ASK THE EXPERTS: HOW SHOULD WE MEASURE VICARIOUS TRAUMA?

HANNAH MARGARET ELIZABETH STRANGE, BSc (Hons.), PGCert, MRes

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Portfolio Abstract

Practitioners are exposed to the traumatic narratives of their clients and over time, they can develop vicarious trauma (VT) which can have a wide-reaching negative impact on the therapists personal and professional lives, as well as the care clients receive. There have been several concerns raised about the most commonly cited measure of VT, the TABS, and how to separate VT from other conflated terms. The importance of VT and the issues identified point to the creation of a new measure to address these concerns. The study aimed to: 1) create a new measure of vicarious trauma utilising a Delphi methodology; and 2) establish initial psychometric properties of the measure. The new measure was called the Trent Measure of Vicarious Trauma (TMVT).

A Delphi consensus methodology was used; 13 experts in the field rated how well 146 items related to VT. Items were collated from existing measures of VT and related constructs as well as items proposed by the research team based on existing literature; experts also had the opportunity to contribute items. Items failing to reach consensus thresholds were removed from the subsequent round. After two rounds, an initial 16-item version of the TMVT was created. The TMVT was then completed by 206 UK-based practitioners who have worked with clients with traumatic narratives, alongside other measures to establish the TMVT's psychometric properties.

A two-factor structure ('impact on individual' and 'a dangerous world') was found to be the most stable for the 13-item version of the TMVT. The TMVT performed as expected against the TABS; however, converged more with a measure of secondary traumatic stress. Higher scores on the TMVT were associated with

lower compassion satisfaction, and higher levels of burnout and secondary traumatic stress (as predicted).

The TMVT shows initial promise as a measure of VT, demonstrating the impact of working with clients with traumatic narratives. It is common for clinicians to be exposed to traumatic narratives; by creating the TMVT (and addressing the criticisms of the TABS), it could be used to provide individuals and organisations with a tool to assess how clinicians are affected. Once it has been identified individuals have been affected by their work, appropriate interventions can be considered. Without the awareness and appropriate assessment tools, intervention is not possible. However, further research is needed to support initial findings and solidify the TMVT as an alternative to other VT measures.

Throughout the thesis, I will switch between the terms: practitioner, clinician, and therapist.

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To my family, thank you for your unwavering support and being my ultimate cheerleaders. To my brilliant friends, thank you for providing a much-needed escape. And to Oli, thank you for being you.

Statement of contribution

I declare this research is the product of my own original work conducted since my commencement of the Trent Doctorate in Clinical Psychology training programme in 2018.

I conceptualised the systematic literature review with support from Dr Rachel Sabin-Farrell. Dr Rachel Sabin-Farrell and Dr Nima Golijani-Moghaddam provided research supervision, reviewed a draft version of the review, and for reliability of quality appraisal ratings, both quality appraised three papers each (for comparison to my ratings). I have taken responsibility for writing the review.

The original project was conceptualised by Dr Rachel Sabin-Farrell. The design was refined by myself, and my supervisors: Dr Rachel Sabin-Farrell, and Dr Nima Golijani-Moghaddam. Both supervisors provided regular guidance and supervision with all parts of the research project and both supervisors have read a draft version of my journal article. I submitted ethics applications and amendments (after discussion with my supervisors) and all applications were supported by Professor Thomas Schröder, acting as Principal Investigator. I have taken responsibility for I have taken responsibility for writing the systematic literature review recruiting participants (for both Phase One and Two), collecting data, and writing the thesis. I have undertaken the bulk of data analysis with additional support from Dr Nima Golijani-Moghaddam.

I conceptualised the Small-Scale Research Project with support from Dr Kathy Huke (Nottinghamshire Healthcare Trust). Guidelines from previous Trust audits were provided by the Involvement Team at Nottinghamshire Healthcare Trust. I took responsibility for recruiting participants, analysing data, and writing the report. Dr Nima Golijani-Moghaddam provided research supervision.

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SYSTEMATIC LITERATURE REVIEW

BELIEF-CHANGE IN PROFESSIONALS WORKING THERAPEUTICALLY WITH CLIENTS WITH TRAUMA NARRATIVES - A META-ETHNOGRAPHY REVIEW

Author

Hannah Strange, Trainee Clinical Psychologist, University Of Nottingham

Supervised by

Rachel Sabin-Farrell, Clinical Psychologist, University Of Nottingham

Nima Golijani-Moghaddam, Clinical Psychologist, University of Lincoln

Abstract

This review examines the cognitive changes that occur in professionals working therapeutically with clients with trauma narratives. Studies were identified through systematic searches of PsycINFO, PTSDPubs, and Web of Science databases. Peer reviewed studies available in English were included if they had extractable data relating to belief changes in professionals working therapeutically with clients who have experienced trauma. Twelve eligible qualitative studies were identified, quality-appraised, and synthesised using a meta-ethnographic approach. The quality of studies varied. The results suggest seven key themes, reflecting belief-domains that seemed sensitive to experiences of working with trauma material: professional ability, safety of the world, suspiciousness, hope, sense of identity, and connectedness. Whilst interactions with clients can result in negative beliefs regarding the world, self and others, it is through these experiences that therapists can also develop beliefs of hope which help them to cope and allow them to continue in their role. Therapists can mitigate the impact of trauma narratives by putting their experiences into context and increasing their self-awareness of how their work consequently affects their beliefs. The findings of this synthesis support previous findings that both positive and negative belief changes occur in therapists.

Keywords: belief change, trauma narrative, therapist, meta-ethnography

1. Introduction

There are a range of behaviours commonly observed in professionals working with clients with traumatic narratives. For some, they experience changes in mood, increased substance use, and reduced intimacy with partners (Saakvitne & Pearlman, 1996), as well as evidence of increased clinical errors in professionals working with trauma which could impact client care (Trippany et al., 2004). In addition, some clinicians report increased involvement in social, political, and community ventures (Iliffe & Steed, 2000; Satkunanayagam et al., 2010). The impact of trauma work on practitioners could have consequences for the quality of therapy received by clients by affecting the therapeutic relationship, transference, and countertransference (Moulden & Firestone, 2007).

Cognitive theory proposes observable consequences may occur as a result of internal thought processes (see Beck, 1979). These internal thought processes (including schemas, beliefs and expectations) develop based on a person's experience. Schemas are used to make sense of future events and new events are often integrated through assimilation into existing schemas; however, when information from events clashes with existing schemas, they can become disrupted (Janoff-Bulman, 1992). McCann and Pearlman (1990) propose clinicians incorporate client trauma into their internal thought processes. Disruption can occur when the existing schemas held by clinicians, conflict with traumatic narratives observed in clients. Consequently, the clinician's beliefs shift to accommodate these experiences, often by becoming more negative and distressing (McCann & Pearlman, 1990). For example, a clinician may believe that relationships are loving and caring; however, after working with multiple clients who have experienced extreme domestic violence, their belief may change to a belief that relationships most likely end in pain and hurt.

Clinicians conducting trauma work are considered to be at risk for developing vicarious trauma (VT). Originally proposed by McCann and Pearlman (1990), VT occurs when trauma-narratives are absorbed, resulting in negative consequences. These negative consequences include experiencing trauma related symptoms, similar to those experienced by clients, and changes in beliefs about the self, others, and the world (Pearlman & Saakvitne, 1995). VT has been used interchangeably with other terms such as: secondary traumatic stress (STS), compassion fatigue (CF), and burnout (Sabin-Farrell & Turpin, 2003). However, whilst these are partially overlapping concepts, they can be conceptually distinguished (Jenkins & Baird, 2002). Despite the argument that VT can be distinguished conceptually, the conflation of terms in the literature makes it difficult to isolate VT-specific findings (Najjar, Davis, Beck-Coon, & Carney Doebbeling, 2009). Within VT, the constructivist self-development theory (CSDT; McCann & Pearlman, 1990) proposes negative beliefs changes (in relation to 'self' and 'others') occur across five psychological-need areas: control, esteem, intimacy, safety, and trust.

It is also possible for clinicians to experience vicarious post-traumatic growth (VPTG; Arnold, Calhoun, Tedschi, & Cann, 2005) and vicarious resilience (VR; Engstrom, Hernandez-Wolfe, & Gangsei, 2008) as a result of trauma work. VPTG is the growth therapists experience following engagement with clients who have experienced difficult life situations and encompasses positive changes in interpersonal relationships, life philosophy, and self-perception (Arnold et al., 2005). VR has been defined as a "unique and positive effect that transforms therapists in response to reflecting and witnessing client trauma survivors' own resiliency" (Hernandez, Gangsei, & Engstrom, 2007, p. 237). Both VPTG, and VR, are not considered part of VT.

A meta-synthesis reviewed the general impact of trauma on trauma workers (Cohen & Collens, 2013), but no reviews have focused specifically on belief changes in trauma workers. It has been suggested by some qualitative studies that belief changes can occur outside of the prescribed areas of the CSDT including spirituality and hope (Bell, 2003; Clemans, 2004; Engstrom et al., 2008), and motivation (Engstrom et al., 2008).

The present review specifically focuses on therapists, rather than frontline services such as paramedics, medical doctors, or social workers. In therapy, professionals spend longer with clients allowing them to engage differently and are required to manage and contain painful emotions evoked in the session, and are sensitive to their clients' emotional needs (Edwards, 2009). Therapists bear witness to graphic details of a range of traumatic events multiple times and across many sessions; however, other professionals may only hear an outline of a trauma in a one-off contact with a client. A therapist's prolonged, cumulative exposure to trauma narratives is proposed to contribute to the development of VT, including changes in beliefs (Pearlman & Saakvitne, 1995). By limiting the participants to those working therapeutically with clients with trauma narratives, a more homogenous population is selected; the review aims to provide a more detailed understanding of belief changes occurring within this specific context (Ritchie, Lewis, & Elam, 2003).

There are currently no reviews synthesising qualitative research about belief changes in therapists working with trauma survivors. A review would develop an understanding of belief areas impacted and if areas of belief change outside of CSDT are apparent, it may alter how psychometric measures address the impact of working with trauma survivors.

A qualitative approach was chosen for this review as it allows rich data to be analysed to better understand participants’ experiences. A quantitative review would be restrained by the current measures used to identify belief changes, such as the Trauma and Attachment Belief Scale (TABS; Pearlman, 2003) which is based on the CSDT (McCann & Pearlman, 1990). The current measures would only permit participants to express belief change by responding to a pre-formulated statement which does not allow the participant to give any further explanation, and equally does not acknowledge beliefs which are not represented in the statements. It could be argued that a qualitative approach is too subjective and interpretations made by researchers may not accurately represent views of participants; however, the data collected can offer novel insight that quantitative methodologies would not identify (Davies & Dodd, 2002).

Aim

This review aimed to identify belief changes occurring in professionals working therapeutically with clients who have experienced trauma.

2. Method

Epistemological position

The review was approached from a critical realist position by acknowledging existing theory but querying whether it accurately reflects reality or not. The existing theory enables further exploration which may validate, expound, or invalidate this theory in the aim of building a more accurate explanation of reality (Fletcher, 2017). A critical realist stance assumes a reality exists but it can be viewed differently by people through different contextual lenses (DeForge & Shaw, 2012). The critical realist stance is suited to research seeking to address social problems, due to its search for causation and ability to explain social events (Fletcher, 2017).

Reflexivity statement

The author (HS) is a trainee clinical psychologist, currently conducting a thesis research project on VT. Prior to conducting this review, the author has solely focused on VT and has not addressed the concepts of VR or VPTG. HS was conscious of this bias throughout the writing of the review and has considered the impact her previous work has had on any expectations of the literature, and what third order themes may arise.

The review supervisors are qualified clinical psychologists, one is experienced in vicarious trauma research and works clinically with clients who have experienced trauma (RSF) and the other has a wide range of research expertise (NGM) including an interest in applications of psychological theory to real-world behaviour. It is intended that the different contexts of the individuals involved will have minimised the researcher bias and allowed for an impartial review, not limited by preconceptions held by researchers.

Searching

A systematic search was conducted on Web of Science, PTSDPubs, and PsycINFO databases from the start point of each database until 21st July 2019. Search terms are identified in Table 1. Duplicates were removed, HS then screened the abstract and title of papers. Full-text articles were reviewed when papers met the inclusion criteria or to establish whether a paper reached inclusion threshold if this was unclear. Once eligibility criteria were met, the papers' reference lists were examined for further papers.

Table 1

Search terms used

(“vicarious trauma*” OR “secondary trauma*” OR “compassion fatigue” OR “burnout” OR “occupation* stress” OR “posttrauma* growth” OR “post trauma* growth” OR “post-trauma* growth” OR “working with trauma*”)

AND

(“cog* change” OR “belief*” OR “schema*” OR “worldview*” OR “world view*” OR “frame of reference*” OR “attitude*” OR “impact*” OR “view*” OR “experien*” OR “ideology”)

AND

(“qualitative” OR “qualitative method*” OR “focus group*” OR “grounded theory” OR “interpretative phenomenological analys*” OR “narrative analys*” OR “semi-structured interview*” OR “digital content analys*” OR “discourse analys*” OR “thematic analys*” OR “phenomenological analys*” OR “content analys*” OR “ethnograph*” OR “interview*” OR “mixed method* research” OR “phenomenolog*”)

Selection

Studies were included if they:

- Were available in English
- Used explicit qualitative methods
- Published in peer-reviewed journals
- Referenced cognitive changes or other synonymous concepts (as expanded in the search terms, see Table 1)
- Included extractable data collected from therapists conducting trauma work

Studies were excluded if they:

- Used mixed methods where qualitative data could not be extracted independently

- Included clinicians who have experienced trauma directly, for example disaster response therapists, to avoid the influence of possible post-traumatic stress disorder

Quality appraisal

An adapted Critical Appraisal Skills Programme (CASP; 2018) was used to determine the quality of studies (0 = not met, 1 = partially met or unclear whether met or not, 2 = definitely met) across 12 criteria (see Table 4). All members of the research team discussed the criteria and agreed on working definitions. HS rated all studies; NGM and RSF each checked the quality of three studies selected at random. Any discrepancies in quality ratings were discussed and resolved as final agreed ratings.

No papers were excluded as a result of the quality assessment as all were considered to have the potential to contribute to findings (Sandelowski, Docherty, & Emden, 1997).

Meta-synthesis of findings

Meta-synthesis allows for greater understanding, above and beyond individual studies, through synthesising and interpreting qualitative studies (Erwin, Brotherson, & Summers, 2011). Noblit and Hare’s (1988) meta-ethnography approach was used. The studies were read and re-read, and findings were extracted using a pre-determined framework (see Appendix B). Original participant quotes (first-order constructs) and themes developed by the original researchers (second-order constructs) were synthesised to develop new themes (third-order constructs) through reciprocal translation; similarities across first- and second- order constructs were identified, and third-order constructs were created to summarise these similarities.

Refutational synthesis was used for conflicting constructs; contradictory, yet relating, constructs are acknowledged and assimilated under one theme.

The final stage to a meta-ethnographic review is constructing a ‘line of argument synthesis’; similarities and dissimilarities of the studies included in the review are put into a new interpretive context (Noblit & Hare, 1988). It is intended to expose connections between the studies and to produce new perspectives.

3. Results

Search results

Figure 1 presents search results (adapted from (Moher, Liberati, Tetzlaff, Altman, & The Prisma Group, 2009).

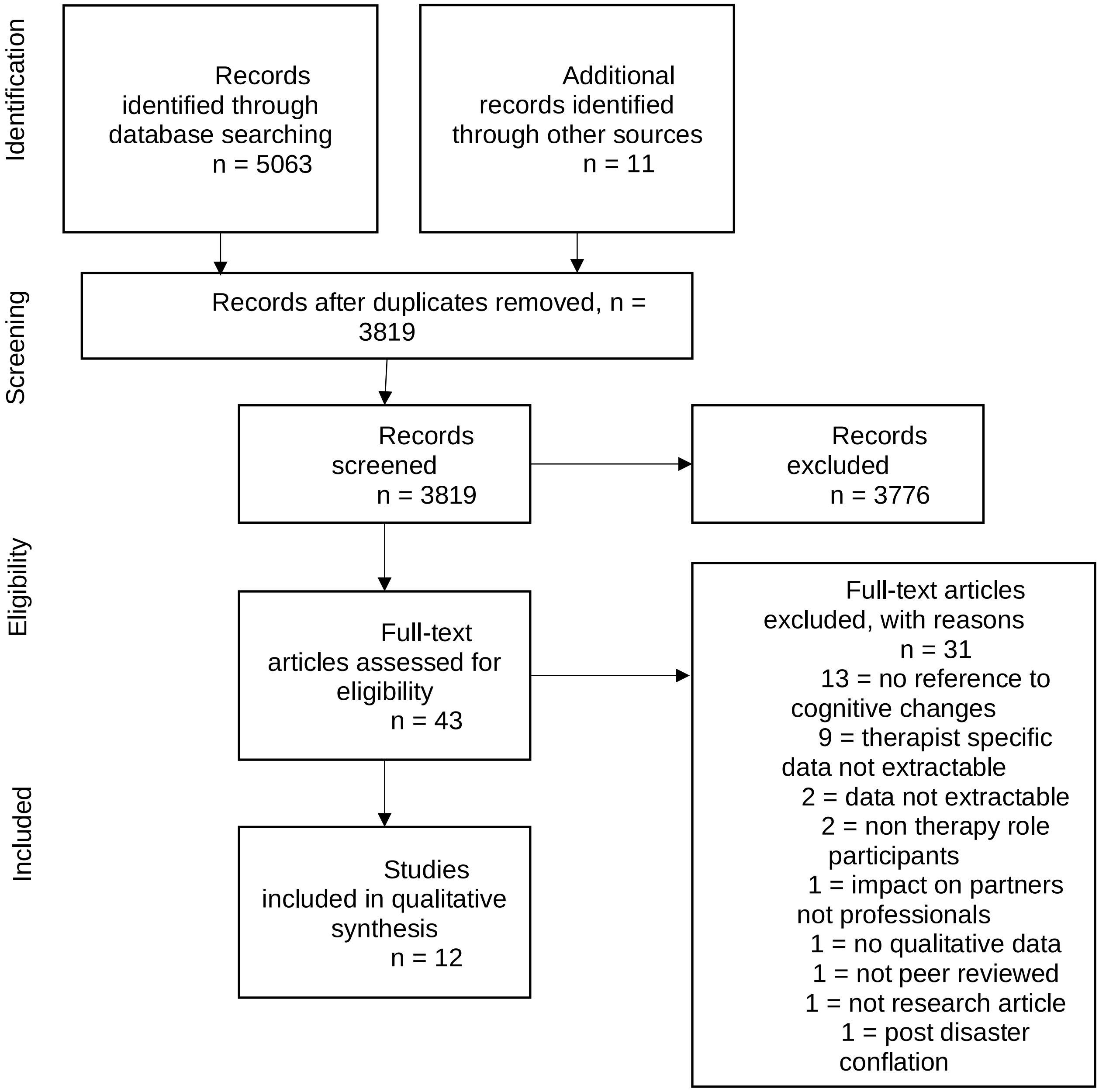

Figure 1. Search results adapted from Moher et al. (2009)

Study characteristics

The general characteristics of included studies are shown in Table 2 and a summary of key themes is presented in Table 3. Studies were assigned a reference number used throughout the review.

Table 2

Study characteristics

	Authors (Year) and location	**Aims of study**	**Data collection method**	**Sample (details where available)**	**Data analysis method**
1	Apostolidou (2016) London, UK	To examine the emotional impact of clinical work with asylum seekers and refugees on practitioners	Semi-structured interviews	'Specialist practitioners' (3 men & 5 women), minimum of 1 year experience providing therapy to asylum seekers and refugees	Discourse analysis
2	Arnold (2005) North Carolina, USA	To explore clinicians' perceptions of trauma work to investigate the positive consequences of working with trauma survivors	Naturalistic interviews	Licensed psychotherapists (10 men & 11 women), mean age = 48, mean years of experience = 16.9	Content analysis using constant-comparison method
3	Bartoskova (2017) Scotland, UK	To gain insights into trauma therapists' experiences of their trauma work and understand factors enabling post traumatic growth	Semi-structured interview	Trauma therapists (7 women & 3 men), aged 33 to 64 (mean = 43.3), 2-13 years of experience working with trauma clients	Interpretative phenomenological analysis
4	Capri, Kruger & Tomlinson (2013) South Africa	To examine the psychological impact on social workers in the Western Cape low-income communities	Semi-structured interviews	4 women working therapeutically, aged between 27 and 38 (mean = 33.25), all white, 4-10 years of experience working with child sexual abuse	Thematic analysis
5	Lonergan, O'Halloran, Crane (2004) Colorado, USA	To explore therapists experiences of working with traumatised children	Semi-structured interviews	Trauma therapists (7 women & 1 man), aged 32-50, mean age = 42.71, all white, 8-22 years of experience as trauma therapist	Thematic analysis
6	Lu, Zhou & Pillay (2017) Ohio, USA	To explore the experiences of doctoral students in a counselling program.	In depth interviews	Counselling doctoral students (4 women & 4 men)	Phenomenological analysis

	Authors (Year) and location	Aims of study	Data collection method	Sample (details where available)	Data analysis method
7	Pistorious, Feinauer, Harper, Stahmann & Miller (2008) Utah, USA	To determine how providing psychotherapy to sexually abused children might impact the therapist personally	Semi-structured interviews	14 women therapists, aged 26-50, at least 2 years post degree clinical work, 8 Caucasian, 1 African-American, 1 Hispanic	Constant-comparative method
8	Satkunanayagam, Tunariu & Tribe (2010) Sri Lanka	To explore the struggles and rewards of trauma work and the notion that individuals are changed by the work they do with survivors of trauma	Semi-structured interviews	Mental health professionals (5 women & 7 men), aged between late 20s to early 70s.	Interpretative phenomenological analysis
9	Silveira & Boyer (2015) British Columbia, Canada	To explore how bearing witness to clients' resilience processes during treatment impacts the personal and professional lives of counsellors who work with child and youth victims of interpersonal trauma	Semi-structured interviews	4 women counsellors, mean age = 57 years, S.D.=13.8, all white, 8-22 years of experience	Thematic analysis
10	Steed & Downing (1998) Western Australia, Australia	To investigate the VT effects experienced by therapists who work with sexual abuse/assault survivors	Semi-structured interviews	12 women: psychologists (8) and counsellors (4), aged 26-59, 1-18 years of experience with survivors of sexual abuse/assault	Thematic content analysis
11	Sui & Padmanabhanunni (2016) South Africa	To explore the experiences of a group of South African psychologists who work predominately with trauma survivors.	Semi-structured interviews	Psychologists (2 men & 4 women), at least 3 years of experience working with trauma survivors	Thematic analysis
12	Wheeler & McElvaney (2018) Dublin, Ireland	To explore the positive impact of working with children who have been sexually abused in a sample of psychotherapists	Unstructured interviews	9 women therapists, aged 36 to 65, mean = 49, S.D.= 13.8, mean length of current employment = 6 years	Inductive thematic analysis

Note: S.D. = standard deviation

Table 3

Key themes (and subthemes) identified in studies

Study	Key themes (and subthemes)
1	Constructions of emotional impact and risk; constructions of meaning
2	Clinicians descriptions of negative outcomes; clinicians descriptions of positive outcomes; clinicians descriptions of outcomes defying easy categorisation; positive outcomes of clinicians' direct experience of trauma
3	Responding to a client (changed view of the world, self-doubt and helplessness, psychological symptoms); noticing growth in self (greater appreciation, greater understanding of self, sense of hope); making a difference (facilitating a change, managing self-expectations, the genuine need); finding their own ways to process trauma work (boundaries and life balance, learning and broadening knowledge, self-care, social support)
4	Experiences of working with child sexual abuse; empathic engagement; isolation; harassing work; system fatigue; powerlessness and lost idealism; child sexual abuse work in a low-income context; holding the material: psychological impacts of child sexual abuse work; vicarious traumatisation
5	View of therapy (directiveness and interpretation, termination and goals, relationship); therapist self-care/view of self (negative effects, positive effects, coping)
6	Immediate reactions (emotional reactions, cognitive reactions, self-identification); information processing (realisation, actions); post-exposure development (self-efficacy, self-care, motivation for learning)
7	Personal impact (vicarious trauma, boundaries, appreciation for life, personal growth); interpersonal and social impact (awareness of disagreeable and dangerous circumstances in life, fearfulness, therapists personal relationships with children in their lives, therapists relationship with significant others in their personal lives); personal ways of coping (support systems, personal therapy, spirituality, possessing therapeutic skills, humour, self-care, avoidance); agency environment (teamwork, supervision, training)
8	What it feels like doing trauma work; participants understandings of the notion of secondary trauma; positive aspects of trauma work; personal growth through adversity
9	Hope and optimism; inspired by strengths of children and youth; counsellors put their challenges and strengths into perspective; counsellors incorporate into their own lives what they encourage in and teach clients
10	Affective responses; self-protective responses; negative effects outside of therapy; mistrust; loss of faith; vulnerability; change in identity; greater appreciation of clients; coping strategies
11	Experiences of vicarious trauma (disruptions in cognitive schemas, recurrent intrusive memory, persistent negative emotions, alterations in arousal and reactivity, somatic symptoms); positive transformations (vicarious post-traumatic growth)
12	The struggle to talk about the positive impact; professional satisfaction from helping children; learning life lessons from children; the magical connection that happens in therapy

Quality appraisal

The quality of studies varied; total scores ranged from 15 to 21 out of 24 (see Table 4). Quality scores may reflect reporting of the study rather than the research quality.

All but two studies (4, 9) explicitly identified a research question, the other two studies inferred a research question. Six studies were open in their directionality (1, 4, 5, 7, 8, 11); they looked at experiences in general, without a specific focus on positive or negative experiences. Three studies were partly open in directionality but with a focus on growth (3), or a focus on VT (6, 10). Three studies focused on the positive impacts of working with trauma survivors (2, 9, 12).

A qualitative methodology was appropriate for all studies; however, there was variation in appropriateness of design, mainly because of it not being justified by the authors (2, 4, 9, 11), because the design was unclear (6, 10), or both (7).

Recruitment was appropriate in five studies (1, 4, 5, 9, 12) and deemed unclear if appropriate when authors did not report why participants were selected (2, 7, 8, 10), or why individuals did not take part (3, 6, 11). The context of participants was explicit in five studies (3, 4, 7, 9, 12), was partially provided in four studies (1, 2, 5, 11), and not provided in three (6, 8, 10).

Six studies had appropriate data collection methods (1, 2, 5, 6, 11, 12). Data collection methods were unclear if the form of data were not clear (3, 8-10), or if the line of questioning used was not explained (4, 7).

The relationship between the researcher and participants was only adequately considered by three papers (1, 6, 12). It was partially considered by five papers during the interview process (2, 3, 5, 8, 9), and in considering the researchers ability to engage participants (4). The relationship was not considered by three studies (7, 10, 11).

Ethical issues were discussed adequately by six of the papers (1, 6, 8, 9, 11, 12) but not mentioned at all by four studies (2, 5, 7, 10). One studies mentioned receiving ethical approval but did not expand further (3) and one discussed ethics but did not explicitly state approval (4).

Data analysis was sufficiently rigorous in seven studies (1, 3, 6, 8, 9, 11, 12). Analysis was unclear due to: insufficient data presented to support findings (2), no justification of why some transcripts were not included (4), and bias was not acknowledged (5, 7). Despite claiming to use a thematic analysis, one paper did not report the resulting themes (10).

There was a clear statement of findings in eight studies (2, 4-7, 9, 11, 12). Findings were unclear if no credibility of findings was not discussed (1, 3, 8) or were not explicit (10). Research was considered definitely valuable in four studies (2, 4, 5, 10). It was not considered valuable if authors did not refer to future research (9), if authors claimed the results were not transferable (6, 7, 12), or both (1, 3, 8, 11).

Whilst study 10 had the lowest overall quality score, it was the oldest of the papers included. During the research climate in 1998, checklists may not have been as adhered to as they are now; the three highest rated papers have all been published in the three years prior to the review.

Table 4

Quality assessment of studies using an adapted CASP Qualitative Checklist (2018)

Criteria		**Study**											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	Was there a clear statement of the aims of the research?	2	2	2	1	2	2	2	2	1	2	2	2
*2**	*Is the research question non-restrictive? i.e. “what are the experiences of clinicians?” compared to “what positive experiences do clinicians have?”*	2	1	1	2	2	2	2	2	0	1	2	0
3	Is a qualitative methodology appropriate?	2	2	2	2	2	2	2	2	2	2	2	2
4	Was the research design appropriate to address the aims of the research?	2	1	2	2	1	1	1	2	1	1	1	2
5	Was the recruitment strategy appropriate to the aims of the research?	2	1	1	2	2	1	1	1	1	1	1	2
*6**	*Are participants adequately described to provide context for the data?*	1	1	2	2	1	0	2	0	2	0	1	2
7	Was the data collected in a way that addressed the research issue?	2	2	1	1	2	1	1	1	1	1	2	2
8	Has the relationship between researcher and participants been adequately considered?	2	1	1	1	1	2	0	1	1	0	0	2
9	Have ethical issues been taken into consideration?	2	0	1	1	0	2	0	2	2	0	2	2
10	Was the data analysis sufficiently rigorous?	2	1	2	1	1	2	1	2	2	0	2	2
11	Is there a clear statement of findings?	1	2	1	2	2	2	2	1	2	1	2	2
12	How valuable is the research?	1	2	1	2	2	1	1	1	1	2	1	1
	Overall quality score	21	16	17	19	18	18	15	17	16	11	18	21

Note: * indicates additional quality checklist item to the CASP Qualitative Checklist tool (2018).

Meta-synthesis

The author began the process of synthesis by starting with the highest quality paper (as identified through achieving the highest score on the quality appraisal tool).

Most studies were explicit about which participant contributed which quotes (1, 3-7, 9, 12), allowing the author to compare responses; however, four studies did not explicitly state which participants contributed to which quotes which would have provided a richer source of information.

Six third-order constructs were created through synthesis: Professional Ability; Safety of the World; Suspiciousness; Hope; Sense of Identity; and Connectedness. Table 5 presents third-order themes and *subthemes,* and identifies contributing studies; the themes are expanded below.

Table 5

Studies contributing to themes and subthemes

Third order theme and *subtheme*	Study number											
	1	2	3	4	5	6	7	8	9	10	11	12
Professional Ability	●	●	●	●		●	●	●	●	●		●
Safety of the World	●	●	●	●	●	●	●	●	●	●	●	●
Vulnerability of Loved Ones							●			●	●	
Vulnerability of Therapists	●	●	●		●		●	●	●	●	●	
Vulnerability of Clients					●		●				●	●
Suspiciousness			●	●	●	●	●	●		●	●	
Hope	●	●	●	●	●			●	●	●	●	●
Sense of Identity	●	●	●	●		●	●	●		●	●	●
Connectedness	●	●	●	●	●	●	●	●	●	●	●	●
…with Loved Ones		●		●			●		●	●	●	
…within the Therapist	●	●		●		●				●		
…with Clients	●	●					●		●			●
…with Colleagues		●	●	●	●		●	●		●		●

Note: ● indicates the first and/or second order constructs within a study contributed to third order theme or subtheme

Professional Ability

The theme of ‘Professional Ability’ related to how participants perceive their clinical work including their effectiveness and their views on the input provided to clients. Beliefs about professional ability were described in all but two papers (5, 11). These beliefs appeared to be on a spectrum from ‘not professionally able’ to ‘professionally able’. Three studies identified participants who believed through working with clients who had experienced trauma, they were effective practitioners (8, 9, 12) which was rewarding for the therapist:

> “*To be able to sit with a child that wasn’t kept safe and help them to realise they can be safe and also to empower them to be able to keep themselves safe in future is just… little butterflies. That’s why it’s an honour. It’s just the most wonderful job you can do. It really is a privilege.*” (Wheeler & McElvaney, 2017, p. 519).

For some it even brought a sense of happiness: “*I feel that by [helping a client transcend overwhelming sense of powerlessness and sadness] I can give that person some kind of relief, and it makes me happy*.” (Satkunanayagam et al., 2010, p. 47).

Another reported working with trauma narratives changed their outlook on therapy: “*It made me more attentive, more engaged with the whole [counselling] process*” (Lu et al., 2017, p. 329).

However, for other participants, their beliefs about their professional ability were more negative (1-4, 7, 10). Incompetence was a common belief across participants (2, 4, 7) and some doubted their effectiveness in therapy (7, 10).

One participant reported being disillusioned with their work: "*I wanted to make a difference and I wanted it to happen now and that is just doesn't work like that"* (Bartoskova, 2017, p. 39). Disillusion was also projected onto new members of staff: "*When I just started, I was ready for anything. But you pick your battles, not having to save everyone"* (Capri et al., 2013, p. 9).

Safety of the World

The theme of 'Safety of the World' related to participant's perceptions of how their loved ones, themselves, and their clients were, or were not, safe within the world. It was common across studies that participants viewed the world as unsafe as a result of working with trauma survivors (1-18, 10, 11): "*It's just so much more evil in this world. This is a sad dark, dreary, scary place… and there is just so much trash and filth*" (Pistorius et al., 2008, p. 188). For some, this view was generalised: "*I just feel that there is nothing safe"* (Apostolidou, 2016, p. 281).

Through their clinical work, participants realised the world is not a just place (7, 10, 11): "*I have now come to realise how unfair life is… bad things happen to good people. I now have a tainted view of the world and I'm aware of that*." (Sui & Padmanabhanunni, 2016, p. 5) and "*I always thought of the world as intrinsically good, but now know differently"* (Steed & Downing, 1998, p. 7).

Beliefs about the safety of the world appeared to impact perceived vulnerability.

Vulnerability of loved ones

Therapists appeared to transfer their perception of vulnerability onto their loved ones; practitioners saw their loved ones as susceptible to the same harms their clients experienced. As a result, participants reported attempts to ensure the safety of loved ones (7, 10, 11): "*I will sometimes say to my kids, 'you need to keep yourselves safe', because of this or that has happened"* (Sui & Padmanabhanunni, 2016, p. 6).

Vulnerability of therapists

Several participants reported the consequence of an unsafe world was they felt personally unsafe (1-3, 5, 8, 10, 11): "*sometimes I don't feel safe even in my own environment"* (Steed & Downing, 1998, p. 6). However, some participants questioned whether this was a result of their exposure to clients' trauma: "*At times I feel more vulnerable and I think that is just me being aware that it can happen to anyone at any time and there's no reason or logic"* (Steed & Downing, 1998, p. 7).

Not all of the beliefs of being vulnerable were in regard to physical safety, but were related to the socio-political context therapists can find themselves in; participants found themselves at the mercy of community leaders and politicians: "*I can't do anything so I feel sorry for myself as well as to my clients."* (Satkunanayagam et al., 2010, p. 46). Satkunanayagam et al. (2010) conducted their research in Sri Lanka, an area affected by years of civil conflict, therefore this socio-political vulnerability may be specific to that context.

