the Total-ITQ and ITQ-PTSD subscale, there were no significant differences in the reliability estimates of the ITQ-DSO relative to risks of bias (Table 11) which may explain the slightly lower relative rates of heterogeneity in ITQ-DSO. Qualitatively, the reliability estimates for generalisability are lower, but the difference is minimal.

Table 11:

Subgroup analysis of ITQ-DSO and relative risk of bias.

	Low Risk			Any Risk				
ITQ-DSO	EFFECT	95% CI	k	EFFECT	95% CI	k	X^2	P
Selection bias	0.87	0.85-0.89	19	0.88	0.86-0.89	34	0.28	0.59
Performance bias	0.88	0.86-0.89	46	0.88	0.86-0.91	7	0.26	0.61
Detection bias	0.88	0.87-0.90	29	0.87	0.85-0.89	24	1.78	0.18
Statistical bias	0.88	0.87-0.89	50	0.87	0.81-0.92	3	0.09	0.76
Reporting bias	0.88	0.87-0.89	53	-	-	-	-	-
Generalisability bias	0.88	0.87-0.90	37	0.86	0.85-0.88	16	2.50	0.11

Effect of sample population

Studies were also originally characterised by if the sample was broadly clinically based or of the general population. Further subgroup analysis indicated no significant difference between the sample type for Total-ITQ and ITQ-DSO albeit some differences (Table 12). However, for ITQ-PTSD there was a significant difference between Clinical and General Populations (X^2=9.67, p=0.02). Table 12 demonstrates clinical populations resulted in a lower reliability estimate than general population groups, though the statistical difference could relate again to discrepant samples per grouping.

Table 122:

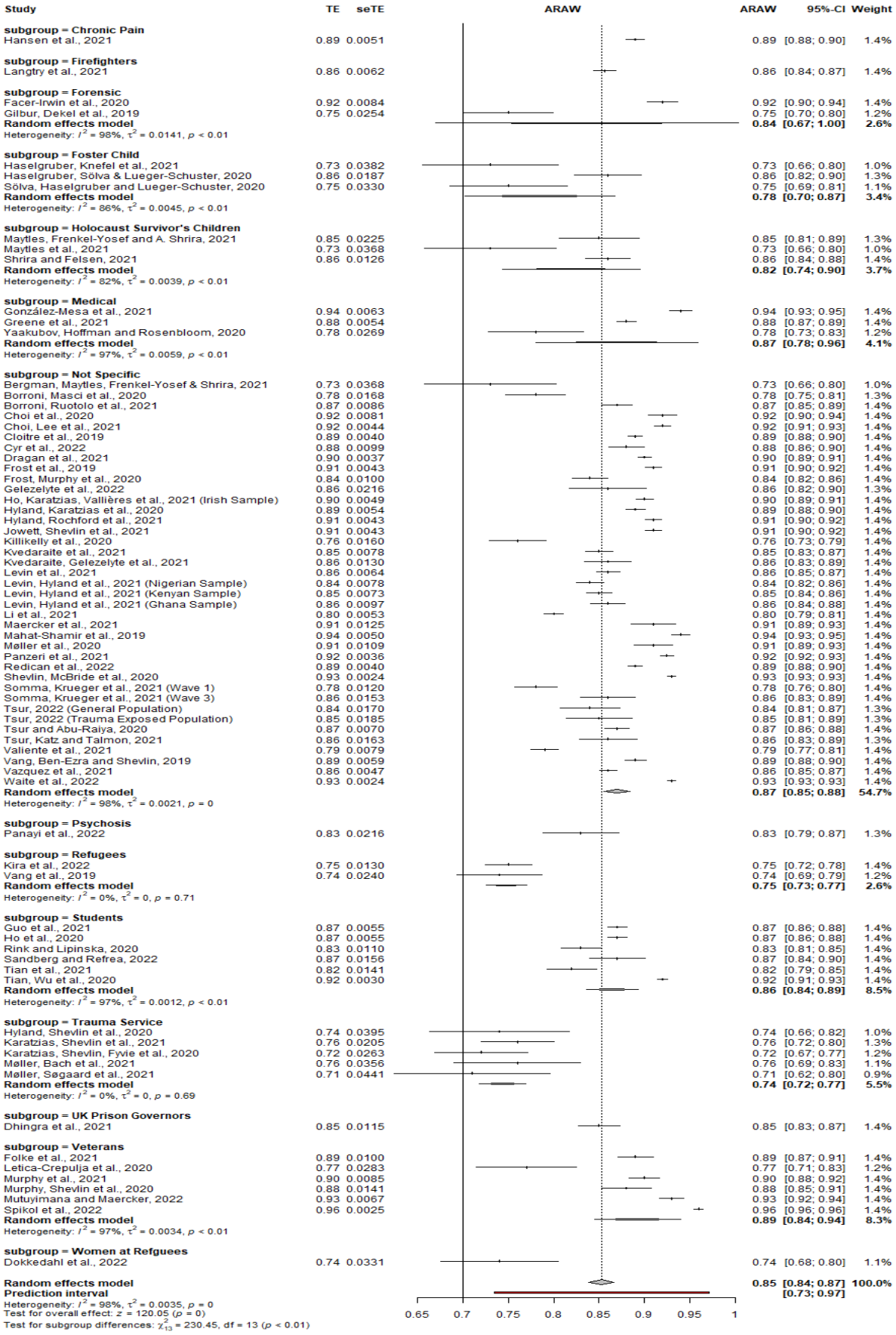
Subgroup Analysis of Population Type

	ITQ (sub)scales Reliability Coefficients (α), Confidence Intervals and Sample Size (N)		
Study Population Type	Total-ITQ	ITQ-PTSD	ITQ-DSO
Clinical Population			
Adults	0.88 (0.85-0.91); N=11	0.83 (0.79-0.86); N=18	0.86 (0.84-0.89); N=16
Children	0.91 (0.85-0.91); N=1	0.79 (0.74-0.85); N=4	0.87 (0.83-0.90); N=4
General Population			
Adults	0.90 (0.89-0.92); N=17	0.87 (0.85-0.88); N=50	0.88 (0.87-0.90); N=31
Children	-	0.87 (0.77-0.97); N=2	0.89 (0.82-0.95); N=2
X^2	3.49	9.67	2.76
P	0.17	0.02	0.43

Examining differences in reliability estimates for specific population groups in the ITQ-PTSD subscale is challenging due to relatively small groupings (Figure 9). Nonetheless, looking at specific groups (across general and clinical populations) shows refugees (α=0.75, 95%CI=0.73-0.77) and participants from a trauma service (α=0.74, 95%CI=0.72-0.77) have relatively lower estimates of reliability compared to the grouped prediction interval of 0.85 (previously presented in Table 7).

Figure 9:

Forest Plot showing Subgroup Analysis for specific groups (ITQ-PTSD only)



Impact of original or translated versions of ITQ

The collated samples were further characterised by if the original English ITQ or a translated equivalent had been administered. Subgroup analysis for the Total-ITQ, ITQ-PTSD and ITQ-DSO all showed non-significant differences, suggesting it is internationally consistent (Table 13). Some minor differences in Total-ITQ were noted but may relate to some studies which used a translated version being marked as unclear detection bias. Accordingly, a slight reduction of reliability may relate to how systematic the translation process was undertaken.

Table 13:

Subgroup Analysis of ITQ administered

	ITQ (sub)scales Reliability Coefficients (α), Confidence Intervals and Sample Size (N)		
ITQ Language	Total-ITQ	ITQ-PTSD	ITQ-DSO
Original (English)	0.90 (0.88-0.92); N=18	0.85 (0.83-0.87); N=42	0.88 (0.86-0.89); N=29
Translated Equivalent	0.88 (0.86-0.91; N=11	0.85 (0.83-0.87); N=32	0.88 (0.86-0.89); N=24
X^2	1.47	0.00	0.03
P	0.22	0.97	0.87

Impact of reliability measurement used

A further subgroup analysis was undertaken to consider whether the reliability metric impacted the overall reliability estimates. Cronbach Alpha estimates were compared to other forms of reliability metrics (such as McDonald's Omega or Composite Reliability) but showed no differences for the ITQ-PTSD and ITQ-DSO subscales (Table 14). For the Total-ITQ a significant difference was observed (X2=9.39, p=<0.01) but only two samples

did not use alpha as a reliability estimate, suggesting again, the difference as a result of the limited number of studies used to calculate the weighted average estimate for studies.

Table 14:

Subgroup Analysis of Reliability measurement used

	ITQ (sub)scales Reliability Coefficients (α), Confidence Intervals and Sample Size (N)		
Reliability Coefficient statistic	Total-ITQ	ITQ-PTSD	ITQ-DSO
Cronbach Alpha	0.90 (0.88-0.91). N=27	0.85 (0.84-0.87); N=66	0.88 (0.87-0.89); N=45
Other	0.85 (0.83-0.88); N=2	0.85 (0.81-0.88); N=8	0.86 (0.82-0.91); N=8
X^2	9.39	0.15	0.45
P	<0.01	0.7	0.5

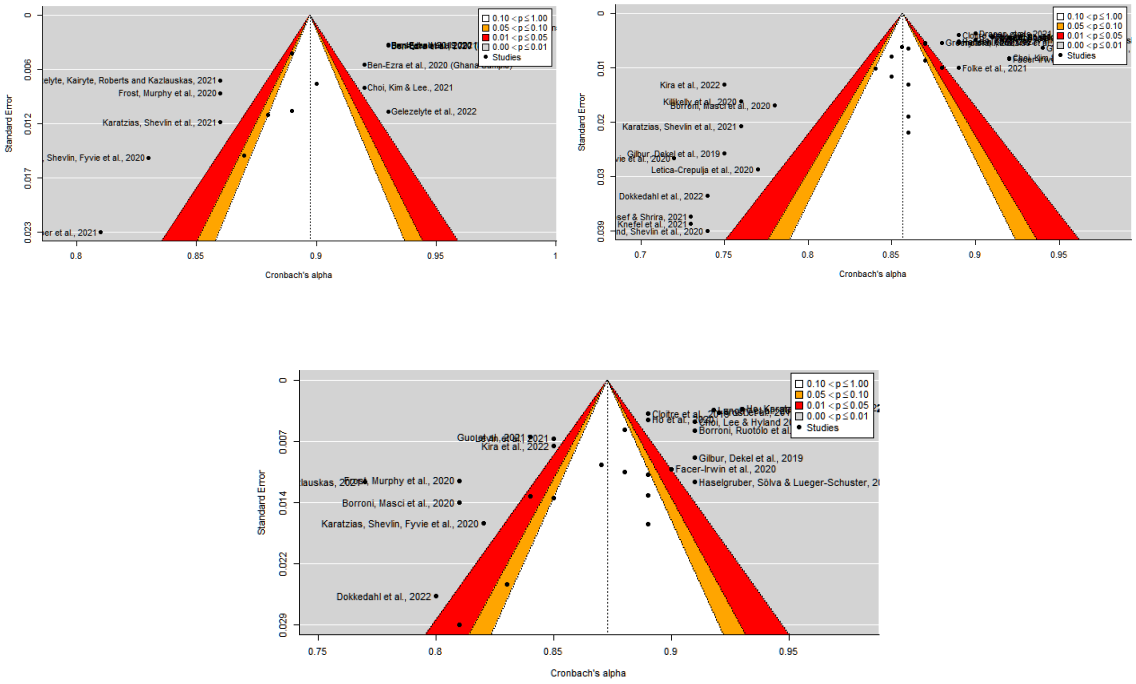
Publication bias and small study effects

Publication bias is caused by the tendency for statistically significant results to be published and the reticence to publish papers with non-significant results. Small study bias is another tendency for studies with smaller sample sizes to show greater variability in their measurement of internal consistency. These biases can be identified in a funnel plot, which plots the magnitude of the study's reported reliability rates against the precision of measurement (i.e., a function of sample size). If publication bias is absent, studies with smaller sample sizes will show greater variability and scatter more widely at the bottom of the plot compared to studies with larger samples at the top which will lie closer to the overall meta-analytic effect, creating a symmetrical funnel shape. If there are few publications of small samples or non-significant results, made evident on the funnel plot, it

would indicate a likely publication bias and overestimation of the true effect. The funnel plot of the (sub)scales of the ITQ is presented in Figure 10.

Figure 10:

Contour-enhanced funnel plots of the subscales of the ITQ (left), ITQ-PTSD (right) and ITQ-DSO (bottom)



As can be seen from Figure 10, there is clear evidence of the heterogeneity that was previously identified for each of these subscales (e.g., the large number of studies outside of the 95% confidence interval for the meta-analyses). However, there is no indication of publication bias in any of the subscales, which is indicated by converging samples (per studies) being the bottom left corner showing relatively small samples with minimally interpretable effects (alpha =>0.70-0.80). Therefore, no simulation of and adjustment for publication bias and small study effects was undertaken and further suggests heterogeneity of the data set is simply due to the amount of data collected.

Test-Retest Reliability of the ITQ

From the 98 papers, 3 papers were identified to report test re-test reliability coefficients (Ho et al., 2019; Valiente et al., 2021; Vang, Nielsen, et al., 2019). Additionally, Hyland, Karatzias, et al., (2020) reported to assess the temporal stability of the ITQ but used t-tests to measure differences not test re-test reliability coefficients. Somma et al., (2021) considered the consistency of measurements across different time points but also did not complete test re-test reliability.

For those studies that did report test-retest values, Vang, Nielsen, et al., (2019) reported test re-test values but only for selective items of the ITQ which were administered with or without translation, not for the whole questionnaire. From their original sample size of 423, Ho et al., (2019) collated 31 participants who were administered the ITQ in its original English form, and again for a Chinese translation. The article reports test-retest reliability values between the translations, not for a repeated administration of the original version. Consequently, both Vang, Nielsen, et al., (2019) and Ho et al., (2019) reference test-retest reliability but neither provide test-retest reliability of the full ITQ.

In a study measuring patterns of psychological responses to the COVID-19 pandemic in the general population, Valiente et al., (2021) is the only study identified that reported test-retest values as 0.80 of the ITQ-PTSD symptomology over two time points. Based on this data, a reliable change index could be calculated (Jacobson & Traux, 1991), suggesting the degree to which a change in the ITQ-PTSD would be indicative of a reliable change in symptomology. Following procedures outlined by Jacobson and Traux, (1991), alongside data provided by Valiente et al., (2021), [time point 1 for ITQ-PTSD severity mean as 4.72 (SD=4.98) whereas time point 2 mean 5.01 (5.14)], it would indicate for the

test-retest reliability of ITQ-PTSD being 0.80, a change of +/-6.17 (with 95% confidence) would be indicative of clinically reliable change on this subscale (Table 15). Notably, Cloitre et al., (2021) also outline a Reliable Change Index of a pre-post treatment score for ITQ-PTSD and ITQ-DSO but do not provide test re-test values, meaning their data cannot be integrated with Valiente et al., (2021).

Table 15:

Calculated reliable change index for ITQ (based on Valiente et al., (2021) data.

Reliable Change indexes (Total-ITQ)	
Band for RC at 99% CI	±6.30
Band for RC at 99% CI	±6.17
Band for RC at 66% CI	±3.15

Nevertheless, given the clear gap in ITQ re-test reliability data, further publication and analysis is needed.

Discussion

The ITQ was developed to aid the diagnosis of PTSD and C-PTSD (Cloitre et al., 2018). Examining the metric's reliability and modulating factors ensures greater confidence in the ITQ's clinical utility as different diagnostic conditions may benefit from different interventions (Karatzias & Cloitre, 2019).

