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REVIEW



Secondary traumatization in criminal justice professions: a literature review

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ABSTRACT

Professionals working in the criminal justice sector are vulnerable to sources of indirect trauma such as the interactions with perpetrators of crime who themselves may be traumatised and exposure to distressing events or graphic material. This systematic review aims to examine the prevalence of this secondary traumatization and related resilience and risk factors among criminal justice professions. After identifying 158 relevant studies within PubMed, Scopus, Web of Science, PsycINFO, and Cochrane, 52 studies were included in this review. Low to moderate levels of secondary traumatization was reported in criminal justice professions. The low prevalence of secondary traumatization may be explained by social desirability and the stigma of mental health issues in these professions. Risk factors (i.e. history of mental illness, work-related trauma, negative coping strategies) predicted secondary traumatization. Support strategies and interventions were moderately effective, however further research and a consensual definition of secondary traumatization is needed, so that organisations may benefit from trauma-informed approaches.

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KEYWORDS

Secondary trauma; coping; trauma-informed; criminal justice

Introduction

The psychological impact of experiencing extraordinarily stressful events such as natural disasters, war, or physical abuse, has been clearly established (Horesh & Brown, 2020). Increasing reports have shown that witnessing, listening to explicit accounts, or having explicit knowledge of a traumatic event, may cause negative psychological effects (Lerias & Byrne, 2003). Unquestionably, the people who work in the criminal justice system encounter vulnerable and traumatized offenders, and witness graphic materials and events, in addition to working in challenging environments. These circumstances have the potential to exacerbate stress in the daily lives of these individuals and the work they do in criminal justice. Added to this is the reluctance of these professionals to seek support or pursue professional mental health interventions (Karaffa & Koch, 2016). For example, research has found that police officers were reluctant to seek help for fear of stigma and negative reactions from colleagues (Edwards & Kotera, 2020). Moreover, psychological support for legal professionals is minimal (Krill et al., 2016). Thus, this

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culture of stigma and general reluctance to report emotional distress may understate the psychological distress these professions experience (Edwards & Kotera, 2020; Greinacher et al., 2019). Various terms such as vicarious trauma, compassion fatigue, and secondary traumatic stress, are used interchangeably throughout the literature to describe these symptoms (Greinacher et al., 2019). This review aims to provide an overview of the prevalence of behaviours indicative of this form of psychological distress arising from working in the criminal justice sector.

Secondary traumatization

The term *vicarious traumatization* (VT) was first conceptualised to denote the psychological impact of helping professionals empathically engaging with traumatic material from clients (McCann & Pearlman, 1990). Similar to symptoms of primary trauma, the harmful effects of VT include intrusive imagery, arousal, avoidance behaviours, and negative changes to cognitions (Aparicio et al., 2013). VT is accumulative in nature and its effects are considered to be a normal response and an occupational hazard of working with traumatized people (McCann & Pearlman, 1990).

Comparably, *compassion fatigue* (CF) and *secondary traumatic stress* (STS) have been described as a 'cost of caring' that helping professionals experience (Figley, 1995). Developed from posttraumatic stress disorder (PTSD) criteria from the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; DSM-IV; American Psychiatric Association, 1994), compassion fatigue has been defined as a state of physical or psychological distress that occurs by observations of, or exposure to, traumatizing experiences (Cieslak et al., 2014). Early research has used CF and STS interchangeably, until recent literature incorporated aspects of burnout to explain the element of energy depletion (Adams et al., 2006; Gentry et al., 2002; Stamm, 2005, 2010). Thus, STS is characterised by work-related secondary exposure from people who have experienced traumatic and stressful events (Stamm, 2010). STS symptoms resemble those of PTSD, including symptoms of intrusion, avoidance, and arousal (Bride et al., 2004). Unlike VT which is gradual in nature and focuses on the cognitive phenomenon, STS is acute and focuses on the experiences linked to symptoms of PTSD (Baird & Kracen, 2006; Branson, 2018). Burnout, the second element of CF, is the product of a poor working environment and high levels of occupational stress, indicated by emotional exhaustion and depersonalisation (van Mol et al., 2015). In contrast to STS, burnout emerges gradually (Stamm, 2010).

As there are no distinct definitions for these constructs, the present study will use *secondary traumatization* as an overall term to describe this phenomenon. This review highlights the conceptual overlap between these constructs. Secondary traumatization is defined as the negative responses experienced by those who have witnessed, have explicit knowledge of, or have the responsibility to intervene in traumatic or distressing events (Lerias & Byrne, 2003). This review examines how exposure to distressing events during the course of criminal justice work can result in secondary traumatization.

PTSD and secondary traumatization

Although symptoms of PTSD and secondary traumatization are parallel, there is a distinction on how the traumatic event was experienced. Direct exposure to a traumatic event

typically leads to PTSD, whereas secondary trauma occurs when the stressor is from the exposure to the knowledge about a traumatizing event experienced by another (Elwood et al., 2011). Furthermore, some argue that secondary traumatization is an occupational hazard and a natural consequence to helping others (Branson, 2018).

Studies have found moderate to strong correlations between PTSD and secondary traumatization. Finklestein and colleagues (2015) found a strong correlation between PTSD and secondary traumatization, however, regressions indicated distinct predictors that were related to the professional role of the mental health worker. Professional experience, subjective exposure, and professional self-efficacy predicted both PTSD and secondary trauma, however, years of education and professional support were predictors for secondary trauma only. Years of work experience in the profession has inconsistent effects, with some studies showing no effects, and other studies showing that longer experience predicts elevated levels of STS (see Iversen & Robertson, 2021 for a review). There is also some evidence that suggests weekly hours worked acts as a mediator in development of STS symptoms (Levin et al., 2011). Additionally, research with police officers point to an increase in compassion fatigue (vs compassion satisfaction) which may also account for why experience is not always a protective factor (Papazoglou et al., 2019).

Risk and protective factors

The degree of threat the individual perceives is an important determinant of the severity of the trauma response (Lerias & Byrne, 2003). In addition, feelings of helplessness and horror are associated with the level of distress experienced. For example, it has been documented in social workers and in professionals working in child advocacy centres that working with child victims increases vicarious trauma due to feelings of helplessness and horror at the crimes inflicted against children (Letson et al., 2019).

