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Work-Related Trauma Exposure: Influence on Child Welfare Workers' Mental Health and Commitment to the Field

GREEN CROSS

Academy of Traumatology

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The field of child welfare continues to be plagued by high rates of worker turnover that further complicate the challenging work of protecting and enhancing child welfare in the United States. The child welfare workforce plays a crucial role in promoting child well-being and preventing abuse and neglect, but safety, permanence, and well-being outcomes of children are negatively impacted by high rates of workers leaving their jobs. Numerous organizational and individual factors have been studied in relation to worker turnover, and while there is a foundation of research related to direct and indirect trauma separately, different typologies of trauma have rarely been studied together. This study examined child welfare workers' exposure to work-related trauma from a stress-response framework. A statewide sample of child welfare workers (n = 657) responded to items relating to their experiences of client perpetrated violence, deaths or injuries on their caseloads, and secondary trauma. They completed scales measuring their current levels of depression, anxiety, posttraumatic stress disorder, and overall commitment to the field of child welfare. Three typologies of trauma emerged: primary trauma, caseload trauma, and secondary trauma. Structural equation modeling analysis indicated that primary trauma had a small, but positive relationship with commitment to the field (B = .17, p < .05). Caseload trauma predicted workers' levels of secondary trauma (B = .14, p < .05), and secondary trauma had a strong, predictive relationship with worker mental health (B = .77, p < .001). Creating typologies to distinguish different kinds of trauma allowed for a nuanced look at workers' experiences and how they influence outcomes related to the mental health of workers and commitment to the field.

Keywords: work-related trauma, child welfare workers, mental health, client-perpetrated violence, secondary traumatic stress

Approximately 90% of child welfare agencies report difficulty in hiring and retaining qualified child welfare workers, and annual turnover rates range from 20% to 40% nationally (Fostering Change for Children, 2006; Human Services Workforce Initiative, 2006; United States Government Accountability Office (GAO), 2003). High rates of turnover cause ongoing problems in the field and are specifically tied to the amount and quality of quality of child abuse and neglect prevention, assessment, intervention, and services provided for at-risk children and their families (Flower et al., 2005; Ryan et al., 2006; Strolin-Goltzman et al., 2010; Williams & Glisson, 2013). There is a great deal of literature exploring both organizational and individual factors related to turnover, and while there is a foundation of research related to direct and indirect trauma separately, different typologies of trauma have rarely been studied together. It is important to explore a more holistic view of various types of trauma exposure together and the influences on mental health and occupational outcomes for child welfare workers.

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Context

Working with children and families in the child welfare system is difficult because of the vulnerability of the children being served, the necessity for immediate response, and family contexts that often involve substance abuse, mental illness, violence, incarcerated parent(s), homelessness, and poverty (Ellett et al., 2007). These workers are often the first professionals present when abuse is suspected, and their role directly influences the nature, amount, and quality of benefits and sanctions. Child welfare workers determine the eligibility of children for services, are responsible for helping children at risk of abuse, and assist families in navigating the complex child welfare system (Flower et al., 2005; Ryan et al., 2006; Strolin-Goltzman et al., 2010).

When workers struggle with the effects of work-related trauma exposure, they become vulnerable and may be unable to effectively work toward prevention of and intervention in child abuse (Human Services Workforce Initiative, 2006). Negative or traumatic experiences within their organization or with clients may negatively impact workers' level of commitment to the field and other work-related outcomes.

Child Welfare Worker Exposure to Trauma

Child welfare workers practice within an environment where exposure to trauma is commonplace. Two types of trauma exposure

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are discussed in the current literature: client-perpetrated violence (CPV) and secondary traumatic stress (STS). Another, less discussed, stressful, and potentially traumatic experience related to this type of work is the severe injury or death of a child while on a worker's caseload. These three kinds of trauma can be organized into two types: primary and secondary trauma, also referred to in the literature as direct and indirect trauma. Primary trauma relates to traumatic events that occur directly to the worker, such as client perpetrated violence or the severe injury or death of a child on a worker's caseload. Secondary trauma refers to the negative influence that exposure to the trauma of others (in this case, primarily children) has on workers physically and psychologically (King, 2021).

Client-Perpetrated Violence

CPV is an incident where a worker is verbally abused, threatened, or assaulted by a client or family member, whether or not it results in physical injury (Denney, 2010; Enosh et al., 2015; Green, 2003; Lamothe et al., 2021; Radey & Wilke, 2021; Radey et al., 2022). CPV may consist of nonphysical violence, such as yelling at or swearing at a worker; threats made toward the worker, the worker's family, or the agency; and physical assaults such as punching, slapping, or throwing an object at a worker (Carroll, 2003; Enosh et al., 2015; NIOSH, 1996; Radey et al., 2022; Radey & Wilke, 2021). Due to the nature of their work, and the settings in which they practice, child welfare workers are at a higher risk for incidents of CPV when compared with other human service workers. Some studies report nearly 100% of workers experiencing at least one incident during their career (Laird, 2014; Littlechild, 2005a, 2016; Radey & Wilke, 2021; Radey et al., 2022). CPV can result in physical injury, anxiety, stress, and reduced effectiveness and efficiency of workers (APNA, 2008; Enosh et al., 2015; King, 2021; Littlechild, 2005b).