All studies included in this meta-analysis provided some measure of internal consistency for the Total-ITQ scale, ITQ-PTSD and/or ITQ-DSO (C-PTSD) subscales. All components of the ITQ and relative subscales were found to have high reliability (α=>0.86)

Considerable heterogeneity was present across (sub)scales resulting in several analyses exploring the source of the variation including examining the impact of repeated samples, influential studies which reported outlier alpha values and different language versions of ITQ (translated or original version). Many of the subgroup analyses showed some differences when examined separately, but Cronbach alpha reliability rates remained equal to or over 0.85. Importantly, no considerable difference was found in reliability rates between the original English ITQ and translated versions, which provides confidence in the international use of the ITQ.

When examining the impact of the reported population group, clinical populations yielded lower reliability rates than general populations, particularly for ITQ-PTSD. Lower rates of reliability may be due to higher clinical complexity and subsequent presentation variability compared to general population groups. Further research could attempt to unpick differing reliability rates by exploring if different patterns of symptomology are present per clinical group

The risk of bias was also explored through separate subgroup analyses per (sub)scale. Minimal differences were observed, except for generalisability bias which appears to demonstrate sample sizes between 100-200 reported lower reliability rates than those above 200. This finding correlates with sample size recommendations of N=>200 for reliability research (Frost et al., 2007).

Summary and limitations

This meta-analysis indicates that the full ITQ and PTSD/C-PTSD subscales are psychometrically of high reliability, and capable of capturing symptomology consistently. This review also highlighted the internal reliability of the ITQ was relatively stable across

various modulations such as study designs, sample populations and translated equivalents, important given the ITQ's international use. Only one paper was found to provide test re-test reliability data in full (Valiente et al., 2021), allowing a reliable change index to be recommended for clinicians (Table 15). However, as noted by Cloitre et al., (2021) minimal studies have examined the psychometric properties of the ITQ before and after intervention, suggesting a gap for future research.

There were several limitations within this meta-analysis, stemming from the exclusion of some studies. For example, non-English papers (n=7) were excluded given resource restraints. As the ITQ has been translated into various languages, additional papers may have been published in non-English journals, which would also have not been captured by the search methods undertaken. Any future review on the psychometric properties of the ITQ would benefit from a wider international research team to capture translated versions. Additionally, a child and adolescent version of the ITQ has also been developed but was not included within this meta-analysis due to limited publications at the time of search (n=5). Synthesis and analytic comparison of the child/adolescent version with the adult would be beneficial to consider.

Within the risk of bias assessment, several choices by the researcher were also made which may have had an impact on how the studies were grouped within subgroup analyses. For example, within selection bias, studies were rated in part based on a broad categorisation and rates of comorbidities within the sample. Using a broad range may have been a poor way to assess selection bias given rates of psychiatric comorbidity is common for individuals with PTSD and C-PTSD diagnoses. For example, within a UK-population study, Karatzias et al., (2019) found comorbidities of other psychiatric conditions ranged

from 30-60% for PTSD and 46-89% for C-PTSD. Similarly, within the inclusion criteria, studies were excluded if the sample size was below 100, yet within Generalisability bias, high risk was determined if sample sizes were below 100, meaning no studies were rated as high risk and questions the use of this categorisation.

Finally, several subgroup analyses took place to examine the influence of a variety of factors within the dataset, and many of these had small comparison groups. Although small comparison groups and the limited interpretative value is acknowledged within the results section, these analyses risked the possibility of repeated Type 1 errors. Future meta-analyses may benefit from grouping data in a more balanced way, although this may not be possible, for example, if only a limited number of groups used particular populations.

In conclusion, this meta-analytic review indicates that the full-scale ITQ and PTSD and C-PTSD specific components demonstrate high internal reliability across various study designs, settings and languages. Practitioners can be confident in using the ITQ in clinical practice to aid in screening and diagnosis of PTSD and C-PTSD. Further research is needed regarding the temporal stability of the ITQ and its use in measuring clinical change.

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CHAPTER TWO: "*IT'S LIKE THE MAD HATTER'S TEA PARTY!*" - EXPLORING EXPERIENCES OF MINDFUL INTERBEING MIRROR THERAPY AND ITS CONTRIBUTIONS TO MEANINGFUL CHANGE AMONGST PARTICIPANTS WHO HAVE PREVIOUSLY SOUGHT THERAPY.

Abstract

Introduction: Mindful Interbeing Mirror Therapy (MIMT) is a new integrative trauma-focused psychotherapy. MIMT was developed for individuals with limited benefits from other established therapies. As there is minimal evidence regarding MIMT, exploring how clients experience the approach would help build understanding.

Method: Interpretative Phenomenological Analysis was chosen as an appropriate qualitative methodology for the research focus and the researcher's epistemological position. The sample was collected from a single MIMT therapist's private practice in the UK and participants had to have completed MIMT and previously another type of therapy.

Analysis: Three superordinate themes were developed from the analysis: A) a 'double exposure' denoting participants' descriptions that the mirror intensified the therapeutic experience. B) self-compassion was developed by making participants' suffering 'visible' in the mirror and helped integrate aspects of the self. C) Through more visibly connecting with implicit processes, the therapy offered participants an intangibly different experience that provided hope. Consistent across themes was the importance of the therapeutic relationship.

Discussion and Implications: Experiences of MIMT correlated with the psychotherapeutic literature. However, key differences were in the intensity of experience attributed to the interplay of MIMT techniques (including the mirror) and the therapeutic relationship. Clinical implications of this study include the MIMT being seen as an acceptable therapy and the necessity for MIMT therapists to be well-trained in the approach with access to high-quality supervision. As the first study into MIMT, it is hoped to stimulate interest in the service user, therapist, and researcher.

Introduction

Individual differences in trauma

Experiencing trauma is common (Bonanno & Mancini, 2012; Copeland et al., 2007; Hughes et al., 2020) and strongly correlated with various psychological difficulties (e.g., Felitti et al., 1998; Read et al., 2005; Salokangas et al., 2020). The International Classification of Diseases (ICD-11) is routinely used within worldwide health services (Sweeney et al., 2018) and defines trauma as *"exposure to an event or situation of an extremely threatening or horrific nature"* (World Health Organisation [WHO], 2018). Corresponding with United Kingdom (UK) trauma-informed practices (Office for Health Improvement & Disparities, 2022), the ICD-11 definition recognises that a 'traumatic' experience may not come from the event itself but in how it has been made sense of (Boals, 2018; Sweeney et al., 2018). For example, particular psychological responses characteristic of Post-Traumatic Stress Disorder (PTSD) symptomology can occur without exposure to specifically defined events, such as the threat of death (Larsen & Pacella, 2016). Similarly, a large proportion of individuals who experience traumatic events do not develop prolonged distress (Marzillier, 2014), attributed to a complex interplay between individual and interpersonal factors (Winders et al., 2020).

The categorisation of trauma responses assists in understanding and treatment of lasting distress (Bonanno & Mancini, 2012). Common clusters of trauma responses, such as unwanted *re-experiencing*, despite *avoidance* of a traumatising event, leading to a continued *sense of (current) threat* are diagnostically defined as PTSD (WHO, 2018). According to the ICD-11, PTSD categorises one set of responses to trauma (Winders et al., 2020), whilst a related but independent condition, Complex PTSD (C-PTSD), represents

another (Brewin et al., 2017). C-PTSD includes PTSD symptomology and 'disturbances in self-organisation' (DSO), such as persistent negative self-concepts (Karatzias et al., 2017).

Both PTSD and C-PTSD can be reliably assessed and have clinical utility (Karatzias & Cloitre, 2019); however, symptoms can manifest in a variety of ways (Yehuda et al., 2015) and may be present without meeting diagnostic criteria (Bistricky et al., 2017; Winders et al., 2020). Additionally, neither diagnosis can account for the vast array of consequences following trauma (e.g., Afari et al., 2014; Marzillier, 2014). Dissociation, for example, is considered another trauma response (Sinason, 2002), thought to involve a psychological splitting of the self into metaphorical parts. One 'part' which endures a traumatic event and another 'part' disconnected from the experience (Gutiérrez Peláez, 2009). Fisher (2017) names the process of dissociative splitting as a "*fragmentation*" of the self, whereby a distressing past is separated and cannot be processed, resulting in implicit emotional reactivation in the present (Brewin et al., 1996). Dissociation can be incorporated into re-experiencing within PTSD or related to DSO (Brewin et al., 2017). However, based on the Structural Dissociation model (Van Der Hart et al., 2004), fragmentation is considered fundamental, not just symptomatic of how individuals adapt to their experience (Diseth & Christie, 2005).

The complexity of trauma presentations and high rates of comorbidity present a challenge for clinicians in how to intervene (Kessler et al., 1995). Focusing only on common responses could neglect the consideration of others (Bonanno & Mancini, 2012), particularly as some responses may modulate more overt symptomology (Fisher, 2017). Consequently, transdiagnostic trauma interventions (e.g., Gutner et al., 2016) which attend to individuals' experiences of their trauma are considered crucial (Sweeney et al., 2018).

Psychotherapy for trauma - cognition and compassion

Many psychotherapies are reported as effective trauma interventions (Marzillier, 2014). Trauma-focused Cognitive Behavioural Therapy (TF-CBT) (e.g., Watkins et al., 2018), for example, is recommended nationally in the UK (NICE, 2018). According to cognitive models, such as Ehlers et al., (2005), PTSD results from personal interpretations of the trauma generating undesired affect and avoidance. Avoidance, in turn, perpetuates a sense of past threat in the present. TF-CBT combines *in-vivo* re-exposure with the generation of alternative, less affectedly loaded meanings of the trauma (Watkins et al., 2018).

The effectiveness of TF-CBT has been demonstrated across a variety of meta-analytic studies (e.g., Thielemann et al., 2022) and can qualitatively provide a "transformative" experience for some (Eastwood et al., 2021). However, around 20% of individuals who engage in the approach tend to drop out (Imel et al., 2013; Jensen et al., 2022) and some who finish the intervention report persistent symptoms particularly in C-PTSD (Watkins et al., 2018). For example, within a systematic review and meta-analysis, whilst TF-CBT appears effective at reducing affect dysregulation, reductions in other DSO domains is less effective (Karatzias et al., 2019) suggesting whilst TF-CBT is largely effective for many, it may not be for everyone.

One suggestion for the apparent limitations of a cognitive approach for some, or for particular symptoms, is the distinction that individuals can comprehend self-concepts as problematic but do not "*feel"* able to integrate a different position (Dale-Hewitt & Irons, 2015). A "*head-heart lag*" (Stott, 2007) led to the development of Compassion Focused Therapy [CFT] (Gilbert, 2014). CFT posits that resistance to integrating self-concepts is due to shame and aims to reduce shame by encouraging self-compassion (Gilbert, 2014).

Compassion is defined as the capacity to perceive oneself with kindness and motivation to alleviate suffering (Neff, 2003). CFT is an effective transdiagnostic trauma intervention (e.g., Germer & Neff, 2015; Winders et al., 2020) and incorporating self-compassion can be a valuable addition to other trauma therapies (Thompson & Waltz, 2008).

Body-based practices and desensitising emotions

Limited lasting effects of cognitive restructuring for trauma may also relate to the concept of fragmentation (Fisher, 2017). Siegal (2010) notes that whilst speaking about an event may cognitively be possible, the traumatised part, if disconnected, will feel overlooked and re-traumatised (Van der Kolk, 2014). Similarly, some individuals who engage in exposure-focused therapies report leaving interventions prematurely (Imel et al., 2013) due to finding the process overwhelming (Van der Kolk, 2014). Working with emotional, not solely cognitive components of the self, whilst not unique to a particular modality of therapy [for example, Internal Family Systems (Schwartz, 2001) or CFT, (Irons & Beaumont, 2017)] is advised as essential within trauma-focused psychotherapy (Fisher, 2017). Combined with a greater appreciation of the physical consequences of trauma, such as the fear of disembodiment (Fisher, 2017; Marzillier, 2014), an alternative therapeutic focus has included increasing physiological safety and sensorimotor integration within therapy (Van der Kolk, 2014).

Body-based therapeutic practices, such as Sensorimotor Psychotherapy (Ogden & Minton, 2000), include modulation of 'bottom-up' processes and focuses on internal sensations without clients needing to verbalise events (Kuhfuß et al., 2021). Psychotherapists support clients to remain within a safe "*window*" (Siegal, 2010) of psychological arousal via grounding techniques, including the use of therapeutic touch (Kuhfuß et al., 2021). Experiencing sensorimotor safety is considered to increase

physiological resilience (Grabbe & Miller-Karas, 2018), release a traumatic *"charge*" (Kuhfuß et al., 2021) and counter the effects of embodied trauma (Grabbe & Miller-Karas, 2018).

A further therapeutic approach recommended in the UK for trauma-related conditions (NICE, 2018) is Eye Movement Desensitisation and Reprocessing [EMDR] (Shapiro, 2014). EMDR involves a standard process, beginning with grounding techniques before desensitising a trauma memory with bilateral stimulation (Davidson & Parker, 2001). Firstly, the therapist asks the client to attend to a traumatic memory and consider unwanted and alternative thoughts of the event. The client then connects with embodied emotions of such cognitions/memories before bilateral stimulation and repetition. Throughout the desensitisation stage, the therapist adapts focus based on the client's psychological arousal (Rodenburg et al., 2009). Linking with the benefits noted above, EMDR enables change without talking (Diseth & Christie, 2005). Notwithstanding uncertainty on how exactly the process of change occurs (Rodenburg et al., 2009), EMDR is efficacious for reducing the intensity of intrusive memories and emotional dysregulation (Sack et al., 2008).

Importance of the therapeutic relationship

In addition to the techniques mentioned above, the therapeutic relationship is widely understood as necessary, although not sufficient alone (Carroll, 2005) to provide an environment whereby therapeutic change can be considered possible (Meichenbaum, 2017). A clear definition of what constitutes as change in therapy is beyond this paper, though likely dependent on individual factors (Allen et al., 2009) and therapeutic approach (Kazdin, 2007, 2009). Nonetheless, the strength of the therapeutic relationship routinely predicts positively defined outcomes and engagement in psychotherapy (Keeley et al.,

2008) and medicine (Macneil et al., 2009). For example, within a qualitative analysis, O'Keeffe et al., (2020) found unrepaired therapeutic ruptures predicted clients leaving TF-CBT early, and Wagner et al., (2012) reported positive relationships correlated with broad trauma-therapy outcomes.

Individuals subjected to relational trauma may be more likely to experience difficulties around interpersonal trust (Ellis et al., 2018). Building a solid relationship with such individuals may feel more challenging for clinicians (Doukas et al., 2014), but is essential for establishing safety in therapy (Ellis et al., 2018). Linking with attachment theory, cultivating a safe and trusting relationship may itself be therapeutic (Stern et al., 1998). Experiencing relational safety through therapy is considered to soothe "*right brain"* states (Schore, 2022) traumatised parts (Fisher, 2017) and to downregulate survival-based systems (e.g., Ogden & Minton, 2000). Several qualitative studies have highlighted a safe relational experience with the therapist helps to develop an "*earned secure attachment"* (Dansby Olufowote et al., 2020; Mallinckrodt, 2022), again crucial as relational trauma has been associated with disrupted attachment relationships (Fisher, 2017).

Summary of trauma and associated interventions

The descriptions of trauma and interventions outlined above are not an exhaustive list but aim to emphasise the multitude of individual experiences of trauma and the varied therapies which seem to help.

