“IT HAS INFORMED MY ENTIRE LIFE”: EVENT CENTRALITY, VICARIOUS TRAUMATIZATION, AND VICARIOUS POST-TRAUMATIC GROWTH IN LOVED ONES INDIRECTLY EXPOSED TO INTERPERSONAL TRAUMA

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By

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Author's Declaration

This thesis has been composed solely by the author (Whitney), except where otherwise stated by reference or acknowledgement.

Statement of Contributions

Whitney Willcott-Benoit was the sole author for the general introduction and general discussion, which were written under the supervision of Dr. Jorden Cummings and were not written for publication.

This thesis consists in part two manuscripts written for publication. The manuscripts are currently unpublished. Exceptions to sole authorship of material are as follows:

Research Presented Study 1 and 2:

This research was conducted at the University of Saskatchewan by Whitney Willcott-Benoit under the supervision of Dr. Jorden Cummings. All researchers contributed to the conceptualization, methodology, and editing. Whitney Willcott-Benoit conducted the research investigation, data collection, analyses, and writing of the initial drafts. Dr. Jorden Cummings contributed intellectual input, feedback, and resources.

Statement of Presentation

This thesis was prepared in a manuscript-style. It consists of a general introduction and literature review, two manuscripts written for publication, and a general discussion. For this reason, repetitions of information found in the general introduction/literature review and general discussion will be found within the manuscripts' introduction and discussion sections.

Abstract

It is well-known that interpersonal traumatic events can impact the physical and mental health of those indirectly exposed to the events. Less studied are populations of loved ones who have been indirectly exposed to interpersonal trauma. My dissertation first aimed to synthesize the literature related to vicarious traumatization (VT), vicarious posttraumatic growth (VPTG), and event centrality in loved ones indirectly exposed to interpersonal trauma through a scoping review. The Joanna Briggs Institute methodology was used for Study 1. Inclusion criteria included (a) participants were indirectly exposed to the interpersonal trauma of a loved one in adulthood, (b) discussion of VT, VPTG, event centrality, or related terms, (c) published peer-reviewed empirical journal articles, and (d) available in English. We used a three-step search strategy to find relevant articles. Keywords found from the first two steps were entered into PsychINFO, PsycArticles, PubMed, Scopus, and Web of Science databases. Reference lists of the included articles were also examined. The identified articles were then screened using the inclusion and exclusion criteria. Twenty-eight articles met inclusion and exclusion criteria. Twenty-six articles referenced VT or related terms, one referenced VPTG, and one referenced vicarious trauma keywords. No articles referenced event centrality. The results of this study led to the second aim for this dissertation: to understand parents' process of vicarious event centrality for their child's interpersonal traumatic event post-disclosure, as this was a knowledge gap in the literature. Participants in Study 2 were 17 primary caregivers (14 maternal caregivers, 3 paternal caregivers) of 27 victims of child interpersonal trauma (14 males, 13 females) located in Canada. The age of participants ranged from 35 to 75 years (average = 54.5 years) and majority self-identified as Caucasian (70.6%). Grounded theory (GT) was used to analyze the data collected from participant interviews. The resulting model was labelled Vicarious Event Centralization and

Decentralization, indicating that parents center their child's interpersonal trauma across many areas of their lives, which orients them to focus on protecting and healing the child. After the child's functioning improves, parents are then able to reorient to life beyond the trauma, representing decentralization. The GT consists of three phases, Centralization, Decentralization Gateway, and Decentralization. These results illustrate that parents' centralization of the trauma may be an adaptive mechanism that promotes child recovery, which in turn allows parents to begin to decentralize the trauma and move towards recovery. This series of studies supports that loved ones are affected by indirect interpersonal trauma exposure in a myriad of ways and require unique services to address their needs. These studies can help practitioners understand the post-trauma experience for loved ones and target areas likely to increase recovery.

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List of Abbreviations

Acceptance and Commitment Therapy (ACT)

American Psychiatric Association (APA)

Brief Symptom Inventory (BSI)

Centrality of Events Scale (CES)

Child Sexual Abuse (CSA)

Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5)

Domestic Violence (DV)

French-Canadian Modified PTSD Symptom Scale (MPSS-FC)

Grounded Theory (GT)

Harvard Trauma Questionnaire (HTQ)

Impact of Event Scale – Revised (IES-R)

Impact of Event Scale (IES)

Modified PTSD Symptom Scale—Self-Report (MPSS-SR)

Posttraumatic Growth (PTG)

Posttraumatic Stress Disorder (PTSD)

Posttraumatic Stress Disorder Checklist for the DSM-5 (PCL-5)

Posttraumatic Stress Disorder Symptom Scale–Self Report (PSS-SR)

Posttraumatic Stress Symptoms (PTS)

Purdue Post-Traumatic Stress Disorder, Revised (PPTSD-R),

Secondary Traumatic Stress (STS)

Structured Clinical Interview for DSM-IV (SCID)

Symptom Checklist 90 – Revised (SCL-90-R)

Vicarious Event Centrality (VEC)

Vicarious Posttraumatic Growth (VPTG)

Vicarious Traumatization (VT)

1. Literature Review and General Introduction

About one in every three Canadians has experienced an interpersonal trauma (e.g., physical abuse, sexual abuse, and witnessing violence) before they are 15 years old, according to the 2014 General Social Survey on Victimization (Statistics Canada, 2015). Interpersonal trauma and interpersonal violence are synonymous terms used to describe the perpetration of physical, sexual, and/or psychological violence (including neglect) from one or multiple individuals to another person (Mauritz et al., 2013; Mercy et al., 2017). Interpersonal trauma is a serious public health issue; it can impact the physical and mental health of survivors (Gatov et al., 2020; Lathan et al., 2021; López-Martínez et al., 2018; Mauritz et al., 2013) and their supports through indirect exposure (Cieslak et al., 2014; Cyr et al., 2016; Cyr et al., 2018; Zerach & Shalev, 2015).

Indirect exposure to a trauma occurs when an individual learns about another person's traumatic event (American Psychiatric Association [APA], 2013), typically through the course of professional duties or as a part of one's support network. Researchers examining the effects of indirect trauma exposure have primarily focused on helping professionals, such as therapists, health care workers, and emergency personnel who interact with traumatized individuals as part of their professional work (Cieslak et al., 2014; McCann & Pearlman, 1990; Palm et al., 2004; Perez et al., 2010; Schauben, & Frazier, 1995; Voss Horrell et al., 2011). Less studied are populations of loved ones who have been indirectly exposed to trauma (Gregory et al., 2019), despite the majority of interpersonal trauma survivors disclosing to informal supports (Sylaska & Edwards, 2014).This includes partners (Anderson Jacob & McCarthy Veach, 2005; Van Wijk et al. 2014; Nelson & Wampler, 2002; Smith, 2005), parents (Cyr et al., 2016; Cyr et al., 2018; Jobe-Shields et al., 2016), siblings, and friends (Christiansen et al., 2012; Gregory et al., 2017). Due to this population being overlooked in the literature, there is limited research about the

experiences of vicarious traumatization (VT), vicarious posttraumatic growth (VPTG), and event centrality in loved ones indirectly exposed to interpersonal trauma. Thus, this is the focus of my dissertation.

1.1 Vicarious Traumatization and Loved Ones

VT was first used by McCann and Pearlman (1990) to describe the psychological impact of listening to the descriptions of traumatic events when working with trauma survivors as a therapist. By engaging with others' traumatic material, negative changes to beliefs about the self, others, and the world can arise and are at the core of VT symptomology (McCann & Pearlman, 1990; Pearlman & Mac Ian, 1995). Furthermore, McCann & Pearlman (1990) suggest that the imagery of another's traumatic event can become permanently incorporated into one's own memory and may be triggered by previously neutral stimuli. This can then contribute to VT symptoms if these memories are distressing and reinforce changes to cognitive schemas (i.e., beliefs about the self, world, and others, often in the themes of safety, power, trust, intimacy, and esteem). Commonly, VT and related terms describe psychological symptoms such as intrusive images/memories, hyperarousal, avoidance behaviors, and negative changes to mood and cognition that developed or worsened after indirect trauma exposure (e.g., Mangold et al., 2022; Sparks & Stoppa, 2022). These posttraumatic symptoms are of primary interest to my dissertation, and they parallel to the criteria for the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) diagnosis of posttraumatic stress disorder (PTSD; APA, 2013).

Since McCann and Pearlman (1990) first used the term VT, it has been applied to populations of loved ones indirectly exposed to interpersonal traumas (Bux et al., 2016) and is used interchangeably with terms such as secondary traumatic stress (STS; e.g., Gregory et al., 2017), secondary traumatization (e.g., Manion et al., 1996; Manion et al., 1998), PTSD (e.g.,

Burgess et al., 1990; Cyr et al., 2018), and posttraumatic stress symptoms (PTS; e.g., Davies, 1995; Vilvens et al., 2021). As illustrated, there has been a proliferation of terms used by researchers to describe the symptoms of PTSD that may result from indirect exposure to trauma. These variations in terminology make it difficult to form conclusions about VT. Some researchers use terms such as secondary traumatization, PTSD, and/or VT interchangeably (see e.g., Bux et al., 2016; Christiansen et al., 2012), whereas other researchers argue that there are important differences between terms (Branson, 2019; Wies & Coy, 2013). For example, Branson (2019) emphasized that STS and VT differ in their trauma exposure and symptom onset. Branson (2019) argued that VT occurs over time because of the accumulation of trauma exposures (e.g., if a therapist hears of traumatic events from multiple people over a long period of time) whereas STS is acute and occurs after a single trauma exposure. Likewise, Wies and Coy (2013) argued that the difference between vicarious trauma and PTSD is that the former involves the traumatic event being acquired indirectly while the latter involves firsthand experience. However, this is contradictory to the diagnostic criteria of PTSD (APA, 2013). My first study aims to highlight what is known in the area of VT and related terminology for loved ones indirectly exposed to interpersonal trauma. Previous research in this area is highlighted below.

Parents/Caregivers

Reported prevalence rates of children under the age of 17 experiencing at least one traumatic event are as high as 60.6% to 67.8% (Copeland et al., 2007; Finkelhor et al., 2009). Of these traumatic events, the most common experiences are interpersonal traumas such as physical or sexual assault (Finkelhor et al., 2009). As previously mentioned, Statistics Canada reported that about a third of Canadians have experienced an interpersonal trauma before 15 years old (Statistics Canada, 2015). This is alarming considering the health risks associated with childhood

trauma. The landmark Adverse Childhood Experiences study (Felitti et al., 1998) found a relationship between a higher number of adverse childhood experiences and adulthood mental health concerns (e.g., depression, suicide attempts), health-risk behaviors (e.g., physical inactivity, alcohol use), and disease (e.g., cancer, sexually transmitted diseases). Since that time, there has been extensive research on the impact of childhood interpersonal trauma on the wellbeing of the victimized child in both childhood and adulthood (Finkelhor et al., 2009; Green et al., 2010; Hailes et al., 2019; Hillberg et al., 2011; Kessler et al., 2010; Norman et al., 2012). Research on the wellbeing of parents indirectly exposed to their child's trauma is relatively smaller, though researchers have found associations with negative mental and physical health (Cyr et al., 2016; Cyr et al., 2018; Mangold et al., 2022). Of specific interest to this dissertation is the parental experience of VT after indirect interpersonal trauma exposure.

Experiencing VT as a parent who was exposed to their child's interpersonal trauma is not uncommon. When assessing for clinically significant scores for PTS/PTSD symptoms, researchers have found prevalence rates that ranged from 0-3.3% for fathers, 10.2%-38.9% for mothers, and 14-24% for caregivers overall on self-report measures at various times post-disclosure (Cyr et al., 2018; Jobe-Shields et al., 2016; Mangold et al., 2022; Van Delft et al., 2016). As demonstrated, experiences of VT may be more common for maternal versus paternal caregivers. In fact, multiple researchers have found that mothers tend to score higher on symptoms of PTSD compared to fathers of children who have experienced interpersonal trauma (Cyr et al., 2016, 2018; Davies, 1995; Kelley, 1990; Manion et al., 1996, 1998).

Furthermore, Cyr and colleagues (2016) went beyond symptom levels and discussed the prevalence of parents who met criteria for a diagnosis of PTSD. Using a structured clinical interview that followed the Diagnostic and Statistical Manual of Mental Disorders, 4th edition

(DSM-IV; APA, 1994) diagnostic criteria, Cyr and colleagues (2016) examined 152 caregivers an average 12.5 months after their child's sexual abuse disclosure and found that 32% of mothers and 7.1% of fathers met criteria for PTSD related to their child's sexual trauma. Comparatively, a systematic review of 58 studies on survivors of direct trauma exposure found that the mean prevalence of PTSD after 12 months was 17% (Santiago et al., 2013). Although more research is needed in this area to draw conclusions, these statistics illustrate that parents are at risk for developing PTSD after indirect exposure to their child's interpersonal trauma, comparable to direct survivors of trauma.

Partners

There is minimal research on the experience of VT for partners of individuals who experienced an interpersonal trauma. Nelson and Wampler (2002) are the only researchers, to my knowledge, that have quantitatively examined VT in partners. They used a self-report measure of the PTSD symptoms of re-experiencing, avoidance, and arousal, to compare 15 couples with one partner who had a history of child sexual abuse (CSA) to 17 control couples. Overall, they found that the partners in the CSA couples experienced greater trauma symptoms than the partners in the control group. However, they did not discuss clinically significant cut-offs and thus a determination of PTSD symptom levels cannot be deduced. Other researchers have focused on qualitatively understanding partners of individuals who have experienced an interpersonal trauma (Anderson Jacob & McCarthy, 2005; Smith, 2005; Van Wijk et al., 2014) and have cited cognitive (e.g., changes to views of the world, others, and self), relational (e.g., changes to relationships), and emotional (e.g., changes to mood and feelings of guilt, fear, anger, horror, and helplessness) impacts that represent VT. Notably, of this research in partners, only Anderson Jacob and McCarthy Veach (2005) examined female partners of male survivors of interpersonal

trauma, while the rest examined male partners of female survivors. These studies illustrate that despite the minimal research, partners vicariously exposed to interpersonal trauma can experience VT.

Close Others

Some researchers in the area of VT have looked broadly at "close others" who were indirectly exposed to interpersonal trauma (Christiansen et al., 2012; Gregory et al., 2017). These groups of close others included family (e.g., parents, siblings), friends, partners, and colleagues. Christiansen and colleagues (2012) looked at PTSD symptoms in a sample of 107 close others of sexual assault survivors. They found that 26% of their participants met the core criteria for a DSM-IV-TR (APA, 2000) PTSD diagnosis and 36% met criteria for subclinical PTSD (i.e., one symptom short of the diagnosis). When looking at each core criteria (re-experiencing, avoidance, and arousal), they found that 79% of participants met the re-experiencing criteria, 64% met arousal criteria, and 28% met avoidance criteria. Gregory and colleagues (2017) qualitatively examined a sample of 23 close others and found that participants' symptoms mirrored the symptoms known to occur within direct survivor samples. These symptoms included disruptions to core beliefs, persistent negative emotions (anger, fear, sadness, helplessness), and physical health impacts (sleep difficulties, appetite, and weight loss). These two studies are pivotal in demonstrating that close others, who are often informal supports for trauma survivors, are at risk of VT and thus warrant attention. However, there are many unknowns; specifically, no research on VT from indirect interpersonal trauma exposure has focused solely on siblings or friends.

1.2 Vicarious Posttraumatic Growth and Loved Ones

Posttraumatic growth was first described by Tedeschi and Calhoun (2004) as the positive changes in one's life domains (e.g., appreciation of life, priorities, and possibilities, relationships,

spirituality, and personal strength) due to cognitive processing and emotional engagement after a traumatic event. For posttraumatic growth to occur, Tedeschi and Calhoun (2004) theorized that individuals must experience challenges to schemas and associated distress that then leads to cognitive processing where beliefs systems are re-organized to account for new life circumstances and resiliency. VPTG originated from researchers extending the definitions of posttraumatic growth (Arnold et al., 2005; Tedeschi & Calhoun, 2004) to individuals who have experienced indirect trauma exposure (see, e.g., Brockhouse et al., 2011; Manning-Jones et al., 2015) and experienced growth thereafter. Instead of VPTG, other researchers use the term vicarious growth or secondary post-traumatic growth to describe the positive changes to oneself and worldviews following indirect trauma exposure (McCormack et al., 2011; Zerach, 2020a). Overall, VPTG and related terms are defined as the positive changes that occur cognitively, emotionally, interpersonally, and/or spiritually because of vicarious trauma exposure (Arnold et al., 2005; Cummings, 2018; Manning-Jones et al., 2015; McCormack et al., 2011). Nonetheless, it appears to be understudied in populations of loved ones vicariously exposed to interpersonal trauma; the following sections will discuss previous research in this area.

Parents

VPTG for loved ones indirectly exposed to interpersonal trauma has only been applied once by researchers. Cummings (2018) qualitatively examined a sample of 15 parents (i.e., mothers and fathers) whose children had experienced a traumatic event. Cummings (2018) found that some parents (including mothers and fathers) experienced positive changes in areas such as familial intimacy, support, honesty, and confidence in coping abilities (Cummings, 2018). Cummings (2018) found that these positive interpersonal and cognitive changes for the parent were consistent with previous models of posttraumatic growth. However, to get to this growth,

parents went through transformative parenting changes post-disclosure, which was named the Protecting and Healing theory. As this theory is central to my dissertation, it is discussed in depth below.

Protecting and Healing Model. The Protecting and Healing theory describes the process of parenting changes that, ideally, move the parent from disclosure of their child's trauma to healing and thriving recovery (i.e., posttraumatic growth). The exit points of this model also help to explain why some families do not experience thriving recovery. This grounded theory was created by Cummings (2018) by interviewing 15 parents of 33 victims of child interpersonal trauma (e.g., sexual abuse/sexual assault, witness domestic violence, physical abuse/assault, and bullying). The model overall describes how parents view themselves as responsible for the protection and healing of their child following their trauma experience, and how these intentions move them forward in the model. The Protecting and Healing model consists of six subprocesses that can be broken down into three phases. As Study 2 of this dissertation is an extension of the Cummings (2018) study, the three phases of the Protecting and Healing model are summarized below (for the full description, see Cummings, 2018). The three phases are Destabilization, Recalibration, and Stabilization.

Destabilization. The first subprocess in this phase is the *disclosure of trauma to parent*. Almost immediately following the disclosure, parents experience *violated expectations*. Violated expectations are defined as the challenging, contradicting, or shattering of the parents' prior beliefs and expectations about the world, themselves, and often their relationships with others (e.g., violated expectation that the perpetrator could commit such an act). Violated expectations provide the caregiver with the energy to move forward in the model; those that do not experience this subprocess do not appear to reach the positive outcomes.

The next subprocess is *going into protective mode*. This subprocess is defined by the caregivers "doing what needs to be done"; in other words, focusing on the child and their healing from the trauma. For instance, one strategy that caregivers employed was to subjugate their own needs to focus on their child's needs. Another strategy employed was using coping strategies to support themselves (e.g., self-talk).

The next three subprocesses in this phase of destabilization reciprocally influence one another over time and can be classified under the heading of *making it better.* These subprocesses are *being let down*, *searching for the right thing to do*, and *padding the child*. Being let down occurs when the parent is unaware that they hold an expectation until placed in the trauma situation, then the expectation is violated via interactions with the post-trauma experience itself. Being let down typically occurs because of the response of others (e.g., being let down by family members who they expected to be supportive). Albeit self-explanatory, searching for the right thing to do typically involves a trial-and-error process where the caregiver searches for, tries out, and evaluates different actions to help heal the child. Finally, padding the child involves the parent physically and psychologically placing the child in a protective and safe space to heal.

Recalibration. *Reaching the tipping point* is the first subprocess in this phase and is related to the previous subprocesses in *making it better.* Parents may cycle through the three subprocesses in making it better until they reach a tipping point where they are able to move forward in the recalibration stage. There are two indicators that parents have reached the tipping point. Parents may report that the child's distress has substantially decreased (indicator 1) or that the actions taken in searching for the right thing to do has begun to have an effect (indicator 2).

Regaining stability is the next subprocess in the model. This subprocess has three steps.

First, parents build confidence in their coping abilities as they begin to consider their own needs, support themselves, and find support in others. Second, caregivers see their child's strengths and signs of healing. Third, caregivers reduce the amount of padding placed around their child.

Stabilization. In this final phase of the model there is only one subprocess: *experiencing thriving recovery.* This subprocess involves the alleviation of negative symptoms and post-trauma gains in wellness. For example, caregivers report that the trauma directly influenced their current improved familial communication, intimacy, emotional intelligence, and support. Also noted in this subprocess is the continued influence of the trauma on the parent's thoughts and actions towards their child. For example, parents continue to consider how the trauma might impact their child's future and continue to pad the child to avoid reactivation of the trauma or re-traumatization.

Exit Points. To experience thriving recovery, caregivers had to experience each of the subprocesses in the *Protecting and Healing* model. Examples of exit points in the model included: parents who did not experience violated expectations, parents who were unable to reach the tipping point as they were unsuccessful in identifying or applying the right thing to do, and those that experienced additional stressors that impacted their movement through the model. In each of these examples the parents did not progress through the model and they did not experience thriving recovery. Thus, the model helps to explain why some families persistently experience longitudinal negative effects on mental and physical health while others go on to experience thriving recovery and growth.

Partners and Siblings

There are no current studies on VPTG in partners or siblings indirectly exposed to interpersonal trauma. However, research in veteran populations has demonstrated VPTG can

occur for partners (Dekel, 2007; Greene et al., 2015; Lahav et al., 2017; McCormack et al., 2011) and siblings (Zerach, 2020a; 2020b). An extensive review of VPTG in loved ones of veterans falls outside of the scope of this dissertation, as war-related traumatic events were conceptualized as collective traumas rather than interpersonal traumas for this dissertation (Hirschberger, 2018). However, examples from this literature illustrate that VPTG does occur in partners and siblings indirectly exposed to trauma. For example, McCormack and colleagues (2011) qualitatively examined a sample of four wives of Vietnam veterans exposed to combat trauma. Through semi-structured interviews, McCormack and colleagues (2011) found that one common theme reported by all women was vicarious growth. The women discussed finding meaning in their experiences, positive changes in their relationship with themselves and others, and positive changes in their core beliefs and values. More specifically, the women reported increases in love, gratitude, empathy, and humility (McCormack et al., 2011). This vicarious growth matches the definition of VPTG, as the women experienced positive changes interpersonally (e.g., relationships with others), cognitively (e.g., core beliefs and values), and emotionally (e.g., love and gratitude) a result of indirect trauma exposure.

Similarly, in a study of 106 siblings of Israeli combat veterans, Zerach (2020a) found that siblings' VPTG (as measured by the Current Post Traumatic Growth Inventory-Short Form; Kaur et al., 2017) was predicted by their own PTS symptom scores (as measured by the Posttraumatic Stress Disorder Checklist for DSM-5; Blevins et al., 2015). The authors suggest that this supports the application of Tedeschi and Calhoun's (2004) posttraumatic growth (PTG) model to this population, as the experience of distress predicted PTG. These studies illustrate that VPTG in partners and siblings of individuals who have experienced an interpersonal trauma is likely, although not previously researched.

1.3 Vicarious Event Centrality and Loved Ones

Event centrality is defined as the extent to which memory for a trauma forms a reference point for one's understanding of themselves and the world (Berntsen & Rubin, 2006). The formal term *event centrality* has only been used in quantitative research, to my knowledge. This is likely due, in part, to the development of the centrality of events scale (CES) to quantitatively measure the construct of event centrality. The CES was introduced by Berntsen and Rubin (2006) to measure the extent to which a memory for a trauma becomes central to one's life, becoming a reference point for one's identity, life story, and the attribution of meaning to everyday experiences.

Berntsen and Rubin (2006) argue multiple mechanisms aid in the centralization of a traumatic event in one's life. First, they propose that a traumatic event is likely to be stored in memory due to its vividness, as it is emotionally interesting, concrete, and imagery provoking, and experienced in a sensory, temporal, or spatial manner (Berntsen & Rubin, 2006; Nisbett & Ross, 1980). This memory is then used as a reference point to estimate the frequency of similar events occurring in everyday life, since this memory easily comes to mind (i.e., availability heuristic; Tversky & Kahneman, 1973; Berntsen & Rubin, 2006), which then impacts decisions, expectations, and assumptions about everyday life. Berntsen and Rubin (2006) also suggest that traumatic events are likely to be centered in one's life because they are momentous events which alter or redirect the flow of the life course (Berntsen & Rubin, 2006). Although the idea of a life event as a turning point or causal agent in the life story was first applied to non-traumatic events (Pillemer, 1998), Berntsen and Rubin (2006) extended the definition to include traumatic events. They argued that the definition of a momentous event as a personal memory of a specific moment in the past that was important, definite, and brief (Pillemer, 1998), could be applied to

many traumatic encounters. When the traumatic event is seen as a turning point in the life story, it is often used to explain subsequent choices, experiences, actions, and values of the person (Berntsen & Rubin, 2006). Lastly, autobiographical memory research has observed that an individual's identity is closely related to the composition of their life story (Fitzgerald, 1988). Therefore, not only are traumatic events likely to seen as a turning point in the life story, but that this turning point will inform one's understanding of their personal identity; in other words, they will see the trauma as relating to the self, their characteristics, and persistent themes in their life (Berntsen & Rubin, 2006). This is in line with previous research indicating that some individuals perceive a traumatic event as related to stable characteristics of the self (Abramson et al., 1978; Greening et al., 2002).