Severe Injury or Death of a Child on a Worker's Caseload

Compared with other human services workers, child welfare workers deal more directly with abuse and neglect. Child welfare workers are directly responsible for children on their caseloads. They are required to make difficult decisions and often face organizational and public criticism when a child on their caseload is severely injured or killed (Regehr et al., 2004). Workers can also find themselves "scapegoated" for severe negative outcomes on their caseloads (Geoffrion et al., 2016). The burden of responsibility, in addition to the public and media criticism when particularly violent or traumatic abuse or neglect of a child occurs is likely to cause stress and even be experienced as a trauma by the worker (Dagan et al., 2016; Kim, 2011).

Secondary Traumatic Stress

STS refers specifically to the psychological symptoms associated with the exposure to others' trauma and can include increased arousal and hypervigilance, avoidance behaviors, intrusive imagery, and sleep disturbance (Bride et al., 2004; Figley, 2013; Salloum et al., 2015). The incidence of STS varies depending upon the study but ranges from between 15.2% to 50% in child welfare workers (Brady, 2017; Bride, 2007; Bride et al., 2004; Conrad & Kellar-Guenther, 2006; Quinn et al., 2021).

Examples of incidents that may result in STS symptomatology for workers include: investigating a severe abuse/neglect report, chronic exposure to emotional and detailed accounts of trauma from children, photographic images of the results of child abuse/ neglect, working with families where abuse, intimate partner violence, or sexual abuse is occurring or is thought to be occurring, and exposure/provision of services to family members where a child has died (Bonach & Heckert, 2012; Pryce et al., 2007). STS can result in self-destructive behaviors, decreased feelings of competence at work, a diminished sense of purpose, and lowered functioning in professional and personal realms (Beck, 2011). STS has been linked to an increase in work-related errors, in addition to psychological or emotional disturbance (Figley, 2013). Bride (2007) found a significant correlation between STS symptoms and lower levels of intent to remain employed in the field of child welfare.

Commitment to the Field of Child Welfare

Professional commitment to the field of child welfare is a strong predictor related to intention to leave or remain with an agency (Julien-Chinn et al., 2021; Kim & Kao, 2014; Lee et al., 2010). Child welfare workers who report higher levels of intent to remain tend to have higher levels of commitment to the field, and are less likely to actually leave, while those who report higher levels of intent to leave, report lower levels of commitment (Chen et al., 2012; Faller et al., 2010; Hopkins et al., 2010; Madden et al., 2014; McFadden et al., 2015). Workers with low levels of commitment to the field often show job withdrawal behaviors such as arriving late to work, leaving early, being absent from work more frequently, and looking for other jobs outside of the field (Boyas et al., 2013; Hopkins et al., 2010; Shim, 2010). A reduction in the level of commitment is likely to produce lower levels of productivity as well as absenteeism and turnover (Faller et al., 2010).

Contextual Consideration of the Effects of COVID-19

A relatively new contextual consideration in the discussion of stress and trauma within the child welfare workforce is the influence of the COVID-19 pandemic. While work within the field has always had job-related challenges specific to protecting the safety and well-being of children, the pandemic brought other factors potentially contributing to trauma exposure and mental health in child welfare work. Concerns for personal and family safety when conducting home visits or face-to-face welfare checks were likely to add to workers' levels of stress and anxiety. Magruder et al. (2022) found that 43.9% of the child welfare workforce indicated negative effects on multiple areas of well-being due to COVID-19. In addition, the merging of personal and professional responsibilities due to stay-at-home orders, particularly for those with younger children, increased stress levels and the potential to be more vulnerable to the effects of trauma exposure (Magruder et al., 2022; Miller et al., 2020). Effects of the pandemic on workers' professional lives included concern about the ability to effectively assess and intervene in cases of child abuse or neglect when using only electronic means of communication, clients/families with lack of access to necessary technology, limitations to confidentiality and privacy with technology use, and difficulties maintaining professional boundaries (Mishna et al., 2021; Schwab-Reese et al., 2020).

Current Study

The purpose of this study is to examine the role of primary and secondary trauma exposure in the level of child welfare workers' commitment to the field of child welfare and to examine mental health as a mediator in this relationship. This study seeks to fill a critical gap in the literature relating to trauma exposure of child welfare workers and its implications for both worker mental health and their commitment to the field. Given the critical responsibilities of the child welfare workforce in preventing and intervening in cases of child abuse, this study is important in that it will provide new data related to some of the individual factors potentially influencing the high rates of turnover. An examination of the influence of primary and secondary trauma on workers' commitment to the field will address a gap in the knowledge base related to the relationship between trauma exposure and work-related outcomes in child welfare workers.

