



# Secondary trauma symptoms in clinicians: A critical review of the construct, specificity, and implications for trauma-focused treatment

Lisa S. Elwood <sup>a,b,\*</sup>, Juliette Mott <sup>b,c</sup>, Jeffrey M. Lohr <sup>a</sup>, Tara E. Galovski <sup>b</sup>

<sup>a</sup> Department of Psychology, University of Arkansas, United States  
<sup>b</sup> Department of Psychology, University of Missouri-St. Louis, United States  
<sup>c</sup> Michael E. DeBakey Veterans Affairs Medical Center, United States

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## ABSTRACT

Advocates of the concept of secondary traumatization propose that clinicians who provide trauma-focused treatment may be particularly at risk for experiencing secondary trauma symptoms. This specific symptom presentation purportedly develops following exposure to the traumatic experiences described by their clients. Consequently, these professionals have advocated for increases in resources devoted to the prevention and treatment of secondary trauma symptoms (e.g., enhanced clinician training, increase in availability of treatment options for affected trauma workers, etc.). A review of empirical literature examining prevalence and specificity of secondary trauma symptoms in trauma clinicians is provided. Findings are mixed and often indicate that trauma clinicians are not frequently experiencing “clinically significant” levels of symptoms and that these symptoms may not be uniquely associated with trauma-focused treatment. Finally, it is argued that additional clarification and research on the criterion, course, and associated impairment are needed. Recommendations for future research are provided.

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## 1. Introduction

Clinicians who treat trauma survivors are frequently exposed to details of traumatic events while providing either acute interventions or treatment for more chronic trauma reactions, such as Posttraumatic

Stress Disorder (PTSD). Empirically supported treatments for PTSD, such as Cognitive Processing Therapy (CPT; Resick & Schnicke, 1992) and Prolonged Exposure (PE; Foa, Rothbaum, Riggs, & Murdock, 1991) involve breaking through the avoidance of traumatic memories and reminders inherent in PTSD. In route to this goal, clients are asked to describe their traumatic experience in some significant level of detail. **It has been proposed that clinician exposure to distressing material while providing treatment to survivors may result in the development of PTSD-like symptoms and trauma related cognitive changes within the treatment provider, described as secondary traumatization (Figley,**

\* Corresponding author. Kathy J. Weinman Bldg., lower level, University of Missouri-St. Louis, One University Blvd., St. Louis, MO, 63121-4400, United States. Tel.: +1 479 283 9115.

E-mail address: elwoodls@umsl.edu (L.S. Elwood).

1995). Proponents of this concept of secondary traumatization suggest that clinicians who provide trauma-focused treatment may be particularly at risk for experiencing secondary traumatization (Figley, 1995; Pearlman & Saakvitne, 1995).

In response to the contention that secondary traumatization is a common reaction in those who care for individuals with trauma-related distress, some professionals have advocated for increases in resources devoted to the prevention and treatment of secondary trauma symptoms (e.g., enhanced clinician training, increase in availability of treatment options for affected trauma workers, etc.; Tyson, 2007; Pearlman & Saakvitne, 1995). Such advocates argue that increasing awareness and prevention of secondary traumatization is a professional responsibility (Salston & Figley, 2003). Supporters have also argued that specific training in clinician self-care should be provided to individuals considering working with trauma populations (Munroe, 1999; Pearlman & Saakvitne, 1995). Proponents suggest that prevention and treatment activities should be implemented by both the individual and the agency. On an individual level, it has been proposed that trauma clinicians should engage in adequate self-care, monitor cognitive changes in trauma-related schemas (e.g., safety, trust, control, esteem, intimacy), and balance professional and personal activities (Pearlman & Saakvitne, 1995; Salston & Figley, 2003). At the agency level, common suggestions for the prevention and treatment of secondary traumatization include limiting caseloads, increasing trauma specific supervision, increasing staff support time, increasing clinician leave time, and providing opportunities for clinicians to receive mental health services and online support (Rudolph & Stamm, 1999; Salston & Figley, 2003).

It is important that sufficient empirical support exists establishing trauma clinicians' secondary trauma symptoms as commonly experienced, impairing, and unique manifestation of distress prior to widespread modifications to training and treatment programs. The systematic, mandated implementation of prevention or treatment strategies despite a lack of foundational research supporting the need for and/or efficacy of such treatments could result in unnecessary expenditure of resources or, at worst, negative outcomes. These concerns were echoed by Sabin-Farrell and Turpin (2003) in their thoughtful review of the extant research examining secondary trauma (although Sabin-Farrell and Turpin selected to use the term "vicarious trauma", this represented the same construct that the present authors refer to as secondary trauma). Sabin-Farrell and Turpin concluded that empirical evidence supporting the existence of secondary trauma was meager and inconsistent and identified a need for future research to examine the validity of the construct. It appears that this call for research was recognized. Since the publication of their review, the results of numerous studies on the prevalence, measurement, risk factors, impact, and treatment of secondary trauma have been disseminated. A PsychInfo search for the keywords "secondary trauma" or "vicarious trauma" in peer-reviewed journals between the years of 2003 and 2010 yields over 300 results (including empirical, theoretical, and review articles). Given the recent proliferation of literature on this topic, a reanalysis of the current state of secondary traumatic stress research is warranted. The current review seeks to focus on empirical findings related to the validity of the secondary traumatization construct, claims regarding its unique relations with trauma therapy, and the level of distress and impairment associated with the symptoms. The present review expands upon previous conclusions by including recent findings, an updated review of secondary trauma measurement, additional examination of the specificity of secondary trauma to trauma focused treatment, and a comparison between secondary trauma conceptualizations and PTSD.

## 2. Definition of the construct

In an attempt to describe the impact of secondary trauma exposure on mental health professionals, researchers have proposed a number of constructs including *secondary traumatic stress* (Figley, 1995), *vicarious*

*traumatization* (McCann & Pearlman, 1990), *compassion fatigue* (Figley, 2002), and *burnout* (Maslach, 1982). Although these constructs overlap and are often used interchangeably, subtle differences exist between them.

A relatively non-specific construct occasionally examined as a response to working with trauma survivors is burnout (Maslach, 1982). Burnout refers to a presence of emotional exhaustion and the feeling of disconnection from others. Burnout is also associated with a decrement in the sense of accomplishment one obtains from their professional work (Maslach, 1982). Burnout can occur in any profession and is not specific to work with a traumatized population. Research indicates that burnout is a function of factors such as a workload, job related stress, and interpersonal conflict with colleagues (Maslach & Leiter, 1997).

Vicarious traumatization describes a constructivist, self-development theory conceptualization (blending contemporary psychoanalytic and social cognitive theories to provide a developmental framework) of understanding clinicians' reactions to clients' traumatic experiences (McCann & Pearlman, 1990). Vicarious traumatization occurs when a clinician's beliefs about safety, power, independence, esteem, intimacy, and/or frame of reference become increasingly negative as a result of being exposed to a client's traumatic experiences. Vicarious traumatization highlights the cognitive changes as the defining characteristic, although it is presumed that the affected clinician will also develop symptoms more consistent with PTSD criteria. Both the cognitive and behavioral symptoms of vicarious trauma are considered to develop as a reaction to cumulative exposure over time (Pearlman & Saakvitne, 1995).