It was acknowledged by some participants that being vulnerable is not necessarily negative; it is to be encouraged as it can facilitate communication (2, 5). For some participants it was important to acknowledge when work became too difficult, and to say, "*I'm too vulnerable right now"* (Lonergan et al., 2004, p. 361) to try and prevent harm to the therapist.

Conversely, participants also expressed gratitude to their own lives (2, 3, 7, 9, 11): "*actually I do have a pretty good life"* (Silveira & Boyer, 2015, p. 521).

For some, this extended to the past: “*And maybe it does sound a bit sentimental, but there is something about appreciating my childhood”* (Bartoskova, 2017, p. 35).

Vulnerability of clients

Through their work with traumatised clients, some participants acknowledged the impact it can have (5, 7): “*It made me realise how truly damaging sexual abuse can be. So incredibly… rotting it can be”* (Pistorius et al., 2008, p. 188).

Therapists also had a sense of client vulnerability resulting from the sheer amount of trauma that occurs (7). It was initially shocking to some (7); however, over time participants became accustomed to it: “*nothing shocks me anymore, clients’ traumas don’t surprise me, I don’t feel shocked anymore”* (Sui & Padmanabhanunni, 2016, p. 7). The length of experience may mediate the extent of belief change; therapists may reach a point where trauma narratives are integrated into beliefs, rather than cause them to be disrupted.

Participants also acknowledged clients’ strengths of clients (10, 12): “*I have learnt how strong and resilient people are and how much inner resources and strengths people have”* (Steed & Downing, 1998, p. 7).

Suspiciousness

The theme of ‘Suspiciousness’ related to how participants appeared to be wary of others, because of working with clients with traumatic narratives. Being suspicious of others was a common theme across eight studies (3-8, 10, 11). For some participants this was non-discriminatory; they “*became more suspicious, I think, of people in general”* (Pistorius et al., 2008, p. 188). As a result, participants noticed a mistrust of others (11) and a change in their behaviours: “*I would say I was more cautious”* (Lu et al., 2017, p. 329). However, one participant remarked suspiciousness is not always warranted as “*we work actually with a very small minority of the population”* (Bartoskova, 2017, p. 35).

For others this was focused on suspicions around children (5, 10), for example: “*sometimes when I see people with their children, I wonder whether they are abusing them”* (Steed & Downing, 1998, p. 6). Participants recognised this might not be the case all the time and it is possible to overgeneralise abuse: “*It seemed like every situation had abuse involved. Sometimes there is no abuse”* (Lonergan et al., 2004, p. 361).

Three studies explicitly linked suspicions of abuse to men (7, 10, 11). Half the participants in Steed and Downing (1998) had an increased weariness of men, and Pistorius et al. (2008) claimed participants thought men were, or could be, “*perverts”*. In one paper, this extended to an overarching worldview: “*I suppose my worldview now is that men are potential perpetrators”* (Sui & Padmanabhanunni, 2016, p. 6).

Hope

The theme of ‘Hope’ related to participants’ stance on the future and what it may hold for individuals; this was either hopeful, or hopeless. Several participants reported their work with trauma survivors resulted in them becoming hopeless (2, 4, 8, 10); they experienced a “*loss of faith in human beings”* (Steed & Downing, 1998, p. 6) and acknowledged “*I could do very little to change it”* (Satkunanayagam et al., 2010, p. 47). A loss of hope was summarised by one participant: “*I hear so much and I work with so many people* *who have been traumatised that it's sort of shaded my view of life – I've lost my rose-coloured glasses"* (Arnold et al., 2005, p. 254).

For others they were able to see a more optimistic view (1-3, 5, 9, 11, 12): "*I've come to realise there is always hope, no matter how difficult things may seem"* (Sui & Padmanabhanunni, 2016, p. 9). Hope was seen by some as vital when working therapeutically with trauma survivors (5).

Often hope was driven by seeing clients overcoming difficulties (1, 2, 9, 12) which demonstrates "*regardless of what's happened in your life, it is possible to get through it"* (Wheeler & McElvaney, 2017, p. 520). Children especially can be seen as inspiration (9, 12): "*if kids can do it… and have things in their lives that are just horrible, then maybe I can continue to do it"* (Silveira & Boyer, 2015, p. 521).

Sense of Identity

The theme 'Sense of Identity' related to how participants saw themselves and how this may have changed because of working with their clients. Some participants believed their identity had negatively changed because of working with trauma survivors (4, 10, 11). One participant reflected that before working with trauma survivors they did not have a "*low tolerance"*, a "*short fuse"*, and were not "*quick to anger"* like they were now (11).

One participant reported feeling unsure of themselves: "*Often I'm not sure of myself… A lot of the time I'm struggling with how I feel about myself and who I am"* (Steed & Downing, 1998, p. 7). However, another was surer of themselves because of their clinical work: "*I've become really clear about what I want to do with my life, and my own identity"* (Steed & Downing, 1998, p. 7).

Therapists believed their work with trauma survivors had a positive impact on their sense of identity. The idea that participants were ‘better’ people was seen across four studies (2, 7, 8, 10): “*I think the change is that I have become less self-centred”* (Satkunanayagam et al., 2010, p. 48). Working therapeutically with clients with trauma narratives was seen by some to have improved them: “*I have much greater depth… being a therapist has given me that gift”* (Pistorius et al., 2008, p. 188). In three studies (3, 6, 11), participants reported believing they were “*stronger”* by working with clients with trauma narratives. Other participants reported a sense of growth because of their clinical work (1, 11, 12): “*as you go along, you grow, and you change constantly… working with clients changes your worldviews”* (Sui & Padmanabhanunni, 2016, p. 9).

Connectedness

The theme of ‘Connectedness’ related to inter-, intra-, and extra-personal connections which appeared to be important for participants across all 12 studies: “*I think the thing trauma work has done is to make me value connections much more, ordinary connections”* (Sui & Padmanabhanunni, 2016, p. 9). One participant reported being more connected to the world in general (1).

Connectedness with loved ones

For several participants, working with clients who have experienced trauma has had a positive impact on their beliefs about connecting with loved ones (2, 7, 9, 11): “*you realise…in terms of your own family, your own relationships, how important it is for you to work on those kind of things”* (Sui & Padmanabhanunni, 2016, p. 9).

For participants with children, some felt they were better parents through working with sexually abused children (7). One participant justified this “*I think it gives me greater insight in my interactions with them”* (Silveira & Boyer, 2015, p. 521).

Participants felt their work had a negative impact on their relationships and interpersonal functioning because “*at times it affects my ability to feel close to people, my ability to trust people”* (Steed & Downing, 1998, p. 6).

It was difficult to shift beliefs about relationships after hearing about abusive relationships: “*I have to remind myself that my husband is very respectful and very loving and would never do anything to hurt me and never violate me”* (Pistorius et al., 2008, p. 190).

One way of dealing with connecting with loved ones was to disconnect (4, 7, 10): “*Sometimes I can’t deal with his emotional needing me at that moment. I need to disconnect”* (Pistorius et al., 2008, p. 189). For other participants it was easier to not be in a relationship (7). Some therapists found it was other people who disconnected; participants reported having lost friends because “*some friends feel uncomfortable, me doing this job”* (Steed & Downing, 1998, p. 6).

Connectedness within the therapist

For some participants, their personal connectedness increased as a result of working with trauma survivors, notably with spirituality (2): “*I’ve learned to look at those valleys of the shadow in my own life that way by being with people when they walk through theirs, it deepens me spiritually”* (Arnold et al., 2005, p. 251).

For other participants, disconnecting from their own emotions was common (1, 2, 4, 6, 10): "*there is a way where I could only take so much and I realised for myself that I have cut off from my, my feelings"* (Apostolidou, 2016, p. 281) or even getting to a point of numbness (4).

In some cases, it is the pressures of the job itself that encourages therapists to disconnect from emotions: "*I often feel bad and guilty… but there's no time to be depressed"* (Capri et al., 2014, p. 8).

Connectedness with clients

There were mixed beliefs about connections with clients. For some, interactions foster a unique type of relationship associated with safety, acceptance, and trust (1, 9, 12) which is rewarding for the therapist (9): "*You really get so close, and they're very very intimate personal relationships. You know, very special relationships actually*.*"* (Wheeler & McElvaney, 2017, p. 520).

The connection with clients is something therapists want to hold onto and without it, would not be able to share the client's pain: "*I never, ever, ever, ever, ever, ever, want to get to a place where it doesn't have an impact on me. I never want to get to a place where I can witness somebody suffering and say, "Oh, well""* (Arnold et al., 2005, p. 248).

For some, the connection can be too much to cope with and some participants reported they can dread seeing their clients (2, 7), or feel relieved when clients cancel (7). Therapists can end up disconnecting from clients emotionally to avoid pain: "*by Friday I'm tired, and it's more of a struggle, more of an effort to [be empathetic], because I think the tendency is to want to push it all away"* (Arnold et al., 2005, p. 249).

Connectedness with colleagues

It was common for participants to acknowledge the importance of connecting with colleagues and as a result of working with traumatised clients, the need for this connectedness increased (2-8, 10, 12): "*so when it's been difficult I make a point of checking in with somebody whether it's one of my colleagues, or at times here I've taken on extra supervision"* (Bartoskova, 2017, p. 41). For some, the most important thing about talking with colleagues is the ability to be heard by someone (4, 7); reducing the belief that therapists are alone in their role.

Line of argument synthesis

The third-order constructs created through the synthesis highlight the breadth of belief changes in relation to themselves, others, and the world around them, because of working therapeutically with trauma survivors. Across all studies, participants reported some shift in beliefs because of their work suggesting that no clinician is impermeable to the impact of working with clients with traumatic narratives.

Connecting to others was universal across studies but within this there were accounts of both connecting and disconnecting (suggesting bi-directionality). Many of the other themes could also be considered bi-directional (Professional Ability, Hope, Sense of Identity, and Connectedness), whereas others were uni-directional: Safety of the World was intrinsically reduced.

These belief changes impact the therapist outside of the therapeutic setting and into other areas of their lives, especially their relationships with others. Whilst interactions with clients may contribute to a belief that the world is unjust and uncertain, and prompt practitioners to question their own professional abilities, it is also through these experiences that therapists develop personally and can adopt beliefs of hope and gratitude which help therapists to cope and allow them to continue in their role. Therapists report rebalancing their thinking by putting their experiences into context (identifying they work with a small proportion of the population) and also having awareness of how their work consequently affects their beliefs.

4. Discussion

The review aimed to examine the belief changes occurring in professionals working therapeutically with clients who have experienced trauma. By not being confined to the already outlined areas of belief change identified in the CSDT (McCann & Pearlman, 1990), this review identified similar themes (Safety of the World, Connectedness, Sense of Identity) and interwoven concepts of ‘trust’ (or lack thereof) across themes (Connectedness, Suspiciousness, and Professional Ability), and it also identified additional areas of belief change not proposed by the CSDT (control, esteem, intimacy, safety, and trust).

Despite discrepancy in the quality of studies, all 12 contributed to themes. Quality analysis identified the relationship between the researcher and participants (quality checklist item 8) as a common area of neglect across studies. Without acknowledging bias for each researcher, it questions the findings of the papers. The researchers’ interview questions can bias a study; the questions asked could have the potential to affect responses and by not asking certain questions, it could limit the responses provided. A limitation of this review is not all studies were transparent about the questions they asked participants. Furthermore, researchers did not always state how their questions were influenced by existing theories such as CSDT, VPTG, and VR. Future studies should aim to explicitly state sources of bias for greater transparency and studies would further benefit from stating the questions asked to allow future reviews to draw clearer conclusions.

The framing of the research question (quality checklist item 2) did not appear to limit the study's contribution to themes. For example, studies focusing on VT contributed to intrinsically negative belief changes such as suspiciousness, also contributed to themes regarding positive belief changes such as hope. Consequently, the interconnectedness of both positive and negative belief changes is emphasised and co-occurrence is acknowledged, supporting findings from a previous meta-synthesis (Cohen & Collens, 2013). Most studies identified how participants contributed to themes, allowing inter- and intra-participant comparisons to be made, creating a richer dataset. Without identifying participant contributions, the rigour of analysis could be questioned and reviews are limited in the conclusions they can draw. In future research, papers should aim to specify the contributions from each participant, using pseudonyms to preserve participants' anonymity.

As well as positive and negative belief-change co-occurring for some therapists, others may be more likely to adopt belief-change in a particular direction. Further research is needed to explore whether there are certain characteristics associated with individuals more likely to develop VT beliefs. If so, support (such as supervision or peer support) may help to minimise the impact on beliefs. Likewise, if we can identify the characteristics of those who develop beliefs associated with VPTG, it may provide insight into how we can use these findings to potentially reduce negative belief changes in others.

However, it is possible that beliefs are disrupted, not as a result of client work, but as a result of the histories of the therapists seeking to do trauma work.

Some of the studies focused exclusively on working with children who had been traumatised. These studies were more likely to have contributed to the subtheme of connectedness with clients, and less likely to contribute to themes about vulnerabilities. Again, this may have been the result of the questions asked of participants, or it may suggest something inherently different about the belief changes that occur in child therapists compared to those that work with adults. It would be interesting for a review to compare between these two populations of therapists to assess this further.

Future reviews may further benefit from comparing therapists' belief-change, to those of other professions, such as social workers. The present review identified changes in 'hope' related beliefs, supporting findings from previous studies using non-therapist-specific samples (Bell, 2003; Clemans, 2004; Engstrom et al., 2008); however, as the present review only focused on therapists' beliefs, the results may not be generalisable to other professions, given the nature of the therapist role (Edwards, 2009).

A limitation of this review is bias may have occurred because of the author's prior involvement with VT research. As the author is conducting a doctoral thesis on VT, it may have influenced the results. They were conscious not to be prejudiced by the literature based on their understanding of the CSDT and areas of psychological need that have been identified as changing through working with trauma cases. These efforts to offset prior knowledge and subsequent possible biases may have resulted in the author over-compensating to prevent replication of the CSDT.

Conclusion

In conclusion, this review highlights that both positive and negative changes in beliefs occur, and can co-occur, within therapists conducting trauma work. These beliefs occur outside of the therapeutic setting which can have adverse effects, especially on relationships. It is also these belief-changes, and awareness of them, that encourage therapists to continue working with traumatised individuals. Qualitative research is often critiqued as being non-generalisable as samples are often small and contextual; however, in the present study there appears to be a spread of contributions to themes despite samples coming from a range of countries, therapist demographics, and client demographics.

The author has identified further areas of research that could provide insight into the processes underlying phenomena such as VT, VPTG, and VR. It is possible that by further increasing awareness and understanding, we will be closer to being able to identify ways to improve the wellbeing of therapists and reduce some of the wide-ranging consequential effects seen in many professionals.

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JOURNAL PAPER

Developing and establishing the psychometric properties of the Trent Measure of Vicarious Trauma (TMVT)

Hannah Strange BSc (Hons), PGCert, MRes[1],

Dr Rachel Sabin-Farrell[1], and Dr Nima Golijani-Moghaddam[2]

[1]Trent Doctorate in Clinical Psychology, School of Medicine, Division of Psychiatry and Applied Psychology, University of Nottingham

[2] Trent Doctorate in Clinical Psychology, University of Lincoln

Abstract

Vicarious Trauma (VT) describes the cumulative impact of being exposed to the traumatic experiences of clients. Given the impact VT can have, and the problems with the most commonly cited VT measure, the present study aimed to create, and analyse, a new measure of VT (the Trent Measure of Vicarious Trauma; TMVT). Phase One employed a Delphi methodology, using expert consensus to select items to form the TMVT from a pool of existing items and novel items put forward by experts. Phase Two recruited clinicians to complete the TMVT, alongside other existing measures, to establish the TMVT's psychometric properties. From an initial item pool of 146 items, the 13 Delphi experts reached consensus on 16 items. In Phase Two, 206 participants completed the study, enabling preliminary analysis of psychometric properties. Through exploratory factor analysis, 13 items were retained in the TMVT and a 2-factor structure was found to be most suitable ('Impact on Individual', and 'a Dangerous World'); both had high internal consistencies. The TMVT performed as expected in comparison to other measures. The TMVT was observed to converge with secondary traumatic stress measures, questioning the distinctness of conflated terms. To substantiate its psychometric robustness, the TMVT's factor structure, validity, and reliability, require additional testing and cross validation.

Keywords: Vicarious trauma, measure, Trent Measure of Vicarious Trauma, TMVT

1. Introduction

1.1. Vicarious Trauma

Vicarious Trauma (VT) was proposed by McCann and Pearlman (1990b) as a process through which client trauma-narratives may be absorbed by practitioners (those providing services, treatment, and direct care to individuals who have experienced trauma), with negative consequences. Trauma in this context refers to distressing events an individual experiences; what is considered traumatic can vary person to person, but events will often leave individuals feeling under threat and frightened. It is estimated between 16-90% of people around the world have been exposed to traumatic events, with rates from more recent studies continuing to rise (Mills et al., 2011). Not all of these individuals will go on to develop mental health problems as a result of their traumas (Lewis et al., 2019), but some studies suggest up to 95% of psychiatric outpatients have experienced traumatic events (Mueser et al., 1998; Switzer et al., 1999). These figures suggest it is common for clinicians to work with clients with trauma narratives.

The notion of VT proposes through cumulative exposure to client accounts of trauma, the practitioner is negatively affected; practitioners can experience changes in belief across areas including intimacy, esteem, safety, control, and trust[1] (McCann & Pearlman, 1990b). For example, an individual may have previously believed “the world is a safe place”; however, through their work and the traumas their clients have discussed, their beliefs may have shifted to “the world is a dangerous place”. Practitioners can also exhibit

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[1] As proposed by the Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990), see extended paper 1.1. and 1.2.

symptoms mirroring the trauma-related symptoms of their clients, including re-experiencing, avoidance, and hyper arousal (Pearlman & Saakvitne, 1995).

Researchers have attempted to estimate the prevalence of VT, suggesting it affects between 40-85% of helping professionals (Mathieu, 2012); however, the tools used to measure VT are often measures of secondary traumatic stress, a conflated term used simultaneously with VT (Hayes, 2013; Najjar et al., 2009; Sabin-Farrell & Turpin, 2003). A number of terms have been used interchangeably with VT, including burnout and secondary traumatic stress, despite the literature acknowledging they are distinct constructs (Hayes, 2013)[2].

As a consequence of VT, practitioners can experience changes in mood, increased substance use, and reduced intimacy with partners (Saakvitne & Pearlman, 1996). There are also potential ethical implications of VT as practitioners experiencing VT are more likely to make clinical errors (Trippany et al., 2004). VT could affect the quality of therapy a client receives by impacting the therapeutic relationship, transference, and countertransference (Moulden & Firestone, 2007)[3].

1.2. Measures of VT

Given the argued relevance, potential prevalence, and likely negative impact of VT (on a practitioner’s personal and professional wellbeing, and on the quality of care being provided), as well as difficulties disentangling VT from related concepts – it is important to consider how VT can best be assessed. Measures of VT[4] used in research studies include Post-Traumatic

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[2] See extended paper 1.4.
[3] See extended paper 1.5.
[4] See extended paper 1.6.

Stress Disorder symptom checklists (such as the Impact of Events Scale; Horowitz et al., 1979), the Trauma and Attachment Belief Scale (TABS; Pearlman, 2003), and the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008); yet the TABS is most commonly cited in VT research.

The TABS was adapted from the Traumatic Stress Institute Belief Scale Revision L (TSIBS-RL; Pearlman, 1996), which itself was based on the McPearl Belief Scale (McCann & Pearlman, 1990a). Pearlman (2003) stated the TABS arose as a result of hearing clients' experiences of relationships and traumatic memories, reviewing research on trauma, and using Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990b) as a framework to understand the impact of trauma. The TABS was proposed to operationalise the underpinning CSDT and consequently, items were created to correspond with the five psychological need areas (safety, trust, intimacy, control, and esteem). The TABS manual describes how it can be used with clients to guide therapy and identify potential patterns to relationships which may impact the therapeutic relationship (Pearlman, 2003). The TABS is an 84-item self-report measure; higher total scores on the measure indicate greater disruption to beliefs across the five areas (identified above) which are theorised to be sensitive to the effects of trauma.

1.3. Problems with current measures

Although the TABS is most widely used, criticisms have identified its questionable construct validity; using a previous version of the TABS as a proxy for the current version of the TABS, to provide reference values; inconsistent factor structure; and questioned whether it appropriately covers aspects of VT.

Cumulatively, these criticisms could be argued to undermine the use of the TABS.

1.3.1. Construct validity

The TABS was originally created to assess belief change in people who had experienced direct trauma (Pearlman, 2003); however, its purpose shifted to look at those who have experienced trauma indirectly (Benuto et al., 2018). This adaptation to the application of the TABS does not appear to be justified by Pearlman and colleagues, raising questions about the appropriateness of this shift.

1.3.2. Proxy findings

There are reference values (means and standard deviations) available across numerous clinical samples – outpatients with and without trauma histories; trauma therapists; inpatients; and prisoners (Pearlman, 2003) – which could enable cross-comparison (gauging whether trauma therapists are similar to their clients in reported disruption to trauma-sensitive beliefs) and thereby provide some justification for using the TABS to measure VT. However, these reference data/norms come from the TSIBS, rather than the TABS. The extrapolation of data from the TSIBS to the TABS occurs across the literature, despite only 25% of the items across the scales being identical (Buchanan et al., 2016; Pearlman, 2003). Another issue with the reference-values approach is it assumes therapists are distinct from their clients in regard to their personal trauma experiences and beliefs; however, this is not supported by the literature (Pearlman & Maclan, 1995; VanDeusen & Way, 2006).

1.3.3. Inconsistent factor structure

Efforts to establish the factor structure of the TABS and assess whether it maps onto the theoretical foundations of CSDT, have produced inconsistent findings. Varra et al. (2008) conducted their factor analysis with a varied sample including therapists, clients, and students. The authors found a three-factor loading (“self”, “others”, and “safety”) of the TABS, a contrast to the loading proposed by CSDT (McCann & Pearlman, 1990b). Varra et al. (2008) used the TSIBS-RL for their factor analysis and whilst the TABS is based on the TSIBS-RL, there is a discrepancy in the items included on the measures; the TSIBS-RL includes 80 items compared to 84 items in the TABS. This discrepancy questions whether the results found by Varra et al. (2008) can be generalised to the TABS.

Buchanan et al. (2016) explicitly acknowledged discrepancies in the TABS’ factor structure exist across the literature. They cited this as their rationale for employing an exploratory factor analysis, rather than a confirmatory factor analysis. Buchanan et al. (2016) reported a four-factor structure from their sample of partners of military service members: “other”, “other-safety”, “self-safety”, and “self”. Whilst this factor structure is analogous to that identified by Varra et al. (2008), it does not align with the original CSDT framework - further challenging the construct validity of the TABS and potentially the theoretical assumptions of CSDT.

1.3.4. Poor representation of aspects of VT

The TABS presumes disruption to beliefs is equal across all belief areas. A meta-aggregation study of 27 qualitative and quantitative papers examined the measurement of VT (Millard, 2015). The authors found, overall, there were changes in beliefs across all psychological need areas; however, these changes were not equally distributed. Millard (2015) identified these findings were problematic for the TABS if using the total score as a metric for VT as the measure gives equal weight to all areas of psychological need. Furthermore, despite definitions of VT stating practitioners also exhibit symptoms mirroring the trauma-related symptoms of their clients (Pearlman & Saakvitne, 1995), the TABS only focuses on belief change and does not acknowledge these symptoms.

1.4. Study rationale and aims[5]

Practitioners are exposed to the traumatic narratives of their clients and over time, this can have a wide-reaching impact on the therapists personal and professional lives, as well as the care clients receive. There have been several concerns raised about the approaches to measuring VT and how to separate VT from other conflated terms. The importance of VT and the issues identified point to the creation of a new measure to address these concerns.

Other measures have been proposed to measure VT more recently than the TABS, such as the VTS; however, information regarding the development process underpinning the measure is limited and unclear (Vrklevski & Franklin, 2008). The VTS items also fail to address belief change. The current study sought to apply a transparent and methodical approach to developing a new measure of VT, building on previously developed measures, and converging expertise in the field.

The study aimed to develop a measure of VT to address the limitations of current measures and to explore the factor structure, validity, and reliability of

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[5] See extended paper 1.7.

the measure. We named the measure the Trent Measure of Vicarious Trauma (TMVT).

2. Method

Ethical approval was obtained from the University of Nottingham Research Ethics Committee. There were two phases to the study: Phase One sought to develop a measure using a Delphi methodology; Phase Two aimed to examine the psychometric properties of the TMVT.

2.1. Phase One: Measure development[6]

2.1.1. Generation of initial item pool: Selecting measures and items

Originally, 137 mixed-valence items were pooled from 4 existing measures of VT and measures of similar, conflated terms (see Table 6): the TABS (Pearlman, 2003), the Vicarious Trauma Scale (VTS; Vrklevski & Franklin, 2008), the Secondary Traumatic Stress Scale (STSS; Bride et al., 2004), and Professional Quality of Life scale fifth edition (ProQOL-5; Stamm, 2010). Measures were selected based on their use in previous literature, as identified from Millard (2015). All items from the measures were included in the initial pool, except for the first two items from VTS: *"My job involves exposure to distressing material and experiences"* and *"My job involves exposure to traumatised or distressed clients".* The research team felt these items were not appropriate to include in the item pool as they were not symptoms of VT.

Further to these items, nine additional items were added to the pool (see Table 7) – three (1-3) from Paranoia/Suspiciousness Questionnaire (PSQ; Rawlings & Freeman, 1996), and six (4-9) were created by the research team. These items were chosen based on areas of belief change identified in a

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[6] See extended paper 2.1.

systematic literature review on cognitive change in clinicians exposed to traumatic narratives (Strange, 2020), but not represented in extant VT measures. In total, 146 items were included in the initial item pool.

Table 6

Psychometric properties of measures used to generate the initial pool of items

Measure	Reference	Number of items	Description of measure and subscales	Example item	Reliability	Validity
Trauma and Attachment Belief Scale (TABS)	(Pearlman, 2003)	84	To assess beliefs in five areas that may be affected by traumatic experiences.	When I am alone, I don't feel safe.	Test-retest reliability = .75, Internal consistency = .96 *Subscales*: test-retest reliability (median = .72, range = .60 to .79) internal consistency (median = .79, range = .67 to .87) (Pearlman, 2003)	Concurrent validity in non-clinical and clinical samples, discriminant validity in nonclinical samples, factorial validity in nonclinical samples, predictive validity in clinical samples (Pearlman, 2003)
Secondary Traumatic Stress Scale (STSS)	(Bride et al., 2004)	17	To measure symptoms (intrusion, avoidance and arousal) related to indirect exposure to traumatic events in professional relationships	I felt emotionally numb	Full STSS (α = .93), Intrusion (α = .80), Avoidance (α = .87), and Arousal (α = .83) (Bride et al., 2004)	Convergent and discriminant validity supported A three-factor structure was established as hypothesised (intrusion, avoidance, and arousal) (Bride et al., 2004)

Measure	Reference	Number of items	Description of measure and subscales	Example item	Reliability	Validity
Professional Quality of Life 5th edition (ProQOL-5)	(Stamm, 2010)	30	To measure positive (compassion satisfaction) and negative (compassion fatigue, CF: burnout and secondary traumatic stress, STS) professional quality of life Yields 3 separate scales, instead of composite scores	I find it difficult to separate my personal life from my life as a [helper].	*Compassion satisfaction:* α = .88 *Burnout:* α =.75 *Secondary Traumatic Stress:* α = .81 (Stamm, 2010)	Good construct validity. The CF scale is distinct. The inter-scale correlations show 2% shared variance (r=.23; co-σ = 5%; n=1187) with STS and 5% shared variance (r=-.14; co-σ = 2%; n=1187) with Burnout. 34% shared variance between Burnout and STS, but distinct constructs (r=.58; co-σ = 34%; n=1187) (Stamm, 2010)
Vicarious Trauma Scale (VTS)	(Vrklevski & Franklin, 2008)	8 (6 items related to symptoms of VT)	To measure levels of distress related to working with clients who have experienced trauma	I find it difficult to deal with the content of my work	α = .88 (Vrklevski & Franklin, 2008)	Factor analyses have produced varying results: a two-factor model was found but was later concluded to not be a good fit (Aparicio et al., 2013), and more recently one-factor model was found (Benuto et al., 2018)

Table 7

Items added to the initial item pool by the research team

Item
1. I feel that it is safer to trust nobody
2. I feel that people have it in for me
3. I suspect that people who act friendly to me can be disloyal behind my back
4. I am generally suspicious of other people
5. I find it difficult to trust other people
6. I am wary of strangers
7. I worry that bad things will happen to the people I care about
8. I worry that my family are in danger
9. I am overwhelmed by worries about the safety of my clients

2.1.2. Review of initial item pool by experts

A Delphi-consensus method was used (see Hsu & Sandford, 2007) whereby an ‘expert’ panel independently rate items against given criteria. In the present study, experts were asked to rate the relevance of each item to a given definition of VT (see page 17). Experts’ responses determined which item were retained, or excluded, based on thresholds defined *a priori*; further rounds are administered until items reach consensus*.*

Clinicians, researchers, and trainers were targeted for recruitment to the expert panel through platforms including LinkedIn and ResearchGate. Experts were not required to be based in the UK; much of the research in VT is conducted in the USA and Australia therefore the research team felt it was appropriate to aim to also recruit experts from these countries. Individuals were invited to take part if they met one or more of the following criteria: (1) clinicians in a direct client-facing role who have worked for ≥ five years with clients with trauma experiences; (2) researchers who have published ≥ one VT-related study that has been externally cited at least once; and/or (3) individuals who provide training to practitioners about the impact of VT in the workplace.

Based on existing research on Delphi sample sizes (Linstone & Turoff, 2002; Murphy et al., 1998) and attrition rates ranging between 16-28% per round (Hanafin et al., 2007), we aimed to recruit 10-20 experts. According to Linstone and Turoff (2002), a minimum of 10 participants are needed for a Delphi study as a breadth of perspectives is needed. Murphy et al. (1998) suggest there is no increase in reliability with a sample size above 15; it would merely become more labour intensive (Linstone & Turoff, 2002). Fifty individuals who met eligibility criteria were targeted for recruitment. Fourteen experts consented to participate in the study and completed the first round of the Delphi. Thirteen participants completed both rounds.

The pooled items were randomised, to ensure it was not explicitly clear which items came from each existing measure. The items were then presented to experts who were asked to rate each items' relevance to a definition of VT, created by the research team, incorporating existing definitions (see McCann & Pearlman, 1990b; Pearlman & Saakvitne, 1995): "*Vicarious trauma is the notion that through cumulative exposure to client accounts of trauma, the practitioner is affected; changes in beliefs, in addition to experiencing symptoms that mirror the trauma-related symptoms of their clients, can occur".* A four-point Likert scale was used, and extreme anchors were provided (0 = 'not relevant at all', 3 = 'definitely relevant'). Items that did not achieve a rating of 2 or 3 by ≥ 80% of experts were excluded from subsequent rounds. Experts were also asked to provide qualitative feedback about the initial pool of items and were invited to propose novel items, not covered by the existing pool; novel items were added to the item-pool for round two.

2.1.3. Round two

In round two, items were presented back to experts, and compared to the ratings of others (see Table 8); experts were able to change their ratings (using the same anchors as round one) if they wanted. Again, they were given the opportunity to comment on each item if they had any suggestions for changes.

Table 8

An example of how feedback was presented to experts

"I think that I might have been affected by the traumatic stress of those I [help]"

	Rating			
	0	1	2	3
Your rating				X
Percentage of respondents	7.1%	0%	7.1%	85.8%

In addition to rating items again, experts were asked to comment on the formatting of the measure. Experts were asked to how they believe items should be linked to the context of the impact of working with clients and how the response options should be presented, including the scoring anchors. Responses were not required to reach consensus; however, the researchers made decisions about the formatting of the measure based on the opinions of the majority of experts.

2.1.4. Reviewing the measure

Once the research team had established which items had reached consensus following round two, and experts' views on the formatting, the measure was put together. The measure was sent back out to the experts to see if they had any comments on it prior to the commencement of Phase Two.

2.1.5. Results of Delphi

2.1.5.1. Expert characteristics.

Demographic information for experts who completed round two is shown in Table 9. The one expert who dropped out after round one did not provide demographic information.

Only three experts who completed both rounds of the Delphi identified as male. Whilst this is a small proportion of experts, it could be argued this is a representative sample as the field of psychology is typically represented by more females than males, especially in clinical practice. Two experts were from the USA, one expert was from Australia, and the remaining experts were from the UK. The study had aimed to recruit individuals from these countries; however, as the Delphi is a consensus methodology, idiosyncrasies of each country could be lost as the majority of participants were from the UK.

Eight participants identified as Clinical Psychologists, only one was not from the UK. Whilst the trainers and academic individuals added some variety to professional role, the range of roles were limited. Experts were most likely to meet criterion 1 (11 experts) and criterion 2 (10 experts), compared to criterion 3 (2 experts). Ten experts satisfied multiple criterion; it could be argued the more criterion met, the more expert individuals are and consequently more able to comment on how VT should be measured. The youngest age bracket selected was 30 – 39; given the usual trajectory of time taken to publish research, and the number of years of experience to satisfy criterion 1, it was expected all experts would be at least 23 years old.

Table 9

Demographic information for experts who completed round two

Expert	Gender	Age	Ethnic group	Country of residence	Professional role	Number of years of experience	Published articles?	Number of published articles	Expert criteria met
1	Female	40-49	White	England	Consultant Clinical Psychologist	9 years qualified, 15 in psychology role	Yes	1	1 & 2
2	Male	30-39	Prefer not to say	UK	Academic/Clinical Psychologist	17	Yes	5 or 6	1 & 2
3	Male	Prefer not to say	Mixed	UK	Prefer not to say	Prefer not to say	Yes	Prefer not to say	1 & 2*
4	Female	40-49	White	UK	Clinical Psychologist	15	Yes	4 + 1 “pending”	1 & 2
5	Female	50-59	White	Australia	Clinical Psychologist	32	Yes	3	1 & 2
6	Male	70+	White	UK	Clinical Psychologist	35	Yes	5	1 & 2
7	Female	60-69	White	US	Keynote speaker and trainer on vicarious trauma	29	Yes	“Several”	2 & 3

Expert	Gender	Age	Ethnic group	Country of residence	Professional role	Number of years of experience	Published articles?	Number of published articles	Expert criteria met
8	Female	50-59	White	UK	Clinical Psychologist	21	No	-	1
9	Female	40-49	Asian	UK	Clinical Psychologist	13	Yes	3	1 & 2
10	Female	60-69	Other	US	Consultant	37	In process	0	1
11	Female	60-69	White	UK	Consultant Clinical Psychologist	34	Yes	20	1 & 2
12	Female	50-59	White	UK	Professor in trauma research	20+	Yes	50+	1 & 2
13	Female	50-59	White	UK	Consultant trainer therapist	22	No	-	3

Note: Expert criteria met: 1) ≥5 years working with clients with traumatic narratives, 2) ≥1 research articles cited externally ≥1, 3) trainer in vicarious trauma. * identified prior to study.