Event centrality has not been applied to loved ones indirectly exposed to interpersonal trauma. However, evidence from Greenblatt-Kimron and colleague's (2021) study on the intergenerational impact of the Holocaust on secondary traumatization and event centrality illustrated that loved ones did center their loved one's trauma in their own lives. Similarly, McCormack and colleagues (2011) study of wives of Vietnam veterans exposed to trauma illustrated that the spouses' experiences of trauma informed their understanding of their relationship with their spouse, themselves, their core beliefs, their distress, and eventually, their growth and meaning making. This highlights that loved ones vicariously exposed to interpersonal trauma likely also experience event centrality, although this has yet to be researched. More research is needed to understand the experience of event centrality in loved ones. Thus, the aim of Study 2 is to understand the experience of event centrality in parents of children who have experienced an interpersonal traumatic event.

1.4 Vicarious Traumatization, Growth, and Event Centrality

Since event centrality's development, researchers have demonstrated a relationship between high event centrality for a trauma, PTSD, and posttraumatic growth in direct trauma survivors (Broadbridge, 2018; Barton et al., 2013; Boals & Schuettler, 2011; Schuettler & Boals, 2011). However, examining these relationships in indirect trauma populations is understudied and has not been done for loved ones exposed to interpersonal trauma. Nonetheless, there are indicators of vicarious event centrality in multiple subprocesses of Cummings' (2018) Protecting and Healing theory. For example, in the subprocess of *going into protective mode*, Cummings (2018) notes that "life becomes exclusively focused on the child and trauma recovery" (p.121). Additionally, in the subprocess of *thriving recovery*, Cummings (2018) notes that the trauma continues to influence parents' thoughts and actions towards their child. For instance, parents continue to reference the trauma in relation to their child's future. Parents also continue to reference the trauma in their reasoning for continuing to pad the child; they do so to avoid reactivation of the trauma or perceived retraumatization. Therefore, the lack of mention of vicarious event centrality may be less about whether it is involved in the process of recovering for parents of children who have experienced trauma and more so about the researcher's theoretical sensitivity to the construct when conducting this study (Birks & Mills, 2015).

Although outside of the scope of this dissertation, references to the concept of event centrality have been noted in other research on indirect trauma. Although they did not use the term "event centrality", McCormack and colleagues (2011) demonstrated that this concept may be related to both psychological distress and VPTG in wives of Vietnam veterans exposed to trauma. Reference to event centrality can also be found in the VT literature in therapists, which predates the creation of the CES. For example, McCann and Pearlman (1990) proposed that the

symptoms of VT are related to the centrality or salience of the events to the therapist when listening to their client's traumatic experiences (McCann & Pearlman, 1990). They described that the closer that the traumatic material related to the therapists' understanding of themselves, their experiences, and their view of the world, the more likely the therapist was to develop VT following indirect trauma exposure (McCann & Pearlman, 1990). Similarly, multiple researchers have detailed that indirect trauma exposure may bring about changes to individuals' prior views of themselves and the world, indicating that vicarious event centrality can occur because of indirect trauma exposure as well as direct trauma exposure (Figley, 1995; Figley, 1998; McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). Nonetheless, these associations have not been described in the indirect literature of loved ones exposed to interpersonal trauma.

Even further evidence of the potential role of vicarious event centrality in outcomes of loved ones indirectly exposed to trauma comes from the extensive research relating event centrality to outcomes of PTSD and PTG in populations directly exposed to trauma. As I have discussed, the evidence supports that one can develop both PTSD and VPTG from indirect exposure to a loved one's trauma. Therefore, it seems likely that one can also *centralize* a loved one's trauma. In turn, centralizing a loved one's trauma may then influence outcomes, as previously discussed. As there is a paucity of literature on event centrality in indirect trauma exposure populations, the following sections will provide an overview of the literature on direct trauma exposure, event centrality, PTSD, and PTG. This evidence, combined with evidence (as reviewed) of VT and VPTG, form the basis of my expectation that event centrality can also operate vicariously in my population of interest.

1.5 Direct Trauma Exposure, Event Centrality, PTSD, and PTG

Researchers have particularly focused on the robust relationship between high event centrality and PTSD symptoms for a range of trauma types and participant populations (Gehrt et al., 2018). Researchers have also highlighted a "double-edged sword" effect of event centrality, demonstrating that it can lead to both negative outcomes (i.e., PTSD) and positive outcomes (i.e., posttraumatic growth) (Barton et al., 2013; Boals & Schuettler, 2011; Schuettler & Boals, 2011) and that the valence of event centrality may be important in predicting these outcomes (Broadbridge, 2018; Teale Sapach et al., 2019). The sections below highlight the relationship of event centrality to PTSD and PTG for those who have been exposed to trauma to contextualize the importance of this research in vicarious populations.

PTSD

Trauma Type. One of the first studies documenting the link between event centrality and consequences of direct trauma exposure was a study of Vietnam veterans. McNally and colleagues (1995) examined autobiographical memory disturbance in combat-related PTSD and found that the veterans who wore military regalia to the lab (conceptualized as demonstrating high event centrality) had higher rates of PTSD compared to veterans who did not wear the regalia. Since that study, a positive relationship between event centrality and PTSD has been found for individuals exposed to many types of trauma, including CSA (Robinaugh & McNally, 2011), military combat (Brown et al., 2010), terrorist attacks/bombings (Blix et al., 2014), physical injury or assault/abuse, illness, exposure to death, sexual assault/abuse, accidents, and natural disasters (Barton et al., 2013; Teale Sapach et al., 2019). Although these trauma types have all demonstrated a relationship between event centrality and PTSD, this relationship may vary depending on the type of trauma. For example, the literature on event centrality and PTSD

discusses the variability in this relationship for interpersonal versus non-interpersonal traumas (Reiland & Clark, 2017; Wamser-Nanney, 2019).

Interpersonal Versus Non-Interpersonal Traumas. There is debate in the literature about whether event centrality and PTSD more commonly occur because of interpersonal or non-interpersonal traumas. Interpersonal traumas are those that involve or are perpetuated by other people, including physical assault, sexual assault, and witnessing death or injury of another person (Reiland & Clark, 2017). Non-interpersonal traumas are those that do not directly involve others, including natural disasters, accidents (e.g., motor vehicle accidents), or illness (Reiland & Clark, 2017). Reiland and Clark (2017) studied 318 university students and their experiences of traumatic events, CES scores, and PTS symptoms. This study found that interpersonal events were associated with higher PTS symptoms compared to non-interpersonal events and that CES scores mediated this relationship between event type and PTSD (Reiland & Clark, 2017). The former finding of which is not surprising, considering Charuvastra and Cloitre's (2008) extensive review on the higher risk of PTSD development for individuals who have experienced interpersonal traumas over other types of traumas. Therefore, it may be that individuals who experience interpersonal trauma are more likely to centralize the trauma, which then makes them more likely to develop symptoms of PTSD. However, there are mixed results on this finding (Wamser-Nanney, 2019).

Wamser-Nanney (2019) compared interpersonal and non-interpersonal traumatic events to determine whether the association between event centrality and PTSD symptoms differs depending upon the type of trauma. In this study, a sample of 263 adults reported their exposure to traumatic events, PTSD symptomology, and event centrality. They were then asked to choose the single traumatic event that they subjectively perceived as the "worst" or "most upsetting"

event experienced (otherwise known as the *index event*). About half of participants chose a non-interpersonal trauma as their index event (47.2%) and about half chose an interpersonal trauma (52.8%). This finding is different from that of Reiland and Clark (2017), as 75% of their participants chose an interpersonal trauma as their index event. Wamser-Nanney (2019) found that event centrality predicted each of the PTSD symptom clusters for both interpersonal and non-interpersonal trauma groups. In contrast to Reiland and Clark (2017), they found that there was a stronger association between event centrality and PTSD avoidance symptoms for those in the non-interpersonal trauma group compared to the interpersonal trauma group (Wamser-Nanney, 2019). Therefore, there is mixed evidence on whether the relationship between event centrality and PTSD symptoms is stronger for interpersonal or non-interpersonal traumas. However, the difference in findings may have occurred because of the Wamser-Nanney (2019) examining index events and/or PTSD symptom clusters, whereas Reiland and Clark (2017) examined an overall score of PTSD symptoms.

Participant Characteristics. Centrality of events has been shown to predict outcomes of PTSD following direct trauma exposure in a range of participant samples. These include community members (Ogle et al., 2014; Rubin et al., 2011), undergraduate samples (Barton et al., 2013; Berntsen & Rubin, 2006; Broadbridge, 2018), treatment-seeking samples (Boals & Murrel, 2016; Da Silva et al., 2016), and military samples (Brown et al., 2010). However, there are nuances in the relationship between event centrality and PTSD in terms of participant age and gender that warrant further discussion.

Age. Research has demonstrated a positive correlation between event centrality and PTSD for adults ranging from 18 to 93 (Barton et al., 2013; Berntsen et al., 2011; Boals et al., 2012; Ogle et al., 2014; Wamser-Nanney, 2019). However, Boals and colleagues (2012) suggest

that older adults may be less likely to centralize traumatic events, which contributes to the lower levels of PTSD symptoms seen in older adults. For example, Boals and colleagues (2012) compared a group of 119 young adults (age 18 to 29) and 126 older adults (age 60 to 93) on event centrality and PTSD symptoms. This study found that there was a significant positive relationship between event centrality and PTSD symptoms for both the young and older adult sample. This supports the evidence for the robustness of the relationship between event centrality and PTSD across a range of ages. However, Boals and colleagues (2012) also found that older adults reported fewer PTSD symptoms and lower event centrality compared to younger adults. To determine whether centrality is partially responsible for the difference in PTSD symptoms for the different age groups, a mediation analysis was conducted. The results of the mediation analysis found that event centrality was a significant partial mediator of the relationship between PTSD and age (Boals et al., 2012). Therefore, the authors suggested that the lower prevalence of PTSD in older adults may be partially attributable to older adults being less likely to centralize a trauma as a part of their identity and life story.

Gender. Researchers have also examined potential gender differences in the relationship between event centrality and PTSD (Boals, 2010; Gehrt et al., 2018). For example, a study by Boals (2010) examined women and men and their likelihood of constructing a negative event as central to their identity by examining the CES scores and PTSD symptom severity. This study presented two important findings. The first was that women were more likely than men to centralize a negative event (Boals, 2010). The second was that higher CES scores were associated with more PTSD symptom severity (Boals, 2010). This gender difference is also supported by the systematic analysis of Gehrt and colleagues (2018). This systematic analysis examined 92 studies on event centrality and mental health outcomes and found that women were

more likely to have higher event centrality than men. The tendency for women to centralize a trauma may help to explain why there are gender differences in the prevalence of PTSD (Van Ameringen et al., 2008).

Clinical Applications. Boals and Ruggro (2016) used a prospective research design to further gain evidence for the role of event centrality in the development and maintenance of PTSD symptoms. Using a prospective design of 161 participants, the researchers examined the relationship between PTSD symptoms and event centrality at time one and time two (a month later). They found that event centrality at time one predicted PTSD symptoms at time two, but that PTSD symptoms at time one did not predict event centrality at time two. This study illustrated that event centrality may play a key role in the development of PTSD. As a result of the potential role of event centrality in PTSD, other researchers have begun to examine the effect of targeting event centrality in therapy for PTSD. For example, Boals and Murrel (2016) attempted to decrease event centrality by using a modified version of Acceptance and Commitment Therapy (ACT) that emphasized the self-as-context process, to see what effect it had on mental health outcomes. The self-as-context process in ACT is related to event centrality in that it helps decentralize the traumatic event by decreasing the amount that the individual perceives the event as informing their identity (Boals & Murrel, 2016). This is done through teaching the individual to become aware of and observe their thoughts, feelings, and behaviors from the perspective of an observer. Ultimately, the goal was for the individual to gain awareness that even though the thoughts may be about real experiences, a thought is just a thought, and it does not inform their identity. This study compared 37 individuals completing the modified ACT to 26 individuals in a treatment as usual group (i.e., control group). This study found that those in the ACT treatment group had significant decreases in both PTSD symptoms

and event centrality compared to the control group. Even further, a mediation analysis demonstrated that the reduction in PTSD symptoms as a result of the condition (i.e., ACT or control) was mediated by decreases in event centrality (Boals & Murrel, 2016). Thus, the authors illustrated that event centrality may be a factor to target when treating PTSD, as it was at least partially responsible for the reduction in PTSD symptoms in the ACT group. Overall, these studies illustrate that event centrality may have clinical implications for those being treated for trauma since it may be a crucial factor in the development and maintenance of PTSD (Boals & Murrell, 2016; Boals & Ruggero, 2016).

PTG

As previously mentioned, there is a robust positive relationship between centrality of events and PTSD (Gehrt et al., 2018). However, centralizing a traumatic event as a reference point for one's life story and identity is said to be a "double-edged sword" (Boals & Schuettler, 2011) as researchers have recently shown that centralizing a trauma can lead to both negative and positive outcomes (Barton et al., 2013; Boals & Schuettler, 2011; Groleau et al., 2013; Schuettler & Boals, 2011). For example, Boals and Schuettler (2011) examined a sample of 929 undergraduate students in the U.S. and found that there was a significant positive correlation between event centrality and PTSD symptoms and between event centrality and PTG. These relationships were maintained even after controlling for other mental health factors such as depression and coping styles. Other researchers have replicated this result (Scheuttler & Boals, 2011; Barton et al., 2013; Groleau et al., 2013). For example, Groleau and colleagues (2013) added to this research by further controlling for variables that are already known to be associated with the development of posttraumatic growth, such as the challenging of core beliefs, rumination, and finding meaning in the traumatic event. Despite controlling for these variables,

Groleau and colleagues (2013) found that event centrality uniquely predicted PTSD and PTG in their sample of 221 U.S. undergraduate students.

On the contrary, event centrality as a unique predictor of PTG and PTSD may differ depending on the population studied. For instance, Barton and colleagues (2013) found that in their sample of 500 undergraduate students, event centrality uniquely predicted PTSD and PTG. However, Barton and colleagues (2013) also examined a sample of 53 treatment-seeking individuals and found that event centrality only uniquely predicted PTSD and not PTG. Therefore, it seems as though event centrality might be a double-edged sword in terms of predicting PTSD and PTG in undergraduate samples, but not in clinical samples. Nonetheless, further research is needed to support this finding and examine what may help to explain these differences between clinical and university samples (e.g., time since trauma, trauma severity, etc.).

This then raises the question of why some researchers have found that event centrality is related to PTSD *and* PTG. Kramer and colleagues (2020) examined 269 undergraduate students who were exposed to trauma to further investigate the role of event centrality in moving individuals from the experience of trauma to growth. Using a serial multiple mediation analysis, they found that the effect of event centrality on PTG was sequentially mediated by PTSD symptoms and deliberate rumination (i.e., intentional attempts to think about and understand the trauma). This model can be described as such: event centrality was positively related to PTSD symptoms, which was positively associated with deliberate rumination, which was then positively associated with PTG. This is supported by Tedeschi and Calhoun's (2004) model of PTG which suggests that individuals must experience some distress and then cognitive processing (i.e., potentially captured by the rumination) in order to move towards growth.

Overall, these findings suggest that event centrality plays an important role in the development of PTG following a trauma. The degree to which an individual centralizes a trauma may impact their experiences of distress and deliberate rumination, which may then impact their experience of growth.

Valence and Outcomes

A line of research that has also attempted to explain the double-edged sword effect is that of valence of event centrality (Broadbridge, 2018; Teale Sapach et al., 2019). Broadbridge (2018) was the first researcher to modify the CES (Berntsen & Rubin, 2006) to capture whether participants centralized traumatic events in a negative or positive way. Items on the CES such as "I feel that this event has become a part of my identity" was modified in both a positive way (e.g., "I feel that this event has become a positive part of my identity") and a negative way (e.g., "I feel that this event has become a negative part of my identity"). Broadbridge (2018) then used this new modified CES to examine the relationship between positive event centrality and PTSD symptoms and negative event centrality and PTSD symptoms in 400 undergraduate students. They found that both positive centrality and negative centrality were significantly positively correlated with PTSD symptoms. However, negative event centrality accounted for much more variance in PTSD symptoms compared to positive event centrality (35% vs. 4%, respectively). Therefore, Broadbridge (2018) was the first to illustrate that the valence of event centrality may impact its relationship to outcomes such as PTSD.

Teale Sapach and colleagues (2019) extended the findings of Broadbridge (2018) by examining a similarly modified valanced version of the CES in relation to both PTSD and PTG in a sample of 512 Canadians. For their modified scale, they used the same items as the CES (Berntsen & Rubin, 2006) but had participants rate their level of agreement using a Likert scale

from – 4 (Totally agree, for the worse) to +4 (Totally agree, for the better) to capture the valence of event centrality. The results demonstrated that negative event centrality ratings were positively correlated with PTSD and negatively correlated with PTG (Teale Sapach et al., 2019). The effect was opposite for positive event centrality ratings. Positive event centrality ratings were negatively related to PTSD and positively related to PTG (Teale Sapach et al., 2019). The findings of Broadbridge (2018) and Teale Sapach and colleagues (2019) slightly differ in their results as the relationship between positive event centrality and PTSD was positive for Broadbridge (2018), but negative for Teale Sapach and colleagues (2019). However, this may be because of their difference in the modification of the CES. Nonetheless, both studies demonstrate that capturing the valence of event centrality helps to better explain the double-edged sword effect of event centrality being related to PTSD and PTG. When traumatic events are centralized negatively, individuals are more likely to experience negative outcomes (i.e., PTSD) and less likely to experience positive outcomes (i.e., PTG). When traumatic events are centralized positively, individuals are more likely to experience positive outcomes (i.e., PTG) and less likely to experience negative outcomes (i.e., PTSD). Further research including temporal information may further help to explain this relationship as a process rather than a dichotomy. Although these studies have only been conducted quantitatively, knowledge of the impact of event centrality valence on outcomes might be important in fully understanding the nuances in the qualitative data in my dissertation.

1.6 Research Questions and Aims

No reviews have collated and summarized the research on loved ones' experiences of VT, VPTG, and event centrality following indirect interpersonal trauma exposure. Previous research, as mentioned, has focused on the vicarious experiences of professionals rather than

loved ones' and, even then, primarily on VT only. Thus, a scoping review (Study 1) examining these outcomes was needed to fully understand and summarize these experiences among loved ones (e.g., parents, friends, partners, siblings). My scoping review mapped the relevant empirical literature on this topic guided by the question: what has been found in the published scholarly literature examining indirect exposure to interpersonal traumatic events among loved ones regarding VT, VPTG, and vicarious event centrality? Identifying the available information related to these outcomes was key to (a) clarifying the definitions in the literature, (b) examining how research is conducted on this topic, (c) identifying key findings related to the concepts, and (d) identifying knowledge gaps (Munn et al., 2018). We accomplished these through the scoping review's systematic searching, selecting, and synthesizing of existing information (Colquhoun et al., 2014).

My second study focused on understanding parents' experiences of centering their child's interpersonal traumatic event in their lives post-trauma disclosure, as this was a gap in the literature. I used grounded theory (GT), a family of qualitative research methods focused on generating a theory of a human experience using a qualitative approach that is "grounded" in the data (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Strauss & Corbin, 1998; Willig, 2008). Grounded theory is an inductive approach that allows one to generate a theory from the data collected within the study (Birks & Mills, 2015). In contrast to a deductive approach (i.e., applying existing theory to the data), an inductive approach allowed me to develop theory in areas where there is no previous research. This was beneficial for my study as there are no studies on event centrality in nonoffending parents whose children have experienced interpersonal trauma. Therefore, the inductive approach of GT allowed me to extend the Protecting and Healing model (Cummings, 2018) to include an understanding of how the

traumatic event informed parents' experiences post-disclosure without existing research on this specific topic.

Grounded theory can also be described as a method to develop an explanatory theory of a process from the perspective and context of those who experience it (Birks & Mills, 2015). As a result, GT goes beyond the simple description of themes; it involves understanding these themes' relationships through constant comparison and theoretical integration (Birks & Mills, 2015). The resultant grounded theory is explanatory rather than simply descriptive. This was important when trying to understand and explain the phenomenon of interest. Descriptive methods such as a thematic analysis do not provide this explanatory power (Birks & Mills, 2015; Willig, 2008). This is another reason why GT was chosen for the current study.

2. Study 1: Vicarious Growth, Traumatization, and Event Centrality in Loved Ones Indirectly Exposed to Interpersonal Trauma: A Scoping Review

Interpersonal traumas are defined as exposure to actual or threatened death, serious injury, or sexual violence due to perpetration by another person (APA, 2013). It is well-known that interpersonal traumatic events can impact the physical and mental health of survivors (Gatov et al., 2020; Lathan et al., 2021; López-Martínez et al., 2018; Mauritz et al., 2013) and those indirectly exposed to the events (Cieslak et al., 2014; Cyr et al., 2016; Cyr et al., 2018; Zerach & Shalev, 2015). Indirect exposure to interpersonal trauma occurs when an individual learns about another person's interpersonal traumatic event (APA, 2013), typically through professional duties or as a part of one's support network. Researchers examining indirect trauma exposure have primarily focused on helping professionals, such as therapists, healthcare workers, and emergency personnel who interact with traumatized individuals as part of their professional work (Cieslak et al., 2014; McCann & Pearlman, 1990; Palm et al., 2004; Perez et al., 2010; Schauben, & Frazier, 1995; Voss Horrell et al., 2011). Less studied are populations of loved ones who have been indirectly exposed to interpersonal traumas (Gregory et al., 2019). We conducted a scoping review to synthesize the literature related to potential consequences of indirect interpersonal trauma exposure, specifically VT, VPTG, and event centrality.

One unfortunate impact of indirect trauma exposure is VT. VT was first used by McCann and Pearlman (1990) to describe the psychological impact of listening to the descriptions of traumatic events when working with trauma survivors as a therapist. Since that time, the use of VT has been applied to populations of loved ones vicariously exposed to interpersonal traumas (Bux et al., 2016) and is used interchangeably with terms such as STS (see e.g., Gregory et al., 2017), secondary traumatization (see e.g., Manion et al., 1996; Manion et al., 1998), PTSD (see

e.g., Burgess et al., 1990; Cyr et al., 2018), and posttraumatic stress (PTS) symptoms (see e.g., Davies, 1995; Vilvens et al., 2021). VT and related terms describe negative psychological symptoms such as intrusive imagery/memories, negative affect, arousal, avoidance behaviors, and negative changes to cognitions that follow indirect trauma exposure (Mangold et al., 2022; Sparks & Stoppa, 2022).

Another possible outcome related to indirect trauma exposure is VPTG. Posttraumatic growth was first described by Tedeschi and Calhoun (2004) as the positive changes in one's life domains (e.g., appreciation of life, priorities, and possibilities, relationships, spirituality, and personal strength) due to cognitive processing and emotional engagement after a traumatic event. VPTG originated from researchers extending the definitions of posttraumatic growth (Arnold et al., 2005; Tedeschi & Calhoun, 2004) to individuals who have experienced indirect trauma exposure (see, e.g., Brockhouse et al., 2011; Manning-Jones et al., 2015) and experience growth thereafter. Instead of VPTG, other researchers use the term vicarious growth to describe the positive changes to oneself and worldviews following indirect trauma exposure (McCormack et al., 2011). Overall, VPTG and vicarious growth are defined as the positive changes that occur cognitively, emotionally, interpersonally, and/or spiritually because of indirect trauma exposure (Arnold et al., 2005; Cumming, 2018; Manning-Jones et al., 2015; McCormack et al., 2011). Nonetheless, it appears to be understudied in populations of loved ones vicariously exposed to interpersonal trauma.

Lastly, event centrality is defined as the centralization of a trauma in informing one's identity, lifestory, and world view (Berntsen & Rubin, 2006). This concept was originally applied to direct trauma survivors and was found to be related to both PTSD and posttraumatic growth (Barton et al., 2013; Boals & Schuettler, 2011; Gehrt et al., 2018; Schuettler & Boals,

2011). Recently, this concept has been applied to those vicariously exposed to traumatic events, such as children and grandchildren of holocaust survivors (Greenblatt-Kimron et al., 2021).

No reviews have collated and summarized the research on loved ones' experiences of VT, VPTG, and event centrality following indirect interpersonal trauma exposure. Previous research, as mentioned, has focused on the vicarious experiences of professionals rather than loved ones' and, even then, primarily on VT only. Thus, a scoping review examining these outcomes was needed to fully understand and summarize these experiences among loved ones (e.g., parents, friends, partners, siblings, etc.). Our scoping review mapped the relevant empirical literature on this topic guided by the question: what has been found in the published scholarly literature examining indirect exposure to interpersonal traumatic events among loved ones regarding VT, VPTG, and vicarious event centrality? Identifying the available information related to these outcomes was key to (a) clarifying the definitions in the literature, (b) examining how research is conducted on this topic, (c) identifying key findings related to the concepts, and (d) identifying knowledge gaps (Munn et al., 2018). We accomplished these through the scoping review's systematic searching, selecting, and synthesizing of existing information (Colquhoun et al., 2014).

2.1 Method: A-Priori Protocol

We used the Joanna Briggs Institute (JBI) methodology (Peters et al., 2015; Peters et al., 2017). All scoping reviews using this methodology begin with the development of an a-priori protocol which provides a plan for the review and reduces reporting bias (i.e., distortion of findings due to selective disclosure or withholding of information about outcomes; Dwan et al., 2008; Peters et al., 2015). The protocol outlined the pre-defined objectives and research question(s), topic background, inclusion and exclusion criteria for articles, search strategy, data

charting, and results presentation. We searched for, selected, extracted, charted, and then summarized the evidence gathered regarding the scoping review objectives and questions (Peters et al., 2017). Consultation with other researchers and librarians occurred throughout the scoping review process.

Objectives

The objective of this scoping review was to identify and collate the available evidence and knowledge gaps in the literature on the VT, VPTG, and vicarious event centrality of loved ones (i.e., family, friends, parents, partners, and spouses) indirectly exposed to interpersonal trauma. More specifically, the aims of this review were to (a) clarify the definitions of VT, VPTG, and vicarious event centrality in the literature, (b) examine how research is conducted for these outcomes, including research method (e.g., qualitative, quantitative, or mixed methods), tools/measures, and demographics, (c) highlight key findings related to the outcomes of interest, and (d) identify knowledge gaps.