The term compassion fatigue is often used interchangeably with secondary traumatic stress (e.g., Figley, 2002; Salston & Figley, 2003). When the terms compassion fatigue and secondary traumatic stress are used differently, it is suggested that the term *secondary traumatic stress* can be applied to many populations, but *compassion fatigue* refers exclusively to those individuals in the helping professions (e.g., first responders, social workers, clinicians, etc.). Advocates of the term *compassion fatigue* suggest that it is favored and more readily accepted by professionals (Figley, 1995). Compassion fatigue also highlights a proposed consequence of the symptoms – that of a reduction in the capacity or interest in being empathic towards a client, believed to result from exposure to patients' difficulties combined with the ongoing expenditure of empathy towards patients. Although compassion fatigue is not unique to trauma clinicians (Figley, 1995), much of the research on compassion fatigue has focused on clinicians who treat trauma survivors (e.g., Adams, Boscarino, & Figley, 2006).

Secondary traumatic stress describes the development of PTSD symptoms in individuals who play a significant role in the survivor's life such as friends, family members, caregivers, and trauma workers (Figley, 1995). The symptoms of secondary traumatic stress are parallel to those of PTSD with the exception that with secondary traumatic stress, the traumatic event is not directly experienced by the affected individual; rather the stressor is the exposure to knowledge about a traumatizing event experienced by another. Secondary traumatic stress is described as a natural consequence to helping others. In addition to the traditional symptoms of PTSD identified in the Diagnostic and Statistical Manual of Mental Disorders (APA, 2000), cognitive shifts and relational disturbances have been proposed as common symptoms of secondary trauma (Figley, 1995). Secondary traumatic stress is hypothesized to occur quickly and unexpectedly in reaction to exposure to the details of one or more traumatic events (Figley, 1995).

Despite differences, these conceptualizations of the consequences of working with traumatized individuals are often used interchangeably, thereby increasing the difficulty in understanding and interpreting extant research (Najjar, Davis, Beck-Coon, & Doebbeling, 2009). The current paper will use the terms secondary trauma or secondary traumatization, to refer to the manifestation of PTSD-like symptoms and/or negative changes in belief structures resultant from indirect

exposure to trauma through mental health work. Although the present authors have selected to use these terms, the paper will critically review the body of research examining symptoms of intrusion, avoidance, arousal and/or cognitive shifts in mental health professionals as a result of secondary trauma exposure, irrespective of the term used in the primary study. The term clinicians will be used in the text of the present review (the terminology used by the article authors is retained in Table 1) to encompass the many types of mental health treatment providers examined in the reviewed studies. The present review was restricted to empirical articles published in peer reviewed journals. See Table 1 for descriptions of the studies included in the current paper.

### 3. Measurement of secondary traumatic stress

Previous studies have typically assessed a clinician's experience of secondary trauma in one of two ways, either by asking the clinician to complete an **established measure of PTSD symptoms based on their reactions to clinical work or a client's trauma, or by asking the clinician to complete a measure developed specifically to assess secondary trauma**. The current paper will provide a brief review, highlighting strengths and limitations, of the measures most commonly used to assess secondary traumatization (see *Bride, Radey, & Figley, 2007* for additional information). Consistent with the multiple conceptualizations of secondary trauma symptoms, the content of the frequently used measures has varied according to the emphasized impairments proposed by the corresponding models.

Consistent with the proposal that secondary trauma symptoms mirror PTSD symptoms, standard PTSD measures have been used for the assessment of secondary trauma. The PTSD symptom measure that has most frequently been used to assess secondary trauma is the **Impact of Events Scale**, (IES; *Horowitz, Wilner, & Alvarez, 1979*). The IES is a 15 item self-report questionnaire that assesses two domains of trauma symptoms: intrusion and avoidance. Of note, hyperarousal symptoms are not assessed in the initial version of the IES, thereby prohibiting its ability to provide diagnostic information. However, a revised version of the IES which includes an assessment of arousal has also been produced (*Weiss & Marmar, 1997*). Respondents are asked to rate how frequently comments were true for them in the past seven days, selecting from "Not at all", "rarely", "sometimes", or "often". Scores are calculated using weighted ratings (i.e., 0, 1, 3, 5, respectively), resulting in a total score range from 0 to 75. Although normative data was not provided, the developers provided the following as indicators of severity: <8.5 low, 8.6–19 medium, and > 19 high. A review of the psychometric properties of the IES concluded that although there is some evidence of reliability, the IES is severely limited in content validity as a measure of PTSD, largely due to lack of consistency with PTSD diagnostic criteria (*Joseph, 2000*). Furthermore, many IES items assess the presence of a symptom without assessing whether the symptom is upsetting or impairing to the individual, resulting in criticism that the measure lacks assessment of subjective distress associated with items. The same review also suggested that the initially proposed cut-off scores are likely too low. The IES and other PTSD measures were initially designed to assess symptom severity within individuals who have been directly exposed to trauma and have not been validated on samples of secondarily exposed individuals. Subsequently, researchers have questioned whether such measures are sensitive enough to detect secondary trauma in clinician samples (*Kassam-Adams, 1995; Bride, Robinson, Yegidis, & Figley, 2004*).

Consistent with vicarious traumatization construct, the **Traumatic Stress Institute (TSI) Belief Scale (TSIBS; Pearlman & Mac Ian, 1995) measures the degree to which respondents endorse beliefs consistent with disruptions in cognitive schemas after work with traumatized populations**. The TSIBS includes seven subscales: safety, self-esteem, other-esteem, self-trust, other-trust, self-intimacy, and other-intimacy. Respondents are asked to indicate the extent to which they agree with items (no time frame specified), using a 6-point Likert Scale (1–6). The

TSIBS has undergone several revisions, with the most frequently used version, Revision-L, containing 80 items. The authors provide support for the internal consistency of the measure (*Pearlman & Mac Ian, 1995*), but do not provide normative data. The Trauma Attachment Belief Scale (TABS; *Pearlman, 2003*) is a later revision of the TSIBS which provides adult and youth norms. Of note, the TSIBS subscales focus on cognitive changes, rather than specific PTSD symptoms. Scores on the TSI Belief Scale have been highly correlated with measures of burnout (*Betts Adams, Matto, & Harrington, 2001; Kadambi & Truscott, 2004*) and general psychological distress (*Jenkins & Baird, 2002*). Furthermore, comparisons reveal that scores on both the IES and TSIBS were more highly correlated to burnout than PTSD symptoms (*Kadambi & Truscott, 2004*). While correlations with burnout and general distress are likely related to secondary trauma, they are not specific to trauma service providers, and are inconsistent with the proposition that vicarious traumatization is unique to clinicians working with trauma populations.