2.1.5.2. Round one results

Fourteen experts completed round one; 28 items from the initial 146 item pool were retained as they were rated ‘2’ or ‘3’ by ≥80% of participants (see Appendix). The research team reviewed these items and were surprised to observe key belief areas of ‘Safety’ and ‘Trust’ (as established in the literature[7]) were missing from these items. At this stage, items from lower consensus levels were reviewed. An additional fifteen items were rated ‘2’ or ‘3’ by 78.5% of experts and another 17 items were rated ‘2’ or ‘3’ by 71.4% of experts. The research team discussed the additional items and agreed to retain eight; three items pertaining to ‘Safety’ and five items related to ‘Trust’. At the end of round one, 110 items were excluded for failing to reach consensus threshold. At this stage, 13 novel items were added to the item pool, based on participants’ suggestions. In total, 49 items were retained for round two.

2.1.5.3. Round two results

Thirteen experts completed round two; one expert did not respond to any emails or subsequent prompts to participate. Of the 49 items, 17 items reached ≥80% expert agreement; 32 items failed to reach consensus and were removed. After two rounds of rating, consensus was reached – signifying the end of the Delphi process.

2.1.5.4. Formatting the measure

Experts were asked how they thought items should be linked to the context of working with clients. They were presented with four examples of how it could be worded (as proposed by the research team), as well as the option to provide their own suggestion. The mode choice (5/13 experts) was “*Since I*

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[7] See extended paper 1.2.

began working with [clients] with traumatic narratives I have noticed"; two experts who selected "other" stated they preferred the "*Since*…" option but would prefer the wording of "*traumatic narrative*" to be changed. Experts were consulted on how the measure should be scored; the mode option (7/13 experts) for scoring items was 'both intensity and frequency', compared to 'frequency', 'intensity', or 'other'.

2.1.5.5. Development of the measure

The first iteration of the measure contained 17 items. The research team discussed the comprehensibility of consensus-reaching items, and one item was removed at this stage, leaving 16 items. The item "*My view of how safe the world is has changed*" was removed. The research team felt the direction of this item was ambiguous compared to the other items and it was the only item that did not fit with the frequency and intensity anchors.

The formatted measure was presented to the experts again and they were offered the opportunity to comment on the measure in its draft form; seven experts provided comments. Following minor revisions to item wording in response to comments and discussions within the research team (see Table 10), a first version of the TMVT was created.

Table 10

An example of how an item progressed from round one to the final item set

Round	Item	Feedback
Initial item presented in round one	I think that I might have been affected by the traumatic stress of those I [help]	92.8% rated as 2 or 3. One expert suggested the item should be more certain rather than “I think I might”, instead suggesting “I am affected…” One expert stated items needed to be consistent in their phrasing – some items made reference to people “I [help]” others made reference to “clients”
Updated item presented in round two	I have been affected by the traumatic stress of [clients] I have worked with	100% rated as 2 or 3 One expert stated “don’t end the sentence with ‘with’” – the research team acknowledged the statement was grammatically incorrect; however, as items are not complete sentences, the research team did not feel it was necessary to change the wording
Item presented in first iteration of the measure	I have been affected by the traumatic stress of [clients] I have worked with	-
Item in final measure	I have been affected by the traumatic stress of [clients] I have worked with	-

2.2. Phase Two: Testing dimensionality, validity, and reliability of the TMVT[8]

2.2.1. Participants

A sample of clinicians was targeted via advertisements on social media platforms including Facebook and LinkedIn; snowball sampling was also employed. Clinicians were required to be located in the UK and have worked with clients who have shared their traumatic narratives; no designation was specified or excluded. As an incentive, those who completed the study were given the option to be entered into a prize draw to win a £50 Amazon voucher. Recruitment yielded a sample of 206 participants who completed all measures in full. Demographic information is provided in Table 11.

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[8] See extended paper 2.2.

Table 11

Demographic information for participants completing Phase Two

Demographic	Total (N=206) (%)
Gender	
Female	184 (89.3%)
Male	20 (9.7%)
Other	2 (1%)
Age	
	Mean = 39.28 years, S.D. = 10.16* years, Range = 22 – 66 years
Ethnicity	
White	195 (94.6%)
Mixed	3 (1.5%)
Asian	3 (1.5%)
Black	1 (0.5%)
Prefer not to say	3 (1.5%)
Current Professional Role	
Unqualified psychologist	16 (7.8%)
Qualified psychologist	56 (27.2%)
Mental health practitioner	92 (44.7%)
Social Worker	29 (14.1%)
Physical health worker	2 (1%)
Education worker	4 (1.9%)
Senior Minister	1 (0.5%)
Prefer not to say	6 (2.9%)
Years of experience	
	Mean = 9.98 years S.D. = 8.00* years Range = 1 – 40 years
Prefer not to say	2 (1%)

Note: *2 decimal places

2.2.2. Design

In the advertisement for the study, individuals were provided with a link to access the survey, hosted on JISC Online Surveys (where an information sheet and consent form were provided). If they agreed to participate, individuals were asked to provide demographic information and complete various measures, including the TMVT (see *Measures*). Participants were also given the option to comment on how they found completing the TMVT and whether they would make any changes, using a free text box. Participants did not have to complete the survey in one sitting, they had five weeks to complete it. Data were only stored when participants completed the measure in full.

2.2.3. Measures

The developed measure. Based on feedback from experts (see *2.1.4.*), items on the TMVT were dually scored in regard to both frequency (‘Never’, ‘Occasionally’, ‘Often’, ‘Very Often’, and ‘Always’) and intensity (‘Not at All’, ‘A Little’, ‘Moderately’, ‘Very Much’, and ‘Extremely’) for each item. Each item was scored as a product of frequency (0 = Never, 4 = Always) and intensity (0 = Not at All, 4 = Extremely). Higher scores indicate greater experiencing of VT.

Additional measures. Participants completed additional self-report measures (see Table 6 [TABS and ProQOL-5] and Table 12 [short-form MCSD and LEC-5]) to assess if the TMVT: (1) converged with measures of theoretically related concepts (TABS); (2) diverged from measures of theoretically separate variables (Short form MCSD [Ballard, 1992]; LEC-5 [Weathers et al., 2013]); and (3) correlated as predicted with measured outcome variables (ProQOL-5 scales). It was expected there would be moderate-to-large positive correlations between the TMVT and scores on the established measure of VT (TABS) and negative outcome indices (STS, and Burnout; ProQOL-5); moderate-to-large negative correlations with positive outcomes (Compassion Satisfaction; ProQOL-5); and negligible-to-small absolute correlations with socially desirable responding (short-form MCSD).

The Life Events Checklist for DSM-5 (LEC-5; Weathers et al., 2013) was also administered to distinguish between direct and indirect trauma. There is no standardised way to interpret the LEC; in the present study, if a participant selected ‘Happened to me’ and/or ‘Witnessed it’, the item was coded ‘2’. If they selected ‘Learned about it’ and/or ‘Part of my job’, the item was coded ‘1’. If they selected ‘Not sure’ and/or ‘Doesn’t apply’, the item was coded ‘0’. Where participants selected multiple responses, responses were scored based on the most direct exposure; for example, if participants selected ‘Witnessed it’ and ‘Part of my job’ they would score ‘2’. It was expected there would be negligible-to-small absolute correlations between the TMVT and direct trauma experiencing.

2.2.4. Analysis[9]

An exploratory factor analysis was considered appropriate. Given 16 items were identified, using the median participant to number of variables ratio identified in the literature (10:1; Everitt, 1975), a minimum of 160 participants was needed. Considering Comrey and Lee (1992) criteria, the sample of 206 was considered a ‘fair’ size for a factor analysis.

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[9] See extended paper 2.3.

Table 12

Measures used to assess psychometric properties of the TMVT

Name of measure and author	Aim	Number of items	Item scaling and anchor points	Directionality	Example item	Reliability	Validity
(Trauma and Attachment Belief Scale (TABS) – see Table 6)							
(Professional Quality of Life scale (ProQOL-5) – see Table 6)							
Short form Marlowe-Crown Social Desirability Scale (MCSD) (Ballard, 1992)	To assess social desirability (the provision of answers based on seeking the approval of others) to establish the potential impact on responses in other measures	13	True/false responses	Higher scores indicate greater concerns of social approval and individuals are more likely to respond to items to avoid disapproval from others.	It is sometimes hard for me to go on with my work if I am not encouraged.	Internal consistency = .62 - .76 (Ballard, 1992; Loo & Thorpe, 2000; Zook & Sipps, 1985)	Strong correlation (.91-.97) between Ballard's MCSD and the full version MCSD (Fischer & Fick, 1993; Loo & Thorpe, 2000)
Life Events Checklist (LEC-5) (Weathers et al., 2013)	To measure personal exposure to different types of traumas	17	All appropriate answers are selected: "Happened to me", "Witnessed it", "Learned about it", "Part of my job", "Not sure", "Doesn't apply"	The more types of traumas selected as "Happened to me", "Witnessed it", "Learned about it", "Part of my job", the more personal exposure to trauma.	Fire or explosion	It is not appropriate to calculate internal consistency as exposure to traumatic events is not a unidimensional concept (Netland, 2001)	Good convergent validity in relation to established measures of trauma, exposure to trauma, and trauma-related distress (Gray et al., 2004)

3. Results

3.1. Removing multivariate outliers

To establish the TMVT was not impacted by outliers (‘extreme’ responses in comparison to mean responses on a minimum of two variables; Field, 2013), the dataset was analysed using Mahalanobis distance values. Cases were identified as multivariate outliers if the probability related to their Mahalanobis distance value was $p < .001$. Thirty-one cases met these criteria and were removed. The TMVT’s factor structure, and validity, was calculated with the remaining 175 cases.

3.2. Examination and elimination of poor, overlapping, and redundant items

Corrected-item total correlations were analysed to determine whether the items in the TMVT were measuring the same construct; a recommended threshold of $r < .3$ (Nunnally & Bernstein, 1994) was used, items below this threshold were seen to impact the TMVT’s internal consistency. Inter-item correlations identified redundant items – items with sizeable overlaps suggesting they measure the same thing and do not contribute additional predictive validity (Cohen & Swerdlik, 2005). Items were removed if they met either criteria: 1) they had low correlations with other items ($r < .3$); or 2) they correlated highly with other items ($r > .8$). No items met these criteria, all items were retained.

There was no evidence of multicollinearity amongst the 16 items; the correlation matrix determinant (.003) was not below the recommended threshold value (see Field, 2013). Bartlett’s Test of Sphericity was significant

(χ^2= 978.15, df, = 120, p < .001), suggesting the TMVT's items are intercorrelated and are therefore, related.

3.3. Identification of the TMVT's factor structure[10]

It could be hypothesised the TMVT is best encapsulated by five factors, based on the CSDT (McCann & Pearlman, 1990b)[11]; however, as research has questioned whether CSDT fully theorises VT (Millard, 2015), an inductive process was taken to explore the factor structure.

In the first instance, an exploratory factor analysis (EFA) was conducted. A Kaiser Meyer Olkin (KMO) Test (Kaiser, 1970) (KMO = .81) and Bartlett's Test of Sphericity (χ^2= 978.15, df, = 120, p < .001) suggested the sample size (N=175) was above adequate for EFA. Factors were extracted via Principal Axis Factoring (PAF), utilising an oblique rotation method (direct Oblimin). Factor extraction was based on three criteria: 1) Kaiser (1974) criterion – only retain factors with an eigenvalue > 1; 2) a 'Scree Test' – when eigenvalues are plotted, factors are retained up until the first point where the line levels off (Cattell & Vogelmann, 1977); and 3) Horn's (1965) Parallel Analysis – factors are retained when their eigenvalues are greater than randomly generated percentile eigenvalues at p < .05.

PAF of the TMVT's 16 items (N = 175) found an initial 2-factor structure. Eigenvalues for the third factor (1.211) did not exceed the randomly generated percentile eigenvalue when Parallel Analysis was performed (1.419). When a two-factor solution was utilised and cross-loading items were removed, it was found to be stable.

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[10] See extended paper 3.4.

[11] See extended paper 1.2.

The PAF analysis was re-run on the 16 items and a 2-factor solution was specified. Two factors accounted for 44.1% of the cumulative variance and 37.7% of the cumulative variance following extraction.

3.4. Choosing items to exclude/retain[12]

Any items with insufficient factor loadings across the TMVT's two factors were removed, to result in a stable factor structure (see 3.3.). Howard (2016) recommends three criteria for factor loading cut-offs: 1) Primary factor loadings should be above .40; 2) alternative factor loadings should be below .30; and 3) there should be a difference of >.20 between the primary and alternative factor loadings.

Two items were removed, 14 items remained. Another PAF analysis was conducted, using a two-factor structure, utilising the same extraction and rotation procedures. The KMO Test (.81) and Bartlett's Test of Sphericity (χ^2= 876.55, df, = 91, p<.001) suggested the sample size was sufficient. At this stage, one item loaded <.40 and was therefore removed.

Thirteen items remained; another PAF was conducted with the same three-factor structure as before. The KMO Test (.801) and Bartlett's Test of Sphericity (χ^2= 824.78, df, = 78, p<.001) suggested the sample size was sufficient. On this occasion, the analysis was stable; all items loaded >.40 and there were no cross-loadings between the three factors within .20. Therefore, the 13 items were retained; all were negatively valanced. A two-factor structure was found to be a stable solution; parallel analysis found the eigenvalue for the second factor (1.613) was greater than the randomly generated percentile

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[12] See extended paper 3.4

eigenvalue (1.432). A two-factor solution for the TMVT's 13 items explained 49.2% of the total variance and 42.4% of cumulative variance.

The two factors were reviewed to identify which items loaded highest onto each factor (see Table 13). The items were then examined by their content to determine factor labels. Two 'subscales' were identified and were found to have high internal consistencies: Factor 1 – 'impact on individual' (II; Cronbach's alpha = .84); Factor 2 – 'a dangerous world' (DW; Cronbach's alpha = .88).

Correlations between factors were examined. There were medium correlations[13] between the two factors (*r* = .31).

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[13] Cohen's (2013) classification of correlation magnitude was utilised: 10 (small); .30 (medium); and >.50 (large).

Table 13

The TMVT's 13 items, their factor loadings, and Cronbach's alpha (α) for each factor; symbols relate to the origin of items (see *Note*).

		Item	II (α=.84)	DW (α=.88)
1	*	I have been affected by the traumatic stress of [clients] I have worked with	.58	
2	*	I find it difficult to separate my personal life from my professional life	.51	
3	^	It is hard to stay positive and optimistic given some of the things I encounter	.45	
4	~	I am overwhelmed by worries about the safety of [clients] I have worked with	.52	
5	ª	I feel cut off from people	.48	
6	§	I want to avoid working with some [clients]	.57	
7	§	I think about my work with [clients] when I don't intent to	.75	
8	^	I find myself thinking about distressing material related to my work with [clients] at home	.63	
9	§	I avoid people, places, or things that remind me of my work with [clients]	.64	
10	*	I feel worn out because of my work with [clients]	.69	
11	^	Sometimes I feel helpless to assist [clients] in the way I would like	.55	
12	ª	I believe the world is dangerous		.84
13	$	I see the world as a dangerous place		.88

Note: II = impact on individual; DW = a dangerous world; * = item originates from ProQOL-5; ^ = item originates from VTS; § = item originates from STSS; ª = item originates from the TABS; ± = item originates from PSQ; $ = item proposed by experts in round one; ~ = item created by research team prior to round one. Item loadings below .4 are suppressed.

3.5. Reliability of measure

Cortina (1993) states Cronbach's alpha values are vulnerable to artificial inflation as a result of a large number of items or having items with high inter-correlations. Consequently, Clark and Watson (1995) recommend calculating an average inter-item total correlation across a measure's items to identify a measure's internal consistency. The TMVT's mean inter-item correlation (.31) – across 13 items and 175 cases – was within the recommended ranges (.15 - .50) for sufficient internal consistency (see Briggs, 1986).

3.6. Validity

Table 14 summarises the associations between the TMVT and its two subscales with the other completed measures. In accordance with scoring, higher scores on the TMVT indicate greater VT, higher scores on the TABS indicate a greater negative impact on beliefs, higher 'Compassion Satisfaction' (CS; ProQOL-5) indicate greater satisfaction in ability to be an effective caregiver, higher 'Burnout' (BO; ProQOL-5) indicates greater risk for burnout, and higher 'Secondary Traumatic Stress' (STS; ProQOL-5) indicates greater risk for developing problems due to the exposure to trauma of others.

3.6.1. Convergent validity

The TMVT demonstrated a medium significant correlation with the TABS (r = .45), indicating good convergent validity with an established measure of VT. The TMVT's II subscale had the strongest association with the TABS (r = .44) followed by DW (r = .24). Two items from the TMVT originated from the TABS (see Table 13) and analysis was re-run excluding these items from the TMVT to establish whether there was any inflation from processing shared items. When these items were removed, a medium significant correlation was found between the TMVT and the TABS (*r* = .42). Both factors contained one item from the TABS; once they were removed, II remained the strongest association of the two factors (*r* = .42) and DW the weakest (*r* = .18) (see Table 14).

There was a negligible difference (.03) in correlation coefficients[14] between the TABS and the TMVT compared to the TABS and the TMVT (when TABS items removed). Negligible differences were also observed for II when the TABS item was removed (.02) and for DW when the TABS item was removed (.07).

3.6.2. Discriminant validity

There was a small significant negative correlation observed between the TMVT and the short-form MCSD (*r* = -.17). There was no significant correlation between the ProQOL-5 STS scale and the short-form MCSD. There was a stronger significant correlation between the TABS and the short-form MCSD (*r* = -.21) (see Table 14).

There was no significant correlation between the LEC-5 and the TMVT. There was no significant correlation between the LEC-5 and the STS ProQOL-5 scale. There was a small significant positive correlation between the TABS and the LEC-5 (*r* = .28) (see Table 14).

3.6.3. Concurrent validity

As expected, the TMVT had a significant negative correlation with the ProQOL-5 CS scale (*r* = -.43). Also as expected, the TMVT had significant positive correlations with the ProQOL-5 BO scales (*r* = .60), and STS (*r* = .67). There were three items which originated from the ProQOL-5 included in the final item set (all in II; see Table 13). When these items were removed from the

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[14] As identified using Cohen's criteria (2013)

TMVT, there was a significant correlation between the TMVT and CS (*r* = -.40), BO (*r* = .55), and STS (*r* = .58). The strongest correlation for both the TMVT including ProQOL-5 items, and the TMVT excluding ProQOL-5 items, was with the STS subscale (see Table 14).

In comparison, also as expected, the TABS had a medium negative correlation with CS (*r* = -.43), a large positive correlation with BO (*r* = .61), and a medium positive correlation with STS (*r* = .41). The strongest correlation was between the TABS and BO, whereas the TMVT correlated strongest with STS (the TABS' weakest ProQOL-5 correlation; see Table 14).

When the TMVT's three subscales were correlated with the ProQOL-5 subscales, CS had the strongest negative correlation with II. DW did not correlate significantly with CS. BO was positively correlated strongest with II. STS had the strongest positive correlation with II (even when overlapping items were removed) (see Table 14).

All differences between correlation coefficients (when comparing correlations with full scales including ProQOL-5 items to correlations with scales where overlapping ProQOL-5 items were removed) were negligible (< .1) (see Table 14).

Table 14

Correlations between the TMVT (and TMVT with overlapping items excluding) and existing measures

Measure	TMVT total (overlapping scale items removed)	TMVT II (overlapping scale items removed)	TMVT DW (overlapping scale items removed)	TABS	ProQOL-5 Secondary Traumatic Stress Scale
TABS	.45** (.42**)	.44** (.42**)	.24** (.18*)	-	.41**
ProQOL-5					
Compassion Satisfaction scale	-.43** (-.40**)	-.44** (-.42**)	-.13	-.43**	-.33**
Burnout scale	.60** (.55**)	.62** (.58**)	.20**	.61**	.59**
Secondary Traumatic Stress scale	.67** (.61**)	.69** (.63**)	.23**	.41**	-
Life Events Checklist-5	.05	.05	.05	.28**	.20**
Short form MCSD	-.17*	-.20**	.04	-.21**	-.08

Note: *significant at the .05 level (2-tailed); ** significant at the .01 level (2-tailed)

4. Discussion[15]

There have been a number of studies published about the concept of vicarious traumatisation (VT) and the negative impact it can have on clinicians, their loved ones, and their clients; however, the ability to measure the extent of VT has been fraught with issues. These problems include the conflation of terms, as well as issues with existing measures such as extrapolating previous versions of the measure, inconsistent factor structure, poor construct validity, and failure to address all identified aspects of VT. The present study aimed to address some of these issues in the creation of a novel measure for VT: the Trent Measure of Vicarious Trauma (TMVT).

The present study used a Delphi methodology to recruit experts in the field of VT to select items to be included in the TMVT. The Delphi resulted in 16 items being selected and an EFA concluded 13 items, across 2 stable factors, would form the TMVT. Sufficient average item-total correlations between the TMVT's items, in addition to high Cronbach's alpha coefficients for the two subscales, demonstrated overall reliability and internal consistency. The factors appeared to conceptually link to the impact of client work on an individual (including vicarious re-experiencing, distress, and avoidance) and viewing the world as dangerous – key components of VT, and central to the definition of VT given to experts.

The origin of items, and the factors they load onto, further supports the themes of the factors. The first factor (II) is comprised of 11 items – 3 from the VTS, 3 from the ProQOL-5 (2 STS and 1 BO), 3 from the STSS, 1 from the TABS, and 1 proposed by the research team. Conceptually the factor includes

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[15] See extended paper 4. for further discussion

some cognitive and emotional impacts of working with clients with traumatic narratives. It is thought changes in cognitions are central to VT and distinguish it from other conflated terms such as secondary traumatic stress and burnout (Hayes, 2013)[16]. It is, therefore, congruent that this factor is comprised of items from an existing measure of VT (VTS and TABS). Given the TABS is the most commonly cited measure of VT, it should be noted only one item from the TABS are retained for this factor (and only two items in the whole TMVT pertain to the TABS). This raises questions about how well the TABS captures the concept of VT, when items it suggests are relevant to belief changes in VT are not fully endorsed by a group of VT experts as being relevant. It is also important to acknowledge five of the items came from measures of STS. Despite the overall theme of the factor tapping into the concept of VT, elements of STS are also present; this raises questions about how easy it is in practice to fully separate the two concepts. Despite drawing on the best available VT items, and consensus of VT experts, it could be argued the TMVT converges with the concept of STS. As discussed, it can be difficult to separate these constructs as meaningfully-distinct experiences – and perhaps even questions whether we should try to, if they can be brought together to understand the impact of working with clients with traumatic narratives? The TMVT may be better described as a more general measure of indirect traumatic stress, rather than specifically VT or STS.

Higher scores on the TMVT were associated with higher burnout and secondary traumatic stress (as measured by the ProQOL-5). The TMVT therefore performed in line with expectations that higher levels of VT are related

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[16] See extended paper 1.1.

to theoretically related concepts of burnout and STS. It could be argued that this is evidence that the concepts are similar in nature; however, they may still be considered separate concepts as the correlations are not perfect – supporting previous literature (Hayes, 2013; Jenkins & Baird, 2002; Sabin-Farrell & Turpin, 2003). These findings highlight individuals may be more likely to experience other forms of work-related distress when they experience VT. A vulnerability to multiple forms of distress should be acknowledged by employers and could be utilised as a multi-faceted assessment of staff wellbeing (Devilly et al., 2009). Screening for all three forms of distress may increase awareness of how they are related and perhaps organisations may be better placed to intervene and improve clinician wellbeing.

By considering VT alongside other constructs like STS, it could widen the scope of interventions available to improve practitioner wellbeing. As VT impacts beliefs, cognition-based interventions such as values-based interventions may be considered. Furthermore, a Vicarious Trauma Toolkit (VTT; Office for Victims of Crime, 2013) has been developed, identifying evidence-informed interventions to counteract VT; however, the effectiveness of using the VTT has not been established in the literature. Systemic and organisation level changes designed to promote autonomy may reduce the risk of practitioners developing burnout, and the provision of wellbeing support and resources could mitigate STS. As well as reducing the impact of negative constructs associated with working with clients with traumatic narratives, these interventions could aim to increase CS. Higher scores on the TMVT were associated with less CS (as measured by the ProQOL-5); consistent with previous research finding similar inverse relationships between the two concepts (Simon et al., 2006). Cummings et al. (2018) suggested increasing CS may decrease the presence of STS and VT via improving levels of burnout. The finding also suggests VT and CS can co-exist rather than them being mutually exclusive, supporting findings from (Millard, 2017).

The second factor (DW) also contains an item from the TABS. The factor conceptually links with safety – one of the belief areas proposed by CSDT, the theory underpinning VT (see McCann & Pearlman, 1990b), considered to change as a result of working with clients with traumatic narratives. Given the existing literature and theory of the negative impact on safety beliefs, it is interesting that the items in DW are not included in II as it could be considered to relate to the cognitive impact of working with clients. It may be there is something distinct about safety beliefs and how they are assimilated into the therapist's schema structure, resulting in these items forming a distinct factor. Future research would benefit from examining this further to see if the factor structure remains with other samples.

The present study further questions the appropriateness of the TABS in measuring VT, compared to its initial intended purpose of measuring direct trauma. Participants who have personally experienced traumatic events (as measured by the LEC[17]), were significantly associated with higher scores on the TABS, whereas the TMVT did not have a significant correlation between personal trauma and scores. These findings support the TABS in its intended function – to assess the impact of direct trauma (Benuto et al., 2018; Pearlman, 2003). Furthermore, the TABS was found to correlate more strongly with the ProQOL-5's STS scale than the TMVT's II factor. As the ProQOL-5 STS items

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[17] See extended paper 4.9.

conceptually link to traumatic stress symptoms, it is understandable there is a stronger correlation with the TABS, given its intended use, compared to the vicarious re-experiencing and distress which manifests in II.

The Delphi methodology ensured VT experts regarded the TMVT's items as having good face and content validity. Importantly, only one item from the TABS was retained in the final item set, supporting calls for the creation of a new measure to address the downfalls of the TABS (Millard, 2015). Most items originated from the STSS, followed by the ProQOL-5. It could be argued the experts were tapping into STSS rather than VT; however, by presenting the given definition of VT on each page of the online Delphi study, it is hoped that the experts remained anchored to this, rather than an alternative definition.

A Delphi methodology allowed VT experts to rate items anonymously and therefore, it could be argued they were less vulnerable to the influence of other individuals which can often occur in group decision making (see Turner et al., 1979)[18]. Other measures of VT such as the TABS and the VTS, may have been vulnerable to these social psychology processes as they did not employ a Delphi methodology. The creation of the McPearl Belief Scale (McCann & Pearlman, 1990a) - the first iteration of the TABS - involved a group of clinical psychologists categorising 100 statements from trauma survivors. If the category was not the same across the psychologists, the item was removed from the pool. Despite consensus determining whether items were included in the measure, a Delphi methodology was not stated; the TABS manual does not make reference to the consensus process being anonymous. Information on the

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[18] See extended paper 4.1.

development process of the VTS is limited (Vrklevski & Franklin, 2008), meaning it is difficult to draw conclusions on the anonymity of the process.

A potential benefit of the study was, by consulting experts, it led to the use of both frequency and intensity as scoring anchors. By asking experts how they think the measure to be scored (by frequency, intensity, both, or another format), it moved away from the extent of ‘agreement’ scales used by the TABS and the VTS. Other measures, such as the Revised Memory and Behaviour Problems Checklist (RMBPC; Teri et al., 1992), have employed both intensity and frequency scoring[19]. Respondents can give a more specific picture of their symptomology which allow for distinctions between different areas of burden; it has been argued multidimensional questionnaires permit personalised interventions compared to unidimensional measures (Johnson et al., 2001). It is hoped the resultant score from combining intensity and frequency is more meaningful in comparison to participants providing an overall estimate of how much an item has been ‘bothering’ them (subsuming frequency and intensity), as arguably, anchoring to the specific dimensions of intensity and frequency supports more precise responding. Ultimately, this may lead to a more robust final score for each item. Further development is needed to ascertain the value of different scoring approaches to find the optimal approach to scoring and weighting these dimensions.

4.1. Limitations

Whilst a consensus-based measure will represent the common constituents of a process well, it may neglect experiences that are less frequent, yet still individually salient. Therefore, understanding VT at an individual level

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[19] See extended paper 4.7.

would benefit from an additional, more idiographic, assessment of how a practitioner has been impacted by their client work. A qualitative approach may be the most appropriate way to assess nuances, alongside a global quantitative measure of VT.

Despite the TMVT appearing to correlate highly with burnout (as measured by the ProQol-5), items from measures of burnout (such as the Maslach Burnout Inventory; Maslach et al., 1997) were not included in the initial item pool. Given definitions of burnout state it can be experienced in any line of work[20], the research team felt these items were too broad and not specific to working with clients with traumatic narratives compared to items of STS or VT. It could be argued this is a limitation as items relating to burnout may have been endorsed by experts if they had been included. In each round of the Delphi experts had the option to include other VT-relevant items they felt were missing from the item pool; experts could have included items related to burnout, but this did not occur.

The TMVT had a small, but significant, negative correlation with the short form MCSD (higher VT is linked to lower scores of social desirability); an undesirable result as the authors predicted that these two measures would be uncorrelated because they seek to measure distinct constructs. However, scores from the TABS were also found to have a small significant negative correlation with the short-form MCSD. Previously, the TABS has demonstrated good discriminant validity in a nonclinical sample (Pearlman, 2003). These results may be explained by the sample, there may be something about the characteristics of these practitioners which means they are less likely to choose

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[20] See extended paper 1.4.3.

socially desirable answers when they score higher on VT. Future research would benefit from exploring this further and comparing to samples of non-clinicians.

Another limitation was the sample in Phase Two, partly because it was solely completed by UK based participants. The experts for Phase One were recruited from other countries such as the USA and Australia as much of the research in VT is conducted in these countries. Future research would benefit from sampling clinicians in these countries to assess how the TMVT performs and to assess whether the same factor structure is outlined. If experts from these Westernised countries share the same idea of what VT is and how it should be measured, it would be appropriate to conduct analyses before generalising the results of the questionnaire in countries like the USA and Australia. Furthermore, future studies should aim to increase the number of participants. Despite the number of participants meeting minimum thresholds as suggested by some researchers (Cattell, 1978; Everitt, 1975; Kline, 2014), thresholds are not met for other recommendations (Hair et al., 1995).

An additional limitation is ‘DW’ is a narrow factor, with only two (near identical) items, which has been suggested by researchers to be below the minimum desired three items (Marsh et al., 1998). In subsequent confirmatory factor analysis, the factor structure observed in the current study may not be retained which would impact the psychometric properties established in the current study (Knekta et al., 2019). Should a short-form version of the TMVT be created, it is likely only one of the two items will be retained due to their high level of similarity. However, the fact that both items have been retained at this stage could suggest that despite their similarities, the items may be tapping into different meanings.

4.2. Clinical implications

Many clients experience trauma, and it is therefore common for clinicians to be exposed to these traumas in the workplace. Understandably, this exposure can have a negative impact on the worker and VT can develop. The existing measures of VT have been criticised and the present study sought to create a new measure of VT to address these criticisms. By creating the TMVT, it could provide individuals and organisations with a tool to assess how clinicians are affected. Once it has been identified that individuals have been affected by their work, appropriate interventions can be considered. Without the awareness and appropriate assessment tools, intervention is not possible.

4.3. Future research

To substantiate its psychometric robustness, the TMVT's factor structure, validity, and reliability, require additional testing and cross validation. Literature regarding test construction recommends a number of stages (DeVellis, 2016): 1) utilise a confirmatory factor analysis to conduct an *a priori* examination of the factor structure; 2) compare how participants perform on the TMVT across settings (for example across cultures, different professional groups, and non-clinical samples) to establish whether the TMVT can distinguish between groups – demonstrating construct validity[21]; 3) examine whether a short-form of the TMVT is appropriate using data for item factor loading[22]; and 4) assess the TMVT's test-retest reliability (whether readministering the measure is possible)

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[21] See extended paper 4.10.1.

[22] See extended paper 4.10.2.

which is important for a measure of VT given that VT is considered cumulative over time (Pearlman & Saakvitne, 1995).

5. Conclusion

The TMVT is the product of expert consensus on items representing VT; it demonstrates the potential to be a measure of VT as a result of working with clients with traumatic narratives. However, further research is needed to support initial findings and solidify the TMVT as an alternative to other VT measures.

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Appendix

Levels of agreement for items in round one of the Delphi

≥80% agreement	78.5% agreement	71.4% agreement
I believe I am safe	I feel connected to others	I have beliefs that sustain me
I think that I might have been affected by the traumatic stress of those I [help]	I like my work as a [helper]	I have thoughts that I am a "success" as a [helper]
I feel cut off from people	Even when I am with friends and family, I don't feel like I belong	My friends are there when I need them
Reminders of my work with clients upset me	When I am alone I don't feel safe	I feel that it is safer to trust nobody
I jump or am startled by unexpected sounds	The world is dangerous	I feel invigorated after working with those I [help]
I feel worn out because of my work as a [helper]	I get satisfaction from being able to [help] people	I suspect that people who act friendly to me can be disloyal behind my back
I have trouble sleeping	Sometimes I feel overwhelmed by the workload involved in my job	I am generally suspicious of other people
I feel depressed because of the traumatic experiences of the people I [help]	I can't stop worrying about others safety	I feel "bogged down" by the system
I am overwhelmed by worries about the safety of my clients	I feel overwhelmed because my case [work] load seems endless	I have bad feelings about myself
I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help]	I feel discouraged about the future	I find it difficult to trust other people
It seems as if I am reliving the trauma(s) experienced by my client(s)	I am preoccupied with more than one person I [help]	I am easily annoyed
Sometimes it is hard to stay positive and optimistic given some of the things I encounter	I keep busy to avoid my feelings	I am wary of strangers
I feel jumpy	I expect something bad to happen	I feel threatened by others

≥80% agreement	78.5% agreement	71.4% agreement
I want to avoid working with some clients	I worry that bad things will happen to the people I care about	I can’t relax
I find it difficult to separate my personal life from my life as a [helper]	I can't recall important parts of my work with trauma victims	I have trouble concentrating
I think about my work with clients when I don’t intend to		I notice gaps in my memory about client sessions
As a result of my [helping], I have intrusive, frightening thoughts		Because of my [helping], I have felt "on edge" about various things
I feel emotionally numb		
I find myself distressed by listening to my clients’ stories and situations		
I avoid certain activities or situations because they remind me of frightening experiences of the people I [help]		
My heart starts pounding when I think about my work with clients		
I have disturbing dreams about my work with clients		
I find it difficult to deal with the content of my work		
I find myself thinking about distressing material at home		
Sometimes I feel helpless to assist my clients in the way I would like		
I feel as though I am experiencing the trauma of someone I have [helped]		
I avoid people, places, or things that remind me of my work with clients		

EXTENDED PAPER

1. Extended introduction

1.1. Theoretical underpinning

VT is underpinned by the Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990). The CSDT framework integrates psychoanalytic and cognitive-behavioural personality theories to explain how the experience of traumatic events affects individuals, and to inform assessments and interventions for survivors of trauma (Pearlman, 2003). CSDT claims personality develops through interactions between self-capacities (the ability to recognise, integrate, and tolerate affect, and maintain an inner connection with self and others), and beliefs and schemas constructed through cumulative experiences and the meanings that they acquire. When a person is exposed to trauma their self-development is said to be impacted. CSDT identifies elements of development likely to be affected by traumatic events (Saakvitne et al., 1998).

