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REVIEW ARTICLE

The contribution of organisational factors to vicarious trauma in mental health professionals: a systematic review and narrative synthesis

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ABSTRACT

Background: The negative impact of trauma work has been well documented in mental health professionals. There are three main phenomena used to describe these effects: Secondary Traumatic Stress (STS), Vicarious Trauma (VT) and Compassion Fatigue (CF). To date, the majority of research has focused on the contribution of individual level factors. However, it is imperative to also understand the role of organizational factors.

Objectives: This review examines the role of organizational factors in ameliorating or preventing STS, VT, and CF in mental health professionals. We further aimed to identify specific elements of these factors which are perceived to be beneficial and/or detrimental in mitigating against the effects of STS, VT, and CF.

Method: Studies were identified by searching the electronic databases Medline, PsycINFO, Embase, Web of Science and SCOPUS with final searches taking place on 10 March 2021.

Results: Twenty-three quantitative studies, eight qualitative studies, and five mixed methods studies were included in the final review. A narrative synthesis was conducted to analyse the findings. The results of the review highlight the importance of regular supervision within supportive supervisory relationships, strong peer support networks, and balanced and diverse caseloads. The value of having an organizational culture which acknowledges and validates the existence of STS was also imperative.

Conclusions: Organizations have an ethical responsibility to support the mental health professionals they employ and provide a supportive environment which protects them against STS. This review provides preliminary evidence for the types of support that should be offered and highlights the gaps in the literature and where future research should be directed. Further research is needed to evaluate which strategies – and under what conditions – best ameliorate and prevent STS.

HIGHLIGHTS
- Organizations have a responsibility to protect mental health professionals from vicarious trauma.
- Regular supervision, peer support, diverse caseloads, specific trauma training, and a culture which validates vicarious trauma were identified as key protective factors.

La contribucion de los factores organizacionales al trauma vicario en los profesinales de la salud mental: una revision sistematica y sintesis narrativa

Antecedentes: El impacto negativo del trabajo de trauma ha estado bien documentado en los profesionales de la salud mental. Hay tres principales fenómenos usados para describir estos factores: Estrés Traumático Secundario (STS en sus siglas en ingles), Trauma Vicario (VT) y Fatiga por Compasión (CF). Hasta la fecha, la mayoría de la investigación se ha centrado en la contribución de los factores a nivel individual. Sin embargo, es imperativo comprender también el rol de los factores organizacionales.

Objetivos: Esta revisión examina el papel de los factores organizacionales en la mejora o prevención de STS, VT y CF en los profesionales de la salud mental. Además, nuestro objetivo fue identificar elementos específicos de estos factores que se perciben como beneficiosos y/o perjudiciales para mitigar los efectos de STS, VT y CF.

Método: Los estudios fueron identificados por la búsqueda en la base de datos electrónica de Medline, PsycINFO, Embasse, Web of Science y SCOPUS y las búsquedas finales se realizaron el 10 de marzo del 2021.

Resultados: En la revisión final se incluyeron veintitrés estudios cuantitativos, ocho estudios cualitativos y cinco estudios con métodos mixtos. Se realizó una síntesis narrativa para analizar los hallazgos. Los resultados de la revisión destacan la importancia del monitoreo regular dentro de la relación de supervisión y apoyo, redes sólidas de apoyo entre pares y una carga da casos equilibrada y diversa. El valour de tener una cultura organizacional que reconozca y valide la existencia de STS también fue imperativo.

Conclusiones: Las organizaciones tienen una responsabilidad ética de apoyar a los profesionales de la salud mental que emplean y brindarles un entorno de apoyo que los proteja contra el STS. Esta revisión provee evidencia preliminar para los tipos de apoyo que se deberían ofrecer y destaca las lagunas en la literatura y hacia dónde se deben dirigir las investigaciones futuras. Se necesita más investigación para evaluar qué estrategias – y bajo qué condiciones- mejoran y previenen mejor el STS.

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组织因素对心理健康专业人员替代性创伤的贡献:一项系统综述和叙事综合

背景: 心理健康专业人员中创伤工作的负面影响有据可查。有三种主要现象用于描述这些影响:二级创伤应激 (STS), 替代性创伤 (VT) 和同情疲劳 (CF)。迄今为止, 大多数研究都集中在个人层面因素的贡献上。但是, 还必须了解组织因素的作用。

目的: 本综述考查了组织因素在改善或预防心理健康专业人员 STS, VT 和 CF 中的作用。我们进一步旨在确定这些因素中被认为对减轻 STS, VT 和 CF 影响有益和/或有害的特定元素。

方法: 通过搜索电子数据库 Medline, PsycINFO, Embase, Web of Science 和 SCOPUS 来确定研究, 最终搜索于 2021 年 3 月 10 日进行。

结果: 最终综述包括 23 项定量研究, 8 项定性研究和 5 项混合方法研究。进行了叙事综合以分析调查结果。综述结果强调了在支持性督导关系中的定期督导, 强同伴支持网络以及平衡和多样的个案的重要性。拥有承认和验证 STS 存在的组织文化的价值也是必不可少的。

结论: 组织有支持其雇用心理健康专业人员并提供支持性环境以保护他们免受 STS的道德责任。本综述为应提供的支持类型提供了初步证据, 并强调了文献未来研究方向的差距。需要进一步研究来评估哪种策略以及在什么条件下最能改善和预防 STS。

1. Introduction

It has been well established that mental health professionals who work with traumatized clients can be emotionally affected by their therapeutic work (Bride, Radey, & Figley, 2007). Repeatedly hearing the painful and often graphic accounts of their clients' traumas can cause considerable stress and result in mental health professionals becoming indirectly traumatized.

Theoretical concepts have emerged to describe this phenomenon. Among them are 'Secondary Traumatic Stress' (STS; Stamm, 1995), 'Compassion Fatigue' (CF; Figley, 1995) and 'Vicarious Trauma' (VT; McCann & Pearlman, 1990). Although these terms share similar definitions – and are often interchangeably used in the literature – there are important differences between them.

Secondary traumatic stress has been defined as "the natural, consequent behaviours and emotions resulting from knowledge about a traumatizing event' (Figley, 1999, p. 10). Symptoms mimic those seen in individuals directly exposed to trauma; including intrusive imagery, avoidant responses, physiological arousal, insomnia and chronic irritability (Figley, 1999).

Compassion Fatigue is a development of Figley's (1995) original construct of STS; it is characterized by the 'reduced capacity of, or interest in, being empathic' or 'bearing the suffering of clients' (Figley, 1995, p. 7). As found with STS, symptoms of CF parallel those of post-traumatic stress disorder (PTSD).

While the constructs of CF and STS focus on outward symptoms, VT centres around the changes to cognitive schema and core beliefs as a result of exposure to and engagement with the traumatic material presented by clients (McCann & Pearlman, 1990). VT is associated with cognitive disruptions in the areas of trust, safety, dependency, power, esteem, and intimacy (Pearlman & Saakvitne, 1995).

Although conceptually different, it is increasingly understood that there is convergence between these three constructs (Jenkins & Baird, 2002). For the rest of this review, we will refer to STS as an umbrella term, encompassing the wider concepts of CF and VT,

although we will draw out which concepts studies in our review have addressed, when specified.

Secondary Traumatic Stress is a growing concern within the field of mental health. Research suggests that treating clients affected by trauma can lead to high rates of compassion satisfaction, but also STS. A cross-sectional study (Sodeke-Gregson, Holttum, & Billings, 2013) reported that 70% of psychotherapists employed by the UK's National Health Service (NHS) were vulnerable to experiencing chronic levels of STS. Despite the high risk of STS amongst mental health professionals, this is a population that has often been neglected relative to other occupational groups such as medical professionals and the police.

The consequences of STS in mental health professionals are widespread and multi-faceted, impacting both their personal and professional lives. Those suffering from STS may withdraw emotionally from their family and friends and become increasingly unavailable to them (Dutton & Rubinstein, 1995). STS can also lead to poor clinical judgment and therapeutic impasses (Bride et al., 2007) culminating in poorer client outcomes (Bercier & Maynard, 2015). Organizations may also suffer financially, with STS leading to poor productivity in employees, lower quality of service, increased sick leave (White, 2006) and higher rates of staff turnover (Stamm, Varra, Pearlman, & Giller, 2002). Therefore, addressing the occurrence of STS is imperative for organizations, the mental health professionals they employ and the clients they serve.