The most frequently used measures of compassion fatigue are the various forms of the **Compassion Satisfaction/Fatigue Self-Test for Helpers** (CSFT; *Figley & Stamm, 1996*; previous version Compassion Fatigue Self Test, CFST; *Figley, 1995*). Although the initial version of the CFST contained two subscales (compassion fatigue and burnout), the CSFT added an additional scale (compassion satisfaction) to assess **positive reactions to one's work experiences**. The CSFT contains 66 items that query how frequently a characteristic is true on a five-point Likert Scale (1–5). The authors indicated that they created items based on their clinical experiences. The measure was originally designed as an educational tool and warning device to identify clinicians that may be experiencing psychological distress resultant from secondary trauma exposure and has acknowledged that it tends to err on the side of over-inclusion. The author provided suggested ranges for the scales, but did not describe how the ranges were selected (*compassion fatigue*: <26, extremely low risk; 27–30, low risk; 31–35, moderate risk; 36–40, high risk; >41 extremely high risk; *Burnout*: <36, extremely low; 37–50, moderate; 51–75, high; 76–85 extremely high). An additional revision of the CSFT, the Professional Quality of Life Scale (ProQOL) contains similar subscales in a 30 item version. The ProQOL instructs respondents to complete items for the last 30 days and provides recommended cutoffs for each of the three scales (*Stamm, 2009*). The authors strongly recommend that the current version, ProQOL, be administered due to psychometric problems with previous versions (*Stamm, 2009*). Unfortunately, the majority of existent studies have used older versions, such as the CSFT. Consistent with the emphasis on sensitivity, *Steed and Bicknell (2001)* reported that although scores on the CSFT significantly and positively correlated with scores on the IES, scores on the compassion fatigue scale indicated a higher level of distress. Approximately half of their sample reported compassion fatigue rates of moderate or higher on the CSFT, although none of these participants reported clinically significant levels of PTSD-related symptoms on the IES. CFST total scores have, however, revealed high correlations with general psychological distress (*Jenkins & Baird, 2002*).

Finally, returning to a PTSD-consistent model of secondary trauma symptoms, *Bride and colleagues (2004)* developed the **Secondary Traumatic Stress Scale (STSS), a 17-item self-report measure that specifically assesses symptoms consistent with the DSM-IV criteria of PTSD**. The STSS is intended for use with mental health providers who have been exposed to secondary trauma through professional work with traumatized clients. Although normed on a sample of clinical social workers, it has been used to assess a variety of mental health providers who have been exposed to secondary trauma through professional work with traumatized clients. The 17 items assess PTSD consistent symptoms using a five point Likert scale (1–5) and respondents are directed to complete the measure with their clinical work with traumatized clients as the stressor. The STSS is composed of three subscales which reflect the three clusters of PTSD: intrusion, avoidance, and arousal. Scores on the STSS can be used to calculate presence or absence, based on PTSD diagnostic criteria, or severity. *Bride (2007)*

**Table 1**  
Empirical articles examining secondary trauma published in peer reviewed journals.

Authors	Participants (n)	Outcome measures	Time frame	Findings
Adams, Figley, and Boscarino (2008)	Social workers in New York City (236) (appears to be same sample as Boscarino et al., 2004)	CFSR	“Current”	84% of the sample scored low on secondary trauma (16% high), 85% scored low on burnout (15% high); World trade center involvement and information to work effectively were the only sig. predictors of secondary trauma; Lifetime trauma, high percentage of clients who were victims of violence, and 9/11 counseling were not associated with secondary trauma; negative life events in the past year and sense of mastery were only variables to sig. predict burnout
Adams and Riggs (2008)	Clinical & counseling psychology graduate students (129)	Trauma Symptom Inventory (TSI)	Past 6 months	Sample means not in the clinically significant range, 8–15% meeting the clinical cutoff per scale, 31% exceeded the clinical cutoff on one or more scale; no sig. difference in TSI based on history of personal trauma; participants with 2 or fewer semesters of applied experience reported higher levels of trauma symptoms
Betts Adams, Matto, and Harrington (2001)	Master's level social workers (185)	TSIBS, MBI	Not stated	TSIBS scores positively correlated with burnout; history of personal trauma not correlated with TSIBS or MBI ; intrusiveness of client material correlated with emotional exhaustion (burnout), but not with TSIBS scores ; Means not provided; hours per week was sig correlated with depersonalization but no other symptoms
Birck (2002)	Therapists (14), administration (6), and interpreter (5) employees at a treatment center for torture victims	CSFT; TSIBS	Not stated	Therapist means CSFT: CF = 43.29, BO = 35.63; Burnout & compassion fatigue sig. correlated; Therapists reported higher burnout than administration or interpreters; therapists reported higher compassion fatigue than interpreters, but not administration; No differences between groups on TSIBS scores; burnout and compassion fatigue were positively correlated with number of years spent in trauma work; burnout was positively correlated with number of sessions during the week; no relations between number of supervision hours and compassion fatigue; number of years in trauma work negatively correlated with self-intimacy
Bober and Regehr (2006)	Clinicians working in programs that specialized in work with victims of violence (259)	IES; TSIBS	Not stated	Means not reported; Total hours per week spent providing counseling services (generally) and total hours per week spent counseling traumatized individuals were correlated with IES scores, but not TSIBS scores; counselors working with workplace trauma, victims of violent crime, and unexpected death did not have sig different scores from those who did not on the IES, while those who worked in the areas of wife assault, child abuse, child sexual abuse, sexual violence, and torture had higher scores on the IES than those not working with the populations; only those working with rape had significantly higher TSIBS scores; personal history of trauma was not associated with IES or TSI scores; hours per week working with traumatized individuals was the only variable to predict IES scores
Boscarino, Figley and Adams (2004)	Social workers in New York City (236)	CFSR	None specified on measure	52% of individuals with high recovery involvement considered potential secondary trauma case, compared to 25% of low involvement; 35% of high 9/11 counseling involvement considered potential secondary trauma, 25% of low counseling involvement; In full model 9/11 recovery involvement and work environment sig. predicted secondary trauma, but 9/11 counseling involvement, years as a counselor, % of current clients are violence victims, and lifetime trauma events did not sig. predict secondary trauma; only work environment sig. predicted burnout
Bride (2007)	Social workers (282)	STSS	Past week	Mean total = 29.69; 15% met diagnostic criteria for PTSD; 45% failed to meet any diagnostic criteria except exposure
Bride, Jones and MacMaster (2007)	Child protective services workers (187)	STSS	Past week	Mean total = 38.20, moderate; 34% endorsed symptoms consistent with PTSD; caseload size and personal history of trauma were positively correlated with secondary trauma symptoms, but no correlation with past year trauma experiences or years of experience; level of secondary trauma correlated with desire to leave field
Buchanan et al. (2006)	Mental health professionals working in the trauma field (280)	IES-R; CFST; author created secondary trauma questions	Not stated	Mean scores on the author created items were generally indicating that participants were “somewhat” affected; mean IES scores were consistent with the presence of PTSD; participant's endorsement of secondary trauma items significantly predicted IES and compassion fatigue scores
Collins and Long (2003)	Members of a trauma recovery team (13)	CSFT	Past week	Questionnaires completed at 4 time points from 1998 to 2001, starting at the initiation of the group. CS means = 87.62, 82.85, 80.15, 91.23; CF means = 18.85, 29.31, 34.46, 28.69; BO means = 22.38, 27.92, 29.62, 29.69
Conrad and Kellar-Guenther (2006)	Child protection workers (363)	CSFT	Past week	Sample means not reported; 64% classified as moderate risk or higher for compassion fatigue; 40% classified as moderate or higher for burnout; 75% classified as good potential or higher for compassion satisfaction