Integrating different parts - Mindful Interbeing Mirror Therapy

Mindful Interbeing Mirror Therapy (MIMT) is a new integrative trauma-focused psychotherapy, particularly for individuals who have had limited lasting benefits with other established therapies (Carmelita & Cirio, 2022). For example, as previously

mentioned, for those who find limited lasting benefits across all areas of traumatic symptomology post interventions (e.g., Karatzias et al., 2019). MIMT is transdiagnostic and draws on various evidence-based models, including those above, aiming to adapt specifically to individual experiences (Carmelita & Cirio, 2022).

MIMT utilises various experiential techniques to build an individual's understanding of themselves and facilitate connection to fragmented self-parts (e.g., Fisher, 2017). For example, within sessions, a client sits on a chair in front of the therapist facing a large mirror, with both interacting through their reflections. The client views themselves and reflects on embodied processes as they occur in the present, similar to body-based psychotherapies (Ogden & Minton, 2000). Using experiential and embodied methods rather than solely cognitive is to aid the integration of concepts (e.g., Gilbert, 2014). Techniques utilised within MIMT also include the client moving from their gaze to the therapist's eyes whilst they experience emotions. Consistent with other trauma therapies (Ellis et al., 2018), the therapist's role is critical in MIMT to support cohesion between fragmented parts via an ongoing dialogue between the direct and mirrored experience (Carmelita & Cirio, 2022).

MIMT typically lasts for 16-20 sessions, though the actual number of sessions and content (per session) will be adapted based on individual presentations. For example, if facing the mirror is emotionally difficult, a client may spend a longer period of time settling into the space. Furthermore, perhaps more akin to exploratory psychotherapies and/or transdiagnostic treatments, MIMT seeks to explore and develop an individual's understanding of themselves which may indirectly impact symptom reduction. A broad overview of the sessions and focus are described in Table 1 below.

Table 1:

Broad overview of MIMT session plans and focus

Session	General Focus/Content
Session 0	Assessment sessions - exploring psychological formulation of difficulties, introduction to model, obtaining therapeutic goal(s), i.e., develop integrated self through development of self-compassion, in the context of a therapeutic relationship.
Session 1	Exploring response to the mirror - what the physical experience is like, what feelings are felt, what are predominant feelings. Possible or tentative links to past experiences noted within assessment sessions. What is it like to experience therapeutic gaze? Introduction of red-dot - as a 'neutral anchor'. Exploration of particular experiences of the mirror
Session 2:	Continued exploration of experience of facing the mirror, i.e., does the level of criticism experiences reduce? Adding photographs of patient on mirror - exercises to engage in dialogue with photographic version of self.
Sessions 3-8:	Exploration of emotions felt towards parents as well as oneself. Photographs of parents added. 'Mental time travel' imagery exercises to connect and dialogue with parents.
Sessions 9-13:	Increased self-recognition and self-compassion versus self-judgment. Greater perspective taking of oneself, in the context of experiences. Exploration of the therapeutic relationship and what is felt between client-therapist.
Sessions 14-20:	Experiencing an increased self-compassion and the deep and painful feelings experienced as a child. Similar to a bereavement process- accepting the suffering and allowing oneself to feel the sadness. De-shaming and normalising emotional experiences and the wished response to avoid or escape feeling. Continuing to develop compassionate response to self.

To provide some context, the theoretical underpinnings of MIMT link to the previously described Structural Dissociation model (Van Der Hart et al., 2004) and the reintegration of hypothesised fragmented states via a "*conscious dissociation"* of such states into the mirror (Caputo, 2010). Individuals viewing themselves when emotionally distressed is considered to allow an "*emotional contagion*" (Hatfield et al., 2014); emotions can be empathetically felt and consequently thought to aid in the reconnection of the self (Carmelita & Cirio, 2022).

Present study and research question

This novel psychotherapy, MIMT, is being delivered in private practice across a small number of locations in the UK. There is very limited evidence regarding the processes of MIMT, its effectiveness, and how this is experienced by clients. As such, exploring experiences of the therapy can provide an initial base to develop a better understanding of how MIMT is received by those who take part in it. Particular consideration of experiences adds depth to what the process of therapy was like and is consistent with wider literature on trauma demonstrating the importance of individual differences. Given the multitude of psychotherapeutic approaches for trauma, exploring with individuals who have engaged in MIMT their experiences of the specific techniques used and their understanding of whether it has led to meaningful change is likely to help clarify and refine the use of this approach.

The National Institute of Health Research (NIHR) have created a framework regarding how the evaluation of complex treatments can be developed (Skivington et al., 2021). The framework comprises of four areas which would match particular research focuses: development or identification of the intervention, feasibility, evaluation, and

implementation. Research and development of an intervention can start at each of these areas, depending on the key research interest. Typically, this framework is used to ensure confidence in the how efficacy is measured, but can also inform conclusions regarding the cost effectiveness, scalability, and transferability of a particular approach. As research into MIMT is at a developmental phase, and this present research is exploring experiences of the therapy rather than effectiveness, this specific framework has not been used. Conclusions regarding the efficacy, feasibility, and scalability of MIMT cannot be made from this study. Rather, through examining experiences of people who have used MIMT, the project aims to provide an initial exploration to direct further research development and clinical inquiry.

The present study's research question and respective aims are: a) '*How do service users experience the techniques of MIMT, and* b) *what perceived role (if any) do these play in meaningful change?'*

Method

Interpretative Phenomenological Analysis

Examining concepts such as 'meaningful change' reflects complex personal phenomena, and indicates an idiographic, qualitative methodology is appropriate (Kazdin, 2009). Furthermore, the exploration of service user perspectives is complementary to effectiveness (Chenail, 2011) and can help understand a therapeutic experience in depth (Lowe & Murray, 2014) ensuring practice-based evidence (Reid et al., 2005).

Interpretative Phenomenological Analysis [IPA] (e.g., Smith & Eatough, 2007) is a qualitative methodology developed to explore participants' meanings of experiences. IPA incorporates *phenomenology*, the 'lived' experience, *hermeneutics*, the interpretation of

experiences, and *idiography* (Smith et al., 2021). Though an iterative process, IPA involves a double hermeneutic; the researcher attempts to get close to understanding a participant's phenomenology but interprets participants' interpretations from a separate position (Smith & Eatough, 2007). Developments of IPA report the methodology helps to build an understanding of the part (per participant) and the whole (collective experience), with analysis and meaning generation becoming constructed via a combination of positions (Gilmour, 2015). In this sense, IPA's idiographic nature becomes evident, not aiming to generalise data but better understand the shared experience of its participants (Smith et al., 2021). Consequently, IPA embraces the exploration of "*uncharted territories*" (Reid et al., 2005) and is considered a "*participant-orientated approach*" as analysis stems directly from participant meanings rather than pre-existing theory (Alase, 2017). As this research explores service users' experiences, without a direct literature base, IPA appears an appropriate methodology (Pietkiewicz & Smith, 2012).

Compared to other qualitative methodologies, IPA's focus is on personal meanings, not on what factors promote change, which could be explored through Grounded Theory (Willig, 2013). This research will investigate personal experiences in-depth, through a hermeneutic, experiential lens rather than having an explicit focus, compared to general thematic analysis (Spiers & Riley, 2019). Focus is also neither on how meanings are constructed [e.g., Discourse Analysis, (Starks & Trinidad, 2007)] or on narratives [e.g., Narrative Theory, (Burck, 2005)] as narratives would represent a single way of meaning-making (Gilmour, 2015). Furthermore, unlike discourse analysis, Smith et al., (2021) note, meaning-making is a complex and an embodied process, which may go beyond what is possibly understood through language.

Within IPA, the researcher's epistemology is inseparable to the research (Smith et al., 2021), therefore, awareness of can help reflect on choices made throughout. The following reflexive statement summarises the authors' position:

As a clinician and researcher, I am interested in the nature of relational psychotherapy, the ways people's experiences impact them and how they are made sense of. My particular therapeutic style is process-driven, including person-centred and CFT approaches. My personal and professional experiences have helped me understand the importance of the individual narrative, which is constantly rich, distinctive, and multi-layered. Through building relationships with others, I recognise each person's meanings are distinctly unique but can also intangibly collide and be shared (e.g., Eatough & Shaw, 2019), for instance through empathy. Seeing meanings as fundamentally individual, I consider my epistemological perspective to tilt towards social constructivism, but my conviction about the possibility of shared feeling suggests I fall more within a critical realist position. This research has been driven by my interests to look for moments of connection among people as well as respecting their unique experiences. Whilst I have made efforts to set aside my assumptions, I believe particular descriptions of participants' accounts have likely focused more on their relational experiences, visual imagery, and symbolism as a result.

In addition, as a white-middle class man, I am conscious of my own relative power, and the potential impact of this on the interviews themselves. I was also aware of another power imbalance given the same therapist who delivered the therapy also recruited participants. A concern was that participants may feel they have to provide positive feedback of the therapy. Accordingly, the recognition of the influence of power led to direct action to try to mitigate this (where practically possible) in the different stages of the

research process. For example, highlighting the anonymity process, as well as noting and helping participants reflect on less-positive elements of the therapy without fears of retribution.

A further feature of recognising myself within the research was also to consider my own associations to MIMT and what impact these had on the analysis. For example, my initial thoughts of the physical positioning of the therapist behind the client made me think of a family photograph. However, on reflection, this may highlight my own Westernised perspective of family structures (or photographs)..Without awareness of my own positioning it could lead me to consider participant's descriptions of the therapeutic attachment in relation to this, rather than through their own perspective. Similarly, whilst some participants independently connected imagery of Alice in Wonderland (i.e., Mad Hatters' tea party) to MIMT, I was conscious to not dilute participant's experiences by my own interest in the symbolism between this narrative and the participant's experiences. This has meant some theme-headings in the analysis used the visual imagery but aimed to provide a frame to discuss the direct participant experience, not just my own reflections and interest with this. Having access to academic supervision and an IPA working group was valuable in bracketing my own positioning.

The decision to utilise a qualitative methodology and specifically IPA stems from being a methodology which strongly matches the research question, and my own epistemological position (e.g., Eastwood et al., 2021; Mauritzson et al., 2015).

Ethics and sampling

This research was approved and sponsored by the University of Birmingham, (ERN_21-1399), see Appendix 1 for ethical approval.

Consistent with IPA protocols (Smith et al., 2021), purposeful homogenous sampling was used to collect participants. Due to MIMT having only been delivered to a relatively small sample in the UK (within private practice) homogeneity was balanced with practicality. The inclusion criterion for this study is outlined in Table 2:

Table 2:

Inclusion/Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Completed MIMT within 1-18 months Not gender-specific Current or history of emotional distress, including relational difficulties related to trauma Previous therapeutic experience (3-4 sessions)	Current risk concerns (self-harm, suicidality, excessive substance use or reported at risk to others) Below aged 18 Non-English speaker Intellectual disability (also excluded from MIMT intervention) Do not have internet access Involved in another qualitative MIMT research project

Participants were collected from a single MIMT clinician's private practice (a qualified Clinical Psychologist trained and supervised in MIMT, who was involved in the design of the study but not in the analysis nor write-up to maintain impartiality). The sample included individuals who had completed and ended MIMT or finished particular stages of MIMT within 1-18 months. The time frame between 1-18 months, is consistent with qualitative research examining therapeutic experiences to allow sufficient time to begin to consolidate experiences (e.g., Allen et al., 2009; Hadfield et al., 2019; Lucre & Corten, 2013; Ma, 2002; Midgley et al., 2017).

MIMT is a specific trauma-based therapy typically for individuals with emotional regulation and relational difficulties, meaning clinical presentations are likely to be relatively homogenous. Furthermore, only those who have had at least 3-4 sessions of previous therapeutic intervention(s) were included. The time frame of '3-4 sessions' has been chosen as an arbitrary marker to ensure a sufficient experience of another type of therapy. Prior therapeutic experiences were important to ensure a participant could reflect on specifically MIMT, rather than general experiences of therapy (for example, how it was different).

Exclusion criteria included any current risk concerns, and potential participants were screened by the therapist before consideration. Collecting participants over the age of 18 was used to ensure consent could be provided autonomously. Including only those who could speak English was to ensure the researcher could communicate independently with the participant and the use of interpreters may have disrupted the interpretative process. Participants were also excluded if they had/were taking part in another qualitative research project at the same time. The rationale of this exclusion was to minimise reliance on a small sample which would have likely impacted on how representative MIMT accounts are and mitigate the impact on the overall findings.

Procedure

Individuals who met the study's inclusion criteria and gave their prior consent to be contacted for research purposes were informed about the study by their MIMT therapist (associated with this research project). For those interested in participation, consent for the researcher to contact them was established by the MIMT therapist. The researcher then provided prospective participants with an information sheet (Appendix 2) and a consent form (Appendix 3). Individuals who reciprocated contact and expressed interest in taking

part, either electronically signed and returned the consent form or verbally gave their consent, which was recorded before the interview.

Following confirmation of participation, interviews between the researcher and the participant were scheduled. Zoom videoconferencing software was used for interviews (see Archibald et al., 2019). Video interviews were chosen due to COVID-19 safety and to reduce travel as MIMT clients may live across a broad geographic region. Given the role of non-verbal communication (Denham & Onwuegbuzie, 2013) and embodiment (e.g., Larkin et al., 2011) to convey meaning and consequently the interpretative process, camera placement was discussed when interviews began.

Interviews took place between July 2022-December 2022 and lasted between 60-90 minutes. The interviews were semi-structured from a developed interview schedule (Appendix 4). Semi-structured interviews are considered best practice in IPA research to allow flexible but funnelled exploration of an experience (Smith et al., 2021). Questions focused on the therapeutic techniques involved in MIMT but were open-ended to allow deviation and exploration of individual experiences. The interviewer did not intentionally ask specific questions regarding a participant's history, emotional difficulties, or background information to maximise anonymity. Audio recordings of interviews were completed by the researcher using an encrypted Dictaphone. For participants who did not withdraw within 14 days post-interview, audio recordings of the interview were transcribed verbatim. Any identifiable information within the transcripts was redacted. Storage of all files was on a secure University of Birmingham database.

Participants

Eight participants agreed to take part. However, one participant dropped out before consent was provided and another participant provided consent but withdrew from the study after a partial interview. A final six participants completed a full interview and were pseudo-anonymised as Lucy, Milly, Fatimah, Jane, Mark and Luca.

The age range of participants was between 28-47 years, the gender ratio was four females and two males. Five participants identified their ethnicity as White-British and one participant as Black African-British. Over half of the participants reported being in current employment (four), and three described being married or in a relationship. All participants had previous access to therapy, ranging from several sessions to several years of therapy. The reported therapy experienced before MIMT included: Counselling, CBT, Acceptance and Commitment Therapy, EMDR, Intensive Short-Term Dynamic Psychotherapy, Psychodynamic Psychotherapy and Dialectical Behavioural Therapy. History of emotional difficulties with/without direct relational trauma was not enquired but assumed given the MIMT's inclusion criteria.

Analytic method

Consistent with IPA methodology described by Smith et al., (2021), the analysis took several stages, outlined in Table 3. Any initial impressions the researcher had within interviews and during transcription were detailed in a reflective diary. Demarcating the researcher's personal meanings at the early stage helped these to be 'bracketed' before analysis (Smith et al., 2021).