There are five areas expected to be impacted by traumatic experiences (Pearlman & Saakvitne, 1995). The first is a person's frame of reference including their spirituality, identity, and world views. The second area is self-capacities (as defined above). The third area is the individual's ego resources; the skills that allow a person to meet their own psychological needs, predict consequences, create mature relationships, implement boundaries, and make decisions to protect themselves. The fourth area is the person's memory systems. Finally, the fifth area includes central psychological needs and cognitive schemas (or beliefs) in relation to: intimacy, esteem, safety, control, and trust. CSDT suggests that in VT, a shift in these beliefs occurs for both 'self' and 'others'. In addition to belief changes, VT includes the notion that clinicians experience symptoms akin to those experienced by their clients, including re-experiencing, avoidance, and hyper arousal (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995).

1.2. VT belief areas

As identified above, CSDT proposes clinicians can experience disruptions to their beliefs. Cognitive theory proposes observable consequences may occur as a result of internal thought processes (see Beck, 1979). These internal thought processes (incorporating schemas, beliefs and expectations) develop based on a person’s experience. Schemas are used to make sense of future events and new events are often integrated through assimilation into existing schemas; however, when information from events clashes with existing schemas, they can become disrupted (Janoff-Bulman, 1992). McCann and Pearlman (1990) propose clinicians incorporate client trauma into their internal thought processes. Disruption can occur when the existing schemas held by clinicians, conflict with traumatic narratives observed in clients. Consequently, the clinician’s beliefs shift to accommodate these experiences, often by becoming more negative and distressing (McCann & Pearlman, 1990). For example, a clinician may believe that relationships are loving and caring; however, after working with multiple clients who have experienced extreme domestic violence, their belief may change to a belief that relationships most likely end in pain and hurt. The five belief areas are outlined in more detail below.

1.2.1. Intimacy

Intimacy relates to feeling meaningfully connected to others, and to connect to one’s own thoughts and emotions (Pearlman & Saakvitne, 1995). Disruptions in self-intimacy beliefs may result in the clinician not wanting to pursue their interests, spend more time alone, and feel emotionally numb. Individuals with disrupted self-intimacy beliefs reported less time for leisure activities (Bober & Regehr, 2006) and having less peer support available (Knight, 2010). Avoiding others was a common consequence for clinicians (Baker, 2012). As a result of their work, clinicians identified a lack of emotional availability (Ben-Porat & Itzhaky, 2009)

If disruptions in other-intimacy beliefs occur, clinicians may feel disconnected from others in addition to appearing to put their clients and work before their own needs. Feelings of isolation from others were reported when clinicians thought others do not understand or want to learn about their work (Capri et al., 2013; Drouet Pistorius et al., 2008; Jankoski, 2010; Steed & Downing, 1998). Despite this, clinicians reported increased support from colleagues who have had similar experiences (Capri et al., 2013; Jankoski, 2010). When individuals were not able to access support from peers, they were more likely to have disrupted intimacy beliefs, suggesting this support may protect practitioners from feeling disconnected with others (Adams et al., 2001;

Knight, 2010). Clinicians reported their sexual relationships were affected by negative beliefs regarding physical intimacy, especially clinicians working with clients who experienced abuse and domestic violence (Branson et al., 2014; Clemans, 2004; Drouet Pistorius et al., 2008; Goldblatt, 2009; Jankoski, 2010). Not wanting to be intimate with partners was found across studies (McNeillie & Rose, 2020).

1.2.2. Esteem

When self-esteem beliefs are disrupted, clinicians can question their value and helping abilities, as well as becoming more self-critical (McNeillie & Rose, 2020). They may also find it more difficult to make decisions. Some clinicians questioned their effectiveness as practitioners, especially when changes to their clients' presentation were slow (Arnold et al., 2005). When therapy is not going as the clinician hoped, the clinician is likely to internalise it and blame themselves (Baker, 2012). For those whose beliefs impacted their confidence, practitioners found themselves engaging in increased levels of negative self-talk (Steed & Downing, 1998); some reported "feeling completely incompetent" (Bartoskova, 2017, p. 38). Furthermore, clinicians' work appeared to impact their self-esteem outside of work – those working with children found they doubted their parenting abilities (Lonergan et al., 2004; Menashe et al., 2014).

When other-esteem beliefs are disrupted, clinicians may question the worth of others or reject them. Where changes in esteem beliefs were related to others, clinicians were more likely to see others as evil (Ben-Porat & Itzhaky, 2009; Drouet Pistorius et al., 2008; Steed & Downing, 1998).

Not all clinicians reported negative changes in esteem beliefs; some reported an increased sense of esteem and accomplishment alongside their increased levels of emotional exhaustion (Baird & Jenkins, 2003).

1.2.3. Safety

Positive beliefs around safety are concerned with feeling secure, and the ability to protect oneself and others from harm (both emotional and physical). Individuals desire to view the world, and the people within it, as safe (Baird & Kracen, 2006). Disruptions in safety beliefs have been found to be related to the type of trauma a client has experienced (see extended paper 1.3.3.). Negative disruptions in safety beliefs can result in an individual being more fearful, expressing beliefs of being more vulnerable to harm, and worrying harm will come to their loved ones (Drouet Pistorius et al., 2008; Sui & Padmanabhanunni, 2016); clinicians have reported adopting a more “protective attitude with their families” (Barros et al., 2020. p. 9). It has been noted changes in beliefs can impact behavioural outcomes including increased vigilance and attempts to protect oneself, such as practicing self-defence and avoiding leaving the house at night (Trippany et al., 2004). Some practitioners felt the negative disruptions to their beliefs about the world being safe would remain with them for life (Arnold et al., 2005; Bell, 2003).

Not all clinicians reported disruptions in safety beliefs and for those who did, rates have been found to vary across studies. Through their semi-structured interviews, Steed and Downing (1998) found 66% of clinicians felt their work negatively impacted their safety beliefs. Knight (1997) found lower rates of negatively impacted self-safety beliefs (27%); however, they used questionnaires to examine belief changes which may have impacted the data they collected. When clinicians viewed the world as dangerous, they reported increased attempts to ensure the safety of their loved ones (Arnold et al., 2005; Steed & Downing, 1998; Sui & Padmanabhanunni, 2016).

1.2.4. Control

Beliefs relating to control include desires to be able to control behaviours, emotions, and thoughts (McNeillie & Rose, 2020). When self-control beliefs are distorted, the clinician may express hopelessness and feel an inability to influence their future (Pearlman & Saakvitne, 1995). Possick et al. (2015) found therapists reported struggling to maintain a boundary between professional and personal lives which they experienced as a lack of control. Clinicians believed they had less control over themselves after working with rape victims (Bober & Regehr, 2006; Goldblatt, 2009) and some expressed views of “nothing shocks my anymore” (Sui & Padmanabhanunni, 2016, p. 7). When clinicians were working with clients who had been sectioned, they believed they had less control of themselves (Knight, 2010).

Other-control belief disruptions can lead clinicians to want to exert increased control over others; practitioners acknowledged the urge to control and rescue clients (Herman, 1992). Disruptions can also lead to practitioners wanting to surrender their control of situations to others (Pearlman & Saakvitne, 1995). Clinicians also expressed they felt powerless in relation to the organisation they worked in (Capri et al., 2013; Schauben & Frazier, 1995).

1.2.5. Trust

When clinicians have trusting beliefs, they can rely on their own, and others', perceptions; others will keep promises and have honourable intentions (McCann & Pearlman, 1990). Negatively disrupted trust beliefs can result in clinicians being suspicious of others and not trusting their own judgements. As a result, they may expect betrayal or express less confidence in their decision making (Pearlman & Saakvitne, 1995) and clinicians have reported being more cautious (Lu et al., 2017). Clinicians can be more distrustful of strangers and be more protective of their families (Barros et al., 2020).

Practitioners' self-trust beliefs have been linked to experiencing personal trauma (see 1.4.1) and the amount of experience they have (see 1.4.2.). Clinicians were more likely to have limited trust in others when working with clients who have abuse histories (see 1.4.3.).

1.3. Factors contributing to VT

1.3.1. Personal trauma

VT theory proposes personal traumas influence cognitive disruptions; if the clinician has experienced personal trauma, their belief systems are more likely to be negatively impacted (Pearlman & Maclan, 1995). It can be difficult to know how much direct traumas affect a person, and what changes experienced are a result of VT – it is important for research to identify levels of personal trauma to contextualise findings.

The presence of a personal trauma history has been linked to developing VT (Baird & Kracen, 2006). Research suggests the presence of personal trauma increases the negative impact on self-esteem beliefs and can result in clinicians doubting their own views more (Bober & Regehr, 2006; Pearlman & Maclan, 1995). There is also evidence for a positive correlation between experiencing direct trauma and being distrustful of other people (Pearlman & Maclan, 1995; VanDeusen & Way, 2006). Individuals who have experienced their own trauma were more likely to have disrupted self-intimacy beliefs (Pearlman & Maclan, 1995). These findings are solely correlational and therefore causation cannot be inferred.

However, there are also perceived benefits for clinicians who have experienced direct trauma – it has been reported that working with clients can help therapists heal from their own traumas (Schauben & Frazier, 1995).

1.3.2. Experience

The extent of a clinician's experience is thought to impact VT; less experienced practitioners have been found to show higher levels of cognitive disruptions (McCormack & Adams, 2016; Michalopoulos & Aparicio, 2012). Professionals who had less experience were more likely to doubt their clinical effectiveness (Iliffe & Steed, 2000; Knight, 2010; Pearlman & MacIan, 1995), and express beliefs they lacked skills (Robinson et al., 2003). When clinicians were less experienced and had less supervisory support, they doubted their own perceptions more (Dunkley & Whelan, 2006; Knight, 2010; Pearlman & MacIan, 1995).

In addition to the impact on esteem beliefs, clinicians with less experience are more likely to have negatively disrupted safety beliefs (Devilly et al., 2009; Knight, 2010), more likely to have disrupted self-intimacy beliefs (Knight, 2010), and more likely to believe they have less control of themselves (Knight, 2010). Practitioners also were more likely to feel they lacked control over their professional lives when they were less experienced (Maslach et al., 2001). These findings are solely correlational and therefore causation cannot be inferred. Interestingly, this is not necessarily felt by practitioners; in a sample of social workers, Berrios and Zarate (2020) found participants felt VT can occur regardless of experience. However, this finding may be explained by the lack of education on VT among participants during their training. Younger clinicians were found to be more likely to have disrupted cognitions (Way et al., 2007); this could suggest life experience also impacts a clinician's likelihood of developing VT.

With increased experience, comes increased exposure to trauma narratives. In their review, Baird and Kracen (2006) found reasonable evidence to suggest the amount of exposure to clients with traumatic narratives (including number of hours and cumulative exposure to clients) increased the likelihood of clinicians developing VT. This conclusion gives evidence to support the views expressed by participants in Berrios and Zarate (2020).

1.3.3. Type of trauma exposure

The type of trauma a clinician is exposed to can affect VT. Some have argued when trauma is inflicted by another person, such as abuse, it is more devastating (McCann & Pearlman, 1990); implying those working clinically with clients who have abuse histories are more vulnerable to VT compared to those who work with clients who have experienced other traumas. Cunningham (2003) found therapists who work with victims of sexual abuse experienced greater VT compared to those working in oncology. However, oncology therapists did differ from sexual abuse therapists in that they had higher caseloads; those working with clients who had experienced abuse may have had less turnover and subsequently, less variety in their caseload (Cunningham, 2003). It may be the variability of caseloads influences the likelihood of developing VT, rather than the nature of the client work.

The type of client trauma the clinician is exposed to can influence the perceived vulnerability to harm; in response to the narratives they had been exposed to, rape counsellors expressed more vulnerabilities to sexual violence, manifesting in cautiousness and increased vigilance (Clemans, 2004). Therapists working with clients who had experienced sexual abuse reported feeling more suspicious of others (Capri et al., 2013; Cunningham, 2003; Drouet Pistorius et al., 2008; Jankoski, 2010), as well as viewing society as denying the existence of sexual violence (Benatar, 2000). Counsellors working with victims of domestic violence stated they were sceptical that non-abusive relationships existed (Clemans, 2004; Goldblatt, 2009).

The age of clients can also affect clinicians; those working with children noticed shifts in their views of how safe the world is and found themselves questioning the motives of others when they saw them with young children (Coleman et al., 2018; Lonergan et al., 2004; Steed & Downing, 1998).

1.4. Conflation of terms

Within the literature, Vicarious Trauma (VT) has been used interchangeably with many other terms such as: secondary traumatic stress (STS), compassion fatigue (CF), and burnout (Sabin-Farrell & Turpin, 2003).

1.4.1 Secondary Traumatic Stress

Secondary traumatic stress is used to describe symptoms, similar to posttraumatic stress disorder (PTSD), in those who have experienced indirect trauma (Figley, 1995). STS can be said to increase in severity, the more an individual is exposed to the traumas of others; however, STS can occur after a single exposure to trauma accounts of others (Figley, 1995). STS is not underpinned by psychological theory - it is based on the Diagnostic and Statistical Manual of Mental Disorders 4th Edition (DSM-IV) PTSD diagnostic criteria (American Psychiatric Association; APA, 2000). Symptoms include avoidance, hyperarousal, and re-experiencing traumatic experiences of others (APA, 2000). The most recent edition of the DSM, DSM-5, states indirect trauma, rather than solely direct exposure to trauma, can lead to PTSD (APA, 2013). Consequently, the two terms (STS and PTSD) could be considered the same concept, potentially pathologising a common effect of being exposed to clients' traumatic narratives.

1.4.2. Compassion Fatigue

Compassion fatigue is proposed to develop in response to empathy for clients' distress (Figley, 1999). Whilst some researchers suggest it can be used interchangeably with STS (Bride et al., 2007), others state it is a distinct term as CF is observed across healthcare settings (Figley, 1999) – whereas STS is seen in professionals who engage in trauma work (Sabin-Farrell & Turpin, 2003). Figley (2002) proposed CF is underpinned by the principle that empathy and emotional energy are necessary for clinicians to work effectively with clients who are suffering. Fostering empathy and compassion can be costly for clinicians as it requires emotional energy to be spent. The likelihood of developing CF increases with exposure, and when memories of a client's distress trigger an emotional response in clinicians. However, Figley's model suggests CF is either present or absent, rather than there being varying levels of CF.

1.4.3. Burnout

Burnout is also considered to be universal to all workers, not distinctly linked to working with trauma. Pines and Aronson (1988) defined burnout as "a state of physical, emotional, and mental exhaustion caused by long term involvement in emotionally demanding situations" (p. 9). Consequently, burnout can apply to the majority of professions, not just for those who work with trauma narratives (Leiter & Schaufeli, 1996).

1.4.4. Summary

Knowing how to reference the impact of working with clients with traumatic narratives is challenging given the number of terms available (Branson, 2019). Whilst the above terms are partially overlapping concepts, they can be conceptually distinguished (Jenkins & Baird, 2002). The key discriminating features of VT are the emphasis on cognitive change (versus CF and STS which are symptom focused; Figley, 1995), the specificity to trauma work (versus CF and burnout; Sabin-Farrell & Turpin, 2003), and the cumulative nature of traumatisation (versus STS; Figley, 1995, 1999). Despite the argument that VT can be distinguished conceptually, the conflation of terms in the literature makes it difficult to isolate VT-specific findings (Najjar et al., 2009).

1.5. Implications of VT

VT is thought to negatively affect the practitioner. Research has found increased experiences of mental health difficulties, such as depression and anxiety (Saakvitne & Pearlman, 1996; Steed & Downing, 1998). Practitioners can experience changes in mood, increased substance use, and reduced intimacy with partners (Saakvitne & Pearlman, 1996). Branson et al. (2014) found a negative correlation between VT and sexual desire; however, the STSS was used to measure levels of VT therefore it is more accurate to say the correlation exists between STS and sexual desire. This demonstrates how terms can be easily conflated in the literature. Lu et al. (2017) found therapists were more likely to be more generally cautious. In other studies, suspiciousness of harm from others has been found specifically in relation to men; clinicians reported being more wary of men (Steed & Downing, 1998) and viewing men as “perverts” (Drouet Pistorius et al., 2008). Practitioners have also reported being worried about their loved ones and warning their children of the potential dangers in the world (Sui & Padmanabhanunni, 2016).

VT is also thought to impact a practitioner’s performance at work: greater levels of absence, arriving later to work, lowered morale, reduced productivity, and being less likely to effectively utilise supervision (Dutton & Rubinstein, 1995; Stamm et al., 2002). Clinicians may also try to avoid hearing their clients' traumatic material (Figley, 1999).

The impact of VT can also reach the client. VT could affect the quality of therapy a client receives by impacting the therapeutic relationship, transference, and countertransference (Moulden & Firestone, 2007). Negatively distorted beliefs are thought to prevent a therapist from providing reasonable care (Lonergan et al., 2004). If a therapist's beliefs about their effectiveness are questioned, they can struggle to observe the client's strengths and clinical improvement (Herman, 1992); this can negatively affect therapeutic interventions. Furthermore, clinical errors are more likely to occur and client care may be affected (Hernandez-Wolfe et al., 2015).

Some researchers have argued VT is less impactful than direct exposure to trauma, resulting in chronic but mild distress (Motta et al., 1997). Clinicians may still function; however, they could be concealing the impact of their work (Lerias & Byrne, 2003). It is difficult to determine what a "normal" response to working with clients with traumatic narratives is, as opposed to the presence of VT, as the literature does not indicate a clear distinction between the two. Measures of the impact of client work vary in their time frames and as most studies are cross-sectional, it is not possible to comment on whether the impact is chronic (Elwood et al., 2011).

1.6. Measures of VT

There are numerous measures of VT including: Post-Traumatic Stress Disorder (PTSD) symptom checklists, the TABS (Pearlman, 2003), and the Vicarious Trauma Scale (Vrklevski & Franklin, 2008); yet, the TABS is most commonly cited in VT research.

1.6.1. The TABS

The TABS originated as an adaptation of the Traumatic Stress Institute Belief Scale Revision L (TSIBS-RL; Pearlman, 1996). Pearlman (2003) stated the TABS arose as a result of: hearing clients' experiences of relationships and traumatic memories; reviewing research on trauma; and using CSDT as a framework to understand the impact of trauma. The TABS was proposed to operationalise the underpinning theory of CSDT and therefore items were created to correspond with the five psychological need areas (identified above).

The TABS is a self-report measure with 84 items rated on a scale of 1 (disagree strongly) to 6 (agree strongly).

1.6.2. VTS

The VTS (Vrklevski & Franklin, 2008) is an 8-item self-report measure of VT; individuals are asked to rate items on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree). It was designed in response to criticisms of the TABS being lengthy (and as a result, time consuming) and expensive to administer (Aparicio et al., 2013). The first two items on the questionnaire ask whether the clinician is exposed to “distressing material and experiences” and/or “traumatised or distressed clients” and the remaining six items are related to the impact of working with these clients. One criticism of the VTS is that the items do not contain any reference to changes in cognition despite Vrklevski and Franklin (2008) acknowledging this is a key element of VT.

The factor structure of the VTS has been questioned. Aparicio et al. (2013) found a two-factor structure (‘affective’ and ‘cognitive’) using a sample of social workers. However, when Benuto et al. (2018) conducted a confirmatory factor analysis with victim advocates, they found a two-factor model did not provide a good fit. It may be that discrepancies in number of factors is a result of differences in responding between the two samples as both studies had similar size samples.

1.6.3. PTSD checklists

There have been several PTSD symptoms checklists used in VT research including the Impact of Events Scale (Horowitz et al., 1979) and the Trauma Symptom Checklist-40 (Elliott & Briere, 1992). Sabin-Farrell and Turpin (2003) state these measures can be problematic in their original formats as they may result in the clinician responding to their own personal trauma experiences; instructions for the checklists need to be amended so practitioners complete them in relation to clients’ traumatic material (see Pearlman & MacIan, 1995).

1.7. Study rationale

Overall, there have been many issues identified with existing measures of VT, especially the most commonly used measure – the TABS. The TABS does not appear to be fully inclusive, as some areas of belief changes are not included; it does not include the measurement symptoms of avoidance, hyperarousal, and intrusions, like those experienced by clients; and the psychometric data are contentious. These concerns raise questions about the suitability of the TABS for measuring VT, despite it being the most widely cited measure.

Further research needs to be undertaken to address these issues; there have been calls from researchers for future studies to create a new measure that can begin to resolve the problems outlined above (Millard, 2015). The present study aimed to meet this research demand by utilising expert opinions to create a new measure of VT. Given the impact that VT can have, and the problems with the most cited VT measure, a more robust measure is needed.

The present study hoped to provide a greater understanding of VT and how it should be measured. It was hoped the study would inform further ongoing research to help to better identify those who are exhibiting signs of VT, and consequently, practitioners may be more likely to access support. This is important as the impact of VT can be far reaching and has the potential to affect both practitioners and have a consequential effect on their clients (as outlined previously).

2. Extended method

Ethical approval is confirmed in Appendix A.

2.1. Phase One: Measurement development

Phase One participant information sheet is presented in Appendix B, and consent form in Appendix C.

2.1.1. Generation of initial item pool

The item pool generation stage should ensure the concept being measured is fully captured; having a large number of items is considered conducive to covering the breadth of concepts (DeVellis, 2016). Whilst a large initial item pool can be advantageous, it is also important to consider the impact on participants. A Delphi methodology can be time consuming and including a large number of items may be burdensome for participants (Gargon et al., 2019). In total, 146 items were included in the initial item pool (see Appendix D).

Four measures were identified, consisting of existing measures of VT (TABS and VTS), as well as established measures of conflated terms (STSS and ProQOL-5); psychometric properties were reviewed, and measures were included. The initial item pool was reviewed by the research team to assess if there were any areas of interest to VT, not covered by the existing items. Following the systematic literature review[23], it was identified items related to suspiciousness/wariness of others and vulnerability in relation to clients and family did not feature in the item pool. Consequently, a further nine items were added to the pool.

There were similar items across the existing measures. DeVellis (2016) reported that during the early scale development process, redundancy of items can be beneficial to enable “irrelevant idiosyncrasies [to] cancel out” (p. 110). However, it is acknowledged that minor differences, such as changing the noun determiner (for example “a” or “the”), mean the items are redundant in content and incidental aspects (DeVellis, 2016). At this early stage in the study, it was felt that all items from the four measures should be included and for the outcome of the Delphi, and participant’s comments, to determine item selection.

Items from the TABS, VTS, and ProQOL-5 were unchanged in the initial item pool. The tense of items from the STSS was changed; items were changed from past to present tense to match the tenses of other items. For example, “I felt emotionally numb” was changed to “I feel emotionally numb”. These changes were made to reduce responder bias which may have occurred if the STSS items remained in their original format.

The initial pool of items included a mix of both negatively and positively valenced items; individuals are prevented from providing affirmative responses to items regardless of their content – response acquiescence (Messick, 1991). Some researchers have suggested opposing valence items can confuse individuals completing the measure, as well as impacting the factor structure (Credé et al., 2009). It was hoped a Delphi methodology would allow experts to assess items’ face and content validity – resulting in poor and confusing items being removed from the item pool. The ratio of positively to negatively valenced items was to be determined by how experts endorsed items. The stability of the measure’s factor structure was to be assessed to establish whether the valence of items impacted it.

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[23] See systematic literature review (to be added for final portfolio)

2.1.2. Items not included in the initial item pool

2.1.2.1. Burnout

Measures of burnout were considered, as it is often a term used alongside secondary traumatic stress and compassion fatigue; however, when items were examined, the research team felt they did not have face validity to VT. The research team felt the items were more representative of general burnout related to stressful jobs, rather than the concept of being traumatised by the content of the client work.

2.1.2.2. Vicarious Post Traumatic Growth

Another VT related term is vicarious post traumatic growth (VPTG); the positive consequence of hearing clients' traumatic narratives where clinicians have reported increased self-confidence, resilience, spirituality, and compassion (Arnold et al., 2005). Validated measures of VPTG include Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996), Positive Changes subscale of the Changes in Outlook Questionnaire (Joseph et al., 1993), and Perceived Benefit Scale (McMillen & Fisher, 1998).

Manning-Jones and colleagues (2015) conducted a novel systematic literature review in which they considered VPTG in comparison to STS. The authors used Canfield's (2005) definition of STS: "the presence of symptoms typically displayed by individuals suffering from Posttraumatic Stress Disorder, but which result from vicarious rather than direct traumatic exposure" (Manning-Jones et al., 2005, p.134) – a nearly identical definition to VT. Manning-Jones et al. (2015) stated these two terms on opposite ends of a spectrum; however, research suggests that both VPTG and STS can co-occur, developing simultaneously (Davis & Macdonald, 2004; Kjellenberg et al., 2014). Other studies have found no relationship between the terms (Gibbons et al., 2011; Taubman–Ben-Ari & Weintroub, 2008). Shiri et al. (2008) proposed the relationship is curvilinear – initially both VPTG and STS increase, but at a point VPTG reaches a plateau and STS continues to increase. Whilst the relationship between VPTG and STS appears to be complicated and contended, the research team agreed that the terms do not appear to be mutually exclusive; it was agreed to exclude items relating to VPTG as a lack of endorsement of these items would not necessarily indicate VT.

2.1.3. Review of initial item pool by experts

It is important for measures and individual items to have content validity – the extent to which they represent the concept they are intended to relate to (Cronbach & Meehl, 1955). DeVellis (2016) proposed content validity can be optimised in a number of ways: 1) asking experts to rate the relevance of items in relation to what it they are supposed to measure; 2) asking experts to identify areas of a construct that have not been included in a measure; and 3) asking experts to comment on the items' sentence structure and readability. In the present study, experts were involved across all three methods to create a new measure through a Delphi methodology.

The Likert scale used in the present Delphi is shown in Appendix E.

2.1.4. The Delphi method

A Delphi approach is an iterative process developed to collate anonymous opinions of experts through 'rounds' of data collection and analyses, as well as feedback from experts (Skulmoski et al., 2007). Responses are anonymised to reduce the impact of social influence and conformity which can affect group-based decision making (see Turner et al., 1979). How experts endorse items in each round determine which items proceed to the next round, and which are removed, based on *a priori* consensus agreement thresholds.

Typically, after each round the experts are provided with information on how other experts have responded. It is hoped this feedback will promote a consensus of ratings amongst experts by considering how other experts have rated the item in comparison – experts can choose to change their ratings based on the feedback provided (Linstone & Turoff, 2002). Some Delphi studies use the feedback as a way to communicate with the experts about decisions, and to foster motivation within participants to engage in the Delphi (Bosun & Modrak, 2014). The purpose of the feedback depends on the aims of the researchers. In the present study, the experts were provided with feedback on how other experts rated each item (see Appendix F).

The Delphi method has been hailed as the 'best practice' approach to identify items with content validity; those which capture the construct of interest (Boateng et al., 2018). The present study is not unique in using a Delphi methodology to develop a new measure; it has previously been utilised to develop measurement tools in a variety of mental health settings. Examples include measuring fatigue in patients with arthritis (Nikolaus et al., 2012), measuring Assessment and Commitment Therapy processes (Francis et al., 2016), and measuring recovery from addiction (Neale et al., 2014). Of particular relevance to the present study, Xiaorong et al. (2020) used a modified Delphi methodology to establish the content validity of a tool measuring disaster resilience of disaster rescue workers.

Analyses are embedded throughout the Delphi; interim analyses and syntheses are performed at each round of the Delphi. Consensus was set *a priori* at 80% in line with best practice (Diamond et al., 2014).

2.1.5. Selecting experts

Experts in VT were collated from a number of sources. A database was created and individuals that met inclusion criteria were added. Fifty experts were sent a message inviting them to take part in the research (Appendix G).

Participants were specifically recruited based on their expertise. Participants were invited from Australia, the United Kingdom, and the United States of America. As the existing research in vicarious trauma has been conducted primarily in these countries, the international nature of the study was justified as the experts were likely to be located in these countries.

In addition to purposeful sampling, a snowball sample was employed. Selected participants were invited to extend the offer of participation to their colleagues. Inclusion and exclusion criteria were provided, and if potential experts were referred to the researcher team, they were checked against the criteria to ensure they were eligible to take part.

As an incentive to participate, participants were given the option to waive their anonymity (once the Delphi had been completed) in exchange for an acknowledgement in the final submission and any journal articles.

2.1.6. Selecting experts for Delphi studies

The expert panel is a crucial part of a Delphi study and in order to collect high quality data, the selection and configuration of the panel is important to consider (Taylor-Powell, 2002). Despite this, there are no specified guidelines to advise on the selection and recruitment of experts (Hsu & Sandford, 2007). It is essential for potential experts to have in-depth knowledge of the subject of the study; furthermore, individuals should be open to changing their perspectives to be able to reach a consensus (Oh, 1974).

The number of experts needs to be sufficient to allow a range of viewpoints. Linstone and Turoff (2002) state 10 is the minimum number of experts; however, Ludwig (1997) state Delphi studies typically have 15 to 20 experts. The value of increasing the number of experts has been questioned – some research suggests there is no evidence of a correlation between the reliability and validity of the consensus building process and the number of experts (Murphy et al., 1998). Hasson et al. (2000) suggest Delphi study sample sizes should consider several factors: 1) the extent of the subject of the Delphi; 2) the time and financial resources needed for the rating process; 3) the potential for participant fatigue and amount of burden resulting from the rating process; and 4) the total time participants are needed to commit to the Delphi.

2.1.6.1 Inclusion criteria

Participants were required to be able to provide informed consent to satisfy the ethical approval of the study. To warrant ‘expert’ status, participants were required to meet at least one of the following: 1) have worked in a direct client facing role (for example as a therapist) with clients with traumatic narratives for a minimum of five years; 2) have published a minimum of one study on vicarious trauma which has been cited externally, at least once; and 3) have provided training to practitioners about vicarious trauma in the workplace (for example staff wellbeing service trainers). The research team agreed these three criteria would give individuals enough experience to understand and comment on the face validity of items in regard to VT.

2.1.7. Attrition in Delphi studies

According to data from JISC Online Surveys (JOS), eight individuals provided consent to take part in the study but did not complete the survey. Due to the structure of JOS, it was not possible to retain any data from these individuals (see *extended discussion* 4.3.) Participants were removed from round two if they did not complete the survey within the allocated one-month period, due to the time-limited nature of data collection. Email reminders were sent to participants who had not responded at 7 and 14 days after the initial survey was sent. There was a three-week period between round one and round two to process the responses from round one and create the individual surveys for experts in round two. Two Delphi rounds were conducted in the present study. Most Delphi methodologies have two rounds; once there are more than two rounds, attrition rates can increase (McMillan et al., 2016).

2.1.8. Consensus definition

Best practice guidelines for reporting Delphi studies were reviewed (Diamond et al., 2014), and a four-stage framework was referred to in the development of Phase One (see Table 15). The guidelines were developed from a systematic literature review of Delphi studies and the limitations found across studies – one of which was no predefined consensus level. In studies where consensus was defined *a priori*, a number of methods were used to operationalise consensus: 1) using a predefined formalised measure of agreement such as Cronbach’s alpha; 2) using percentage of agreement cut-off scores; 3) using percentage of disagreement cut-off scores; and 4) observing decreased variability in responses between rounds.

The research team followed guideline (2) and used percentage of agreement to determine consensus. Of the studies reviewed defining consensus by percentage agreement, Diamond et al. (2014) found percentages ranged from 50-98%. In the present study, a threshold of 80% agreement was chosen as consensus criteria; 80% is recognised in general psychometric literature as a suitable level of reliability (Nunnally & Bernstein, 1994).

Table 15

Suggested key methodological criteria to report in publications of Delphi consensus studies (adapted from Diamond et al., 2014)

	Criteria
1. Study objective	Does the Delphi study aim to address consensus? Is the objective of the Delphi study to present results (e.g., a list or statement) reflecting the consensus of the group, or does the study aim to merely quantify the level of agreement?
2. Participants	How will participants be selected or excluded?
3. Consensus definition	How will the consensus be defined? If applicable, what threshold value will be required for the Delphi to be stopped based on the achievement of consensus? What criteria will be used to determine when to stop the Delphi in the absence of consensus?
4. Delphi process	Were items dropped? What criteria will be used to determine which items to drop? What criteria will be used to determine to stop the Delphi process, or will the Delphi be run for a specific number of rounds only?

If consensus is never reached, in theory there can be an infinite number of rounds in a Delphi; three or four rounds is considered sufficient to allow for an in-depth discussion about the subject whilst bearing in mind the time taken, related costs, and implications for participants (including fatigue and burden). Kalaian and Kasim (2012) suggest in most Delphi studies, three rounds are necessary to reach consensus (as determined *a priori*). However, others propose if consensus is not achieved, the Delphi process should cease when further rounds yield no new information (Linstone & Turoff, 2002). Taking all of these ideas into consideration, the research team decided three rounds would be the maximum number of rounds administered; however, the Delphi could be stopped earlier if consensus was reached after two rounds. Consensus levels for items presented in round two are shown in Appendix H.

2.1.9. Results of the Delphi: Formatting the measure

In round two, experts were also asked to provide their views on how to format the measure. Experts were asked how they thought the items should be linked to the context of working with clients. They were presented with four examples of how it could be worded (as proposed by the research team; see Table 16), as well as having the option to provide their own suggestion. The preferred choice by was “Since I began working with [clients] with traumatic narratives I have noticed”; the two experts who selected “other” stated they preferred the “Since…” option but wanted the wording of “traumatic narrative” to be changed.