To date, most research has focused on individual-level factors thought to contribute to STS. The literature suggests that mental health professionals who are female, younger in age, unmarried, less educated and less experienced in their field of work report greater incidences of STS (Anderson, 2000; Baum, 2016; Lerias & Byrne, 2003). Higher levels of STS symptoms are further associated with negative coping styles and higher levels of personal distress and trauma (Jenkins & Baird, 2002). Although investigating these

individual-level factors provides valuable insight into those who may be most vulnerable to STS, these factors, for the most part, are static and unmodifiable; they provide limited insight into how mental health professionals can be supported in their line of work.

More recently the impact of organizational factors on STS have been considered, although systematic reviews on this are currently lacking. Compared to individual factors such as gender or age, organizational factors are potentially more alterable, therefore affording greater opportunity for organizations to address STS in the workplace. Although, arguably, factors such as organizational culture can be slow to change and challenging to impact. Importantly, as set out by the Health and Safety Executive (HSE), organizations have a moral, economic, and legal responsibility to protect the health, safety and welfare of their employees (The Management of Health and Security at Work Regulation, 1999). In line with the HSE Management Standards for Work Related Stress, NICE Guidance (2015) provides a series of recommendations for how employers can create a supportive environment that enables employees to protect and enhance their mental health. However, in practice, employers have too often focused on the risks to physical health and safety, rather than mental health. Stevenson and Farmer (2017) have subsequently recommended that HSE revise its guidance to raise employer awareness of their duty to assess and manage work-related mental ill health. The standards set out in the 2017 report have since been revised to form 'The Mental Health at Work Commitment Standards (2019).

Given the evidence described above and the responsibility on organizations, it is important that research into STS places more emphasis on organizational factors. This will enhance the existing evidence on individual level factors and inform the development of interventions to attenuate the impact of organizational factors on the levels of STS amongst mental health professionals.

The aim of this systematic review was to examine the impact of organizational factors on the experience and/or symptoms of CF, STS and VT in mental health professionals. We also sought to identify specific factors which are perceived to be beneficial and/or detrimental in mitigating against the effects of STS, VT, and CF.

2. Method

This systematic review was performed according to the recommendations of the 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses' (PRISMA). The PRISMA guidelines provide a set of items informed by empirical research for conducting systematic reviews and meta-analyses (Moher, Liberati, Tetzlaff, & Altman, 2009). The study was registered in advance on the 'International Prospective Register of Systematic Reviews'

(PROSPERO) – CRD42017074753. Final searches took place on 10 March 2021.

2.1. Search strategy

A broad search strategy was used to identify all potentially relevant studies. We utilized the following electronic databases; Medline (1946 to present), Psych INFO (1806 to 10 March 2021), EMBASE (1980 to 2021 Week 11), Web of Science and SCOPUS. This search was conducted using keywords and MeSH terms. The first component of the search strategy included key words developed around 'vicarious trauma', with the second component comprising of selected mental health professionals eligible for this review. The third component included key words related to organizational or workplace factors. Table 1 sets out the key concepts that were searched. Search terms were tailored to each database and combined using Boolean operators.

After removing duplicates, titles and abstracts of identified studies were then reviewed by two independent reviewers (LS and GH), with disagreements resolved by further discussion. A priori inclusion/exclusion criteria were applied to determine the eligibility of each publication for inclusion in the review, as per the following criteria. The reasons for exclusion after the screening stage are reported in Figure 1.

2.2. Inclusion and exclusion criteria

Both qualitative and quantitative studies were included, provided they examined the relationship between STS, CF, or VT in mental health professionals and one or more organizational/work related factor.

Studies were included in the review if they assessed either STS, VT, or CF. Research assessing 'burnout' in mental health professionals was not included, as the concept of burnout, while related, is conceptually distinct from CF, STS and VT. Burnout, unlike the other concepts, is not specifically limited to those working

Table 1. Key search concepts.

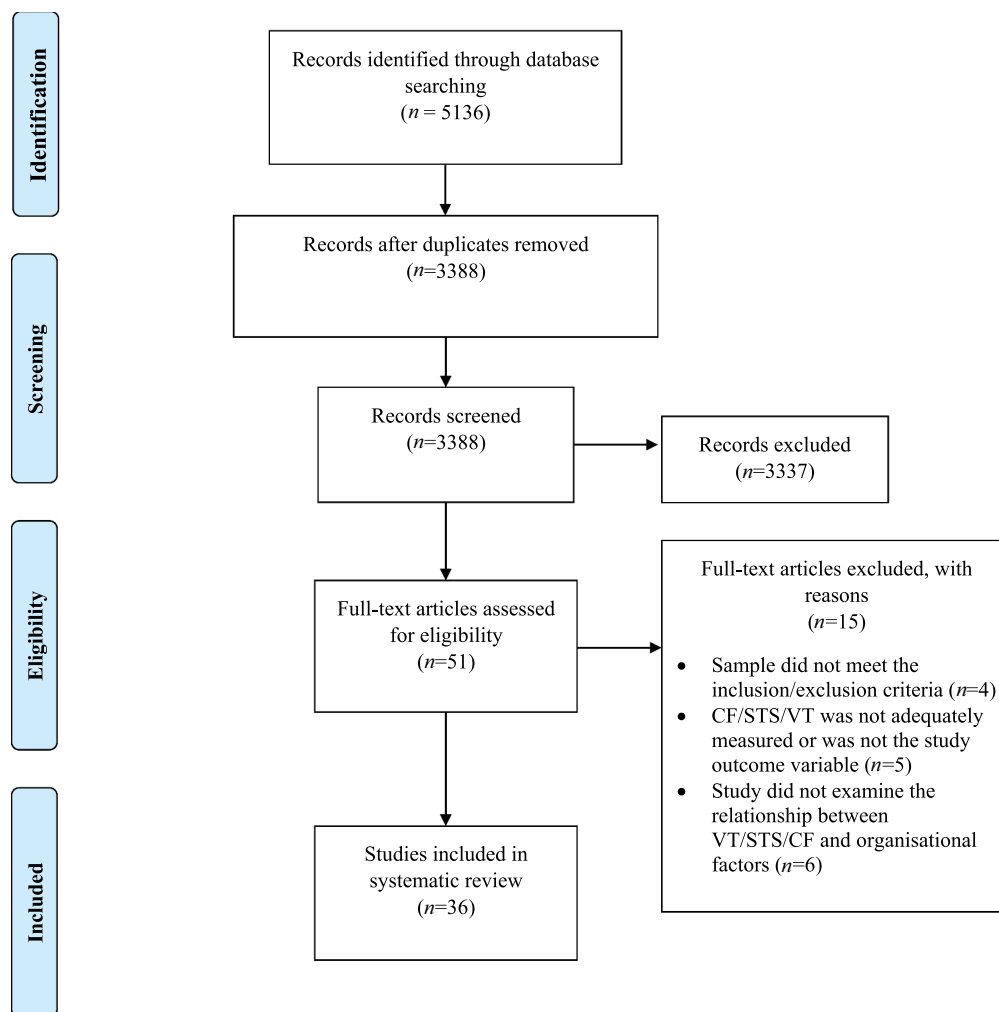| Population	Exposure	Outcome
Mental health personnel*	Organi?ation*	Compassion fatigue
Exp mental health personnel/	Caseload.mp	
	supervis*	Secondary trauma*
Mental health professional*	resilien*	
	exp workload/	Vicarious trauma*
Mental health practitioner*	workload	
	prevent*	
Mental health service*	protect*	
Exp Mental health services/	administrative support	
Clinician*	training	
Therapist*	peer support	
Social work*	debrief*	
Exp social worker/	colleague support	
Counsel*	client contact	
Psychologist*	support*	
Psychiatrist*	coping behavio$r	
	work adj3 characteristic*	

Figure 1. Flow diagram for study selection.

with trauma clients, but is more a reaction to the demands of one's job and environment.

For qualitative research that did not directly measure levels of CF, VT or STS, studies were included if the author's conceptualization of these terms were both described and in accordance with current literature. This was discussed as a research team to ensure there was consensus as to whether a study met the inclusion criteria.

Quantitative studies were eligible provided they used a validated tool. Such tools included, but were not limited to, the Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004) and The Professional Quality of Life Scale: Compassion fatigue subscale (Pro-QoL; Stamm, 2005). Initial scoping searches showed that research in this field commonly use measures originally designed to assess the symptoms of individuals who have been exposed directly, rather than indirectly to trauma. Such tools included the Impact of Event Scale (Horowitz, Wilner, & Alvarez, 1979), the Impact of Event Scale–Revised (IES-R; Weiss & Marmar, 1997), Trauma and Attachment Belief Scale (TABS; Pearlman, 2003) and Trauma Stress Institute Belief Scale-Revision L (TSIBS-

L; Traumatic Stress Institute, 1994). Similarly, tools designed to measure PTSD, such as the PTSD Symptom Scale (Foa, Riggs, Dancu, & Rothbaum, 1993) were also included in this review, as the symptomology of STS closely mirrors that of PTSD.