Creamer and Liddle (2005)	Mental health professionals who served as disaster mental health workers following 9/11/2001 (80)	IES	Not stated	IES means – Intrusion – 10.8, Avoidance 7.6; Previous personal trauma therapy, average hours per week past 6 months & career, number of days on assignment sig. associated with symptoms; personal trauma history and years working with trauma clients were not sig. associated; percentage of time working with child clients only sig. predictor in regression analysis
Cunningham (2003)	Social workers (182)	TSIBS	None stated	Total score means not provided; subscale means range from 1.83 to 2.20 sexual abuse clients, 1.71 – 2.00 cancer clients; Percentage of sexual abuse clients in caseload was not correlated with clinicians' endorsements of self & other safety, other trust, or other esteem; Percentage of clients with cancer was sig. negatively associated with self and other safety; clinicians who worked primarily with sexual abuse clients endorsed higher disruptions in other safety, other trust, and other esteem than those who worked primarily with cancer; sig. positive correlation between history of sexual abuse and self safety and other esteem; Sig. negative correlation between number of years in specialty and self-safety and other esteem
Deighton, Gurriss, and Traue (2007)	German speaking therapists in treatment centers for torture victims (100)	German version of the MBI; ProQol; author constructed measure of distress (includes PTSD consistent symptoms but not diagnostic criteria)	None stated	Total score means not provided; Mean scores on MBI and ProQOL measures considered average to high levels of symptoms; MBI scores similar to previous studies; ProQOL levels higher than those of the authors' database; Individuals with personal history of trauma endorsed higher levels of burnout, compassion fatigue, and PTSD symptoms; number of clients per week positively correlated with compassion fatigue, burnout, and distress scales; Years therapy experience and years as trauma therapist were not sig correlated with compassion fatigue, burnout, or PTSD symptoms; working through the trauma with the clients was negatively correlated with compassion fatigue, burnout, and distress
Dunkley and Whelan (2006)	Telephone counselors (62)	TABS; IES-R	TABS not stated; IES past 7 days	Mean IES = 9.21; TABS Mean in the average range; TABS and IES-R not significantly correlated; no significant differences between hotlines (three main types – death of young child, serious or life threatening illness, or violence) on TABS or IES total scores; clinicians perceiving themselves as trauma counselors were not significantly different than those who did not on TABS, but those who perceived themselves to be trauma counselors endorsed higher scores on the IES; personal trauma history positively correlated with the IES
Ennis and Horne (2003)	Mental health professionals working with sex offenders (59)	Los Angeles Symptom Checklist	Not stated	Low levels of PTSD and general distress endorsed; No differences between those with and without personal history of trauma on PTSD or general distress; number of hours spent with sex offenders and supervision not sig. predictors of PTSD
Eriksson, Vande Kemp, Gorsuch, Hoke, and Foy (2001)	Humanitarian aid workers (113)	Los Angeles Symptom Checklist	First six months of re-entry	Length of time overseas not correlated with PTSD; 10% endorsed symptoms consistent with PTSD; personal exposure to life threatening events and vicarious exposure to life threatening events sig. predicted PTSD
Follette, Polusny, and Milbeck (1994)	Mental health professionals (225) and police officers (46)	Therapist response questionnaire; Trauma symptom checklist	Not stated	Mental health professionals endorsed low levels of traumatic symptoms and psychological distress and moderate levels of personal stress; police officers endorsed significantly higher levels of trauma symptoms than mental health professionals; mental health professionals and police officers did not differ in levels of personal stress; individuals reporting history of childhood abuse had significantly higher levels of trauma symptoms than those without a history of childhood abuse; Using regression, neither personal trauma history or percentage of caseload reporting sexual abuse sig. predicted trauma symptoms in mental health professionals; personal trauma history did sig. predict trauma symptoms in police officers, but proportion of cases involving sexual abuse did not
Ghahramanlou and Brodbeck (2000)	Sexual assault trauma counselors (89)	IES; Penn Inventory of PTSD; SCL-90-R GSI	Not stated	Mean IES intrusion = 13.0, avoidance = 13.2; Mean GSI total score declared to be almost twice that of normative data for nonpatient, normal adults; PTSD scores measure by Penn Inventory comparable to normative data for adults without PTSD; personal trauma history was a predictor of general stress, PTSD as measured by the Penn Inventory, but not IES scores
Hargrave, Scott and McDowall (2006)	Victim support volunteers (64)	IES	Since most distressing case occurred	Means Intrusion = 8.17, Avoidance = 5.14; All participants had a personal trauma history, when separated into resolved and non-resolved groups, non-resolved participants scored higher on the IES than resolved ones; years of experience was not sig. related to symptoms; number of hours worked was not sig. associated with symptoms
Jacobson (2006)	Members of the Employee Assistance Professional Association (284)	ProQol	Not stated	Mean CS = 39.52, CF = 10.26, BO = 16.78
Jenkins and Baird (2002)	Sexual assault or domestic violence agency counselors (104)	CFST; TSIBS; MBI; SCL-90-R GSI	CFST, TSIBS not stated; MBI during the work year; SCL-90-R past week	Full sample means not provided; Means were described as similar or lower than previous research; Compassion fatigue, but no other scores, were higher for those reporting a history of sexual assault and/or domestic violence; CSFT and TSIBS highly correlated; CFST burnout scale highly correlated with MBI; CSFT highly correlated with GSI; TSIBS highly correlated with MBI

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Table 1 (continued)

Authors	Participants (n)	Outcome measures	Time frame	Findings
Johnson and Hunter (1997)	Sexual assault counselors (83) and counselors working in other areas (32)	MBI	Not stated	Sexual assault counselors endorsed sig. higher levels of emotional exhaustion, but not but nor depersonalization or personal achievement, than other counselors. Mean scores revealed very high levels of emotional exhaustion for sexual assault counselors, high levels of emotional exhaustion for other counselors, mid range levels of depersonalization for both groups, and low levels of personal achievement for both groups
Jung, Song, Chong, Seo, and Chae (2008)	Former prostitutes (113), activists helping in the shelters (81), and normal control (65)	Davidson Trauma Scale; IES-R	Not stated	IES means– controls = 13.97, activists = 24.85, and ex-prostitutes = 26.14; On the Davidson Scale, prostitutes endorsed higher scores than both other groups, but activists endorsed higher scores than controls; On the IES prostitutes and activists did not differ from each other and were sig. higher than controls
Kadambi and Truscott (2004)	Clinicians treating sexual violence victims (86), clinicians treating clients affected by cancer (64), and general practice clinicians (71)	TSIBS revision M; IES; MBI– Human Services Survey	Not stated	IES mean scores– sexual violence = 16.47, psycho-oncology = 16.07, general = 13.14; Groups were not found to be sig. different on any measures; Participants' scores considered comparable to previous findings for mental health professionals; approximately 20% of the sample scored in the moderate to severe range on the IES; 2% scored high on both subscales of MBI; TSIBS more strongly correlated with MBI than IES; personal trauma was not correlated with outcomes; subjectively more clinicians working with sexual violence perceived their work as potentially traumatizing than those working with cancer or in general practice; length of time in field & personal trauma history predicted TSIBS (negative relation); only length of time in field predicted IES (negative relation)
Knight (1997)	Mental health professionals specializing in adult survivors of csa (177)	Author designed questionnaire	Not stated	Participants endorsed some negative emotional reactions to work, but generally disagreed with statements describing impairment related to professional work; years experience working with survivors negatively correlated with feeling overwhelmed
Linley, Joseph, and Loumidis (2005)	Self-identified trauma therapists (85)	Changes in Outlook Questionnaire	Not stated	M endorsed negative changes approximately 23 (range 15–90); negative changes were not associated with "amount of total therapist time spent in therapy with traumatized persons in a typical month"
McLean, Wade, and Encel (2003)	Mental health professionals who work with traumatized clients (116)	Traumatic Stress Institute Scale; IES; MBI	Not stated	Mean IES score lower than suggested PTSD diagnostic cut-off; Increased time spent in clinical work predicted avoidance scores of IES; Less experience in the field predicted higher total IES scores; author constructed therapist belief scale sig. predicted TSI and MBI totals
Nelson-Gardell and Harris (2003)	Child welfare agency workers (98) & social worker conference attendees (68)	CFST	Not stated	Traumatic stress symptoms significantly correlated with all types of abuse and neglect experiences (emotional, physical, sexual), but was not correlated with years of experience in field
Ortlepp and Friedman (2002)	Nonprofessional trauma counselors for victims of bank robberies (130)	CSFT	Not reported	CSFT means CF = 22.27, burnout = 19.52, CS = 95.38; 69% of respondents were declared to be at extremely low risk for compassion fatigue and 10% were declared at low risk; 95% were declared to be at extremely low risk for burnout; previous trauma was not related to symptoms; time since last counseling was the only significant predictor of symptoms ; no differences between counselors who counseled for situations in which death or serious injury occurred compared to those for which no death or serious injury occurred