Background

We conducted a preliminary search for existing scoping reviews on this topic using the following databases: PsycINFO, PubMed, APA PsycArticles, Scopus, and Web of Science. We found no evidence to suggest that a scoping review on this topic had previously been conducted.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria fell into the categories of types of participants, concept, context, and types of sources.

Types of Participants

Participants were adults (age 18+) who had been indirectly exposed to the trauma of a loved one in adulthood, regardless of sex or gender. The participants must have known about

(i.e., been exposed to) an interpersonal traumatic event that happened to a loved one (i.e., a family member, partner, spouse, child, or friend) to be included.

Concept

The core concepts that we examined were the outcomes of loved ones who have been indirectly exposed to an interpersonal traumatic event that happened to a friend, partner, or family member. Any war-, terrorism-, or intergenerational-traumas were excluded from the study. Studies that did not focus on interpersonal traumas (i.e., accidents, natural disasters, etc.) were also excluded. The focus had to be on the impact of the vicarious interpersonal trauma exposure, specifically the outcomes of VT, secondary traumatization, STS, PTSD, PTS, VPTG, posttraumatic growth, and event centrality. The articles looking at VT had to discuss posttraumatic symptoms such as intrusive imagery/memories, negative affect, arousal, avoidance behaviors, and/or negative changes to cognition; articles that solely focused on distress or stress due to vicarious interpersonal trauma exposure were excluded.

Context

This scoping review excluded previously published evidence that was based on populations of individuals who experienced trauma through their profession (i.e., occupational traumas), including mental health workers, health care workers, military personnel, journalists, first-responders, and any other professionals that appeared in the search. These populations were beyond the scope of this scoping review, and previous reviews have been conducted on these populations to examine the impact of indirect trauma exposure (see, e.g., Brend et al., 2020; Cieslak et al., 2014; Graham, 2012; Haugen et al., 2012; Sheen et al., 2014). Only articles available in English were included.

Types of Sources

Our scoping review included published peer-reviewed empirical (qualitative and/or quantitative) journal articles and excluded grey literature (e.g., dissertations, books, news articles, etc.). This decision ensured that only high-quality, peer-reviewed research was included (Felthous & Wettstein, 2014; Roll, 2019). Reviews were excluded but were examined for relevant articles to include within this scoping review. Treatment outcome studies were also excluded.

Search Strategy

We used a three-step search strategy (Peters et al., 2015; Peters et al., 2017) for this scoping review. The first step was a limited initial search of two online databases appropriate for the scoping review topic. The databases PsycINFO and Scopus were deemed appropriate. This initial search examined the title, abstract, and index terms for articles related to the topic. This helped identify keywords and index terms then used in the second search strategy step. The second step of the search strategy used the identified keywords and index terms from the first step to collect articles later examined in the scoping review. These keywords were entered into PsychINFO, PsycArticles, PubMed, Scopus, and Web of Science databases. The third step in the search strategy was examining the reference lists of the included articles to search for additional studies to include (Peters et al., 2015; Peters et al., 2017).

The identified literature was screened using the inclusion and exclusion criteria. We first screened the articles by examining the title and abstracts; the articles that did not meet the criteria or were duplicates were removed. The remaining articles were then subjected to a full-text screening. We excluded any studies that did not address the scoping review question. Articles from which the full text could not be retrieved online or through the University of Saskatchewan

library (including interlibrary loan) were excluded. We then examined the remaining studies following these exclusions to answer the research questions.

2.2 Results

Search Strategy Results

The first step of the search strategy was a limited initial search of relevant articles on PsycINFO and Scopus to identify keywords related to the scoping review question. Table 1 describes the search terms that were entered into the databases. Outcome terms were searched with population terms, and the relevant articles were scanned for their keywords. A list was compiled until saturation was reached (i.e., no more relevant keywords were found). This list can be found in Table 2. These keywords were then entered into the databases of PsycINFO, PubMed, APA PsycArticles, Scopus, and Web of Science and the abstract, title, and citation for the articles were exported. Operators "OR", "AND", and "AND NOT" were used to broaden and narrow the search in their appropriate places. This created more accurate results that pertained to the outcomes and only the populations of interest (e.g., vicarious trauma AND parents). For two databases, we were able to enter all search terms together and export the abstracts. For three databases, we had to conduct four separate searches (i.e., one for indirect trauma exposure keywords, one for vicarious/secondary trauma keywords, one for VPTG keywords, and one for vicarious event centrality keywords, see Table 2) and export the abstracts for each search. The latter exporting method was necessary due to the size limitation placed on exporting files for these databases. We acknowledged that this may have resulted in additional duplicates.

Overall, a total of 11,591 abstracts were initially collected. After reviewing the titles, abstracts, and keywords, we removed duplicates and articles not meeting inclusion or exclusion criteria. During this screening process, we noted that the "AND" function had not worked for the PsycINFO database; the search was much broader than intended, as the search was not limited to

the population of interest. The decision was made to continue screening with the PsycINFO dataset. This likely resulted in the collection of more irrelevant abstracts than intended. For example, despite being just one of five databases used in this scoping review, PsycINFO abstracts comprised almost 43% of the total abstracts. After the initial screening, 179 articles potentially met inclusion and exclusion criteria and therefore were subject to the full-text review. After reviewing the full texts, **8** articles were deemed eligible for the scoping review. The reference lists of these remaining articles were examined, and an additional **15** studies were found to meet inclusion and exclusion criteria. The same process of examining the reference lists was then repeated for these articles, and **two** more articles were found. Additionally, **three** articles from our previous knowledge on this topic met the inclusion and exclusion criteria. The reference lists of these were also examined. No further articles were found. The final sample for the scoping review was 28 articles. This study selection process can be seen in the PRISMA flow diagram in Figure 1 (Moher et al., 2009).

Descriptive Summaries

The 28 included articles were published between the years 1990-2022. The median year was 2016, when six articles were published. Studies were conducted in the USA (12/28), Canada (5/28), South Africa (3/28), the United Kingdom (2/28), Denmark (1/28), the Netherlands (1/28), Norway (1/28), Australia (1/28), the Republic of Ireland (1/28), and one was not specified. Twelve articles (12/28; ~43%) used qualitative research methods, and 16 used quantitative methods (16/28; ~57%; see Table 5). Most studies focused on parents/caregivers of individuals who had experienced an interpersonal trauma (22/28; ~79%); this included 12 articles using a sample with both maternal and paternal caregivers, seven with maternal caregivers, and three with unspecified caregivers (see Table 3 for a detailed breakdown). Four studies focused on

partners of individuals who experienced interpersonal trauma (~14%). Three out of four focused on male partners of female survivors, and one focused on female partners of male survivors. Two of the included studies examined a broad range of close others (i.e., anyone deemed to have a close relationship with the survivor, including parents, siblings, friends, colleagues, and partners; ~7%). Twenty-one of the 28 articles focused on populations of individuals vicariously exposed to CSA (21/28; 75%), three focused on sexual assault (~11%), three focused on a variety of interpersonal traumas (~11%), and one focused on domestic violence (~4%). Unexpectedly, 14 of the 28 studies (50%) did not comment on the ethnicity of their participants. However, of those reporting ethnicity, participants were predominantly White/Caucasian (see Table 4). Table 4 also includes information about sample sizes and ages of participants.

There were 26 articles that referenced outcomes of VT and related terms in populations of loved ones following indirect interpersonal trauma exposure that met inclusion criteria. These 26 articles used terms such as trauma contagion, PTS/PTSD, VT, secondary traumatization, STS, and systemic trauma to describe the negative sequela of being vicariously exposed to a loved one's interpersonal trauma (see Table 5). Although trauma contagion was not an original key search term for VT, it was decided that this term was likely overlooked during gathering search terms and that the article using this term warranted inclusion (Anderson Jacob & McCarthy Veach, 2005). There was one article that used indirect trauma keywords (e.g., secondary victim, vicarious trauma, and secondary trauma) but did not use any VT keywords to describe their findings on the impact of secondary trauma (Van Wijk et al. 2014), despite citing similar findings to other studies. As their participants exhibited parallel symptoms to VT, the article remained included after full-text review. There was only one article that discussed VPTG, although one other article referenced "healing" themes. There were no articles that referenced

event centrality or vicarious event centrality that met inclusion criteria. The definitions, tools, key findings, and knowledge gaps are highlighted below.

Definitions

Trauma Contagion

Anderson Jacob and McCarthy Veach (2005) were the only researchers to use the term "trauma contagion" to capture how female partners were affected by their male partners' CSA (see Table 5). Specifically, Anderson Jacob and McCarthy Veach (2005) cited that this term came from Maltas and Shay's (1995) trauma contagion model, which describes trauma contagion as consisting of (a) threatened beliefs and shattered assumptions, (b) chronic stress, and (c) repetition and re-enactment of facets of the vicarious trauma. Overall, the researchers concluded that their qualitative study supported the trauma contagion model, as female partners of male CSA survivors described threatened beliefs and shattered assumptions, as represented by painful emotional reactions, disillusionment, and beliefs about loss of innocence, chronic stress, as represented by experiences such as anger, depression, anxiety, irritability, and negative coping strategies, and repetition-re-enactment of aspects of the CSA, as represented by lack of trust, disconnection, power/control struggles, violation of boundaries, and enabler roles.

PTS/PTSD

PTS and PTSD were the most common terms used to describe the effect of exposure to a loved ones' interpersonal trauma. However, the definition of PTS/PTSD varied between articles. Moreover, despite noting that their participants experienced PTSD symptoms, some researchers failed to define this (e.g., Masilo & Davhana-Maselesele, 2016, Smith, 2005, and Vilvens et al., 2021).

Many researchers conceptualized PTS/PTSD in the line with a Diagnostic Statistical Manual of Mental Disorders (DSM). For example, Newberger and colleagues (1993) referenced the DSM-III-R (APA, 1987) and reported that their findings were consistent with the diagnostic criteria for PTSD. Newberger and colleagues (1993) reported that their participants demonstrated avoidance (i.e., avoidance of trauma reminders, feelings, situations, and thoughts), arousal (i.e., anger outbursts, terror, irritability, and shakiness), and diminished responsiveness (i.e., loneliness, isolation). More recently, researchers referenced the DSM-IV (APA, 2000) definition of PTSD to describe participants' symptoms of re-experiencing (i.e., recurrent thoughts, memories, imagery of the trauma), avoidance, and arousal post-trauma (Christiansen et al., 2012; Cyr et al., 2016; Timmons-Mitchell et al., 1996).

Other researchers defined PTS/PTSD in line with their measure of choice. This included defining PTSD/PTS as involving symptoms of intrusions (i.e., intrusive thoughts, nightmares, feelings, and imagery related to the trauma) and avoidance (Burgess et al., 1990, Cyr et al., 2018, Davies, 1995, Dyb et al., 2003, Kelley, 1990) or intrusions, avoidance, and hyperarousal (i.e., anger, irritability, hypervigilance, low startle threshold, concentration difficulties) post-trauma disclosure (Van Delft et al., 2016; Jobe-Shields et al. 2016; Runyon et al., 2014). Additionally, although Fuller (2016) did not use any quantitative measures, they similarly discussed symptoms of intrusions as indicating the presence of PTSD.

Green and colleagues (1995) differed from other studies as they primarily referenced *delayed* PTSD. Green and colleagues conceptualized the parents' experiences of hyperarousal, intrusive memories and affect, and "psychic numbing" (undefined in the article) as delayed PTSD from their sexual abuse, which was catalyzed by their child's abuse. In the discussion, Green and colleagues (1995) report that their findings are consistent with Herman's (1992)

definition of complex posttraumatic stress disorder (CPTSD). This includes having alterations in (a) affect regulation, (b) consciousness (e.g., amnesia, re-living experiences), (c) self-concept (e.g., feelings of guilt, shame, helplessness), (d) perception of the perpetrator, (e) relationships (e.g., withdrawal, distrust), and (f) systems of meaning (e.g., hopelessness, loss of faith).

Vicarious Traumatization

Less used was VT. Bux and colleagues (2016) highlighted a previous definition of VT from Pearlman and Mac Ian (1995) that described it as the exhaustion and dysfunction that results from empathic engagement with another's traumatic experience. In their discussion, however, Bux and colleagues (2016) describe VT as the disruption of participant's beliefs/representations about trust, control, sense of self-worth, and sense of safety.

Secondary Traumatization

Manion and colleagues (1996, 1998) primarily used the term secondary traumatization to describe the impact of CSA on parents. They first highlight that they modified the "developmental lifespan model" (Newberger & Devos, 1988) of child sexual victimization to create the framework from which they understood secondary traumatization for parents of CSA survivors. This model recognized that the trauma experience begins with the abuse event, continues throughout the disclosure, and integrates individual, cognitive, and familial variables to predict parental functioning (Manion et al. 1996, 1998). In each article's discussion, secondary traumatization was represented as the emotional distress parents experienced following the disclosure of their child's sexual abuse (Manion et al., 1996, 1998). Other researchers similarly cited emotional distress as defining secondary traumatization. For example, Bux and colleagues (2016) parallel VT to Manion and colleagues (1996) definition of secondary traumatization,

which they defined as the development of distress in individuals vicariously exposed to their child's trauma.

Sparks and Stoppa (2022) gave a more specific definition of secondary traumatization, referencing that the re-experiencing the abuse, hyperarousal, and negative thoughts and emotions in parents vicariously exposed to trauma was consistent with Myrick and Green's (2013) definition of secondary traumatization. Lastly, other researchers mention secondary traumatization (e.g., Christiansen et al., 2012) without defining it.

Secondary Traumatic Stress

Four studies mentioned STS. First, Gregory and colleagues (2017) referenced STS but did not define it; however, in their discussion, they described that their participants experienced anger, fear, sadness, helplessness, disruptions to sleep, and disruptions to core beliefs. They further suggest that these findings support that individuals providing informal support to survivors of DV are at risk for STS (Gregory et al., 2017). Mangold and colleagues (2022) also researched STS, specifically with non-offending caregivers of children who endured sexual or physical abuse. They defined it as a "set of psychological symptoms that mimic posttraumatic stress disorder" (p. 553) in the parents, and they used a measure for PTSD to determine STS (Mangold et al., 2022). Third, Nelson and Wampler (2002) vacillated in their study between the terms theory of secondary trauma, secondary traumatization, and STS, where each term was used to describe the intrapersonal and interpersonal problems suffered by partners of trauma survivors. Finally, Van Delft and colleagues (2016) mentioned STS, but they did not define it.

Systemic Trauma

Kilroy and colleagues (2014) defined systemic trauma as the experience of going through an event that causes disruption and distress to systems within and outside the person that

experienced the trauma. For instance, they conceptualized that "systemic trauma" means that family context, abuse characteristics, emotions, cognitions, support systems, daily life, coping, and family dynamics are all either impacted by or are moderators of having your child experience sexual abuse. Similarly, Sparks and Stoppa (2022) reference Kilroy and colleagues' (2014) findings on systemic trauma in their discussion.

VPTG

Cummings (2018) was the only researcher to discuss and define VPTG in loved ones vicariously exposed to trauma. Cummings (2018) suggested that the last stage of their model, Thriving Recovery, is consistent with models of posttraumatic growth (e.g., Arnold et al., 2005; Tedeschi & Calhoun, 2004) as parents met the three necessary qualities for posttraumatic growth: (a) challenges to schemas about the self and the world, (b) distress caused by a stressor, and (c) cognitive processing. However, Cummings (2018) noted two differences between their model of parental recovery and posttraumatic growth. First, their model described the purpose of shattered views/schemas, which was to give the parent the energy and motivation to heal the child. Second, parents did not discuss meaning-making, which is typically a component of posttraumatic growth. Vilvens and colleagues (2021) and Anderson Jacob and McCarthy Veach (2005) described recovery and healing, respectively, but did not mention posttraumatic growth.

Measures

The measures used to examine the above terms were the Impact of Event Scale (IES; Horowitz et al., 1979), Impact of Event Scale – Revised (IES-R; Weiss & Marmar, 1997), Harvard Trauma Questionnaire (HTQ, Mollica et al., 1992), Modified PTSD Symptom Scale—Self-Report (MPSS-SR; Falsetti, et al., 1993), French-Canadian Modified PTSD Symptom Scale (MPSS-FC; Stephenson et al., 2000), Posttraumatic Stress Disorder Symptom Scale–Self Report

(PSS-SR; Foa et al., 1993), Purdue Post-Traumatic Stress Disorder, Revised (PPTSD-R; Lauterbach & Vrana, 1996), Symptom Checklist 90 – Revised (SCL-90-R; Derogatis, 1977), Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982), Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Gibbon, & Williams, 1995), and Posttraumatic Stress Disorder Checklist for the DSM-5 (PCL-5; Blevins et al., 2015). The frequency of use for each measure was: IES (6 articles), BSI (3 articles), IES-R (2 articles), PPTSD-R (2 articles), HTQ (1 article), MPSS-SR (1 article), SCID (1 article), MPSS-FC (1 article), PSS-SR (1 article), SCL-90-R (1 article), PCL-5 (1 article).

Key Findings Related to Outcomes

Key findings related to outcomes can be found in Table 5. Overall, key findings typically involved (a) describing the qualitative experience of VT (and related terms) and/or recovery (Anderson Jacob & McCarthy Veach, 2005; Bux et al., 2016; Cummings, 2018, Fuller, 2016; Green et al., 1995; Gregory et al., 2017; Kilroy et al., 2014; Masilo & Davhana-Maselesele, 2016; Smith, 2005; Sparks & Stoppa, 2022, Vilvens et al., 2021), (b) quantifying the level of symptoms experienced by participants alone or in contrast to comparison group(s) (Christiansen et al., 2012; Cyr et al., 2016; Cyr et al., 2018; Davies, 1995; Dyb et al., 2003; Jobe-Shields et al., 2016; Kelley, 1990; Mangold et al., 2022; Manion et al., 1996, 1998; Nelson & Wampler, 2002; Newberger et al., 1993; Timmons-Mitchell et al., 1996; Van Delft et al., 2016;), and (c) examining variables (e.g., demographics of participants, characteristics of abuse, etc.) related to participants' symptoms (Burgess et al., 1990; Cyr et al., 2016; Cyr et al., 2018; Dyb et al., 2003; Jobe-Shields et al., 2016; Kelley 1990; Mangold et al., 2022, Manion et al., 1996, 1998, Nelson & Wampler, 2002; Newberger et al., 1993; Runyon et al., 2014; Timmons-Mitchell et al., 1996; Van Delft et al., 2016).

Knowledge Gaps

There were several knowledge gaps identified in this scoping review. These included: (a) unified definitions of trauma contagion, systemic trauma, secondary traumatization, STS, PTS/PTSD, and VT, (b) clarification on the differences, if any, between each of the terms, (c) quantitative research on vicarious post-traumatic growth in this population, including identification or creation and validation of an appropriate measure, (d) qualitative and quantitative research on event centrality in this population, including the identification or creation and validation of an appropriate measure, (e) samples that focus on paternal parents, LGBTQIA+ partners, siblings, and friends, and (f) samples, particularly in the USA and Canada, who identify as Black, Indigenous, or People of Color (BIPOC).

2.3 Discussion

To our knowledge, this is the first scoping review on VT, VPTG, and event centrality in loved ones indirectly exposed to interpersonal trauma. Scoping reviews do not evaluate the quality or conclusions of the literature; rather, they provide a novel inventory of the previously conducted research on a topic. Thus, this scoping review is an easily accessible catalogue of literature on experiences of traumatization, growth, and event centrality after being exposed to a loved one's interpersonal trauma. This resource may be used to transfer knowledge to researchers and clinicians and illustrate areas needing further elucidation, cohesiveness, or future research. Specifically, our scoping review aimed to clarify definitions, methods, tools/measures, demographics, key findings, and knowledge gaps related to the outcomes of interest (i.e., VT, VPTG, and event centrality). Tables 3, 4, and 5 summarize the data that answered these aims. As is detailed below, these tables illustrated that there is a variety of research on the VT of loved ones indirectly exposed to interpersonal trauma, which also meant variability in the terms,

definitions, tools, and key findings related to VT. We also found a paucity of research on VPTG, event centrality, and samples with diverse demographics (e.g., ethnicity and loved one type) that warrant further study. Provided below is an overview of the key findings regarding definitions, measures, and outcomes, and the recommendations highlighted by the associated knowledge gaps.

Key Findings and Recommendations

Demographics

Majority of the studies examined samples of parents/caregivers, with minimal research on siblings, friends, partners, and paternal caregivers. Furthermore, the majority studies had samples that were predominantly White/Caucasian and there were no studies with gender- or sexuality-diverse samples. Thus, there are gaps in certain demographics (e.g., paternal parents, LGBTQIA+ partners, siblings, friends, and BIPOC individuals in the US and Canada) that should be studied in future research. Research with individuals identifying as LGBTQIA+ and BIPOC is particularly important considering that individuals with these identities are at an increased risk of experiencing violence (Statistics Canada, 2020; 2021a; 2021b). This means that family, partners, and friends of these individuals, who may also be a part of the same communities, are at an increased risk of being indirectly exposed to interpersonal trauma. There may also be important cultural differences in the experience of VT, VPTG, and event centrality that will not be elucidated if there is no research in these populations. Accordingly, further study with these populations is needed.

Definitions

One finding of this review was the variable vocabulary used to describe the traumatization of a loved one after indirect interpersonal trauma exposure. For example, the

terms trauma contagion, PTS/PTSD, VT, secondary traumatization, STS, and systemic trauma were used. Even further, researchers that used similar terms often had variability in their definitions. This variance in the vicarious trauma literature has been noted previously by Branson (2019). Although Branson's (2019) literature review focused on clinicians being affected by their clients' trauma(s), their findings similarly cited a variety of related terms being used for this phenomenon (e.g., compassion fatigue, burnout, PTSD, STS). On one hand, Branson (2019) argued that vicarious trauma occurs through an accumulation of exposure to traumatic material, and that the symptoms are analogous to the symptoms of primary trauma, such as intrusive imagery, arousal, avoidance behaviors, and negative changes to cognitions (Aparicio et al., 2013; Mishori et al., 2014). On the other hand, Branson (2019) argued that STS (Figley, 1995) is the same symptomology but that it stems from exposure to an acute event rather than the accumulation of traumatic events. Although this difference was not noted in this scoping review, it begs the question of whether this should be adapted to the population of loved ones.

Alternatively, the symptom profiles for the VT terms were relatively similar: most described some variation of PTSD symptoms of intrusive imagery, arousal, avoidance, and changes to cognition and affect. Thus, should there be different definitions based on how the symptoms were acquired? Wies and Coy (2013) argued that the difference between vicarious trauma and PTSD was that the former involved the traumatic event being acquired vicariously while the latter involved firsthand experience. However, the DSM-5 (APA, 2013) includes indirect exposure to a trauma in criterion A of PTSD rather than giving a separate diagnosis based on the traumatic event exposure. Consequently, it may not be necessary to have a separate term that delineates the timeline of exposure (acute stressor or accumulation of stressors) nor the type of exposure (indirect vs direct) if the pathology remains the same. This then raises the

question of whether using PTS/PTSD alone is sufficient in the literature. However, there is utility in the quick access to research in the population of interest when terms such as VT are used, as PTS/PTSD is likely to bring up research on primary trauma survivors.

Overall, vocabulary management is highlighted in this current study as being a necessary step forward in this area of research. This includes clearly delineating the definitions of each term, operationalizing them, using the correct terms in future research, and halting the interchanging of terms. This is necessary for researchers and clinicians to easily find applicable research when researching or working vicariously traumatized loved ones. Without it, researchers may be overlooking relevant articles in their literature reviews or unnecessarily duplicating previous research.

Measures

We found that there were no studies in this scoping review that used specific measures of VT, VPTG, or vicarious event centrality. This was despite 16 quantitative studies of VT where researchers used measures originally developed for direct trauma survivors (e.g., IES; Horowitz et al., 1979). This was surprising considering there are measures specifically developed to measure VT in the literature. For example, the Secondary Traumatic Stress Scale, a 17-item self-report scale whose items correspond to the 17 PTSD symptoms on the DSM-IV-TR (APA, 2000), was developed by Bride and colleagues (2004). Since its development, it has been used to assess STS in samples of professionals indirectly exposed to trauma, such as social workers (Bride et al., 2004; Bride, 2007; Ben-Porat & Itzhaky, 2011), rescue workers (Argentero, 2011), law enforcement (Perez, 2010), forensic interviewers (Perron, 2006), mental health professionals (Devilly et al., 2009), and nurses (Wies & Coy, 2013). Another measure in the literature on professionals indirectly exposed to trauma is the Vicarious Trauma Scale (Aparicio et al., 2013;

Newman et al., 2019; Vrklevski & Franklin, 2008). However, neither of these measures were used by researchers in this scoping review. Hence, if terms apart from PTSD/PTS continue to be used for research on loved ones vicariously exposed to interpersonal trauma, an area indicated for future study is applying STS measures to this population and assessing the psychometric properties.

There were no quantitative studies that examined VPTG or event centrality in this scoping review, and thus there were no measures of VPTG or event centrality highlighted by this review. This lack of validated measures for VPTG seems to be similar in populations beyond loved ones. For example, Manning-Jones and colleagues' (2015) review of 28 articles on VPTG in working professionals and Tsirimokou and colleagues' (2022) review of 15 articles on VPTG in mental health professionals both noted that there were no validated quantitative measures for VPTG. Similarly, there has not been a measure of vicarious event centrality developed in any population. Only one study, to my knowledge, has examined event centrality in an indirect trauma population (Greenblatt-Kimron et al., 2021) and they used a measure developed for direct trauma survivors (i.e., CES; Berntsen & Rubin, 2006). Therefore, these results indicate that it would be worthwhile for researchers to develop and validate measures of VPTG and vicarious event centrality in populations of loved ones indirectly exposed to an interpersonal trauma.