When formatting a measure, DeVellis (2016) propose a balance is needed between providing participants with enough options to allow adequate responses, and not having too many options that may leave respondents fatigued. It is also important for participants to be able to discriminate between options – a consequence of the wording and appearance of response options.

Table 16

Expert responses for how to link items to the context of the impact of working with clients

Which of the following would be the best way to link the items to the context of the impact of working with [clients]?	Number of experts (%)
Since I began working with [clients] with traumatic narratives I have noticed	5 (38.5%)
As a result of working with [clients], I have noticed...	2 (15.4%)
Through my [client] work, I have noticed	2 (15.4%)
In relation to my work with clients I have noticed	2 (15.4%)
Other	
“The “Since…” option but change 'traumatic narrative' wording”	2 (15.4%)

Experts were also asked to select how items should be scored. Given the choice of scoring each item relating to its frequency (how often it occurs), its intensity (how strongly it occurs), both frequency and intensity, or any other method of scoring. The most commonly selected option was to score each item on both frequency and intensity (see Table 17). The one person who selected “Other” suggested there should be “one summary scale” instead of the options presented.

Table 17

Expert responses for how items should be scored

How do you think items should be scored?	Number of experts (%)
Frequency	4 (30.8%)
Intensity	1 (7.7%)
Both frequency and intensity	7 (53.8%)
Other:	
“Just one summary scale i.e., to a great extent vs not at all”	1 (7.7%)

An example of the wording of frequency scoring options was provided: “Not at all”, “Occasionally”, “Often”, “Very often”, and “Everyday”. Experts were asked whether they would make any changes to these options; three experts responded. One expert stated, “Everyday” should be removed, another proposed the options should be “Never, Rarely, Sometimes, Often, All of the time”, and the third suggested “Never, Rarely, Occasionally, Often, Very often”.

An example of the wording of intensity scoring options was provided “Not at all”, “Slightly”, “Somewhat”, “Definitely”, and “Extremely”. Experts were asked whether they would make any changes to these options; two experts responded. One suggested to change “Definitely” to “Often” and the other proposed the options should be “Not at all, Mildly, Moderately, Very, Extremely”

Experts were also asked whether they thought the measure should include a question about the duration of time they have experienced items for. Of the 13 respondents, 7 said “no”, and 6 said “yes”.

2.2. Phase Two: Testing the dimensionality, validity, and reliability of the TMVT

Phase Two participant information sheet is presented in Appendix I; the consent form is presented in Appendix J.

2.2.1. Participants

When developing a new measure, it is important to have a satisfactory sample size in order to avoid: a poor representation of the target population in the sample; restricting the target attribute in the sample compared to the population; and artificially impacting reliability coefficients through unstable patterns of covariation between items (DeVellis, 2016). However, there is no one definition of what constitutes ‘satisfactory’. It has been suggested 300 participants is adequate for validating a new measure (Clark & Watson, 1995; DeVellis, 2016), whereas other researchers state 200 participants is acceptable (e.g., MacCallum et al., 1999). Sample sizes for exploratory factor analysis are discussed later (see *extended method* 2.3.3.).

For Phase Two, online forums were used to recruit a sample of practitioners including: UK based Clinical Psychology Facebook Group; Social Worker Group UK: Adult Social Workers (Facebook Group); and Integrative Counselling and Psychotherapy Network, UK (Facebook Group).

2.2.1.1. Inclusion/exclusion criteria and justification

Inclusion criteria:

- Participants were required to provide informed consent, in order to satisfy the ethical approval of the study.
- Participants were required to be practitioners who have worked with people who have shared their traumatic narratives as these individuals are likely to experience VT. There were no parameters placed in relation to how many years practitioners had been in these roles, or their designation.
- Participants were required to be able to complete the questionnaire online; due to the coronavirus pandemic, it was not possible for participants to complete printed questionnaires for infection control purposes.

- Participants were required to be based in the UK to attempt to minimise the impact of extraneous variables such as geographical location. Service provision can vary greatly between countries, even ‘Westernised’ countries which can be considered to be similar in many ways; for example, the provision of mental healthcare in the UK is routinely provided by the state, whereas in other Westernised countries (such as USA and Australia) it can be expensive, unless covered by insurance policies.

Exclusion criteria.

- Participants were excluded from taking part in Phase Two if they were involved in the Delphi process as it was felt it could affect how they respond to the measure.

2.2.1.2. Non-completing individuals

The study was hosted on JISC Online Surveys (JOS) which allowed for observations on respondent progress – how far individuals got through the survey (as demonstrated by number of clicks in Table 18). The number of clicks from individuals does not indicate absolute numbers; one person may click on the link many times which would increase the counter, but it would only be one person. There were 153 individuals who consented (progressing past page 2) but did not complete the study. Whilst 129 individuals provided their demographic information (page 3 onwards), JOS does not save data unless an individual completes the survey meaning their information is not available (see *extended discussion* 4.3.).

Table 18

Individuals’ progress in Phase Two

Page	1	2	3	4	5	6	7	8	9	10
Number of clicks	910	81	24	42	57	23	6	1	0	206

Note: 1: Information sheet; 2: Consent form; 3: Demographic information; 4: LEC; 5: TMVT; 6: TABS; 7: ProQOL-5; 8: Short-form MCSD; 9: Consent to future contact; 10: Completion page.

2.2.2. Design

The JOS platform was designed to allow participants to see their progress through the survey (defined by percentage completed). It was decided by the research team that the TMVT should be placed towards the start of the survey to ensure data was collected (at the time of creating the survey, the research team were unaware of the limits of JOS, should a participant not complete the survey) and for this to be followed by the TABS, the longest measure. Each measure was presented on a new page, with the relevant directions for completion. On page nine, participants were asked if they would like to be contacted in the future regarding the prize draw, and for information about the project submission.

2.2.3. Measures: Convergent and discriminant validity

Measures are presented in full (apart from the TABS) in Appendix K.

Despite identifying many criticisms of the TABS, it remains the most commonly used measure for VT. Therefore, the TMVT's convergent validity was assessed by comparing the TMVT with the TABS to see how well it mapped onto an established measure of VT. Furthermore, the TABS was chosen as compared to the other established measure of VT, the VTS, the TMVT contained fewer items from the TABS, meaning the correlational analyses would be less inflated. It was expected a moderate-high positive correlation would be observed between the TMVT and the TABS, as they are both attempting to measure similar constructs. Given the criticisms identified regarding the questionable utility of the TABS in measuring VT, it was hoped very high correlations would not occur.

The TMVT's discriminant validity was established by comparing it to a measure of social desirability – expected to have a negligible relationship to VT. The Marlowe-Crowne Social Desirability scale (MCSD; Crowne & Marlowe, 1960) consists of 33 items and seeks to measure when an individuals' responses are based on seeking the approval of others (social desirability). Participants are asked to circle 'True' or 'False' in relation to items; higher scores imply responses are more socially desirable. Following its initial creation, other researchers have proposed shorter versions. A confirmatory factor analysis (CFA) and item scale analyses were conducted by Loo and Loewen (2004) to evaluate different short-form MCSD scales in comparison to each other, and to the full MCSD. The study concluded Ballard’s (1992) short-form MCSD was the most favourable based on adjusted goodness of fit and root mean square error of approximation fit indices. For the present study, Ballard’s (1992) 13-item MCSD was chosen instead of the full MCSD to reduce the burden on participants and limit the fatigue experienced when too many items are included in a survey (Hoerger, 2010). It was expected there would be a minimal correlation between the TMVT and the short-form MCSD.

Discriminant validity was also assessed using the Life Events Checklist (LEC) - used to measure whether participants had experienced personal traumas, in addition to the indirect trauma they are exposed to through their work and personal relationships (Weathers et al., 2013). The checklist includes 17 types of traumatic events, including one item measuring ‘other’ traumatic events. Participants are asked to tick each item in relation to how they have experienced it (‘Happened to me’; ‘Witnessed it’; ‘Learned about it’; ‘Part of my job’; ‘Not sure’; or ‘Doesn’t apply’).

One of the criticisms identified of the TABS was by providing reference values for different populations, it implied practitioners differ from their clients in their personal traumas, when research suggests this is not the case (Pearlman & Maclan, 1995; VanDeusen & Way, 2006). Consequently, it was expected there would be a minimal correlation between the TMVT and the LEC. The relationship between the LEC-5 and the TABS was hypothesised to have a stronger correlation as the TABS was originally intended to be a measure of direct trauma, therefore it could be argued higher scores on the measure may be related to the experience of direct trauma.

2.2.4. Measures: Concurrent validity

The Professional Quality of Life scale (ProQOL-5; Stamm, 2010) was chosen as it comprises of three subscales (compassion satisfaction, CS; burnout, BO; and secondary traumatic stress, STS) encapsulating constructs considered related, but distinct, to VT. The self-report measure asks participants to consider how frequently they have experienced each item in the last 30 days. A five-point Likert scale was used (1 = ‘Never’; 2 = ‘Rarely’; 3 = ‘Sometimes’; 4 = ‘Often’; 5 = ‘Very Often’). The ProQOL-5 was chosen over other measures such as the Secondary Traumatic Stress Scale (Bride et al., 2004) to measure a number of distinct concepts efficiently, and to reduce the burden (and related attrition) on participants. It was predicted higher scores on the TMVT would correlate with lower CS, higher BO, and higher STS.

2.3. Analysis

2.3.1. Coding data

2.3.1.1. Life Events Checklist

There are no standardised ways to interpret the LEC, it is used mainly as a clinical tool. For the present study, data were coded in relation to whether participants had experienced traumatic events directly (‘Happened to me’ and/or ‘Witnessed it’), indirectly (‘Learned about it’ and/or ‘Part of my job’), or those who had not experienced traumatic events (‘Not sure’ and/or ‘Doesn’t apply’). Data was examined and if a participant selected ‘Happened to me’ and/or ‘Witnessed it’ for an item, it was coded as ‘2’. If they selected ‘Learned about it’ and/or ‘Part of my job’ for an item, it was coded as ‘1’. If they selected ‘Not sure’ and/or ‘Doesn’t apply’, it was coded as ‘0’. Where participants selected multiple responses, scores were based on the most direct exposure; for example, if participants selected ‘Witnessed it’ and ‘Part of my job’ for an item, they would score ‘2’ as ‘Witnessed it’ is considered as direct exposure to the traumatic event.

2.3.1.2. The TMVT

The initial version of the TMVT presented to participants, is presented in Appendix K.

Participants were asked to rate the frequency and intensity for each TMVT item. Other measures such as the Revised Memory and Behaviour Problems Checklist (RMBPC) also record the intensity and frequency of items (Teri et al., 1992). In line with RMBPC, item frequency was coded as: ‘Never’ = ‘0’, ‘Occasionally’ = ‘1’, ‘Often’ = ‘2’, ‘Very often’ = ‘3’, and ‘Always’ = ‘4’. The research team decided to start the scoring at ‘0’ to reflect a lack of an individual experiencing the item. Item intensity was coded as: ‘Not at all’ = ‘0’, ‘A little’ = ‘1’, ‘Moderately’ = ‘2’, ‘Very much’ = ‘3’, and ‘Extremely’ = ‘4’. To incorporate both frequency and intensity, a combined score was computed for each item; the scores were multiplied to create an overall score for each item. The minimum score for each item was 0 and maximum score was 16 (‘Always’ [4] X ‘Extremely’ [4]). Further in line with the RMBPC (Teri et al., 1992), when frequency was rated as ‘never’, the intensity was set as ‘not at all’ as a default; it does not make sense for an item to be coded in regard to intensity if it is not experienced at all.

2.3.1.3. TABS

Data were coded in line with the TABS manual (Pearlman, 2003). The majority of items were coded as: ‘Agree strongly’ = ‘1’, ‘Agree somewhat’ = ‘2’, ‘Agree’ = ‘3’, ‘Disagree’ = ‘4’, ‘Disagree Somewhat’ = ‘5’, ‘Disagree Strongly’ = ‘6’. Twenty-two items were reverse scored (items 1, 7, 8, 9, 12, 14, 20, 21, 27, 29, 38, 42, 44, 47, 49, 51, 58, 62, 65, 68, 70, and 77): ‘Agree strongly’ = ‘6’, ‘Agree somewhat’ = ‘5’, ‘Agree’ = ‘4’, ‘Disagree’ = ‘3’, ‘Disagree Somewhat’ = ‘2’, ‘Disagree Strongly’ = ‘1’.

2.3.1.4. ProQOL-5

Data were coded in line with the ProQOL-5 manual (Stamm, 2010): ‘Never’ = ‘1’, ‘Rarely’ = ‘2’, ‘Sometimes’ = ‘3’, ‘Often’ = ‘4’, ‘Very Often’ = ‘5’. Five items were reverse coded (items 1, 4, 15, 17, and 29): ‘Never’ = ‘5’, ‘Rarely’ = ‘4’, ‘Sometimes’ = ‘3’, ‘Often’ = ‘2’, ‘Very Often’ = ‘1’. Three subscales were calculated. The Compassion Satisfaction (CS) subscale was calculated by summing items 3, 6, 12, 16, 18, 22, 24, 27, and 30. The Burnout (BO) subscale was calculated by summing items 1, 4, 8, 10, 15, 17, 19, 21, 26, and 29. The Secondary Traumatic Stress (STS) subscale was calculated by summing items 2, 5, 7, 9, 11, 13, 14, 23, 25, and 28.

2.3.1.5. MCSD

Data were coded in line with recommended scoring (Ballard, 1992): ‘True’ = ‘1’ and ‘False’ = ‘0’. Eight items were reverse scored (items 1, 2, 3, 4, 6, 8, 11, 12): ‘False’ = ‘1’ and ‘True’ = ‘0’. A total score was created by summing items together; the minimum score was 0, maximum score 13.

2.3.2. Content analysis of comments about completing the TMVT

Participants were asked to comment on their experience of completing the TMVT. Content analysis (CA) was used to analyse responses. It is considered a flexible method of analysing text data as the type of CA can be chosen to suit the theory or issue being studied (Weber, 1990).

It is a mixed method approach as it begins with qualitative analysis of the content of the text which forms categories, then the categories’ frequencies are analysed at a quantitative level (Mayring, 2014). Hsieh and Shannon (2005) suggest there are three types of CA: conventional, coding categories originate from the text data directly; directed, using existing theory as guidance for initial codes; and summative, counting and comparing key words or content, then providing interpretations. There was no underlying theory to shape codes around how the TMVT was experienced which meant directed CA was not appropriate. Conventional CA was chosen as the most appropriate approach.

Rather than using a deductive approach to identify codes and categories, an inductive approach was taken; the process was guided by Erlingsson and Brysiewicz (2017). Firstly, free text responses were reviewed. They were analysed into meaning units (sections of the text that convey different meanings). From here, codes were created (descriptive labels) for the meaning units. Codes are not intended to provide any interpretations at this stage, they allow for connections to be made between different meaning units. Codes were then sorted into categories to summarise individual codes of similar meaning. Once the categories were established, a quantitative approach (counting the frequency of each category) was applied to the data.

2.3.3. Sufficient sample size for factor analysis

When conducting a factor analysis, the larger the sample size, the better (Comrey & Lee, 1992; Kline, 2014; MacCallum et al., 1999); there are a range of recommendations for sample sizes. Some researchers recommend a minimum of 100 participants (Gorsuch, 1983; Kline, 2014); however, Comrey and Lee (1992) quantify sample size cut-offs: 50 is ‘very poor’, 100 is ‘poor’, 200 is ‘fair’, 300 is ‘good’, 500 is ‘very good’’, and 1000 ‘excellent’. It is also recommended to consider the ratio of participants to number of variables (Kline, 2014); ratios have ranged from 3 to 6 times the number of variables (Cattell, 1978), 10 times the number of variables (Everitt, 1975), up to 20 times the number of variables (Hair et al., 1995).

Other methods of quantifying sufficient sample size have been proposed. Mundfrom et al. (2005) present further guidelines on calculating sample size based on: the number of factors expected, the ratio of variables to factors, and the level of predicted communality, for both “good” and “excellent” agreement between sample and population solutions (*K* values of ≥ .92 and .98, respectively). For the present study, given 16 items were identified, and theory-based expectations of 5 or fewer factors (based on CSDT), the minimum number of participants necessary was 1300 - to assure a good level of agreement (≥ .92) between population and sample solutions under any communality conditions (Mundfrom et al., 2005). It is important to acknowledge the five factor CSDT may not be the most appropriate underpinning for VT; should there be fewer factors, the recommended sample size will also be smaller.

The recommendations regarding sample size are not hard rules, they are guidelines. Whilst recruitment did not yield Mundfrom et al.'s (2005) recommended sample size of 1300, the obtained sample size of 206 did meet a 'fair' rating by Comrey and Lee (1992) and satisfied Everitt's (1975) variable-to-participant ratio.

3. Extended results

3.1. LEC-5 descriptive statistics

Data from all 206 participants is presented in Table 19. The most common directly experienced traumatic events were 'physical assault', closely followed by 'other unwanted or uncomfortable sexual experiences'. The least common directly experienced traumatic events were 'exposure to toxic substances' and 'combat or exposure to a war-zone'. The most common indirectly experienced traumatic event was 'sudden violent death'. The least common indirectly experienced traumatic events were 'exposure to toxic substances', closely followed by 'serious injury, harm, or death you caused to someone else'. Overall, participants were least likely to have experienced 'serious injury, harm, or death you caused to someone else'.

Table 19

Frequency of traumatic life events as measured by the Life Events Checklist

Traumatic event	Directly experienced	Indirectly experienced	Not experienced
Natural disaster (for example, flood, hurricane, tornado, earthquake)	31	42	133
Fire or explosion	32	65	109
Transportation accident (for example, car accident, boat accident, train wreck, plane crash)	87	53	66
Serious accident at work, home, or during recreational activity	42	69	95
Exposure to toxic substance (for example, dangerous chemicals, radiation)	9	30	167
Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	119	65	22
Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	47	76	83
Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)	56	100	50
Other unwanted or uncomfortable sexual experience	117	60	29
Combat or exposure to a war-zone (in the military or as a civilian)	9	82	115
Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)	11	70	125
Life-threatening illness or injury	96	69	41
Severe human suffering	45	100	61
Sudden violent death (for example, homicide, suicide)	34	123	49
Sudden accidental death	29	88	89
Serious injury, harm, or death you caused to someone else	13	33	160
Any other very stressful event or experience	105	47	54

3.2. Descriptive statistics for the TMVT

Table 20 presents descriptive statistics for the TMVT. The least endorsed item was “*I think about my work with [clients] when I don’t intent to*” which implies individuals feel this item is not as relevant compared to other items. Items in the DW factor were the most endorsed items; however, they also had the largest variation of item scores. The smallest range in scores (0 – 6) was found in two items: "*Sometimes I feel helpless to assist [clients] in the way I would like*” and “*I find it difficult to separate my personal life from my professional life*”.

These descriptive statistics could be useful for the future development of the TMVT. Data regarding the range of scores could be used to adjust scoring options; as only one item reached maximum score (item 13), it may indicate the scoring options need to be changed. These descriptive statistics could also be used to decide which items to retain for any short-form versions, or for removing one item from the DW factor as they are extremely similar.

Table 20

Mean, standard deviation (S.D.), and range for each item of the TMVT

	Item	Item score		
		Mean	S.D.	Range
1	I have been affected by the traumatic stress of [clients] I have worked with	2.56	1.86	0 – 9
2	I find it difficult to separate my personal life from my professional life	1.31	1.04	0 – 6
3	It is hard to stay positive and optimistic given some of the things I encounter	2.40	2.03	0 – 12
4	I am overwhelmed by worries about the safety of [clients] I have worked with	2.27	1.83	0 – 9
5	I feel cut off from people	1.74	2.04	0 – 12
6	I want to avoid working with some [clients]	1.51	1.53	0 – 9
7	I think about my work with [clients] when I don't intent to	.94	1.38	0 – 9
8	I find myself thinking about distressing material related to my work with [clients] at home	1.41	1.62	0 – 9
9	I avoid people, places, or things that remind me of my work with [clients]	2.04	1.88	0 – 9
10	I feel worn out because of my work with [clients]	1.79	1.79	0 – 12
11	Sometimes I feel helpless to assist [clients] in the way I would like	1.18	1.24	0 – 6
12	I believe the world is dangerous	2.94	2.71	0 – 12
13	I see the world as a dangerous place	3.06	2.85	0 – 16

Note: means and S.D. all rounded to 2 decimal places

3.3. Content analysis of comments about completing the TMVT

First, responses were broken down into meaning units, further simplified to create condensed meaning units (where appropriate), and finally, codes were created (see Table 21).

Table 21

An example of the progression from meaning unit to code

Meaning unit	Condensed meaning unit	Code
I liked how the measure used frequency and intensity	Liked frequency and intensity	Liked scoring
Definitely made me think about my own wellbeing and the impact of my work on my own mental health	Think about impact of work	Opportunity to think

Codes were combined to categories (see Table 22) – six categories were identified (see Table 23). The data was reviewed again using the codes to calculate the frequency within responses (see Table 23).

Table 22

Combined codes and their categories

Thought provoking	Difficult to separate personal and client trauma	Difficult to score	Acknowledging personal strengths	Good measure	Challenging to complete
Realised impact	What existed before client work	Hard to quantify	Identify resilience	Relevant content	Complicated
Not considered before	What is my own trauma?	Awkward scoring	Appreciative for personal strengths	Liked scoring	Emotionally difficult
Insightful	Difficult to separate traumas	Difficult to pick one answer	Thankful for supervision	Easy	Triggering
Searching		Hard to rate intensity	Personal strategies helpful	No problems	Repetitive
Made me reflect		Difficult to rate both intensity and frequency			Not catch all
Eye opening		Difficult to rate intensity when frequency is ‘never’			
Highlights impact		Could answer in different ways			
Opportunity to think					
Interesting					

Table 23

Categories and their frequency

Category	Frequency
Good measure	129
Thought provoking	86
Difficult to score	33
Challenging to complete	33
Acknowledging personal strengths	14
Difficult to separate personal and client trauma	10

3.4. Identification of the TMVT's factor structure

Factor analyses are used to comprehend the components of a measure when more than one latent variable is said to underpin a series of items (Floyd & Widaman, 1995). According to Ferguson and Cox (1993) a factor analysis can either: 1) 'confirm' a measure's previously established factor structure by examining the 'fit' of new data to the measure (for example a confirmatory factor analysis; CFA); or 2) 'explore' the underlying factor structure, without any specified factors, using the data provided (an exploratory factor analysis; EFA).

Given the criticisms discussed previously related to the underpinning theory of VT, CSDT, it was felt by the research team that an inductive process, rather than deductive, was more appropriate. Consequently, an EFA was performed. As recommended within the literature on test development, future research can examine the TMVT's factor structure to see if the two-factor structure remains using a CFA with different samples.

3.4.1. Adequacy of sample size for factor analysis

In the literature, the number of cases needed to conduct an EFA is disputed. Some suggest a subject-to-variable ratio is most important (e.g., Kline, 1979), whereas others suggest the key is absolute number of cases (e.g., Comrey & Lee, 1992). Despite arguments for both approaches, MacCallum et al. (1999) state the literature does not argue for one over the other. EFA sample size adequacy can also be determined statistically by performing the Kaiser

Meyer Olkin (KMO) Test (Kaiser, 1970) and Bartlett's Test of Sphericity on a known dataset. The KMO Test results in a value between 0 and 1; higher values are considered better, a minimum KMO value of .5 is needed to have an adequate sample size to conduct an EFA (Kaiser, 1974). Hutcheson and Sofronious (1999) propose guidelines for KMO value categories: >.7 ('middling'); >.8 ('meritorious'); and .9 ('marvellous'). Bartlett's Test of Sphericity looks to examine whether the correlation matrix is significantly different from an identity matrix. If significant, the correlations between variables are, overall, significantly different from zero – the desired outcome (Field, 2013).

3.4.2. Extraction method

Principal Axis Factoring (PAF), a type of EFA (Pett et al., 2003), was chosen to extract factors – it is considered a useful method of extraction for exploring an underlying factor structure in measures (Field, 2013). Other common extraction methods, such as Principal Components Analysis (PCA) may produce similar results; however, PAF acknowledges that due to error, each item does not perfectly encapsulate its intended construct, which PCA fails to acknowledge. PAF examines the shared variance between variables instead of the unique variance of individual items (Kline, 1998). It is desirable to allow for random error with each of the measure's items when theory is intended to be developed, or if the measure's underlying factors are to be generalised to broader populations. To generalise the data in the present study, the data would need to be cross-validated using different samples to establish whether the TMVT's factor structure remains.

3.4.3. Selection of rotation method

Rotation within factor analysis aims to simplify the factor structure, maximising high loading, and minimising low loadings to create clearer distinctions between factors (Williams et al., 2010). The benefit of applying a rotation method is it permits a clearer interpretation of the factors underpinning a measure. If factors are assumed to be uncorrelated, an orthogonal rotation method is indicated; however, when there is the potential for factors to correlate as part of an overarching factor, oblique rotation is recommended (Nunnally & Bernstein, 1994). It is widely considered within social sciences that factors are considered to correlate to an extent; it is challenging to separate the human experience into distinct units (Costello & Osborne, 2005).

CSDT is assumed to be an underlying model of VT (and therefore considered relevant to the TMVT); despite it indicating a five-factor model of VT, all proposed areas can be considered to be interrelated. Consequently, an oblique rotation method was chosen when analysing the TMVT, to allow for the relation between factors to be considered. Using an oblique rotation is in line with factor analyses for other measures of VT; Benuto et al. (2018) conducted a confirmatory factor analysis for the VTS using oblique rotation, as did Aparicio et al. (2013).

It is of note that some authors suggest the choice of rotation method has little impact on the goal of producing a simplified structure in factor analysis (Kim & Mueller, 1978); if factors are truly uncorrelated (as assumed by orthogonal rotation methods), orthogonal and oblique rotation produce nearly identical results anyway (Costello & Osborne, 2005).

3.4.4. Criteria determining the number of factors to extract

There are several suggested criteria for determining factor extraction within factor analysis. Williams et al. (2010) suggest using multiple criteria (rather than one) to minimise the weaknesses of the criteria, which can occur when used separately. In the present study, Parallel Analysis was used to select the number of factors to extract; it is considered by many to be the most accurate method (Velicer et al., 2000; Zwick & Velicer, 1986). Parallel Analysis involves generating random eigenvalues from randomly generated correlation matrices, which are then compared to the dataset's actual eigenvalues. Factors are retained when the actual eigenvalues exceed those randomly generated at $p < .05$.

It is not possible to conduct Parallel Analysis in SPSS, instead an online 'Parallel Analysis Engine' was used (Patil et al., 2017). The generated eigenvalues were based on conducting a PCA, instead of PAF. O'Connor (2000) created the macros used for the Parallel Analysis Engine and suggest despite arguments that extraction methods should be kept separate, there is no definitive evidence to support this idea. In fact, there is some evidence to suggest using PCA-based random eigenvalues to determine factor extraction in PAF can perform equally as well, if not better than using PAF-based random eigenvalues (see Ruscio & Roche, 2012). In further support, PAF-based random eigenvalues are often small and overly cautious which results in more factors being retained.

The initial PAF analysis is presented in Appendix L.

3.5. Choosing which items to exclude/retain

Items are selected for retention by reviewing the specificity and extent of items' factor loading; for a simple factor structure, items should highly and singularly onto one factor, and minimally onto other unrelated factors (Kline, 2014). There are various proposed thresholds for item retention. Ferguson and Cox (1993) define items should be removed if they have: 1) factor loadings on all factors < .4 (low loadings); or 2) load on to more than one factor > .4 (factors cross-load). Tabachnick and Fidell (2007) proposed alternative thresholds for removing items: 1) all factor loadings <.45; and 2) cross-loading items where primary and cross-loading factor(s) are within .2 (i.e., loadings of .415 and .587 would result in the item being excluded). Whilst these are two distinct criteria, albeit arguably subjective, there is little evidence to support one over the other.

In the present study, the research team decided to use a more liberal threshold of .4 to avoid the possibility of items loading onto one single factor – the factor is likely to be internally coherent but can be too narrow; internal consistency comes at the cost of content validity. When factor loadings were examined, it was found that all loadings were > .45 which inadvertently met the criteria for Tabachnick and Fidell (2007). A total of three items were removed from the TMVT.

Items removed from the TMVT due to insufficient factor loadings are presented in Appendix M.

4. Extended discussion

4.1. Strengths of the Delphi Methodology

A strength of the Delphi methodology is it permits a range of experts to participate (Grant & Kinney, 1992). Experts are likely to reside in a range of geographical locations and given the nature of their expert status, they are likely to be busy with their working lives (Vernon, 2009). If a face-to-face approach were to be used to establish consensus (such as a group discussion), it would be challenging to bring together all the experts in one room, especially as the expert panel in the present study were international. It would have resulted in a large financial cost to gather all the experts in one location and would have placed restrictions on the process to consider when all the experts could be in one place. It may have been possible to gather experts in the UK; however, if the experts had all been from the UK, it may have resulted in a measure that was less generalisable as the inclusion of experts from Australia and the USA (countries that have published a number of studies on VT). The benefit of the Delphi methodology is it mitigates these challenges; experts can complete the measure online and have a window of time in which to do so – giving them some flexibility in when they complete the rounds. Furthermore, in the current climate where COVID-19 is affecting both domestic and international travel, being able to conduct the study remotely was especially useful.

A Delphi methodology is also beneficial as it allows for a flexible approach to the study's design – the Delphi can be tailored to the needs and context of the research (Williams & Webb, 1994). The researcher is able to establish a consensus level and panel size to suit the study – as any issues arise, the design of subsequent rounds can be adapted to deal with such issues (Vernon, 2009). However, the flexibility, and the resultant variations of Delphi studies, can also be perceived as a limitation. Sackman (1975) concluded that because there are a range of studies described as following a Delphi methodology, it has resulted in the definition of a Delphi being unclear. There is a greater potential for poor execution of Delphi studies compared to other research methods (Vernon, 2009); Linstone (2002) identified examples of poorly implemented Delphi studies and found those considered to be 'poor', demonstrated problems with their methods. It is argued the issue of a lack of prescribed conditions can be minimised by researchers presenting valid justifications as to why they have chosen certain parameters (Vernon, 2009).

The Delphi methodology permits anonymity in that experts' responses are not attributed to a specific individual. Anonymity is advantageous as it mitigates any face-to-face disagreements such as one expert causing offence to another, which can ultimately lead to healthy group dynamics disintegrating and impacting the group decision making (McKenna, 1994). Anonymity also encourages freedom of expression as experts know they cannot be identified through their responses, and as a result may be more comfortable to provide their true views (Vernon, 2009). Linstone and Turoff (2002) describe Delphi studies as creating “participatory democracy” (p. 486): expert’s responses are equally weighted; experts have undisputable freedom to express their views; and opinions are shared without direct influence from other experts – there is no impact of the rank or status of others. If experts met as a group to discuss which items are relevant to VT, the decision making could have been impacted by perceived rank or status of experts and experts may have felt less able to provide their honest opinions. It is argued anonymity could lead to a lack of accountability in experts (McKenna, 1994) which may affect how experts respond. In the present study, participants were offered to waive their anonymity to be acknowledged in the journal and/or thesis; 9 out of 13 chose to waive their anonymity. It could be argued that the option to be acknowledged, although not taken up by four experts, encouraged experts to respond in a meaningful way, rather than less serious answers which can occur when anonymity occurs (Vernon, 2009).

4.2. Adjustment to consensus level

In round one, the research team chose to review items from a lower consensus threshold, utilising the Delphi methodology’s flexibility as identified above. Items relating to belief change (especially those around safety and trust) which are widely accepted aspects of VT (see *extended introduction 1.2*), did not reach the 80% threshold. Given the wealth of literature around how working with clients with traumatic narrative can impact the practitioner’s beliefs, the research team were surprised related items did not reach higher consensus levels. The research team selected eight items with a minimum consensus of 71.4% to take forward to round two to see how they would perform. Interestingly, only one item (“the world is dangerous”) from the lower consensus levels (78.5%) increased in consensus to reach > 80% consensus in round two (see Journal Appendix). Perhaps if the research team had not chosen to include the additional 8 items, the final 13-item TMVT may have looked different; “I see the world as a dangerous place” may have been the only item retained following EFA relating to “a dangerous world” and perhaps the factor structure would have been different for the TMVT. When reviewing which of the eight additional items retained in round one reached consensus in the second round, it does raise the question whether the research team should have intervened, and highlights the issues raised previously (see 4.1.) about the flexibility of Delphi methodology being a potential weakness. However, the benefit of only having two rounds, means that those lower consensus item can be easily removed from the measure (rather than being embedded should there have been a third round) for future research.

4.3. Data collection and participant attrition

In line with the University of Nottingham online survey policies, and to satisfy ethical requirements, JISC Online Surveys (JOS) was used to collect data. One limitation of using this platform is data is only saved if a participant completes all pages of the survey. Table 18 outlined the progress of respondents; it is important to consider these numbers may not represent absolute participant numbers. It is possible that one individual could have clicked the link, answered some questions on the page, closed the page, reopened the survey, and completed the questions again; this would result in one individual being accountable for more than one ‘respondent’. Any respondent who reached page three onwards, had consented to taking part in the study; 153 respondents consented but did not complete the study, 129 of which completed information on their demographics. It would have been useful to have data about these individuals to understand any attrition bias (Nunan et al., 2018).

Research has found the longer online surveys are, the likelihood of dropout increases (Hoerger, 2010). Therefore, one reason for attrition may be the length of the survey and each individual page. Page six was the longest page, with the TABS’ 84 items. When participants clicked onto this page, the progress bar stated they were 55% completed. Depending on how long it had taken them to get this far, participants may have not wanted to continue participating because of the length of time they thought it was going to take them to finish the survey.

Furthermore, page five hosted the TMVT and was the page where the highest number of participants ceased continuing. It was also the first page where participants were asked to reflect on the impact of their work. Despite explaining the purpose of the study in the information sheet, and the recruitment adverts posted, participants may not have comprehended the impact of being asked to do this, and it could have been too challenging for them meaning they did not want to continue further. On this page participants were also asked to comment on how they found completing the measure which may have left some participants feeling uncomfortable at the thought of this task, and usure of what was to come. It would have been useful to be able to understand more about why participants chose to stop responding on this page; however, the nature of JISC means this is not possible.

Future surveys would benefit from being hosted on alternative platforms such as Qualtrics, as it allows for data to be saved even when they have not completed the measure. It would also be beneficial to have the option to follow up with participants, perhaps via providing their email addresses, to ask why they chose to leave the study.

4.4. Copyright

One issue with creating a new measure from an item pool from existing measures is there is a risk the existing measures will be replicated in their original format, which can result in copyright infringements. Should these infringements occur, it would limit the usability of the measure and would require the research team to make adjustments to the items post-hoc. This would have limitations in itself as it would mean items are not as the experts had selected. However, of the 16 items in the initial version of the TMVT, only “I feel cut off from people” was exactly the same as the item in the measure it originated from (the TABS). All other items have been slightly changed (see Appendix N); these changes mean copyright laws are not violated.