The types of mental health professionals included in this systematic review were limited to the following: psychologists, psychiatrists, therapists, social workers, and counsellors. Studies of medical professionals such as doctors, nurses and genetic counsellors were excluded, as the nature of the interaction and care provided differs to the therapeutic engagement between mental health professionals and clients. Studies assessing trainees and other non-professionals (e.g. volunteers, students) were also excluded. In addition, studies examining mental health professionals who had been exposed to the same traumatic event as their clients (e.g. a natural disaster, civil war etc.) were removed, as it would be difficult to distinguish STS from the impact of direct trauma.

For mixed professional samples, studies were included in the review if at least 50% of the sample comprised of eligible mental health professionals. Studies that did not adhere to this criterion were still

eligible for inclusion, provided separate analyses were conducted for the participant groups which could be extracted independently of the rest of the sample.

The specific organizational factors included in the study were not determined a priori but were derived inductively from the studies identified in the literature search using key words such as 'prevent' and 'support', as well through discussions with the research team following initial scoping of the literature.

2.3. Quality assessment

The methodological quality of the quantitative studies was assessed using the Newcastle-Ottawa Scale (NOS; Wells et al,). The NOS is a risk of bias assessment tool for observational studies. As all the quantitative studies in the review were cross-sectional, an adapted version of the NOS was used specifically for this study design (Modesti et al., 2016). The scale assesses quality of evidence based on selection, comparability and outcome, with stars awarded based on the NOS coding manual. A maximum number of five stars could be awarded for selection, two stars for comparability and three stars for outcome. Higher study quality is indicated by the number of stars that are awarded.

The quality of the qualitative studies included in the review was appraised using the Critical Appraisal Skills Programme Tool for Qualitative Research (CASP; 2007). The tool consists of ten criteria which assess the methodological rigour and validity of a study (Feder, 2006). To establish relative study quality, a scoring system was implemented (Long, French, & Brooks, 2020). Studies were rated as 'high quality' if they met at least 8 of the 10 criteria, 'moderate quality' if they met 5–7 of the criteria, and 'low quality' if they met 4 or less.

To minimize bias, two reviewers (LS and GH) independently evaluated the quality score of each study. Any discrepancies were discussed with the wider research team.

2.4. Data analysis

A narrative synthesis approach was used to describe, compare, and combine findings from multiple studies. Textual descriptions and tabulation were used to compare central themes and thematic analysis was used to explore findings in relation to the topic (Popay et al., 2006). Given that research into the role of organizational factors in STS is still in its infancy, we decided that the results of the quality appraisals would not be used to inform the inclusion or exclusion of studies.

3. Results

3.1. Characteristics of included studies

The search strategy identified 5136 papers for screening. After deduplication, 3388 papers were screened at title and abstract stage. Subsequently, 51 articles were retrieved for full-text screening. After full text screening, 36 studies were eligible for inclusion. The flow chart for the literature search is shown in Figure 1.

Twenty-three quantitative studies, eight qualitative studies, and five mixed methods studies were included in the final review (Table 2). Seventeen studies were conducted in the USA, nine in Australia, six in Israel, one in Canada, two in the UK and one in Sweden. One study was published in the 1990s and the remaining 35 studies were published between 2000 and 2020. Twelve studies focused on social workers, seven on counsellors, four on therapists and one on clinical psychologists. Twelve studies included a mix of different mental health professionals. Sample participants were predominantly female, with percentages ranging from 63% to 100% of the total sample. Sample sizes also varied greatly in size, ranging from 6 to 1121 participants.

Of the studies that used quantitative measures to assess levels of STS, eleven studies used measures initially designed to assess symptoms of direct, as opposed to indirect, trauma exposure. Eighteen studies used measures specifically developed to assess STS, namely the Professional Quality of Life Scale (ProQOL) and the Secondary Traumatic Stress Scale (STSS). Not all studies commented on the level of STS amongst the participants. While levels varied amongst the studies that did, most reported high levels of STS, although it is difficult to compare between studies as they used different measures, comparisons and cut off points.

3.2. Quality assessment

For the appraisal of the quantitative studies, two studies were awarded seven stars, six studies were awarded six stars, ten were awarded five stars, three were awarded four stars and three were awarded three stars. The main issue identified through the quality appraisal was that all studies used convenience sampling, and therefore participants may not be representative of the study population. All studies, with the exception of one (Craig & Sprang, 2010), did not justify their sample size with power analyses and sample size calculations. Furthermore, response rates across the studies were low, with no description given of the characteristics of the non-responders. It is therefore difficult to determine how representative the participants were. It may be possible that individuals who felt most affected by their trauma work were

Table 2. Summary of included studies.

Author & date	Study design	N	Gender (% female)	Age (years)	Occupation	Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
Ben-Porat and Itzhaky (2011)	Cross-sectional (questionnaire)	143	85%	M = 39.11 (SD = 9.86)	Domestic violence social workers	STSS	Supervision – The Multifactor Leadership Questionnaire (1985Bass, 1985) Specific training in domestic violence – yes/no	No significant correlation was reported between satisfaction with supervision and STS. No significant difference was reported in the levels of STS between those who received training and those who did not.	NOS – 3 stars
Bober & Regehr (2006)	Cross-sectional (questionnaire)	259	81%	M = 41.31 (SD = 9.29)	Social workers (n = 124); psychologists (n = 35); nurses (n = 40); medical staff (n = 26); other (n = 34)	IES TSIBS	Workload – hours per week counselling/counselling trauma victims Supervision – Coping Strategies Inventory (Supervision subscale; Bober, Regehr & Zhou, 2006)	No association was reported between time devoted to coping strategies and traumatic stress scores. IES total scores were significantly correlated with hours per week counselling (r = 0.25, p < .01) and hours per week counselling trauma victims (r = 0.31, p < .01).	NOS – 5 stars
Bourassa (2012)	Cross-sectional (semi-structured interviews)	9	100%	30–60	Adult protective service social workers	CF	Colleague support Supervision Organizational support	Having supportive co-workers protected social workers from CF by helping them establish boundaries between themselves and clients. A lack of supervisory support was perceived positively, as it fostered a greater sense of independence.	CASP – High
Caringi et al (2017)	Mixed-methods study (Semi-structured interview)	15	100%	M = 51	Clinical Social Workers	STS	Peer support Organizational support	Peer support, job sharing and working in team settings were identified as useful strategies to manage STS.	CASP – High
Choi (2011)	Cross-sectional (questionnaire)	154	79%	M = 46.71 (SD = 12.70)	Social workers working with family violence or sexual assault survivors	STSS	Organizational support – Social Structural Scale (Spreitzer, 1995) Caseload – hours spent providing services to trauma clients Supervision – hours and quality of supervision (as measured by a questionnaire designed by the author)	Socio-political support and having access to strategic information was correlated with lower STSS scores. Organizational culture, having access to resources, quality of supervision and hours spent providing trauma services did not correlate with STSS scores.	NOS – 5 stars
Cieslak et al. (2013)	Cross-sectional (questionnaire)	224	67%	M = 48.92 (SD = 13.04)	Counsellors, psychologists & social workers providing services for a military population	STSS	Work characteristics (i.e. work context, work related demands & resources) – measured using a questionnaire designed by the author Workload – percentage of traumatized clients on workload Supervision – hours of individual, group and peer supervision	Having too much administrative paperwork (r = 0.23, p < .001) and too many patients (r = 0.35, p > .001) was associated with higher levels of STS. A significant correlation was found between STS and the percentage of traumatized patients in one's professional career (r = 0.14, p < .05). STS was not significantly related to frequency of peer supervision or hours of individual and group clinical supervision/consultation a month.	NOS – 4 stars
Cosden, Sanford, Koch, & Lepore (2016)	Cross-sectional (questionnaire)	51	71%	Not recorded	Substance abuse counsellors	IES-R	Trauma-training – dichotomous questionnaire (yes/no) Clinical supervision- dichotomous questionnaire (yes/no)	VT was not associated with trauma training or clinical supervision.	NOS – 5 stars
Craig & Sprang (2010)	Cross-sectional (questionnaire)	532	65%	M = 53.2	Clinical psychologists and social workers	Pro-QoL (CF subscale)	Caseload – percentage of PTSD clients on caseload Special trauma-training – yes/no	A hierarchical regression found that percentage of PTSD clients predicted levels of CF (B = 0.18, p < .001). CF was not associated with trauma training.	NOS – 6 stars

(Continued)

Table 2. (Continued).