Outcomes

Overall, there were 26 articles involving VT and related terms in this scoping review. Although analyzing the outcomes of these studies was beyond the scope of this review, the key findings ranged from quantifying VT (e.g., PTS symptoms), qualitatively describing the experience of VT, and examining variables related to VT (Table 5). These studies illustrated that VT is possible for loved ones indirectly exposed to trauma across populations of caregivers,

significant others, friends, and other close individuals. For example, the prevalence of meeting criteria for PTSD across studies ranged from 13.1-32% for mothers, 7.1-7.3% for fathers, and 26% for close others (Christiansen et al., 2012; Cyr et al., 2016). Likewise, when researchers discussed high or clinically significant PTS/PTSD symptom scores, the prevalence ranged from 0-3.3% for fathers, 10.2-38.9% for mothers, and 14-24% for caregivers overall (Cyr et al., 2018; Jobe-Shields et al., 2016; Mangold et al., 2022; Van Delft et al., 2016). Other studies used similar classifications to look at prevalence rates for specific symptoms (Davies et al., 1995; Dyb et al., 2003). Quantitatively, VT commonly involved examining intrusions/re-experiencing, avoidance, and/or arousal symptoms (Burgess et al., 1990; Christiansen et al., 2012; Cyr et al., 2016; Cyr et al., 2018; Davies, 1995; Dyb et al., 2003; Jobe-Shields, 2016; Manion et al., 1996; Manion et al., 1998; Nelson & Wampler, 2002; Runyon et al., 2014; Timmons-Mitchell et al., 1996; Van Delft et al., 2016) which differs from the current DSM-5 criteria of intrusion symptoms, avoidance, negative alterations to cognitions and mood, and changes to arousal and reactivity (APA, 2013). Only Mangold and colleagues (2022) using the PCL-5 reported on all DSM-5 PTSD symptoms. Qualitatively, outcomes of VT spanned cognitive, relational, emotional, spiritual, behavioral, and physical domains for participants (Anderson Jacob & McCarthy Veach, 2005; Bux et al., 2016; Fuller, 2016; Green et al., 1995; Gregory et al., 2017; Kilroy et al., 2014; Masilo & Davhana-Maselesele, 2016; Smith, 2005; Sparks & Stoppa, 2022; Van Wijk et al., 2014; Vilvens et al., 2021).

Furthermore, there were a variety of variables examined for their relationship to VT. These included, but are not limited to, testifying in court (Burgess et al., 1990; Dyb et al., 2003), time since disclosure (Cyr et al., 2018; Mangold et al., 2022; Manion et al., 1998), gender of participants (Cyr et al., 2016; Dyb et al., 2003; Kelley, 1990; Mangold et al., 2022; Manion et al.,

1996; Manion et al., 1998; Nelson & Wampler, 2002;), parental discipline (Jobe-Sheilds et al., 2016), stress (Cyr et al., 2016; Kelley, 1990), general psychological wellbeing (Dyb et al., 2003), depression (Runyon et al., 2014), locus of control (Dyb et al., 2003), secondary life changes (Dyb et al., 2003), perceived child symptomology (Mangold et al., 2022; Manion et al., 1996), sexual disgust sensitivity (Van Delft et al., 2016), abuse characteristics (Dyb et al., 2003; Kelley, 1990; Manion et al., 1996; Van Delft et al., 2016), and parental trauma history (Mangold et al., 2022; Manion et al., 1996; Timmons-Mitchell et al., 1996; Van Delft et al., 2016).

There was minimal research on VPTG in this population; VPTG was only discussed by Cummings (2018). In a systematic literature review of VPTG by Manning-Jones and colleagues in 2015, they found 28 related articles to VPTG. However, family members of direct trauma survivors were excluded from this review, as their experience was seen as direct rather than indirect trauma exposure. Therefore, it could be the case that researchers were not using the term VPTG to describe positive changes to cognitions, emotions, relationships, and a spirituality following loved ones' indirect interpersonal trauma exposure or that loved ones are an overlooked population in the field of VPTG research. Nonetheless, a quick search of peer-reviewed articles highlights that VPTG is related to STS in health care professionals (e.g., Dar & Iqbal, 2020; Kalaitzaki et al., 2022; Manning-Jones et al., 2015; Yaakubov et al., 2020; Zerach & Shalev, 2015). Thus, since we know from this scoping review that STS occurs in loved ones indirectly exposed to interpersonal trauma, it is likely that VPTG also occurs. Furthermore, because there is minimal research on VPTG in the population of interest, there is not yet literature that describes the relation of VPTG to other factors (e.g., STS). Consequently, this current study further emphasized the need for more research in the area of loved ones exposed to interpersonal trauma and VPTG.

Additionally, event centrality is a relatively new concept (Berntsen & Rubin, 2006) that has only been applied once to the population of loved ones vicariously exposed to trauma (Greenblatt-Kimron et al., 2021). Although Greenblatt-Kimron and colleague's study was not included in this review because they examined the intergenerational impact of the Holocaust on secondary traumatization and event centrality, their findings illustrate that event centrality can occur for loved ones indirectly exposed to trauma. Furthermore, their findings suggest that event centrality may be an outcome of PTSD symptoms (Greenblatt-Kimron et al., 2021) rather than PTSD symptoms being an outcome of event centrality (e.g., Berntsen & Rubin, 2006; Berntsen & Rubin, 2007), illustrating a question about the directionality that is ongoing in the direct trauma literature (e.g., Gehrt et al., 2018; Glad et al., 2020). Furthermore, to my knowledge, there is no current research on event centrality and VPTG. Therefore, research is needed in this area to determine if event centrality occurs for this population. If so, researchers can then begin to understand its relationship to factors such as VT and VPTG.

Limitations

A limitation of this scoping review was the narrow definition of interpersonal trauma at an individual level with the indirect exposure occurring in adulthood. Research on intergenerational trauma, community-, war-, and terrorism-based traumas were excluded from this study as a result. These excluded traumatic events represent collective traumas rather than individual traumas (Hirschberger, 2018). Another limitation was that articles were excluded if they were not available in English, which may have resulted in an overrepresentation of articles from Canada and the USA. A further limitation was that research discussing experiences such as improved relationships without using the terms of interest (e.g., VPTG) were excluded. For that reason, these outcomes may be discussed in research that captures them under other constructs.

Furthermore, scoping reviews do not evaluate the collated research, nor do they perform thematic analyses of the collected data; thus, a higher-level analysis of the data beyond the presentation of what is known and needs to be known was beyond the scope of this review.

Implications

In terms of implications, this scoping review provides a novel foundation of what is known and not known about the VT, VPTG, and event centrality of loved ones indirectly exposed to interpersonal trauma. This will inform future research to fill knowledge gaps, as previously highlighted. In terms of practical implications, this scoping review validates that loved ones are a population deserving of attention and intervention following indirect trauma exposure. Previous research has demonstrated that caregivers of children who have experienced trauma are often met with blame by professionals who are meant to help the family recover (e.g., child protection services, court judges, police, health care professionals; Plummer & Eastin, 2007; Fong & Walsh-Bowers, 1998; Jackson & Mannix, 2004). Therefore, this scoping review can provide a base of information to professionals helping families impacted by trauma, by highlighting that those indirectly exposed may experience traumatization and need services. Likewise, by mapping the literature, practitioners can be informed of target areas for intervention. For example, understanding that loved ones experience symptoms of PTSD such as intrusive memories or changes to cognitions gives practitioners an idea of symptoms to examine and target in treatment.

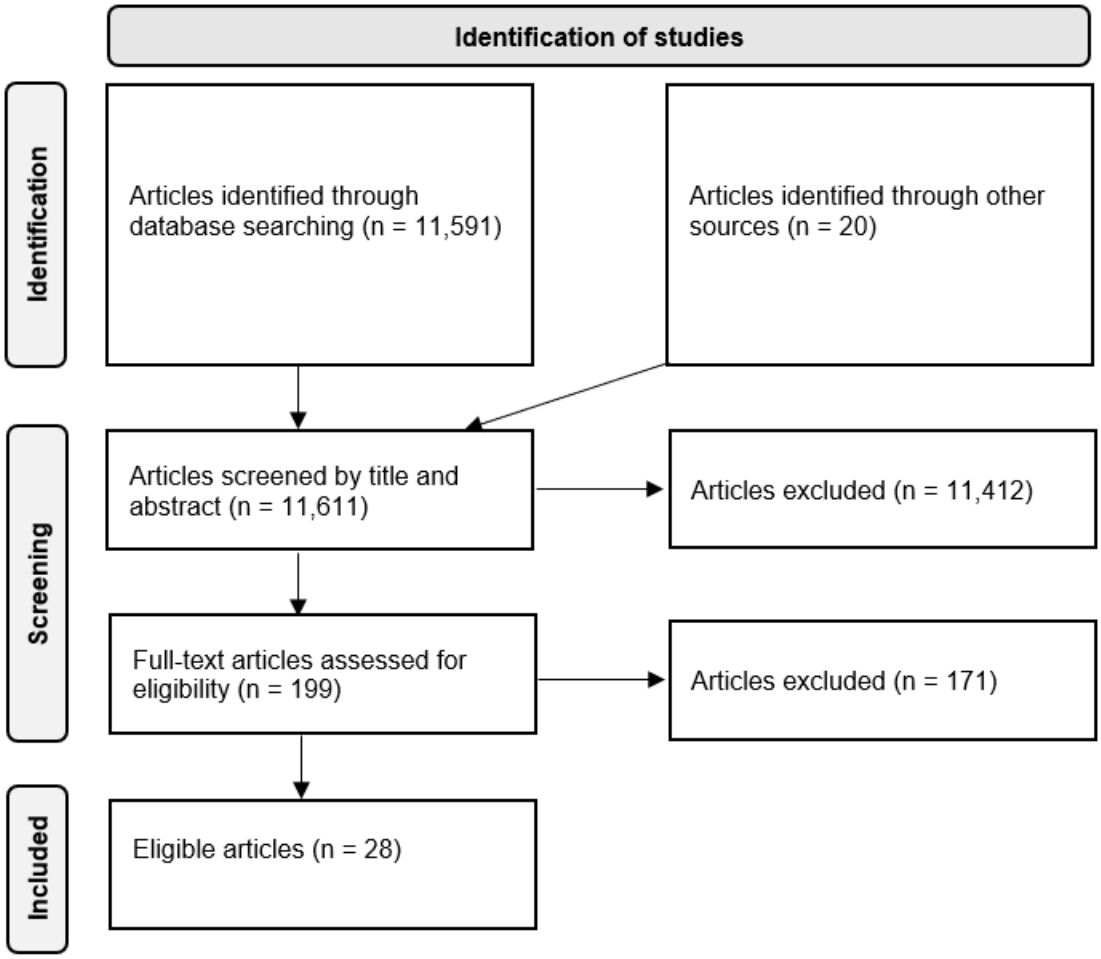
Conclusion

This scoping review was the first study to compile and summarize the literature on VT, VPTG, and event centrality of loved ones indirectly exposed to interpersonal trauma. It clarified the variety of definitions, methods, tools/measures, demographics, and key findings in these

areas. By doing so, important knowledge gaps and issues pertaining to these constructs were illuminated. Further discussed were areas warranting future research related to these knowledge gaps and practical implications for those working with families who have experienced interpersonal traumatic events.

2.4 Figure 1

PRISMA Flow Diagram of the Study Selection Process (Moher et al., 2009)



2.5 Table 1

Initial Search Terms Entered Into PsycINFO and Scopus

Type of Keyword	**Entered Keywords**
Outcome	Vicarious trauma*
	Indirect trauma*
	Secondary trauma*
	Vicarious posttraumatic growth
	Vicarious event centrality
Population	Loved ones
	Parents
	Significant others
	Child*
	Spouse
	Partner
	Family
	Friend
	Dependents

*An asterisk was used to truncate words to their root

2.6 Table 2

Final Search Terms Entered into All Databases

Type	Entered Keywords
1. Indirect trauma exposure keywords	indirect trauma exposure, vicarious trauma, vicarious trauma exposure, child disclosures, domestic violence disclosure, extrafamilial child sexual abuse disclosure, dual traumatic exposure, indirect trauma, secondary trauma, trauma transmission, vicarious experience, vicarious experiences, vicarious exposure, vicarious victimization
2. Vicarious/secondary traumatization keywords	Vicarious traumatization, vicarious traumatisation, secondary traumatization, secondary traumatisation, secondary traumatic stress, STS, secondary trauma stress, secondary trauma symptoms, caregiver burden, caretaker distress, compassion fatigue, interpersonal distress, systemic traumatic stress, systemic traumatology
3. Vicarious posttraumatic growth keywords	vicarious posttraumatic/post traumatic/post-traumatic growth, vicarious psychological growth, vicarious growth, secondary growth, secondary post-traumatic growth, secondary psychological growth
4. Vicarious event centrality keywords	vicarious event centrality, vicarious memory
5. Loved ones keywords	loved ones, parent*, significant other*, child*, sibling*, spouse*, partner*, friend*, dependent*, adult disclosers, brother*, sister*, caregiver*, carer*, caretaker*, caregiver*, partner*, couple*, dyads, family*, families*, fathers, interpersonal relationships, wives, mothers, offspring, secondary survivors, husbands
6. Exclusion keywords	counselor, worker, mental health worker, therapist, first responder, firefighter, provider, health care worker, nurse, professional, transgenerational, patient

*An asterisk was used to truncate words to their root

2.7 Table 3

Type of Loved One and Interpersonal Trauma

Author, Year	Type of Loved One**	Type of Interpersonal Trauma
Anderson Jacob & McCarthy Veach, 2005	*Partners* (female partners of male survivors)	CSA
Van Wijk et al., 2014	*Partners* (male partners of female survivors)	Sexual assault, specifically rape
Nelson & Wampler, 2002	*Partners* (male partners of female survivors)	CSA
Smith, 2005	*Partners* (male partners of female survivors)	Sexual assault
Burgess et al., 1990	*Parents/Caregivers* (mothers and fathers of child survivors)	CSA
Bux et al., 2016	*Parents/Caregivers* (mothers and one sister of child survivors)	CSA
Cummings et al., 2018	*Parents*/*Caregivers* (mothers and fathers of child survivors)	Sexual abuse/sexual assault, witnessing domestic violence physical abuse/assault, and bullying
Cyr et al., 2016	*Parents*/*Caregivers* (mothers, stepmothers, father, and stepfathers of child survivors)	CSA
Cyr et al., 2018	*Parents*/*Caregivers* (mothers, stepmothers, father, and stepfathers of child survivors)	CSA
Davies et al., 1995	*Parents*/*Caregivers** (parents and stepparents of child survivors)	Extra-familial CSA
Van Delft et al., 2016	*Parents/Caregivers* (mothers of child survivors)	CSA
Dyb et al., 2003	*Parents/Caregivers* (mothers and fathers of child survivors)	Sexual abuse, physical abuse, or threats
Fuller, 2016	*Parents/Caregivers* (mothers, fathers, and stepfathers of child survivors)	CSA
Green et al., 1995	*Parents/Caregivers* (mothers of child survivors)	CSA
Jobe-Shields et al., 2016	*Parents/Caregivers** (biological/adoptive parents, stepparents, legal guardians, and other custodial guardians of child survivors)	CSA
Kelley, 1990	*Parents/Caregivers* (mothers and fathers of child survivors)	CSA with and without ritualistic abuse (physical, sexual, and psychological).
Kilroy et al., 2014	*Parents/Caregivers* (biological mothers and fathers of child survivors)	CSA
Mangold et al., 2022	*Parents/Caregivers** (caregivers of child survivors)	Physical or sexual abuse
Manion et al., 1996	*Parents/Caregivers* (parents/mothers/fathers, stepparents, and foster parents of child survivors)	Extra-familial CSA
Manion et al., 1998	*Parents/Caregivers* (parents/mothers/fathers, stepparents, and foster parents of child survivors)	Extra-familial CSA
Masilo & Davhana-Maselesele, 2016;	*Parents/Caregivers* (any maternal stepparent, caregiver, foster parent, adoptive parent, grandparent, or biological parent of child survivors)	CSA
Newberger et al., 1993	*Parents/Caregivers* (mothers and maternal caregivers, i.e., custodial stepmothers and custodial grandmothers of child survivors)	CSA
Runyon et al., 2014	*Parents/Caregivers* (biological and nonbiological maternal caregivers of child survivors)	CSA

Sparks & Stoppa, 2022	*Parents/Caregivers* (mothers and fathers of child survivors disclosing as adults)	CSA
Timmons-Mitchell et al., 1996	*Parents/Caregivers* (mothers of child survivors)	CSA
Vilvens et al., 2021	*Parents/Caregivers* (biological mothers and one biological father of child survivors)	CSA
Christiansen et al., 2012	*Close Others* (mothers, fathers, sisters, friends, partners, and colleagues of survivors)	Sexual assault
Gregory et al., 2017	*Close Others* (mother, father, sister, niece, daughter-in-law, current partner, friend, and work colleague to a woman who had experienced DV)	Domestic violence (DV)

*No data on gender of parents
**All loved ones are nonoffending

2.8 Table 4

Demographics

Author, Year	**Sample Size**	**Age Range in Years, *Mean Age***	**Reported Ethnicity**
Anderson Jacob & McCarthy Veach, 2005	10 partners	27-51, *36.2*	Caucasian (100%)
Van Wijk et al., 2014	9 partners	25-54, -	South African (100%)
Nelson & Wampler, 2002	32 couples total, 17 in control group	21-62, *38*	European American (% unspecified)
Smith, 2005	5 partners	19-43, -	Caucasian (80%), Asian (20%)
Burgess et al., 1990	111 caregivers	Mothers: 26-43, *34.05*; Fathers: 30-45, *36.5*	-
Bux et al., 2016	16 caregivers	22-61, *42*	Black African (100%)
Cummings et al., 2018	15 caregivers	44-73, -	Caucasian (93.3%), First Nations (6.7%)
Cyr et al., 2016	152 caregivers	Mothers: -, *27.4*; Fathers: -, *41.7*	French Canadian (82.4%), Other (17.6%)
Cyr et al., 2018	124 caregivers	27-61, *37.9 (mothers), 41.2 (fathers)*	French Canadian (84.3%), other (15.7%)
Davies et al., 1995	30 caregivers	-	-
Van Delft et al., 2016	72 caregivers	-	Dutch (91.7%), 8.3% unspecified
Dyb et al., 2003	39 caregivers	-, *39.2*	-
Fuller, 2016	26 caregivers	-	-
Green et al., 1995	4 caregivers	-	-
Jobe-Shields et al., 2016	96 caregivers	-	-
Kelley, 1990	230 caregivers total: 57 in experimental group 1, 54 in experimental group 2, and 119 in comparison group	Group 1 mothers: 26-42, *33.5;* Group 1 fathers: 30-45, *36*; Group 2 mothers: 25-55, *34.6;* Group 2 fathers: 26-55, *37;* Group 3: -, -,	-
Kilroy et al., 2014	13 caregivers	33-51, -	Caucasian (92.3%), African (7.7%)
Mangold et al., 2022	150 caregivers	-, *37.87*	-
Manion et al., 1996	229 caregivers total; 93 caregivers in case group (CG) and 136 in comparison group	CG fathers: -, *38.21*; CG mothers: -, *34.87;* Comparison group fathers: -, *41.31;* Comparison group mothers*: -, 38.53*	-
Manion et al., 1998	228 total; 92 caregivers in case group and 136 in comparison group	-, -	-
Masilo & Davhana-Maselesele, 2016;	17 caregivers	23-59, -	-
Newberger et al., 1993	46 caregivers	-, *33*	White (76%), African American (17%), and Hispanic (7%)

Author, Year	**Sample Size**	**Age Range in Years, *Mean Age***	**Reported Ethnicity**
Runyon et al., 2014	68 caregivers	23-53, *33.5*	Caucasian (61.8%), African American (19.1%), Hispanic (13.2%), and Biracial (5.9%).
Sparks & Stoppa, 2022	4 caregivers	40s-70s, -	-
Timmons-Mitchell et al., 1996	28 caregivers; 14 with a history of CSA and 14 without	21-45, *33.8*	-
Vilvens et al., 2021	16 caregivers	-, -	White (50%), Black (31%), Other/Didn't Specify (19%)
Christiansen et al., 2012	107 close others	16-86, *39*	-
Gregory et al., 2017	23 close others	"Mid-20s-80", -	Predominantly White (% unspecified)

*unclear if the percentages came from the sample of parents and children, or just the sample of parents.
- Unspecified

2.9 Table 5

Data Summary

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
Anderson Jacob & McCarthy Veach (2005)	"The present study was designed to qualitatively assess intrapersonal and familial effects of CSA on FPs of male CSA survivors" p. 285	Qualitative; Interviews; Consensual qualitative research analysis	n/a	Trauma contagion, healing themes	Female partners of male CSA survivors described threatened beliefs and shattered assumptions, chronic stress, and repetition-re-enactment of aspects of the CSA in the relationship, supporting trauma contagion. Female partners of male CSA survivors cited healing themes when discussing the effects of the trauma (e.g., coping techniques, emotional reactions, roles, self-esteem, sexual and emotional intimacy, couple strengths, and family impact).
Burgess et al. (1990)	"The paper seeks to add to the empirical literature by comparing parental response to child sexual abuse by whether or not their child testified in a trial." p. 396	Quantitative; Questionnaires; Planned comparisons, chi square analyses	IES	PTS, PTSD	Mothers of children who testified compared to mothers of children who did not testify scored significantly higher on the Avoidance and Intrusion subscale of the IES. Fathers of children who testified compared to mothers of children who did not testify scored significantly higher on the Avoidance and Intrusion subscale of the IES.
Bux et al. (2016)	"The objective of this study was to explore the experiences of non-offending caregivers in order to understand how disclosure impacts their psychological well-being and to document the difficulties and challenges that caregivers face in the aftermath." p. 90	Qualitative; Semi-structured interviews; Inductive thematic analysis	N/A	VT, PTSD, secondary traumatization	The impact of vicarious traumatization of CSA on the caregiver were grouped into five themes: 1. Distress, including physical, emotional, medico-legal and situations distress. 2. Concern for the child, including physical closeness, emotional closeness, HIV status, concern about safety, and the future. 3. Alienation, including community alienation and family alienation. 4. Coping Style, including action coping and emotional coping. 5. Grief, including grieving for what their child endured, their child's loss of innocence, loss of faith in their worth as a caregiver, and loss in their sense of trust, which was associated with anger, bargaining, despair, and hope.
Christiansen et al. (2012)	"Although the primary focus of this study is on individual reactions, particularly PTSD, we will also examine how the secondary victims experience the support they provide for the PV, as well as how the relationship with the PV is affected by the rape." p. 248	Quantitative; Questionnaires; Planned comparisons, chi square analyses, ANOVAs, hierarchical linear regression analyses	HTQ	PTSD, secondary traumatization	Twenty-six percent of participants met the three core criteria for a PTSD diagnosis (re-experiencing, avoidance, arousal) and 36% met criteria for subclinical PTSD, falling one avoidance or arousal symptom short of the diagnosis. Additionally, 79% of participants fulfilled re-experiencing criteria and 64% fulfilled arousal criteria. Meeting avoidance criteria was less common (28%).
Cummings (2018)	The purpose of this study was to "develop a cohesive theory of how parenting strategies change following child trauma" p. 118	Qualitative; Interviews; Grounded theory analysis	n/a	Posttraumatic growth, VPTG, thriving recovery	The Protecting and Healing model described how and why parents adjust their parenting strategies following child trauma through the phases of destabilization, recalibration, and stabilization. Destabilization involves the disclosure of the trauma, experiencing violated expectations, going into protective mode, and making it better by searching for the right thing to do, being let down, and padding the child. Recalibration occurs when the parents

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
					reach a *tipping point* where their child's distress has decreased and interventions have been successful, so they can move to *regaining stability* by widening their focus beyond the trauma. Lastly, parents move to stabilization where parents *experience thriving recovery* where negative symptoms are alleviated and posttraumatic gains in communication, intimacy as a family, support, and familial emotional intelligence are seen. Thriving Recovery is consistent with models of posttraumatic growth as parents experienced challenges to schemas about the self and the world, distress caused by a stressor, and cognitive processing that led to positive changes not previously available to them. There were two differences between their model and PTG. First, Protecting and Healing described the purpose of shattered views/schemas, which is to give the parent the energy and motivation to heal the child, and second, that parents did not discuss meaning making.
Cyr et al. (2016)	"The aim of the present study was to assess the mental and physical health of nonoffending parents following disclosure of sexual abuse of one of their children and to determine whether gender differences among parents existed. A second objective was to identify whether other variables (related to CSA, sociodemographic characteristics, parents' maltreatment history, and life and disclosure event stressors) could predict parents' mental and physical health" p. 760	Quantitative; Questionnaires and structured interviews; Analyzed using generalized estimating equations (GEE)	MPSS-SR & SCID	PTSD	32% of mothers met criteria for PTSD related to the CSA disclosure when evaluated by a clinician with the SCID and 13.1% of mothers met criteria based on the MPSS-SR. 7.1% of fathers met criteria for PTSD related to the CSA disclosure with the SCID, and 7.3% of fathers met criteria based on the MPSS-SR. PTSD measured by the SCID was explained partly by gender and post disclosure stress, meaning mothers and those with higher levels of post disclosure distress were significantly more likely to receive a PTSD diagnosis.
Cyr et al. (2018)	"This study pursues three objectives. The first one is to assess the evolution of the psychological and physical health statuses of nonoffending parents of sexually abused children, as well as their use of health care services, throughout the first year that followed their children's CSA disclosure and 6 months later… The second objective is to examine the differential responses of mothers and fathers… Finally, the third objective is to verify whether other variables, such as childhood history of maltreatment, stressful life events,	Quantitative; Questionnaires; Analyzed using generalized linear mixed models	MPSS-FC	PTSD, PTS symptoms	The main effect of gender indicated that significantly more mothers displayed a clinical level of PTSD symptoms compared to fathers (15.4% vs. 3.3%), while the main effect of time illustrated a significant decrease between 12 months and 18 months after disclosure; 10.2% of mothers still displayed a clinical level of PTSD symptoms at the 18-month assessment compared to 0% of fathers. Factors related to PTSD scores included the past level of PTSD and the time between disclosure and evaluation.