In addition to this, there are a number of predictor variables that have been suggested to mediate and predict secondary traumatization. There is reasonable evidence suggesting a history of trauma is associated with the development of secondary traumatization (Baird & Kracen, 2006). Police officers (Sherwood et al., 2019) and correctional officers (Butler et al., 2019) have an elevated risk of trauma exposure and victimization due to their work environments. Having poor psychological well-being, such as a history of depression and anxiety, is known to exacerbate STS symptoms (Lerias & Byrne, 2003). Research has shown that police officers are more likely to report symptoms of PTSD, depression, anxiety, suicidal ideation, and engage in hazardous drinking (Syed et al., 2020). Similarly, prison employees experience high levels of PTSD, depression, and anxiety (Regehr et al., 2019). Substance abuse and mental health distress have also been reported in attorneys (Krill et al., 2016). Moreover, negative coping strategies and lack of social support has been found to increase levels of secondary traumatization (Baird & Kracen, 2006; Lerias & Byrne, 2003).

Aims of the current review

To the best of our knowledge, this systematic overview is the first that aims to examine the current literature on secondary traumatization among the professions in the criminal

justice system. Due to the nature of their work, these criminal justice professions may be at high risk of developing secondary traumatization. This review looks at the prevalence of secondary traumatization among criminal justice professions working in law enforcement settings, judicial settings, and prison/rehabilitation settings. Additionally, the relationship between psychological well-being and secondary traumatization will be examined. Furthermore, we explore work-related trauma, coping strategies, and the role of support in buffering the effects of secondary traumatization.

Methods

A systematic review of the scientific literature was conducted to gather original articles for appraisal. The current research was completed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol (Moher et al., 2015).

Measurement of secondary traumatization

The most frequently used measures of secondary traumatization follow the compassion fatigue framework. The Compassion Fatigue Self-Test (Figley, 1995) and the Compassion Fatigue Scale (Adams et al., 2006) were developed to differentiate burnout and secondary traumatic stress in helping professions. Later, the Compassion Satisfaction and Fatigue Test (Stamm & Figley, 1996), and Professional Quality of Life Scale (Stamm, 2010) added an additional subscale measuring of compassion satisfaction. Although Stamm (2010) recommends using current version Professional Quality of Life Scale because it is more psychometrically sound, many existing studies still utilise the older measurements within the compassion fatigue framework.

The Secondary Traumatic Stress Scale (Bride et al., 2004) was developed to measure secondary trauma symptoms in social workers and other helping professionals. The STSS is consistent with the DSM-IV criteria for PTSD, by incorporating Criterion B (intrusion), C (avoidance), and D (arousal) as subscales. Thus, this measure is the only scale that is specifically congruent with the diagnostic criteria for PTSD (Bride et al., 2009).

The Secondary Trauma Scale (Motta et al., 2001), was designed to measure the influence of secondary traumatic experiences in non-clinicians and was applied in a sample of Holocaust survivors' grandchildren and psychotherapists (Greinacher et al., 2019). It is important to note that this scale was not designed to measure secondary trauma in professionals, and has only been validated on samples in the general population (Weitkamp et al., 2014).

The Vicarious Trauma Scale (Vrklevski & Franklin, 2008), developed for legal professionals, assesses subjective levels of distress associated with working with traumatised clients. As this questionnaire only contains seven items, Aparicio and colleagues (2013) suggest that this measure would be good as a general screening tool for professions in the social work field.

Eligibility criteria

Studies were eligible for inclusion in this systematic review if they examined secondary traumatization in a criminal justice setting or profession. Criminal justice settings were

defined as the judicial system, prison system, and law enforcement systems. Criminal justice professions were defined as law enforcement personnel, attorneys, judges, or prison personnel. Additional related professions that work in criminal justice settings (i.e. administrative staff) and professions that work with offenders or victims regardless of setting were also included. To be included studies must have used a validated questionnaire or subscale explicitly measuring secondary traumatization only. Academic theses and dissertations were eligible for inclusion. Finally, all studies must have been written in the English language.

Search strategy

A systematic search in the electronic databases of PubMed publisher, Scopus, Web of Science, PsycINFO, and Cochrane Library was conducted. The following search terms were used: ('secondary trauma' OR 'secondary traumat*' OR 'vicarious' OR 'vicarious traumat*' OR 'compassion fatigue'). The Boolean indicator 'AND' was used to select the studies conducted in criminal justice settings. All terms were tailored to the thesaurus of each database. The search covered all studies between 2002 and 4 March 2020. Reviews found within the mentioned databases were searched for relevant literature. All references were retrieved, organised, and stored with Zotero 5.0.87.

Qualitative data extraction

The qualitative information extracted included bibliographic information (e.g. author, year of publication), criminal justice setting (e.g. law enforcement, correction/rehabilitation, judicial), client population (e.g. offender, victim), sample characteristics, and method design. Information on the measuring instruments was extracted, including the reported reference range. The studies' results were categorised into descriptive data, group comparisons, and correlation and regression analysis. Methodological quality criteria were developed to assess the methodological soundness, where at least four of six criteria should be applicable (van Mol et al., 2015) (Table 1).

Results

Description of analysed studies

The review process, illustrated in Figure 1, began with 4,281 references retrieved from electronic databases and four references identified through a manual search. After removing duplicate references ($n = 3,701$), studies were screened on title and abstract level

Table 1. Set of Criteria Used to Appraise Study Quality

	Quality criterion
1	Research questions and objectives are described precisely.
2	Clear definition of secondary traumatization.
3	Method is described in detail.
4	Information given on size and type of the target populations.
5	Information given on number and characteristics of subjects who agreed to participate.
6	Drop out/missing values are addressed.