Author & date	Study design	N	Gender (% female)	Age (years)	Occupation	Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
Dagan, Itzhaky, & Ben-Porat (2015)	Cross-sectional (questionnaire)	217	Not recorded	M = 38.35 (SD = 9.41)	Social Workers	STSS	Colleague support – adapted version of the Multidimensional Scale of Perceived Social Support (Zimet, Powell, Farley, Werkman, & Berkoff, 1990); Caseload – percentage of trauma clients on caseload	Percentage of trauma clients on caseload was significantly and positively correlated with STS ($r = 0.22$, $p < .01$). Colleague support was not significantly correlated with STS.	NOS – 5 stars
de Figueiredo, Yetwin, Sherer, Radzik, & Iverson (2014)	Mixed methods cross sectional Only the qualitative study (focus group) will be included	36	Not recorded	M = 37.58 (SD = 7.92)	Case managers (n = 8); psychologists (n = 16); clinical social workers (n = 8); psychology fellows (n-8); physicians (n = 5)	CF	Caseload characteristics; Organizational culture; Administrative support; Trauma training; Colleague support; Supervision	Heavy caseloads, productivity expectations and paperwork were identified as increasing the likelihood of CF. Clinicians identified caseload diversity as protecting against CF. Trauma specific training, colleague support and supervision were described as protective factors against CF.	CASP – High
Dunkley and Whelan (2006)	Cross-sectional (questionnaire)	64	89%	M = 45.45 (SD = 11.59)	Telephone counsellors	IES-R TABS	Supervision – Supervisee form from SWAI; Trauma training – yes/no	A moderate and significant negative correlation was found between SWAI score and TABS score. However, no significant correlation was found between the supervisee score of SWAI and the IES-R score. There was no significant difference between those who received training and those that did not on the vicarious traumatization measures.	NOS – 4 stars
Furlonger & Taylor (2013)	Cross-sectional (questionnaire)	38	65.8%	M = 36.7 (SD = 11.0)	Telephone counsellors	IES-R TABS	Caseload – size of trauma caseload; Supervision – SWAI	Size of trauma caseload was significantly and negatively correlated with IES-R and TABS scores. There was no significant association between the supervisee scale of SWAI and scores on TABS and IES-R.	NOS – 3 stars
Gil & Weinberg (2015)	Cross-sectional (questionnaire)	105	89%	M = 32 (SD = 8.63)	Social workers treating trauma victims	PTSD Symptom Scale (Foa et al, 1993)	Caseload – number of trauma clients on caseload; perceived level of exposure to traumatic material through clients (high, medium, low). Supervision – stability of supervision (every week, from time to time, lack of supervision)	PTSD symptoms were significantly and positively correlated with a lack of supervision ($B = 0.11$, $p < .1$) and the number of trauma clients on caseload ($r = 0.34$, $p < .01$).	NOS – 5 stars
Harling, Högman, & Schad (2020)	Cross-sectional (semi-structured interviews)	8	62.5%	M = 42.8 (SD = 2.38)	Clinical psychologists	Compassion fatigue	Colleague support; Leadership; Organizational culture; Supervision; Professional development	Supportive colleagues, strong leadership and supervision were cited as protective factors against CF, while a 'closed climate' was considered a contributing factor. Engaging in professional development and having autonomy were perceived as protective factor against CF.	CASP – High
Harrison & Westwood (2009)	Cross-sectional (semi-structured interviews)	6	Missing data	49–59	Therapists	VT	Supervision; Training; Peer support; Organizational support & professional development	Having a variety of professional responsibilities, good training, supervision, and peer support were identified as playing a crucial role in managing VT.	CASP – High

(Continued)

Table 2. (Continued).

Author & date	Study design	N	Gender (% female)	Age (years)	Occupation	Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
Hunter & Schofield (2006)	Cross-sectional (semi-structured interviews)	8	87%	30–66	Counsellors	VT	Supervision, Formal & informal debriefing, Workload	Supervision and debriefing were identified as important coping strategies. The responsibility of employers to monitor workloads and the balance of difficult cases was emphasized.	CASP – Moderate
Iliffe & Steed (2000)	Cross-sectional (semi-structured interviews)	18	72%	M = 45.8	Counsellors working with perpetrators and survivors of domestic violence	VT	Caseload, Debriefing, Peer support	Monitoring caseload, debriefing and peer support were identified as strategies to protect against VT.	CASP – Moderate
Ivicic & Motta (2017)	Cross-sectional (questionnaire)	88	79.5%	24–82	Mental health professionals in the fields of psychology, social work, counselling and creative art therapy	STSS	Supervision – questionnaire adapted from the Administrative Support subscale of the Professional Organizational Culture Questionnaire-Social Work (Ellett & Millar, 2004)	No relationship was reported between supervision and STS.	NOS – 5 stars
Joubert, Hocking, & Hampson (2013)	Mixed methods design Only the qualitative study (focus group) included	16	Not recorded	Not recorded	Oncology social workers	VT	Supervision, Peer support, Caseload	Participants identified the importance of professional supervision and informal support structures (including peer debriefing and informal events to develop personal connections) in managing VT. The importance of caseload management was further emphasized, with participants highlighting the need to develop a caseload management system.	CASP – Moderate
Kapoulitsas & Corcoran (2015)	Cross sectional (Semi-structured interviews)	6	100%	23–32	Social workers	CF	Supervision, Debriefing	Access to quality supervision and debriefing was emphasized as playing a significant role in reducing CF.	CASP – Moderate
Killian (2008)	Mixed methods design Semi-structured interviews & cross-sectional quantitative study included	20	12%	M = 38.65	Social workers and counsellors	CF Pro-QoL: CF subscale	Quantitative: Supervision (frequency) Qualitative: Caseload, supervision & work environment	Quantitative: Supervision was not significantly correlated with CF symptoms. Qualitative: Debriefing with supervisors, consultants and colleagues was reported as a basic, crucial strategy that may reduce the risk of CF. The lack of a supportive work environment and high caseload demands were identified as risk factors for developing CF.	CASP – Moderate
Lee, Gottfried, & Bride (2018)	Cross-sectional (questionnaire)	539	81	M = 58.5 (SD = 8.0)	Clinical social worker	STSS	Caseload – hours worked; % of PTSD clients on caseload	STS scores were significantly and positively correlated with secondary trauma exposure ($r = 0.143$, $p < .05$) and hours worked ($r = 0.136$, $p < .05$).	NOS – 7 stars
Linley & Joseph (2007)	Cross-sectional (questionnaire)	156	78%	M = 53.67 (SD = 53.67)	Therapists	Pro-QoL: CF subscale	Clinical supervision – yes/no	No significant difference was reported in levels of CF between those who had received formal supervision and those who had not.	NOS – 3 stars

(*Continued*)

Table 2. (Continued).

Author & date	Study design	N	Gender (% female)	Age (years)	Occupation	Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
Peled-Avram (2017)	Cross-sectional (questionnaire)	109	87%	M = 37.7 (SD = 8.94)	Social workers working in agencies which provide services for trauma survivors	TABS	Caseload – number of clients with trauma history; type of traumatic events most characteristic of their clients Supervision – Relational-oriented supervision questionnaire (questionnaire developed by the authors); Supervision Effectiveness Questionnaire (Itzhaky & Lazar, 1997)	Trauma caseload and type of client's personal traumatic event was not significantly related to levels of VT. Social workers who reported they were receiving more relational-oriented supervision and who evaluated their supervision as more effective had lower levels of VT.	NOS – 6 stars
Penix et al. (2020)	Cross-sectional (questionnaire)	605	68%	M = 48.2 (SD = 11.5)	Social workers (n = 245), psychologists (n = 217), mental health counsellor (n = 113), medical professional with psychiatry focus (n = 21), other (n = 9)	Pro-QoL: CF subscale	Caseload – number of clients treated in the past week; number of traumatized clients treated in the past week.	No significant relationship was reported between overall caseload and STS. However, greater trauma caseload was associated with higher levels STS.	NOS – 5 stars
Posselt, Baker, Deans, & Procter (2020)	Mixed methods design Questionnaire which also comprised open-ended questions to collect qualitative data.	50	72%	M = 41 (SD = 11.84)	Therapists and counsellors who provide trauma-focussed therapy and support to refugees and asylum seekers in detention centres	Pro-QoL: CF subscale	Quantitative: Supervision – SWAI (and additional open-ended questions to collect qualitative data) Qualitative: Supervision Professional development	Quantitative: No significant correlation was reported between total SWAI scores and STS. However, small to moderate negative correlations were reported between supervisory rapport and STS. Emotional and supportive, as well as educational and professional development aspects of supervision predicted supervisory alliance. Qualitative: Positive relationships and support within the work environment were crucial to well-being. As was being able to access opportunities for professional growth and learning.	NOS – 6 stars CASP – Moderate
Rayner, Davis, Moore, & Cadet (2020)	Cross-sectional (questionnaire)	190	93%	18–75	Social workers and psychologists	STSS	Caseload – trauma in caseload (i.e. rarely, occasionally, often, very often)	Trauma in caseload was not found to be an independent predictor of STS.	NOS – 7 stars
Schuler, Bessaha, & Moon (2016)	Cross-sectional (questionnaire)	152	90%	M = 47.5 (SD = 13.43)	Social workers	STSS	Caseload – hours a week spent in direct client contact in the week	No significant association was reported between STS and direct-client-contact hours.	NOS – 6 stars