Theoretical Contribution

This study uses a stress-response framework from which to view the influence of work-related trauma on child welfare workers' personal and professional outcomes. Conservation of resources (COR) theory provides a lens from which to view trauma exposure as a threat or perceived threat to individual worker resources and provides an explanation for why workers who struggle with trauma exposure may be more likely to experience psychological distress and attempt to cope by reducing their level of commitment to the field of child welfare. COR theory posits that when confronted with a stressor, individuals will strive to minimize resource loss, and during times where stressors are not present or are minimal, individuals will attempt to build up a surplus of resources to offset future loss (Hobfoll, 1989). Under COR theory, workers who experience the threat of loss or actual loss of resources are more prone to psychological distress, especially when they do not have a surplus of resources from which to draw, such as support, self-esteem, coping skills, etc. (Hobfoll, 2001). The loss or threat of loss leads workers to become more protective of their remaining resources, and they will withdraw from the source of the stress (i.e., their job or contact with clients).

Research Questions

To discover more about the influence of typologies of trauma on worker mental health and commitment to the field of child welfare, the following research questions guided the analysis:

- (i) What influence do primary and secondary trauma have on worker mental health?
- (ii) What influence do primary and secondary trauma have on workers' overall commitment to the field of child welfare?
- (iii) Does mental health mediate the relationship between primary and secondary trauma and commitment to the field?

Method

Sampling and Data Collection

IRB approval from the Florida State University Institutional Review Board was granted for this study on November 28, 2018. This study used data from a state-wide longitudinal study of newly hired child protective investigators (CPIs) and case managers (CMs) in Florida examining individual, organizational, and community level factors contributing to the retention/turnover decisions of child welfare workers. Data were collected using an electronic survey created within Qualtrics, an online program that facilitates survey research (Wilke et al., 2017). Participants were initially recruited in-person during their preservice training, and then subsequently sent a link to the survey every 6 to 7 months. This study used data from waves 1 (during preservice training), 4 (18-months posthire), and 5 (2 years posthire).

Measurement

Worker Characteristics

The demographic variables included as control variables in this study were: age, race, and gender. The number of years in the fulltime workforce was included as a work-related control variable. Experience of personal trauma within the past year was a final, potentially confounding variable included in the analysis to separate the effects of personal trauma from work-related trauma. Because the concept of primary trauma for this study only relates to the workplace, it was essential to rule out the influence of other, personal trauma in this sample. To isolate the influence of primary trauma associated with the workplace, personal trauma was measured by the dichotomous item "In the past year have you experienced a traumatic event in your personal life?"

Primary Trauma

Primary trauma was conceptually defined as any potentially traumatic event experienced directly by the worker. Primary trauma was initially operationalized as any CPV event and/or the death or severe injury of a child on the worker's caseload. CPV was operationalized as having three types: nonverbal abuse, threats, and assault. An additional type of primary trauma explored in this study was the death or severe injury of a child on a worker's caseload. CPV was measured using the Home Visit Risk Assessment (HVRA) Scale, a 9-item instrument that asked participants whether or not they had experienced a particular action as perpetrated by a client/patient, within the past 6 months (McPhaul et al., 2010).

A second concept explored as a potential component of primary trauma was the death or severe injury of a child on the worker's caseload. In the wave 4 (18-month) survey, workers were asked whether they have experienced the death of a child on their caseload due to accident/injury or maltreatment in the time since the survey began. They were also asked if they had experienced severe injury to a child on their caseload since they began. These items were answered with a dichotomous response and the date that this occurred (month/year).

Secondary Trauma

Secondary trauma was operationalized using the Secondary Traumatic Stress Scale (STSS), a 17-item instrument designed to assess the frequency of intrusion, avoidance, and arousal symptoms associated with STS (Bride et al., 2004). The STSS measured how often, within the past 7 days, a worker experienced specific STS symptoms. The items were designed to measure current, as opposed to cumulative, exposure to traumatized clients. Examples of items include: "reminders of my work with clients upset me," "I had disturbing dreams about my work with clients," and "it seemed as if I was reliving the trauma experienced by my clients." The STSS was used to measure overall STS symptoms and was broken down into the three factors measured as a part of STS: Intrusion, Avoidance, and Arousal. Recommended scoring for the STSS is as follows: 0-27 (little to no STS), 28-37 (mild STS), 38-43 (moderate STS), 44-48 (high STS), and 49 and above (severe STS; Bride, 2007).

Mental Health

The definition of mental health was conceptualized as the level of subjective well-being workers reported. To gain a more nuanced look at the mental health of child welfare workers in this sample, several instruments were used to detect the presence or absence of particular symptoms indicative of specific mental health diagnoses including depression, anxiety, and posttraumatic stress disorder (PTSD). All mental health measures were administered during wave 4 of data collection. The Patient Health Questionnaire 9-item (PHQ-9) was used to assess the level of depression in participants. The Beck Anxiety Inventory (BAI) was administered to measure levels of anxiety symptomatology.