Pearlman and Mac Ian (1995)	Trauma therapists (188)	TSIBS; IES; SCL-90-R	Not stated	Full sample IES mean not provided; Only TSI self-trust correlated with sig. with percentage of survivors in workload; length of time doing trauma work was negatively correlated with TSI self-trust, self intimacy, and self esteem, and SCL-90 total; Those with a personal trauma history sig predicted TSI and SCL-90 total scores; personal trauma history not a sig. predictor of IES
Perron and Hiltz (2006)	Forensic interviewers of children working in advocacy centers (60)	Oldenburg Burnout Inventory; STSS	Not stated	Mean STSS = 34.17; Neither number of interviews conducted each month nor percentage of work were sig. associated with disengagement, exhaustion, or secondary trauma; Years of employment was correlated with disengagement, but not exhaustion or secondary trauma
Racanelli (2005)	Mental health professionals from New York City (35) and Israel (31), recruited from membership in a professional trauma society	ProQol	Not stated	CS means - New York = 47.80, Israel, 46.65; CF means - New York = 25.14, Israel = 27.58, BO means - New York = 27.46, Israel = 27.68; no sig. differences between groups; fewer years of practice predictive of greater BO; years spent working with victims of terrorism was negatively associated with BO
Schauben and Frazier (1995)	Members of a women psychologist organization (118) and sexual violence counselors (30)	TSIBS; PTSD symptom checklist developed by authors; single item- clients asked to rate the extent to which they were currently experiencing vicarious trauma; MBI STSS	TSIBS & MBI not stated; PTSD past 2 weeks	Percentage of survivors in caseload correlated with TSIBS other-esteem subscale, PTSD, and vicarious trauma and significantly predicted outcomes; Percentage of survivors was not related to burnout; prior victimization and interaction between prior victimization and percentage of survivors in caseload failed to predict outcome measures
Shah, Garland, and Katz (2007)	Humanitarian aid workers (71)		Past week	8% endorsed symptoms consistent with PTSD
Sprang, Clark, and Whitt-Woosley (2007)	Behavioral health providers (1121)	Author constructed measure; ProQol	Not stated	Sample means for professional quality of life subscales were better than reported national norms; Percentage of clients with PTSD predicted higher levels of compassion fatigue, compassion satisfaction, and burnout
Steed and Bicknell (2001)	Sex offender clinicians (67)	CSFT ; IES-R	CSFT no time frame specified; IES not stated	Means IES intrusion = 5.39, avoidance = 4.43; none of the therapists endorsed clinically sig. levels on IES; CSFT means CF = 30.24, CS = 89.31, BO = 28.88; 46% of the sample declared at moderate or higher risk of CF, 19% at moderate or high risk of BO; years of working with sex offenders only sig. related to avoidance subscale, with a quadratic relationship
Way et al. (2004)	Clinicians treating sexual offenders (252) and sexual abuse survivors (95)	IES	Not stated	IES total mean = 26.43; 52% scored in the clinical range; Clinician groups were not significantly different in level of PTSD; personal maltreatment not a sig. predictor of symptoms; for survivor group only, shorter time treating predicted symptoms
Way, VanDeusen, and Cottrell (2007)	Clinicians treating sexual offenders (270) and sexual abuse survivors (113)	TSIBS, self-esteem & self-intimacy only, scores were transformed to TABS scores	Not stated	Personal trauma history was not a significant predictor of self-esteem; only history of emotional neglect (not history of physical neglect, emotional abuse, multiple forms of child maltreatment) predicted higher disrupted self-intimacy
Wee and Myers (2003)	Critical incident stress management providers (71)	CSFT	Not stated	Sample means CS = 97.54, CF = 29.22, BO = 26.89
VanDeusen and Way (2006)	Clinicians treating sexual offenders (270) and sexual abuse survivors (113)	TSIBS-R-L, trust & intimacy subscales	Not stated	Clinicians reported levels of other trust cognitions similar to reported norms for mental health professionals; Clinicians reported greater disruption in intimacy with others than norms

Note. CFSR = Compassion Fatigue Scale-Revised; CSFT = Compassion Satisfaction/Fatigue Self-Test; IES = Impact of Events Scale; MBI = Maslach Burnout Inventory; ProQol = Professional Quality of Life Scale; SCL-90 R = Symptom Checklist-90-Revised, GSI = Global Severity Index; STSS = Secondary Traumatic Stress Scale; TABS = Trauma attachment and belief scale; TSIBS = TSI Belief Scale.

provided the following severity recommendations based on normative data: <28 little or no secondary traumatic stress, 28–37 mild, 38–43 moderate, 44–48 high, and >49 severe. Since its conception, the STSS has been used frequently in empirical studies examining the prevalence and impact of secondary traumatic stress, and its congruence with the diagnostic criteria for PTSD, which allows for simplistic comparison to a traditional PTSD sample, has been cited as a strength of the measure (Bride, Smith-Hatcher, & Humble, 2009).

Sabin-Farrell and Turpin (2003) highlighted weaknesses in the measurement of secondary traumatization in their review and challenged researchers to refine existent measures. Since their review, much work has been done to improve the assessment of secondary trauma and researchers and clinicians currently have a variety of measures to choose from when aspiring to assess secondary trauma symptoms. Measurement can be chosen based on both the secondary trauma perspective an individual identifies with and their desired symptom emphasis. Individuals choosing to examine secondary trauma consistent with a PTSD presentation would likely benefit from using the STSS, given the correspondence with PTSD criteria and the availability of normative data. If the goal is to identify impairments in specific cognitive dimensions, the TABS is likely the best option. Finally, if an individual is interested in positive and negative reactions to work experiences it is recommended that the ProQol be utilized.