Table 3:

Steps of Analytic Method (Smith et al., 2021)

Steps	Description
1: Reading and Re-reading	The first stage of analysis involved reading and re-reading individual transcripts to immerse in the participants narrative.
2: Exploratory Noting	Exploratory noting of participants accounts was made on the right-hand side of the transcript (Appendix 5). Exploratory noting involves re-reading participant accounts and examining specific *descriptive, linguistic*, and *conceptual* meanings, attending to emotive words used convey features of importance in the narrative
3: Experiential statements	Drawing together explanatory notes as separate parts within the whole narrative, leads to the generation of experiential statements. Experiential statements serve to reduce the amount of data without losing idiosyncrasy and involves creating concise statements of participant's accounts and meanings. Experiential statements are typically compiled on the left side of the transcript (Appendix 6).
4: Making links between statements	Experiential statements are then separated from the chronological narrative and the researcher draws connections (Appendix 7).
5: Personal Experiential Themes (PETS)	The clustering of statements is made under into particular headings, termed Personal Experiential Themes (PETS). PETS refer to groupings of statements that are *personally* significant- to the participant, *experiential* as they relate to how they have made sense of, and *themes* given PETS refer to collected features of the whole transcript not

(continued)

Table 3: (Continued)

Steps	Description
	specific components (Appendix 8). PETS in turn can be turned into tables to summarise data (Appendix 9).
6: Repetition of steps for other participants	The sixth stage repeats stage 1-5 for other participant accounts.
7: Group Experiential Themes (GETS) and making links across participants	With a similar process of reviewing statements to create PETS, collating patterns across PETS leads to the generation of Group Experiential Themes [GETS] (Appendix 10). GETS link similarities in aspects of importance across participants, though key to IPA's idiographic focus, captures convergence and divergence within each participant. GETS can be placed into a table and include a brief description and illustrative quotes (Appendix 11) to convey the compiled meanings.

Quality

The analysis was discussed and reviewed under regular supervision and within an IPA working group to ensure quality. Discussion of themes sought to reduce individual researcher bias in the cost of participant interpretation. As with the use of the reflective diary, the researcher aimed to bracket their subjective interpretations made without direct connection to participant information. However, as indicated in the reflexive statement, due to the double hermeneutic, the analysis is a blend between the participant's and the researcher's own meaning-making.

Analysis

The following analysis includes three superordinate themes with each having three corresponding subthemes. Table 4 depicts the analytic framework and lists participant contributions, (Appendix 11 is a theme master table, showing illustrative quotes). Particular quotes have been purposefully chosen to convey the shared and individual narratives.

Table 4:

Main themes and participants contributing to each

Superordinate Themes	Subthemes	Contributing Participants
A. A 'double exposure' showing vulnerability and shame	A.1: Reflecting the need for a genuine therapist	All
	A.2: A powerful double exposure	All
	A.3: Facing an exposed inner critic	All
B. *"The Mad Hatter's tea party"* - Integrating parts with compassion	B.1: Recognising a present suffering self	All but Milly
	B.2: Connecting to past vulnerability	All but Lucy
	B.3: Desensitisation and coregulation	All
C. Connecting with the intangible to *"see the world with different eyes"*	C.1: Seeing the implicit become explicit	All
	C.2: Deeply felt and intangible belief	All but Milly
	C.3: Gradual but meaningful change	All

A. A 'double exposure' showing vulnerability and shame

Participants described facing the mirror as an emotionally confronting experience that required the safety of an authentic therapist to help them look. They spoke of a 'doubled' intensity and became closer to the emotions they were visibly experiencing. The

phrase ‘double exposure’ relates to the photography technique in which two images are superimposed onto one, chosen by the researcher as it related to the different layers of experience participants had when looking into the mirror. For example, double exposure was considered analogous to the participant’s descriptions of the mirror metaphorically reflecting both a vulnerable and critical self into one frame.

Subtheme A.1: Reflecting the need for a genuine therapist

Participants’ experiences before accessing MIMT converged in a shared sense of hopelessness, feeling *"stuck"* (Mark, p2) and *"trapped"* (Milly, p2) with their current circumstances and the associated emotions. Previous coping mechanisms *“weren’t working”* (Lucy, p4) and despite *“understanding fully...”* the content of previous therapies, an internal part of themselves *“wasn’t really going to let [change] happen”* (Luca, p3-4). Consequently, all participants described a wish to experience *“something different”* (e.g., Jane, p3), a *“deeper kind of therapy”* (Lucy, p7). However, with something novel and different, participants spoke of their uncertainty in facing the mirror, exacerbated by the therapist’s presence, and anticipating negative judgement:

> That was awkward the first time ...looking into the mirror then, having someone behind you and this thing about, looking into the mirror, “looking into my eyes,” and you do that and when you’re anxious as well, looking into someone’s eyes... it can be a little bit disconcerting (Luca, p10)

> When you’re looking at the therapist behind you, you’re not entirely sure what they are thinking... “are they having negative thoughts about you, are they criticising you in their head?... Do they not think you’re a good person for whatever reason?” (Mark, p12)

Subsequently, all participants reported the necessity of a trusting relationship with a safe therapist to engage in MIMT:

> You needed to have that relationship because I was in such a vulnerable state when I was doing it, I needed someone I trusted fully (Milly, p15)

Relational trust was partly built through tangible action, such as the therapist's understanding and responsiveness to the emotional demands of the therapy:

> Other times when I have gone, I've been a bit more kind of stressed. I think the therapist recognised that mirror therapy wasn't the right thing at that particular time, so it was a bit more talking therapy, which was helpful (Luca, p9)

Others described how the therapist's consistency and availability, unlike other (non-therapy) relationships, helped build safety:

> It felt a very safe relationship... I haven't told another human, things I'd not admitted to myself, because the therapist knows that and still wants to be there, and still treats me the same, and still is being very kind to me... and the therapist's not like "oh this is too much, get out the office, what are you doing!" ...because we had that trust, I think I felt safe (Lucy, p20)

Participants experienced a feeling of relational safety despite not understanding how:

> It might have been within the first session, but certainly by the second session I felt, safe, with the therapist, and that's quite unusual for me ... to get through the door... [and] I'm quite intuitive as a person... my gut feeling is always right... I

> don't necessarily know why I am right... but with the therapist... they're so genuine, they seemed like a very real person... (Jane, p5)

Mark speculated that it was the direct presence of the mirror which revealed and intensified the therapist's authenticity:

> I felt, like you can see the person behind you, you could see their facial expressions, you can hear them, so, you would know if it wasn't something heart felt or wasn't genuine, because you could see it with your own eyes, you could feel it (Mark, p17)

Magnified trust, unexpectedly felt, was described as necessary to look:

> The therapist was asking me to take a big leap of faith... and it's testament to, what I believed about them and how genuine they were (Jane, p8-9)

> I think safe is a good word to describe the therapist but not a good word to describe the therapy! (Milly, p16)

Milly's quote further notes the need for the therapist but alludes to a level of discomfort experienced beyond their proximity or the therapy's layout, but in what it was like for participants to face themselves.

Subtheme A.2: A powerful double exposure

All participants described an emotional response of looking into a "*giant mirror*" (Lucy, p10), *"basically the size of half a wall"* (Jane, p9) ranging from *"bizarre"* (Lucy, p11) and *"uncomfortable"* (Jane, p9), to *"upsetting"* (Luca, p23) and *"terrifying"* (Milly, p16). Mark exemplifies the group experience in viewing the mirror as being like an *"emotional rollercoaster"* (p23) with a range of fluctuating emotions becoming re-

experienced without control. The mirror *"exposed"* (Milly, p3) vulnerability and fears of particular emotions, such as deep sadness, just below the *"surface"* (Fatimah, p11). Emotions became not solely felt but embodied:

> I would feel these emotions slipping through, that is when I would become quite anxious, and it's also when I would feel the physical responses. Like when I felt the sadness that is when I felt really tired or really heavy (Milly, p8)

> When I get stressed now, my body will automatically go into fight or flight... when I looked down into that corner [of the mirror], you know, it was a similar feeling to that... as if, a signal was being sent down my central nervous system (Luca, p6)

Viewing one aspect of the mirror evoked a fear of physiological survival, prompting an existential threat more than a vulnerability of *"exposure"* (Milly, p3), because of where it might lead:

> It's not that the mirror was terrifying, but for me... the risk would be, that I would just, I would just spiral spiral spiral spiral down and it wouldn't stop and I wouldn't be able to get out of it... like a never ending pit... of like... bad, badness... into the black hole, the never-ending black hole of sad (Lucy, p11-12)

Feared connection to emotions is highlighted through Lucy's imagery and repetition. Compared with other therapies, participants described the presence of the mirror as leading to increased closeness and a *"powerful"* (Mark, p12) intensity of emotions.

> When you're going back, through looking in the mirror... I found it incredibly, incredibly, overwhelming and really quite, scary, as opposed to, you might talk about something happening to you in talking therapy but, there is a bit of distance

> between you and the thing you're talking about, whereas through the mirror you are really really close to being back there, it can be really scary (Fatimah, p3)

Fatimah suggests it is not solely the re-experiencing of emotions in therapy but getting closer to feeling through seeing oneself, which may have reciprocally reinforced or 'doubled' the felt emotion.

Lucy's imagery was of spiralling into a hole, seemingly unsure where this would lead, however, there was also the recognition within (including Lucy's) and between accounts of the paradoxical description that re-experiencing twice became a symbol of possibility:

> The fact that actually you do get some indicator that something is happening, a response you're doing, which correlates with how I feel when I am tense... I thought there was something in that because I'd never felt that before (Luca, p8)

> I [felt] differently after that first session and it was in a way I'd never felt with anything, with any therapy before (Jane, p9)

Seeing and connecting to something deeper seemed to provide hope as well as a challenge (captured further in Theme C: "Connecting with the intangible to see the world with different eyes").

Subtheme A.3: Facing an exposed inner critic

"Holding the mirror up to things" (Fatimah, p4) confronted participants with emotions and how they had previously avoided them by *"bottling up"* (Mark, p4) and a constant wish to *"run-away"* (Milly, p3). The therapist was described, like the mirror, to also be active in compassionately preventing *"escapism"* (Milly, p7) resulting in

participants finding it *"really difficult for that hour to not be thinking or feeling constantly"* (Fatimah, p4). The exposure led participants to *"study..."* themselves *"in ways [they] hadn't done in the past"* (Luca, p12) and understand their avoidance linked, in part, to feeling ashamed at seeing themselves while emotional:

> "I hate looking at myself like this" or "I'm really, I'm pissed off looking at this person in front of me" or "I don't want to see them upset it's really annoying" (Fatimah, p15)

> I hated it ((Laughter)), I hated it because... I find I can talk about things in a bit of an emotionally detached way and I can be quite analytical... but in front of the mirror, I felt really emotional and I didn't like it... I was blocking my true emotions about events... with like feeling ashamed at myself or feeling angry at myself (Milly, p3-4)

Descriptions of *"hate,"* highlights participants' instinctual disgust, *"a click in my head"* (Lucy, p13) and a pull to shame their struggle. Similar to the mirror showing an emotional experience, a further double exposure appears present. The process led to two fragmented parts, vulnerable and *"vicious"* (Milly, p8) being metaphorically reflected:

> Because that's the thing, I have a very vulnerable part, but I was very angry and upset and kicking the vulnerable part, because I didn't want to feel that vulnerable part. Because, you know, "I want you to toughen up!" (Lucy, p16)

With the therapist's support, participants expressed surprise at becoming more conscious of their inner critic, demonstrating how automatic and normalised self-shaming was:

> Yeah it's really strange... to have somebody going "you're annoyed ((confused tone, like pointing out)) at yourself for being upset?" It's then like, "oh my god yeah... I wouldn't do this to another person" but I'm very familiar with the feeling of doing that with myself. So it's quite weird to kind of clock in with how horrible you are to yourself (Fatimah, p15)

> I didn't even realise, you know, because they're automatic thoughts, so [[clicking fingers]] they're there, and it's only through that, and looking at myself and then the therapist saying something and then looking at the therapists' response is, it allows you actually think, "oh god I do do that..." I do something wrong and I go "stupid girl" (Jane, p7)

Making patterns explicit and visual provided participants with greater awareness of how critically they experienced their suffering and why their distress was so uncomfortable to witness:

> You're looking at yourself as well, I think there's a vulnerability in... you're kind of your own worst enemy ((chuckle)) and you're looking at yourself with probably the most hatred you can feel from anyone, you look in the mirror and there is a lot of judgement there (Fatimah, p14)

Participants' internal experiences when facing the mirror highlighted the necessity of a safe therapist to support them during emotional exposure and to demonstrate an alternative response to their suffering.

B. "The Mad Hatter's tea party" – Integrating parts with compassion

> [I] wouldn't have gone through that door if I hadn't had a good therapeutic relationship with them, regardless of what therapy they were using... But if you

have that it doesn't always work, as the next bit, the therapy needs to be right (Jane, p4)

As described in the previous theme, the therapeutic relationship was necessary to look in the mirror, though illustrated by Jane (above), insufficient alone, and the therapy's specific techniques became more crucial. Participants spoke of a blending of therapeutic techniques, whilst not always linear (for example, connecting with a past before present suffering) seemingly *"intertwined... and worked in symbiosis like the Mad Hatter's tea party"* (Jane, p13). Working with fragmented parts and connecting with a past self through the mirror were used to develop self-compassion. Through desensitisation and coregulation of exposed emotions, participants felt more hopeful in being able to relate to themselves with empathy.

Subtheme B.1: Recognising a present suffering self

Despite an initial feeling of shame, for most participants, a temporary suspension of a critical self which *"came from understanding why you have become so critical in the first place"* (Lucy, p17) unexpectedly helped participants connect to their suffering. Their suffering in turn became painfully evident in the mirror:

> When I looked in my eyes, I could actually see that sadness, I could see the feelings of guilt the sorrow... I thought this was going to be... like something impossible, how can you actually look at yourself and sort of readily bring those emotions and feel them in real time? I don't know, but it does for some reason (Mark, p7)

A *"conflict"* (Luca, p13) resulted from paying more attention to their suffering: *"I'm really like gritting my teeth to not be nice to them"* (Fatimah, p15), making it more possible to respond empathically rather than just with shame:

> There was a conflict there, that you are making a judgement of yourself that is not particularly kind, part of you and the other bit that is trying to be kind, and you think, well, I want to help you (Luca, p13)

Experiencing empathy for a present suffering self was unexpected but immediately valued. For some, as the mirror showed an *"automatic"* (Jane, p7) critical part (in Theme A2), it also reflected an innately compassionate part that could be connected with:

> If you sit in front of a mirror and you're looking at somebody who is having a really bad time, even if they're not outwardly upset or anything you can tell immediately "oh my god they're having a really bad time" ...[and] it is always good when someone recognises you're having a really hard time... Whereas that immediately happens when you sit in front of yourself (Fatimah, p9)

A projection of participants' suffering into the mirror seemed to involve being able to see themselves *in/as* the third person. Finding *"a middle ground"* (Milly, p12) for compassion became more feasible, as unwanted parts could be purposefully separated, 'seen' and reintegrated:

> I'll start to feel criticism and hearing that criticism, and then be like "ok, we're working with that bit", and then it kind of splits, they're a part of you but it's not you, and then you'll find, like, a kinder self, a more compassionate self (Lucy, p14)
>
> ...and seeing myself as vulnerable in that mirror space, you get to do the practical

bit, where you are actually in the mirror, and you are actually working with that bit (Lucy, p27)

For other participants, such as Jane, divergence in connecting to instinctive compassion was made acceptable by internalising the *"therapist's eyes" (Jane p7):*

> Having the therapist look in a completely different way with their eyes, is like...it's both relieving because it gives you the sense of, "it is, it isn't me, it's not me that's fundamentally wrong" ...it's comforting when you haven't felt comfort for a long time, because it's like... there is somebody in the world who doesn't believe I am crap or that I deserve the crap that has happened, and it's just like, that's just like ((explosive sound)) [[gesture exploding head]] ...okay that's mind blown... (Jane, p14-15)

Despite connecting through the mirror being a *"weird experience"* (Lucy, p13) and not knowing *"what the hell [was] going on" (Jane, p9),* for most participants, responding to their suffering with care, not shame, felt more *"obtainable"* (Mark, p16).