The Post-Traumatic Checklist-Civilian (PTCC; short form) was administered to measure the severity of traumatic stress symptoms. The PTCC (short form) consists of six items with Likert scale responses ranging from 0 (*not at all*) to 5 (*extremely*). Sample items from the PTCC include: having "repeated, disturbing memories, thoughts or images of a stressful experience from the past" and having "physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past" (Lang & Stein, 2005). Researchers tested interrater reliability of this measure and found perfect reliability (k = 1.0) when corating the audiotapes of the interviews administering the PTCC and when assessing for presence or absence of the PTSD diagnosis (Lang & Stein, 2005).

Commitment to the Field of Child Welfare

Worker commitment to the field of child welfare was conceptually defined as workers making a personal determination to stay in the field of child welfare despite some of the work-related challenges (Ellett, 2000). The concept of commitment to the field was operationalized using a modified version of Ellett's Intent to Remain in Child Welfare (ITR-CW) measure administered during the wave 5 (2 years posthire) survey. In this study, the ITR-CW consisted of 7-items that used a 6-point scale. Two items on the ITR-CW are negatively worded, "I plan to leave child welfare as soon as possible" and "I have too much time invested in child welfare to leave" and were reverse coded.

Analysis

Descriptive statistics for each continuous variable and frequencies for any dichotomous or categorical variables were examined. The mean, standard deviation, skewness, and kurtosis statistics of all continuous variables were assessed. Bivariate analysis, chi-square statistics, independent t tests, and ANOVA analyses were conducted to test for independence between variables or differences between groups.

Structural Equation Modeling

The research questions in this study dealt with the relationships between constructs (i.e., factors), as opposed to the relationships between observed variables; therefore, structural equation modeling was the appropriate approach to test the hypothesized model (Figure 1). M-Plus (Version 8.1) was used for the SEM analysis, and required a-priori specification of variables (i.e., single item indicators and standardized instruments) associated with specific factors (i.e., primary trauma, secondary trauma, mental health, and commitment), which factors were assumed to affect other factors, and the direction of these relationships (Kline, 2011).

Power analysis indicated that, because of the large number of observed variables in this model, the measurement and structural models could not be run concurrently. Instead, a confirmatory factor analysis (CFA) was conducted for each factor to assess the fit of the scale(s). At wave 4, 657 of participants met the inclusion criteria for this study, and in wave 5, 560 participants met the inclusion criteria. These sample sizes were adequate for both the measurement and structural analyses (Kline, 2011). Assumptions that were met before running either measurement or structural models included multivariate normality and linear relationships between variables. To address the potential for non-normality in the mediation models, a bias-corrected (BC) bootstrap method was used.

Assessment of SEM Model

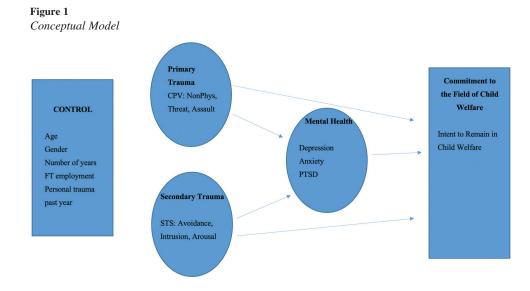
Fit indices (chi-square, SRMR, RMSEA, and CFI statistics) of the structural model were examined to allow for an assessment of how well the specified model fit the data. Direct effects were indicated by the weight in the structural path model. Indirect effects were calculated by multiplying the direct effects when there is a mediating relationship between the endogenous and exogenous factors (in this case mental health). Standardized solutions were reported to compare the relative importance of the effects between constructs.

In addition to the evaluation of the individual relationships between concepts, an overall assessment of the proposed model was conducted. This included an evaluation and interpretation of the following fit indices for the complete structural model: the chisquare model test statistic, the root mean square error of approximation (RMSEA), the goodness of fit index, the standardized root mean square residual (SRMR), and the comparative fit index (CFI).

Results

Demographic/Control Variables

In wave 4, 657 participants were currently employed as child welfare workers in FL with 87.5% (n = 575) of this sample being female and having the following racial/ethnic breakdown: 15.2%



Hispanic (n = 98), 35% (n = 226) non-Hispanic Black, 45.6% (n = 294) non-Hispanic White. The remainder of participants (n = 27) reported race/ethnicity falling into either non-Hispanic Asian (0.6%), non-Hispanic Native American (0.3%), or non-Hispanic "other" (3.5%). The mean age for child welfare participants was 31.0 years (SD = 8.9), and workers reported having an average of 8.3 years (SD = 8.1) experience of full-time work before accepting their current job. Almost half of this sample, 47.5% (n = 301), reported experiencing a traumatic event in their personal life over the past year (Table 1).