Copyright refers to protecting the expression of ideas not the content of ideas; however, there are often limited ways of expressing these ideas, meaning that individual items can be exempt from copyright laws – so long as the whole measure is not being replicated. Furthermore, there are numerous central item banks available which include a range of items that are not bound by copyright issues – for example the Social-Personality Psychology Questionnaire Instrument Compendium (Reifman, 2014).

The TABS states the measure is not to be reprinted; however, it does not make any specific comments about replicating individual items. Despite the item being the same, the context of responding ("*since I began working with [clients]* who have experienced trauma*") is different to the TABS which asks individuals to respond in relation to "y*our own beliefs about yourself and your world*". It could be argued the context of the questionnaire means the items, although the same wording, are getting at different constructs, and are therefore not identical items.

4.5. The relationship between the TMVT DW factor and existing measures

The TMVT's DW factor had small correlations with the TABS and ProQOL-5, as opposed to the II factor which had medium and strong correlations with both measures. The two items in this scale are very similar, with both items focused on the world being dangerous. These items appear to tap into the cognitive change aspect of VT definitions, a distinguishing feature of VT, compared to conflated terms such as STS or CF (Figley, 1995). The small correlations between the DW factor and the TABS and ProQOL-5 could be interpreted as support for Figley's (1995) claim. Perhaps there is something about seeing the world as dangerous that is more accounted for by VT, compared to CS, BO, and STS (as measured by ProQOL-5). Given the criticisms of the TABS discussed in the *Introduction*, it cannot be viewed as a comprehensive measure of VT and the small correlation between the TABS and DW factor could be further support for these criticisms.

4.6. Benefits of the TMVT as a reflection tool

As part of Phase Two and the completion of the TMVT, participants were asked to comment on their experience of completing it. Content analysis found the 'thought provoking' category was referenced 86 times; some stated the TMVT made them reflect on the impact of their work, more than they had done before. There are numerous benefits of reflecting on clinical work; developing a 'reflective practitioner' position has been incorporated into the practice of many health and social care professionals, as well as wider organisations (Fook, 2002; Mann et al., 2007). Reflection is considered to aid professional development by developing competencies (Spendelow & Butler, 2016) and through constructing a professional identity (Körkkö et al., 2016). Reflection can also develop personal awareness, and subsequent transformation of the self (Cropley et al., 2010; Körkkö et al., 2016).

VT has been observed to impact the practitioner and their client work by impacting the therapeutic relationship (Moulden & Firestone, 2007); preventing the therapist from providing reasonable care (Lonergan et al., 2004); and struggling to identify the client's strengths and improvements made (Herman, 1992). Reflecting on their work may allow clinicians to counteract some of these negative impacts of VT by increasing their awareness of how their client work is being impacted and encouraging clinicians to consider ways they can minimise this impact.

Despite the intended purpose of the TMVT being to assess levels of VT, the content analysis (see *extended method 3.3.*) suggests the TMVT has an added benefit of encouraging clinicians to reflect on how their work affects them. Future research would benefit from exploring this further to consider the reflective utility of the TMVT, for example whether it helps clinicians to identify and raise issues relating to their client work in supervision, or whether there is a link between using the measure and clinicians seeking help for the impact their work has had on them.

4.7. Scoring options for the TMVT

In Phase Two, when participants were asked to complete the TMVT they were asked to rate both intensity and frequency; however, unlike the RMBPC, there was no option to select 'Not Applicable' if they selected 'Never' as the frequency. This was met with some confusion by participants (as established through the content analysis), who were unsure how to rate the intensity of the item if they had rated the frequency as 'Never'. In response to these comments, the research team agreed future versions of the TMVT should include the 'Not Applicable' option (see Appendix O). Where participants select 'Not Applicable' for an item, it would be assigned a rating of '0' (as it would for 'Never'); this may mean there is not a change in the item's combined (frequency X intensity) score. However, it is possible that this alteration could impact how participants understand the TMVT and therefore change how they score it in that way. If comprehension of the measure were to change, it may affect the psychometric properties of the measure, including its factor structure. Future studies should consider this when conducting reassessing the TMVT's psychometric properties. Changes in factor structure, validity, and reliability, may be understood as the measure being inconsistent and inadequate, whereas it may instead be a reflection of the changes made to the way it is scored. it is hoped this addition would make more logical sense to participants and prevent confusion. Further research is needed to establish the acceptability of this alteration, it would be useful to gather qualitative feedback from participants about the change.

4.8. Measuring participants' own traumatic experiences

The LEC-5 was used to assess the occurrence of direct and indirect traumas. The research team decided to not score exposure to trauma cumulatively. If scores across items were summed, higher scores would indicate more trauma experienced; this makes the assumption the number of traumas a person experiences are what impacts them, rather than simply their presence. Some research does support this assumption; Gerber et al. (2018) found the number of traumatic events experienced was significantly linked to increased risk of PTSD. However, the study's sample was 123 help-seeking females in the USA – by identifying them as help-seekers, it is likely they were already experiencing distress which questions the validity of Gerber et al.'s conclusions.

Measuring the number of traumatic experiences a person has had is made more difficult due to the subjectivity of a trauma. In regard to the LEC-5, one person may consider themselves to have experienced all 17 items directly, but this does not provide any information about the extent of the trauma, or how that person is affected; a person who experiences one significant trauma may be affected the same as someone who has experienced all 17. More subjectivity comes from the final item of the LEC-5 'any other very stressful event or experience' as it is left open to interpretation. Boals (2018) found only 37% of objectively traumatic events (as measured by the Centrality of Events Scale) were experienced as subjectively traumatic by participants. The researchers took the view that the participants were experts of their own experiences and if they considered one of their life events to have been traumatic it would be acknowledged as such, regardless of whether this viewpoint was corroborated.

It would be interesting to see whether measuring traumatic events cumulatively gives any understanding to vicarious trauma. Future research could compare the approach used in the present study, to a cumulative measurement approach and see whether there is a difference in correlations between the LEC-5 and the TMVT. If there is a link between the trauma experienced by the therapist, and the extent of VT they experience, it could have implications in clinical practice. If the relationship is positive (higher score on LEC-5 and higher score on TMVT), it could allow employees to consider how their life histories may leave them vulnerable to developing VT and allow them to put strategies in place to mitigate the effects. However, a potentially dangerous implication of the same results could be employers may discriminate against their employees for experiencing traumatic events (and create a culture where employees do not feel able to share things about their personal lives because of the potential consequences), for fear the employees would be more negatively impacted by their work (as demonstrated in *extended introduction* 1.5.). Gerber et al. (2018) also highlight traumatic events can lead to an individual experiencing growth rather than experiencing negative impacts, meaning it is not possible to apply a blanket criterion to employees.

Given the prevalence of trauma in clients (see Mills et al., 2011), it is understandable there are many clinicians with indirect experiences of traumatic events (through their work or hearing about events that have happened to others). The extent of practitioners having direct exposure to traumatic events highlights practitioners themselves are not exempt from experiencing traumatic events. This challenges the TABS' use of reference norms and the need (or appropriateness) of comparing clinicians and their clients, supporting previous research (Pearlman & Maclan, 1995; VanDeusen & Way, 2006).

The results of the LEC-5 are likely to vary across countries in relation to the context and environmental factors of each country. For example, in countries where there has been conflict (presently or in the recent past), participants are more likely to have experienced direct exposure to combat or a war-zone. It would be useful to replicate the present study in other countries to assess whether the lack of positive relationship between scores on the LEC-5 and TMVT scores is maintained, or whether it changes.

4.9. Future research

4.9.1. VT across clinicians working with different client groups

As discussed in the *extended introduction* (see 1.3.3.), the type of trauma narratives a clinician works with can have an impact on the VT they subsequently develop, with trauma inflicted by another person being the most devastating (McCann & Pearlman, 1990). In future studies, it would be interesting to use the TMVT to assess VT to see if there is an observable difference between client groups. If there were significant differences between type of trauma, it could have implications for the clinicians working in these services. If it is expected a clinician working with clients with sexual abuse is more likely to experience higher levels of VT, individuals and organisations can be more aware; awareness allows for more opportunity to intervene and prevent the potentially devastating impacts of VT.

4.9.2. Short-form measures

It could be argued the 13-item TMVT constitutes a short measure in its current form; it is an improvement on the 84 item TABS which has been criticised for being lengthy, time consuming, and consequently expensive to administer (Aparicio et al., 2013). DeVellis (2016) suggest future research relating to the development of measures could include the development of a shorter version of the TMVT. These short-form versions aim to preserve the breadth and accuracy of the original measure; however, with fewer items meaning it is quicker to complete. Some concerns have been raised about how shorter forms have been developed; future studies may benefit from consulting the literature to avoid replicating these concerns (see Smith et al., 2000).

5. Critical reflections

5.1. Epistemological position

Epistemology is the theory and understanding of knowledge (Ladyman, 2007). epistemological positions can be viewed on a spectrum; at one end is a positivist stance which implies a measurable, objective reality exists (Clark, 1998) and at the other end of the spectrum, is social constructionism which posits knowledge is as a result of interactions with others (Creswell, 2009).

It could be argued the current project should take a positivist stance as in Phase One, participants were provided with a definition of VT to base their ratings of items on – giving objectivity to VT. Conversely, the notion of a Delphi methodology where multiple experts can come together to create a consensus of how to measure VT, aligns more with social constructivism; through ‘rounds’ of communication, experts create a ‘shared reality’ (Linstone & Turoff, 2002). For the present study, it therefore stands that a compromise should be made between the two positions. A critical realist stance accepts a ‘true’ reality exists; however, it is viewed differently by people as a result of contextual influences (DeForge & Shaw, 2012).

Considering my epistemological position in the context of research has also led me to consider my position in my clinical work. There is a focus on Clinical Psychologists taking a scientist-practitioner role. When considering the two stances (scientist and practitioner), it could be argued they are conflicting in how they each view knowledge. A scientist takes a positivist stance in their quest for objective knowledge. A practitioner could be argued to be more of an inquisitive role, with formulation being at the heart of our practice, understanding ‘how’ and ‘why’ difficulties manifest and viewing the client as an individual, rather than as a diagnostic label. As Clinical Psychologists are proposed to be both scientists and practitioners, an epistemology between the two ends of the spectrum, is likely to fit better. In regard to my general epistemological position and how I understand knowledge, I align with critical realism; I believe a reality exists, but place importance on considering how as individuals, we experience things differently and all have our own insights to offer, instead of there being one truth that applies to everyone.

By conducting a project which aligns its epistemology to my application of theory in my clinical work, I feel a sense of congruency and authenticity. I think this congruence has allowed me to be more connected to my project as I do not have to adjust my understanding of knowledge to incorporate the epistemology of the project. If I had chosen to create a measure without the use of a Delphi method, the project would have taken a more positivist stance which would clash with my approach to clinical work. In having a research project and clinical practice united in their epistemology, I feel more confident in my role as a soon-to-be Clinical Psychologist.

5.2. Theoretical issues

When I was conducting my initial reading on VT, it was not possible to escape the Constructivist Self-Development Theory (CSDT), said to underpin the development of VT. In failing to observe any alternative models in the VT literature, I became fairly attached to the idea of using CSDT to underpin my study. It is this theory that guided the decision at the end of round one of the Delphi to decide to include items that failed to reach the pre-determined threshold of 80% consensus. I wonder if my initial affinity perhaps created bias and influenced my decision making. When reviewing which items reached consensus in round two, only one of the items from the lower threshold ended up being retained to the 16-item version of the TMVT and was retained for the final 13-item version. Despite one item progressing to the final version of the TMVT, there was a near identical item that was also included. This raises the question whether it was necessary to include the eight items that did not reach 80% consensus? I can now consider the possibility that perhaps the CSDT is not the most appropriate theoretical underpinning of VT in its current form and should not be considered as the one true explanation of VT.

I believe the overall components of CSDT still hold true, and the five areas of a person expected to be affected by traumatic experiences are still valid (frame of reference, self-capacities, ego resources, memory systems, and cognitive schemas; Pearlman & Saakvitne, 1995). However, given the output of the TMVT, I have questioned the areas of cognitive schema that are affected in vicarious trauma. The TMVT recognises cognitions are affected when working with clients with traumatic narratives, yet it does not have items that relate explicitly to all five belief areas: trust, safety, control, esteem, and intimacy. I was interested by the DW factor, and how it’s two items were considered to be distinct, compared to the other 11 items of the II factor. It has left me wondering whether there is something unique about the world as a frame of reference and the dangers that lie within it. Should the factor structure stand up to being replicated by CFA, perhaps the theoretical underpinning of VT needs to be reconsidered. It is possible that, like with other constructs, VT could be experiencing a shift in its understanding in line with changes in context, such as the structure of services, a focus on practitioner wellbeing, and social changes in how trauma is observed and considered (for example Trauma Informed Care; see Reeves, 2015).

Another example of a shift in understanding over time comes from the conflation of terms in the literature. When I first selected the project and read more about the terms ‘vicarious trauma’, ‘secondary traumatic stress’, and ‘compassion fatigue’, and how they can be considered independent terms (Jenkins & Baird, 2002), I found myself getting frustrated at the literature for its seemingly obvious conflation of terms. However, it was only my own personal experience in the analysis of the TMVT, that I began to understand the overlap and confusion the terms can elicit. I was surprised to see such a strong relationship between supposedly separate terms. It has changed my mindset from initially being set in considering VT as a stand-alone concept that needs to be acknowledged in its own right, to the consideration of acknowledging the impact of working with clients with traumatic narratives in a broader sense.

In discussions with my research tutors, and in thesis panel presentations, I have posed the question: “*Should I have named the measure more broadly, such as the ‘Impact of Working with Clients Scale’?*” The conclusion from these discussions is it could potentially undermine my study to broaden it out as a measure of impact, rather than vicarious trauma as the experts recruited have held a definition of VT in mind when rating items. I have come to acknowledge and appreciate that just because the measure has not replicated existing theory, it does not mean that it is not representative of VT. Arguably, given the criticisms I have identified, it is a benefit that the TMVT has diverged from previous understandings and ways of measuring VT.

5.3. Ethical issues

An ethical issue lies in the identification of VT, and what this means for practitioners. As discussed in the *extended introduction* (see 1.4.) there are arguments about the ability to distinguish between conflated terms such as secondary traumatic stress, burnout, compassion fatigue, and vicarious trauma. However, given the overlap between terms, it is difficult to apply the terms perfectly and it is possible some clinicians may experience multiple terms. If it is not simple to apply labels, it raises questions whether these are helpful labels at all. Furthermore, I believe that if you identify someone as experiencing something negative, like VT, you should be able to implement strategies to improve their quality of life and wellbeing. Whilst there are plenty of evidence-based suggestions for self-care activities and other ways a practitioner can be supported, they are general strategies; evidence to support the Vicarious Trauma Toolkit (a specifically developed intervention for VT) is lacking. I wonder whether there needs to be a disclaimer attached to the TMVT to allow the practitioner to make an informed decision about whether they choose to complete it.

5.4. Personal reflections on the research process

5.4.1. Choosing a research project

As trainees we were provided with a booklet of potential projects we could choose for our research project, as well as the option to develop a novel project. I initially felt overwhelmed with the range of choices available and the unlimited possibilities of choosing a project not within the booklet. Before I started the course, I thought I wanted to research an element of physical health such as non-epileptic attack disorder or adherence to medication; however, when I looked through the booklet, I was also interested in the area of vicarious trauma.

One of the reasons why I chose to undertake this project is linked to my previous clinical work. Prior to training I worked in an Improving Access to Psychological Therapies (IAPT) service and from my experiences, I was acutely aware of the impact working with clients. Despite the nature of the service being designed to accept clients with “mild to moderate” depression and anxiety, there were many occasions where I assessed individuals with very traumatic histories. These individuals did not go on to have therapy in the service, but the experiences they shared with me are ones I will not forget. I knew that when I got onto clinical psychology training, the clients I would be working with would be those deemed too “severe” for IAPT services – those who I had assessed but had to refer onto other services. Whilst I was looking forward to working with these clients, I was aware of the impact it could have on me.

I want to have a career with longevity. I believe in order to sustain a career in clinical psychology, I need to be aware of the impacts the work could have on me and attempt to mitigate such impacts. I thought of the airplane safety demonstrations where we are told to “put on your own oxygen mask before you help others” and how this relates to the clinician looking after their own wellbeing to be able to support their clients. From the initial reading I did about the subject of VT, I realised despite the great interest in the literature, there was not a measure that satisfactorily measured VT.

I also chose the project because I could see the direct link between the subject area and any service I may find myself working in when I qualify. I recognise this research-practice link is motivating for me and encouraged me to remain engaged with the process, even when at times I struggled. As I progress as a Clinical Psychologist, I will find myself providing supervision and support for other members of staff; my experience conducting this research and familiarity with the literature, will allow me to hold in mind the potential impact of other members of staff working with clients with traumatic narratives.

5.4.2. The impact of COVID-19

I commenced recruitment for my study in February 2020 and in March 2020, the UK went into a national lockdown due to coronavirus (known as COVID-19). Around the world, COVID-19 had a huge impact on individuals, services, and nations. I contacted 50 individuals asking them to take part in the study and five declined participation stating they would not be able to commit to the study due to time constraints related to increased pressures as a result of COVID-19. Over half of those contacted did not respond at all so the number of individuals affected by pressures of COVID-19 is likely to have been greater. This was particularly the case for clinicians (experts who met the criteria for working with clients with traumatic narratives for more than five years); at the time, many services were having to adjust their practice which was stressful and time consuming, as well as experiencing increased referrals placing extreme demands on often already stretched clinicians. I had originally envisioned recruitment would be completed in one or two months; however, recruitment lasted for five months before a sufficient sample size was achieved.

I was very thankful that my study was all online as I did not have to make any changes to the design to allow me to conduct the study; the project on the whole was largely unaffected by the lockdown restrictions compared to some of my peers. I thought this meant I would be on track to complete my thesis on time; however, I underestimated the impact a pandemic could have on my own mental health, concentration, energy levels, and motivation.

I have always seen my home as a safe space and somewhere that I can forget about my work or university demands – I would always travel into placement or do my university assignments on campus as a way to separate my work and home life. Lockdown made this strategy impossible to implement and I felt quite panicked at the prospect of having to write the longest piece of work I have ever written from the (dis)comfort of my own home. Working from home has also been a new concept I have had to wrestle with. I am fortunate to have space in my home to have a dedicated room where I can have a home office; however, this room has quickly become associated with both my placement and writing my thesis. By reflecting on my own experiences of working from home and in a sense, allowing my clients' lives and my life to connect on a way they ordinarily would not, I have wondered how vicarious trauma is impacted in the current climate. I can see how staying at home and continuing to hear traumatic stories in a previously 'safe' environment could present conflicts and I have wondered whether clinicians are more likely to feel the impact of their work, when they cannot separate their workspace from their home-space. Conversely for some people, not seeing clients face-to-face (and therefore not being exposed to the emotions and atmosphere in the room) might be protective against developing VT.

The British Psychological Society (BPS) have published advice on "taking trauma related work home", stipulating employers should follow the 5 Rs: recognise, review, respond, refresh, and respect BPS (2020). I am pleased to see the first R proposed is 'recognise' as this advice supports the need for ways of identifying how someone has been affected by their work. The guidance provides clear and structured steps employers can take; however, I am sceptical about how it will be implemented, given the ever-increasing pressures on services. Whilst I see it as an investment in the workforce, saving money in the long term through less sickness, less staff turnover, and better quality of life for staff, services may be in 'fire-fighting' mode in the current climate – focused on waiting lists and meeting targets in the short term.

I have been wondering about what the future holds for trauma work, and clinical psychology in general. On a personal level, I hope we will start to see services shifting back towards face-to-face working, rather than continuing to work from home. However, I do not think remote working will disappear as it has proved helpful for clients who might usually struggle to get to appointments and as such, we need to consider how remote working and working from home can be implemented sustainably. It has been an interesting time to be completing my clinical psychology training and I hope courses around the country are considering how they adapt their teaching and consider how the remote nature could be impacting trainees, especially as the research suggests the less experience clinicians have, the more they can be affected by VT (see *extended introduction 1.3.2.*).

5.4.3. Development as a researcher

I have had experience conducting research at undergraduate and master’s level – and achieved high grades in both. I have performed well academically since secondary school therefore, when I started the doctorate, I acknowledged it would be a step up, but I felt confident in my abilities as I found myself in a familiar academic environment. It was a challenge when the first research assignment I submitted, the protocol, was classed as a “fail”. This was a huge knock to my confidence. I had experience of not doing well on pieces of work, but I realised this was the first time ever that I had been told I had failed an assignment. Initially I was very disheartened and noticed I found myself procrastinating and avoiding amending the protocol for resubmission.

After a week of not looking at it, I felt ready to begin the process again. Previously I had the tendency to not seek help and support for assignments, seeing them as a task that I had to complete by myself, whereas this time I needed to engage in discussions with others as working by myself had not been successful. Through research tutorials and reviewing comments from the markers, I was able to pass on resubmission. I believe through this process, although it was painful for my ego, my project became much stronger. It also encouraged me to do the thing I had previously neglected to do - see the project as an opportunity to engage in debate and discussion with my supervisors to develop the project.

Despite being familiar with the process of developing a research project, I had not had the experience of being the main researcher. I think this was another reason why I chose a project from a list provided by the course, because I have been used to being supported by tutors. I considered whether training could be the opportunity to try a challenge, like creating my own research project, as I would be supported by tutors; however, I thought I would be kind to myself and try to make my life easier by picking a project idea that had already been considered. I am glad I made this decision. Even with picking a project that was already conceptualised, I was still the main researcher I was able to make decisions throughout the course of the project about details that were not established in the initial conception of the project. I found this sense of ownership very rewarding and making decisions about the project made it feel like my own.

I had no experience in a Delphi methodology before undertaking this project and I therefore felt choosing this project would still challenge me sufficiently. Interestingly, I found completing the EFA one of the most challenging parts of the project. It was not the first time I had done one, but the idea that this analysis would determine what the measure looked like at this stage was a daunting prospect. I was so concerned with doing it correctly, I reran the analysis so many times that I ended up becoming very confused with what I had done, and which dataset and output were the correct ones to be using. My usual organisational skills had disappeared, and I was left feeling disappointed in myself. I decided to completely start again, using my previous experiences (and numerous emails to my supervisors) to methodically complete the EFA. I made sure to take my time and created a step-by-step guide to follow. When I got to the end of the process, I was initially angry at myself for allowing myself to get so flustered and make so many errors before; however, I came to accept that was part of the development process and I had to go through the experience in order to finally complete the analysis to a satisfactory manner. Overall, I have learned to trust the process of research and to not take feedback as a criticism, but as a way to develop and improve. I hope my reflections will help me in the future, should I undertake any further research ventures.

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Extended appendices

Appendix A

Ethical approval from University of Nottingham Research Ethics Committee

University of
Nottingham
UK | CHINA | MALAYSIA

DPAP Committee

14/09/2020

Supervisor:

Applicant : Hannah Strange

Project: Project Id Ask the Experts: How Should We Measure Vicarious Trauma

A favourable opinion is given to the above named study on the understanding that the applicants conduct their research as described in the above numbered application. Applicants need to adhere to all conditions under which the ethical approval has been granted and use only materials and documentation that have been approved.

If you need to make any any changes (for example to the date or place of data collection, or measures used), an Amendment Form should be submitted. This can be done by the Supervisor in 'Create Sub Form' in the Actions Menu on the left hand side of the page on the on-line system: Select 'Amendment Form'

yours

David Daley

Professor David Daley

Co-Chair of DoPAP Ethics Subcommittee

Amanda Griffiths

Professor Amanda Griffiths

Co-Chair of DoPAP Ethics Subcommittee

Appendix B

Phase One - Delphi participant information sheet

PHASE ONE

PARTICIPANT INFORMATION

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Ask the Experts: How Should we Measure Vicarious Trauma?

Researcher: Hannah Strange, Hannah.strange@nottingham.ac.uk

Supervisors: Rachel Sabin-Farrell, rachel.sabin-farrell@nottingham.ac.uk

Nima Moghaddam, nmoghaddam@lincoln.ac.uk

CI: Thomas Schröder, thomas.schroder@nottingham.ac.uk

Ethics Reference Number: DPAP - 2019 - 0426 - 1

We would like to invite you to take part in a research study about how we measure vicarious trauma. Before you begin, we would like you to understand why the research is being done and what it involves for you.

What is the purpose of this study?

Vicarious trauma (VT) can affect those that work with people with trauma narratives. The questionnaires used to measure VT have been questioned by the literature regarding their relevance, inclusiveness and usefulness. The present study aims to use a Delphi methodology to establish which items reflect a given definition of VT. The items will include: existing items from existing measures, items proposed by the research team, and those proposed by any of the expert participants in the Delphi study. These items will then be analysed to establish which items are agreed upon by at least 80% of experts, and those that reach this threshold will be used to create a new measure.

The results will aim to inform further ongoing research to help to better identify those who are exhibiting signs of VT, and help practitioners to identify their own VT. Consequently, practitioners may be more likely to access support or discuss their VT in supervision. This is important as the impact of VT can be far reaching and has the potential to affect both practitioners and have a consequential effect on their clients.

Why have I been invited?

You have been invited because we consider you to be an expert in trauma; either through conducting your own research, because of your years of clinical experience, or experience in delivering training on VT. We are asking 17 participants like you to take part.

If you have any colleagues that you believe would also be interested in the study, you can pass on these details to them. They will be screened by researchers to ensure they are eligible to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You may change your mind about being involved at any time, or decline to answer a particular question. You are free to withdraw at any point before or during the study without giving a reason.

What will I be asked to do?

If you choose to take part in the study you will be asked to take part in two separate rounds of the study.

In round one you will be presented with a list of different items and you will be asked to rate how well they reflect an aspect of VT on a Likert scale from 0 (completely irrelevant) to 3 (completely relevant). There will also be a free text space under each item to comment on it.

You will also be asked to contribute any items you think are missing, or are not adequately captured by the presented items. We would welcome any suggestions you might have. These items will be added into the initial pool of items and presented to all the experts for their views of how well it reflects an aspect of VT.

In round two you will be presented with your individual responses in comparison to the percentages of how other experts rated the item. Comments from the previous round will also be visible but will be anonymised. During this round you will have the opportunity to change your response if desired.

Depending on the outcome of this second round, it may be possible that participants are asked to participate in a third round. Again, you will be presented with your individual responses in comparison to the percentages of how other experts rated the item. Comments from the previous round will also be visible but will be anonymised. During this round you will also have the opportunity to change your response if desired.

Expenses and payments

Participants will not be paid to participate in the study. We would like to offer acknowledgment of your participation at the point of publication; however, this is completely optional as we appreciate that some participants would prefer to remain anonymous.

As an acknowledgement to experts, participants will be offered the option to waive their anonymity. If participants choose to do this, their individual responses will not be identified, but they will be thanked for their participation across the Delphi.

Will the research be of any personal benefit to me?

We cannot promise participating in the study will help you directly but the information we get from this study may help to inform further ongoing research to help to better identify those who are exhibiting signs of VT and consequently, practitioners may be more likely to access support. This is important as the impact of VT can be far reaching and has the potential to affect both practitioners and have a consequential effect on their clients.

Are there any possible disadvantages or risks in taking part?

We do not anticipate any adverse reactions to participating in the study.

What will happen to the information I provide?

All information collected will be kept strictly confidential, stored in a secure and locked office, and on a password protected database at the University of Nottingham.

All study researchers will endeavour to protect your rights to privacy and informed consent, and will adhere to the Data Protection Act (2018) and General Data Protection Regulations (2018). All information about you will be handled in confidence. If you join the study, we will use information collected from you during the course of the research. You can find out more about how we use your information and to read our privacy notice at: https://www.nottingham.ac.uk/utilities/privacy.aspx

All research data collected will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team given permission by the data custodian will have access to your personal data.

Although what you say to us is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. Once you have submitted your responses for each round of the Delphi, you have two weeks to withdraw your data from the study. This can be done by contacting the researchers and providing your personal identification number. If you withdraw after the two-week window, we will no longer collect any information about you or from you but we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

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

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

You can find out more about how we use your information and to read our privacy notice at: https://www.nottingham.ac.uk/utilities/privacy.aspx.

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

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

When the research study stops, participants will be given the option to be informed of any publications and upon request, can request a copy of the researcher's doctoral thesis or a summary of the research. The results of this study will be written up and we aim to publish the findings in a peer-reviewed journal.

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

What if there is a problem?

If you have any queries or complaints, please contact the student’s supervisor/chief investigator in the first instance. If this does not resolve your query, please write to the Administrator to the Division of Psychiatry & Applied Psychology’s Research Ethics Sub-Committee adrian.pantry1@nottingam.ac.uk who will pass your query to the Chair of the Committee.

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

Who is organising and funding the research?

This research is being organised by the University of Nottingham and is funded by Health Education England as part of the Doctorate of Clinical Psychology course.

Who has reviewed the study?

All research in healthcare is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by University of Nottingham Research Ethics Committee.

Appendix C

Phase One - Consent form

PHASE ONE

PARTICIPANT CONSENT

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Ask the Experts: How Should we Measure Vicarious Trauma?
Researcher: Hannah Strange, Hannah.strange@nottingham.ac.uk
Supervisors: Rachel Sabin-Farrell, rachel.sabin-farrell@nottingham.ac.uk
Nima Moghaddam, nmoghaddam@lincoln.ac.uk
Ethics Reference Number: DPAP - 2019 - 0426 - 1

Have you read and understood the Participant Information?	YES/NO
Do you agree to take part in the Delphi study about vicarious trauma?	YES/NO
Do you know how to contact the researcher if you have questions about this study?	YES/NO
Do you understand that you are free to withdraw from the study without giving a reason?	YES/NO
Do you understand that once you have completed the study and submitted your answers, the data cannot be withdrawn?	YES/NO
Do you give permission for your data from this study to be shared with other researchers in the future provided that your anonymity is protected?	YES/NO
Do you understand that non-identifiable data from this study including quotations might be used in academic research reports or publications?	YES/NO
I confirm that I am 18 years old or over	YES/NO

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

I consent

Appendix D

Initial item pool of 146 items for round one of Delphi

> Items 1-84: TABS (Pearlman, 2003); items 85-101: STSS (Bride et al., 2004); items 102-131: ProQOL-5 (Stamm, 2010); items 132-137: VTS (Vrklevski & Franklin, 2008); items 138-140: PQS (Rawlings & Freeman, 1996); items 141-146: created by the research team based on existing literature.

Initial item pool

1) I believe I am safe
2) You can't trust anyone
3) I don't feel like I deserve much
4) Even when I am with friends and family, I don't feel like I belong
5) I can't be myself around people
6) I never think anyone is safe from danger
7) I can trust my own judgement
8) People are wonderful
9) when my feelings are hurt, I can make myself feel better
10) I am uncomfortable when someone else is the leader
11) I feel like people are hurting me all the time
12) If I need them, people will come through
13) I have bad feelings about myself
14) Some of my happiest times are with other people
15) I feel like I can't control myself
16) I could do serious damage to someone
17) When I am alone I don't feel safe
18) Most people ruin what they care about
19) I don't trust my instincts
20) I feel close to lots of people
21) I feel good about myself most days
22) My friends don't listen to my opinion
23) I feel hollow inside when I am alone
24) I can't stop worrying about others safety
25) I wish I didn't have feelings
26) Trusting people is not smart
27) I would never hurt myself
28) I often think the worst of others
29) I can control whether I harm others
30) I'm not worth much
31) I don't believe what people tell me

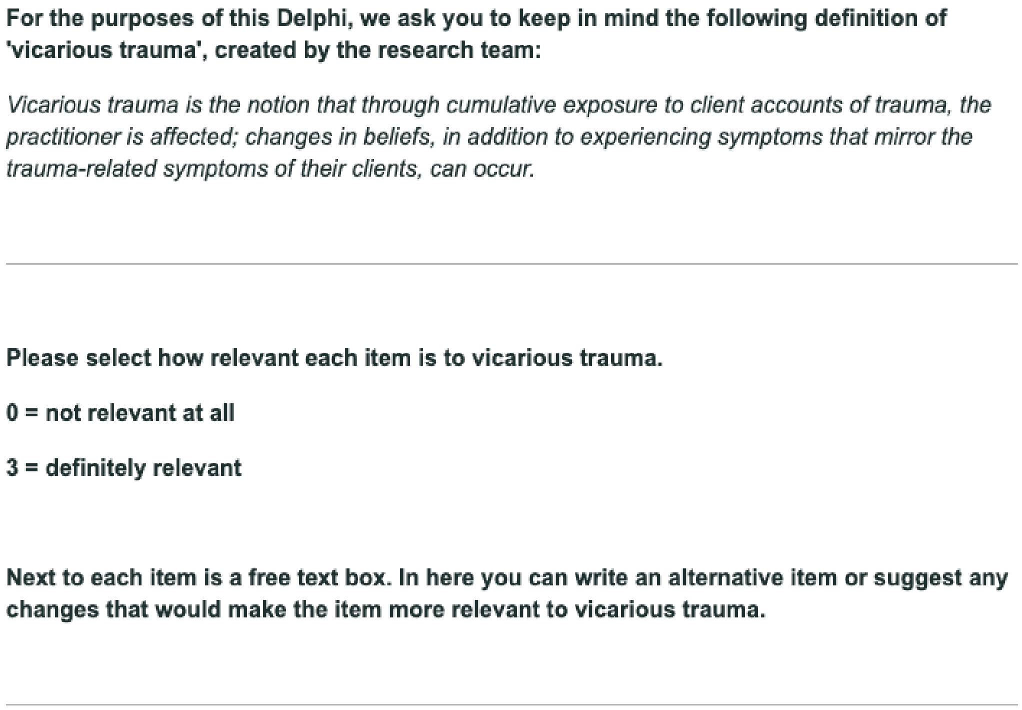
32) The world is dangerous
33) I am often in conflicts with other people
34) I have a hard time making decisions
35) I feel cut off from people
36) I feel jealous of people who are always in control
37) The important people in my life are in danger
38) I can keep myself safe
39) People are no good
40) I keep busy to avoid my feelings
41) People shouldn’t trust their friends
42) I deserve to have good things happen to me
43) I worry about what other people will do to me
44) I like people
45) I must be in control of myself
46) I feel helpless around adults
47) Even if I think about hurting myself, I won’t do it
48) I don’t feel much love from anyone
49) I have good judgement
50) Strong people don’t need to ask for help
51) I am a good person
52) People don’t keep their promises
53) I hate to be alone
54) I feel threatened by others
55) When I am with people, I feel alone
56) I have problems with self-control
57) The world is full of people with mental problems
58) I can make good decisions
59) I often feel people are trying to control me
60) I am afraid of what I might do to myself
61) People who trust others are stupid
62) I am my own best friend
63) When people I love aren’t with me, I believe they are in danger
64) Bad things happen to me because I am a bad person
65) I feel safe when I am alone
66) To feel ok, I need to be in charge
67) I often doubt myself
68) Most people are good at heart
69) I feel bad about myself when I need help
70) My friends are there when I need them
71) I believe that someone is going to hurt me
72) I do things that put other people in danger
73) There is an evil force inside of me
74) No one really knows me
75) When I am alone, it’s as if there’s no one there, not even me

76) I don’t respect the people I know best
77) I can usually figure out what’s going on with people
78) I can’t do work unless I am the leader
79) I can’t relax
80) I have physically hurt people
81) I am afraid I will harm myself
82) I feel left out everywhere
83) If people really knew me, they wouldn’t like me
84) I look forward to time spent alone
85) I feel emotionally numb
86) My heart starts pounding when I think about my work with clients
87) It seems as if I was reliving the trauma(s) experienced by my client(s)
88) I have trouble sleeping
89) I feel discouraged about the future
90) Reminders of my work with clients upset me
91) I have little interest in being around others
92) I feel jumpy
93) I am less active than usual
94) I think about my work with clients when I don’t intend to
95) I have trouble concentrating
96) I avoid people, places, or things that remind me of my work with clients
97) I have disturbing dreams about my work with clients
98) I want to avoid working with some clients
99) I am easily annoyed
100) I expect something bad to happen
101) I notice gaps in my memory about client sessions
102) I am happy
103) I am preoccupied with more than one person I [help]
104) I get satisfaction from being able to [help] people
105) I feel connected to others
106) I jump or am startled by unexpected sounds
107) I feel invigorated after working with those I [help]
108) I find it difficult to separate my personal life from my life as a [helper]
109) I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help]
110) I think that I might have been affected by the traumatic stress of those I [help]
111) I feel trapped by my job as a [helper]
112) Because of my [helping], I have felt "on edge" about various things
113) I like my work as a [helper]
114) I feel depressed because of the traumatic experiences of the people I [help]
115) I feel as though I am experiencing the trauma of someone I have [helped]
116) I have beliefs that sustain me

117) I am pleased with how I am able to keep up with [helping] techniques and protocols
118) I am the person I always wanted to be
119) My work makes me feel satisfied
120) I feel worn out because of my work as a [helper]
121) I have happy thoughts and feelings about those I [help] and how I could help them
122) I feel overwhelmed because my case [work] load seems endless
123) I believe I can make a difference through my work
124) I avoid certain activities or situations because they remind me of frightening experiences of the people I [help]
125) I am proud of what I can do to [help]
126) As a result of my [helping], I have intrusive, frightening thoughts
127) I feel "bogged down" by the system
128) I have thoughts that I am a "success" as a [helper]
129) I can't recall important parts of my work with trauma victims
130) I am a very caring person
131) I am happy that I chose to do this work
132) I find myself distressed by listening to my clients’ stories and situations
133) I find it difficult to deal with the content of my work
134) I find myself thinking about distressing material at home
135) Sometimes I feel helpless to assist my clients in the way I would like
136) Sometimes I feel overwhelmed by the workload involved in my job
137) Sometimes it is hard to stay positive and optimistic given some of the things I encounter
138) I feel that it is safer to trust nobody
139) I feel that people have it in for me
140) I suspect that people who act friendly to me can be disloyal behind my back
141) I am generally suspicious of other people
142) I find it difficult to trust other people
143) I am wary of strangers
144) I worry that bad things will happen to the people I care about
145) I worry that my family are in danger
146) I am overwhelmed by worries about the safety of my clients

Appendix E

A screenshot showing the Likert Scale used in the Delphi study, where participants were asked to rate items on their relevance to VT.