Subtheme B.2: Connecting to past vulnerability

The mirror was further described to emphasise the different flows of compassion participants had towards themselves and others:

> I was having a different reaction to myself than I would have had to someone else, and I think being told that as you're actually experienced it and having those different emotions and reactions, makes you internalise what is being said a lot more than just having it said to you (Milly, p8)

Placing a photograph of a younger self on the mirror supported them to sympathetically relate to themselves *as if* children, when compassion towards a present 'third person/self' was difficult:

> Probably the most important part was that I felt sorry for me as a young person, that young boy... I looked at that picture then, there is you know, an element of sadness, trying to protect me as a young person (Luca, p22)

> And then the therapist asks me to think about, you know if that, if it was my daughter who had gone through something, what might [they] have been feeling, and "how you would view her, and how you would help her?" (Milly, p5)

Participants spoke of empathy over time developing toward their child-self, greater recognition of the experience *they/the* child-self had been through and a pull to protect:

> [I] had pictures of myself as like a young child or at different ages on the mirror... [and] you're faced with looking at who, the person, the person who experienced those things at that exact age... you can't, you can't look away (Fatimah, p4)
>
> ... It took a really long time... [but] it was almost like it just clicked... I suddenly just really wanted to look at the photograph and it suddenly filled me with a lot of sadness and a lot of... realisation of like, "oh god, this person has gone through so much" (Fatimah, p11)

Working with fragmented parts including their past self via photographs, assisted participants in mentally revisiting and connecting to previous experiences with present compassion:

> You kind of go into a different place almost... you're not super aware of yourself being in the therapy room but you're really, aware of yourself being in a specific

> place... you're mentally back, you're back to being a child and a certain room or something, and I think you, I feel like you feel your emotion, when you go back, when you're going back through looking in the mirror (Fatimah, p3)

By connecting with their child selves, participants began to see a sense of self beyond a traumatised past that could be comforted, as they had visibly moved on:

> One thing is when I'm looking on myself in the mirror, I don't know how I'm thinking of myself, I don't know what age I'm thinking I am...so if I'm thinking... people are looking at me... there might be an element of looking like the young child who is being looked at... [whereas] looking at the mirror, I felt tired and sometimes apprehensive but, maybe in some ways, I was better looking at the old me, the real me, the older person ...who was doing okay, and there was a sense relief in that... I was someone who was actually, I'm not that child anymore (Luca, p23-24)

Mark spoke about how for him, the younger photographs presented him *"at his best"* (p13). However, similar to others, the use of images to distinguish and connect with different parts helped him *"put things into perspective"* (Mark, p14).

Subtheme B.3: Desensitisation and coregulation

All participants described being face to face with unwanted emotions, which were revisited in the therapy and desensitised cyclically:

> The therapist will go "look to the bottom left of the mirror... and then just talk about what that feeling is" ...Whenever I look at the bottom left, I associate that with bad feelings, or bad memories.... Whereas looking at the top left is looking more towards being a stronger person (Fatimah, p22)

> We would be talking about certain experiences... and it triggers certain emotions, and then, you turn your attention to focus on this particular red dot and ... you talk about all the positive things about why you are a good person... these are all thoughts that are not true, and then you'd turn your attention back to yourself and look into the mirror and you had more of a positive feeling after that (Mark, p6)

Using a *"red dot"* (a physical reference point on the mirror) or moving between sections of the mirror (and related areas of oneself) allowed temporary dissociation from viewing and feeling emotions. The process aided the development of tolerance like a *"muscle"* (Lucy, p22), demonstrating a capacity to survive perceived dangerous emotions:

> I was looking at the left-hand side I was actually looking at a position where I felt confident, and we were cycling between the left-hand corner, left hand side, the mirror, back to the red dot, looking at me, looking at the therapist, and I could get what was happening, there was some desensitization by moving around ...during that session that feeling about the bottom left-hand corner dissipated. You know, it went. As a result of that session which I thought was pretty amazing! (Luca, p16)

The therapist's eye gaze was also described to offer an unsettling but similar desensitising procedure:

> It was looking at the photographs and going round and looking- cos we would look at the photographs and think at memories from each point in time and then look at myself and then the therapist and kind of go round in the circle... It felt uncomfortable, but calming in the sense it got me out of that particular cycle (Milly, p9)

However, for some participants it was the process of desensitisation *with* the therapist, which was significant, a sense of *"coregulation"* (Lucy, p11) being the technique:

> It sounds ridiculous, but I would look at the therapist, and because you're making eye contact by the mirror, it was kind of like, I would see the therapist not panicking ...so in my head I was like everything is fine. Another human person is there, just being like ((purposeful deep exhale)) everything is fine, and I was like ((exhale)) "ok it is fine, okay" (Lucy, p22)

A willingness from the therapist to help carry emotional pain and being able to tolerate provided a supportive, *"co-parenting"* (Jane, p2) experience:

> What's different about mirror therapy is that ... you are not doing it alone ((slowed down sentence)). You are doing it, *with* ((intonation change for emphasis), the therapist ...because the person is doing the feelings with you, they are feeling, they can look at you and they can feel sad for that person or they can feel anxious for that person and they are doing the emotions with you... it eventually allows you to be able to sit with those emotions a bit more so you're not pushing them away ... so they're not bubbling up every so often as a big thing (Jane, p18-19)

Participants suggested both self-directed and compassion from the therapist facilitated the integration of their experience. A minority of participants mentioned the use of pre-agreed gentle touch in the therapy aided coregulation further:

> They would be behind me and if the therapist could see me getting really ((filling up gesture)), they would just put their hand on my shoulders and that would be like ((slow double exhale)) ...and that would be really helpful because I would be like

> back in my body. Because I would have gone off on this big, this thought spiral thing... And then it was like okay I'm here, you know everything is fine and I am not alone (Lucy, p22)

From Lucy's account, safe touch reinforced a physical connection between the participant and therapist. Despite an uncomfortable exposure, connecting with a genuine other highlighted a considerably different position from a life dominated by isolative shame. Experiencing, even if they returned to a vulnerable or uncomfortable place, facing and surviving feared emotions meant more movement in life. As noted by Jane, metaphorically feeling like *"you're not stuck in just that one chair"* (p13).

C. Connecting with the intangible to "see the world with different eyes"

In consolidating their therapeutic experiences, participants spoke about how the techniques and lasting impact of MIMT felt both concrete and intangible. Being able to 'see' fragmented parts and internal difficulties through the mirror made them more workable. However, by being 'seen,' some participants indicated a sense of ineffable hope beyond therapy. Nonetheless, for all participants, change was gradual but offered a different way of seeing themselves, with increased understanding and compassion.

Subtheme C.1: Seeing the implicit become explicit

Participants described how facing themselves in therapy increased their focus and sense of agency:

> You're actually you're in control of your own therapy session, the therapist is there to guide you... the fact you can see your own reaction definitely helps, but I think

> it's all self-directed, that you're the one helping yourself picking yourself up (Mark, p22)

> It feels very collaborative... I'm in the driving seat a bit more (Lucy, p25-26)

Lucy's quote above offers a mirrored image of MIMT being like a rollercoaster (Theme A1). The visual reality of the mirror also had value, for example, participants felt their suffering could not be ignored:

> I feel like I'm more able to process these thoughts in my head, when I see my own physical, my own facial expression, my own behaviour, how that changes my mood, I think that is a powerful thing... it's powerful that you see it change in yourself, like that it's tangible, you can see it (Mark, p12)

Patterns becoming explicit with visual confirmation provided hope that internal difficulties could be targeted:

> By looking into a particular area, that could be associated with something that's happening on a deeper subconscious level. That was important for me .... if it's hidden you don't know where it is, you don't know what it's doing, then it's very difficult, you know, you just feel like you're firing arrows into the dark (Luca, p8)

Connection to *"severed and... fragmented bits of self"* (Fatimah, p13) in a tangible space meant 'self-parts' became less metaphorical and more workable:

> I'm very visual, a visual learner, it's a lot easier to me if I can visualise it, and having the mirror is like... this contained space, in which to have a look at the vulnerable self, have a look at the critical self and feel okay. I think its very

> different, for a lot of people and a lot of therapies I've been to, that might be a bit, it feels a bit more wishy washy in a way, because it's not like solid, because of a more of a concept, rather than like, this is the thing, you do this, you do that, but this is more like, it's more like working (Lucy, p26-27)

Whilst more confronting, viewing themselves in the mirror added richness to realisations; they saw their insights land. Similarly, compassion *"resonated a bit more"* (Mark, p10) and could be more easily integrated:

> When I compare it to sitting and talking, that, that was much easier for me than the mirror therapy. But I don't think I would have had some of the realisations I would have had if I was just talking to people, if I didn't have that visual realisation of what I was told was happening (Milly, p7)

> I think just looking at the therapist for me... doesn't allow me to realise it as much as seeing it in my own eyes and seeing how my eyes change... you're seeing yourself, you're seeing the therapist's response to you, and ...almost magically... you're seeing you through the therapist's eyes and taking those eyes away with you! You know in inverted commas-metaphorically... you can see the world with different eyes (Jane, p7-8)

The consequence of *"seeing...*" and experiencing hidden difficulties meant *"believing"* (Mark, p24) the possibility that they could view themselves differently. The collective experience provided more tangible hope.

Subtheme C.2: Deeply felt and intangible belief

Most participants described their therapeutic journeys connected to *"deep-rooted"* (Mark, p3) *"underlying problems*" (Lucy, p5). Despite feeling like they had *"exhausted... talking therapy"*, MIMT matched their hopes of experiencing something *"different"* (Fatimah, p2):

> I've gone through all the counselling sessions in the past, I've felt they were just a bit too superficial, they are not getting deep enough to the place they need to be and my experience with mirror therapy, certainly from the last stage, was that something happened... I felt the effect... that sensation dissipating (Luca, p27)

Being able to *"break the surface*" (Jane, p16) and *"dig deep"* (Mark, p16) led participants to connect with a *"buried"* self (Luca, p3) and helped them feel differently about themselves:

> For me, it was really going back into my childhood, and being very honest with how things were for me... because things were so normalised ...you're always thinking then you're like the black sheep... once I kind of got my head around that... I just wasn't as angry with myself anymore... I could look at the vulnerable part of myself and not hate it. And once I didn't hate it, the critical voice quieted down on its own (Lucy, p17-18)

Parts were shown and tangibly worked through in the mirror, however crucially, the *"vulnerable self"* (Lucy, p13) was also exposed to the therapist. Surprisingly, given their descriptions of initial exposure, participants noted of a sense of comfort in being seen and understood by the therapist:

> She knew me as a person, she knew, she knew the struggles I was going through at that particular moment in my life and what feelings were going through my head. She knew exactly what I was thinking at that particular moment (Mark, p18)

For some participants (Lucy, Fatimah, and Jane), being seen touched them deeply. To paraphrase Winnicott (1963), despite a wish to remain hidden, they felt found. Explicit in Fatimah's account was the experiential process bringing serenity and blossomed a new attachment experience:

> I couldn't accept their gaze was of a caring, kind of almost like motherly gaze. And there was just one session where it just clicked and I really wanted to look at them and I wanted them to look at me, and it felt like... [[wiping tears]], it felt like a really pure form of like peace... it was almost like a, like trust in just just being alive. A kind of trust of like, "something has got me, something has got my back" and I know now that feeling is to do with like attachment theories (Fatimah, p6)
>
> ...I feel like I'm moving towards, slowly towards a more secure attachment style, umm, whereas, I don't think that would have happened just through talking (Fatimah, p21)

For others (Jane and Lucy), the experience of the therapist *"metaphorically... taking your hand"* (Jane, p6) was described as leading to a *"co-parenting"* (Jane, p4) experience:

> I don't want to say, I've been parented by the therapist, I haven't, but part of it, is, for me, was, learning to parent myself... when I would start to feel dysregulated or feeling triggered or whatever I could be kind of like, "what I really want is like, I

> want a mum but she can't do that, so I have to be my own mother"... And I could have that sort of discourse with myself (Lucy, p18-19)

Going *through the looking glass* to see a world with less shame was described to follow, despite not fully understanding how:

> It gives you, it's an opportunity, a way of potentially seeing yourself, and the way you are in that world, and maybe, maybe possibly being able to change it (Jane, p11) ...But it's not explainable... and I think the reason is something to do with trust and confidence and that little bit of, you know, magic! (Jane, p23)

An ineffable, *"magic*" process providing hope, faith and trust in life speaks to a transcendental experience. Fatimah describes the comforting experience she had:

> I had this one experience where I left the therapy session and it had been a really heavy session, and I felt the wind blow against my back as I was walking away. And what came with that was a feeling of real support and like emotional kind of, of emotional support, and almost like love... I felt really, like someone was protecting me, or some*thing* was protecting me. And I'm not a religious person ...but, it felt like ((chuckling)) the, I can't think of a better way to put it, but it felt like the nature of the universe is almost like protecting me, that something [like] that exists (Fatimah, p23)

Participant accounts indicate meaningful change occurred beyond just seeing their difficulties. Experiencing a sense of being 'seen' provided a lasting impression whereby they could feel what it was like to be emotionally vulnerable and not be shamed.

Subtheme C.3: Gradual but meaningful change

All participants reported gradual change through the therapy. Some described moments when things *"clicked"* (Fatimah, p6) or feelings "*dissipated"* (Luca, p16), although others *"didn't suddenly have an epiphany*" (Lucy, p4). Moments of connection with the therapist, for instance, were immediately felt, but trust required proof, *"I don't just decide to trust somebody"* (Jane, p6), and took time to build:

> I think it took months before I could [look] the therapist in the eye, in the mirror... it was getting on about a year, and it was only probably towards the end of that that I started to feel a bit more comfortable (Milly, p3)

> It's weird... often I have a thing where I'll say, "I can see it looks like you care but I think you're pretending" ...whereas some days I'll be like "I can see that you care" (Fatimah, p17)

The pace of progress, however, was understood to connect to the explored depth:

> Most of the solutions out there are not quick fixes. To change your life, you actually have to persist for a long time (Luca, p8)

Many participants reported the changes they experienced through therapy had an *"enormous difference*" (Fatimah, p3). Whilst they "*hated*..." the emotional exposure, they *"would do it again"* (Milly, p15). Changes participants felt as a result of the therapy were idiosyncratic and not always linear but broadly began with understanding:

> I think that was like the big turning point... I could have compassion for the hurting vulnerable bit, but I have compassion for the angry and mean bits as well (Lucy, p17)

Understanding and empathy through connecting with different parts cultivated self-compassion and confidence in what was felt without shame:

> I've always looked at everything with a lot of shame... kind of the whole purpose of [MIMT] really was to ...realise that if these things had happened to someone else, you wouldn't be ashamed of them... and, recognise that certain behaviour was a reaction ...rather than being representative of who I am as a person (Milly, p10)

Compassion and associated understanding of the nature of their difficulties provided a greater agency to live their life:

> I started to go – "oh just a minute" you know, "it doesn't have to be that way, it doesn't have to be you dismiss or invalidate all your feelings, you are a person, that deserves or warrants things and that you're entitled to certain feelings and those feelings are if someone else experienced them would be similar" (Jane, p11)

> You might be going through a difficult time, and when you didn't feel good about yourself you knew that was temporary ... you were actually able to umm, to function and live life the way you wanted despite all of the challenges life throws at you (Mark, p16)

In turn, participants concluded that MIMT blended tangible and ineffable techniques to provide similarly described outcomes:

> You can't really think or quantify it... it's a bit like, the more you try to grab hold of it the more it slips away so you have to sort of trust it to allow it to come and go (Jane, p14)

> I genuinely can't put my finger on what changed it, it was like ...somebody had kind of switched the wiring in my brain to two different points. So it was just something, that is one thing the mirror therapy is that, the changes happen without you really consciously being aware, it can just suddenly be there. Which I quite like because you never know when it's going to happen! (Fatimah, p11)

Changes following therapy varied per participant, reflecting their individual experiences and reasons for accessing therapy. Nonetheless, accounts converged on describing the process as memorable and meaningful, providing hope for them to live their life without shame.