Primary Trauma

Client-Perpetrated Violence

Participants reported whether or not they experienced each type of CPV. During the past 6 months, 80.1% (n = 495) had experienced at least one incident of nonphysical violence, 47.2% (n = 293) reported experiencing at least one threat, and 5.8% (n = 35) reported experiencing at least one assault (Table 2).

Caseload Trauma

During the past 18 months, 16.7% (n = 106) of workers reported the death of a child on their caseload due to accident

Table 1	
Description	of Sample

T 11 4

or illness; 7.7%, (n = 49) reported the death of a child on their caseload due to maltreatment; and 29.4% (n = 187) reported that at least one child on their caseload experienced a severe illness or injury (Table 3).

Secondary Trauma

The mean score for the STSS Global Scale was 26.5 (SD = 15.4), and 7.9 (SD = 4.6) for the Intrusion, 10.4 (SD = 6.7) for the Avoidance, 8.2 (SD = 5.0) for the Arousal subscales, respectively. Using the suggested cutoff score of 38 for moderate-to-severe levels of STS, 26.1% (n = 152) of this sample met the criteria for moderate to severe STS (Bride, 2007).

Mental Health

Depression

The mean score for the PHQ-9 Scale measuring depression was 2.3 (SD = 3.3) indicating generally mild levels of depression overall in this sample. When cases were categorized using suggested cutoff scores, 16.6% (n = 103) of participants met the criteria for moderate to severe depression (Table 4).

Variable				
Gender $(n = 657)$	Female $87.5\% (n = 575)$	Male $12.5\% (n = 82)$		
Race $(n = 645)$	NH White $45.6\% (n = 294)$	NH Black 35% (<i>n</i> = 226)	Hispanic 15.2% (<i>n</i> = 98)	Other race 4.2% (<i>n</i> = 27)
Age (<i>n</i> = 657)	Mean 31	<i>SD</i> 8.9	Skewness	Kurtosis .7
Years FT work $(n = 655)$	8.3	8.1	1.4	1.5
Personal trauma ($n = 634$)	Yes 47.5% (<i>n</i> = 301)	No 52.5% (<i>n</i> = 333)		

Table 2	
Experiences of Client-Perpetrated Violence	

Event	Percentage experienced event	Number of participants who experienced event
Nonphysical violence	80.1%	n = 495
Threatened	47.2%	n = 293
Assaulted	5.7%	n = 35

Anxiety

The mean score for the BAI was 4.5 (SD = 6.4) indicating overall mild levels of anxiety in this sample. Using suggested cutoff scores, 4.3% (n = 27) of this sample indicated moderate to severe levels of anxiety. The low percentage of workers reporting anxiety symptomatology is likely the reason for the positive kurtosis noted above (Table 4).

Posttraumatic Stress Disorder

The mean score on the PTCC was 2.9 (SD = 3.9) indicating overall low levels of PTSD symptomatology. Using the suggested cut score of 14, 3.7% (n = 13) met the criteria for PTSD, indicating a relatively low number of individuals reporting problematic PTSD symptomatology (Table 4).

Commitment to the Field

Commitment to the field of child welfare was assessed using the score on the ITR_CW Scale data in wave 5. The mean for this scale was 17.1 (SD = 7.2). The author of this scale did not provide any information relative to cutoff scores or what levels may be interpreted as high or low levels of intent to remain in the field of child welfare, although the possible range in scores is 0 to 30 in this study. A mean of 17.1 appears to indicate an overall moderate level of commitment to the field in this sample.

Bivariate Analysis

Correlations were run to determine whether scores on the STSS were too highly correlated with the mental health measures (PHQ-9; BAI; PTSD-CC). Results of the correlation analysis indicate that PTSD was most highly correlated with STS (r = .67, p < .01), with anxiety (r = .59; p < .01) and depression (r = .57, p < .01) having a moderate correlation. These results indicate that while related, secondary trauma as measured by the STSS is a separate construct from PTSD.

Table 3Experiences of Caseload Trauma

Event	Percentage experienced event	Number of participants who experienced event
Child-injury/illness Death of child-accident/illness	29.4% 16.7%	n = 187 n = 106
Death of child-maltreatment	7.7%	<i>n</i> = 49

Table 4	
Mental Health Symptomatolog	<i>zy</i>

Type of measure	Percentage reporting any symptomatology	Percentage rated moderate-to-severe
Depression Anxiety Posttraumatic stress disorder	50.6% (<i>n</i> = 315) 60.5% (<i>n</i> = 378) 56.7% (<i>n</i> = 354)	$ \begin{array}{r} 16.6\% \ (n=103) \\ 4.3\% \ (n=27) \\ 3.7\% \ (n=13)^{a} \end{array} $

^a Using the recommended cut score of 14, 3.7% met criteria for posttraumatic stress disorder.