(Continued)

Table 2. (Continued).

Author & date	Study design	N	Gender (% female)	Age (years)	Occupation	Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
Sodeke-Gregson et al. (2013)	Cross-sectional (questionnaire)	253	72%	30–49	Therapists working for the UK NHS.	Pro-QoL: CF subscale	Caseload – number of clients on caseload; number of trauma-focused clients on caseload; Trauma training – days of trauma specific training; Supervision – hours of individual, group and consultant supervision; CSI-Belief & CSI- Time (supervision subscales); Perceptions of organizational support	STS was significantly and positively correlated with hours of individual supervision per month ($r = 0.187$, $p < .01$). However, scores on the supervision subscale of both CSI-Time and CSI-Belief were not significantly correlated with STS. STS was not significantly correlated with caseload, number of trauma-focused clients on caseload, hours of group/ peer/consultant supervision per month, days of trauma specific training during main training course/since qualification or perceived support from management, administrative staff, peers and supervisor.	NOS – 6 stars
Sommer & Cox (2005)	Cross section (semi-structured interviews)	9	89%	24–52	Sexual violence counsellors	VT	Supervision Training	The importance of a supervisor who acknowledges, validates, and recognizes VT exists was emphasized. Qualities such as being able to provide multiple perspectives, collaborative guidance and attention to self-care was emphasized. The need for agency support for VT, including specific and ongoing training was highlighted.	CASP – Moderate
Sprang, Clark, and Whitt-Woosley (2007)	Cross-sectional (questionnaire)	1121	67%	$M = 45.22$ (SD = 10.84)	Licenced or certified behavioural health providers (psychologists, psychiatrists, social workers, marriage & family therapists, professional counsellors and drug & alcohol counsellors)	Pro-QoL: CF subscale	Specialized trauma training – yes/no Caseload – percentage of clients with PTSD	Participants with specialized training had lower CF scores than those without specialized training. The percentage of clients with PTSD predicted higher levels of CF.	NOS – 5 stars
Steed & Downing (1998)	Phenomenological research design (Semi-structured interviews)	12	100%	26–59	Counsellors ($n = 4$), psychologists ($n = 8$)	VT	Education and training	The importance and need for education and training in both management of sexual abuse/assault clients and the effects of VT was emphasized.	CASP – Moderate
Thompson, Amatea, & Thompson (2014)	Cross-sectional (questionnaire)	213	76%	24–78	Mental health counsellors	Pro-QoL: CF subscale	Working conditions – Perceived Working Conditions Scale (developed by the researchers). Includes measures of administrative decision-making, quality of supervision and co-worker relationships and organizational climate.	A significant inverse relationship was reported between counsellor perceptions of positive working conditions and their level of CF ($r = -0.361$, $p < .001$).	NOS – 5 stars

(Continued)

Table 2. (Continued).

Author & date	Study design	Study participants				Concept (and measure) of STS/CF/VT	Type of organizational factor	Key findings	Quality assessment (NOS/CASP)
		N	Gender (% female)	Age (years)	Occupation				
Trippany, Wilcoxon, & Satcher (2003)	Cross-sectional (questionnaire)	114	100%	24–68	Therapists to adult survivors (n = 48), therapists serving child survivors of sexual victimization (n = 66)	TSIBS-L	Caseload – number of sexual trauma survivor clients Formal peer supervision – yes/no	For both therapists serving children and adult survivors, caseload and supervision did not predict levels of STS.	NOS – 4 stars
Weiss-Dagan et al. (2016)	Cross-sectional (questionnaire)	225	94%	M = 41.6 (SD = 10.2)	Social workers	STSS	Caseload – percentage of child maltreatment cases on caseload Role stress- Role Stress questionnaire (Bhagat, Allie, & Ford, 1991) Supervision – effectiveness of Supervision (Lazar & Itzhaky, 2000)	Exposure to child abuse victims (r = 0.35, p < .01) and role stress (r = 0.35, p < .01) significantly contributed to STS, but effectiveness of supervision did not.	NOS – 6 stars
Williams, Helm, & Clemens (2012)	Cross-sectional (questionnaire)	131	63%	M = 42.18 (SD = 11.0)	Clinical social workers (n = 50), marriage and family therapists (n = 11), professional counsellors (n = 40), psychologists (n = 7) and unlicensed professionals (n = 17)	TABS	Supervision – SWAI Workload The Quantitative Workload Inventory (QWI; Spector & Jex, 1998) Organizational Culture – The Job Satisfaction Survey (Spector, 1985)	A significant and negative relationship was found between supervisory alliance and VT. Organizational culture and workload did not significantly affect the development of VT symptoms.	NOS – 5 stars

Abbreviations: Impact of Event Scale (IES; Horowitz et al., 1979), Impact of Events Scale-Revision (IES-R; Weiss & Marmar, 1997), Professional Quality of Life (Pro QoL; Stamm, 2010), Secondary Traumatic Stress Scale (STSS; Bride et al., 2004), Trauma Attachment Belief Scale (TABS; Pearlman, 2003), Traumatic Stress Institute Belief Scale (TSI-BS; Pearlman, 1996), Traumatic Stress Institute Belief Scale Revision L (TSIBS-L; Pearlman, 1996), Supervisory Working Alliance Inventory (SWAI; Efstation, Patton, & Kardash, 1990).

more likely to engage in the research, as they viewed it as relevant and useful. Conversely, those who are suffering from STS may have wanted to avoid talking about it and not take part in research. Of note, all studies used self-report measures to assess STS, VT, and CF, although with anonymous questionnaires, social desirability was unlikely to have influenced participant responses.

Qualitative studies included in the review were of moderate to high quality in terms of their approach to participant recruitment, data collection and analysis. However, the majority of the studies failed to adequately consider the role of the researcher and how they may influence the results of the study.

3.3. Organizational factors

Our analysis identified six organizational factors which have been considered in the literature to date: including caseload, trauma training, peer support, supervision, organizational support and organizational culture. We have drawn on the descriptive detail provided in the original papers to address our secondary research aim of identifying the specific factors which are perceived to be beneficial and/or detrimental in mitigating against the effects of STS, VT, and CF.

3.3.1. Caseload
3.3.1.1. Size of client caseload. Caseload size was assessed by twelve quantitative studies and three mixed-methods studies. There was no significant association between direct-client contact hours and STS, as measured by the STSS (Schuler et al., 2016). When factoring in non-clinical or non-therapy hours (such as time spent liaising with the police, hospitals, shelters etc.), hours spent providing services was not significantly associated with STS in social workers (Choi, 2011). Furthermore, when workload was measured as the number of clients on a caseload rather than hours spent providing services, the relationship with STS remained insignificant (Penix et al., 2020; Sodeke-Gregson et al., 2013; Trippany et al., 2003). Williams et al. (2012) similarly found no significant association between levels of VT and the perception therapists had of their workload. Although it is important to acknowledge that there was limited variability in participants' caseloads, with 91.6% of participants reported as having heavy caseloads.

Another study which used a more subjective measure (i.e. perceived caseload) did, however, report a positive relationship between STS in mental health providers working with the military, and the perception of being constrained by too many patients (Cieslak et al., 2013). Bober and Regehr (2006) also reported a significant correlation between hours per week providing counselling services and IES scores ($r = 0.25$, $p < .001$), although no association was found when using the TSI-belief scale as a measure of VT. Further positive correlations were reported between STS and hours worked (Lee et al., 2018), and size of caseload (Furlonger & Taylor, 2013).