Discussion

This study explored service user experiences of MIMT, a new integrative trauma-focused psychotherapy. Consistent with IPA's epistemological perspective (Smith et al., 2021) focus was on *what MIMT was like* rather than *how* it worked. The second aspect of the research question explored if participants felt the techniques of MIMT had any impact on 'meaningful change,' a purposefully broad term to investigate idiographic experiences rather than determining MIMT's efficacy (e.g., Kazdin, 2009). Three superordinate themes were developed to outline experiences:

'Double exposure'

Participants described feeling apprehensive at looking into the mirror, requiring a safe and *"genuine"* therapist to help them engage. One individual speculated seeing the therapist in the mirror emphasised their sincerity. The necessity of a trusted therapist is common in other experiences of different interventions (Kleiven et al., 2020; Mauritzson

et al., 2015). Feeling the therapist is authentic also fosters therapeutic safety and trust (Eastwood et al., 2021), crucial for individuals with histories of trauma (Ellis et al., 2018).

Therapy potentially being a challenging experience is consistent within adolescents' experiences of TF-CBT (Eastwood et al., 2021), although, confronting emotions in trauma therapies is described as necessary for *"healing"* (Amos et al., 2019). Compared to previous therapies, participants described facing themselves in the mirror meant becoming closer to emotions as they were experiencing them. A subsequently magnified emotion experience by seeing oneself corresponds to the concept of *"emotional contagion"*, an innate ability to empathetically connect with others through observing facial expressions (Hatfield et al., 2014).

The mirror also reflected feelings of shame. High levels of shame are prevalent in trauma-exposed individuals (Harman & Lee, 2010) and are directly linked to avoidance across various psychotherapeutic models (Dawson & Moghaddam, 2015; Irons & Lad, 2017). Participants described looking in the mirror metaphorically showed a 'part' of them was distressed, whereas another 'part' was heavily critical. Differentiation between respective self-parts is consistent with other therapeutic approaches (e.g., Schwartz, 2001) but was considered by participants as more feasible via the mirroring process. An increased realisation of the impact of shame, like Lawrence & Lee's (2014) IPA study of CFT, helped participants to consider self-criticism as less integral to their identity.

Integrating 'parts' with compassion

The second superordinate theme emphasised the importance of specific experiential techniques alongside the therapeutic relationship (Carroll, 2005). Experiential methods can connect with implicit self-states when verbalisation is insufficient in reducing the effects

of trauma (Van der Kolk, 2014). One technique involved in MIMT was a *"controlled dissociation"* (Caputo, 2010) whereby participants mentally projected their/a suffering 'part' into the mirror. Seeing their suffering in the mirror as if a third person led some participants to feel an instinctive empathy, matching descriptions of an *"emotional contagion"* (Hatfield et al., 2014). Although compassion was described to be built over time, consistent with CFT literature (Lawrence & Lee, 2014), the nature of feeling immediate sympathy provided a different experience whereby responding without shame became more possible. Demonstrating self-compassion exists internally but is perhaps dormant connects with 'positive' or 'humanistic' psychotherapy (Resnick et al., 2001; Rogers, 1977).

Photographs on the mirror helped participants recognise inconsistent flows of compassion (self-to-self versus self-others), like CFT approaches (Dale-Hewitt & Irons, 2015; Irons & Beaumont, 2017). Using photographs also helped participants consciously dissociate from their present selves and *"revisit"* past suffering. 'Seeing' a younger traumatised self helped build self-compassion and integrate fragmented parts (Fisher, 2017). The ability to *"mentally time travel"* through photographs and connect with oneself as if in the past links with concepts of *"autonoetic consciousness"* (Dafni-Merom & Arzy, 2020). An unusual process to safely re-live the past via purposeful disconnection corresponds with descriptions of in vivo exposure in TF-CBT (Eastwood et al., 2021).

Following increased emotional closeness, MIMT participants moved their gaze between various locations in the mirror to help desensitisation. Particularly when connected with reliving past events, accounts were similar to qualitative descriptions of EMDR (Gilkinson, 2009), for example, reporting a non-conscious *"re-wiring*" (Parnell, 2018). However, other participants perceived the difference of MIMT as involving a more

active role of the therapist, including the therapist's eye gaze. The term *"coregulation"* connects with bodily-based psychotherapies in relationally increasing emotional tolerance (e.g., Kuhfuß et al., 2021) and contradicting isolative shame (Irons & Lad, 2017). Relational containment being crucial is consistent with other trauma-focused therapies (Eastwood et al., 2021; Lawrence & Lee, 2014).

Intangible connections

Different to their previous therapy experiences, participants described viewing themselves in the mirror gave a greater sense of agency. Active involvement helps clients feel more *"understood"* (Lowe & Murray, 2014) and *"empowered"* (Eastwood et al., 2021). Perhaps illustrating their increased agency was the participants' articulate understandings of MIMT, evidenced in their direct quotes above (which subsequently did not require considerable interpretation in the Analysis). MIMT also was described to have made internal processes more visually accessible and provided hope that change was possible. Making self-parts 'visible' matches descriptions that fragmented traumatised parts need differentiation before reintegration (Siegal, 2010). Concepts like ‘parts’ remained metaphorical in participants' accounts but were considered more tangible, suggesting how an embodied and meaningfully rich experience can make something ‘real’ (Larkin et al., 2006).

All participants reported gradual change through MIMT, attributed to connecting at depth, similar to other experiences of other long-term psychotherapies (Lowe & Murray, 2014; Shedler, 2006). For example, focusing on relationships in long-term psychotherapy can offer implicit soothing and the potential of an earned new attachment (Fisher, 2017; Schore, 2022). Some participants described a renewed attachment experience through the

therapeutic relationship [similar to Dansby Olufowote et al., (2020) qualitative exploration into clients developing earned attachments]. The therapist as a secure attachment figure to help a client *"reparent"* inner child parts broadly corresponds with *"limited reparenting"* in Schema Therapy (Rafaeli et al., 2010). Furthermore, two participants' experiences also seemed to have a transcendental quality. Transcendental experiences in psychotherapy are often disregarded due to their intangible nature (Aten et al., 2013) but noted as possible within other psychotherapies (e.g., Richards, 2017). More tangible changes made through the therapy were varied, gradual and reportedly nonlinear, matching idiographic explorations of change (e.g., Lowe & Murray, 2014). However, consistent across accounts was an increased understanding and compassion toward themselves and increased tolerance to emotional distress. Greater understanding and compassion providing a new and more hopeful experience are similar to outcomes of CFT (e.g., Lawrence & Lee, 2014).

Research and clinical implications

The present project explored experiences of MIMT. Given this research is designed to develop an understanding of the application and use of MIMT it has not adhered a research evaluative framework (e.g., Skivington et al., 2021), and therefore, conclusions regarding its efficacy, safety, feasibility, scalability cannot be made. However, according to Allen et al., (2009) if a therapy is well-founded, the theory should be reflected in participant experiences and so this study provides a base for further exploration. This study also demonstrates the value of using IPA to understand therapeutic experiences and processes in-depth, similar to previous IPA papers (e.g., Lowe & Murray, 2014). As the first study to explore MIMT, it is hoped to stimulate interest for service users, therapists, and researchers.

This study has several clinical implications. Firstly, MIMT shows the benefit of transdiagnostic interventions (Sweeney et al., 2018) and appears coherent in integrating multiple approaches (e.g., Matoff, 2018). Experiential techniques also connect to the impact of trauma at a multisensory level and demonstrated value (Van der Kolk, 2014).

Secondly, in the mirror potentially intensifying therapy which can already be felt as a challenging experience, therapists and clients should be aware and receptive to the emotional demands of MIMT. For instance, sessions could be adjusted (moving from the mirror), or grounding could be preestablished (e.g., Shapiro, 2014). The mirror also appeared to accentuate the therapist's sincerity and may impact the development of the therapeutic relationship. Therefore, all therapists should seek appropriate training and have high-quality supervision before delivery (e.g., Sweeney et al., 2018). Thirdly, although some participants described having sudden epiphanies through the mirror, other participants did not, which may be validating information for current and future MIMT clients to be made aware of.

The nature of moving between 'parts' was described as a core component of the therapy and links to the Structural Dissociation Model (Van Der Hart et al., 2004). Participants described the powerful impact connecting to such parts had on them, although implicitly requires maintaining a relatively stable sense of self, which may be difficult for some individuals (see Sinason, 2002). For other individuals who experience distressing psychotic phenomena, the prospect of looking into the mirror may also lead to significant distress (e.g., Arbib, 2007). Finally, the idea of 'parts' as metaphorical (Fisher, 2017) may result in individuals who experience difficulty with metaphor struggling in MIMT.

Methodological considerations and limitations

As noted above, as this research was not developed within a framework (e.g., NIHR) it is not able to make certain conclusions, for example, regarding MIMT's efficacy, feasibility, or safety of use. Rather, as this research focused on participant experiences of the approach, and the study adhered to the standards of high-quality IPA research (Smith, 2011), it provides confidence in better understanding MIMT's concepts and principles of use. For instance, interviews ensured the exploration of unique experiences, while line-by-line analysis identified personal meanings before common themes. Furthermore, as qualitative research is inherently a subjective process (Smith et al., 2021), how the researcher's position may have impacted the research been made explicit within the reflexive statement (such as a focus on visual imagery or having a relational therapy focus), and triangulation was used. The analysis also adhered to four key markers of quality (Table 5) outlined by Nizza et al., (2021). For example, attending to similarities and divergence (such as photographs showing 'Mark' "*at his best"*) or attending to the existential quality of looking into the mirror (for example, Lucy's feared *"shame spiral"*).

A sufficient sample size of six was obtained (Smith et al., 2021), and all subthemes within the analysis had five or more contributors. A sample size of six is not generalisable but is consistent within IPA to provide depth to a developing field (Reid et al., 2005). Regarding the sample's characteristics, all participants were from one therapist's practice and had a relatively positive experience. Therefore, accounts within this study may not be representative of all clients who complete MIMT. This is particularly relevant given the

research literature outlined in the Introduction demonstrated proportions of people find some therapies helpful and others less so.

Table 5:

Quality indicators of IPA summarised from Nizza et al., (2021)

Quality Indicator	Descriptor	Examples (not exhaustive)
Developing a compelling and coherent narrative	Narrative is progressive, convincing, and coherent to provide a meaningful focus at depth	Each quote chosen within the analysis extends the narrative
Constructing a detailed analysis in personal depth	Significance is placed on exploring personal meanings, such as those with an existential quality	Attention towards how descriptions convey individual ontology
Thorough appreciation and report of participant accounts	Detailed examination of individual narratives, with a hermeneutic and transparent lens	Quotes are not used without context or metaphors could be used at separate points of the analysis to convey transitions in experiences
Awareness of similarities and divergence	Recognition of commonality and idiosyncrasy	Drawing on similarities and differences between and within accounts

Collecting participants from one practice linked with the researcher by the therapist may indicate a risk of bias for clients who have had a positive experience. The therapist advertised the research which may also highlight a power imbalance, as participants who have completed the therapy may have felt obligated to take part. Ways to mitigate such power imbalances were through the consent and anonymity procedure, for example,

emphasising that participation did not impact future access to MIMT. However, some risks of bias within the research were unable to be fully controlled as only a limited pool of therapists and service users have completed MIMT.

Purposeful inclusion of participants who had also previously engaged in other therapies helped ensure descriptions related to MIMT rather than broadly of psychotherapy. Although, due to the limited number of individuals who have engaged in MIMT, including only participants who have also engaged in longer-term psychotherapy was impossible. There is further a lack of diversity within the sample. Five of the six participants identified as the same ethnicity, and all either work or have worked in specialised occupations (exact details were excluded for anonymity). A homogenous group may have led to more common meaning-making but may have also resulted in a less representative set of findings. Relatedly, as the researcher shared similar demographic characteristics, this may have led to particular meaning-making in the double hermeneutic. Finally, as the only academic study which explores MIMT, it is impossible to examine if the findings are consistent with others.

Conclusion

This study explored what MIMT was like and what impact (if any) it had on individuals' lives. Participants described that making implicit processes more visible in the mirror, including watching themselves experience, helped cultivate self-compassion. Increased self-compassion and understanding of their respective self-parts resulted in viewing themselves with less shame. Notwithstanding the techniques of MIMT, a key feature was the relationship with the therapist, to help them look into the mirror and to help offer an embodied experience lasting beyond therapy.

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PRESS RELEASES

CHAPTER ONE: META-ANALYSIS PRESS RELEASE

Consistently measuring the impact of trauma across language, setting and country

Experiencing traumatic events is common and affects people in different ways. For some, the experience of trauma can lead to the symptoms of Post-Traumatic Stress Disorder (PTSD) or Complex-PTSD. In a recent study, the 'International Trauma Questionnaire' (ITQ) has been found to be a reliable tool across various countries and populations to assess for the symptoms of PTSD and C-PTSD.

PTSD and C-PTSD are considered separate conditions potentially developing following exposure to traumatic events (World Health Organisation, 2018). Symptoms of PTSD include *re-experiencing* a traumatic event in the present through various ways, such as flashbacks and nightmares. A diagnosis of C-PTSD includes the symptoms of PTSD, with the addition of difficulties in how a person sees themselves, for example viewing themselves as persistently worthless (Ford, 2021). Diagnosis of either condition is given if respective symptoms impact an individual's daily life. Accurate diagnosis is important as interventions for PTSD are not as effective for C-PTSD (Karatzias & Cloitre, 2019).

The ITQ was developed (Cloitre et al., 2018) to aid accurate diagnosis of PTSD and C-PTSD. Comprising of 12 items, 6 exploring the symptomology of each, the ITQ and translated versions have been used across various research across the globe. Other research has shown the ITQ measures what it intends to measure, termed 'validity'. However, no paper has systematically reviewed how consistent or 'reliable' ITQ is. For example, if people score similarly across questions which measure the same concept (termed internal reliability). Both validity and reliability are needed to provide confidence the ITQ does not

produce unstable results. Consequently, a study aimed to bring together all the studies which have used the ITQ and examine its reliability.