For the purposes of this Delphi, we ask you to keep in mind the following definition of 'vicarious trauma', created by the research team:

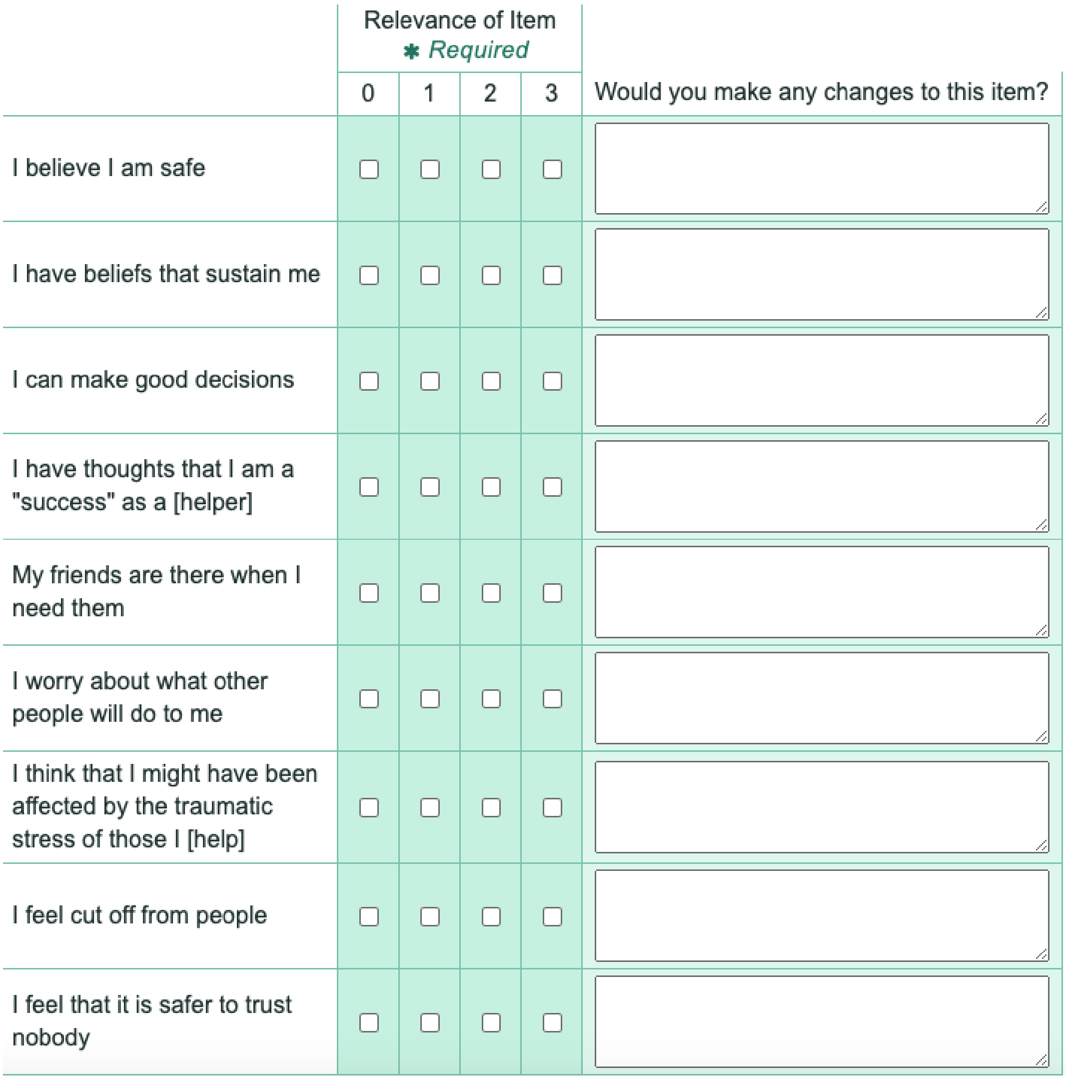
Vicarious trauma is the notion that through cumulative exposure to client accounts of trauma, the practitioner is affected; changes in beliefs, in addition to experiencing symptoms that mirror the trauma-related symptoms of their clients, can occur.

Please select how relevant each item is to vicarious trauma.

0 = not relevant at all

3 = definitely relevant

Next to each item is a free text box. In here you can write an alternative item or suggest any changes that would make the item more relevant to vicarious trauma.

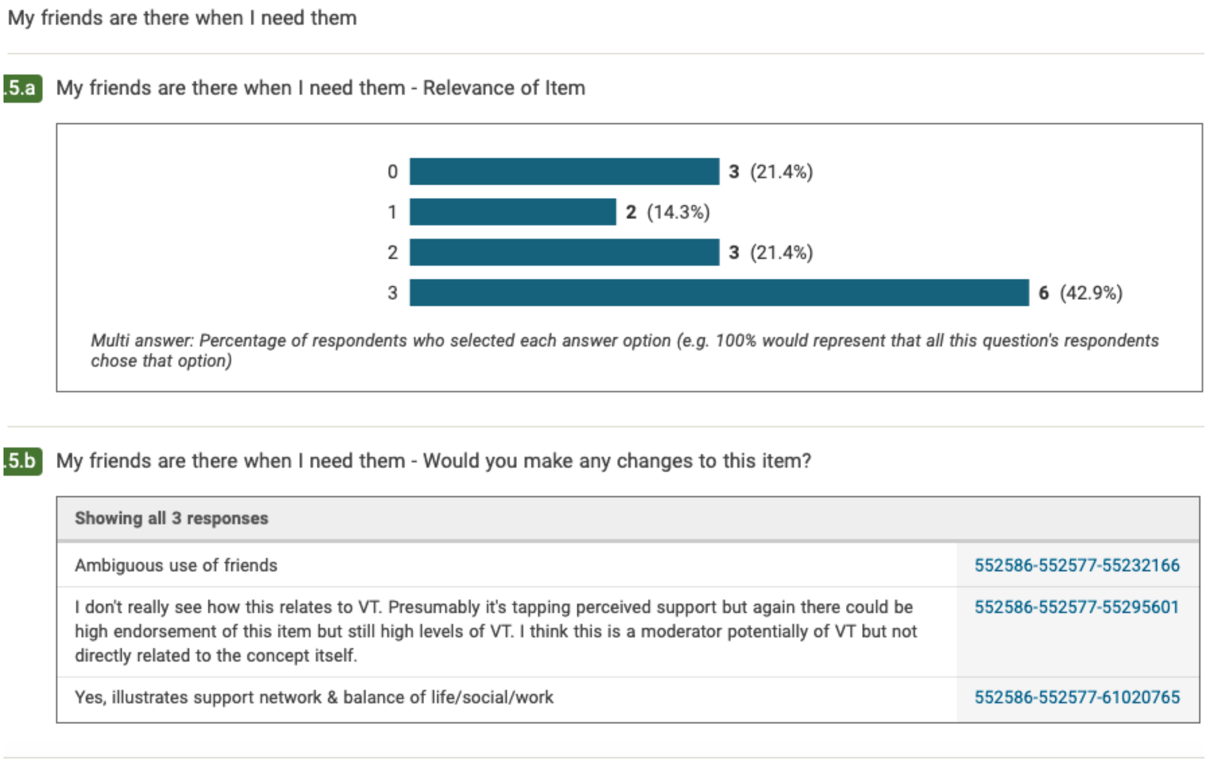


	Relevance of Item ✱ *Required*				
	0	1	2	3	Would you make any changes to this item?
I believe I am safe	☐	☐	☐	☐	
I have beliefs that sustain me	☐	☐	☐	☐	
I can make good decisions	☐	☐	☐	☐	
I have thoughts that I am a "success" as a [helper]	☐	☐	☐	☐	
My friends are there when I need them	☐	☐	☐	☐	
I worry about what other people will do to me	☐	☐	☐	☐	
I think that I might have been affected by the traumatic stress of those I [help]	☐	☐	☐	☐	
I feel cut off from people	☐	☐	☐	☐	
I feel that it is safer to trust nobody	☐	☐	☐	☐	

Appendix F

An example of an item removed and participant’s feedback for item in round one of the Delphi study.

An example item excluded following round one, and comments on the item



My friends are there when I need them

.5.a My friends are there when I need them - Relevance of Item

Multi answer: Percentage of respondents who selected each answer option (e.g. 100% would represent that all this question's respondents chose that option)

.5.b My friends are there when I need them - Would you make any changes to this item?

Showing all 3 responses	
Ambiguous use of friends	552586-552577-55232166
I don't really see how this relates to VT. Presumably it's tapping perceived support but again there could be high endorsement of this item but still high levels of VT. I think this is a moderator potentially of VT but not directly related to the concept itself.	552586-552577-55295601
Yes, illustrates support network & balance of life/social/work	552586-552577-61020765

Appendix G

Draft email to participants targeted for recruitment to Phase One of the Delphi study

Dear XXX,

Thank you for taking the time to read this email/message [depending on the method of contact].

I am currently a trainee on the Trent Clinical Psychology Doctorate in the UK. I am researching the phenomenon of vicarious trauma (VT) and how it can affect those that work with people with trauma narratives. The current existing measures of VT have been questioned by the literature and some researchers have called for a new measure to be established.

As an expert in the area of trauma/vicarious trauma [delete as appropriate] we would like to invite you to take part in this research.

The present study aims to use a Delphi methodology to establish which items reflect a given definition of VT. These items will then be analysed to establish which items are agreed upon by at least 80% of experts, and those that reach this threshold will be used to create a new measure. In a later phase of the project, the measure will be presented to another group of participants to gather data on the psychometric properties of this new measure. This project is being supervised by Dr Rachel Sabin-Farrell (Clinical Psychologist) and Dr Nima Moghaddam (Clinical Psychologist).

You have been invited because we consider you to be an expert in trauma; either through conducting your own research, because of your years of clinical experience, or experience in delivering training on VT. We are asking 17 participants like you to take part.

If you have any colleagues that you believe would also be interested in the study, and who would also be considered as ‘experts’, please feel free to this email/message to them.

If you would like to take part in the study, please click on the following link: [link to study]. A participant information sheet and consent form can be found via this link.

If you have any questions about taking part, please do not hesitate to contact me.

Kind regards,
Hannah Strange
Trainee Clinical Psychologist

Appendix H

Items presented in round two, and agreement level across both rounds

Item	Round one level of agreement	Round two level of agreement
I think that I might have been affected by the traumatic stress of those I [help]	92.8%	100%
I find it difficult to separate my personal life from my life as a [helper]	92.8%	92.3%
I find it difficult to deal with the content of my work	92.8%	76.9%
I feel as though I am experiencing the trauma of someone I have [helped]	85.7%	76.9%
I believe I am safe	85.7%	76.9%
My view of how safe the world is has changed	-	100%
The world is dangerous	78.6%	84.6%
I no longer see the world as a safe place	-	84%
I see the world as a dangerous place	-	100%
It is hard to stay positive and optimistic given some of the things I encounter	85.7%	100%
I am overwhelmed by worries about the safety of my clients	92.8%	84.6%
When I am alone I don't feel safe	78.5%	76.9%
I expect something bad to happen	78.5%	76.9%
It is inevitable that something bad will happen to me or those I love	-	38.4%
My spiritual beliefs have been negatively impacted	-	46.2%
I feel cut off from people	92.8%	84.6%
I feel emotionally disconnected from people	-	76.9%
I want to avoid working with some clients	92.8%	92.3%
I avoid certain activities or situations because they remind me of frightening experiences of the people I [help]	85.7%	76.9%
I avoid people, places, or things that remind me of my work with clients	92.8%	92.3%
I jump or am startled by unexpected sounds	85.7%	53.8%
I feel jumpy	85.7%	76.9%
I feel like I have a heightened awareness of potential danger/risk in situation	-	84.6%
I am more sensitive to violence	-	84.6%
Nothing shocks me anymore	-	69.2%
I have trouble sleeping	85.7%	69.2%

Item	Round one level of agreement	Round two level of agreement
I feel worn out because of my work as a [helper]	92.8%	84.6%
My heart starts pounding when I think about my work with clients	85.7%	69.2%
I have disturbing dreams about my work with clients	92.8%	76.9%
I feel depressed because of the traumatic experiences of the people I [help]	85.7%	53.8%
I feel sad because of the traumatic experiences of the people I [help]	-	69.2%
I find myself distressed by listening to my clients' stories and situations	92.8%	76.9%
I feel emotionally numb	85.7%	69.2%
I feel guilty for feeling happy	-	53.8%
I am more quick to anger	-	46.2%
I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help]	92.8%	61.5%
Sometimes I feel helpless to assist my clients in the way I would like	85.7%	84.6%
I feel that it is safer to trust nobody	71.4%	53.8%
I suspect that people who act friendly to me can be disloyal behind my back	71.4%	69.2%
I am generally suspicious of other people	71.4%	53.8%
I am wary of strangers	71.4%	53.8%
I find it difficult to trust other people	71.4%	61.5%
I find myself feeling wary in situations in which my clients have described negative experiences	-	61.5%
Reminders of my work with clients upset me	92.8%	76.9%
It seems as if I am reliving the trauma(s) experienced by my client(s)	92.8%	61.5%
I think about my work with clients when I don't intend to	92.8%	84.6%
As a result of my [helping], I have intrusive, frightening thoughts	85.7%	61.5%
I find myself thinking about distressing material at home	92.8%	84.6%
I am preoccupied with more than one person I [help]	78.5%	76.9%

Note: all % to 1 decimal place; '-' indicates level of agreement not available

Appendix I

Phase Two - Information sheet

PHASE TWO

PARTICIPANT INFORMATION

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Ask the Experts: How Should we Measure Vicarious Trauma?

Researcher: Hannah Strange, Hannah.strange@nottingham.ac.uk

Supervisors: Rachel Sabin-Farrell, rachel.sabin-farrell@nottingham.ac.uk

Nima Moghaddam, nmoghaddam@lincoln.ac.uk

CI: Thomas Schröder, thomas.schroder@nottingham.ac.uk

Ethics Reference Number: DPAP - 2019 - 0426 - 1

We would like to invite you to take part in a research study about how we measure vicarious trauma. Before you begin, we would like you to understand why the research is being done and what it involves for you.

What is the purpose of this study?

The purpose of the study is to collect data using a measure created as part of a previous phase of the study. Phase One recruited experts in the field of vicarious trauma (VT) research, and experienced clinicians working with trauma survivors, to create a new measure of VT.

The study aims to gather psychometric data on the new measure. This new measure has the potential to increase our awareness of VT; a phenomenon that can have far reaching consequences for both professionals and our clients.

Why have I been invited?

You have been invited because you are a professional who works with individuals who have experienced trauma. It is common for people in similar roles to experience VT as a result of their client work. We are inviting over 200 participants like you to take part.

Do I have to take part?
It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. You may change your mind about being involved at any time, or decline to answer a particular question. You are free to withdraw at any point before or during the study without giving a reason.

What will I be asked to do?
You will be provided with a web link to an online platform to complete the measure. You will be asked to complete some demographic information about your age, gender, profession and the number of years of experience of working with clients with trauma narratives. Following this, you will then be asked to complete the measure created, as well as other existing measures. You will be asked to provide your email address if you would like to be kept up to date with the research and any publications.

Expenses and payments
Participants will not be paid to participate in the study. If you provide your email address as a point of contact, you will be entered into a prize draw to win a £50 Amazon voucher.

Will the research be of any personal benefit to me?
We cannot promise participating in the study will help you directly but the information we get from this study may help to inform further ongoing research to help to better identify those who are exhibiting signs of VT and consequently, practitioners may be more likely to access support. This is important as the impact of VT can be far reaching and has the potential to affect both practitioners and have a consequential effect on their clients**.**

Are there any possible disadvantages or risks in taking part?
We do not anticipate any adverse reactions to participating in the study.

What will happen to the information I provide?
All information collected will be kept strictly confidential, stored in a secure and locked office, and on a password protected database at the University of Nottingham.

All study researchers will endeavour to protect your rights to privacy and informed consent, and will adhere to the Data Protection Act (2018) and General Data Protection Regulations (2018). All information about you will be handled in confidence. If you join the study, we will use information collected from you during the course of the research. You can find out more about how we use your information and to read our privacy notice at: https://www.nottingham.ac.uk/utilities/privacy.aspx

All research data collected will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team given permission by the data custodian will have access to your personal data.

Although what you say to us is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. Once you have submitted your responses for each round of the Delphi, you have two weeks to withdraw your data from the study. This can be done by contacting the researchers and providing your personal identification number. If you withdraw after the two week window, we will no longer collect any information about you or from you but we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

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

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

You can find out more about how we use your information and to read our privacy notice at: https://www.nottingham.ac.uk/utilities/privacy.aspx.

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

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

When the research study stops, participants will be given the option to be informed of any publications and upon request, can request a copy of the researcher's doctoral thesis or a summary of the research. The results of this study will be written up and we aim to publish the findings in a peer-reviewed journal.

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

What if there is a problem?

If you have any queries or complaints, please contact the student’s supervisor/chief investigator in the first instance. If this does not resolve your query, please write to the Administrator to the Division of Psychiatry & Applied Psychology’s Research Ethics Sub-Committee adrian.pantry1@nottingam.ac.uk who will pass your query to the Chair of the Committee.

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

Who is organising and funding the research?

This research is being organised by the University of Nottingham and is funded by Health Education England as part of the Doctorate of Clinical Psychology course.

Who has reviewed the study?

All research in healthcare is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by University of Nottingham Research Ethics Committee.

Appendix J

Phase Two - Participant consent form

PHASE TWO

PARTICIPANT CONSENT

STUDENT RESEARCH PROJECT ETHICS REVIEW

Division of Psychiatry & Applied Psychology

Project Title: Ask the Experts: How Should we Measure Vicarious Trauma?
Researcher: Hannah Strange, Hannah.strange@nottingham.ac.uk
Supervisors: Rachel Sabin-Farrell, rachel.sabin-farrell@nottingham.ac.uk
Nima Moghaddam, nmoghaddam@lincoln.ac.uk

Ethics Reference Number: DPAP - 2019 - 0426 - 1

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

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

I consent

Appendix K

Items retained following round two (creating the initial measure) and where items originated from

Item	Origin of item
I have been affected by the traumatic stress of [clients] I have worked with	ProQOL-5
I find it difficult to separate my personal life from my professional life	ProQOL-5
I believe the world is dangerous	TABS
I see the world as a safe place	Proposed in round one
I see the world as a dangerous place	Proposed in round one
It is hard to stay positive and optimistic given some of the things I encounter	VTS
I am overwhelmed by worries about the safety of [clients] I have worked with	Created by research team prior to round one
I feel cut off from people	TABS
I want to avoid working with some [clients]	STSS
I feel like I have a heightened awareness of potential danger/risk in situation	Proposed in round one
I am more sensitive to violence	Proposed in round one
I feel worn out because of my work with [clients]	ProQOL-5
Sometimes I feel helpless to assist [clients] in the way I would like	VTS
I think about my work with [clients] when I don't intend to	STSS
I find myself thinking about distressing material related to my work with [clients] at home	VTS
I avoid people, places, or things that remind me of my work with [clients]	STSS

Note: ProQOL-5 = Professional Quality of Life Scale; TABS = Trauma and Attachment Belief Scale; VTS = Vicarious Trauma Scale; STSS = Secondary Traumatic Stress Scale.

Appendix L

An initial Principal Axis Factoring analysis on the TMVT initial 16 items (N = 175) with an initial two-factor structure

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.221	32.629	32.629	4.626	28.912	28.912	4.298
2	1.838	11.486	44.115	1.402	8.759	37.672	2.928
3	1.211	7.567	51.682				
4	1.094	6.836	58.518				
5	.981	6.130	64.648				
6	.857	5.357	70.005				
7	.745	4.659	74.664				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Appendix M

The items removed from the TMVT due to insufficient factor loadings. Following the removal of N13 and N14 (Table 1) the PAF was rerun and produced the subsequent pattern matrix (Table 2).

Note: Underlined text indicates items to be removed due to low primary loadings (< .40)

Pattern Matrix (Table 1)

	Factor	
	1	2
I have been affected by the traumatic stress of [clients] I have worked with	.555	-.164
I find it difficult to deal with the traumatic content of my work	.483	-.182
I believe the world is dangerous	-.053	-.889
I see the world as a safe place	-.135	.419
I see the world as a dangerous place	-.090	-.890
It is hard to stay positive and optimistic given some of the things I encounter	.443	-.084
I am overwhelmed by worries about the safety of [clients] I have worked with	.505	-.052
I feel cut off from people	.470	-.066
I want to avoid working with some [clients]	.597	.195
I think about my work with [clients] when I don’t intend to	.748	.043
I find myself thinking about distressing material related to my work with [clients] at home	.604	-.113
I am preoccupied with [clients] I have worked with	.648	.114
I feel like I have a heightened awareness of potential danger/risk in situations	.182	-.389
I am more sensitive to violence	.180	-.187
I feel worn out because of my work with [clients]	.693	.043
Sometimes I feel helpless to assist [clients] in the way I would like	.527	-.126

Pattern Matrix (Table 2)

	Factor	
	1	2
I have been affected by the traumatic stress of [clients] I have worked with	.570	-.125
I find it difficult to deal with the traumatic content of my work	.498	-.157
I believe the world is dangerous	.017	-.867
I see the world as a safe place	-.172	.387
I see the world as a dangerous place	-.036	-.910
It is hard to stay positive and optimistic given some of the things I encounter	.447	-.093
I am overwhelmed by worries about the safety of [clients] I have worked with	.513	-.075
I feel cut off from people	.476	-.052
I want to avoid working with some [clients]	.582	.171
I think about my work with [clients] when I don’t intend to	.754	.057
I find myself thinking about distressing material related to my work with [clients] at home	.622	-.090
I am preoccupied with [clients] I have worked with	.643	.125
I feel worn out because of my work with [clients]	.695	.057
Sometimes I feel helpless to assist [clients] in the way I would like	.537	-.112

Appendix N

Item wording changes from initial item pool to the items in the TMVT

Initial item pool wording	TMVT wording
I think that I might have been affected by the traumatic stress of those I [help]	I have been affected by the traumatic stress of [clients] I have worked with
I find it difficult to separate my personal life from my life as a [helper]	I find it difficult to separate my personal life from my professional life
Sometimes it is hard to stay positive and optimistic given some of the things I encounter	It is hard to stay positive and optimistic given some of the things I encounter
I am overwhelmed by worries about the safety of my clients	I am overwhelmed by worries about the safety of [clients] I have worked with
I feel cut off from people	I feel cut off from people
I want to avoid working with some clients	I want to avoid working with some [clients]
I think about my work with clients when I don’t intend to	I think about my work with [clients] when I don’t intend to
I find myself thinking about distressing material at home	I find myself thinking about distressing material related to my work with [clients] at home
I avoid people, places, or things that remind me of my work with clients	I avoid people, places, or things that remind me of my work with [clients]
I feel worn out because of my work as a [helper]	I feel worn out because of my work with [clients]
Sometimes I feel helpless to assist my clients in the way I would like	Sometimes I feel helpless to assist [clients] in the way I would like
The world is dangerous	I believe the world is dangerous
I see the world as a dangerous place*	I see the world as a dangerous place

Note: * indicates item added to in round two

Appendix O

The 13-item version of the Trent Measure of Vicarious Trauma

Over time, we can be affected by exposure to working with [clients]* with traumatic narratives. This measure is designed to help us understand the impact. Please consider each item **since you began working with [clients]* who have experienced trauma.** If you select ‘Never’ for the frequency, please select ‘NOT APPLICABLE’ for intensity.
*We understand clinicians refer to their [clients] using different terms, please feel free to change [clients] to your preferred term.

	How often? (Frequency)					How strongly? (Intensity)					
Since I began working with [clients]* who have experienced trauma…	Never	Occasionally	Often	Very often	Always	NOT APPLICABLE	Not at all	A little	Moderately	Very strongly	Extremely
1 I have been affected by the traumatic stress of [clients] I have worked with											
2 I find it difficult to separate my personal life from my professional life											
3 It is hard to stay positive and optimistic given some of the things I encounter											
4 I am overwhelmed by worries about the safety of [clients] I have worked with											
5 I feel cut off from people											
6 I want to avoid working with some [clients]											
7 I think about my work with [clients] when I don’t intent to											
8 I find myself thinking about distressing material related to my work with [clients] at home											
9 I avoid people, places, or things that remind me of my work with [clients]											
10 I feel worn out because of my work with [clients]											
11 Sometimes I feel helpless to assist [clients] in the way I would like											
12 I believe the world is dangerous											
13 I see the world as a dangerous place											

POSTER

Ask the experts: How should we measure vicarious trauma?

Hannah Strange, Rachel Sabin-Farrell & Nima Golijani-Moghaddam
Hannah.strange@nottingham.ac.uk
Trent Doctorate in Clinical Psychology

Background

Practitioners are exposed to the traumatic narratives of their clients and over time, they can exhibit signs of vicarious trauma (VT), including changes to beliefs and symptoms mirroring the trauma-related symptoms of their clients (avoidance, re-experiencing, and hyper-arousal) [1]).

VT can have a wide-reaching impact on the therapists personal and professional lives (changes in mood, substance misuse, reduced intimacy with partners [2]), as well as the care clients receive (clinical errors are more likely and the therapeutic relationship can be impacted [3]).

The current 'gold standard' measure is the Trauma and Attachment Belief Scale (TABS [4]); however, questions have been raised about its construct validity, use of norms from a previous version of the TABS, and inconsistent factor structure. The Vicarious Trauma Scale (VTS [5]) has been proposed as a newer, alternative measure; however, the development process of the measure is unclear.

There have been several concerns raised about the approaches to measuring VT and how to separate VT from other conflated terms. The importance of VT and the issues identified point to the creation of a new measure to address these concerns.

Aims

The study aimed to:
- transparently and methodically develop a measure of VT to address the limitations of current measures
- to explore the factor structure, validity, and reliability of the measure.

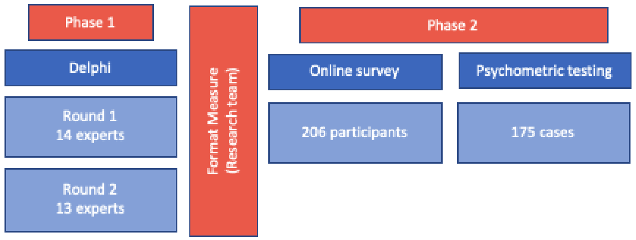


Figure 1 – The outline of the study

Method

Figure 1 outlines the structure of the project.

Phase One

13 'experts' in vicarious trauma (as identified through experience working in trauma services, research in related areas, or providing training to others on VT) were recruited. A Delphi methodology used expert consensus (set at 80%) to select items to form a new measure of VT from a pool of 146 existing items and novel items put forward by experts. Experts also provided feedback on the formatting of the measure. After two rounds, consensus was reached. Experts made suggestions on how to link the items to the context of working with clients with traumatic narratives and suggested scoring items in relation to both 'intensity' and 'frequency'.

Phase Two

206 clinicians completed an online survey (via JISC Online Surveys) which included demographic information, the new measure, and other existing measures (TABS, ProQOL [6], Life Events Checklist [7], Short-form Marlowe-Crowne Social Desirability Scale [8]), to provide data to establish the new measure's psychometric properties.

ROUND 1 - 146 items
- 140 from existing measures,
- 6 created by research team (aspects of VT not covered in existing measures)

ROUND 2 - 49 items
- 36 from round 1
- 13 novel items created by experts in round 1

FIRST VERSION OF MEASURE - 16 items
- 3 from ProQOL [6]
- 3 from VTS [5]
- 2 from TABS [4]
- 3 STSS [9]
- 1 proposed by experts
- 1 created by research team before round 1

POST-ANALYSIS MEASURE - 13 items

Figure 2 – Summary of progression of items from round one to post-analysis

Results

Phase One

Figure 2 demonstrates how items progressed from one round to the next. Experts also commented on how the measure should be formatted: 5/13 said the items should be linked to the context of client work by "*Since I began working with [clients] with traumatic narratives I have noticed*" and 7/13 said items should be rated on both intensity and frequency, rather than intensity, frequency, or other.

Phase Two

31/206 cases were removed due to extreme responding. An exploratory factor analysis using Parallel Analysis to extract factors identified a stable two-factor structure. Items with insufficient loadings were removed; 3 items were removed. Factors were examined by their content: Factor 1 – 'impact on individual' (Cronbach's alpha = .84); Factor 2 – 'a dangerous world' (Cronbach's alpha = .88). The TMVT had a significant correlation with the TABS ($r = .42$). There was a significant correlation between the TMVT and the short-form MCSD (-.17), and the TABS and short-form MCSD (-.21). There were no significant correlation between the LEC and the TMVT; however, there was a significant correlation between the TABS and the LEC (.28). The TMVT had a negative correlation with ProQOL compassion satisfaction (CS; -.43), and positive correlations with ProQOL burnout (BO; .60) and secondary traumatic stress (STS; .67) scales. The TABS had similar correlations with CS (-.43), BO (.61), and STS (.41).

Discussion

Implications
- It could be argued the TMVT converges with the concept of STS, raising questions about the ability to separate it from VT.
- Correlation between VT, burnout, and STS, suggest people may experience more than one form of work-related distress. Identifying distress allows for a range of interventions. The correlations with CS also support previous findings [10] and it is suggested interventions that increase CS can decrease STS and VT.
- Findings support the TABS use for measuring direct trauma rather than VT

Limitations
- Consensus-based measures may neglect less frequent (yet still salient) experiences
- Phase Two only completed by UK-based participants
- Narrow DW factor is unlikely to be replicated in confirmatory factor analyses, which would also impact the psychometric properties of the TMVT

Future research
- To substantiate its psychometric robustness, the new measure's factor structure, validity, and reliability, require further testing and cross validation [11]

References: 1: McCann, I., & Pearlman, L. A. (1990b). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*(1), 131-149; 2: Saakvitne, K. W., & Pearlman, L. A. (1996). *Transforming the pain: A workbook on vicarious traumatization*. W W Norton & Co; 3: Trippany, R. L., Kress, V. E. W., & Wilcoxon, S. A. (2004). Preventing vicarious trauma: What counselors should know when working with trauma survivors. *Journal of Counseling & Development, 82*(1), 31-37; 4: Pearlman, L. A. (2003). *Trauma and attachment belief scale*. Western Psychological Services; 5: Vrklevski, L. P., & Franklin, J. (2008). Vicarious trauma: The impact on solicitors of exposure to traumatic material. *Traumatology, 14*(1), 106-118; 6: Stamm, B. H. (2010). *The Concise ProQOL Manual* (2nd ed.). ProQOL.org; 7: Weathers, F.W., Blake, D.D., Schnurr, P.P., Kaloupek, D.G., Marx, B.P., & Keane, T.M. (2013). The Life Events Checklist for DSM-5 (LEC-5). www.ptsd.va.gov; 8: Ballard, R. (1992). Short forms of the Marlowe-Crowne social desirability scale. *Psychological Reports, 71*(3), 1155-1160; 9: Bride, B. E., Robinson, M. R., Yegidis, B., & Figley, C. R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14*, 27-35; 10: Simon, C. E., Pryce, J. G., Roff, L. L., & Klemmack, D. (2006). Secondary traumatic stress and oncology social work. *Journal of Psychosocial Oncology, 23*(4), 1-14; 11: DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Sage publications.