The qualitative studies included in the review provided some further support for heavy caseload demand being a potential risk factor for STS. Focus groups consisting of a variety of mental health professionals, including psychologists and clinical social workers, reported a theme around heavy caseloads which their participants related to experiencing CF (de Figueiredo et al., 2014). Similar results were reported by Killian (2008), Joubert et al. (2013) and Harling et al. (2020). Social workers interviewed by Joubert et al. (2013) further spoke of their desire for their department to develop both a caseload management system to prevent individual overload, and criteria for the prioritization of referrals. Iliffe and Steed (2000) similarly identified caseload monitoring as an effective strategy to protect against VT.

3.3.1.2. Characteristics of caseload. Ten quantitative studies assessed the impact of caseload characteristics, as measured by the frequency of exposure to trauma clients or as the percentage/proportion of trauma clients on a clinician's caseload). The percentage of PTSD clients on a caseload significantly correlated with STS, even after controlling for variables such as age, gender and years of clinical experience (Craig & Sprang, 2010; Lee et al., 2018). Similar results were found in a large, more diverse sample, comprising of psychologists, psychiatrists, social workers, marriage and family therapists, professional counsellors and drug and alcohol counsellors (Sprang et al., 2007). The same positive relationship was found in social workers when measuring proportion of caseload of trauma survivors (Dagan et al., 2015; Penix et al., 2020). Only one quantitative study reported non-significant findings. No significant correlation was found between STS and the frequency of exposure to trauma clients (Rayner et al., 2020).

Levels of STS were also found to differ depending on the type of traumatized clients counsellors were exposed to. Counsellors treating victims of interpersonal violence; including wife assault ($t = -2.92$, $p < .001$), child abuse ($t = -2.75$, $p < .01$), child sexual abuse ($t = -3.78$, $p < .001$), sexual violence ($t = -3.01$, $p < .01$) and torture ($t = -2.62$, $p < .01$) had higher IES scores than counsellors who did not treat these client types, although only counsellors treating victims of rape reported disruptive beliefs (Bober & Regehr, 2006). Peled-Avram (2017) also found that social workers working mainly with survivors of interpersonal trauma, and experiencing higher levels of threat, experienced more VT. This complements Cieslak et al.'s (2013) findings. While a positive correlation was found between STS and

the percentage of traumatized clients on a caseload, a stronger correlation was reported between STS and the professional's appraisal of indirect trauma.

Furthermore, Gil and Weinberg (2015) reported a positive relationship between the levels of STS and the perceived level of exposure to traumatic material through clients, although they reported no correlation between PTSD symptoms and the number of trauma victims as clients. This suggests that more important than the number or percentage of trauma focused clients on a caseload, is the clinician's appraisal of their caseload.

3.3.2. Trauma training

Six quantitative and three qualitative studies examined the impact of specialized trauma training on levels of STS.

Trauma training covered a number of different areas; including providing basic information on the symptomatology and effects of trauma, practical support for helping survivors of trauma using evidence-based practices, and information regarding STS and the importance of self-care practices. The trauma training received by participants in the quantitative studies almost exclusively centred around practical support for providing treatment rather than providing insights into the negative implications of treating clients affected by trauma. Dunkley and Whelan (2006) specifically noted that almost 80% of participants had not been provided with specific training in VT.

A dichotomized measure (i.e. whether or not trauma training was received), was used in all but one of the quantitative studies. Sodeke-Gregson et al. (2013) instead measured the days of trauma-specific training received during the main professional training course and since qualification.

Of the six quantitative studies, five reported no significant association. There was no significant difference in the levels of STS between those receiving professional trauma-training and those who did not (Ben-Porat & Itzhaky, 2011; Craig & Sprang, 2010; Dunkley & Whelan, 2006). Sodeke-Gregson et al. (2013) similarly found no significant correlation between CF and days of trauma training during the main professional training course or since qualification as a therapist. Two of the studies further conducted hierarchical regression analyses which controlled for demographic and case variables. They both found that trauma-training did not significantly predict levels of CF or VT (Cosden et al., 2016; Craig & Sprang, 2010).

Only one quantitative study reported lower CF scores amongst mental health providers who received trauma training (Sprang et al., 2007). This finding was complemented by the qualitative research, which recognized the importance of good training and on-going professional development as a means to protect against VT (Harrison & Westwood, 2009; Sommer & Cox, 2005; Steed & Downing, 1998). However, participants identified the need for improvements to their current training programme. Specifically, they reported the 'need for early and explicit training in self-awareness and self-care strategies' to address STS symptoms (Harrison & Westwood, 2009).

3.3.3. Peer support

Two quantitative and six qualitative studies examined the effectiveness of peer support. Across the qualitative studies, colleague support was described as crucial in supporting wellbeing and protecting against the effects of STS. Peers were often perceived to play a greater role than friends, family, and significant others, as they better understood the job and the complexities of their experiences (Caringi et al., 2017). The confidential nature of these interactions was valued, as it allowed clinicians to discuss their clients and emotional reactions more openly, and consequently maintain clearer boundaries with their clients (Bourassa, 2012). Counsellors described how the support they received allowed them to feel heard and validated in their work (Hunter & Schofield, 2006). The informal nature of peer support was also emphasized as being particularly valuable (Posselt et al., 2020), as it allowed clinicians to take advantage of quick moments to share support and allowed for humour, which can 'lighten the impact of stress' (Caringi et al., 2017).

Peer support could, however, also be detrimental. Social workers in Caringi et al's (2017) study described how unsupportive interactions with peers could increase work stress and consequently increase one's vulnerability to VT. Clinical psychologists also described how peer support can lead to rumination when the group amplifies each other's concerns and issues (Harling et al., 2020).

The two quantitative studies offered little evidence to support the role of peer support in mitigating against STS. Cieslak et al. (2013) found that frequency of peer support was not related to lower levels of STS. Dagan et al. (2015) also found that while the level of colleague support was high, it did not significantly contribute to explaining the variance in secondary traumatization.

3.3.4. Supervision

A total of 26 studies explored the effectiveness of supervision in protecting against STS. Of these, 16 were quantitative, six were qualitative and four used a mixed methods design. Studies differentiated between the different types of supervision received, which included individual (i.e. with a more qualified supervisor or consultant), group, and peer supervision, the latter of which is distinct from more general peer support.

Quantitative research assessing the contribution of supervision to levels of STS took one of two approaches. Some studies measured time devoted to supervision. Others measured the effectiveness of supervision to determine whether receiving supervision, which was perceived as effective by the supervisee, protected against STS. Qualitative research further explored the elements of supervision perceived to be either effective or detrimental to mitigating against STS.

3.3.4.1. Time allocated to supervision.
The majority of quantitative studies reported no significant relationship between supervision and STS. Studies that used a dichotomous measure reported no significant difference in levels of VT or CF between those who received supervision and those who did not (Cosden et al., 2016; Linley & Joseph, 2007). Frequency of supervision was also not significantly correlated with STS or CF (Killian, 2008; Trippany et al., 2003). However, Gill & Weinberg's (2015) study which used a measure of PTSD rather than STS, found that social workers who reported a lack of supervision had higher levels of PTSD symptoms than those who reported steady or irregular supervision.

No significant relationship was reported between STS and hours per month of individual supervision (Bober & Regehr, 2006; Cieslak et al., 2013) and group supervision (Cieslak et al., 2013). Sodeke-Gregson et al. (2013) reported similar results for peer, group, and consultant supervision. However, a significant positive correlation was found between CF and hours of individual supervision. Although the authors concluded that struggling therapists were more likely to seek more supervision, rather than suggesting higher amounts of supervision led to greater STS.

In contrast, the qualitative studies identified regular supervision as an important strategy for addressing VT symptoms (Hunter & Schofield, 2006; Joubert et al., 2013; Killian, 2008). One exception was social workers who experienced limited supervision who reflected on this positively in Bourassa's (2012) study; a lack of supervisory support was perceived to foster greater independence and confidence in their ability to successfully handle complicated cases and develop clear boundaries with which to protect themselves from CF.