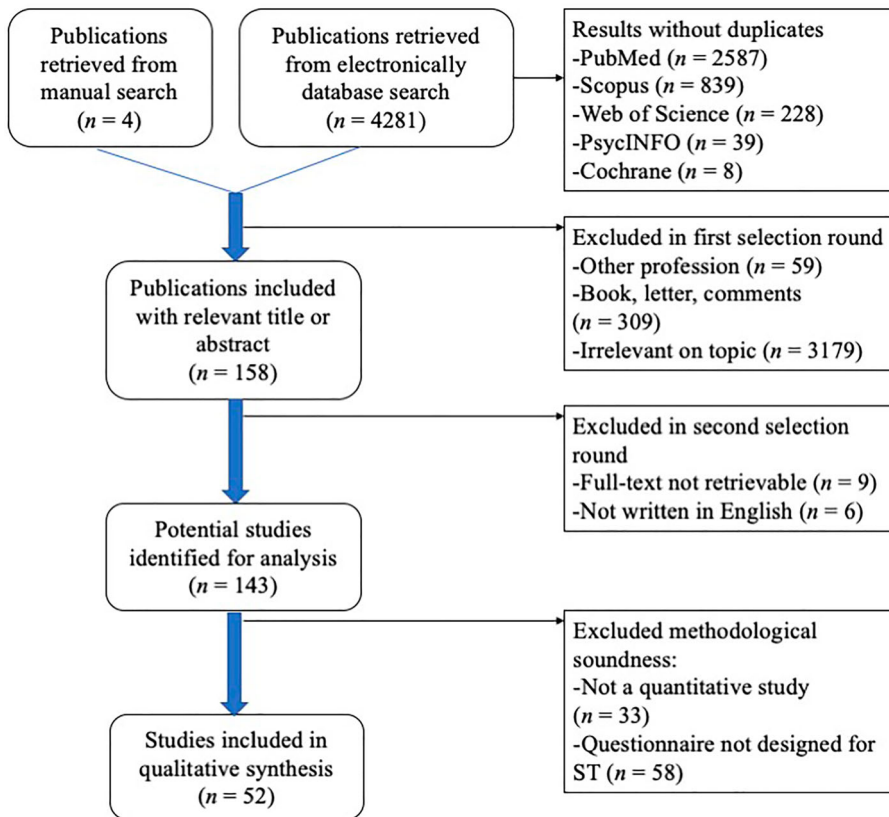


Figure 1. Flow Diagram of Study Selection.

which resulted in 158 relevant publications after the first selection round. Subsequently, publications with no retrievable full text ($n = 9$) and not published in English ($n = 6$) were removed. Studies without quantitative analysis ($n = 33$) and those using psychometric instruments/questionnaires that were not designed to assess secondary traumatization ($n = 58$) were removed. In total, a sample of 52 eligible articles on secondary traumatization in criminal justice professions were appraised as methodologically sound and included for analysis. Six studies (Baird & Jenkins, 2003; Bourke & Craun, 2014; Burnett et al., 2019; Craun et al., 2015; Jenkins & Baird, 2002; Sheard et al., 2019) used the same data set but reported different aspects.

This review only included studies that utilised self-report questionnaires explicitly designed to measure secondary traumatization. The most popular measures used to measure secondary traumatization derive from the compassion fatigue framework: Compassion Fatigue Self-Test ($n = 4$; Figley, 1995); Compassion Fatigue Scale ($n = 1$; Adams et al., 2006); Compassion Fatigue-Short ($n = 1$; Kunst et al., 2017); Compassion Satisfaction and Fatigue Test ($n = 5$; Stamm & Figley, 1996); Professional Quality of Life Scale ($n = 21$; Stamm, 2010). Other measures included the Secondary Traumatic Stress Scale ($n = 18$; Bride et al., 2004), the Secondary Trauma Scale ($n = 1$; Motta et al., 2001), and Vicarious Trauma Scale ($n = 2$; Vrkleviski & Franklin, 2008).

Most of the studies were conducted in North America (60%), in law enforcement settings (63%), with a client population of both victims and offenders (52%). 'Other' criminal justice settings (12%) included therapists and counsellors who work with victims of sexual assault and domestic violence. Overall, there was a total of 19,451 respondents, with sample sizes varying from 28 to 2,289 participants. The average sample size consisted of 53.2% women ($SD = 26.79$), with all of the studies targeting mixed-gender samples. Five studies failed to report gender frequencies. Law enforcement professions (e.g. police officers, investigators) were over-represented by males and professionals within correctional settings (most commonly correctional health nurses and clinicians) were over-represented by females. [Table 2](#) summarises all the sample characteristics.

Prevalence

Of the 52 included studies, 35 studies reported descriptive data on CF, STS, and VT. Ten studies provided no reference range or cut-off scores. Due to different or lack of reference ranges and varying operational definitions of secondary traumatization, a prevalence percentage could not be calculated (Spronk et al., 2019). See [Table 3](#) for detailed descriptions for the included studies.

Law enforcement settings

Studies completed in law enforcement gathered data from various professions ranging from police officers to professionals working in child advocacy settings. Five studies that examined police officers and related staff (e.g. police dispatchers, detective officers) found low levels of STS and CF (Andersen et al., 2018; Chiappo-West, 2018; Craun et al., 2014; Hargrave, 2010; Papazoglou et al., 2019, 2020). Two studies reported moderate levels: Burnett et al. (2019) reported 63.5% of police officers experienced moderate levels of STS; Battle (2011) reported moderate levels for officers who experienced previous trauma. Lovašová and Ráčzová (2017) reported above average levels of CF in their sample of police officers. One study (Turgoose et al., 2017) reported low levels of

Table 2. Sample characteristics of the Included Studies.

Variable	Number (percentage)
Continent	
North America	31 (60.0%)
Europe	14 (27.0%)
Oceania	6 (12.0%)
Africa	1 (2.0%)
Criminal Justice Setting	
Law Enforcement	33 (63.0%)
Judicial	4 (8.0%)
Corrections/Rehabilitation	9 (17.0%)
Other	6 (12.0%)
Client Population	
Victim	14 (27.0%)
Offender	11 (21.0%)
Both	27 (52.0%)
Range in number of respondents	28–2,289
Total number of respondents	19,451
Response rate	10.10%–94.80%

Table 3. Descriptive Statistics and Reported Reference Ranges for Included Studies.