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
	sociodemographic variables and characteristics of the CSA and the child, are related to the parent's health over time." p. 151				
Davies (1995)	"This small-scale exploratory study aims to identify particular areas of difficulties experienced by parents of children who were extra-familial abused." p. 400	Quantitative; Questionnaires; Exploratory analysis	IES	PTS	Of 30 parents, 7 mothers scored above the intrusive subscale cut-off point, no fathers scored above the intrusive subscale cut-off point, 7 mothers scored above the avoidance subscale cut-off point and 4 fathers scores above the avoidance cut-off point. Parents experienced a range of problems following disclosure, including marital dissatisfaction, depression, posttraumatic stress, loss of significant relationships, and unresolved anger.
Dyb et al. (2003)	"The current study aimed to assess parents' PTSD symptoms and general psychological responses to a national publicized case of alleged CSA at a day care center in Norway 4 years after disclosure." p. 940	Quantitative; Questionnaires; Analyzed using Mann-Whitney test comparisons, correlations, and multiple stepwise regressions	IES	PTSD, PTS symptoms	Four years after the alleged sexual abuse of their children, 33.3% of 39 parents were classified with high scores, 25.6% with medium scores, and 41.0% with low scores on the intrusion scale. 25.6% of parents were classified with high scores, 46.2% with medium scores, and 28.2% with low scores on the avoidance subscale. General psychological wellbeing was significantly positively correlated with both PTSD intrusion and avoidance scores. Several independent variables were significantly correlated with IES intrusion scores (e.g., locus of control, secondary life changes, abuse severity) while other variable were not correlated (e.g., participating in police interviews, media exposure, testifying in court, perceived social support). Several independent variables were significantly correlated with IES avoidance scores (e.g., locus of control, secondary life changes, testifying in court, and participating in police interviews) while other variables were not correlated (e.g., abuse severity, media exposure, and perceived social support). The strongest predictors of PTS symptoms were locus of control and secondary life changes, which accounted for 27% and 49% of the variance for intrusion and avoidance, respectively. There were no significant differences between mothers vs fathers, couples vs single parents, or parents with one vs two children at the day care on the IES.
Fuller (2016)	"This research examines two key aspects of secondary victimisation in this context. The first is how CSA impacts the parents of victims, focusing on their emotional responses to the sexual assault. The second is how these responses shape the way parents help their child cope with the sexual assault." p. 2	Qualitative; Archived database of psychological evaluations; Unspecified analysis	n/a	PTSD	Parents in the short-term felt distress, anger, confusion, numbness, and shock. In the long-term, they described desiring vengeance, expressing anger at the justice system, anxiety, depression, suicidal ideation, feelings of failure, guilt, hopelessness, diminished self-worth, symptoms of PTSD (e.g., intrusive thoughts, images, and nightmares about the abuse). More fathers reacted with anger than mothers. Most parents described that their priority was helping their child cope with the sexual assault post-disclosure (e.g., communicating with survivor about their wishes and needs). Parents also reported overprotection, intrusion into their child's lives, isolating the family and themselves, mistrusting others, using alcohol, overworking, using counselling, and relocating away from the place of abuse.

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
Green et al. (1995)	"This paper will present the case histories of four women who developed symptoms of post-traumatic stress disorder (PTSD) following the disclosure of the molestation of their daughters" p. 1275	Qualitative; Case Histories; Descriptive	n/a	PTSD, Delayed PTSD, Complex PTSD	Mothers experienced intrusive memories, re-experiencing, autonomic hyperarousal, and psychic numbing from their own sexual abuse after their daughter's disclosure, conceptualized as delayed PTSD and consistent with Complex PTSD. The mothers also presented with depression, suicidality, anxiety, impulsivity, somatization reactions, and personality disorders.
Gregory et al. (2017)	"The aim of the research was exploratory, with the following research question: what are the health and well-being impacts on adults who provide informal support to female DV survivors?" p. 1	Qualitative; Semi-structured interviews; Thematic analysis	N/A	STS, PTSD	Health and well-being impacts of providing informal support to DV survivors included: 1. Impacts following the incidents (shock, horror, fear, and panic). 2. Impacts resulting from the overall strain of the situation (anger and frustration, anxiety and worry, distress and upset, overwhelm and saturation, tension and turmoil, sense of responsibility, feeling disempowered, sadness and depression, confusion and uncertainty, guilt and self-blame). 3. Physical health impacts (physical symptoms and ailments, sleep difficulties, appetite and weight loss). The authors emphasized that anger, fear, sadness, helplessness, disruptions to core beliefs, and disrupted sleep are the same symptoms experienced by those directly exposed to trauma.
Jobe-Shields et al. (2016)	"…the present study had two aims: (a) to describe rates of clinical depression and clinically significant levels of PTS in a sample of nonoffending caregivers following CSA and (b) to compare self-reported and child-reported parenting practices (positive parenting, poor monitoring, corporal punishment, inconsistent parenting, and caregiver involvement) between four groups of caregivers: those with clinically significant levels of PTS (PTS only), those with clinical depression (depression only), those with both (combined), and those with neither (no condition)." p. 113	Quantitative; Questionnaires; Planned comparisons (ANOVAs) and correlational analyses	PSS-SR	PTS Symptoms, PTSD	Caregivers reported experiencing an average 7.84 PTS symptoms (criteria B, C, and D summed; range 0-16). 14% (n = 13) obtained scores in the clinically significant range. For caregiver report on inconsistent discipline, caregivers with depression only or PTS only had higher scores than caregivers in the no condition group (the combined PTS and depression group did not significantly differ from any groups). For child-reported inconsistent discipline, caregivers in the PTS only group had higher scores than those with no distress or the depression only group. There was no significant difference between the PTS only and combined group, nor among the combined group and the other groups.
Kelley (1990)	"The purpose of this study was to empirically validate parental stress responses to extrafamilial sexual and ritualistic abuse"	Quantitative; Questionnaires; Planned comparisons (ANOVAs, T-	IES	PTSD	Mean scores on the IES indicated that parents experienced intrusive thoughts and images as well as conscious avoidance of ideas and emotions related to their child's abuse. Mothers scored significantly higher than fathers on the intrusion subscale. There was no significant difference found between mothers and fathers on the avoidance subscale. There was no significant difference between parents of sexually abused children without ritualistic

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
		tests) and correlations			abuse and parents of sexually abused children with ritualistic abuse. Parental stress was found to be significantly correlated to the IES intrusion subscale and with the IES avoidance subscale.
Kilroy et al. (2014)	"Thus, qualitative research exploring the impact parents experience in this context is crucial, and the overall aim of this study is just that. By examining the pathways through which a child's abuse impacts on parental well-being, including that of fathers, this can only serve to further inform best-practice interventions in this area." p. 484	Qualitative; Semi-structured interviews; Grounded theory analysis	n/a	Systemic trauma, relational PTSD	Eight categories emerged as the pathways to distress in parents whose children have experienced sexual abuse: family context, abuse characteristics, emotional impact, cognitions, support systems, impact on daily life, coping, and family dynamics. Overall, the core broad experience of having a child who was sexually abused was conceptualized as "systemic trauma". This encompasses the fact that a trauma occurred that caused great distress and disruption to a number of systems within and outside the person.
Mangold et al. (2022)	"The purpose of this research was to expand upon previous research and examine additional factors that may influence levels of STS in NOCs of children with trauma histories… As a secondary objective, this research examined the interactions between children's self-reports of their own posttraumatic stress disorder (PTSD) symptomatology, NOCs' estimates of their children's PTSD" p. 554	Quantitative; Questionnaires; Point-biserial correlation coefficients (PBC), ANCOVAs, Independent linear regression analyses	PCL-5	STS, PTSD symptomatology	24% of 150 nonoffending caregivers (NOC) were identified as having STS based on the clinical cut-off of 33 on the PCL-5. Their self-reported PCL-5 scale scores (except for intrusion) were significantly related to their relationships with the abuser. No relationship was found between NOCs scores on the PCL-5 and child self-reported PTSD symptoms on the CPSS. However, NOCs self-reported STS scores were significantly related to NOC reported child PTSD symptoms. Furthermore, NOC reported child scores significantly predicted all NOC self-reported STS symptomatology. Child reported PTSD scores did not predict NOC self report STS symptomology. There were significant relationships between NOCs PCL-5 scores and their own trauma history, elapsed time since disclosure, and gender of children. Discrepancy scores between NOC and child reported PTSD symptomology were impacted by children's ages and genders.
Manion et al. (1996)	"First, the study attempted to answer the following key questions: Does ESA have an impact on parent functioning? To what extent can the objective aspects of the abusive incident(s) and the subjective experience of the abuse predict parents' initial adjustment? Second, the study attempted to overcome methodological limitations in current literature" p. 1097	Quantitative; Questionnaires; Planned comparisons (e.g., MANCOVAs), regressions	IES, BSI	Secondary traumatization, PTSD	Mothers of children who had been sexually abused experienced significantly more intrusive and avoidant symptoms than did fathers (IES). Mothers were also at significantly greater risk of clinical levels of distress compared to case fathers on the BSI subscales of psychoticism, phobias, and hostility. Total PTSD symptoms were not significantly related to the severity of the child's sexual abuse, maternal perceptions of the child's functioning, or maternal abuse history. Additional analyses regarding distress, family functioning, marital functioning, and parenting were conducted.
Manion et al. (1998)	"This study evaluated the emotional and behavioral adjustment of parents and children within 3 months and 1 year after the discovery of child extrafamilial sexual abuse." p. 1287	Quantitative; Longitudinal; Questionnaires; Planned comparison (e.g.,	IES, BSI	Secondary Traumatization, PTSD	Mothers of abused children had significantly higher levels of avoidant and intrusive symptoms on the IES than did fathers. Furthermore, parents combined had higher levels of intrusive and avoidant symptoms at 3 months compared to 1 year post disclosure. Mothers' satisfaction in the parenting role, perceived total support, and mothers' intrusive symptoms predicted their

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
		MANOVAs, MANCOVAs), regressions			initial emotional functioning. Avoidant symptoms, mothers' perception of internalizing problems in their child, and mothers' initial emotional distress were significant predictors of longer-term emotional functioning. Additional analyses regarding emotional distress, family functioning, and parenting were conducted.
Masilo & Davhana-Maselesele (2016)	"The purpose of this study was to explore and describe the experiences of mothers of SAC post disclosure, with the aim of developing recommendations." p. 2	Qualitative; Unstructured interviews and field notes; Exploratory, descriptive, and contextual qualitative analysis	n/a	PTSD	Mothers' experiences post-disclosure were summarized into three themes: 1. Reaction of participant to disclosure of CSA. This included emotional and psychological reactions, socio-economic reaction, and spiritual reactions. 2. Effects of child abuse on a child as viewed by mothers. This included physical and psychological trauma observations and feelings for revenge on perpetrators. 3. Experiences regarding support. This included experiences regarding medical support, experiences related to legal support, and experiences related to societal support. Overall, the researchers emphasized that the mothers exhibited symptoms of depression and PTSD.
Nelson & Wampler (2002)	"This study addressed the effects of childhood sexual abuse (CSA) on the individual trauma survivor (primary partner), the spouse/partner (secondary partner), and their relationship by comparing these couples to a clinical control sample of couples with no CSA reported by either partner" p. 88	Quantitative; Questionnaires; Comparisons using ANOVAs and MANOVAs	PPTSD-R, BSI,	Theory of secondary trauma, PTS symptoms, PTSD	On the PPTSD-R, females reported significantly more trauma symptoms than males, and couples in the CSA group reported significantly more trauma symptoms than couples in the control group. On the three PPTSD-R subscales (re-experiencing, avoidance, and arousal) there was no significant differences between groups, but females reported significantly more avoidance and arousal symptoms than males. Comparisons between groups on the BSI subscales and relationship functioning were also examined. The results indicated that CSA survivor partners experienced higher stress and trauma symptoms compared to clinical controls, and that this provided support for the theory of secondary trauma.
Newberger et al. (1993)	"The course of mothers' psychological symptomatology over the year following disclosure of their children's sexual abuse will be examined, as will relationships between mothers' emotional well-being and their children's emotional states." p. 93	Quantitative; Questionnaires; Longitudinal, planned comparisons (T-tests), linear regressions, and correlations	Brief Symptom Inventory (BSI)	PTSD	At the initial interview, mothers had significantly higher overall emotional stress scores (GSI) than the normal populations, and all nine specific symptom subscales were elevated. Twelve months later, mothers' GSI scores significantly declined, but one third of mothers had scores in the clinical range. Each symptom dimension had significantly decreased except for anxiety at the follow up. However, hostility, phobic anxiety, paranoid ideation, psychoticism, and anxiety remained significantly higher than the normal population. The authors suggested these elevations were consistent with the diagnostic criteria for PTSD. The relationships between GSI scores and various factors (e.g., financial status, therapy participation, children's treatment contacts, and children's perceived and self-report symptoms) were examined.
Runyon et al. (2014)	"The purpose of the present study was to examine the relationship between abuse-specific cognitions with	Quantitative; Questionnaires; Correlations and hierarchical	IES-R	Traumatic stress symptoms, PTSD	Depression (as measured by BDI-II) scores was significantly related to traumatic stress scores (as measured by IES-R). Abuse specific cognitions and negative general attributional style were not significantly related to traumatic stress scores after controlling for depression.

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
	symptoms in maternal caregivers." p. 149	regression analyses			
Smith (2005)	"The present study sought to understand the MSO (male significant other)'s meaning of the sexual assault and the emotional impact it had on him"	Qualitative; Interviews; Existential-phenomenological method of analysis	n/a	PTSD	The themes of the impact on males whose female significant others were sexually assaulted included: 1. Immediate thoughts and feelings, including denial, anger, guilt, depression, need for justice, assigning blame, and a sense of betrayal. 2. Relationship with the survivor, including negative changes to the relationship. 3. Worldview on male attitudes, including seeing males as being untrustworthy. 4. Long term effects of the trauma, including guilt, protectiveness, depression, powerlessness, and anger. Overall, the authors highlight that men in this study experienced similar psychological and interpersonal difficulties as the survivor, including depression, guilt, self-blame, loss of trust, withdrawal from others, sleep disturbances, and PTSD symptoms.
Sparks & Stoppa (2022)	"The current study explored the experiences of two sets of parents soon after their adult sons' disclosure of CSA by a common perpetrator." p. 2	Qualitative; Interviews; Thematic narrative analysis	n/a	Systemic trauma, secondary traumatization	Three themes arose for the experiences of parents of adult disclosers of CSA, this included: 1. Emotional impact of the disclosure, including bewilderment and disbelief, hyperarousal, anger, sadness, and grief. 2. Cognitive impacts of the disclosure, including ongoing self-assessments and changing views of others. 3. Parents purposeful responses to the experience, including parents believing, supporting, and empowering their children. The authors discussed how parents had intrusive thoughts and images about the trauma, re-experiencing of the imagined abuse, intense emotional responses, hyperarousal, and negative thoughts and emotions. These descriptions, they noted, were consistent with previous discussions of secondary traumatization.
Timmons-Mitchell et al. (1996)	"In the present study, mothers who reported a history of child sexual abuse were compared with mothers who did not report such a history on two measures of functioning." p. 464	Quantitative; Questionnaires; Analyzed with planned comparisons (T-tests)	PPTSD-R; SCL-90-R	PTSD	Women whose children recently reported sexual abuse experienced significantly higher scores for PTSD total, re-experiencing, arousal, and avoidance symptoms, compared with the normative sample for the PPTSD-R. Mothers with their own CSA history had significantly higher scores for total PTSD, re-experiencing, and arousal (but not avoidance) compared to the normative sample. Mothers without their own CSA history had significantly higher scores from the norm on only arousal. On the Crime Related PTSD scale on the SCL-90-R, the total group of mothers and mothers with CSA history displayed PTSD symptoms based on the cut-off score of .89. The mothers with CSA history had significantly higher overall distress, somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, paranoia, and PTSD compared to mothers without CSA history.

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
					There were no significant differences between the groups on hostility, phobic anxiety, and psychoticism on the SCL-90-R.
Van Delft et al. (2016)	"Our first aim was to examine whether pathogen, sexual, and moral disgust sensitivity were associated with maternal PTS symptoms… Our second aim was to examine whether disgust sensitivity would be associated with PTS symptoms over and above the maternal history of CSA and biological relatedness of the perpetrator… The final aim of this study was to examine the possible moderating effect of biological relatedness with the perpetrator on association between disgust sensitivity and PTS symptoms" p. 238	Quantitative; Questionnaires; Descriptive, correlational, and hierarchical regression analyses	IES-R	PTS symptoms, STS	38.9% of mothers scored above the suggested cut-off for high levels of PTS symptoms. A mother's history of CSA herself and biological relatedness with the perpetrator were not related to PTS symptoms. Sexual disgust sensitivity was significantly positively associated with PTS symptom severity. When the perpetrator was biologically related to the child, mothers' PTS symptoms were similarly high regardless of maternal levels of sexual disgust sensitivity. However, mothers with high levels of sexual disgust sensitivity showed significantly higher levels of PTS symptoms when the perpetrator was biologically unrelated to the child.
Van Wijk et al. (2014)	"The aim of the study was to explore, analyse and interpret the lived experiences of MIPs of female rape victims and the meaning of these experiences in the six months following the partner's rape." p. 2	Qualitative; Interviews; Longitudinal hermeneutic phenomenological study	n/a	Secondary victims, secondary trauma, secondary, vicarious trauma	Two themes emerged as the main lived experiences of MIPs of female rape victims: 1. being-in-the-world as a secondary victim of rape, including feeling their life had changed and feelings of frustration, powerlessness, humiliation, and horror. It included the subthemes of: (a) violation of one's intimate property, (b) guilt and helplessness, and (c) being in the world with their partner (e.g., effects on relationship). 2. living in multiple worlds, including two subthemes of: (a) being in the world with others (e.g., important of receiving support from others and reactions of others to disclosure), and (b) outward adjustment (e.g., feeling overwhelmed in their adjustment to new routines, their relationship, and their own feelings, and methods of coping). Overall, the authors emphasized that significant others were no less affected than primary victims as the trauma shattered their assumptions about themselves, their relationships, and the world around them, leading to negative consequences such as negative self-image, feelings of guilt, helplessness, and fear, and relationship difficulties.
Vilvens et al. (2021)	"Given the significant role of the nonoffending parent in the recovery of the sexually abused child, the purpose of this study was to gain a deeper understanding of how non-offending parents recover from a	Qualitative; Semi-structured interview; Inductive thematic analysis	n/a	PTS, recovery	Five themes were related to the healing process of parents of children who experienced CSA: 1. A variety of emotions are present. 2. Family context influences recovery. 3. Coping is different for everyone. 4. Navigating the justice system is frustrating 5. Healing is a process.

Author (Year)	Aim	Method & Analyses	Tool	Terms	Key Findings
	CSA event in order to improve programs and services." p. 2691				Some parents described feeling "stuck" in their recovery and they described anxiety, depression, posttraumatic stress, an inability to forgive the perpetrator, and that the event identifies them as a parent. Non-offending parents who described less chaos in their family unit, processed their emotions, employed positive coping strategies, felt the perpetrator was served justice, and could accept a new normal were further along in the healing process.

Note. ANOVA = Analysis of variance; MANOVA = Multivariate analysis of variance

3. Study 2: Parent's Vicarious Event Centrality of their Child's Interpersonal Trauma

The landmark Adverse Childhood Experiences study (Feliiti et al., 1998) illustrated the relationship between a higher number of adverse childhood experiences and adulthood mental health concerns (e.g., depression, suicide attempts), health-risk behaviors (e.g., physical inactivity, alcohol use), and disease (e.g., cancer, sexually transmitted diseases). Since that time, there has been extensive research on the impact of childhood interpersonal trauma on the wellbeing of the victimized child (Norman et al., 2012; Hailes et al., 2019). Research on the wellbeing of parents indirectly exposed to their child's trauma is relatively smaller, though researchers have found associations with negative mental and physical health (Cyr et al., 2016, 2018; Mangold et al., 2022). We conducted this study to learn more about parents' experiences after their child's trauma; specifically, how and why parents may center their child's interpersonal traumatic event in their lives post-disclosure as this was a gap in the current literature.

Parents of children who experienced interpersonal trauma report impacts to mental health (e.g., PTSD, distress, depression; Cyr et al., 2016, 2018; Davies, 1995) and physical health (Cyr et al., 2016, 2018) after vicarious trauma exposure. Furthermore, parents perceive their mental health concerns (e.g., PTSD, depression, suicidal ideation, and anxiety) as due to their child's interpersonal traumatic experience (Fuller, 2016; Sparks & Stoppa, 2022; Vilvens et al., 2021). Thus, parents' wellbeing is impacted by their child's experience of interpersonal trauma.

Furthermore, a relationship between child and parent functioning has been reported. For example, a review by Elliot and Carnes (2001) suggested a positive relationship between parental support following CSA and the psychological adjustment of the child. However, others have found that the relationship between caregiver support and child functioning after CSA is

relatively weak (Bolen & Gergely, 2015; Wamser-Nanney, 2017). Additionally, researchers have found that parents' perception of their child's functioning mirrors their own functioning (Mangold et al., 2022), although this relationship is not present between child-reported self-functioning and parent reported self-functioning (Mangold et al., 2022). Cummings' (2018) Protecting and Healing model of parenting post-child trauma demonstrated that parents changed their parenting practices in specific ways to focus on protecting and healing their children, often to the detriment of looking after their own well-being and needs. However, once the child began to experience recovery, post-trauma gains and wellness became possible for the parent.

We were interested in expanding this model and understanding parents' process of *centering* their child's interpersonal traumatic event post-disclosure. In other words, how it informed their understanding of themselves, their lives, and the world. This phenomenon of centering a traumatic event in one's life is termed event centrality (Berntsen & Rubin, 2006). Still, it has yet to be applied to parents of children who have experienced trauma, despite a growing body of literature demonstrating that parents are impacted by trauma experienced by their children.

Event centrality occurs when the memory of a traumatic event becomes a reference point for understanding one's life story, identity, and everyday experiences (Berntsen & Rubin, 2006). For people who have directly experienced trauma, it is related to negative trauma-related symptomology (e.g., PTSD, depression) and post-traumatic growth (Boals & Schuettler, 2011; Gehrt et al., 2018; Groleau et al., 2013). However, this construct has only been examined once for those *indirectly* exposed to trauma, in a population of children and grandchildren of Holocaust survivors (Greenblatt-Kimron et al., 2021). Nonetheless, researchers have stated that parents see their child's trauma as informing their cognitions (e.g., about the self, others, and

world) and daily life (e.g., relationships, parenting behaviors) in qualitative research (see e.g., Cummings, 2018; Fuller, 2016; Kilroy et al., 2014; McElvaney & Nixon, 2020; Sparks & Stoppa, 2022), lending evidence to the claim that vicarious event centrality is possible.

We used grounded theory (GT), a family of qualitative research methods focused on generating a theory of a human experience using a qualitative approach that is "grounded" in the data (Corbin & Strauss, 2008; Glaser, 1978; Glaser & Strauss, 1967; Willig, 2008). Grounded theory can also be described as a method to develop an explanatory theory of a process from the perspective and context of those who experience it (Birks & Mills, 2015). As a result, GT goes beyond the simple description of themes; it involves understanding these themes' relationships through constant comparison and theoretical integration (Birks & Mills, 2015). The resultant grounded theory is explanatory rather than simply descriptive.

3.1 Method

Participants

This project is part of a larger program of work focused on understanding parental experiences following child trauma. As such, we used a combination of archived interviews described in Cummings (2018) and original data generation with new participants. Participants in the archived data set were collected via a combination of word of mouth, locally-placed recruitment posters, and via a professional survey company. New participants were recruited from advertisements on a university message board and through the Canadian Hub for Applied Research (CHASR) support service. Potential participants were considered eligible to participate if they (a) were a parent/caregiver whose child had undergone an interpersonal traumatic event, (b) were not the perpetrator of that trauma, (c) were involved in the child's life at the time of the

traumatic event, (d) spoke English, (e) resided in Canada, and (f) consented to participate in the study.

Twenty-two participants were interviewed for this study. Fifteen of these participants were collected as part of Cummings' (2018) study and seven were new participants. Of these 22 participants, five were excluded from the current study as they did not meet the inclusion criteria. Participants in the archived dataset were 11 primary caregivers (9 mothers, 2 fathers) of 17 victims of child interpersonal trauma (9 males, 8 females). New participants were 6 caregivers (5 maternal caregivers, 1 paternal caregiver) of 10 victims of child interpersonal trauma (5 females, 5 males). The age of participants ranged from 35 to 75 years (average = 54.5 years). The traumatic events experienced by the participants' children varied; they included sexual abuse/sexual assault, witnessing domestic violence, neglect/abandonment, and physical abuse/assault. Twelve participants self-identified as Caucasian (70.6%), two as Ukrainian (11.8%), one as Métis (5.9%), one as First Nations (5.9%), and one did not disclose ethnicity. Time since the trauma also varied (min = 8 months, max = 46 years). All participants were located geographically in Canada.