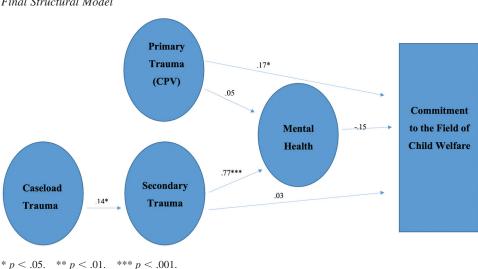
Measurement Models

Before testing the structural model, an assessment of the measurement model was necessary to determine how well the individual items represented the latent factors (primary trauma, secondary trauma, mental health, and commitment to the field) in the proposed model. In the final structural model, primary trauma was represented by the nine items of the HVRA, parceled by CPV type (i.e., Nonphysical, threat, and assault). Secondary trauma was represented by all items from the STSS, with items being parceled based on subscale (i.e., Arousal, Intrusion, and Avoidance). The caseload items (i.e., severe injury, illness, or death of a child on a worker's caseload), initially hypothesized to be related to the construct of primary trauma, did not load significantly on primary trauma, nor did they load significantly on the concept of secondary trauma. These variables were then conceptualized as caseloadrelated trauma and loaded on a new first-order factor to be tested in the structural model (Figure 2).

Mental health was represented by a second-order factor model with each mental health screening scale (i.e., PHQ-9, BAI, and PTSD-CC) loading onto the respective first-order factor (depression, anxiety, and PTSD). Each of the first-order factors loaded onto the second-order factor of mental health. Commitment to the field of child welfare was represented by five of the seven items from the Intent to Remain Employed in Child Welfare Scale (ITR_CW). Two items (Item 2: "I would have a hard time finding a job outside child welfare"; Item 6: "My professional goals include working with children and families, but not necessarily in child welfare") were removed because they had very low factor loadings and did not load significantly onto the construct of commitment to the field in initial measurement analysis. Removal of these items resulted in a better overall model fit for this construct.

Structural Model

The second step of the overall model assessment requires the testing of the structural model. This allows for an analysis of the overall covariances among the latent factors of interest and how well the proposed model fits the data (Kline, 2011). The final structural model tested the direct relationships between primary and secondary trauma on mental health and commitment to the field. It also tested caseload trauma as a type of trauma potentially influencing mental health and commitment to the field, and as a predictor of STSS. Mental health was tested as a mediator for the relationships between primary and secondary trauma and commitment to the field. The correlation between primary and secondary trauma was constrained to 0 due to a lack of theoretical or empirical support that those two factors are related.





Results of Structural Model Analysis

Overall Fit

All indicators and parcels loaded significantly on their assigned construct at p < .001 (primary trauma, caseload trauma, secondary trauma, depression, anxiety, PTSD, mental health) or p < .01 (commitment to the field). In other words, variables making up each factor were significantly related to the appropriate factor. These results indicate that the items used to measure variance in the concepts of interest are significantly related to their associated factors.

Variables controlled for in this analysis included gender, age, race, years of full-time work experience, and whether or not the worker had experienced personal trauma in the past year. Overall model fit was assessed using the fit indices of the chi-square statistic, the SRMR, the RMSEA, and the CFI. The chi-square statistic for the model was χ^2 = 412.99 (df = 192; p < .001). The fit indices for the other tests of model fit were as follows: SRMR = .05; RMSEA = .04; and CFI = .96. The chi-square statistic is relatively low, compared with the baseline model of $\chi^2 = 5500$ (df = 189; p < .001), which indicates a much better fit of the tested model to the data, when compared with the baseline model. Because the chi-square statistic is sensitive to sample size, a normed chi-square test was performed to account for the large sample size. In this case, the normed chi-square statistic is 2.2, which is very close to the most conservative recommendation for this test. This provides additional evidence of a good model fit. The SRMR of .05 indicates a good model fit, as does the RMSEA of .04 and the CFI at .96. Based on the examination of all fit indices, the proposed model is an overall good fit to these data (Table 5).

Influence of Control Variables

The control variables examined in the structural model included age, race, gender, years of full-time work, and whether or not a personal trauma was reported by workers in the past year. Only age (B = -.02; p < .05), race (B = -.3; p < .05), and experiencing a personal trauma in the past year (B = .13; p < .05), were significantly associated with

the factor of primary trauma. Being younger, White or Hispanic, and experiencing a personal trauma in the past year resulted in higher levels of reporting of primary trauma. Age (B = -.06; p < .05), race [Hispanic (B = -2.43, p < .05); non-Hispanic Black (B = -2.43; p < .05)], and the experiencing a personal trauma ($B \ge .1.02$; p < .01), had a significant relationship with secondary trauma. Being younger, non-Hispanic White, and experiencing a personal trauma resulted in higher levels of reporting of secondary trauma. None of the control variables had statistically significant relationships with the factors of caseload trauma, mental health, or commitment to the field in this sample.

Findings Related to Research Questions

What Influence Do Primary and Secondary Trauma Have on Worker Mental Health?