#### 4. Review of past research

##### 4.1. Prevalence/severity

Studies examining secondary trauma symptoms in clinicians exposed to traumatic experiences through therapy provision have produced varying levels of reported severity. See Table 1 for additional information regarding sample and measurement utilized in the studies referenced (Please note not all studies included trauma clients exclusively and information about type of treatment provided is predominantly unavailable). Several studies reported that participants generally endorsed low levels of secondary trauma symptoms, often reporting distress levels below cut-offs for clinically significant symptoms (Adams & Riggs, 2008; Collins & Long, 2003; Dunkley & Whelan, 2006; Ennis & Horne, 2003; Eriksson, Vande Kemp, Gorsuch, Hoke, & Foy, 2001; Follette, Polusny, & Milbeck, 1994; Ghahramanlou & Brodbeck, 2000; McLean, Wade, & Encel, 2003; Ortlepp & Friedman, 2002; Wee & Myers, 2003). For example, a study examining graduate student clinicians who worked with trauma clients for an average of three semesters reported that sample mean scores on the Trauma Symptom Inventory (TSI) were not clinically significant, with only 8–15% of participants endorsing symptoms that exceeded the clinical cut-off per subscale (Adams & Riggs, 2008). However, given the training nature of the graduate clinician experience, it is likely that the clinicians in the Adams and Riggs study received ongoing supervision, which may represent an ideal environment for providing trauma therapy. One study examined secondary trauma symptoms longitudinally in a trauma response team, with four assessment points over three years (Collins & Long, 2003). Overall, the team endorsed low level of secondary trauma symptoms with only slight variation. Symptoms of burnout fell in the extremely low range at each of the four time points, while compassion fatigue ranged from extremely low to moderate (extremely low at the first and last assessment, low at the second assessment, and moderate at the third assessment). Other studies have reported moderate to high levels of secondary trauma symptoms (Bride, Jones, & MacMaster, 2007; Conrad & Kellar-Guenther, 2006; Hargrave, Scott, & McDowall, 2006; Johnson & Hunter, 1997; Way, VanDeusen, Martin, Applegate, & Jandle, 2004). Way et al. (2004) reported high levels of trauma symptoms in their sample of clinicians treating either sexual abuse survivors or sexual offenders (no differences in symptoms by client population), with the mean in the moderate range and approximately 50% of the sample reporting levels in the clinical range on the IES.

Several factors likely contribute to the range of secondary trauma symptoms reported across studies. Ranges in severity may be due, in part, to differences in measurement. Ghahramanlou and Brodbeck (2000) administered both the IES and the Penn Inventory of PTSD to a sample of sexual assault trauma clinicians. On the Penn Inventory, participants endorsed trauma symptoms similar to normative data for adults without PTSD diagnoses, whereas IES scores were in the moderate range. These findings are consistent with previous suggestions that the IES cut-off scores are designed to maximize sensitivity and may increase type I error rates (Joseph, 2000). Interestingly, examinations of subjective and more objective levels of distress have been inconsistent. Kadambi and Truscott (2004) found that clinicians working with sexual assault survivors more frequently perceived their work as potentially traumatizing than clinicians working with other client populations, despite no significant differences in symptom endorsement on standardized measures (Kadambi & Truscott, 2004). This discrepancy warrants further examination as it is unclear whether clinicians working with survivor populations are experiencing distress in manners that are not assessed by traditional measures or if they interpret symptoms as more distressing than others experiencing similar symptoms. Finally, it has been suggested that secondary trauma symptoms may vary by both individual characteristics such as gender (Kassam-Adams, 1995) and age (Ghahramanlou & Brodbeck, 2000) and environmental characteristics such as training and supervision (Rudolph & Stamm, 1999).

##### 4.2. Uniqueness of secondary trauma to trauma workers

Secondary traumatization researchers have argued that clinicians working with traumatized clients are uniquely at risk for the development of distress, including secondary traumatization, compared to other mental health professionals. However, there has been a paucity of research to date that has empirically assessed this assertion. To date, few studies have included such comparison groups in their designs. Kadambi and Truscott (2004) compared clinicians who primarily treated either survivors of sexual violence, clients with cancer, or general practice clients. Based on secondary trauma theories, the authors predicted that the clinicians working with sexual assault survivors would report the highest level of secondary trauma symptomatology. Contrary to hypotheses, there were no significant differences between groups with respect to secondary trauma on any measure of secondary trauma, including changes in trauma related cognitions highlighted by vicarious traumatization theories, PTSD consistent symptoms, or symptoms of burnout. However, a separate study reported that clinicians who treated sexual abuse clients endorsed greater disruption in other-safety, other-trust, and other-esteem (no differences in self-safety) than clinicians who treated cancer patients (Cunningham, 2003). It should be noted, however, that both groups appeared to endorse low levels of disruptions in these areas. Finally, a study examining burnout reported that sexual assault clinicians endorsed higher levels of emotional exhaustion than general clinicians; however, the groups did not differ on levels of depersonalization or personal achievement (Johnson & Hunter, 1997). Birck (2002) compared endorsement of symptoms by clinicians to those of administrators and interpreters working at a treatment center for torture survivors. Findings revealed that the groups did not differ on level of trauma related beliefs, but that clinicians did endorse higher levels of burnout than the other groups, and higher levels of compassion fatigue than the interpreters (although they were not significantly different from the administrators). The unique comparison of clinicians to interpreters provides the opportunity to examine individuals that are presumably exposed to similar descriptions of traumatic experiences. Therefore, the differences that do emerge suggest that there may be, at least in some instances, factors related to service provision and/or the therapeutic relationship that affect an individual differently than exposure to traumatic details alone. One factor that could influence



emotional response in this manner is the perceived responsibility for change, with clinicians assuming some degree of responsibility for change while interpreters may not. While some findings supporting unique responses by trauma clinicians have emerged, overall, findings utilizing mental health comparison groups suggest that trauma clinicians may be generally experiencing similar emotional responses as other mental health workers. Findings that do identify differences indicate that rather than exhibiting more intense negative reactions globally, trauma clinicians may be experiencing increased distress in specific areas.

#### 4.3. Associations between trauma-related therapy exposure and reactions

Closely related to the claim that trauma clinicians are uniquely at risk, foundational theories of secondary trauma posit that the level of exposure to traumatic material should be related to the development of secondary trauma symptoms (Figley, 1995; Pearlman & Saakvitne, 1995). If this claim is true, empirical research should support a link between secondary traumatic stress and variables related to degree of trauma exposure experienced by the therapist. However, the construct of trauma exposure has proven very difficult to both conceptualize and measure. Consider, for example, that one clinician may conduct 2 h a week of exposure-based, trauma-focused therapy with a single trauma client in which specific and graphic trauma details are disclosed, whereas a different clinician may spend 20 h each week working with trauma survivors who have chosen to primarily focus on non-trauma related issues in their treatment sessions. It is not immediately clear which clinician has the higher degree of trauma exposure. In their attempts to quantify degree of trauma exposure, researchers have operationalized the concept in a variety of ways, including hours spent working with the clients, percentage of survivors in the client load, and years working with trauma clients.