Procedure

This study was approved by the University of Saskatchewan Research Ethics Board on December 14, 2019. Participants were sent the consent form via email prior to the interview. The informed consent form was verbally reviewed with participants at the start of the interview, and the interviewer answered any questions the participants had about the study. Participants explicitly provided verbal consent before continuing in the interview. Interviews in the archived dataset were conducted either face-to-face or via the phone. New interviews were conducted via phone or video-teleconference. The interview began with an open-ended prompt to gather in-

depth data about the parent's experiences with minimal influence from the interviewer: "Please tell me what this experience has been like for you, from the beginning. Tell me whatever you can about how this has been for you" (Cummings, 2018, p. 119). Consistent with theoretical sampling, we developed additional questions as more data was generated and analyzed to prompt discussion of codes and categories that arose in previous interviews. Three participants also completed follow-up interviews using the questions from the centrality of events scale (Berntsen & Rubin, 2006) as a check of construct validity.

At the end of the interview, participants provided demographic information to inform description of the overall sample. Participants were also asked about their experience of the interview and were given the opportunity to discuss this experience with the interviewer. Notably, all participants described the interview as a positive experience. Lastly, participants were debriefed, thanked for their participation, and asked if they consent to be contacted for future interviews. The interviews were on average between 60-90 minutes long. All interviews were audio-recorded and transcribed verbatim. Interviews were transcribed verbatim by a third-party transcription company. A quality assurance check was completed by listening to the audio of the interview while reading the transcript, to correct any errors.

Grounded Theory Analysis

Initial (Open) Coding

As the transcripts were read line-by-line, incidents (i.e., recurring actions, characteristics, experiences, phrases, explanations, images, or sounds) were highlighted in the data and assigned an initial code (Birks & Mills, 2015). Following this initial reading, the transcripts were analyzed again to compare incident with incident (Glaser, 1978; Birks & Mills, 2015). This comparison of incidents led to the development of *codes* through the labelling of patterns of words, phrases, and

other phenomena apparent in the data (Birks & Mills, 2015). Questioning the data through memo-writing further informed code development and theoretical sampling (Birks & Mills, 2015; Glaser, 1978; Charmaz, 2014). Codes were labelled using "gerunds"; verbs used as nouns with an "-ing" ending (i.e., action labels; Charmaz, 2014). The use of gerunds emphasized processes and relationships occurring within the data, which is essential for the development of a grounded theory (Charmaz, 2014). When possible, *in vivo* codes (i.e., participants' wording) were used to describe the data to avoid researcher bias (Willig, 2008).

Focused (Selective) Coding

Initial coding continued until focused codes (i.e., categories) began to form (Birks & Mills, 2015). Focused codes were created by grouping initial codes together that reflected a similar conceptual pattern in the data (Birks & Mills, 2015). Constant comparison to question the relationships between codes resulted in the formation of our initial grounded theory (Birks & Mills, 2015). These focused codes were then used to code more interviews and continue constant comparison, producing a more refined model. Saturation was subsequently confirmed by completing a saturation check whereby each interview was reviewed for the presence of the focused codes (Morse, 2015).

Theoretical Coding and Model Completion

Theoretical coding involves adding explanatory power to model by conceptualizing how the focused codes relate to each other (Glaser, 1978; Glaser & Strauss, 1967). The researcher moves from describing their findings to explaining those findings (Birks & Mills, 2015). Constant comparison was used in this stage to check the emergent theory across participants and three follow-up interviews were conducted to examine construct validity.

Memo-Writing

A fundamental analytic concept of GT is memo-writing. Essentially, memo writing is a "conversation with ourselves about our data" (Clarke, 2005, p.202). Memo-writing was used to ensure reflexivity; in other words, that the researcher was attending to and reflecting on their personal influence on the research design and process, data collection, data analysis, theory development, and writing. For instance, memo-writing involved the recording of any thoughts, feelings, insights, or decisions about the research and data (Birks & Mills, 2015; Saldaña, 2013; Willig, 2008). It also included revisiting past memos and comparing, integrating, and connecting them to other memos (Saldaña, 2013). Memos were labelled with a date and short descriptive title to enable easy access (Birks & Mills, 2015). Altogether, memo writing was fundamental for maintaining an audit trail of research decisions and for extracting meaning from the data in GT (Birks & Mills, 2015).

Verification Strategies for Reliability and Validity

In qualitative research, reliability and validity (i.e., rigor) are ensured through verification strategies throughout the analysis (Morse et al., 2002). These strategies include methodological coherence (i.e., consonance between research question and method), sample appropriateness (i.e., participants are appropriate to answer the research question), iterative data collection and analysis (i.e., to know what is known and what needs to be known), theoretical thinking (i.e., open-ended question to avoid bias and constant comparison to build theoretical foundation), and theory development (i.e., literature review to inform consistency with previous knowledge; Morse et al., 2002). This study used each of these strategies to ensure reliability and validity.

3.2 Results

Overview

The model was labelled Vicarious Event Centralization and Decentralization, indicating that parents centralize their child's interpersonal trauma across many areas of their life, which orients them to focusing on protecting and healing the child. After the child's functioning improves, parents are then able to reorient to life beyond the trauma and healing the child, representing their decentralization of the trauma. The GT consists of three phases, Centralization, Decentralization Gateway, and Decentralization (see Figure 2). In Phase 1, parents' behaviors, identity, worldview, and views on the functioning of their child, themselves, and family/relationships, become informed by the child's trauma. Phase 2 represents the gateway to decentralization. It was necessary for parents to view their child's functioning as improved for them to begin decentralizing the trauma from their lives. Once this gate is opened, parents move forward into Phase 3, decentralization. In this phase, parents begin to focus on life beyond the trauma and start decoupling the trauma from being the main informer of their identity, behaviors, views, and relationships, although the trauma remains a piece of the parent's life. Each process is discussed below. It should be noted that there was no set timeline for parents to move through the model and there was a range of timelines for participants. Exemplar quotes for each stage of our resulting model are shown in Table 6.

Centralization

Upon disclosure of the trauma, parents described their lives as profoundly altered (e.g., "I've had to change everything because of this event", "Even though this situation didn't happen in the beginning of my life, it brought a new beginning", "[the trauma] informed my entire life"). Parents felt as if a new chapter of their lives had begun and that there was a clear "before and after" representing pre-trauma and post-trauma life. This new beginning meant reorienting their behaviors, identity, worldview, and views on the functioning of their child, themselves, and

family/relationships to integrate the trauma. This process was seen as adaptive, in retrospect, by parents who had moved through the model, as it was a necessary step to promote their child's healing. By perceiving that their child's wellbeing was harmed by the trauma and seeing themselves as responsible for the child's healing, parents then adapted their behaviors, views, and relationships to promote the child's safety and recovery. The trauma's centralization in each of these areas of identity, worldview, parenting behaviors, self-functioning, view of child's functioning, and relationships resulted in a cumulative effect of promoting the protection and healing of the child. Parents that did not see their child as harmed by the trauma nor felt responsible for the child's healing did not center the trauma. Those that described "focusing forward" also did not enter the model.

Identity

One of the areas where the trauma was centralized was the parent's identity. Overall, there was a general sense from parents that the trauma informed their view of themselves (e.g., "I was a completely different person [pre-trauma]", "I just felt like an extension of the trauma", "[the trauma] definitely impacted who I am"). Parents described a range of impacts to identity. While some parents saw the trauma as informing their identity in negative ways (e.g., "I just felt like a failure", "I must be a shitty person", "I wasn't a very good parent at that time", "I was powerless") others saw the trauma as informing their identity in more positive ways, such as bringing out their identity as a protector (e.g., "I was in high mother protective mode", "I'm the one who can protect him", "I kicked into parent mode", "I'm constantly in mama bear mode"). Interestingly, parents could initially have positive and/or negative impacts to identity and still move through the model, as long as the identity was tied to an overall sense of responsibility for supporting their child's wellbeing. Parents who did not feel a sense of responsibility for their

child's wellbeing exited the model (e.g., "I feel a great deal of guilt. But what could I do? I wasn't going to, sort of say, break up my own marriage for the sake of this […] I felt like I had really failed as a mother").

Parenting Behaviors

The trauma directly influenced parenting behaviors post-trauma (e.g., "it definitely changed how I parented"). Although these behaviors varied, the underlying reason for the actions remained the same: to protect the child from harm and to promote their healing. These actions ranged from changes in *discipline* (e.g., "I became more of a permissive parent", "I would just give in to everything because he was so upset all the time"), *communication* (e.g., "The truth is the only way that we're going to heal and get better, so that's how we have to live our life from now", "We need to talk about it and I need you to know I love you", "I spent a lot of time having to work with him to understand that […] you need to be able to advocate for yourself") and *environment* (e.g., "The more I've removed myself from [conflicts], I've become a happier person, which I think makes me a better parent to him", "I felt we should homeschool the child", "I left the house because I didn't know how to get him out") as well as *seeking services/resources* for the child (i.e., counselling, child protection services, e.g., "We were seeking support and counseling for him cause it was very clear he witnessed things that a child should never have to witness", "That's when we really pushed for [mental health services]", "We have to figure out what's going on, get her some counselling") and/or themselves (i.e., their own counselling to role model or to be the best parent possible for the child, e.g., "I need to go get somebody for myself to get my head straight so I can figure out what I want to do", "I knew that I couldn't make decisions on my own right then, that I needed to talk to somebody about it, so that I would be doing the right thing"). Related to identity, parents who did not feel a sense of

responsibility for their child's well-being did not see their parenting behaviors as influenced by the trauma, and thus did not move through the model.

Relationships

Parents' relationships in terms of family, friends, and partners were reorganized by the trauma. In the area of family, some parents described that the family dynamic was disrupted by the trauma (e.g., "It was just dysfunction", "It affected my family relationships") and that their relationship with the child was their priority to ensure their protection and healing (e.g., "…my priority has always been [child] and making sure that he's protected", "I made him the center of the universe"), sometimes to the initial detriment of other relationships (e.g., "My marriage was falling apart, my husband and I were fighting consistently"). This meant also changing relationships with close others with different views on the traumatic event, as parents perceived it would be unhelpful or unsafe for them to be around the child ("The relationships with my mom and my sister changed substantially because my view of the event and the seriousness of it…"). Overall, parents who did not prioritize their relationship with their child who experienced the trauma, but instead prioritized other relationships (e.g., with the perpetrator) exited the model.

View of Child Functioning

Parents described the trauma as negatively impacting their child's functioning (e.g., "He developed terrible anxiety", "I could see [the trauma] affected them", "He was putting all the blame on [himself], that he did something wrong", "She could not handle it well at all. She wasn't eating."). Parents described seeing the child's negative emotions, behaviors, interactions, and general mental health as being related to the trauma. Again, this served a purpose for parents. Viewing the child as affected by the trauma indicated to parents that they needed to

focus on protecting and healing the child. Parents who perceived that their child was not affected by the trauma did not enter the model.

Self-Functioning

Parents own functioning was also informed by the child's trauma. Post-trauma disclosure, parents described the trauma as influencing their overall wellbeing, including their mental health and coping behaviors (e.g., "'I was always so worried about him, worried about other people's perceptions of me", "I did a lot of drugs", "It destroyed me", "I'm dealing with hypervigilant all the time", "I just worry sometimes that the courts will decide that fathers have rights too and they will for visitation, and I'm scared for my kids"). Parents coped with these negative impacts to mental health in a range of ways, including isolating, using drugs and alcohol, using support services, talking with close others, and self-talk. Despite centralizing the trauma, parents described prioritizing improving their child's functioning above their own. For those that additionally prioritized their own functioning, it remained in service of the child's functioning ("I really had to make sure that I stayed healthy for [child]. And so I had to make sure that my mental state and her mental state was okay. Otherwise, you know, how is she going to survive if I can't survive it?").

Worldview

Post-disclosure, parents described the trauma as being a reference point for their beliefs and expectations about the world around them (e.g., "It's hard to understand how people can be like that", "I lost trust in the system", "It impacted my faith in the child protection system", "At this point I guess I'm cynical when it comes to school and treatment", "It was something that you couldn't, you can't even wrap your head around that it would happen"). These worldviews varied from beliefs about morality (e.g., what is right and wrong), people (e.g., perpetrator, close others,

professionals), systems (e.g., school, protective services), and safety (e.g., not expecting this to happen to their child). Overall, parents experienced themselves as seeing the world differently. These worldviews served parents to anticipate the environments, people, and systems that could be beneficial or detrimental to their child's healing. However, it also contributed to the hypervigilance, overprotectiveness, and stress felt by the parents.

Gateway to Decentralization: Child Functioning Improves

For parents to have the opportunity to decentralize the child's trauma from their lives, they had to perceive their child's functioning as improving (e.g., "She's now doing really good. She's in university. She's—she's got a good life", "His behavior changed already…now that he's back to, you know, normal", "His nervous tics and many of his anxieties have alleviated since then", "I learned the kids are very resilient"). This was illustrated by positive statements on their child's wellbeing, behaviors, emotions, and interactions. These statements demonstrate that parents no longer see their child's functioning as fully informed by the trauma (i.e., decentering the trauma from this area). In essence, this is the moment that the purpose of centralization is achieved.

Decentralization

Once parents felt that their child's functioning had improved, decentralization became possible for parents. This process exists on a spectrum and was ongoing for most participants. During this phase parents begin to focus on life beyond the trauma. For example, their identity, behaviors, views, functioning, and relationships become informed by other experiences, although the trauma remained a piece of the parent's life. In other words, the trauma is no longer central to the parent's life (e.g., "It probably took about four- four years where suddenly you're like, OK, yeah, this isn't, this isn't the center item of my life", "I worked really hard to make sure that both

[child] and I are balanced in life: emotionally, physically, and spiritually", "For me to be thinking about myself was selfish. So it took awhile for me to recognize that in order for me to take the best care possible of them, I needed to take the best possible care of myself", "When I started working as a counselor it started being different… it's a realisation that life is ongoing, like there are - there are - there are many chapters"). Indicators of decentralization included a defocusing of the trauma in any of the areas of centralization (e.g., self-functioning, relationships, identity, etc.).

3.3 Discussion

The purpose of our study was to understand parents' experience of centering their child's interpersonal traumatic event in their lives post-disclosure. The resulting model of vicarious event centrality is the first to illustrate *how* and *why* the traumatic event informed parents' lives post-disclosure. Moreover, it is only the second study to document vicarious event centrality. We expanded upon Cummings' (2018) Protecting and Healing theory by understanding how the trauma informed parents' lives beyond their parenting strategies. Through the three phases of Centralization, Decentralization Gateway, and Decentralization, the child's interpersonal traumatic event moved from being the main informer of parents' identity, functioning, worldview, parenting behaviors, relationships, and view of their child's functioning, to one of many experiences that informed parents' lives. Consistent with the Protecting and Healing theory, centralization aided in protecting and healing the child, and decentralization only became possible once healing was perceived to have occurred for the child (i.e., Decentralization Gateway). Descriptively, the domains of parents' lives informed by the traumatic event (e.g., identity, worldviews) have overlapped with previous research on caregivers of child survivors (see Table 6).

Vicarious Event Centrality

Developed with direct trauma survivors, Berntsen and Rubin (2006) described that a traumatic experience can be a momentous event that subsequently influences identity, lifestory, and everyday experiences for the survivor. Berntsen and Rubin (2006) conceptualized event centrality through the lens of autobiographical memory; specifically, the salience of the traumatic event in autobiographical memory makes it an easily accessible reference point for understanding oneself, the world, and daily life. Similar to Berntsen and Rubin's (2006) finding in direct trauma survivors, our study found that the trauma became central to the cognitive organization of the life and identity of the parent post-disclosure. More precisely, parents saw their child's trauma as a turning point in their lifestory that informed their views on themselves (e.g., identity, behaviors, functioning), others (e.g., relationships, child functioning), and the world. Considering parents were not direct survivors of the trauma, they only had an episodic memory of the disclosure rather than the traumatic event itself. Nonetheless, our study illustrates that a loved one's traumatic event can become a salient autobiographical memory in one's own lifestory, supporting previous research that event centrality can occur for loved ones indirectly exposed to a traumatic event (Greenblatt-Kimron et al., 2021).

Our study is the first to examine event centrality in a population of parents exposed to their child's interpersonal trauma. Despite researchers previously finding that parents' beliefs, relationships, and behaviors were influenced by their child's experience of trauma (e.g., see e.g., Cummings, 2018; Fuller, 2016; Kilroy et al., 2014; McElvaney & Nixon, 2020; Sparks & Stoppa, 2022), the term event centrality was not used. One possible explanation is that the construct of event centrality was not referenced in previous research in parents due to the researchers' theoretical sensitivity to the construct (Birks & Mills, 2015). To make this construct

more explicit in research, we suggest that future researchers in this area use the term *vicarious event centrality*. It is hoped that by doing so, researchers in the vicarious trauma area become attuned to the potential applicability of this construct to their research.

Vicarious Event Centrality as Adaptive

Berntsen and Rubin (2006) focus on the idea that the centering a traumatic memory in the life script is maladaptive, and subsequent research has supported an association between event centrality and negative mental health (Gehrt et al., 2018). This present study does not debate this finding, as parents relayed that their child's trauma negatively impacted their own functioning (e.g., hypervigilance, worries). However, similar to research illustrating that event centrality is related to both PTSD and post-traumatic growth (Boals & Schuettler, 2011; Groleau et al., 2013; Schuettler & Boals, 2011), parents in our study retrospectively communicated that centering their lives around the child's trauma was also adaptive. They found that this promoted their child's recovery, which subsequently allowed for parents to decentralize the trauma from their own lives. An understanding of the adaptiveness of event centrality in helping parents focus on child recovery is presented below in the context of cognitive-constructive and attachment theories of trauma.

Cognitive-constructive theories of trauma suggest that individuals construct their reality based on the meaning they have extrapolated from events (McCann et al., 1988). For instance, *accommodation* describes how new experiences can result in changes to existing schemas (i.e., beliefs) to accommodate the new information (Payne et al., 2007). Thus, when events are traumatic, this can alter the framework of one's beliefs about the world, self, and others (i.e., schemas) which subsequently impacts functioning (McCann et al., 1988). Our study supports that parents' schemas about the self, others, and the world are informed by their child's trauma,

and that this can contribute to negative functioning (e.g., hypervigilance). Conversely, these schematic changes may serve a protective function through helping parents adapt their lives accordingly to protect and heal their child. For example, since they believed that their child's functioning was negatively impacted by the trauma, parents tailored their parenting behaviors to promote the child's healing. This supports previous researchers who found that caregivers who did not access mental health support for their child after CSA were those who believed this support was not necessary because they did not perceive their child as exhibiting behavioral symptoms (Fong et al., 2016). Thus, our study continues to add to the research base that illustrates that event centrality may be both maladaptive and adaptive.

Another possible explanation for the adaptiveness of event centrality comes from attachment theory. From an attachment theory lens, a child's wellbeing is related to having a secure attachment with its primary caregivers (Bowlby, 1988; Lieberman, 2004; Malik et al., 2021). A secure attachment is achieved through the parent being consistently responsive and available to the child's needs, which enables the child to internalize that they are loveable, safe, supported, and capable to interact with others and the world (Bowlby, 1988; Bolen, 2000). Although attachment was not examined in this study, centering the trauma may have allowed parents to adaptively re-organize their lives to prioritize and respond to their child's needs, promoting a secure attachment and subsequent healing. In fact, Cummings (2018) noted that one of the positive outcomes of parents focusing their parenting behaviors on protecting and healing the child from a trauma was an increase in the level of communication, intimacy, and support amongst family members, perhaps illustrating that a secure attachment was achieved. It may be helpful for future research to further understand the relationship between vicarious event centrality and attachment.

Protecting and Healing Theory

This study expanded upon Cummings' (2018) Protecting and Healing theory by adding the understanding of how and why the child's trauma informed parents' lives beyond their parenting strategies. There are overlaps between our model of vicarious event centralization and decentralization and the Protecting and Healing theory that warrant further discussion.

Cummings (2018) found that during the phase of destabilization, parents' expectations of the world, self, and others were altered by the trauma disclosure, which prompted parents' lives to become exclusively focused on the trauma and on protecting and healing the child through various parenting behaviors (e.g., searching for the right thing to do and padding the child). Given our results, vicarious event centrality provides a helpful lens through which to view this destabilization. That is, our results add theoretical sensitivity to this model and demonstrate how parents' experiences of destabilization can be explained by vicarious event centralization.

In the phase Recalibration, Cummings (2018) found that parents reached a *tipping point* where their efforts to protect and heal the child began to take effect. Parents *regained stability* by increasing attention to life beyond the trauma. This *tipping point* subprocess described in Recalibration parallels our Decentralization Gateway. The Decentralization process in this current study may also add to the understanding of the *regaining stability* subprocess described in Cummings (2018). Not only did parents start to focus on life outside of the trauma (e.g., regaining stability), but our study illustrates that parents then used these experiences to inform their behaviors, functioning, relationships, identity, and worldview. In other words, the trauma moved from being the main informer of their lives to one of the many experiences that informed their understanding of themselves, daily life, others, and the world.

In the Protecting and Healing theory, the final phase, Stabilization, is represented by *experiencing thriving recovery* whereby parents experience post-traumatic growth in the areas of familial intimacy, communication, emotional intelligence, and support. Based on the conceptual overlap between our Decentralization phase and the subprocess of Cummings (2018) *regaining stability,* it appears that parents must be at least in the process of decentering the trauma from their lives in order to reach thriving recovery. Future research would benefit from understanding how centralization and decentralization is related to posttraumatic gains in wellness and growth.

Implications

There are several practical implications from the Vicarious Event Centralization and Decentralization model that can help inform service providers working with families who have experienced trauma. First, this study supports that parents are affected by their child's trauma and thus require unique services to address their needs. Previous researchers have found that parents of CSA survivors highlight mental health services as necessary to help them cope with their experiences (Fong et al., 2020; Van Toledo & Semour, 2016). However, parents continue to experience multiple barriers to such services (e.g., financial, personal, and accessibility barriers; Van Teldo & Semour, 2016). Thus, this study supports that there must be a continued effort to remove barriers for parents' access to services. Furthermore, our study can help mental health professionals validate the variety of ways that trauma has come to influence parents' lives.

Second, the Vicarious Event Centralization and Decentralization model helps practitioners to understand the post-trauma experience for parents and target areas likely to increase recovery. For example, Cummings (2018) notes that practitioners might be too quick to ease client suffering, undermining the necessary experience of destabilization for recovery. Similarly, our study illustrates that parents centering the trauma in their lives may be an adaptive

mechanism that promotes child recovery, which in turn allows parents to begin to decentralize the trauma and to move towards thriving recovery (Cummings, 2018). Recently, researchers have tested interventions aimed at de-centering a traumatic event to ameliorate symptoms of PTSD (see e.g., Boals & Murrel, 2016), however, these studies were performed with direct survivors of trauma. This current study illustrates that parents' experiences of centralization are uniquely important to foster the child's healing, and thus the aforementioned benefit of decentering a traumatic event for direct survivors may not generalize to parents who were vicariously traumatized. Nonetheless, it is possible that once the child has begun to recover, it would be helpful for the clinician to aid in decentering the trauma.

Third, an important target for intervention with parents may be those who have centralized the child's trauma but have become stuck in this phase as they continue to perceive that their child is not recovering. It is unclear at this point whether this accurately represents the child's functioning, as we only collected data from parents themselves. Therefore, it may be the case that parents may need help with attending to indicators of wellbeing in their child. For example, previous researchers have illustrated that parents' report of their child's PTSD symptomology paralleled their self-reported secondary traumatization symptomology, but that this relationship was not present when comparing their symptomology to their child's report of PTSD symptomology (Mangold et al., 2022). Nonetheless, if it is the case that the child continues to not show any recovery despite parental centralization, it may be an indicator for the family to receive services to promote the child's recovery.

Future Directions

From a research perspective, the high prevalence rate of children who experience trauma and the potential for negative outcomes for the child and parent necessitates further research in

this area (Cyr et al., 2016, 2018; Norman et al., 2012; Hailes et al., 2019; Finkelhor et al., 2013). As previously discussed, this is the first study to examine vicarious event centrality in parents of child interpersonal trauma victims. Thus, future research would benefit from examining this construct using a quantitative or mixed-methods approach, to determine exactly how parents perform on measures of event centrality (Berntsen & Rubin, 2006). Furthermore, this may then suggest a need to tailor the measure for vicarious experiences and to examine its psychometric properties. As well, exploring event centrality in other vicariously traumatized populations (e.g., spouses, siblings, friends, professionals) would be helpful to expand the foundation of research on vicarious event centrality. Furthermore, the aim of this study was not to directly explore how the experience of vicarious event centrality related to post-traumatic growth; however, based on previous research illustrating that event centrality is related to posttraumatic growth (e.g., Groleau et al., 2013) and that posttraumatic growth can occur for parents of child interpersonal trauma victims (Cummings, 2018), further understanding of this relationship is warranted.

Limitations

One limitation of this study is that most participants identified as Caucasian, hence the applicability of this model to ethnically and racially diverse populations should be considered with caution (Alegria et al., 2010). Second, the children who were victimized did not take part in this study; in other words, we did not collect data on the child's experience post-trauma. Consequently, the Decentralization Gateway currently represents the perception by parents that their child has started to recover without data on the child's self-reported recovery. Furthermore, examining the relationships between vicarious event centrality, traumatization, and growth was beyond the scope of this study. Currently, there is debate about the directionality of the relationship between event centrality and traumatization (see e.g., Berntsen & Rubin, 2006;

Greenblatt-Kimron et al., 2021) and about how event centrality is related to both PTSD and posttraumatic growth (see e.g., Gehrt et al., 2018; Groleau et al., 2013). Researchers examining these three constructs would help to understand these relationships and be the first to do so in a sample of vicariously exposed parents. Lastly, participants willingly volunteered to participate in our study and may differ from those who did not volunteer (Robinson, 2014).