The path between the exogenous factor of primary trauma (consisting of the three CPV types) and the endogenous factor of mental health was nonsignificant with a standardized path coefficient of .05 (p = .25) indicating that primary trauma does not have a statistically significant relationship with the construct of mental health in this sample. The path between the exogenous factor of secondary trauma and the endogenous factor of mental health was significant with a path coefficient of .77 (p < .01). Results indicate that secondary trauma has a statistically significant relationship with workers' mental health. Workers experiencing higher levels

Table 5		
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Structural Model Fit Indices

Test	Value	Degrees of freedom	p value
Chi-square test of model fit	412.99	192	<.001
Root mean square error of approximation	.04		
Comparative fit index	.96		
Tucker-Lewis index	.95		
Standardized root mean squared residual	.05		

of secondary trauma experienced higher levels of mental health symptomatology in this sample (Table 6; Figure 2).

What Influence Do Primary and Secondary Trauma Have on Workers' Overall Commitment to the Field of Child Welfare?

The path between primary trauma (CPV) and commitment was significant at .17 (p < .05); however, the relationship is positive. These results indicate that while the null hypothesis is rejected, the relationship between these two factors appears to be a positive one, and not inverse, as initially thought. Secondary trauma was not found to have a statistically significant relationship with workers' commitment to the field of child welfare as indicated by a nonsignificant path coefficient of .03 (p = .82; Table 6; Figure 2).

Does Mental Health Mediate the Relationship Between Primary and Secondary Trauma and Commitment to the Field?

To test a mediating relationship, there needs to be a direct statistically significant relationship between primary trauma and commitment to the field of child welfare initially, so that there is a statistically significant relationship to determine a partial or complete mediation effect (Kenny, 2018). Mental health did not have a statistically significant direct relationship with commitment to the field as indicated by a nonsignificant path coefficient of -.17 (p =.30). Therefore, the mediational relationship between primary trauma and commitment was not significant (B = -.01; p = .48).

Results indicated that there was not a statistically significant relationship between secondary trauma and commitment to be tested (B = .03; p = .83). Because there was not a significant direct relationship between secondary trauma and commitment, mental health would not be a mediator. As expected, the mediational relationship between secondary trauma and commitment was not significant (B = -.13; p = .30; Table 6; Figure 2).

Additional Analysis

Results from the structural analysis indicate that each of the caseload variables loaded significantly onto a separate factor of caseload trauma: death of a child due to accident/illness (.72, p < .001); death due to maltreatment (.60, p < .001), and severe injury/illness (.31, p < .001). Caseload-related trauma did not appear to have any significant relationship with mental health or

Table 6

Path Coefficients Between	n Factors in	n Structural Model
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Path coefficients (y)	Parameter estimates	SE	p value
Caseload trauma→ commitment	12	.10	.13
Primary trauma \rightarrow commitment	.17	.10	<.05
Secondary trauma \rightarrow commitment	.03	.12	.82
Mental health \rightarrow commitment	15	.13	.24
Caseload trauma \rightarrow mental health	.04	.04	.36
Primary trauma \rightarrow mental health	.05	.05	.25
Secondary trauma \rightarrow mental health	.77	.03	<.001
Caseload trauma \rightarrow secondary trauma	.14	.06	<.05

Note. The items that are bold and italicized indicate that these were the only paths that were statistically significant. All relationships are included, but only significant ones are bold/italicized.

commitment in this model, however, it did significantly predict secondary trauma (B = .14, p = .01). Because caseload trauma did not have a statistically significant relationship with either mental health or commitment, additional mediational analyses were not warranted.

Discussion

This study yielded important information about the prevalence and effects of different typologies of trauma that frontline child welfare workers face as a part of their job. Initially conceptualized as primary and secondary trauma, a third trauma construct emerged: caseload trauma. Primary trauma did not have a statistically significant relationship with worker mental health in the structural model but did have a small, but statistically significant relationship with workers' commitment to the field of child welfare (B = .17, p < .05). Contrary to the hypothesized relationship, experiencing primary trauma predicted higher levels of commitment in this sample. Commitment to the field was measured at wave 5 (2 years posthire). Workers who remain employed in child welfare at 2 years may ascribe different meanings to primary trauma or incorporate those incidents into their work experience differently when compared with those who left the field earlier on or had higher levels of commitment to the field overall. This finding does not conform to the original stress-response framework of this study. Due to the relatively small influence of primary trauma on commitment, it is likely there are several other variables that should be factored into future examinations of this relationship (i.e., organizational support, individual coping style, etc.).

Caseload trauma is not often addressed in the literature and emerged in this study as a unique form of trauma contributing to workers' levels of secondary trauma symptoms. These events occurred for a considerable number of workers [7.7% (n = 49)]death due to maltreatment; 16.7% (n = 106) death due to accident/injury; 29.4% (n = 187) severe illness/injury]. Current study results provide some idea of the potential frequency of these events, which are not often discussed specifically in the child welfare literature, especially concerning the effects on workers' mental health and well-being. These events are likely to cause stress in several ways including exposure to the child/family's injury and trauma, and the scrutiny and blame that often accompanies the severe injury or death of a child while on a worker's caseload. Results of this study indicate caseload trauma events are critical to examine in the context of workers' personal and occupational outcomes.