3.3.4.2. Perceived effectiveness/quality of supervision.
A significant negative correlation was reported between scores on Trauma and Attachment Belief Scale (TABS; Pearlman, 2003) and the strength of the supervisory relationship, as measured by the Supervisory Working Alliance Inventory (SWAI) in two studies (Dunkley & Whelan, 2006; Williams et al., 2012). These results suggest that a stronger supervisory relationship led to fewer disruptions in cognitive beliefs. However, Furlonger and Taylor (2013) found no significant association between the supervisee scale of SWAI and scores on TABS. Furthermore, when STS was alternatively measured using Professional Quality of Life Scale-Version 5 (ProQOL-V) (Posselt et al., 2020), IES and IES-R scales (Dunkley & Whelan, 2006; Furlonger & Taylor, 2013), no significant correlation was found between SWAI and STS.

Other studies used alternative methods to measure quality of supervision. Weiss-Dagan et al. (2016) used a questionnaire adapted from the Lazar & Itzhaky's (2000) 'Effectiveness of Supervision Questionnaire', which includes items relating to the impact of supervision on the supervisee; for example, satisfaction with the supervision and influence of supervision of the attainment of treatment goals. A similar measure, originally developed by Itzhaky & Lazar (1997), was used in Peled-Avram's study (2017). Choi (2011) and Ivicic and Motta (2017) on the other hand, developed their own measure. Rather than assessing the impact of the supervision on the supervisee, their measure focused specifically on the qualities of the supervisor, such as their availability, empathy, and encouragement to explore thoughts and feelings. These studies yielded differing results based on the measure used. While Choi (2011) and Ivicic and Motta (2017) reported no association between STS and supervision, Peled-Avram (2017) and Weiss-Dagan et al. (2016) found that the more the participants evaluated the supervision they received as effective, the lower the participants' levels of STS. The differing results suggest that specific elements of the supervisory relationship may play a greater role in mitigating the impact of STS. Some of the studies in this review may not adequately reflect the dynamics of the supervision process that helps supervisees manage their levels of STS.

It is also important to note that when controlling for work-related and individual variables – including history of childhood trauma, years of experience, and personal wellness – some studies found that effectiveness of supervision no longer contributed to STS (Peled-Avram, 2017; Weiss-Dagan et al., 2016; Williams et al., 2012).

3.3.4.3. Characteristics of effective supervision.
Posselt et al. (2020) found that the emotional and supportive, as well as educational and professional development, aspects of supervision predicted supervisory alliance. Their results suggest that rapport with the supervisor and overall supervisory alliance may be important in reducing the risk of developing STS. Peled-Avram (2017) also found that more relational-oriented supervision was perceived by supervisees to be more effective. A relational-oriented approach require supervisors to partially relinquish their role as experts, and holders of knowledge and authority,

and adopt a more open and vulnerable stance (McKinney, 2000).

Qualitative research in this domain further emphasized the benefit of having a supervisor who 'acknowledged, validated or recognised' that VT exists (Kapoulitsas & Corcoran, 2015), instead of blaming and shaming their supervisees (Sommer & Cox, 2005). As well as providing positive feedback and constructive criticism (Hunter & Schofield, 2006), it was important for supervisors to offer multiple perspectives and assist the supervisee in containing their feelings and issues (Kapoulitsas & Corcoran, 2015). The benefits of having 'impromptu', as well as structured, supervision was also emphasized (Kapoulitsas & Corcoran, 2015). Peer to peer supervision was also regarded as invaluable, as it provided a forum in which clinicians could learn from each other's self-care strategies (Harrison & Westwood, 2009).

More experienced mental health professionals felt that they needed less emotional support and encouragement. Instead, they required 'more practical case discussion and advice about case management' (Hunter & Schofield, 2006) and how to deal with the challenges of working within a multidisciplinary team (Joubert et al., 2013). A 'good supervisor' might also limit the number of demanding cases, and provide more support and variety in the supervisee's work (Hunter & Schofield, 2006). With regards to practical support in dealing with individual clients and their families, social workers spoke of the benefit of linking practice back to social work theories and frameworks (Joubert et al., 2013). Furthermore, social workers noted the importance of having a supervisor from the same discipline, who used the same terminology and could relate to their experiences and difficulties at work (Bourassa, 2012).

3.3.5. Organizational support

In order to thrive in the workplace, it is crucial for caregivers to feel supported by their organizations. Perceived Organizational Support refers to employees' perceptions concerning the extent to which an organization values their contribution and cares about their wellbeing (Eisenberger, Huntington, Hutchison, & Sowa, 1986). This includes through tangible or financial support such as adequate pay and benefits and non-tangible or non-financial support including opportunities for professional development and allowing employees to voice their concerns through structural empowerment, sharing information and inclusive decision making. The definition and subcomponents of organizational support differ across the literature, with Choi (2011), for example, also measuring factors such as access to information (e.g. workflow, mission and goals) and access to resources (e.g. time, space and funding).

Organizational support was assessed by three quantitative, six qualitative and one mix-methods study.

Qualitative research emphasized the lack of a supervisory work environment as a key risk factor for developing CF (Killian, 2008). Further research identified useful strategies that organizations could adopt to address STS. Strategies included job sharing, case staffing teams, work improvement teams and increasing access to professional development opportunities (Caringi et al., 2017; Harling et al., 2020; Posselt et al., 2020). Having a variety of professional responsibilities, including direct practice, teaching, supervision, administration, and research was perceived as protective against VT (Harrison & Westwood, 2009). Counsellors identified contributors of CF, such as the perception of disconnect related to the expectations and priorities between administrators, funding agencies and policymakers, and front-line clinicians working with highly complicated cases (de Figueiredo et al., 2014). This was supported quantitatively; Choi (2011) found that amongst social workers, socio-political support (b = −2.216, p < .05) and having access to strategic information (b = −2.001, p < .05) was significantly and negatively correlated with STS as measured by the STSS. This suggests that those who are supported within their organizations, and have a clear understanding about workflow, the influence of external factors and the organization's goals and future directions, may be less susceptible to STS.

Other quantitative research, however, offered little support for the benefit of organizational support. Having access to resources such as time, space, materials, and funding was not significantly associated with STS (Choi, 2011). The effect of having too much paperwork was also found to have a negligible effect on STS amongst mental health providers working with the military when controlling for other factors (Cieslak et al., 2013). Overall, perceived support by management and administrative support similarly did not predict STS amongst therapists (Sodeke-Gregson et al., 2013).

3.3.6. Organizational culture

Organizational culture 'supports the experience of belonging, understanding, and acceptance, defining insiders and outsiders: it provides a sense of "home" and bounds the organisational identity' (Hormann & Vivian, 2005, p. 160). It determines an organization's priorities, how the work is carried out, and who and what behaviours get acknowledged, rewarded, or reprimanded. Similarly with the concept of organizational support, there is heterogeneity in how this concept is defined and measured across the body of literature.

The impact of organizational culture on levels of VT was considered in five qualitative studies and two quantitative studies. An unsupportive work environment was identified as a key risk factor for VT among clinicians (Killian, 2008). Psychologists and social workers alike suggested that seeking support to address CF can be hindered by self-imposed pressures

to be perceived competently and positively by others, including supervisors and managers (de Figueiredo et al., 2014). Compassion fatigue was thought to be especially detrimental to psychologists, as compassion is viewed as an important working tool, and the lack thereof would impair their work (Harling et al., 2020).

Although time and experience can help break down these obstacles, participants felt that organizations are responsible for creating a culture in which mental health professionals can discuss VT in an open and non-judgemental environment (Harrison & Westwood, 2009). Therefore, having supervisors and managers who recognize and acknowledge that STS exists was considered extremely important (Caringi et al., 2017).

Only two quantitative studies assessed the effect of organizational culture on STS. Organizational culture, which was defined as a 'culture that values human capital and a cooperative work environment', did not predict STS in social workers as measured by the STSS (Choi, 2011). Williams et al. (2012) which used the Job Satisfaction Survey as a measure of organizational culture, also found no correlation with VT.

4. Discussion

4.1. Summary of findings

To our knowledge, this systematic review is the first to critically evaluate the contribution of organizational factors on levels of STS, CF and VT in mental health professionals. The 36 studies identified provide valuable insights into how organizations can play a more active role in protecting their employees against STS, by ensuring that specific support is in place or prioritizing existing support that is already available. Priority areas should include ensuring access to regular and relational orientated supervision, strong peer support networks, and a balanced and diverse caseload. The qualitative literature also suggested that trauma specific training which includes training in STS may be beneficial to mental health professionals. In addition, adopting a culture that recognizes and legitimizes the existence and expression of STS can play a key role in promoting greater staff wellbeing. Awareness of the definition and symptoms of STS can help to validate feelings that many believed were unique to them and allow them to process these feelings as normative components of their work – without fear of being branded as weak or unfit for the job.