The researchers systematically searched the scientific literature to collect all papers which had used the ITQ since its publication. Some papers were excluded, for example, those which did not provide reliability data, providing a total of 98 individual studies. Bringing together the internal reliability across studies for the full ITQ scale, PTSD or C-PTSD subscales showed "*high*" reliability (Taber, 2018) for all three. As this review incorporated studies from different countries, population groups and language versions, the researchers also investigated if these would impact reliability. Some minor modulations were found, for example, clinical populations scored slightly lower rates on reliability than general population groups, but broadly reliability rates remained high. Importantly, the language version of the ITQ did not impact reliability. Only 1 study within the literature review was identified to have examined the ITQ's consistency over time and represents an avenue for future research.

This study means clinicians and researchers alike can be confident the ITQ does what it says on the tin - measures PTSD and C-PTSD reliably over setting, country and language.

For more information, please contact Ross Taylor, School of Psychology, University of Birmingham, on [redacted]

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CHAPTER TWO: EMPIRICAL PAPER PRESS RELEASE

"It's like the Mad Hatter's Tea Party" - Reflecting participant's experiences of completing a new psychotherapy through a mirror

Mindful Interbeing Mirror Therapy (MIMT) is a new psychotherapy involving the client and therapist sitting in front of and interacting through a mirror. In a new study, participants described how MIMT's weird and wonderful techniques helped them build self-compassion and provide lasting hope in their lives.

MIMT is a trauma-based psychotherapy recently developed by two Italian psychologists (Carmelita & Cirio, 2022). As different therapies are known to be helpful for different people (e.g., Watkins et al., 2018), MIMT incorporates techniques of various evidence-based psychotherapies, thought to help individuals when more established therapies are less beneficial.

The theory of MIMT stems from psychological models which hypothesise experiencing difficult events can result in a person unknowingly "*fragmenting*" parts of themselves (Fisher, 2017). For example, a conscious part can become disconnected from another 'part' which has experienced the trauma. MIMT aims to draw such parts together, by helping clients empathically connect to their suffering by making it visible in the mirror (Hatfield et al., 2014).

There is limited evidence regarding MIMT processes, how effective it is, or what it is like to complete it. Accordingly, exploring clients' experiences can develop an understanding of MIMT. A specific scientific methodology termed Interpretative Phenomenological Analysis (Smith et al., 2021), was chosen to systematically explore

personal meanings and experiences. Six individuals who had completed MIMT within a private clinical psychology practice in the UK agreed to participate in this study. Interviews took place and the following themes were collated:

Firstly, a trusted therapist was particularly important given the mirror was felt to intensify and bring emotions closer by making them visible. Alongside experiencing their distress, participants also spoke of the mirror helping them realise how critical they were to themselves.

Secondly, participants outlined the specific techniques of MIMT, including how for some, the mirror evoked a sense of immediate compassion for their suffering. Having photographs on the side of the mirror further contributed to this process and potentially helped connect to their traumatised past. Other techniques helped to build tolerance of difficult emotions, such as moving their attention from one part of the mirror to another, or from their own eyes to the therapist's. One participant commented positively that their experience of doing the different techniques with the therapist was *"like the Mad Hatter's Tea Party"*.

A final theme was that the mirror made hidden processes more tangible, allowing participants to connect more deeply to themselves than they had previously considered possible. Similarly, a group of participants also spoke of the experience of feeling emotions and being supported by the therapist itself offering a uniquely hopeful experience. Nonetheless, for all participants, feeling increased connection and compassion to themselves in the therapy meant they were more able to continue this beyond therapy.

Experiences of MIMT appeared to broadly match the wider psychotherapy literature. However, crucial differences were in the intensity of participants' emotional

experience and the potential for the mirror to make metaphorical psychological processes more tangible. Several clinical implications of this study are reported: For example, evidencing MIMT as a feasible therapy and the focus on what the experience is like as it happens also demonstrates the potential value of such techniques in trauma therapies. As MIMT was viewed to both increase emotional demands and require a safe therapist, clinicians delivering MIMT should be well-trained and have access to high-quality supervision.

This study explored the experiences of individuals who have completed a new and novel psychotherapy - MIMT. Although participants described a variety of meaningful individual changes following therapy, all reported that MIMT offered a powerful new experience to help them live their lives with less shame.

For more information, please contact Ross Taylor, School of Psychology, University of Birmingham, on [redacted]

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APPENDICES

Appendix A: University of Birmingham Approval and Sponsorship

Application for Ethical Review ERN_21-1399

You replied on Tue 14/06/2022 18:46

Samantha Waldron (Research Support Services)
To: Andrew Fox (Psychology)
Cc: Ross Taylor (ClinPsyD Clinical Psychol FT)

Fri 25/02/2022 15:30

Dear Dr Fox,

Re: "Exploring experiences of Mindful Interbeing Mirror Therapy (MIMT) and its contributions to meaningful change amongst participants who have previously sought therapy"
Application for Ethical Review ERN_21-1399

Thank you for your application for ethical review for the above project, which was reviewed by the Science, Technology, Engineering and Mathematics Ethical Review Committee.

On behalf of the Committee, I confirm that this study now has full ethical approval.

I would like to remind you that any substantive changes to the nature of the study as described in the Application for Ethical Review, and/or any adverse events occurring during the study should be promptly brought to the Committee's attention by the Principal Investigator and may necessitate further ethical review.

Please also ensure that the relevant requirements within the University's Code of Practice for Research and the information and guidance provided on the University's ethics webpages (available at https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/Research-Ethics/Links-and-Resources.aspx) are adhered to and referred to in any future applications for ethical review. It is now a requirement on the revised application form (https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/Research-Ethics/Ethical-Review-Forms.aspx) to confirm that this guidance has been consulted and is understood, and that it has been taken into account when completing your application for ethical review.

Please be aware that whilst Health and Safety (H&S) issues may be considered during the ethical review process, you are still required to follow the University's guidance on H&S and to ensure that H&S risk assessments have been carried out as appropriate. For further information about this, please contact your School H&S representative or the University's H&S Unit at healthandsafety@contacts.bham.ac.uk.

Kind regards,

Ms Sam Waldron (she/her)
Research Ethics Officer
Research Support Group
University of Birmingham
[redacted]
Video/phone: If you would like to arrange a Teams/Zoom/telephone call, please email me and I will get in touch with you as soon as possible.
Postal address: Ms Sam Waldron, Finance Office, University of Birmingham, c/o Room 106 Aston Webb, B Block, Edgbaston, Birmingham, B15 2TT.

Appendix B: Participant Information Sheet

ERN_21-1399 Participant Information Sheet - Version 4

Participant Information Sheet

Title of Project

Exploring experiences of Mindful Interbeing Mirror Therapy (MIMT) and its contributions to meaningful change amongst participants who have previously sought therapy.

Description of Project

Mindful Interbeing Mirror Therapy (MIMT) is a new type of talking therapy recently developed by two Italian psychologists, Dr Alessandro Carmelita and Dr Marina Cirio. MIMT involves integrating various evidence-based therapeutic techniques to help individuals develop a more compassionate and cohesive sense of self. An example of one of the techniques used in MIMT is a typical MIMT session taking place in front of a large mirror, with a client and therapist interacting through their reflections. The mirror, and other skills used in MIMT, are used to help clients reflect with their therapist on their understanding of themselves and patterns associated with their emotional difficulties.

No research has yet explored what it is like to complete MIMT as a client. This research project explores client experiences of MIMT, what aspects of the therapy seemed meaningful, what specific techniques evoked and what impact they may have had. Investigating the techniques involved alongside psychological change will help to build an understanding of what makes MIMT unique and guide future research and clinical delivery.

Invitation to participate and explanation of what participation entails

We would like to invite you to participate in this research project if you have completed or reached a natural stopping point of MIMT within the last 1-18 months.

To participate in this study, you will be asked to attend an interview via videoconferencing software (via Zoom or Microsoft Teams), lasting around 60-90 minutes. The interview questions will begin by broadly asking what led you into accessing MIMT, what was done or said in the therapy that was important to you and what potential (if any) impact this may have had for you. This research does not aim to explore any specific difficulties you may have experienced in-depth but more your experiences of the techniques used in MIMT.

If you wish to participate, please return an electronically signed copy of the attached (password protected) consent form to the email provided. The password to access this consent form has been sent to you on a separate email. Verbal consent could be arranged if you are unable to provide electronic consent, if required, an audio recording of you providing consent can be obtained at the start of the interview. This recording will be password protected and saved securely.

If you do not return the consent form or inform the researcher you can only provide verbal consent within 14 days of this email, it will be assumed you do not wish to participate. Participation or not in this study will not affect your ability to access MIMT.

From this point, you will also have the opportunity to pick a date and time for the interview that would best suit you. As the interviews will take place online you will not have to travel for the interview, but we would encourage you to find a private undisturbed space with internet access. Speaking on video calls may evoke different things in different

people, so we aim to help you feel most at ease on this medium before the interview will begin. An audio recording of these interviews will be made to transcribe what has been discussed. This recording will be permanently deleted once the interview has been transcribed.

What are the possible benefits and disadvantages of taking part?

Your participation is not likely to benefit yourself and your therapeutic experiences, however, your participation will enhance the research on MIMT, explore what makes MIMT unique and guide future research and clinical work. Due to the nature and focus of the interviews, some sensitive topics may be discussed and speaking about difficult topics may cause you distress. You can decline to answer any question at any point without providing a reason. Similarly, if during your interview you feel distressed, it may be helpful to end the interview early, but we would discuss this with you. At the end of this Information Sheet is a list of supportive agencies, so please keep this sheet safe.

What data will be collected and how will be securely saved?

Any contact details (names and email addresses) will be stored securely and only used to arrange the interview. Any contact details will be deleted if consent is not given within 14 days of the original email or if you withdraw from the study before the interview. If you decide to take part in the study, your contact details will be deleted when the study is complete. At the start of the interview, you will be asked some brief demographic questions for research purposes. You do not have to answer these questions if you do not wish, and this information will be recorded securely and anonymously.

Although the interview will take place online, an audio recording will be saved via an encrypted Dictaphone and a backup on a secure university server. This recording will be

deleted once a written transcription has been completed by the researcher. All data will be saved onto a secure device or a secure University of Birmingham system. Only the research team (Ross Taylor) and supervisor (Dr Andrew Fox) will have access and will analyse this data.

Confidentiality/Anonymity

Any identifying information within the written transcription (such as names, ages, background, history) will be omitted. As this research focused on a detailed exploration of individuals' experiences, word-for-word excerpts will be used in the final report. Quotes will not be linked to your identity in any publications.

Every attempt will be made to maximise anonymity, however, as only a relatively small number of people have completed MIMT, if you have shared specific details about your experience of MIMT to someone else this could make you identifiable. Nevertheless, this research only wishes to explore your experiences of what the therapy was like, not your background, history, or necessarily emotional difficulties.

Data Disposal

Contact details of individuals who decline participation or do not respond to the original email within 14 days will be deleted. Contact details and potentially audio files of participants who withdraw before interview or up to 14 days after their interview will also be deleted.

Audio recordings of the interview will be saved on an encrypted Dictaphone and a backup on a secure university server for a maximum period of 6 weeks. This recording may be deleted sooner if the transcription of the interview is completed before 6 weeks. During the transcription process, a working document will be saved temporarily onto an encrypted

USB device for ease of access. Once the transcription is completed this document will be saved to a secure sever and deleted from the USB device.

Contact details for participants will be stored on a secure university system and will be deleted once the research project is complete. Only consent forms and anonymised transcriptions will be stored on a secure university system for a period of 10 years before disposal, in line with data guidance.

Ross Taylor (researcher) will manage your data during the life of the research project, once the research project is complete, Dr Andrew Fox (supervisor) will then manage this data.

Right to withdraw

You are free to withdraw at any point preceding the interview and within 14 days after the interview. If you wish to withdraw from the study, please contact the researcher via email [redacted] You do not have to provide a reason why you are withdrawing in this email.

Reimbursement/Expenses

No reimbursement will be paid for participation in this research.

Results of the Study

The final report of this study will be included in the researcher's Doctorate of Clinical Psychology thesis and may subsequently be published in an academic journal. The researcher will ask you after the interview if you would like a summary of the research/feedback of results once the study has been completed. If you do wish to receive this, the researcher will send it to you via email on completion of the study.

Who should I contact if I have any concerns?

If you become distressed or require additional support, please see a number of supportive services below:

- [redacted]
- **Samaritans** on **116 123** to share and talk about what is upsetting you
- **SANEline**: **0300 304 7000** between 4:30pm-10:30pm for guidance and emotional support.
- (If you live in the Birmingham Area) **Birmingham Helpline 24/7 on 0121 262 3555 or 0800 915 9292** if you require urgent mental health advice and support

If you feel you need urgent support or in an emergency call 999.

If you have concerns about this research or want to make a complaint about this research to a neutral party please contact Mrs Sue Cottam, Research Ethics Manager via [redacted]

If you have any concerns or wish to clarify anything before or after participation, please contact the researcher or supervisors of this research project using their details below:

Contact details:

Research Team:

Researcher: Ross Taylor, [redacted]

Academic Supervisor: Dr Andrew Fox, [redacted]

Clinical Team:

Clinical Supervisor: [redacted]

Appendix C: Consent Form

ERN_21-1399

Consent Form – Version 4

Consent Form

Title of Project

Exploring experiences of Mindful Interbeing Mirror Therapy (MIMT) and its contributions to meaningful change amongst participants who have previously sought therapy.

Fair Processing Statement

This information is being collected as part of a research project concerned with exploring client experiences of MIMT by the School of Psychology within the University of Birmingham. This research is in collaboration with [redacted] The information which you supply and that which may be collected as part of the research project will be entered into a filing system or database and will only be accessed by authorised personnel involved in the project. The information will be retained by the University of Birmingham and will only be used for the purpose of research, and statistical and audit purposes. Ross Taylor (*researcher)* will manage your data during the life of the research project, once the research project is complete, Dr Andrew Fox (*supervisor*) will then manage this data. By supplying this information, you are consenting to the University storing your information for the purposes stated above. The information will be processed by the University of Birmingham in accordance with the provisions of the Data Protection Act 2018. No identifiable personal data will be published.

Statements of understanding/consent

1. I can confirm that I have read the Participant Information Sheet (Version 4) for this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time during data collection and up to 14 days after the interview has taken place without giving any reason. If I withdraw, my data will be removed from the study, and it will be destroyed.
3. I understand that the audio of my interview will be recorded, though this recording will be destroyed once written transcription of the interview has been completed.
4. If I provide verbal consent, an audio file of this consent will also be recorded at the start of the interview, this file will be password protected and saved on a secure University of Birmingham computer sever.
5. I understand that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers.
6. I understand that my personal data will be processed for the purposes detailed above, in accordance with the Data Protection Act 2018.
7. Based upon the above, I agree to take part in this study:

Please note, an electronically created signature (i.e., typed signature in standard font), a drawn shape of your signature or a pasted image of your signature is suiTable for the appropriate box below.

Name of participant:	Date	Signature

Name of researcher:		
	Date	Signature

A returned and signed consent form will be saved securely on university systems.