Study and participants (N)	Questionnaire	Reported reference range	Descriptive statistics
Law Enforcement Settings			
Andersen et al. (2018) N = 1351 law enforcement officers	CS/CFST	CF: < 26: extremely low 27–30: low 31–35: moderate 36–40: high > 41: extremely high	CF: 15.97% extremely high, 7.06% high
Battle (2011) Doctoral Dissertation N = 1390 police officers	ProQOL	CF: < 8 low score, > 17 high score; M = 13, SD = 6.3	CF: M = 13.75, SD = 7.45 (officers who experienced previous trauma), M = 10.69, SD = 5.99 (officers with no previous trauma)
Bonach and Heckert (2012) N = 257 forensic interviewers in Children's Advocacy Centres (CAC)	STSS	No reported reference range	STSS: M = 36.69 (SD = 12.13); mild STS
Bourke and Craun (2014) N = 600 ICAC personnel	STSS	Reference to Bride (2007); categorised scores into no/little, mild, moderate, high, and severe STS	STSS: M = 2.2 (SD = .74); 15.3% severe, 9.8% high, 18.6% moderate, 29.9% mild, 26.4% low/none
Brady (2017) N = 443 ICAC personnel	ProQOL	Reference to Stamm (2010); < 42: low 42.01–55.99: moderate >56: high	STSS: M = 50.0 (SD = 10.0); 23.7% low, 51.5% moderate, 24.8% high
Brady et al. (2019) N = 367 forensic interviewers for children	ProQOL	t-scores: M = 50, no reported cut-off	STSS: M = 50.0 (SD = 9.7); range = 29.8–78.7
Burnett et al. (2019) N = 605 police employees	ProQOL	Reference to ProQOL manual: participants are categorised into low, moderate and high groups	STSS: M = 23.25 (SD = 7.28); 17.5% low, 63.5% moderate, 19.0% high
Burruss et al. (2018) N = 360 digital forensic investigators	STSS	No reported reference range	STSS: M = 23.833 (SD = 9.013)
Chiappo-West (2018) Doctoral Dissertation N = 153 police officers	ProQOL	t-scores: M = 50; cut-off 57	STSS: M = 49.8, SD = 9.5
Craun and Bourke (2015) N = 350 ICAC personnel	STSS	No reported reference range	STSS: M = 2.21 (SD = .78)
Craun and Bourke (2014) N = 508 ICAC personnel	STSS	No reported reference range	STSS: M = 2.15 (SD = .68)
Craun et al. (2014) N = 747 deputy United States marshals	STSS	No reported reference range	STSS: M = 1.96 (SD = .56); 6.7% severe, 5.1% high, 15.1% moderate, 41.6% mild, 31.5% low
Hargrave (2010) Doctoral Thesis N = 165 police officers N = 148 victim support workers	Secondary Trauma Scale	Cut-off: > 38 mild to severe response; > 44 severe response	STSS: M = 21.57, SD = 5.07, range 18–42 (police M = 21.92, SD = 5.37, volunteers M = 21.17, SD = 4.70); 3.5% scored in mild to severe range
Hurrell et al. (2018) N = 101 child abuse investigation unit (CAIU) police officers	STSS	Reference to Bride et al. (2004); > 38: indicative of having PTSD as a result of STS	46.5% little to no STS, 18.8% mild, 14.9% moderate, 10.9% high, 8.9% severe
Letson et al. (2019) N = 885 MDT professionals in CAC setting	ProQOL	Reference to ProQOL manual	STSS: M = 24.06 (SD = 5.92); 94th percentile, high
Lovašová and Ráčzová (2017)	ProQOL	No reported reference range	Police officers: M = 90; above average level of CF

(Continued)

Table 3. Continued.

Study and participants (N)	Questionnaire	Reported reference range	Descriptive statistics
<i>N</i> = 60 police officers + <i>N</i> = 60 social workers			
MacEachern et al. (2019) <i>N</i> = 63 detective officers in the Family Protection Unit (FPU)	STSS	Reference to Bride et al. (2004)	Full STSS: <i>M</i> = 29.83 (<i>SD</i> = 9.53); 51% little or no; 22% mild; 16% moderate; 5% high, 6% severe
Masson & Moodley (2019) <i>N</i> = 128 social workers in a police service	STSS	Reference to Bride et al. (2004)	STS: <i>M</i> = 40.3 (<i>SD</i> = 14.3); mild
Papazoglou et al. (2020) <i>N</i> = 370 law enforcement officers	CS/CFST	No reported reference range	CF: <i>M</i> = 1.04 (<i>SD</i> = .55)
Papazoglou et al. (2019) <i>N</i> = 1173 police staff (e.g. police dispatchers, investigation officers)	CS/CFST	Categorised into extremely low, low, moderate, high, and extremely high	CF: 67.46% low, 5.95% moderate, 10.24% high
Perez et al. (2010) <i>N</i> = 28 internet child pornography investigators	STSS	> 38: moderate STSD > 49: high STSD	STSD: <i>M</i> = 36.11 (<i>SD</i> = 18.06); 18% high, 18% moderate
Perron and Hiltz (2006) <i>N</i> = 60 forensic interviewers for children	STSS	Reference to Bride et al. (2004); high score indicates ST	ST: <i>M</i> = 34.17 (<i>SD</i> = 10.64) ∴ mild STS
Turgoose et al. (2017)* <i>N</i> = 142 police officers from SOECA	STSS	Reference to Bride (2007); scores below 50th percentile classified as little or no STS, further categories labelled as mild, moderate, high, and severe	STS: <i>M</i> = 32.5 (<i>SD</i> = 10.6); 74% little/no/mild, 11% moderate, 8% high, 8% severe
Turgoose et al. (2017)* <i>N</i> = 142 police officers from SOECA	ProQOL	Reference to ProQOL manual; CF and BO subscales categorised as low, average, high	CF: <i>M</i> = 18.4 (<i>SD</i> = 4.7); 84% low, 16% average BO: <i>M</i> = 25.3 (<i>SD</i> = 6.1); 33% low, 67% average
Walsh et al. (2018) <i>N</i> = 230 forensic interviewers for children	STSS	Score of 38 or higher: PTSD due to STS	STS: No dogs = 36.9, mild; facility dogs = 40.3, present; therapy/ pet dog = 45.3, present
Correctional Settings			
Bell et al. (2019) <i>N</i> = 36 prison mental health staff	ProQOL	CF; <22: low 23–41: average > 42: high	CF: <i>M</i> = 21.44 (<i>SD</i> = 6.82); 36% average, 64% low
Hatcher and Noakes (2010) <i>N</i> = 48 clinicians in correctional sex offender treatment settings	ProQOL	No reported reference range	CF: <i>M</i> = 8.98 (<i>SD</i> = 4.54); low risk of CF
Hatcher et al. (2011) <i>N</i> = 118 juvenile justice teachers	STSS	Range from 17 (least likelihood of STS) to 85 (most likelihood of STS)	Full STSS: <i>M</i> = 37.74 (<i>SD</i> = 10.74); 39% met all three core diagnostic criteria for PTSD
Lauvrud et al. (2009) <i>N</i> = 70 nursing staff at a forensic psychiatric security unit	ProQOL	Reference to ProQOL manual	CF: <i>M</i> = 5.8 (<i>SD</i> = 3.6)
Newman et al. (2019) <i>N</i> = 135 correctional health and forensic mental health staff	VTS	< 28: low 29–42: moderate > 43: high	VT: 12.6% low, 57.8% moderate, 29.6% high
Rhineberger-Dunn et al. (2016) <i>N</i> = 277 probation/ parole officers and residential officers	STSS	No reported reference range	STS: <i>M</i> = 16.9 (<i>SD</i> = 13.32)
Judicial Settings			

(Continued)

Table 3. Continued.