Conclusion

This study is the first to illustrate that parents centralize their child's trauma in a myriad of ways post-disclosure and that this process may adaptively promote the child's protection and healing. We found that decentralization of the trauma for parents was uniquely tied to their child's recovery, similar to findings that parents can only access post-traumatic gains and growth once their child has experienced recovery (Cummings, 2018). This model provides a framework for future research to continue to examine vicarious event centrality in this population and how it may relate to post-trauma experiences of traumatization and recovery. Furthermore, it may help health professionals validate parental experiences of centering their child's trauma in their lives.

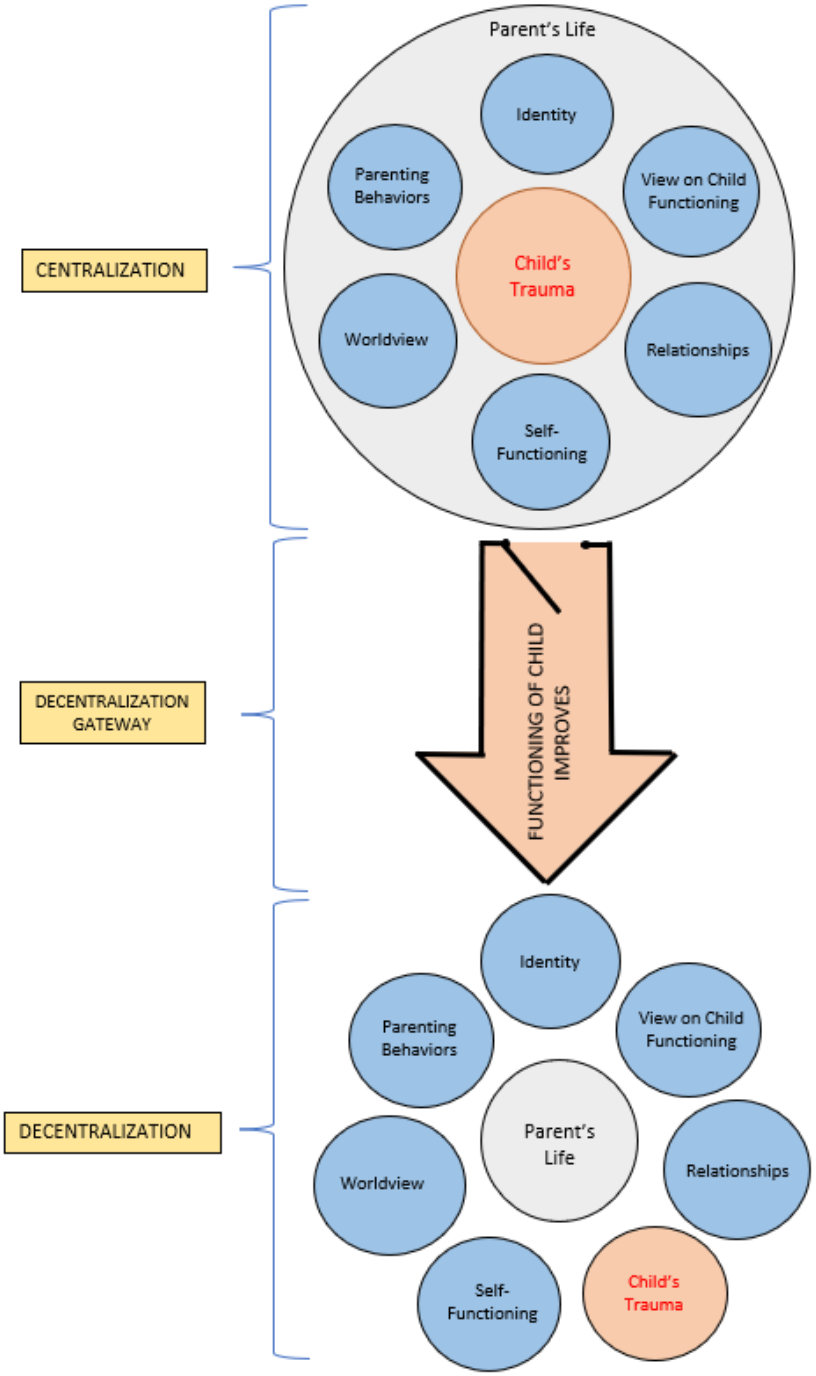
3.4 Table 6

Model Processes, Exemplar Quotes, and Examples of Previous Consistent Findings

Process	Exemplar Quotes	Findings
Centralization	"Cause even though this situation didn't happen in the beginning of my life, it brought a new beginning to my life. This was a new chapter – a new book in my life. So everything that was written before, the chapters were done there. This was a new book." "I mean obviously it's affected us and I've described how it's kind of affected us as a unit"	
Identity	"And I was in high protective for my- for my, for my daughter. I was in high mother-protective mode." "It got to a point in the trauma that I didn't even feel like a person. I just felt like an extension of the trauma."	Vilvens et al. (2021)
Parenting Behaviors	"I became more of a permissive parent… and I saw it, but I couldn't stop myself because I don't want him, I didn't want him – I didn't want to make him mad. I didn't want to hurt him again. So yeah, it's too permissive." "If he's with me, we're very careful about what we're around and what we expose him to so that he's not retraumatized"	Bux et al. (2016); Fuller (2016)
Relationships	"She said to me, 'Mommy, you're not just [daughter 1's] mom. You're my mom too. And you're [son 2] mom too and I don't even get—you don't even spend any time with us. It's always about [daughter 1]. Everything's about [daughter 1]. Always about [daughter 1]. You forget you have other kids.'" "And so taking the time where - here again like I made him the center of the universe and it helped him to feel comfortable. And then because of that, it helped us to be able to kind of update how we did things and allow us to figure him out so that we could all kind of mesh together, and just work together as one unit versus him."	Kilroy et al. (2014)
View of Child Functioning	"The thing is, emotionally I don't think he is okay, but I mean how can I tell him that? What do you do?" "…He was having a lot of issues and a lot of sleepless nights and stuff like that…When we were discussing it, so uh it's the memories kind of started coming back and then, you know, he pretended everything was okay when he first saw it and then just deteriorated, deteriorated, deteriorated."	Mangold et al. (2022); Davhana-Maselesele & Masilo (2016)
Self-Functioning	"I was always so worried about him, worried about other people's perceptions of me." "I feel like it's a little bit of post-traumatic stress or something- not using that term but I guess I don't know how else to explain it. For me I'm dealing with hyper-vigilant all the time and I don't like that feeling."	Kilroy et al. (2014); Bux et al. (2016)
Worldview	"I feel like the biggest piece for me is just, you know, how I view relationships and what I accept as normal, and my expectations of others I think have changed because of this… I think for the better" "I just felt like first of all, I lost trust in the system, I lost trust in the goodness of people to see the right in things."	Cummings (2018); Sparks & Stoppa (2022)
Decentralization Gateway: Child Functioning Improves	"Yeah he's doing really, really, really well. And he also been picking up the education and curriculum that he has been missing all these years with stress at school." "The counselor saw leaps and bounds because of how much effort all of us were putting in. You know, from this meek shut down little child and in the chair curled up like in a fetal position, almost not really participating, to, you know, laughing and looking forward to going to see her."	
Decentralization	"When I started working as a counselor it started being different… it's a realisation that life is ongoing, like there are - there are - there are many chapters, that's kind of when it switched to before and after, to there are many chapters." "It probably took about four- four years where suddenly you're like, OK, yeah, this isn't this isn't the center item of my life. There are more things happening that I can focus on and whatever."	

3.5 Figure 2

Graphical Representation of the Vicarious Event Centralization and Decentralization Model



4. General Discussion

My dissertation studies aimed to first emphasize what is known and not known in the areas of VT, VPTG, and event centrality in loved ones exposed to interpersonal trauma and then to fill one of these knowledge gaps with Study 2. I found that there was a variety of research on VT in loved ones indirectly exposed to interpersonal trauma. My scoping review highlighted variability in the terms, definitions, tools, and key findings related to VT. I also found a paucity of research on VPTG, event centrality, and samples with diverse demographics (e.g., ethnicity and loved one type). Nonetheless, one of the key findings of Study 1 was that parents of children who have experienced an interpersonal traumatic event can develop VT and VPTG, lending evidence that they might experience event centrality for the trauma. In my second study, I aimed to fill this knowledge gap about event centrality in parents indirectly exposed to their child's interpersonal trauma. My results revealed the process of parents centering their child's interpersonal trauma in their lives post-disclosure, which I have termed vicarious event centrality (VEC). Through the three phases of Centralization, Decentralization Gateway, and Decentralization, the child's interpersonal traumatic event moved from being the main informer of parents' identity, functioning, worldview, parenting behaviors, relationships, and view of their child's functioning, to one of many experiences that informed parents' lives. Centralization aided in protecting and healing the child, and Decentralization only became possible once healing was perceived to have occurred for the child (i.e., Decentralization Gateway). In the following sections I will first describe the main findings of each study within the context of previous research before discussing themes that arose across both.

4.1 Study One

As discussed in Study 1, I elucidated what is known and not known in terms of demographics, definitions, measures, and outcomes for the research on loved ones' VT, VPTG, and VEC after indirect interpersonal trauma exposure. For demographics, majority of the studies in the scoping review had samples of parents/caregivers and there was minimal research on siblings, friends, and partners. Parents play an important role in the aftermath of interpersonal trauma for children (Bick et al., 2014; Elliott & Carnes, 2001; Godbout et al., 2014; Yancey & Hansen, 2010; Wamser-Nanney & Campbell, 2020), and as stated, one third of Canadians will experience an interpersonal trauma by age 15 (Statistics Canada, 2015), likely contributing to the emphasis on parents.

Nonetheless, this does not negate the importance of looking at other loved ones. For example, the sibling relationship is one of the longest and most durable relationships across the life course (Conger, 1996; White, 2001). Tied together by shared genes, environment, family, and historical background (White, 2001), siblings' unique social support has been shown to protect against loneliness, depression, low self-esteem, and poor life satisfaction (Milevsky, 2005). Furthermore, sibling social support has shown to compensate for low parental and peer support on measures of wellbeing (Milevsky, 2005). Yet, there were no articles in my scoping review that solely focused on siblings, despite being an important social support for the survivor of interpersonal trauma and needing support themselves (Crabtree et al., 2021). Partners and friends are in a similar situation. Of the 28 articles that were included in the scoping review, only 4 focused on partners and none focused solely on friends, illustrating that the foundation of research in these areas is limited. Researchers have previously found that individuals who experience interpersonal trauma, such as sexual assault, most often disclose this to a peer (Dworkin et al., 2016; Orchowski & Gidycz, 2012). Romantic partners are also routinely

disclosed to for interpersonal trauma (Dworkin et al., 2016). This indirect interpersonal trauma exposure then leaves them at risk for VT (e.g.., Nelson & Wampler, 2002; Christiansen et al., 2012). Yet, I found limited research on VT, VPTG, and event centrality for these populations.

Furthermore, the majority of studies had samples that were predominantly White/Caucasian and there were no studies with gender- or sexuality-diverse samples. Thus, there are gaps in certain demographics (e.g., LGBTQIA+ and BIPOC individuals in the US and Canada). Research with individuals identifying as LGBTQIA+ and BIPOC is particularly important considering that individuals with these identities are at an increased risk of experiencing violence (Statistics Canada, 2020; 2021a; 2021b). This means that family, partners, and friends of these individuals, who may also be a part of the same communities, are at an increased risk of being indirectly exposed to interpersonal trauma. There may also be important cultural differences in the experience of VT, VPTG, and VEC that will not be elucidated if there is no research in these populations.

In terms of what I found in Study 1 regarding definitions, one of my main findings was the variable vocabulary used to describe the traumatization of a loved one after indirect interpersonal trauma exposure. For example, the terms trauma contagion, PTS/PTSD, VT, secondary traumatization, STS, and systemic trauma were used. Even further, researchers that used similar terms often had variability in their definitions. These inconsistencies in terminology might have important implications for researchers and clinicians conducting literature reviews on vicarious trauma experiences, as well as researchers who wish to contribute to this body of literature. This variance in the vicarious trauma literature has been noted previously by Branson (2019). Although Branson's (2019) literature review focused on clinicians being affected by their clients' trauma(s), their findings similarly cited a variety of related terms being used for this

phenomenon (e.g., compassion fatigue, burnout, PTSD, STS). On one hand, Branson (2019) argued that vicarious trauma occurs through an accumulation of exposure to traumatic material, and that the symptoms are analogous to the symptoms of primary trauma, such as intrusive imagery, arousal, avoidance behaviors, and negative changes to cognitions (Aparicio et al., 2013; Mishori et al., 2014). On the other hand, Branson (2019) argued that STS (Figley, 1995) is the same symptomology but that it stems from exposure to an acute event rather than the accumulation of traumatic events. Although this difference between the definitions of vicarious trauma and STS (i.e., symptomology through an accumulation of trauma exposures vs an acute trauma exposure) was not noted in our scoping review, this raises the question of whether these definitions seperated by trauma exposure should be adapted to the population of loved ones.

Alternatively, the symptom profiles for the vicarious traumatization terms were relatively similar: most described some variation of PTSD symptoms of intrusive imagery, arousal, avoidance, and changes to cognition and affect. This raises the question of whether there should be different definitions based on how the symptoms were acquired. Wies and Coy (2013) argued that the difference between VT and PTSD was that the former involved the traumatic event being acquired vicariously while the latter involved firsthand experience. However, the DSM-5 (APA, 2013) includes indirect exposure to a trauma in criterion A of PTSD rather than giving a separate diagnosis based on the traumatic event exposure. Consequently, it might not be necessary to have a separate term that delineates the timeline of exposure (acute stressor or accumulation of stressors) nor the type of exposure (indirect vs direct) if the pathology remains the same. This then raises the question of whether using PTS/PTSD alone is sufficient in the literature. However, there is utility in the quick access to research in the population of interest when terms

such as vicarious traumatization are used, as PTS/PTSD is likely to bring up research on primary trauma survivors.

Another major finding of my scoping review was that there were no specific measures of VT, VPTG, or VEC used in the studies. This was despite 16 quantitative studies of VT where researchers used measures originally developed for direct trauma survivors (e.g., IES; Horowitz et al., 1979). This was surprising considering there are measures specifically developed to measure VT in the literature. For example, the Secondary Traumatic Stress Scale, a 17-item self-report scale whose items correspond to the 17 PTSD symptoms on the DSM-IV-TR (APA, 2000), was developed by Bride and colleagues (2004). Since its development, it has been used to assess STS in samples of professionals indirectly exposed to trauma, such as social workers (Bride et al., 2004; Bride, 2007; Ben-Porat & Itzhaky, 2011), rescue workers (Argentero, 2011), law enforcement (Perez, 2010), forensic interviewers (Perron, 2006), mental health professionals (Devilly et al., 2009), and nurses (Wies & Coy, 2013). The Vicarious Trauma Scale (Aparicio et al., 2013; Newman et al., 2019; Vrklevski & Franklin, 2008) has also been used to measure symptoms in professionals indirectly exposed to trauma. However, neither of these measures were used by researchers in our scoping review. This might again point to barriers to progress in this area of research due to the variability in terminology used.

There were also no quantitative studies that examined VPTG or event centrality in this scoping review, and thus there were no measures of VPTG or VEC highlighted by this review. This lack of validated measures for VPTG seems to be similar in populations beyond loved ones. For example, Manning-Jones and colleagues' (2015) review of 28 articles on VPTG in working professionals and Tsirimokou and colleagues' (2022) review of 15 articles on VPTG in mental health professionals both noted that there were no validated quantitative measures on VPTG.

Similarly, there has not been a measure of VEC developed in any population. Only one study, to my knowledge, has examined event centrality in an indirect trauma population (Greenblatt-Kimron et al., 2021) and they used a measure developed for direct trauma survivors (i.e., CES; Berntsen & Rubin, 2006).

Finally, although analyzing the outcomes of the studies in my review was beyond its scope, I highlighted that the key findings in this area ranged from quantifying vicarious traumatization (e.g., PTS symptoms), qualitatively describing the experience of vicarious traumatization, and examining variables related to vicarious traumatization (Table 5). These studies illustrated that vicarious traumatization is possible for loved ones indirectly exposed to trauma across populations of caregivers, significant others, friends, and other close individuals. For example, the prevalence of meeting criteria for PTSD across studies ranged from 13.1-32% for mothers, 7.1-7.3% for fathers, and 26% for close others (Christiansen et al., 2012; Cyr et al., 2016). Likewise, when researchers discussed high or clinically significant PTS/PTSD symptom scores, the prevalence ranged from 0-3.3% for fathers, 10.2-38.9% for mothers, and 14-24% for caregivers overall (Cyr et al., 2018; Jobe-Shields et al., 2016; Mangold et al., 2022; Van Delft et al., 2016). Other studies used similar classifications to look at prevalence rates for specific symptoms (Davies et al., 1995; Dyb et al., 2003). Quantitatively, vicarious traumatization commonly involved examining intrusions/re-experiencing, avoidance, and/or arousal symptoms (Burgess et al., 1990; Christiansen et al., 2012; Cyr et al., 2016; Cyr et al., 2018; Davies, 1995; Dyb et al., 2003; Jobe-Shields, 2016; Manion et al., 1996; Manion et al., 1998; Nelson & Wampler, 2002; Runyon et al., 2014; Timmons-Mitchell et al., 1996; Van Delft et al., 2016) which differs from the current DSM-5 criteria of intrusion symptoms, avoidance, negative alterations to cognitions and mood, and changes to arousal and reactivity (APA, 2013). Only

Mangold and colleagues (2022) using the PCL-5 reported on all DSM-5 PTSD symptoms. Qualitatively, outcomes of vicarious traumatization spanned cognitive, relational, emotional, spiritual, behavioral, and physical domains for participants (Anderson Jacob & McCarthy Veach, 2005; Bux et al., 2016; Fuller, 2016; Green et al., 1995; Gregory et al., 2017; Kilroy et al., 2014; Masilo & Davhana-Maselesele, 2016; Smith, 2005; Sparks & Stoppa, 2022; Van Wijk et al., 2014; Vilvens et al., 2021).

Furthermore, there were a variety of variables examined for their relationship to vicarious traumatization. These included, but are not limited to, testifying in court (Burgess et al., 1990; Dyb et al., 2003), time since disclosure (Cyr et al., 2018; Mangold et al., 2022; Manion et al., 1998), gender of participants (Cyr et al., 2016; Dyb et al., 2003; Kelley, 1990; Mangold et al., 2022; Manion et al., 1996; Manion et al., 1998; Nelson & Wampler, 2002;), parental discipline (Jobe-Shields et al., 2016), stress (Cyr et al., 2016; Kelley, 1990), general psychological wellbeing (Dyb et al., 2003), depression (Runyon et al., 2014), locus of control (Dyb et al., 2003), secondary life changes (Dyb et al., 2003), perceived child symptomology (Mangold et al., 2022; Manion et al., 1996), sexual disgust sensitivity (Van Delft et al., 2016), abuse characteristics (Dyb et al., 2003; Kelley, 1990; Manion et al., 1996; Van Delft et al., 2016), and parental trauma history (Mangold et al., 2022; Manion et al., 1996; Timmons-Mitchell et al., 1996; Van Delft et al., 2016).

There was minimal research on VPTG in this population; VPTG was only discussed by Cummings (2018). In a systematic literature review of VPTG by Manning-Jones and colleagues in 2015, they found 28 related articles to VPTG. However, family members of direct trauma survivors were excluded from this review, as their experience was seen as direct rather than indirect trauma exposure. Therefore, it could be the case that researchers were not using the term

VPTG to describe positive changes to cognitions, emotions, relationships, and a spirituality following loved ones' indirect interpersonal trauma exposure or that loved ones are an overlooked population in the field of VPTG research. Nonetheless, a quick search of peer-reviewed articles highlights that VPTG is related to STS in health care professionals (e.g., Manning-Jones et al., 2015; Kalaitzaki et al., 2022; Yaakubov et al., 2020; Dar & Iqbal, 2020; Zerach & Shalev, 2015). Thus, since we know from this scoping review that STS occurs in loved ones indirectly exposed to interpersonal trauma, it is likely that VPTG also occurs. Furthermore, because there is minimal research on VPTG in the population of interest, there is not yet literature that describes the relation of VPTG to other factors (e.g., STS). Consequently, my study further emphasized the need for more research in the area of loved ones exposed to interpersonal trauma and VPTG.

Additionally, event centrality is a relatively new concept (Berntsen & Rubin, 2006) that has only been applied once to the population of loved ones vicariously exposed to trauma (Greenblatt-Kimron et al., 2021). Although Greenblatt-Kimron and colleague's study was not included in this review because they examined the intergenerational impact of the Holocaust on secondary traumatization and event centrality, their findings illustrate that event centrality can occur for loved ones indirectly exposed to trauma. Furthermore, since this scoping review demonstrated that there has been research on VT and VPTG in samples of parents, it is likely that event centrality also occurs for loved ones since we know in the direct trauma literature that event centrality is related to both PTSD and posttraumatic growth (e.g., Barton et al., 2013; Boals & Schuettler, 2011; Kramer et al., 2020; Schuettler & Boals, 2011).

4.2 Study Two

In Study 2 I was the first researcher to examine event centrality in a vicarious population of parents exposed to their child's interpersonal trauma. The resulting model of vicarious event centralization and decentralization is the first to illustrate how and why the traumatic event informed parents' lives post-disclosure. This study expanded upon Cummings' (2018) Protecting and Healing theory by understanding how the trauma informed parents' lives beyond their parenting strategies. I found that parents moved through three phases post-trauma disclosure, (Centralization, Decentralization Gateway, and Decentralization) which changes the child's interpersonal traumatic event from being the main informer of parents' identity, functioning, worldview, parenting behaviors, relationships, and view of their child's functioning, to one of many experiences that informed parents' lives. Similar to Berntsen and Rubin's (2006) finding in direct trauma survivors, I found that the trauma became central to the cognitive organization of the life and identity of the parent post-disclosure. More precisely, parents saw their child's trauma as a turning point in their lifestory that informed their views on themselves (e.g., identity, behaviors, functioning), others (e.g., relationships, child functioning), and the world. Considering parents were not direct survivors of the trauma, they only had an episodic memory of the disclosure rather than the traumatic event itself. Nonetheless, our study illustrates that a loved one's traumatic event can become a salient autobiographical memory in one's own lifestory, supporting previous research that event centrality can occur for loved ones indirectly exposed to a traumatic event (Greenblatt-Kimron et al., 2021).

Furthermore, our finding that parents needed to perceive their child's functioning as improved to begin decentering the trauma in their lives was similar to Cummings (2018) who found that this same gateway exists for recovery and VPTG in parents (Cummings, 2018). Moreover, the life domains that were informed by the child's interpersonal traumatic event were

consistent with previous researchers finding that parents' beliefs, relationships, and behaviors were influenced by their child's experience of trauma (see e.g., Cummings, 2018; Fuller, 2016; Kilroy et al., 2014; McElvaney & Nixon, 2020; Sparks & Stoppa, 2022). Nonetheless, the term event centrality was not used in these studies. One possible explanation is that the construct of event centrality was not referenced in previous research due to the researchers' theoretical sensitivity to the construct (Birks & Mills, 2015). As there is only one study to my knowledge that has looked at event centrality in a vicarious population (Greenblatt-Kimron et al., 2021) and they used the term event centrality not "vicarious event centrality" to describe their findings, it seems clear that this concept is not well-known amongst researchers in the area of vicarious trauma. We suggest future researchers use the term vicarious event centrality (VEC) when looking at event centrality in vicarious populations.

5. General Themes

I now turn to discussing the major themes of my entire dissertation, placing it in the context of previous literature holistically.

5.1 Vicarious Event Centrality

One central theme across this series of studies was the question of whether event centrality operates vicariously within loved ones indirectly exposed to interpersonal trauma. That is, a central motivating question of my dissertation was essentially does vicarious event centrality exist? My dissertation answers this question with a resounding yes. The results of Study 1 illustrated that parents of children who have experienced interpersonal trauma can experience VT and VPTG. This information, in combination with the research foundation on PTSD, PTG, and event centrality amongst direct survivors of trauma (e.g., Barton et al., 2013; Boals & Schuettler, 2011; Kramer et al., 2020; Schuettler & Boals, 2011) emphasized that event centrality was likely

operating in loved ones vicariously exposed to interpersonal trauma, although it had not been previously studied. Furthermore, Greenblatt-Kimron and colleagues' (2021) study supported this likelihood, as they found this concept occurring within children and grandchildren of holocaust survivors. Previous literature in samples of parents indirectly exposed to interpersonal trauma also appeared to hint at the concept of event centrality. For example, Cummings (2018) discussed how parents described life as completely altered after the trauma, becoming exclusively focused on their child's recovery post-disclosure. Yet, event centrality had never been formally applied to our population of interest. With this mounting evidence, it was decided to examine the process of vicarious event centrality in a sample of parents indirectly exposed to their child's interpersonal trauma for my second study. This foundation of previous knowledge enabled me to develop a clear research question (i.e., what is parents' experience of centering their child's interpersonal traumatic event in their lives post-disclosure?) and to recognize data relevant for the emerging theory, a vital aspect of theoretical sensitivity in grounded theory (Charmaz, 2006; 2014; Birks & Mills, 2015).

Through these series of studies, we now know that parents can experience VEC post-trauma disclosure from their children. Not only was I the first to look at this construct in parents, but I was also the first to do so qualitatively. Descriptively, I uncovered that post-disclosure, parents found that their lives were profoundly altered, and that they had to re-orient their lives around this traumatic event. This re-orienting took place in the domains of their identity, parenting behaviors, worldview, relationships, self-functioning, and view of the child's functioning. In many ways this is similar to Berntsen and Rubin's (2006) conceptualization of event centrality. They purported that event centrality is when the memory for a traumatic event becomes the reference point understanding of one's life. Although Berntsen and Rubin's (2006)

CES asks questions in the areas of lifestory, identity, and everyday experiences, the scale represents the sole concept of event centrality (i.e., the CES had a one factor solution; Berntsen & Rubin, 2006). By using an inductive, qualitative approach I was able to expand upon what exactly parents meant by event centrality statements such as "[the trauma] has informed my entire life" beyond the bounds determined by Berntsen and Rubin's (2006) scale. Therefore, not only do we have the answer that yes, parents found that their child's traumatic event became the reference point for how they understood their lives, but also that parents described specifically how it was a reference point for understanding their identity, parenting behaviors, worldview, relationships, self-functioning, and view of the child's functioning in the aftermath of the disclosure.