It is important, however, to acknowledge that the results of these studies were often inconsistent, with the qualitative and quantitative research often presenting contradictory findings. Qualitative research was often more positive about the protective role of organizational factors. One reason for this could be that the measures used in the quantitative research did not focus on the right components of each organizational-level factor. Alternatively, qualitative research with more open-ended questions, may lead participants to respond more positively.

Trauma training, for example, was identified in interviews with mental health professionals as playing a vital role in mitigating STS; but when assessed quantitatively, trauma training did not contribute significantly to lower levels of STS. The quantitative findings may partially be explained by the quality and type of training provided. Qualitative studies suggested that while training in self-awareness and self-care strategies could be beneficial, it was lacking in professionals' current training programs. Indeed, this was reflected in the quantitative research. de Figueiredo et al. (2014) and Ben-Porat & Itzhaky (2011) for example, reported that the training given did not provide insight into the negative implications of working with traumatized clients. Instead, training typically focused on practical skills, such as effectively implementing interventions. This may explain why trauma training correlated with increased role competence, but not STS (Ben-Porat & Itzhaky, 2011). While we can infer that a more comprehensive training programme would be beneficial, further research is required to examine the effectiveness of such training in mitigating STS.

Similarly, with peer support, the qualitative and quantitative studies presented contradictory findings. The two quantitative studies offered little support for the importance of peer support; however, this may be due to the measure used to assess peer support itself. The Multidimensional Scale of Perceived Social Support (Zimet et al, 1990) used in Dagan, Itzhaky & Ben-Porat's study (2015) was originally developed to assess support from family, friends, and significant others; it is not a validated measure of peer relations. In addition, frequency of peer support, as measured by Cieslak et al. (2013), does not account for quality of peer relations. Furthermore, with qualitative research highlighting the importance of informal peer support, measures of frequency may not take into account informal meetings with peers, and instead assess formal, structured peers support sessions. It would therefore be worthwhile to continue to examine this quantitatively, addressing these limitations, and seek to further elucidate the role of effective peer relations in mitigating STS.

Research on the role of supervision also suggests that the quality of supervision is more important for addressing STS, than the quantity of supervision provided, with those who received supervision that was perceived to be effective reporting lower levels of STS (Peled-Avram, 2017; Weiss-Dagan et al., 2016). Results further suggest that supervision can be effective across a range of disciplines and experience levels, with the content tailored to match the individual's needs, whether that be emotional or practical support with cases.

Supervision that was relational-oriented was perceived to be effective and negatively correlated with STS levels. However, we must relate cautiously to these

findings. The questionnaire that assessed relational-oriented supervision in Peled-Avram's (2017) study was developed for the purpose of the study, and validation failed to accord with the dimensions of relational-oriented supervision. Researchers should therefore continue with the validation of this questionnaire to reach a better understanding of relational supervision components.

Further investigation is also needed to understand the specific aspects of supervision that can help mental health professionals cope with STS, such as: the extent of the supervisor's knowledge about STS, whether the focus of supervision is on the supervisee or the client; and the extent to which supervisees open up to the supervisor. In addition, it would be helpful to evaluate other variables that may influence the effect of supervision on STS, including personality traits and participation in private therapy.

There appears to be one overarching theme which is applicable to all factors discussed in this review; that is the need for an organizational culture that appreciates and acknowledges the negative impact of trauma work. This determines how effective supervision, peer support and trauma training can be in mitigating levels of STS. Working in an environment where your colleagues and peers acknowledge STS and the need to support those affected is critical, as it influences how the individual engages with – and takes on board – the different levels of support offered to them. Further research, however, is needed to explore this quantitively, using measures that more appropriately capture this aspect of organizational culture. Qualitative research is also needed to examine the approaches organizations can take to foster a work environment that is perceived by employees as supportive and accepting of STS.

No notable trends were found when comparing the results from different countries. It would be beneficial therefore, for future research to consider the differences in organizational culture and work-based support across different countries and cultures.

Finally, given that the results of quantitative and qualitative studies were often contradictory, it would be beneficial for future research to adopt a multimethod design. The inconsistent results throughout the literature further suggest that none of these protective factors in isolation have a large effect. It is likely that a combination of approaches is needed to support individuals and reduce levels of STS.

4.2. Implications

Organizations have a legal and ethical responsibility to address the psychological welfare of the mental health professionals they employ. While further research is still required to determine the relationship between organizational factors and STS in mental health professionals, the findings of this review have some implications for organizational practice and policy. Organizations should review the professional training that is provided to the mental health professionals they employ. Training should consider including teaching on the risk and management of STS and should be provided to students newly entering the field, as well as practicing professionals.

With respect to caseload, the results suggest that the perceived level of exposure to traumatic material contributes to increased levels of STS, rather than percentage of trauma cases per se. This raises questions about the value of organizational policy and structure in some mental health services which exclusively treat traumatized clients (e.g. sexual abuse victims). On the other hand, generalist services could create further problems, such as trauma cases not being appropriately treated by specialist trauma therapists. However, efforts can still be made to diversify the caseload of those working in specialist fields. Cases could be monitored and managed so that clinicians see a diverse range of cases with regards to client age, gender, and nature of trauma (e.g. historical or recent trauma). Organizations may also consider expanding and diversifying the role and responsibilities of clinicians to provide a more varied workload, and in so doing, potentially mitigate the impact of STS. For example, alongside their clinical duties, clinicians could engage in research or supervision of a fellow peer.

With regards to supervision, although further research is still needed, the results highlight the valuable role it can play. It is therefore advisable that managers review their current supervision provision. This could be achieved through regular auditing, and supervision of supervisors, which should highlight any failings to support employees.

Finally, whilst organizational culture can be challenging and slow to shift, creating a supportive, compassionate and non-judgemental work environment is imperative. Mental health professionals need to feel safe to discuss the personal impact of working with trauma clients with peers, supervisors and teams. Role modelling of this by supervisors and senior leaders may be helpful in overcoming enduring stigma.

4.3. Strengths and limitations

This review was rigorous and employed a robust methodological approach to identifying, appraising and synthesizing relevant findings. Search terms were deliberately broad to identify studies assessing a wide range of organizational factors that may influence the levels of STS in mental health services.

There are also a number of limitations that need to be considered. The main limitation relates to the measures used to assess STS, CF and VT. We made

an informed decision to include studies that used measures of direct trauma and PTSD, since research using validated measures of STS, CF and VT are lacking. Without their inclusion, the review and the conclusions drawn from it would be greatly limited; however, it is still important to acknowledge the limitations of using such heterogeneous measurement tools. Although symptoms of STS and PTSD may be similar, it has been argued that measures assessing the impact of direct trauma, such as the IES, are 'not sensitive enough to detect secondary trauma in clinical samples' (Bride et al., 2004). Furthermore, the use of these measures may have failed to distinguish between therapists' responses to their clients' trauma and their own personal traumas. It is also important to acknowledge that while STS, CF and VT are similar, there are inherent differences between these constructs. Consequently, this raises problems when directly comparing the results of these studies. Indeed, measures of STS have not been found to correlate with VT (Dunkley & Whelan, 2006).

Another limitation of this review relates to the broad range of mental health professionals included. The nature of their client interactions, their responsibilities, the organizational support that exists and the way that professionals respond to it may differ across disciplines. Therefore, it is difficult to directly compare results. However, this is also a strength, as the review can assess common organizational factors that could benefit a wide range of helping professionals.

It should also be noted that the studies included in this study were cross-sectional in design, which inhibits the establishment of causal relationships and temporal order (Neuman, 2014), and is vulnerable to common-method variance bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Longitudinal studies would need to be conducted to establish the causal relationship and assess organizational impact on STS over time.

4.4. Conclusions

Organizations have an ethical responsibility to support the mental health professionals they employ and provide a supportive environment which protects them against STS. This review provides preliminary evidence for the types of support that should be offered including regular supervision within supportive supervisory relationships, strong peer support networks, balanced and diverse caseloads and specific training on STS awareness. Although the results cannot directly inform organizational policy and practice, they provide valuable insights which organizations should reflect on, as well as highlight the gaps in the literature and

where future research should be directed. Further research is needed to evaluate which strategies, and under what conditions, best ameliorate and prevent STS.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

N/A. Data from this study in the form of published primary research is already freely available in the public domain.

Ethics statement

N/A. Institutional Review Board approval was not required for this study as it is a systematic review of already published research.

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