Study and participants (<i>N</i>)	Questionnaire	Reported reference range	Descriptive statistics
Schrever et al. (2019) <i>N</i> = 125 judicial officers	STSS	< 28: normal 28 - 37: mild 38 - 43: moderate 44 - 48: high > 48: severe	STSS: <i>M</i> = 31.78 (<i>SD</i> = 10.04); 37.7% normal, 32.0% mild, 17.2% moderate, 6.6% high, 6.6% severe
Vrklevski and Franklin (2008) <i>N</i> = 50 criminal law solicitors <i>N</i> = 50 noncriminal law solicitors	VTS	Total scores range from 8 to 56, with a higher score indicating higher levels of distress	VT: <i>M</i> = 33.91 (<i>SD</i> = 11.84); Crim Law: <i>M</i> = 41.50 (<i>SD</i> = 6.36)
Other Settings			
Flarity et al. (2016) <i>N</i> = 55 SANEs	ProQOL	Reference to Stamm (2010); STS < 22: low 23–41: moderate > 42: high	STSS: 27% low, 71% moderate, 2% high
Samios et al. (2013) <i>N</i> = 61 therapists who work with sexual violence survivors	ProQOL	No reported reference range	STSS: <i>M</i> = 25.27 (<i>SD</i> = 3.04); average range
Townsend and Campbell (2009) <i>N</i> = 110 sexual assault nursing examiners (SANE)	CFST	Higher scores indicated higher levels of STS	STSS: <i>M</i> = 1.7 (<i>SD</i> = 0.6)

*Turgoose et al. (2017) utilised both STSS and ProQOL.

CF; however 16% of their sample experienced high to severe levels of STS. Police officers showed no differences in STS when compared to volunteer crisis workers (Hargrave, 2010) and the general population (Grant et al., 2019). Sheard et al. (2019) examined different job roles within the police force: resolution without deployment officers, who generally resolve incidents through phone calls, experienced higher levels of STS and CF, followed by police officers working in the crime department. When exploring the effects of shift work in police officers, Burnett et al. (2019) reported no differences. However, when controlling for job role, the effect of shift work on STS and CF was significant (Sheard et al., 2019). Interestingly, police officers who have worked with adult victims also experience higher levels of distress compared to officers who have worked with child victims (Turgoose et al., 2017).

Twelve studies focused on police officers specialising in crimes against children. Forensic interviewers for children experience mild STS (Bonach & Heckert, 2012; Brady et al., 2019; Perron & Hiltz, 2006). However, interviewers that use therapy dogs or facility dogs report higher levels of STS (Walsh et al., 2018). Personnel investigating internet child exploitation (e.g. child pornography) reported STS levels that were relatively mild (Bourke & Craun, 2014; Burruss et al., 2018; Craun & Bourke, 2014, 2015). Brady (2017) and Perez et al. (2010) reported that 24.8% and 18% experienced high levels of STS, respectively. Police officers who work in child abuse and protection cases experienced low levels of STS, with 11% to 19.8% experiencing high to severe STS (Hurrell et al., 2018; MacEachern et al., 2019). In contrast, multidisciplinary team professionals (e.g. child welfare workers, prosecutors, therapists, law enforcement) working in Children's Advocacy Centres scored in the top quartile for STS, with child welfare workers reporting the most STS (Letson et al., 2019). Within Children's Advocacy Centres, child welfare

workers were more likely to experience STS, followed by individuals that worked in multiple professions and forensic interviewers (Letson et al., 2019). Additionally, individuals who work with child victims also report higher levels of STS (Letson et al., 2019; Perron & Hiltz, 2006; Turgoose et al., 2017).

Correctional (Prison) settings

Six studies, conducted in correctional settings, collected data from forensic mental health staff (Bell et al., 2019; R. Hatcher & Noakes, 2010; Lauvrud et al., 2009; Newman et al., 2019), probation and residential officers (Rhineberger-Dunn et al., 2016), and juvenile justice teachers (Hatcher et al., 2011). Three studies that examined forensic mental health professions reported a low levels of CF (Bell et al., 2019; R. Hatcher & Noakes, 2010; Lauvrud et al., 2009). One study, utilising the VTS, reported different prevalence rates in this profession, with 57.8% experiencing moderate levels of VT and 29.6% experiencing high levels of VT (Newman et al., 2019). There were no reported differences in CF between prison mental health staff and correctional officers who worked in the prison mental health unit (Bell et al., 2019). In addition, correctional health staff experienced more VT when compared to forensic hospital staff, however this difference was not significant (Newman et al., 2019). Within correctional sex offender treatment settings, low to moderate levels of secondary traumatization did not differ between therapists, psychologists, or social workers (Hatcher & Noakes, 2010). However, qualitative results indicated cognitive schemas shifted negatively to accommodate the traumatic material they were exposed to, with participants reporting a greater suspicion of others' behaviour and motivations and an increased concern in safety and security (Hatcher & Noakes, 2010).

Among community corrections staff in the US, probation and residential officers reported little to no STS (Rhineberger-Dunn et al., 2016). However, probation/parole officers were more likely to experience STS symptoms than residential officers (Rhineberger-Dunn et al., 2016). Although residential officers work closely with offenders, they are not deeply involved in tasks that would necessitate listening to or reading about offender's crimes (Rhineberger-Dunn et al., 2016). Teachers who work in juvenile detention centres were most likely to experience STS, with 39% meeting all three core diagnostic criteria for PTSD (Hatcher et al., 2011). Furthermore, 92% of these teachers reported that they have experienced some degree of fear, helplessness, or horror in response to the trauma reported by the juvenile offenders they work with (Hatcher et al., 2011). This may be attributed to the fact that probation/parole officers and teachers are exposed to disturbing accounts of crimes committed by offenders.

Judicial settings

Of the studies conducted in the judicial system, 62.3% of judicial officers, viz. judges and magistrates, experienced mild or higher levels of STS, with 13.2% experiencing high or severe STS (Schrever et al., 2019). The mean scores for these judicial officers fall between US immigration judges and US social workers, with immigration judges scoring higher than both groups (Schrever et al., 2019). Furthermore, general jurisdiction judges experienced less secondary trauma compared to judges in family court, appellate court, federal court, and state supreme court (Miller et al., 2018). Interestingly, general

jurisdiction judges were more likely to take sick days due to stress compared to other judge types (Miller et al., 2018).

Criminal law solicitors report higher levels of VT compared to noncriminal law solicitors, thus illustrating the role of crime on secondary traumatization (Vrklevski & Franklin, 2008). In addition, attorneys experienced higher levels of distress compared to administrative support staff (Levin et al., 2011). This may be explained by the greater live interaction with distressing material, compared to administrative support staff (Levin et al., 2011).