Appendix D: Semi-Structure Interview Schedule

1. **As much as you feel comforTable to, could you please share a little about what led you to access therapy? Or what your hopes were out of therapy?** *Some people access therapy if they're struggling with a particular difficulty or areas of their lives that concerns them? Could you tell me a little more to help me understand?*
2. **What led you to go for MIMT? Do you feel it compares with others?** *Why MIMT>others? Chose or chosen?*
3. **Were there any particular expectations or perceptions or thoughts about MIMT before you got into it? Did it change your expectations or hopes of what you wanted out of therapy?**

   Before the therapy did you have goals in mind? Did you have outcomes? Some people may feel things have 'changed' as a result of the therapy- is this what you wanted?
4. **Regarding the therapy – were there particular things the therapist did or said or that you did together that stick out in your head or felt important?**
   a. *How did you understand (the mirror, the use of touch, the red dot, use of eye gaze, focus on oneself, therapeutic relationship, compassion) did it make sense to you? How was it over time? Did you feel it made a difference? How so? Elicit any particular thoughts, feeling, desired actions? Phrases/words you would describe it?*

   How did these make you feel?
5. **If anything, how did they impact on what you wanted to get out the therapy? Do you think your expectations or hopes of the therapy changed because of MIMT?**
6. **Finally, how would you describe your overall experience of MIMT?**

Appendix E: Examples of Exploratory Noting for one participant (Mark)

I: and there's something about seeing yourself in the mirror and seeing yourself feeling guilty almost or is it, seeing yourself in that situation, how did that mirror help?

M: yeah like the therapist would be behind you and you'd be having a general chat, but, you know, I was trying to... I have these thoughts in my head basically, and I... like relive that moment, like when I do feel anxious, or I feel guilty, or I do feel sad, what-what-what is that like basically. So I managed re-enact it during that therapy session, umm, which was quite good, because once I started to have those feelings that's when, you know, the, actually therapy starts, when you're counteracting all those thoughts and some of them are not true – you are a good "[...redacted...]" employee, you are someone who cares "[...redacted...]" a lot, you are someone who works hard. Umm all these things made a lot more sense when I was, looking at myself in front of the mirror. Just visualising it. And the red dot as well!

I: the red dot- tell me about the red dot?

M: ((Chuckling)) the red dot was very interesting, I'd never heard anything about that before, but er, the therapist gave me the red dot actually, I've got it, I

The mirror helped re-enact particular emotions

Reliving then enables 'the actual therapy to begin'

Actually- implementing change>

Actively live in the therapy, - what distinguishes it ?- emotions AND thoughts live – battle, you're trialling it in the here-and-now not solely intellectualised.

Countered thoughts became more believable when looking at oneself. Seeing it made it more believable – see page 24/made it easier to integrate – accept into self? Consolidate?

Then the mirror helped actually take in the 'good' sides of the battle = "liberating a true self" = true focus – liberate external possibilities from internal battle?

as hard as you progressed through the therapy, did it change in any way or was it just the same? The same difficult?

M: no it did get easier, I think, ummm, like, err, like the last few sessions was all positive really. It was like errm, you felt like you had some sort of tool to fight back when you were having such a difficult moment in your life where you feel you are unable to, like carry on or function normally because of that cloud above your head. You felt like you had a tool to, try and you know, stop those feelings like quite quickly.

I: Is the tool what you were describing earlier about the different perspectives or what would you understand the tool to be, that helps you at a later stage?

M: definitely the perspective, umm, helps you know, taking a moment just to like actually to negate those emotions. You know, you're not a bad person, you're not someone, you're actually someone genuine, you care for other people... like there are so many positive qualities that you have as a person, that you are not able to, umm, you're always thinking of the negative rather than trying to think of all the sort of the positives traits and attributes that you have, umm or positive experiences growing up, for example, all the happy memories and all that, you know talking about it with the therapist was very very useful I think.

Ability to respond to negative emotions quickly

Tool= controlled dissociation, stops train of negative thoughts

Tool= perspective – balancing beyond just negative emotions with alternative thoughts –

Ability to think of balanced thoughts, MEMORIES, ATTTRIBUTES than negative only

? what is the difference here vs other therapies?

Talking with therapist extremely useful - ?positive

Creating space and focus for each emotion- digesting slowly.

Jumping to negative core beliefs about self based on experience negative emotion

Appendix F: Examples of Experiential Theme Generation for one participant (Mark)

142 I: and there's something about seeing yourself in the
143 mirror and seeing yourself feeling guilty almost or is
144 it, seeing yourself in that situation, how did that
145 mirror help?

146 M: yeah like the therapist would be behind you and
147 you'd be having a general chat, but, you know, I was
148 trying to... I have these thoughts in my head
149 basically, and I... like relive that moment, like when I
150 do feel anxious, or I feel guilty, or I do feel sad, what-
151 what-what is that like basically. So I managed re-
152 enact it during that therapy session, umm, which was
153 quite good, because once I started to have those
154 feelings that's when, you know, the, actually therapy
155 starts, when you're counteracting all those thoughts
156 and some of them are not true – you are a good
157 "[...redacted...]" employee, you are someone who
158 cares "[...redacted...]" a lot, you are someone who
159 works hard. Umm all these things made a lot more
160 sense when I was, looking at myself in front of the
161 mirror. Just visualising it. And the red dot as well!

162 I: the red dot- tell me about the red dot?

163 M: ((Chuckling)) the red dot was very interesting, I'd
164 never heard anything about that before, but er, the
165 therapist gave me the red dot actually, I've got it, I

Seeing oneself helped balance perspective 136-137

Actively seeing reliving provided evidence for change 151-155

Integrating compassion was more believable when seeing oneself 136-137; 159-161

The mirror helped re-enact particular emotions

Reliving then enables 'the actual therapy to begin'

Actually- implementing change>

Actively live in the therapy, - what distinguishes it ?- emotions AND thoughts live – battle, you're trialling it in the here-and-now not solely intellectualised.

Countered thoughts became more believable when looking at oneself. Seeing it made it more believable – see page 24/made it easier to integrate – accept into self? Consolidate?

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302 change in any way or was it just the same? The same
303 difficult?

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305 last few sessions was all positive really. It was like
306 errm, you felt like you had some sort of tool to fight
307 back when you were having such a difficult moment
308 in your life where you feel you are unable to, like
309 carry on or function normally because of that cloud
310 above your head. You felt like you had a tool to, try
311 and you know, stop those feelings like quite quickly.

312 I: Is the tool what you were describing earlier about the
313 different perspectives or what would you understand
314 the tool to be, that helps you at a later stage?

315 M: definitely the perspective, umm, helps you know,
316 taking a moment just to like actually to negate those
317 emotions. You know, you're not a bad person, you're
318 not someone, you're actually someone genuine, you
319 care for other people... like there are so many
320 positive qualities that you have as a person, that you
321 are not able to, umm, you're always thinking of the
322 negative rather than trying to think of all the sort of
323 the positives traits and attributes that you have,
324 umm or positive experiences growing up, for
325 example, all the happy memories and all that, you
326 know talking about it with the therapist was very
327 very useful I think.

Facing the mirror got easier over time –304-306

MIMT provided a tool when struggling to refocus and balance perspectives 306-311, 319-322

Negative self-concepts and shame obscured a true self 321-322 760-769

Ability to respond to negative emotions quickly

Tool= controlled dissociation, stops train of negative thoughts

Tool= perspective – balancing beyond just negative emotions with alternative thoughts –

Ability to think of balanced thoughts, MEMORIES, ATTTRIBUTES than negative only

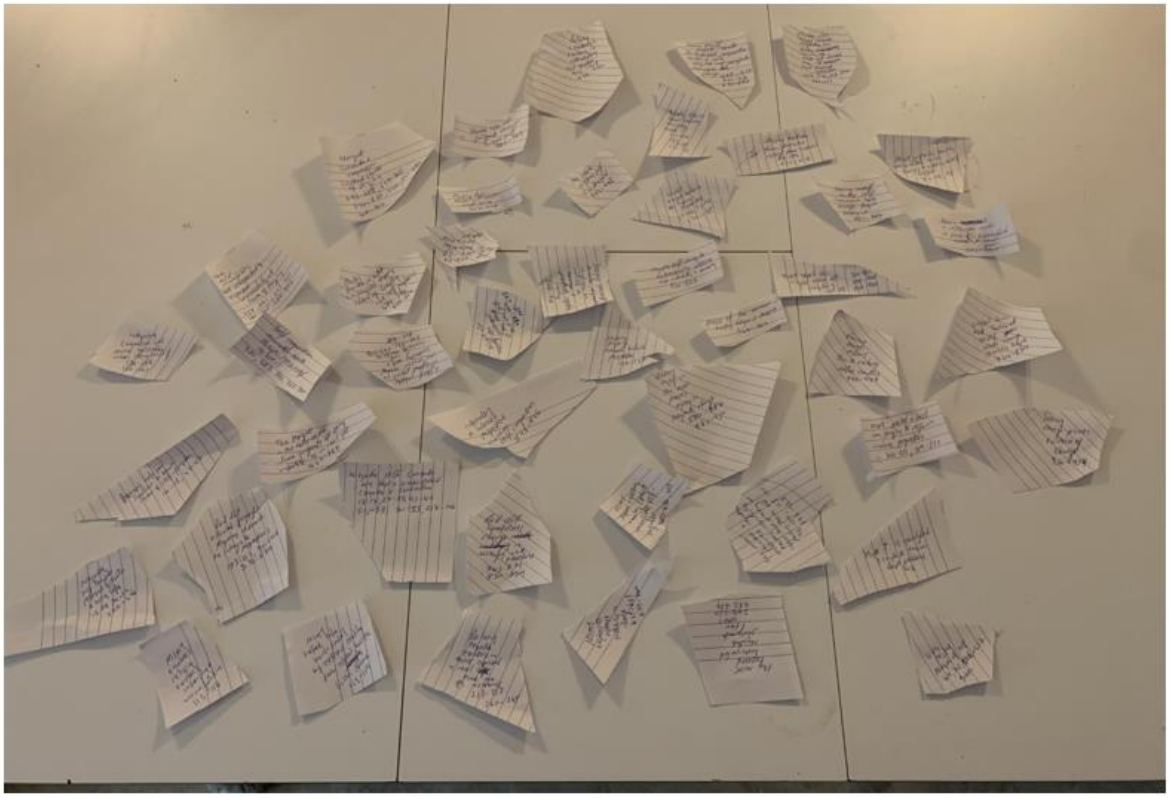
? what is the difference here vs other therapies?

Talking with therapist extremely useful - ?positive

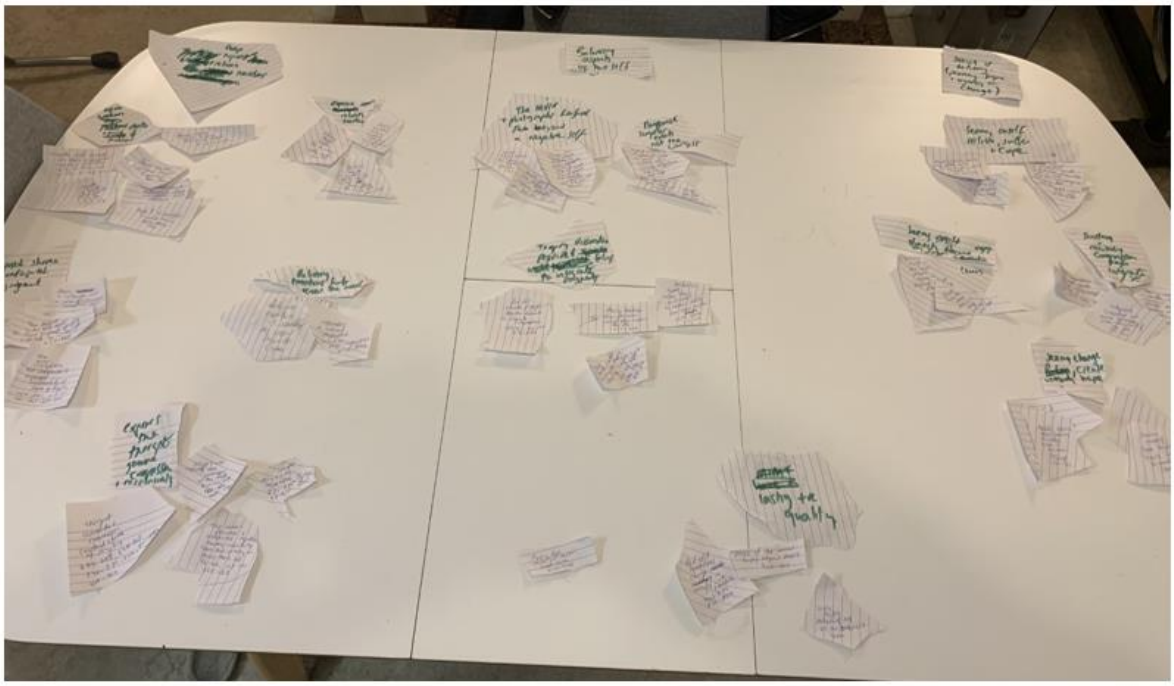
Creating space and focus for each emotion- digesting slowly.

Jumping to negative core beliefs about self based on experience negative emotion

Appendix G: Beginning to find relation between experiential statements (Mark)



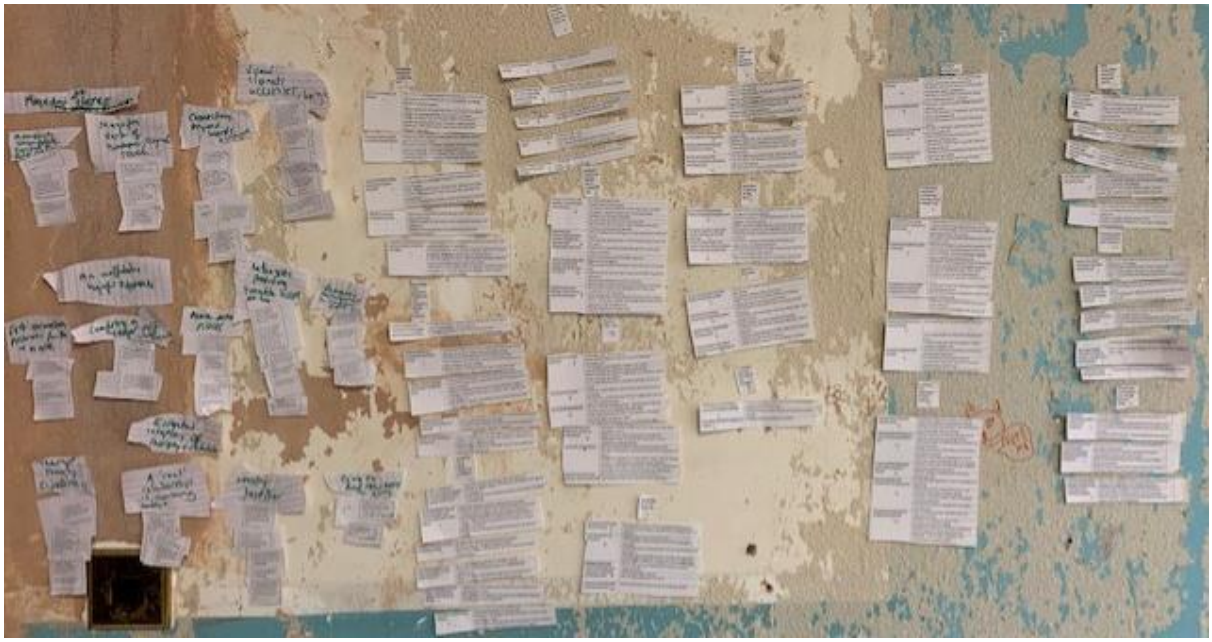
Appendix H: Generation of Personal Experiential Themes (PETS) for one participant (Mark)



Appendix I: Summarised PET Table for one participant (Mark)

As limited participants have completed MIMT, quotes have been omitted to maximise confidentiality.

Appendix J: Visual representation of generating Group Experiential Themes (GETS)



Appendix K: GETS master Table and Illustrative Quotes

As limited participants have completed MIMT, additional quotes have been omitted to maximise confidentiality.