The percentage of trauma clients in a clinician's caseload has frequently been used as a measure of secondary trauma exposure. Although some studies support the association between percentage of caseload and secondary trauma symptoms (Schauben & Frazier, 1995; Sprang, Clark, & Whitt-Woosley, 2007), other studies have frequently failed to find a relation between percentage of trauma clients and trauma related symptoms (Adams, Figley, & Boscarino, 2008; Boscarino, Figley, & Adams, 2004; Cunningham, 2003; Follette et al., 1994; Perron & Hiltz, 2006). Studies examining disruption in trauma-related cognitions, which have multiple subscales, have found associations between the percentage of trauma clients on some, but not all, subscales (Pearlman & Mac Ian, 1995).

Examinations of the relation between the number of hours per week spent working with trauma clients and secondary trauma symptoms have yielded equivocal findings. Bober and Regehr (2006) reported a significant relation between hours per week and trauma related symptoms, but not cognitive distortions. Birck (2002) reported a significant relation between hours per week and burnout, but did not report associations with compassion fatigue or cognitive distortions (also included in analyses). Similarly, Betts Adams et al. (2001) found a significant relation between hours per week and depersonalization, but non-significant relations with emotional exhaustion, personal achievement, or intrusions (correlations with cognitive disruptions were mentioned as assessed but outcome was not provided). Creamer and Liddle (2005) reported that hours per week with trauma clients was significantly associated with trauma symptoms, although it did not serve as a significant predictor. Finally, two additional studies failed to find significant relations between time spent with trauma clients and secondary trauma symptoms (Ennis & Horne, 2003; Linley, Joseph, & Loumidis, 2005).

Examinations of time spent working in the trauma field have revealed that when findings emerge, a shorter length of time treating trauma clients, rather than longer time, is associated with greater symptom severity (Adams & Riggs, 2008; Cunningham, 2003; Kadambi

& Truscott, 2004; Knight, 1997; McLean et al., 2003; Pearlman & Mac Ian, 1995; Racanelli, 2005; Way et al., 2004). However, other studies have failed to detect a significant relationship between length of time treating traumatized clients and secondary trauma (Boscarino et al., 2004; Creamer & Liddle, 2005; Deighton, Gurriss, & Traue, 2007; Eriksson et al., 2001; Ghahramanlou & Brodbeck, 2000; Nelson-Gardell & Harris, 2003; Steed & Bicknell, 2001). The association between secondary trauma and shorter time providing services, rather than longer, has been explained by the suggestion that individuals who experience the highest levels of distress in response to trauma-focused work will be more likely to leave the field than those less affected. Consistent with this proposition, one study reported that secondary trauma scores were significantly negatively correlated with the participants' reported intent to remain in the field (Bride, Jones & MacMaster, 2007; Bride, Radey & Figley, 2007).

A final therapy characteristic used to represent the degree of clinician exposure to traumatic material is the proximity of the clinician to the client. Ghahramanlou and Brodbeck (2000) compared sexual assault clinicians who worked face-to-face with clients in emergency rooms to sexual assault clinicians who provided care over the phone. Although the authors hypothesized that emergency room clinicians would be at a greater risk for the development of secondary trauma symptoms due to face-to-face interaction, the two types of sexual assault clinicians did not endorse significantly different levels of secondary trauma symptoms. In sum, findings examining the association between exposure to traumatic material and secondary trauma symptoms are inconsistent; however, it appears as though the majority of findings do not support a dose–response model for the development of secondary trauma symptoms. If a relation between exposure and secondary trauma does exist, it is possible that various exposure factors interact to influence the risk, and further research may benefit from the examination of their collective influence or interactions, rather than individual examination. Future research may also begin to assess additional therapy variables such as type of therapy administered, amount of actual exposure within therapy (or emphasis placed on therapeutic elements such exposure and the process of habituation versus cognitive restructuring, etc.). Finally, the outcome of the therapy may also serve as a risk or protective factor for the therapist's development of distress. The reward inherent in participating in the recovery from psychopathology may serve as a buffer for any secondary distress experienced during exposure to a client's disclosures.

#### 4.4. Personal trauma history

A second factor that has been proposed to put an individual at risk for the development of secondary traumatization is a **personal trauma history** (Figley, 1995; Pearlman & Saakvitne, 1995). Theorists suggest that being exposed to a client's traumatic experiences, reactions, and subsequent cognitive distortions can trigger a clinician's reactions to their own trauma experiences (Pearlman & Saakvitne, 1995). Findings regarding the influence of the clinician's personal trauma history on the development of secondary trauma symptoms have yielded mixed results. Several studies have reported that personal trauma history is not significantly related to the development of secondary trauma symptoms (Adams et al., 2008; Adams & Riggs, 2008; Bober & Regehr, 2006; Boscarino et al., 2004; Creamer & Liddle, 2005; Ennis & Horne, 2003; Follette et al., 1994; Kadambi & Truscott, 2004; Ortlepp & Friedman, 2002; Schauben & Frazier, 1995; Way et al., 2004). Other studies have found an association between personal history of trauma and secondary trauma symptoms (Bride, Jones & MacMaster, 2007; Bride, Radey & Figley, 2007; Cunningham, 2003; Deighton et al., 2007; Dunkley & Whelan, 2006; Eriksson et al., 2001; Jenkins & Baird, 2002). Explanations for these differences are not readily apparent, as both studies supporting and failing to support the connection have used a variety of measures and samples.

However, support for the hypothesized association between personal trauma and secondary trauma symptoms could raise questions about the validity of secondary trauma as a distinct construct and highlights the importance of demonstrating that secondary trauma symptoms are unique from primary PTSD associated with the clinician's personal traumatic experience. One study found that while mode of delivery (in person vs. telephone) and amount of time providing services did not predict secondary trauma symptoms, personal trauma history and current antidepressant use significantly predicted symptoms (Ghahramanlou & Brodbeck, 2000). Although temporal relationship of medication use to reported symptomatology was not assessed (i.e., if the medication use was prescribed for pre-morbid psychiatric difficulties or for symptoms related to trauma work), if what is currently being conceptualized as secondary trauma symptoms are better explained by a primary, pre-morbid psychological difficulty (such as PTSD resultant from a previous personal trauma experience), this would have implications for uniqueness of the secondary trauma construct. *Personal reactions* to clinician's own traumatic experiences (significant distress, diagnosable psychopathology such as PTSD) may be more predictive of future reactions to clients' traumatic events, over and above the clinician's personal exposure to trauma. Creamer and Liddle (2005) found that while personal trauma history was not significantly associated with trauma symptoms in their sample, previous personal trauma therapy (suggesting significant distress secondary to the trauma) was associated with trauma symptoms. Additionally, one study asked participants to indicate their perceived level of resolution regarding their personal trauma experiences. Participants that considered their reactions to be unresolved endorsed significantly higher secondary trauma symptoms than those who consider their reactions resolved (Hargrave et al., 2006). Unfortunately, the distinction between reactions to direct and indirect trauma exposure has been largely overlooked in the previous literature, and no studies were found that measured both secondary trauma and primary trauma symptoms. Further complicating the matter, the assessment of personal trauma history is included in some measures of secondary trauma (e.g., Compassion Satisfaction and Fatigue Test; Stamm, 2002; note – items assessing personal trauma are not included in the ProQol), but not necessarily covaried out in the relevant analyses.