Other Settings

In occupations that work with victims of sexual violence outside of a criminal justice context, therapists (Samios et al., 2013) and sexual assault nurse examiners (Flarity et al., 2016) experienced moderate levels of STS. However, in another sample of sexual assault nurse examiners (Townsend & Campbell, 2009), prevalence of STS was low.

Psychological Well-being

Psychological well-being is known to be associated with secondary traumatization (Andersen et al., 2018). Secondary traumatization positively correlated with burnout; increased experiences of burnout predicted higher levels of STS (Levin et al., 2011; Papazoglou et al., 2019). Symptoms of PTSD, such as avoidance, intrusion, hyperarousal, and hypervigilance, moderately correlated with and predicted VT (Jenkins et al., 2011; Newman et al., 2019; Papazoglou et al., 2020). Depression and anxiety also predicted STS symptoms (Hurrell et al., 2018; Samios et al., 2013). Additionally, poor health predicted STS risk in probation/parole officers (Rhineberger-Dunn et al., 2016).

Compassion satisfaction (CS), defined as the pleasure one receives from being able to help and accomplish their professional responsibilities effectively, has been suggested to influence the experiences of secondary trauma. Studies have found that CS is negatively correlated with secondary traumatization (Andersen et al., 2018; Brady et al., 2019; Burnett et al., 2019; Grant et al., 2019; Tuttle et al., 2019). Furthermore, one study found that secondary traumatization was significantly predicted by low levels of CS and high levels of burnout (Papazoglou et al., 2019).

Work-related traumatization

Work-related experiences interacted with secondary traumatization. STS was mildly associated with exposure of disturbing media involving a child victim (Brady, 2017; Brady et al., 2019; Perez et al., 2010). Working with traumatised individuals significantly predicted higher risk of secondary trauma in police (Hargrave, 2010) and attorneys (Levin et al., 2011). Probation officers (Lewis et al., 2013) and correctional health nurses (Munger et al., 2015) who experienced violence at work reported higher levels of STS. Indirect workplace trauma, such as supervising an offender who committed a violent reoffence, and direct workplace trauma, such as being personally threatened by an offender, predicted CF symptoms in probation officers (Lewis et al., 2013).

Personal trauma history

Past distressing and traumatic experiences predicted secondary trauma across the reviewed literature. Police officers (Battle, 2011), sexual assault and domestic violence counsellors (Jenkins & Baird, 2002), and solicitors (Vrklevski & Franklin, 2008) who reported having experienced past trauma showed higher levels of CF and VT than their counterparts without trauma experiences. Personal trauma history was not associated with STS in law enforcement individuals (Kunst et al., 2017; Tehrani, 2018) and forensic mental health staff (Newman et al., 2019). However, counsellors of domestic violence and sexual assault who experienced personal trauma were more likely to report STS symptoms (Jenkins et al., 2011). Additionally, personal trauma history was also found to be a strong predictor of STS in child exploitation investigators (Bonach & Heckert, 2012; Brady, 2017; Brady et al., 2019).

Coping strategies

Various coping mechanisms were determined to predict secondary trauma. Positive coping mechanisms, such as exercise (Craun et al., 2014) and spiritual coping (Brady, 2017) predicted lower STS symptoms. In addition, Burnett et al. (2019) and Lovašová and Ráčzová (2017) reported similar relationships with mental self-care, physical self-care, and mental toughness.

Negative coping mechanisms had stronger associations with STS symptoms than positive coping mechanisms (Brady, 2017; Hurrell et al., 2018; Krieger, 2017). Increased use of alcohol was found to be a strong predictor of STS (Bourke & Craun, 2014; Craun et al., 2014, 2015; Craun & Bourke, 2014, 2015). In addition, these studies also found that the use of denial as a coping mechanism also predicted secondary traumatization. Three studies reported that tobacco use was not a predictor of STS (Craun et al., 2014; Craun & Bourke, 2014, 2015); only one study found that increased tobacco use predicted secondary trauma (Bourke & Craun, 2014).

Support

Perceiving higher levels of organisational and job support predicted lower levels of secondary traumatization (Bonach & Heckert, 2012; Brady, 2017; Burnett et al., 2019; Craun et al., 2014; A. Miller & Unruh, 2019; Townsend & Campbell, 2009). In addition, organisational satisfaction and work engagement was also negatively correlated to STS (Chiappo-West, 2018; Perron & Hiltz, 2006). However, three studies reported that organisational support were not predictors (Brady et al., 2019; Craun & Bourke, 2014; Kunst et al., 2017). Kunst et al. (2017), in particular, noted that supervisor or co-worker support did not significantly affect STS. Still, other studies found increased co-worker, peer, and colleague support predicted low levels of STS (Bell et al., 2019; Bourke & Craun, 2014; Craun et al., 2014, 2015; Craun & Bourke, 2015; Townsend & Campbell, 2009).

Family and friends as a source of social support is also associated with STS (Hargrave, 2010; Perez et al., 2010). Two studies found that family and home life support predicted lower levels of secondary traumatization (Brady, 2017; Brady et al., 2019). Moreover, exposure to disturbing material involving children did not affect intimate relationships,

thus, not influencing the effect of support from family and friends (Craun et al., 2015). However, one study found social support did not predict STS in judges given that judges are rarely able to consult with others about cases (Miller et al., 2018).

Two studies evaluated the effectiveness of interventions on STS. Flarity et al. (2016) conducted the *Compassion Fatigue Prevention & Resiliency, Fitness for the Frontline* course in a sample of forensic nurses ($n = 7$). The intervention was a four-hour interactive seminar was tailored to forensic nursing, where factors associated with their work and compassion fatigue was discussed. Additionally, participants engaged in individual and group exercises that allowed them to practice relaxation skills and self-care activities. Flarity et al. (2016) reported moderate STS levels remained after intervention, however raw scores improved. Additionally, they reported an increase of CS by 21% and a 19% reduction in burnout.

Baker et al. (2018) implemented trauma-informed care (TIC) training in youth residential treatment staff through two programs: Risking Connection (Saakvitne et al., 2001) and Restorative Approach (Wilcox, 2012) trauma training programs. Baker et al. (2018) found that TIC training increased vicarious trauma despite favourable attitudes to the training. Qualitative data suggests that this increase may be due to an increased awareness of vicarious trauma, not an actual increase of vicarious trauma.

Miller and Unruh (2019) explored the access of debriefing activities and stress management training through a questionnaire. They found that law enforcement officials that worked in agencies that provided formal debriefing and stress management reported higher CS and lower burnout compared to individuals that did not have access to these activities. Debriefing and stress management training had no effect on STS.