Structural model results revealed a significant relationship between secondary trauma and mental health (B = .77, p < .01), which indicates a large predictive relationship. This is consistent with both theoretical supposition and empirical evidence that exposure to the trauma of others is likely to have a negative influence on workers' mental health. Mental health did not have a statistically significant relationship to commitment to the field, directly, or indirectly as a mediator between primary and/or secondary trauma and commitment.

This research contributes three unique advances in the understanding of trauma exposure and its influence on child welfare workers. First, primary trauma was examined as a predictive factor for mental health and commitment to the field of child welfare. Most of the research related to primary trauma or CPV is prevalence data. Rarely has it been examined for its impact on workers' mental health or commitment to the field of child welfare. This research has taken the exploration of work-related violence a step further by examining how it impacts workers across individual- and work-related outcomes. Second, most child welfare research on secondary trauma only addresses prevalence and severity. Current study results identify specific types of caseloadrelated events associated with the death or injury of a child that predict secondary trauma and examine the influence of secondary trauma on specific mental health diagnoses. Finally, mental health is rarely examined in child welfare workers and the few studies that do address it discuss general psychological distress. Current study results provide prevalence and severity data for three diagnoses (depression, anxiety, and PTSD), and explore trauma-related antecedents for workers' development of these diagnoses.

Limitations

One limitation in this study was the attrition or potential for missed measurement for some participants. Overall, response rates were high, but there was attrition over the course of the study which limited the total number of participants included in the final SEM analysis. In addition, these data come from 18-months and 2 years posthire, which may bias the sample toward workers with higher levels of commitment to the field. Workers with lower levels of commitment may have already left. This limitation also applies to the examination of mental health and secondary trauma. Workers with higher levels of depression, anxiety, PTSD, and/or secondary trauma may have already left their child welfare jobs, therefore biasing this sample toward workers with lower levels of mental health symptomatology and secondary trauma. Another limitation is that worker mental health was measured at only one time point, 18-months posthire as a part of an in-depth module added to the core survey. Therefore, there was no baseline measure of mental health, and it is unknown whether or not mental health changed over time or whether any changes were due to being employed in the field. A final limitation is the difference in how primary trauma and secondary trauma were measured. Primary trauma is represented by experiences with CPV (event), while secondary trauma is represented by symptoms related to exposure to specific events.

Implications

Results of this study have implications for administrative practice, resource expenditures, training, and intervention development in the field of social work generally and child welfare practice specifically. Many professions have the potential to expose workers to trauma, but those in child welfare will inevitably face trauma as a part of their jobs. Examining work-related trauma exposure and its effects on workers' well-being and effectiveness is important within the context of high rates of child welfare worker turnover. An important consideration related to primary and secondary trauma exposure within the context of commitment to the field and retention is how the traumatic event(s) influence workers' sense of safety and control over their personal safety and the safety and well-being of the children on their caseload (Kataoka & Nishi, 2021). There is some research supporting the theory that workers who struggle with the results of trauma exposure may become even more at risk for future work-related trauma due to the lingering anxiety or reactivity from the prior exposure (Lamothe et al., 2021). This makes agency response to worker distress even more important to address with both prevention and intervention strategies.

There are several recommendations on the organizational level that should be considered when beginning to address work-related trauma exposure of workers. A two-pronged approach is recommended: more training and preventative efforts and better reporting and intervention procedures after trauma exposure. Prevention of trauma-exposure (both primary and secondary) has rarely been studied, however both organizational support and greater utilization of coping skills have been linked to lower levels of negative symptomatology (Rienks, 2020). Agencies can take a more proactive approach to address the consequences of inevitable exposure to trauma at work and assess organizational culture, increase support for workers, and facilitate training and practice of coping skills to address the negative effects of trauma exposure.

Lessons learned from the COVID-19 pandemic that may provide additional consideration for workers and improve organizational culture and worker support include flexibility in accomplishing work tasks, supervisors recognizing challenges related to the work itself (including but not limited to experiences of trauma at work), and targeted support provided throughout the process of engaging with clients and exposure to difficult work conditions (Schwab-Reese et al., 2020).

Formal training, reporting, and intervention strategies should be implemented. Leadership commitment to safety and a nonjudgmental response to reporting of CPV or workers' acknowledgment of mental health challenges indicates that the safety and well-being of workers is a priority and can therefore influence overall organizational culture and psychological climate.

In summary, agencies should recognize and address workrelated trauma exposure and its influence on personal and professional outcomes such as commitment to the field, intent to leave, and turnover. While agency administrators and supervisors may not be able to intervene when workers leave for personal reasons, they can consciously enact both proactive and retrospective responses related to trauma-exposure on the job.

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