#### 4.5. Impairment and course

The conceptualization of the clinical manifestation of secondary trauma symptoms has often emphasized similarities between secondary trauma and the DSM-IV PTSD diagnosis. For example, models of secondary trauma include similar components of exposure to traumatic material (consistent with PTSD Criterion A) and symptom structure (such as the use of established PTSD measures to assess secondary trauma symptoms). Several substantial distinctions between secondary trauma exposure and PTSD are readily apparent. Specifically, secondary trauma conceptualizations have focused less on personal response to exposure, the chronicity of symptoms, and functional impairment. While a diagnosis of PTSD requires the traumatic event to be experienced with fear, helplessness, and horror following exposure to the Criterion A event, conceptualizations of secondary trauma have generally overlooked the clinician's response to their exposure to the traumatic experiences of the clients. Rather, many secondary trauma theories normalize secondary trauma symptoms, implying that clinical exposure to traumatic material is distressing enough to lead to clinical symptomatology without specifically assessing this assumption. Degree of functional impairment (Criterion F) is another component of PTSD that has been largely overlooked with respect to secondary trauma, both at the individual and construct level. To receive a diagnosis of PTSD, one must demonstrate that the symptoms are causing clinically significant impairment; however, most assessments of secondary trauma have not specifically assessed impairment. Within common self-report measures,

items are included that assess for the presence of a symptom (e.g., level of activity, jumpiness) without assessing associated distress or impairment. It has been proposed that impairments associated with secondary stress may lead to early resignation, greater staff turnover, decreased effectiveness of clinicians, and that affected clinicians experience difficulties in their interpersonal relationships outside of the context of therapy (Sexton, 1999). While findings that support a negative correlation between secondary trauma symptoms and intent to remain in the field provide initial support for a relation between secondary trauma and retention (Bride, Jones & MacMaster, 2007; Bride, Radey & Figley, 2007), associations between symptoms and proposed negative consequences remain largely untested. Furthermore, interview findings with a sample of lay trauma clinicians revealed that the majority of participants denied any negative impact on their work due to secondary trauma symptoms (Ortlepp & Friedman, 2002). Unfortunately, the majority of studies have assessed symptoms without assessing the hypothesized effects on the individual and the organization.

Finally, theories of secondary trauma have not included suggestions regarding differentiation between normal, transient responses to occupational stressors and secondary trauma responses. While diagnostic criteria for PTSD specifies a minimum duration for the symptoms to be considered abnormal, the authors are not aware of any theories of secondary trauma have outlined requirements for duration or expected course. Furthermore, commonly used measures vary with respect to the time periods being assessed, with common assessment periods ranging from one week to six months, with some leaving the assessment period unspecified. Further complicating assessment of chronicity, the measures used generally do not specify how much time has passed since the individual's exposure to the client material. The assessment of point prevalence of secondary traumatic stress symptoms does not provide information about whether the symptoms are chronic and enduring in nature. Examinations of short-term reactions to direct experiences of trauma have revealed that the majority of trauma survivors experience PTSD-like symptoms in the immediate aftermath of the trauma (e.g., Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992), supporting duration requirements in the PTSD diagnostic criteria. Similarly, Ortlepp and Friedman (2002) reported that responses to interviews indicated that participants commonly described experiencing secondary trauma symptoms shortly after exposure, but none of the clinicians in their sample described experiencing symptoms six weeks following exposure. There is a need to establish when and if intervention is necessary for secondary traumatic stress or if the majority of symptoms will resolve naturally.

## 5. Implications and recommendations

As described above, proponents of secondary trauma symptoms have proposed changes to training, organizational support, and treatment of trauma focused clinicians (e.g., Salston & Figley, 2003; Rudolph & Stamm, 1999). Despite the significant attention given to secondary trauma symptoms since Sabin-Farrell and Turpin's previous review (2003), consideration of current research lead the present authors to reiterate the previous conclusion that findings are neither clear nor consistent and warrant additional research. Furthermore, the equivocal findings regarding the prevalence and severity of secondary trauma symptoms and the paucity of research examining impairment associated with the symptoms if present, lead to the conclusion that the extant research does not warrant systematic implementation of prevention and treatment recommendations. While proposed changes may benefit individuals at highest risk for development of secondary trauma symptoms, the recommended changes, if implemented to an extreme degree, could have negative effects on organizations providing trauma focused services and perhaps even individuals training to be trauma clinicians. For instance, suggestions for secondary trauma education include encouragement of awareness of emotional reactions

to clients (Salston & Figley, 2003; Schauben & Frazier, 1995) and the presentation of secondary trauma symptoms as a normal response to working with survivors (Pearlman & Mac Jan, 1995; Steed & Bicknell, 2001). If unnecessary, these suggestions could lead to a self-fulfilling prophecy and potentially cause or increase a clinician's level of distress. As reported by Kadambi and Truscott (2004), at least one sample of trauma clinicians have reported high levels of subjective distress, despite low levels of symptoms on established measures. Expectations of negative responses to their work may lead individuals to evaluate any response as abnormally intense. If depicted excessively negatively, required education on secondary trauma may also discourage potential workers, reducing available numbers of clinicians and perhaps discouraging individuals from a career they might find fulfilling.

On an organizational level, requiring additional supervision and treatment could consume resources from already financially strained organizations. For example, one study examining the effectiveness of the implementation of frequently recommended strategies for the prevention of secondary trauma symptoms failed to find a significant relation between any of the prevention strategies (leisure time, self-care, supervision, research and development) and levels of secondary trauma symptoms endorsed (Bober & Regehr, 2006). Given the potential detrimental implications of proposed changes in prevention and treatment, such changes should be preceded by consistent, well conducted research on the construct, risk and protective factors, and experimental studies examining the influence such changes might have at the organizational level.

The desire to identify and respond to occupational hazards, such as secondary trauma, is a laudable one. It would be detrimental to both the field and individual clinicians to disregard significant negative responses to the provision of trauma services should they consistently exist. Educators, supervisors, and individual clinicians could benefit from research further examining this topic. Research examining secondary trauma would be strengthened by the addition of studies addressing the current weaknesses. First, increased clarification of the secondary trauma construct, particularly outlining distinctions between normal and abnormal stress responses, is needed. While the existing measures have succeeded in demonstrating reliability and several have provided normative data, it is suggested that measures could benefit from improved assessment of associated distress and impairment. Additionally, the clarification of assessment periods and time since exposure in many measures would be helpful. Second, increased understanding of the prevalence of clinically significant levels of secondary trauma symptoms is needed before appropriate training and prevention strategies can be identified. The extant research has revealed much variation in symptom response in trauma clinicians, with mean responses frequently in non-clinical ranges. Next, if secondary trauma is going to be accepted as specific to clinicians working with victim populations, additional research using appropriate comparison groups is needed. Current research on secondary trauma has shown little variation across client populations. Similarly, research examining the relation between level of exposure to traumatic material and the development of secondary traumatic stress has been mixed. A better understanding of this relation is needed before secondary trauma is described as a normal response to exposure to traumatic material. Longitudinal research is needed to provide more information on the etiology and course of secondary traumatic symptoms. Finally, the preponderance of existing research has utilized basic statistical analyses. Future research would benefit from the application of more sophisticated analytical techniques, such as structural equations modeling or hierarchical linear modeling.

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