Furthermore, by choosing qualitative methods, I was able to understand the *process* of centering then de-centering the traumatic event. Using grounded theory, I was able to uncover how and why parents moved through the three phases of Centralization, Decentralization Gateway, and Decentralization. Consistent with Cummings (2018) process of destabilization, Centralization was seen by parents, in retrospect, as necessary to promote the protection and healing of their child. Only once the child's functioning had appeared to improve (i.e., Decentralization Gateway) were parents able to begin the process of Decentralization where they began to see the trauma as no longer at the center of their lives. Instead, they began to use other experiences to inform their understanding of the life domains. Thus, not only did we discover that event centrality operates vicariously in parents exposed to their child's interpersonal trauma, but also why this occurs, and what is necessary to move from centering the trauma to decentering the trauma (i.e., improvement in the child's functioning).

5.2 Loved Ones Should Not Be Overlooked

My dissertation has made clear that loved ones exposed to interpersonal trauma are largely overlooked in research, particularly when it comes to VPTG and VEC. Only Cummings (2018) looked at VPTG in a population of parents exposed to their child's interpersonal trauma and VEC has only been examined once, in family members of Holocaust survivors (Greenblatt-Kimron et al., 2021). Research on VT has garnered multiple research studies to date, but even then, siblings, partners, and friends reaped limited results. This is surprising, considering the foundation of research on the importance of social support for direct trauma survivors (e.g., Brewin et al., 2000; Ozer et al., 2003; Wright et al., 2013; Xue et al., 2015; Zalta et al., 2021) and the knowledge that loved ones are often disclosed to for interpersonal traumatic events (Dworkin et al., 2016; Orchowski & Gidyca, 2012; Sylaska & Edwards, 2014), illustrating the importance of loved ones in the aftermath of trauma. Yet, how this affects the loved ones themselves appears to be less of a focus in research to date. Not only does this leave a large gap in our understanding of vicarious experiences, it does a disservice to these loved ones and does not allow service providers to pull from any body of evidence in their work with these groups.

Despite being overlooked, my dissertation highlighted that loved ones are an essential population to research, as they experience prevalence rates of VT that parallel to direct trauma populations (Cyr et al., 2018; Jobe-Shields et al., 2016; Mangold et al., 2022; Van Delft et al., 2016). Furthermore, they are affected by indirect trauma exposure in many ways beyond VT. For example, the qualitative studies in the scoping review discussed VT as spanning cognitive, relational, emotional, spiritual, behavioral, and physical domains for participants (Anderson Jacob & McCarthy Veach, 2005; Bux et al., 2016; Fuller, 2016; Green et al., 1995; Gregory et al., 2017; Kilroy et al., 2014; Masilo & Davhana-Maselesele, 2016; Smith, 2005; Sparks & Stoppa, 2022; Van Wijk et al., 2014; Vilvens et al., 2021). Study 2 also illustrated that parents

experience their whole lives as informed by their child's interpersonal trauma post-disclosure, influencing how they understand their behaviors, identity, lifestory, well-being, relationships, and others. We also know that loved ones can experience VPTG (Cummings, 2018). Thus, the impact of indirect interpersonal trauma exposure to loved ones is substantial and worthy of consideration for research.

The overlooking of loved ones in this area of research begs the question of why this may be the case, when the foundation of research on direct survivors is so vast. One potential reason for this phenomenon may be the cultural context from which most Canadian researchers and practitioners are located. Recognition of the interconnectedness of mental health to relationships and community is strong within Indigenous worldviews (Canadian Psychological Association & Psychology Foundation of Canada, 2018). However, Canadian health care remains primarily individualistic, seeing physical and psychological problems as a personal responsibility that resides within the person and is independent of outside influences (Tang & Browne, 2008). Thus, the focus on direct survivors of trauma to the exclusion of the wider impact of trauma on loved ones is congruent with this individualistic ideology. Nonetheless, there is a recent push to understand how mental health involves interpersonal relationships, communities, and the wider society (Chapman et al., 2020), hopefully illustrating that populations who have been vicariously exposed to trauma will begin to receive more attention.

5.3 Protecting and Healing Theory

As mentioned, only Cummings (2018) has examined VPTG in loved ones indirectly exposed to interpersonal trauma. Furthermore, Study 1 showed that event centrality was never examined before in our population of interest. Yet, it is clear from reading (and discussing with) Cummings (2018) that event centrality was likely overlooked due to the theoretical sensitivity of

the researcher to the construct, as previously mentioned. Indeed, in conversation with them, Dr. Cummings has confirmed not having heard of event centrality at the time of developing the Protecting & Healing model.

My Study 2 expanded upon Cummings' (2018) Protecting and Healing theory by adding the understanding of how and why the child's trauma informed parents' lives beyond their parenting strategies. There are overlaps between my model of vicarious event centralization and decentralization and the Protecting and Healing theory that warrant further discussion. Each phase of the Protecting and Healing theory is discussed and compared below to my model.

Destabilization

Cummings (2018) found that during the phase of destabilization, parents' expectations of the world, self, and others were violated by the trauma disclosure, which prompted parents' lives to become exclusively focused on protecting and healing the child through various parenting behaviors (e.g., searching for the right thing to do and padding the child). Conceptually, Cummings (2018) describes event centrality without saying the words: that the trauma was a reference point for parents to understand how and why life became exclusively focused on the child's healing. Nonetheless, they did not conceptualize it as such. Furthermore, although describing violated expectations about the world, self, and others, Cummings (2018) neglected to describe what then happened to those beliefs about others, the world, and themselves. My study filled this gap. Thus, in many ways, Centralization is like Cummings (2018) Destabilization phase. In both models, parents described that the trauma was an experience that altered their lives in a manner that was necessary to promote their child's healing. However, my study adds that parents' expectations of others were not only violated, but that the trauma then informed their fundamental understanding of their identity, functioning, child's functioning, behaviors,

worldview, and relationships. In essence, parents described that the trauma "informed my entire life" or that they had to "change everything because of the event" to protect and heal their child.

Recalibration

In this phase, Cummings (2018) found that parents reached a tipping point where their efforts to protect and heal the child began to take effect, as the child was noticeably less distressed. The tipping point subprocess described in Recalibration appears to be parallel to the Decentralization Gateway in my study. Parents were only able to begin to decentralize the trauma from their lives after they perceived their child's functioning as improved. Cummings (2018) subsequent process of regaining stability appears to allude to the process of Decentralization, stating that parents in this phase begin to increase their attention to life beyond the trauma. However, the focus of the stabilization process remained on how this refocusing of life primarily affected parenting rather than talking about the refocusing phenomenon itself (i.e., decentralization). My study was able to capture what Cummings (2018) highlighted was happening in the data and emphasized that yes, after reaching the decentralization gateway, parents began to use other experiences besides the trauma to inform their behaviors, functioning, relationships, identity, and worldviews, representing the decentralization process. In other words, the trauma moved from being the main informer of their lives to one of the many experiences that informed their understanding of their lives.

Stabilization

In the Protecting and Healing theory, this final phase is represented by experiencing thriving recovery whereby parents experience VPTG in the areas of familial intimacy, communication, emotional intelligence, and support. Based on the conceptual overlap between our Decentralization phase and the subprocess of regaining stability in Cummings (2018), it

appears that parents must be at least in the process of decentering the trauma from their lives to reach thriving recovery. However, examining the specific relationship of decentralization to post-traumatic growth and recovery was beyond the scope of my study. Future research would benefit from understanding how centralization and decentralization is related to posttraumatic gains in wellness and growth.

Integrating Both Models

Although the purpose of Study 2 was to understand how and why the child's trauma informed parents' lives post-trauma disclosure, a discussion of how my model of Vicarious Event Centralization and Decentralization might be integrated into the Protecting and Healing model is warranted. Based on the overlaps discussed above, I believe that once parents experienced violated expectations, the trauma then became centralized. This centralization then informed their entire lives, including the parenting strategies that are noted in the Protecting and Healing model. I hypothesize that those who did not experience violated expectations did not go on to centralize the trauma, because they did not experience their perspectives or lives as profoundly altered by the trauma, and thus there was no need to re-orient their behaviors, identity, relationships, and views around the trauma. Essentially, their pre-trauma and post-trauma lives were viewed as the same without those violated expectations.

As previously mentioned, the tipping point subprocess within Recalibration in the Protecting and Healing theory and the Decentralization Gateway in my model were comparable: they both represented when parents began to witness improvements in their child's wellbeing. This is not surprising that this was the "gateway" or "tipping point" to the next step of each model, as the purpose of phase one for both models was to protect and heal the child. I also believe that Cummings' (2018) subprocess of regaining stability is describing the underlying

phenomenon of decentralization, although without that term. Thus, although I did not examine VPTG in this study, we believe that parents must be in the process of decentralization to reach thriving recovery. However, further research is needed to understand at what point in the decentralization process parents can reach thriving recovery or if there is another process occurring.

5.4 Vicarious Event Centrality as Adaptive

Cummings (2018) discussed how destabilization was an adaptive process that had to occur for parents to move through the model to reach thriving recovery. Cummings (2018) related this phenomenon to previous models of discontinuous transformation, which described how distressing events (e.g., traumatic events, family conflict, divorce, illness, etc.) disrupt previous ways of knowing and being (i.e., disintegration) which precludes an adaptive re-organization of reality and subsequent integration of new insights into one's knowledge of the world and self (Skalski & Hardy, 2013). Other researchers in secondary trauma have similarly described a process of disorientation and re-organization in loved ones exposed to trauma that precludes recovery (Remer & Elliott, 1998a, 1998b), which is similar to models of PTG in direct trauma survivors. For example, Tedeschi and Calhoun (2004) theorized that individuals must experience challenges to schemas and associated distress that then leads to cognitive processing where beliefs systems are re-organized to account for new life circumstances and resiliency, which then leads to experiences of PTG. My model similarly supports that the disintegration of pre-trauma life and the re-organization of parents' lives around the trauma was an adaptive process.

Nonetheless, initial research on event centrality focused on the idea that the re-altering of life to center around the traumatic event memory was maladaptive and promoted negative mental

and physical health (Berntsen & Rubin, 2006, Boals, 2010; Gehrt et al., 2018). My model does not debate this finding, as parents reported that their child's trauma negatively impacted their own functioning (e.g., hypervigilance, worries). However, like research illustrating that event centrality is related to both PTSD and post-traumatic growth (Barton et al., 2013; Boals & Schuettler, 2011; Groleau et al., 2013; Schuettler & Boals, 2011) and research demonstrating that a disorientation and re-organization of life to include information about the trauma is necessary for posttraumatic growth (Tedeschi & Calhoun, 2004; Remer & Elliott, 1998a, 1998b), parents in our study retrospectively communicated that centering their lives around the child's trauma was adaptive. By perceiving that their child's wellbeing was harmed by the trauma, parents saw it as their responsibility as a parent to help heal the child, and they then adapted their behaviors, views, and relationships to promote the child's safety and recovery.

Vicarious event centrality allowed parents to reach the gateway to decentralization: the child's recovery. In the Cummings (2018) model, this tipping point was also a necessary step to move towards VPTG. This idea that decentralization and VPTG is dependent on the recovery of the child is not surprising in the context of previous research demonstrating that the recovery of a loved one after vicarious trauma is dependent on the recovery of the primary victim (Cummings, 2018; Remer & Elliott, 1988a, 1988b; Crabtree et al., 2021). Thus, part of the adaptiveness of the centralization process is that it enables the child to recover, which then opens doors towards decentralization, recovery, and VPTG for the parent.

Beyond previous models of recovery from vicarious trauma, I also look to cognitive-constructive and attachment theories of trauma to understand why vicarious event centrality for parents following their child's interpersonal trauma might be adaptive. Cognitive-constructive theories of trauma suggest that individuals construct their reality based on the meaning they have

extrapolated from events (McCann et al., 1988). For instance, accommodation describes how new experiences can change existing schemas (i.e., beliefs) to accommodate the new information (Payne et al., 2007). Thus, traumatic events can alter the framework of one's beliefs about the world, self, and others (i.e., schemas), which subsequently impacts functioning (McCann et al., 1988). My study supports that their child's trauma informs parents' schemas about the self, others, and the world, and that this can contribute to negative functioning (e.g., hypervigilance).

Conversely, these schematic changes may serve a protective function through helping parents adapt their lives accordingly to protect and heal their child. For example, since they believed that their child's functioning was negatively impacted by the trauma, parents tailored their parenting behaviors to promote the child's healing. This is consistent with the findings of previous researchers who found that caregivers who did not access mental health support for their child after CSA were those who believed this support was not necessary because they did not perceive their child as exhibiting behavioral symptoms (Fong et al., 2016). Thus, my dissertation continues to add to the research base that illustrates that event centrality may be both maladaptive and adaptive.

Another possible explanation for the adaptiveness of event centrality comes from attachment theory. Through an attachment theory lens, a child's wellbeing is related to having a secure attachment with its primary caregivers (Bowlby, 1988; Lieberman, 2004; Malik et al., 2021). Secure attachment is achieved through the parent being consistently responsive and available to the child's needs, which enables the child to internalize that they are loveable, safe, supported, and capable of interacting with the others and the world (Bowlby, 1988; Bolen, 2000). Although I did not examine attachment, centering the trauma might have allowed parents to adaptively re-organize their lives to prioritize and respond to their child's needs, promoting a

secure attachment and subsequent healing. Cummings (2018) noted that one of the positive reported outcomes of parents focusing their parenting behaviors on protecting and healing the child from trauma was an increase in the level of communication, intimacy, and support amongst family members, perhaps illustrating that a secure attachment was achieved. It will be helpful for future researchers to further understand the relationship between vicarious event centrality and attachment.

6. Contributions & Implications

In these final sections of my General Discussion, I discuss the strengths and contributions of my dissertation to this field and the implications of my dissertation work. I then discuss future directions, identify limitations of my research, and conclude my dissertation.

6.1 Contributions and Strengths from Methods

For Study 1, I conducted a standardized scoping review protocol using the Joanna Briggs Institute (JBI) methodology (Peters et al., 2015; Peters et al., 2017). This allowed me to have specific and pre-determined objectives, inclusion and exclusion criteria, and search strategy, which reduced reporting bias. Through this methodology, I mapped the relevant empirical literature on VT, VPTG, and VEC in loved ones indirectly exposed to interpersonal trauma, which opened a vast array of possible future research endeavors that can fill knowledge gaps in these areas. It also allowed me to illustrate what is known already in this area of interest, including what definitions are used, what topics are being researched, how the research is being conducted, and key findings related to our outcomes of interest.

In Study 2, by using grounded theory, I developed an explanatory process of vicarious event centralization and decentralization arising from the perspective and context of the parents who experienced it. This allowed me to expand the Protecting and Healing theory (Cummings,

2018) to incorporate an understanding of VEC that was previously overlooked. Furthermore, it allowed me to understand VEC from a qualitative perspective. As previously mentioned, event centrality had only been examined using the CES (Berntsen & Rubin, 2006), a quantitative measure. Thus, my study adds an understanding of VEC in parents that is inductive rather than deductive, which is novel in the context of solely quantitative research on this topic.

6.2 Contributions To Theory

Theoretically, my studies contribute to the research foundation on the aftermath of indirect interpersonal trauma exposure for loved ones. I showed what is already known in this area under the specific outcomes of VPTG, VT, and VEC. I filled a knowledge gap in VEC with my second study. I illustrated how it might relate to previous theories, such as the Protecting and Healing theory (Cummings, 2018) and Tedeschi and Calhoun's (2004) theory of posttraumatic growth. I add that not only does VEC occur for parents, but that it was seen as an adaptive process that was necessary to protect and heal the child. I also understood how parents centered the trauma in their life, including the areas that parents described it informing. Further adding to the theory is an understanding of how decentralization became possible, which is through the child's healing, paralleling to previous research that shows that loved ones' trajectories in the aftermath of interpersonal trauma is dependent on the recovery of the primary victim (Cummings, 2018; Remer & Elliott, 1988a, 1988b; Crabtree et al., 2021).

6.3 Implications

In terms of implications, my scoping review provides a novel foundation of what is known and not known about the vicarious traumatization, growth, and event centrality of loved ones indirectly exposed to interpersonal trauma. This will inform future research to fill knowledge gaps, as previously highlighted. In terms of practical implications, this scoping

review validates that loved ones are a population deserving of attention and intervention following indirect trauma exposure. It highlights their worthiness of future research and service attention. Previous research has demonstrated that caregivers of children who have experienced trauma are often met with blame by professionals who are meant to help the family recover (e.g., child protection services, court judges, police, health care professionals; Plummer & Eastin, 2007; Fong & Walsh-Bowers, 1998; Jackson & Mannix, 2004). Therefore, my scoping review can provide a base of information to professionals helping families impacted by trauma, by highlighting that those indirectly exposed can experience traumatization and need services. Likewise, by mapping the literature, practitioners can be informed of target areas for intervention. For example, understanding that loved one's experience symptoms of PTSD, such as intrusive memories or changes to cognitions, gives practitioners an idea of symptoms to examine and target in treatment.

In academia, theory attempts to inform the advancement of practice (MacKinnon, 1991). Therefore, several practical implications from the Vicarious Event Centralization and Decentralization model can help inform service providers working with families who have experienced trauma. First, this study supports that parents are affected by their child's trauma and require unique services to address their needs. Previous researchers have found that parents of CSA survivors highlight mental health services as necessary to help them cope with their experiences (Fong et al., 2020; Van Toledo & Semour, 2016). However, parents continue to experience multiple barriers to such services (e.g., financial, personal, and accessibility barriers; Van Teldo & Semour, 2016). Therefore, this study supports that there must be a continued effort to remove barriers to parents' access to services. Furthermore, our study can help mental health professionals validate the variety of ways that trauma has come to influence parents' lives.

Second, my Vicarious Event Centralization and Decentralization model helps practitioners understand parents' post-trauma experience and target areas likely to increase recovery. For example, Cummings (2018) notes that practitioners may be too quick to ease client suffering, undermining the necessary experience of destabilization for recovery. Similarly, my study illustrates that parents centering the trauma in their lives may be an adaptive mechanism that promotes child recovery, when then allows parents to begin to decentralize the trauma and move towards thriving recovery (Cummings, 2018). I suggest that practitioners should not immediately attempt to reduce parents' centering of their child's trauma post-disclosure. Nonetheless, it is possible that once the child has begun to recover, it would be helpful for the clinician to aid in decentering the trauma.

Third, an important target for intervention with parents might be those who have centralized the child's trauma but have become stuck in this phase, possibly because they continue to perceive that their child is not recovering. Based on my study, it is unclear whether this accurately represents the child's functioning, as we only collected data from the parents themselves. It may be that parents need help attending to their child's wellbeing indicators. For example, previous researchers have illustrated that parents' report of their child's PTSD symptomology paralleled their self-reported secondary traumatization symptomology but that this relationship was not present when comparing their symptomology to their child's report of PTSD symptomology (Mangold et al., 2022).

Fourth, if it is the case that the child continues to not show any recovery despite parental centralization, it might be an indicator for families to seek evidence-based psychotherapy. The gold standard for treatment of PTSD in children is currently trauma-focused cognitive behavioral therapy (Cary & McMillen, 2012). Therapy for the child while the parent is in the Centralization

phase is not mutually exclusive; in fact, multiple parents described seeking psychotherapy for the child as one of the ways the trauma informed their parenting behaviors. Given that the parents perception that the child is improving is important for decentralization to occur, cognitive behavioral therapy with parental involvement (Dorsey et al., 2017) may be most helpful when thinking about the recovery of both the child and the parent.

Lastly, another possibility for practice is how to intervene to help parents recover if their child does not recover, notwithstanding parental centralization and clinical intervention. Recently, researchers have tested interventions aimed at de-centering a traumatic event to ameliorate symptoms of PTSD (see e.g., Boals & Murrel, 2016). Despite these studies being performed with direct survivors of trauma, future research should examine whether this intervention may be applied to parents of children who have not recovered from trauma. Evidence-based psychotherapy interventions for PTSD such as Prolonged Exposure, Cognitive Processing Therapy, or Eye Movement Desensitization and Reprocessing Therapy may also be helpful for parents in these situations (see Watkins et al., 2018 for a review of evidenced-based psychotherapy treatments for PTSD). Especially if the parents are experiencing symptoms of PTSD, as this is a treatable disorder. This would help ensure parents of children who do not recover have the opportunity to decenter the trauma and move towards thriving recovery, albeit through a different decentralization gateway. As previously mentioned, caution should be applied to not decenter the trauma too early post-disclosure. More research is needed in this area.

6.4 Limitations

A limitation of the scoping review was the narrow definition of interpersonal trauma at an individual level, with indirect exposure occurring in adulthood. Research on intergenerational trauma, community-, war-, and terrorism-based traumas was excluded from this study as a result

of this definition. This excluded traumatic events representing collective rather than individual traumas (Hirschberger, 2018). Another limitation was that articles were excluded if they were not available in English, which might have resulted in an overrepresentation of articles from Canada and the USA. A further limitation was that research discussing experiences such as improved relationships without using the terms of interest (e.g., VPTG) were excluded. Therefore, these outcomes might be discussed in research that captures them under other constructs. Furthermore, scoping reviews do not evaluate the collated research, nor do they perform thematic analyses of the collected data. Scoping reviews also do not evaluate the quality of the research reviewed. Thus, a higher-level analysis of the data beyond the presentation of what is known and needs to be known was beyond the scope of this review.

A primary limitation of Study 2 was that most participants identified as Caucasian, hence the applicability of this model to ethnically and racially diverse populations should be considered with caution (Alegria et al., 2010). Second, the children who were victimized did not take part in this study; in other words, we did not collect data on the child's experience post-trauma. Consequently, the Decentralization Gateway currently represents the perception by parents that their child has started to recover without data on the child's self-reported recovery. However, this highlights how critical parent perception of child functioning is for their own functioning post-trauma.

Furthermore, examining the relationships between vicarious event centrality, traumatization, and growth was beyond the scope of Study 2. Currently, there is debate about the directionality of the relationship between event centrality and traumatization (see e.g., Berntsen & Rubin, 2006, 2007; Glad et al., 2020; Greenblatt-Kimron et al., 2021) and about how event centrality is related to both PTSD and posttraumatic growth (see e.g., Broadbridge, 2018; Gehrt

et al., 2018). Researchers examining these three constructs would help to understand these relationships and be the first to do so in a sample of vicariously exposed parents. Lastly, participants willingly volunteered to participate in our study and may differ from those who did not volunteer (Robinson, 2014).

6.5 Future Directions

My Study 1 results indicated multiple areas for future research in line with our findings regarding demographics, definitions, measures, and outcomes. First, it revealed that future research using more diverse samples is necessary. There is limited research in our area of interest with siblings, friends, partners, and paternal caregivers. Furthermore, the majority of the participants in the studies were White/Caucasian, indicating that ethnic and cultural diversity is lacking in this research. Vocabulary management was another area highlighted by Study 1 that is necessary for future research. Whether that involves terms being delineated for their differences or the halting of terminology such as VT and instead using DSM-5 language such as PTSD, this is a necessary step for researchers and clinicians to easily find applicable research when researching or working with vicariously traumatized loved ones. In terms of measures, Study 1 illustrated that it would be beneficial for future research to apply previous measures of STS or VT to this population of interest and assess their psychometric properties. Conversely, developing measures in all the areas of VT, VPTG, and VEC may be another fruitful option. Lastly, this study illustrated that more research needs to be conducted with loved ones experiencing VPTG and VEC as this is a new research area with limited studies.

For Study 2, the high prevalence rate of children who experience trauma and the potential for negative outcomes for the child and parent necessitates further research in this area (Copeland et al., 2007; Cyr et al., 2016, 2018; Finkelhor et al., 2009, 2013). As previously

discussed, mine is the first study to examine VEC in parents of child interpersonal trauma victims. Thus, future research would benefit from examining this construct using a quantitative or mixed-methods approach, to determine how parents perform on measures of event centrality and how this might be related to their experiences and functioning. This might suggest a need to tailor the measure for vicarious experiences and examine its psychometric properties. It will also be important to further understand how the parents own traumatic event history may impact their movement in the model. Research may benefit from further exploration of potential subprocesses occurring between each phase of the model. Also, exploring event centrality in other vicariously traumatized populations (e.g., spouses, siblings, friends, and professionals) would be helpful to expand the foundation of research on VEC. Furthermore, the aim of this study was not to directly explore how the experience of VEC related to post-traumatic growth; however, based on previous research illustrating that event centrality is related to posttraumatic growth (e.g., Groleau et al., 2013) and that posttraumatic growth can occur for parents of child interpersonal trauma victims (Cummings, 2018), further understanding of this relationship is warranted.

6.6 Conclusion

My dissertation aimed to understand what is known and not known in VT, VPTG, and VEC in loved ones exposed to interpersonal trauma and to begin filling one of these knowledge gaps with our second study. I was the first to review this area of interest, giving researchers and practitioners a map of the empirical literature. I was also the first researcher to examine VEC in this area of interest and the first, across all populations, to examine event centrality qualitatively. I added unique information to existing research and theory on the aftermath of vicarious interpersonal trauma exposure for loved ones, including that VEC exists and has a specific purpose for parents. I highlight that there is much more research to be done in this area, both

qualitatively and quantitatively, with the hopes that the foundation of research in this area continues to grow as loved ones are a necessary population to research.

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