Turgoose et al. (2017) piloted an intervention that included psychological education about CF, burnout, and STS, and self-help strategies to build resilience against stress and CF. Although the effect of intervention was not measured, knowledge about CF increased and qualitative feedback suggested that psychological education was useful.

Walsh et al. (2018) examined the use of therapy dogs and its effect on STS in forensic interviewers. Interestingly, forensic interviewers that used therapy dogs indicated higher levels of STS. They suggested that interviewers who use therapy dogs may use them to address their own stress and discomfort.

Discussion

This systematic review aimed to provide an overview of the occurrence of secondary traumatization among criminal justice professions and to explore corresponding predictors and risk factors. Participants in the included studies worked in the criminal justice system. As there are a multitude of professions within the criminal justice system, professions were categorised into law enforcement settings, judicial settings, and prison/rehabilitation settings. Studies used questionnaires that explicitly measured secondary traumatization quantitatively. However, definitions of STS, VT, CF were not always clear. Thus, this study used *secondary traumatization* as an umbrella term to describe these concepts.

Although many studies reported low to moderate levels of secondary traumatization, it is clear that working in criminal justice is associated with a considerable risk of psychological distress. Qualitative data suggested that many participants were not aware of

secondary traumatization as a concept (Masson & Moodley, 2019; Turgoose et al., 2017). This may explain why many studies reported mild levels, as shown in Baker et al. (2018). Another study suggested this may be a positive response bias due to social desirability (Krieger, 2017). Particularly in law enforcement, social desirability has a strong positive relationship with coping with police work (Bourke & Craun, 2014). In other words, law enforcement personnel tend to over-report positive behaviours and aspects of their work in order to be viewed favourably, especially as they are public figures. This may be due to the fact that criminal justice professions often work in a culture that is generally reluctant to disclose symptoms of psychological distress (Greinacher et al., 2019).

Alternatively, it is possible that work-related indirect trauma exposure does not lead to high levels of secondary traumatization in this population. The challenges of managing a system that is perpetually under-resourced and under-staffed may result in staff feeling overwhelmed and distressed (Miller & Najavits, 2012). A study conducted in mental health professionals found that work-related stressors, not exposure to clients' traumatic material, best predicted secondary trauma (Deville et al., 2009).

Most of the studies included in the current review examined factors associated with secondary traumatization. Burnout consistently correlated with secondary traumatization. Although burnout and secondary traumatization are likely to occur together, it is important to note that the use of some measures may show stronger associations. In particular, STS and burnout may be empirically indiscernible if measured within the compassion fatigue framework (e.g. CFST, ProQOL; Cieslak et al., 2014). Furthermore, measurement can be chosen based on the secondary trauma perspective and the desired symptom emphasis (Elwood et al., 2011). For example, those looking for secondary trauma to be consistent with the presentation of PTSD would benefit from using the Secondary Traumatic Stress Scale.

Work-related traumatization and personal trauma history were also moderately correlated with secondary traumatization. This association can be explained by the occupational profiles within the criminal justice system, as many individuals who work within the system regularly interact with victims, offenders, and experience traumatic events. Specifically, individuals who work within policing and corrections are at higher risk of trauma exposure and experiencing PTSD due to the nature of their jobs (Boudoukha et al., 2013; Soomro & Yanos, 2019). Additionally, the role of personal trauma history must be further examined in the contexts of secondary traumatization. A review examining adverse childhood experiences in attorneys suggested that some attorneys are drawn to their occupations due to their own histories of trauma and mental health problems (Oehme & Stern, 2018). Although this may enhance empathy, the authors note that dealing with clients who have similar trauma may increase secondary trauma and effect the judgement of the attorney in their representation.

A majority of the studies found that secondary traumatization has a greater effect in females, which is consistent throughout research. This may be due to the fact that females are more likely to admit symptoms of secondary traumatization over males, who are less likely to admit symptoms due to concerns of appearing weak or incompetent (Ososky et al., 2008).

In the studies that found alcohol as a predictor for STS symptoms, the male gender was overrepresented in those samples (Bourke & Craun, 2014; Craun et al., 2014, 2015; Craun & Bourke, 2014, 2015). Research has found that men are more likely to use alcohol as a

coping mechanism in response to being exposed to traumatic events (Cooper et al., 1992). As these samples reported low levels of secondary traumatization, one may suggest that the use of alcohol is an indication that emotional distress was actually higher than reported. It is likely that gender effects may vary across criminal justice professions. Thus, further research is needed to examine the role of profession and clientele (victim or offender) with gender.

Consistent with previous research, support was found to be important in minimising secondary traumatization. Organisational support is important in reducing the feelings of burnout and improving working environments (Branson, 2018). Social support mediates the effects of stressors, thus decreasing the amount of distress felt by the person (Lerias & Byrne, 2003). However, preventative strategies for secondary traumatization are still in its infancy. Interventions for secondary traumatization tend to focus on mindfulness and psychoeducation (Sprang et al., 2019). Mindfulness-based approaches have success in reducing PTSD symptoms, especially avoidance behaviours (Boyd et al., 2018). In contrast, little is known about the effectiveness of psychoeducation for trauma (Whitworth, 2016). Overall, it is difficult to examine the effectiveness of interventions and the role of social support as the majority of the research is cross-sectional in nature. Compassion satisfaction (Papazoglou et al., 2019) and secondary posttraumatic growth (Kunst et al., 2017) may be effective buffers for secondary traumatization. As expected, increased compassion satisfaction and secondary posttraumatic growth correlated with low levels of STS, demonstrating a buffering effect. Increasing the influence of these factors in conjunction with interventions and support may prove to be effective in reducing and preventing secondary traumatization.

Trauma-informed care is a whole-system approach to human services that integrates the understanding of the ever-present impact of trauma and strives to ameliorate its effects (Baker et al., 2018). This approach requires all staff members to have comprehensive understanding of the effects of trauma, potential behavioural manifestations, and principles for addressing the needs of traumatized clients (Berger & Quiros, 2014). The emphasis of empathically engaging with traumatic material from clients has become important within this approach, potentially increasing secondary traumatization. Organisations and supervisors have a duty of care for employees and must recognise how they can protect their employees from the effects of indirect trauma (James, 2020). Trauma-informed systems can reduce stigma to seek support and potentially better identify secondary trauma amongst workers (Bent-Goodley, 2019). Organisation led trauma-informed approaches and training contexts with an understanding of secondary traumatic stress as well factors underpinning resilience may be particularly fruitful. Evidence is just beginning to emerge to support this line of reasoning (Iversen & Robertson, 2021; Sprang et al., 2021).