Small Scale Research Project

AN AUDIT AND EVALUATION OF WARD ROUNDS WITHIN A CAMHS INPATIENT SETTING

Abstract

Purpose: Ward rounds are commonplace for inpatient services. The project aimed to compare Child and Adolescent Mental Health Service (CAMHS) inpatient unit ward rounds to the Trust recommendations for an "ideal ward round" and gain an understanding of how the ward rounds are experienced by young people (YPs), families and carers, and staff.

Method: Questionnaires on the experience of ward rounds were given to staff, YPs, and family/carers across three inpatient wards. Questionnaires were returned by seven staff and two YPs – no family/carers responded. Existing recommendations from adult mental health wards were used as items on the audit. Thirteen different ward rounds were audited.

Findings: The audit highlighted areas of development including defining and explaining the purpose of ward rounds, limiting number of attendees, and ensuring ways of auditing and evaluating ward rounds. Strengths included clear follow up actions, time-keeping, and shared decision making. Effect sizes between the wards demonstrated large differences between mean audit scores, the largest was between the Specialist Eating Disorder Unit and the Psychiatric Intensive Care Unit. Thematic analysis identified four themes: involving others, lost voices, a need for "*streamlined*" ward rounds, and the potential for anxiety.

Conclusions: The current audit criteria provide an overview of important aspects of ward rounds; however, these may need adapting to suit CAMHS, especially in relation to the number of ward round attendees. The characteristics of the three different wards may impact how the ward rounds are conducted, as may the stage of admission. Differences in perspectives were observed and recommendations are made regarding wider, systemic changes to engage YPs and families in service developments and change narratives regarding involvement.

Keywords: Ward round; CAMHS; Audit; Evaluation

1. Introduction

When the first ‘lunatic asylum’ began admitting patients in 1407, there were no guidelines as to how treatment should be provided, and no inspection protocols established (Lawton-Smith & McCulloch, 2013). Present day mental health hospitals have changed greatly since earlier asylums and, over the years, public bodies have been established to monitor services. The Care Quality Commission (CQC) was formed in 2009 and outlines fundamental standards of care including: providing person-centred care, being treated with dignity and respect, transparency of care, and services must have plans in place to meet expected standards (CQC, 2017). Standards have also been established specifically for inpatient admissions by the Royal College of Psychiatrists (RCPsych). Whilst these standards cover the patients’ journey from admission to discharge, there are no specific standards cited for conducting ward rounds (RCPsych, 2017).

Ward rounds are commonplace during inpatient admissions; they provide an opportunity to discuss care, make decisions, and share information (Mattinson & Cheeseman, 2018; Milner, Jankovic, Hoosen, & Marrie, 2008). However, research suggests they are not always well received by patients. Ward rounds were reported to be anxiety provoking for the majority of inpatients (Labib & Brownell, 2009), especially when there were more attendees present (White & Karim, 2005). Patient distress levels immediately prior to the ward round and unfamilirality with attendees was also related to the experience of heightened anxiety (Cappleman, Bamford, Dixon, & Thomas, 2015). Inpatients reported feeling information was being withheld and not feeling listened to (Labib & Brownell, 2009). Some inpatients reported staff did not help prepare them for ward rounds (Milner et al., 2008). One study found individuals considered ward rounds one of the least useful elements of inpatient care (Sharma, Carson, & Berry, 1992). Whilst these studies provide useful insights into the experience of ward rounds, it is important to remember they are all within the context of adult inpatient settings.

Inpatient Children and Adolescent Mental Health Services (CAMHS) are regarded as specialist services, yet literature on admissions processes is limited (McDougall, 2020). A National Quality Improvement Taskforce was announced to specifically improve the quality of children and adolescents' mental health inpatient services (NHS, 2020). The taskforce aims to ensure any inpatient admissions are necessary for treatment and are no longer than needed, as well as guaranteeing the voices of young people (YPs) and their families are always considered (NHS, 2020). The taskforce charter states, "we will listen and respond to [children, patients, and their families'] concerns and their ideas for improvement" (NHS, 2020, p. 2). The taskforce runs alongside the existing Long Term Plan (NHS, 2019), part of which aims to expand access to children and patients' inpatient services and join up community and inpatient services.

Rationale for project

There have been significant changes in the provision of inpatient treatment in CAMHS. In May 2018, provision moved from a 12-bed unit in a dated building to a new, purpose-built site for up to 32 YPs. The previous site was a General Adolescent Unit (GAU) whereas the new site houses a GAU, specialist eating disorder unit (SEDU), and Psychiatric Intensive Care Unit (PICU). As the site has moved location, staff teams expanded across the three wards, and increasingly diverse YPs, it is reasonable to update all processes, including ward rounds, to reflect these changes.

The Trust has conducted research into adult mental health ward rounds, resulting in a list of recommendations for an "ideal ward round" (Appendix A). As this research has not been done in CAMHS, there is a gap in Trust knowledge about ward rounds in these services – the current project sought to address this gap and to see how the existing recommendations can be applied to CAMHS. No other standards or guidelines were available.

Discussions between the author and patients, families and carers, and staff yielded frustrations from all parties. Anecdotal evidence suggested YPs were reluctant to complete ward round sheets because they did not see the point families were left feeling confused, and some members of staff felt powerless. The author and colleagues proposed a formal examination of individuals' views and assess how ward rounds are being conducted – what is going well, and what could be improved.

Aims

The audit aimed to:

1. Compare CAMHS inpatient unit ward rounds to the Trust's recommendations for an ideal ward round using an audit checklist
2. Gain an understanding of how the ward rounds are experienced by patients, their families/carers, and staff using a questionnaire

2. Methods

Materials

The questionnaires (Appendices B, C, and D) were developed by the author and based on the questions posed in a previous CAMHS ward round project.

Three different versions were created for each group: patients, family and carers, and staff. All questions were open-ended to allow for detailed qualitative answers.

The recommendations for an "ideal ward round" were provided by the Trust's Innovation department (Appendix A) and were the basis for the audit criteria (Appendix E). As the author had used the recommendations in a novel context to form the audit, there were no guidelines available to support how the ratings should be interpreted. Instead, the author ascribed ratings depending on how fully they felt each criterion was met (0 = not met, 1 = partially met, 2 = definitely met). The maximum possible score was 26.

Procedure

Following approval from the Trust's Research and Development department, participant information sheets were placed on noticeboards around the unit (Appendix F). Individuals were also offered their own copy of the information sheet. Staff were also informed about the project via email with the staff questionnaire attached (Appendix B).

Opportunity sampling was used; the author spoke to inpatients across the three wards about the project and if the YP consented, they were provided with a questionnaire (Appendix C). All YPs were deemed to have Gillick competence and capacity to provide consent. YPs were informed they could ask author, or other staff members, to help them complete the questionnaire.

The family and carers questionnaire (Appendix D) was given to consenting family and carers who attended the ward round. Completed questionnaires were collated in a labelled box within the nurses' office on each ward. Data were stored securely in line with Trust policy.

On the day of their respective ward rounds, the author gained initial consent to attend from the young person and any other family or carers present. Staff were reminded about the audit during morning ward handover.

The author sat in the same room as the ward rounds; however, they did not contribute anything to the discussions, other than to introduce themselves and explain the purpose of their attendance at the start of the ward round. Detailed notes were made in relation to each audit criteria to provide information to guide ratings. After the ward round, the author used the notes to give a rating for each item and summed these to get an overall score.

All anonymised data was uploaded onto the Trust servers for secure storage. Each patient who participated was assigned a letter of the alphabet.

Analysis

Quantitative data

Descriptive statistics were calculated for audit scores across each ward, and overall. Descriptive statistics for the number of attendees for the ward rounds were also analysed.

Due to the sample size, and subsequent lack of power, between groups statistical significance analyses were not completed. Instead, effect size (Cohen's *d*) was calculated to determine the magnitude of difference between the wards. Cohen's *d* was calculated using the following equation where M_1 and M_2 are the sample means for groups 1 and 2 respectively, and SD_p is the pooled standard deviation:

$$d = \frac{M_1 - M_2}{SD_p}$$

Qualitative data

Data from the questionnaires were analysed using a deductive thematic analysis. Data were pooled across all respondents. The audit criteria provided a theoretical framework, indicating possible themes. An interpretative analysis would not have been appropriate as there was not enough data to support this.

The author followed Braun and Clarke's (2006) six-step process: (1) familiarisation with data, (2) code data, (3) create themes, (4) review themes, (5) assign theme names, (6) write up analysis.

3. Results

Participants

Seven staff members (two from GAU, four from PICU, one from SEDU) completed the questionnaire; however, one PICU staff member only answered one question. Of the 28 admissions at the time of the project, 2 YPs completed the questionnaire (one from SEDU, and one from PICU). No family or carers completed the questionnaire.

Thirteen ward rounds were audited (5 from GAU, 3 from PICU, 5 from SEDU).

Four YPs were admitted in the month prior to the study (referenced as 'newer admissions') and three were within a month of being discharged. No further demographic information was collected to prevent identification of participants. The questionnaire was available to all members of the multi-disciplinary team; however, designation of participants was not recorded to maintain confidentiality.

Audit scores

Audit criteria ratings are presented in Table 24 for each patient across wards: SEDU (A-E), GAU (F-J), PICU (K-M).

Table 24

Audit items and ratings given for each patient's ward round.

		Patients												
Audit items		**SEDU**					**GAU**					**PICU**		
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**
1	A clearly defined and communicated purpose of ward round	1	0	0	0	0	2	1	0	0	1	0	0	0
2	A scoping exercise to effectively 'declutter' the ward round	1	2	1	2	2	2	1	1	1	1	1	1	1
3	Acknowledgement of issues of power imbalance	2	2	2	2	2	2	2	2	2	2	1	1	1
4	Shared decision making	2	2	2	2	2	2	2	2	2	2	2	2	1
5	An agreed agenda	2	2	2	2	1	2	2	2	2	2	1	2	2
6	Participants are well prepared	2	2	2	2	2	2	2	1	2	2	2	2	1
7	Follow up actions are clear	2	2	2	2	2	2	2	2	2	2	2	2	2
8	Supportive person-centred discharge planning	2	2	2	2	2	2	2	2	2	2	2	2	1
9	Appropriate length / duration of the ward round	2	2	2	2	2	2	2	2	2	2	2	2	2
10	Consideration of physical environment	2	1	2	2	2	2	2	2	2	2	2	2	2
11	Limitation of those who attend ward rounds (recommended 5)	0	2	2	0	2	0	2	0	0	0	2	0	0
12	Communication with, and involvement of, family and/or carers	2	2	1	2	2	0	2	2	2	2	2	2	2
13	A process for management, auditing and evaluation of ward rounds	1	1	1	0	0	0	0	0	0	0	0	0	0
	Total score	21	22	21	20	21	20	22	18	19	20	19	18	5

Only one ward round [F] was clearly defined, and its purpose explained. Three [A, G, J] were told about the purpose of the ward round but not provided with a definition. All ward rounds where the purpose or definition (or both) were provided were admitted in the last month, compared to those not informed of the purpose, or definition of ward rounds.

A scoping exercise was conducted in four ward rounds [B, D-F]. The other ward rounds did not make explicit reference to the exercise; however, they were items that came up which were agreed to be discussed later.

Power was acknowledged in all but three ward rounds [K-M] – all took place on PICU. Power imbalances were identified; however, it was not sufficient to create a sense of shared ownership. One ward round made explicit reference to the patient holding a greater amount of power over the staff [H].

Shared decision making was observed in all but one ward round [M]. The patient was part of the discussion about decisions; however, their views were not taken into consideration.

Agendas were agreed at the start of all but two ward rounds [E, K]. The two ward rounds that did not fully meet this criterion were felt to have a prescribed agenda, rather than a collaborative co-created agenda.

All YPs were provided with a weekly feedback sheet prior to the ward round. One chose not to complete their sheet [M] and one declined to bring it to the ward round [H].

All ward rounds made clear follow up actions and ensured they were recorded in the minutes of the ward round.

All but one ward round [M] made reference to discharge. Some were more explicit when discharge was imminent [B, G, I]; however, even for newer admissions [A, F, G, J], discharge was discussed.

All ward rounds were completed within their 30-minute time frame. Twelve were held in a room specifically dedicated to ward rounds; ward round [B] was moved to another room on the unit due to an accidental clash in timings.

Only five ward rounds had the recommended number of attendees [B, C, E, G, K]. The recommendation was not met if more than five members of staff attended.

Eleven ward rounds sufficiently involved family and carers. One partially met this criterion [C] as the patient’s family were invited but did not attend. For one patient [F], they did not have a guardian, therefore family or carers could not be involved, and social services were not in attendance.

Only three ward rounds [A-C] partially meet the final criterion – all were on SEDU. They made direct reference to checking in with family or with the patient after the ward round. The remaining ten ward rounds did not make reference to this process.

Descriptive statistics

Descriptive statistics of the numbers of family and staff attending ward rounds are presented in Table 25.

Table 25

Descriptive statistics of ward round attendees

	Family		Staff	
Ward	Mean number of attendees	Range of attendees	Mean number of attendees	Range of attendees
SEDU	0.80	0-2	5	2-7
GAU	1.40	1-2	6.80	6-9
PICU	1.33	1-2	6.33*	5-7

Note: * rounded to 2 decimal places

Descriptive statistics of the audit scores across the three wards, and overall, can be found in Table 26.

Table 26

Descriptive statistics of audit scores across the three wards

Ward	Number of ward rounds attended	Range of audit score	Mean audit score	Standard deviation
SEDU	5	20-22	21.00	.71*
GAU	5	18-22	19.80	1.48*
PICU	3	15-19	17.33*	2.08*
Overall	13	15-22	19.69*	1.93*

Note: * rounded to 2 decimal places

Effect size

Cohen's *d* was calculated to establish the effect size; the magnitude of difference between the mean audit scores of the wards.

Compared to SEDU mean audit score, GAU had a lower mean score. The effect size was *d* = 1.03 (a large effect size).

Compared to SEDU mean audit score, PICU had a lower mean score. The effect size was *d* = 2.36 (a large effect size).

Compared to GAU mean audit score, PICU had a lower mean score. The effect size was *d* = 1.37 (a large effect size).

Thematic analysis

Four themes were identified from the questionnaire responses and are summarised below. 'Participants' refers to all individuals who completed the questionnaire. Staff responses comprised of two individuals from GAU (N, O), four from PICU (P, Q, R, S), and one from SEDU (T). One YP responded from PICU (U) and one from SEDU (V).

Involving Others

All participants stated decisions should be made in consultation, and discussions should include all relevant professionals. Having discussions with multiple individuals provided clarity and helped "*to understand staff's perspectives on treatment*" [V]. However, some felt consultation was only within staff: "*they discuss how you're doing and potentially make changes*" [U]

Three staff [N, O, T] said it was helpful to rotate the ward round chairperson each week; however, it was not expanded on why this was helpful. Participants P and R said the chair had been shared, including with YPs, in previous workplaces.

All participants felt YPs should have more involvement and staff felt YPs were central: *"[ward rounds] should be an opportunity to hold a young person's care and views at the centre of things*" [R].

All participants stated family should be involved in ward rounds; views differed on the extent of involvement. Staff felt it was important for family voices to be heard; however, participants N, O and R questioned whether family needed to attend every week. It was also acknowledged this can be challenging for YPs. Participant N acknowledged there are limits to what YPs consent to share which can be "*difficult to remember*", another said parental involvement should be reconsidered if the patient does not want them involved, especially if they are over 16 years old. Participant U felt family should not be directly involved in the ward round discussion, instead they should be "*filled in*" about the "*important bits only*". Participant V felt parents should be involved in the ward round discussion but acknowledged this came with anxiety: "*they might say something triggering*".

Lost Voices

Participants identified staff, and YPs alike, are not being heard. It was suggested voices are only heard if individuals attend the ward round. Two staff [P, R] mentioned key professions not being able to attend the ward rounds because they were held on staff's non-working day; they were "*missing*" from discussions. It was also expressed regarding YPs: "*young people should attend the ward round to have their say*" [Q]. Participant R suggested attendance could be circumvented: "*young people should be supported to have their views shared if they choose not to attend*".

Staff felt patients' voices could be heard through their feedback sheets; however, "*young people don't always get a copy*" [R]. The YPs did not make reference to feedback sheets. Other ways of encouraging patients' voices were suggested, the participant V gave examples of options they do not currently have but should have including: how ward rounds are attended, alternative ward round formats, "*the option to hear negatives*", and "*the option to feedback without others looking at me*".

Staff identified it would be helpful to have separate professionals' discussions beforehand to openly discuss patients. Participant T acknowledged professional discussions could have dominant voices: "*overly/exclusively medical and don't address general mental health*"; however, this was not expressed on other wards.

A Need for "Streamlined" Ward Rounds

Participants wanted simplified ward rounds in relation to the number of people who attended, the paperwork, and the types of discussions.

Participants acknowledged there were often excessive numbers of attendees. Whilst participant Q cited this as helpful, others expressed concerns there were sometimes "*too many people in the room*" [O] which was not helpful. This view was shared by patients: "*there should be less people in the room*" [U]. Participants acknowledged there are core professionals involved in care for whom attendance is necessary. Suggestions were made for additional staff to attend, but not every week;

however, participant T identified an exception “*its unhelpful having medical students observing*”.

Four staff members commented on the current paperwork: “*documentation is not user friendly*” [O] and suggested it be simplified and shortened. Participant Q stated previously attended ward rounds did not have as much detail but did not quantify whether this was a strength or a weakness. YPs did not comment on the paperwork.

Participants felt the content of the ward rounds could also be altered. Some staff felt discussions “*lacked focus*” [T] and Care Plan Approach meetings and ward rounds “*merged into one*” [N] which was seen as a negative. Participant U suggested “*separate discussions with young people and parents to feedback important information*” would simplify information.

The Potential for Anxiety

Both YPs spoke of anxiety related to ward rounds, describing them as “*stressful*” and “*unnerving*”. Both specifically identified anxiety related to being in front of others; participant V worried about “*the anxiety of speaking aloud*” whereas participant U worried about “*too many people looking at me in a small place*”. Their suggestions to mitigate anxiety included “*less people in the room*” and providing “*positive reinforcement and have the choice to hear about negatives*”.

No staff commented directly on YPs experiencing anxiety in ward rounds. It could be argued participant R implied anxiety was experienced: “*we need to support them to feel able to attend - what would help this? Less people? Knowing you can leave if you need to? Knowing what’s expected?*”.

4. Discussion

The large effect sizes observed between all wards suggests there is a large difference in audit scores. SEDU scored highest on the audit, followed by GAU, and then PICU. PICU had the greatest variation in scores, and the smallest number of participants which could have influenced the results. The audit highlighted notable areas of development including defining and explaining the purpose of ward rounds, limiting number of attendees, and ensuring ways of auditing and evaluating ward rounds. Strengths included clear follow up actions, time-keeping, and shared decision making.

PICU was the only ward to not sufficiently meet criteria relating to acknowledging power imbalances, and to drop one point for shared decision making. The nature of PICU and the complex presentations of patients, increased restrictions, and all YPs must be sectioned under the Mental Health Act (2007) to be admitted, may create an inherently power imbalanced environment. Whilst staff are encouraged to promote collaboration (Waldemar, Esbensen, Korsbek, Petersen, & Arnfred, 2018), on occasions it may not be appropriate (Rimondini et al., 2019). It may be that shared decision making does not hold the same value on PICU, compared to GAU or SEDU. Future audits may benefit from adapting recommendations to suit the constraints of the ward being audited.

Only one SEDU ward round partially met the first criteria regarding explanation and definition of ward rounds. SEDU typically has longer admissions as individuals with eating disorders can be at risk of refeeding syndrome if weight gain is too rapid, meaning treatment takes longer (Mehanna, Moledina, & Travis, 2008). The appropriateness of reiterating the definition and purpose of ward rounds every week, for what can be over a year for some individuals, could be questioned. However, it assumes the YPs and their family or carers retain information over a long period of time. Some YPs lack capacity at admission and their mental health may impact their ability to process information and assuming their understanding of what a ward round involves and why they occur may be incorrect. Capacity can change over time and ability to understand and make decisions about care may change too (Mental Health Act, 2007). The definition and purpose may not need to be given at every ward round; however, it would be helpful to check in with the understanding of attendees, perhaps on a fortnightly or monthly basis.

Factors such as warmth, empathy, and the therapeutic relationship influence outcomes more than the type of therapy being provided (Lambert & Barley, 2001). The same understanding could be applied to ward rounds. The “ideal ward round” protocol may be identified, but if ward rounds are not conducted in a personable and warm way, it may be experienced differently. The audit did not collect any responses from YPs or families and carers about their ward round, and how it was experienced by them. The author was able to get a sense of how the ward rounds were experienced by observing participants; however, this does not rival their lived experiences. Future audits may benefit from asking YPs and their families to rate aspects such as they felt staff listened to them, how understood they felt they were, and how approachable they found staff. These factors could also be rated by the auditor and then compared to build a sense of therapeutic relationship. This approach would be in line with the NQIT approach to improving inpatient services for YPs (NHS, 2020).

From the thematic analysis, a difference in perspectives was observed between staff and patients. Some staff felt that allowing YPs to chair their ward rounds would be of benefit and allow for their voices to be heard; however, this conflicts with the view of YPs that the process already is anxiety provoking, so much so one patient left after five minutes. The 'possibility of anxiety' theme was almost solely a result of the patients' responses and supports previous research (Cappleman et al., 2015; Labib & Brownell, 2009). Whist this does not mean staff members do not consider patients' anxiety levels in day-to-day practice, it could suggest staff do not consider this a priority, in the way YPs do. For YPs it may be the anxiety is more at the forefront of their mind because the ward round is a situation focused on them.

There were conflicting views of how many people (and who) should attend ward rounds. SEDU's mean number of staff members in attendance was in line with the recommended number of attendees, all other wards had a higher mean. There are a number of different professionals working on the wards including psychiatrists, doctors, nurses, health care assistant, occupational therapists, family therapists, psychologists, teachers, social workers, and dieticians. One patient may be involved with someone from each profession, and all would be considered as "*being part of their care*" and according to staff and patients, they should be involved in the ward round. Simultaneously, YPs have raised concerns and expressed anxiety at the high number of attendees, supporting previous research by (White & Karim, 2005). The suggestion of having a separate professionals discussion prior to the ward round could mitigate this dilemma; all professions voices could be heard and shared, and then fed back to the YPs by a smaller group – some have called for this group to be made up of individuals chosen by the patient. If a more collaborative process of inviting staff (both internal and external) was installed, it could prove beneficial. YPs may feel more comfortable because they are aware of who is attending (Cappleman et al., 2015), and if they choose fewer people to attend, it may help with the anxiety and subsequent involvement. Alternatively, this recommendation should be revised specifically for inpatient CAMHS. The recommended number of attendees was five;

however, it is not clear whether this number is inclusive of the patient, family, and staff, or whether it only refers to staff. The author interpreted this recommendation as only staff, but it is possible the number of family members could further raise anxiety as overall attendee numbers increase (as identified in the thematic analysis).

The qualitative data suggests family involvement is important for both staff, and patients. In contrast to this, there is a lack of family or carer views in the current study. Despite being invited to take part, and some families taking the questionnaire stating they will complete it, there were no responses collected. Family and carers could have been followed up via email or telephone about participation; however, this could be considered unethical and invasive. Perhaps a lack of responses is informative of how family and carers view the process of ward rounds? One hypothesis is family and carers express similar views to YPs of "*what's the point?*" or the belief decisions are made by the staff team regardless, rather than the intended shared decision making.

Further to the absence of family and carers, only a small number of YPs participated. Those who responded made reference to staff making decisions, rather than the value of themselves being involved in discussions (a view which was expressed by staff), which could be argued to support the original rationale for the project: YPs "*don't see the point*" in making a contribution to discussions. The '*lost voices'* theme also made reference to YPs not being heard. The lack of responses could be seen as further supporting the narrative that YPs' views don't count. More work needs to be done to empower YPs and encourage their voices to be heard. The author hopes the introduction of the NQIT can encourage changes at a higher systemic level to address this.

Limitations

The process of completing an audit can be anxiety provoking for staff; staff have reported feeling under pressure to complete tasks, and fear being seen as incompetent (Johnston, Crombie, Alder, Davies, & Millard, 2000). In these situations, social desirability can occur; participants respond in a favourable manner. It is possible that by directly observing ward rounds, staff may have consciously, or unconsciously, changed their behaviour in ward rounds (Kerrison, Buxton, & Packwood, 1993). Ensuring a supportive environment could reduce anxieties (Johnston et al., 2000) and re-auditing across multiple time points can reduce the impact of these factors. Each ward round was attended once. While this reduces the burden on the YPs as having multiple people in the ward round was reported to be anxiety provoking, audit scores do not benefit from test-retest reliability.

As this is the first audit using the Trust's recommendations as criteria, there were no guidelines available for applying the criteria. It is subjective and open to interpretation as to how to rate each item. Furthermore, as the author was the only person conducting the audit, inter-rater reliability cannot be provided. Should the Trust plan to use the recommendations identified in their previous research as standards to uphold, and therefore standards to be audited against, it would be beneficial to also create clearer guidance as to how to apply these criteria. One solution would be to provide examples of ward rounds which would score a '0', '1', and '2'. These vignettes would allow the auditor to have a better idea of what constitutes each rating, and subsequently the total score would better reflect the ward round.

To avoid identifying participants, no demographic information was collected. This could have provided useful information about ages, genders, or presentations and whether they impact how the ward round is experienced, or how they are conducted. Participants may have felt more comfortable with this if more YPs took part. In the future, it may be useful to hold meetings within the wards, in addition to putting up information sheets, to allow the YPs to discuss participation. More information about staff participants would have also provided interesting data. For example, designation was not collected; however, it could have provided insights into how different professionals view the process. It is unlikely this could be addressed in future audits at this CAMHS facility as there are some designations with only one member of staff which would mean they are easily identifiable.

Conclusion

Quantitative and qualitative differences were observed between SEDU, GAU, and PICU wards. Recommendations focus on local level involvement, in addition to the wider, national, systemic changes underway. The author recommends a re-audit in a year's time to assess the implementation of changes and how the current standards are being upheld over time.

Declaration of Conflicting Interests

The Author(s) declare(s) that there is no conflict of interest

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Appendices
Appendix A

Recommendations for an ‘ideal ward round’

1. A clearly defined and communicated purpose of the ward round relative to the overall in-patient experience, setting out the scope and limitations of the ward round: what it is for and what it is not for.
2. A scoping exercise to effectively ‘declutter’ the ward round from being the function to discuss / resolve too many, significant or complex issues / matters and to recommend how issues such as treatment, s.17 leave, discharge planning may be resolved outside the ward round.
3. Acknowledgement, consideration of and appropriate checks and balances for issues of power imbalance that currently exist between patients and professionals, carers and professionals and professionals themselves, establishing practice of joint ownership of the ward round.
4. A clear definition and practical application of both Shared Decision Making[24] and Supported Decision Making[25] with emphasis on maximising patient autonomy and reducing substitute decision making by healthcare professionals. The model will set out how the patient’s voice (including their beliefs, values and past and present wishes and feelings) will be placed at the centre of the process, including through mechanisms such as advocacy.
5. A model where each ward round has an agreed ‘agenda’ that all parties input into and is circulated in good time to allow for preparation and follow up.
6. Clear processes for the preparation and follow up of ward rounds, ensuring participants are well prepared, actions are clear and agreed, and responsibility and monitoring of actions is effective.

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[24] **Shared Decision Making** is defined by the NHS as “a process in which clinicians and patients work together to select tests, treatments, management or support packages, based on clinical evidence and the patient’s informed preferences”.

[25] **Supported Decision Making** is the process of supporting people, whose decision-making ability may be impaired, to make decisions and so promote their autonomy and prevent the need for substitute decision making

7. Demonstration of supportive person-centred discharge planning from admission, with a focus on the individuals Recovery (setting out what recovery means and where it begins/ends for the patient), with effective involvement of adult social care and processes that can ensure consistency and progress for patients where this cannot be guaranteed by consistency in staffing.
8. Guidance on the appropriate length / duration of the ward round that is reasonable and proportionate to its aims, the involvement of relevant parties and relevant staffing resources. Guidance on the consequent appointment planning systems that can be used to improve experience of patients, carers and professionals. When delays occur the patient and carer being informed in an appropriate manner.
9. Consideration of the physical environment the ward round takes place in and recommendations for ensuring this is conducive to being welcoming and open and minimises anxiety and intimidation.
10. A defined limitation of those who attend ward rounds to ensure that attendance is significantly less than current practice with clear rationale and agreement for attendance in advance which links with and reflects the circulated and agreed agenda (recommendation 5).
11. Particular attention to communication with and involvement of carers and the potential barriers to this (e.g. confidentiality)
12. A process for management, auditing and evaluation of ward rounds that allows measurement of patient, carer and professional satisfaction, continual improvement in practice and benchmarking standards.

Appendix B

Staff questionnaire (identifying text has been removed)

Ward Round Evaluation

As ward rounds occur weekly, they are an important part of the patients' time at [redacted]. We want to make sure that they are being conducted in the best way possible for everyone involved. We will be asking for feedback from: young people, their carers and families, and all members of staff who are involved in contributing to the ward rounds.

These forms are anonymous. We hope that this means you feel you can be honest and open with your responses.

Please contact [redacted] (Trainee Clinical Psychologist) or [redacted] (Clinical Psychologist), if you have any questions about this evaluation.

What's your understanding of ward round?
Why do you think we have a ward round?
What are your experiences of ward rounds at [redacted]?
What has been helpful about ward rounds?
What has been unhelpful?
Have you had any experiences of ward rounds elsewhere? If so how were they different?

Who do you think should be involved in ward rounds?
Do you think young people should be involved in ward rounds? If so, how should they be involved?
What would be your worries about them being involved?
Do you think carers/family should be involved in ward rounds? If so, how should they be involved?
What would be your worries about them being involved?
Do you have any ideas of how we could improve ward rounds?
Is there any other feedback that might be useful for us to know?

Appendix C

Young people questionnaire (identifying text has been removed)

Ward Round Evaluation

As ward rounds occur weekly, they are a big part of being here at [redacted]. We want to make sure that they are being conducted in the best way possible for everyone involved. We will be asking for feedback from: young people, their carers and families, and all members of staff who are involved in contributing to the ward rounds.

These forms are anonymous. We hope that this means you feel you can be honest and open with your responses.

Please contact [redacted] (Trainee Clinical Psychologist) or [redacted] (Clinical Psychologist), if you have any questions about this evaluation.

What's your understanding of ward round?
Why do you think we have a ward round?
What are your experiences of ward rounds at [redacted]?
What has been helpful about ward rounds?
What has been unhelpful?
Have you had any experiences of ward rounds elsewhere? If so how were they different?

Who do you think should be involved in ward rounds?
Do you think young people should be involved in ward rounds? If so, how should they be involved?
What would be your worries about being involved?
Do you think carers/family should be involved in ward rounds? If so, how should they be involved?
What would be your worries about them being involved?
Do you have any ideas of how we could improve ward rounds?
Is there any other feedback that might be useful for us to know?

Appendix D

Family and carers questionnaire (identifying text has been removed)

Ward Round Evaluation

As ward rounds occur weekly, they are an important part of the patients' time at [redacted]. We want to make sure that they are being conducted in the best way possible for everyone involved. We will be asking for feedback from: young people, their carers and families, and all members of staff who are involved in contributing to the ward rounds.

These forms are anonymous. We hope that this means you feel you can be honest and open with your responses.

Please contact [redacted] (Trainee Clinical Psychologist) or [redacted] (Clinical Psychologist), if you have any questions about this evaluation.

What's your understanding of ward round?
Why do you think we have a ward round?
What are your experiences of ward rounds at [redacted]?
What has been helpful about ward rounds?
What has been unhelpful?
Have you had any experiences of ward rounds elsewhere? If so, how were they different?

Who do you think should be involved in ward rounds?
Do you think young people should be involved in ward rounds? If so, how should they be involved?
What would be your worries about them being involved?
Do you think carers/family should be involved in ward rounds? If so, how should they be involved?
What would be your worries about being involved?
Do you have any ideas of how we could improve ward rounds?
Is there any other feedback that might be useful for us to know?

Appendix E

Ward round audit form

Criteria	**Criteria met**	**Criteria partially met**	**Criteria not met**	**Rating (0 = not met, 1 = partially, 2 = met)**
clearly defined and communicated purpose of ward round				
scoping exercise to effectively ‘declutter’ the ward round				
Acknowledgement of issues of power imbalance				
Shared decision making - on maximising patient autonomy and reducing substitute decision making by healthcare professionals				
an agreed agenda				

Criteria	**Criteria met**	**Criteria partially met**	**Criteria not met**	**Rating (0 = not met, 1 = partially, 2 = met)**
Participants well prepared				
Follow up actions clear				
supportive person-centred discharge planning				
appropriate length / duration of the ward round				

Criteria	**Criteria met**	**Criteria partially met**	**Criteria not met**	**Rating (0 = not met, 1 = partially, 2 = met)**
Consideration of physical environment				
limitation of those who attend ward rounds (recommended 5)				
communication with and involvement of carers				
process for management, auditing and evaluation of ward round				

Appendix F

Participant information sheet (identifying text has been removed)

[redacted] WARD ROUND EVALUATIONS

We are doing an evaluation on ward rounds across all three wards to learn more about how they are experienced, what's going well, and whether there is anything we could be doing differently.
This project is being run by [redacted] (Trainee Clinical Psychologist) and supervised by [redacted] Clinical Psychologist)

Who are we going to be speaking to?

- I am interested in hearing from young people, family members/carers, and staff

What's going to be happening?

- Questionnaires will be handed out to everyone, these are phrased slightly differently depending on who they are for (young people, family/carers, or staff).
- I will also be observing ward rounds, but I will not be contributing to discussions.

Do I have to take part?

- It is completely optional!
- If you don't want to complete a questionnaire you do not have to.
- If you do not want me to sit in on the ward round, then I will not.
- If you choose not to take part, it will not impact the care you receive

Where is this information going?

- The anonymous information will be shared amongst the wards at the Lookout, and used to inform service development
- The information will also be written up as part of a research project for the University of Nottingham, Doctorate of Clinical Psychology
- It is possible that the research may be submitted for publication
- As participants, you can request a copy of the completed research project (as well as any journal articles published)

What is the point in taking part?

- Ward rounds are an integral part of inpatient care and subsequently, they can have a wide-reaching impact.
- The purpose of the project is to establish people's experiences of ward rounds and if possible, how we could look to improve them.
- This will not only benefit current patients, but also promote the consideration of ward rounds for future young people, their families, and the staff.

[redacted]: 25/02 – [redacted]: 26/02 – [redacted] 05/03