Future research

Gaps in knowledge have been encountered throughout this study. Sixty-three percent of the analysed studies were conducted in law enforcement. Notable populations, such as juries, prison officers, judges, or lawyers, are understudied in this area. Although it is clear that criminal justice professionals experience psychological distress as a result of their profession, there is little study on how these jobs affects mental health (Foley &

Massey, 2020). Hence, more research is needed to examine other professions within the criminal justice system. In addition, cultural contexts must be considered as criminal justice systems, expectations, and demands of different professionals working in criminal justice vary throughout the world.

It is also important to identify what part of the job impacts and influences secondary traumatization in this population. Vrkleviski and Franklin (2008) found differences in secondary traumatization between criminal law solicitors and noncriminal law solicitors. Thus, it would be interesting to explore the nature of the work and secondary traumatization. Additionally, it is important to examine the effects of client populations. Considering that working with offenders may not enhance compassion satisfaction compared to working with victims, this effect may influence the level of secondary traumatization.

Currently, there is a lack of validated surveys to quantifiably measure secondary traumatization in the criminal justice sector (Branson, 2018). Many of these questionnaires were developed for social workers and therapists, thus validation of these measures must be expanded in other populations. Furthermore, differences in the treatment of measures and questionnaires should be examined to allow for cross-referencing and comparing results. Longitudinal studies are crucial in order to examine how secondary traumatization develops and the effectiveness of interventions over time.

It is also essential for research in this area to develop clearer and distinctive definitions for secondary traumatization. The research findings reported here are somewhat hindered from the conceptual overlap between vicarious trauma, secondary traumatic stress, compassion fatigue and burnout. Given that current measures of secondary traumatization are based off of earlier versions of the DSM, it is important to incorporate the new criteria and amend the constructs accordingly.

Another area where research is needed concerns tackling secondary traumatization before it results in adverse health outcomes. Interventions need to be rigorously tested in order to observe the effectiveness in reducing symptoms. Additionally, employers in high-stress work environments should provide more support and resources to their employees (Letson et al., 2019). Interventions will struggle to be effective if individuals continue to receive high workloads, limited resources, and increased pressure at work.

The global coronavirus-19 (COVID-19) pandemic has increased emotional distress in frontline workers, healthcare professionals, and essential workers (Shanafelt et al., 2020). Although it is unclear whether the distress stems from medical uncertainty, associated phenomena, such as loneliness resulting from home quarantine, or financial reasons, these circumstances may be seen as highly traumatic (Horesh & Brown, 2020). The current pandemic strongly impacts those within the criminal justice system (Miller & Blumstein, 2020) and particularly so given the racial inequalities within the system. The disproportionate effect of COVID-19 on ethnic minorities and especially Black and South Asian people have drawn attention to the link between structural and cultural racism and health (Razai M et al., 2021).

Early research conducted in European police officers found that the risk of infection and inadequate communication were the main predictors of stress during the early phases of the pandemic (Frenkel et al., 2020). The pandemic has also created new challenges for court personnel. Although some court operations have been able to move virtually, issues of case prioritization, due process, and privacy may increase workloads (Baldwin et al., 2020). The

suspension of jury trials and delays to court hearings have also increased the time spent on remand for many prisoners (Hewson et al., 2020). In countries where the pandemic had a high impact in the general population, prison populations were also heavily impacted by COVID-19 (Aebi & Tiago, 2020). Furthermore, the absentee rates for prison staff in England and Wales have doubled since the pandemic, limiting the availability of support for prisoners and further increasing the workload of staff (Hewson et al., 2020). Thus, it is imperative to consider criminal justice professionals as essential workers and ensure workforce safety and adequate staffing (Hewson et al., 2020).

Incorporating trauma-informed approaches will also address issues of systemic racism, discrimination, community-level trauma, and historical trauma in culturally responsive ways (Bent-Goodley, 2019). The absence of effective trauma-informed tools may have created institutional trauma within systems, with criminal justice systems becoming highly reactive and reliant on “management-by-crisis” (Miller & Najavits, 2012). It is clear that criminal justice professionals experience psychological distress as a result of their profession. Negative effects of stress and psychological trauma can lead to poor job performance, poor morale, and lack of empathy or support for victims (Foley & Massey, 2020). Additionally, these professionals may function in a constant state of hypervigilance and focus on security, rather than ameliorating trauma (N. A. Miller & Najavits, 2012). The shift to evidence-based practice has also dramatically shifted job roles, especially in policing and corrections, placing a greater emphasis on these professions to engage and connect with people who come through the system (Lewis et al., 2013). A general reluctance to disclose emotional distress, the lack of formal training, and understanding of the impact of secondary trauma has made cultural and systemic change very slow. Organisations serving individuals working in the criminal justice sector stand to benefit from trauma-led approaches based on a common understanding of the effects of secondary trauma.

Limitations of the study

This systematic review is not without its limitations. All of the results were based on self-reported questionnaires; therefore, the internal validity might have been compromised. It is possible that prevalence rates may have been underestimated due to a positive response bias caused by job-loss concerns and social desirability (Greinacher et al., 2019; Krieger, 2017). The majority of the studies also employed cross-sectional designs, thus causal associations between secondary traumatization and risk or resilience factors must be interpreted with caution. Currently it is popular to measure secondary traumatization with primary traumatization measures (i.e. PTSD checklists), even though there is only a moderate correlation between these two constructs (Greinacher et al., 2019). During this study, many studies were found that utilised these measures, and therefore, were excluded. Due to the diverse set of measures used in this study and the lack of consistent cut-off scores, it is challenging to compare and interpret study results. Qualitative studies were excluded; thus, information may have been lost. Studies written in English only were analysed, therefore this restriction may have also caused an incomplete overview of relevant studies. Additionally, since criminal justice professions are diverse and the study population lacks homogeneity, comparing and contrasting study results is difficult (Branson, 2018).

Conclusion

This is the first systematic review on secondary traumatization examining professions within the criminal justice system. Existing literature uses STS, CF, and VT interchangeably; distinct definitions of secondary traumatization are crucial. The true prevalence of secondary traumatization remains unclear due to the lack of unity in measurement. This study found low levels of secondary traumatization among criminal justice professions. However, it is possible that these prevalence rates may have been underestimated due to a number of factors, such as gender, psychological distress, trauma history, and stigma. Additionally, organisational and social support have been found to reduce symptoms of secondary traumatization. Rigorous research is needed to examine the effectiveness of interventions and trauma informed approaches both at the individual and organisational level. Recognition of secondary traumatization in the criminal justice system is necessary as these professions are essential and key. It is important to facilitate psychological well-being; not only to protect these workers, but also the vulnerable population that goes through the criminal justice system.

Declaration of interest

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