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An Investigation of Burnout and Secondary Traumatic Stress Over Time in School Personnel Involved in a Trauma-Informed Initiative

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ABSTRACT

Indirect exposure to trauma can negatively impact the well-being of school personnel and the students they serve. The purpose of this study is to investigate the role individual, leadership, and organizational characteristics play in producing potential changes in burnout and secondary trauma in K-12 school personnel from baseline to post-trauma-informed care initiative. Data from the Professional Quality of Life-5 (ProQOL-5), the STS Scale (STSS) and the STS Informed Organizational Assessment (STSI-OA) was collected from 205 school personnel (e.g., teachers, counselors, school leaders, and other staff) at two time points. General linear mixed modeling indicates mean scores on measures improved over time. Participants with lower STSS arousal showed an increase in burnout over time, while participants with high levels of STSS arousal showed a decrease. The findings highlight the relationship between how constructs and leadership efforts can be harnessed to improve the well-being of school personnel.

Keywords: Burnout, secondary traumatic stress, Secondary Traumatic Stress Informed Organizational Assessment, leadership engagement, trauma-informed care

The conceptualization of burnout in the workplace has evolved. Early definitions characterized burnout as mental or emotional exhaustion and physical symptoms of

distress which were work-related, caused impaired performance or concerns about diminished self-efficacy, and manifested in healthy persons without a history of psychopathology (Maslach & Schaufeli, 1993). With the advent of positive psychology and further empirical investigations, definitions of burnout have expanded to include the erosion of work engagement (Schaufeli et al., 2009). The physical symptoms of professional burnout are well-documented and include headaches, fatigue, and cardiovascular disease (Chakravorty & Singh, 2022; Melamed et al., 2006); psychological symptoms including restlessness, malaise, and irritability (Capone et al., 2019; García-Carmona et al., 2019; Roeser et al., 2013); and behavioral symptoms such as disengagement from work or the inability to detach from work, and perseverative maladaptive cognitions which lead to the adoption of health risk behaviors such as substance use, unhealthy eating, smoking (Clancy et al., 2016). Burnout can be reinforced and sustained due to condition-related responses such as sleep disturbance and subsequent worry resulting in memory deficits, poor performance, disengagement from work, escalating fear of the stress response, and the ongoing perception of not being psychologically safe (Almén, 2021).

One group especially vulnerable to experiences of burnout are school personnel such as teachers, school mental health professionals, leaders, and support staff who report symptoms such as cynicism, depersonalization, difficulties with empathy, and a reduced sense of accomplishment in their work with their students (Iancu et al., 2018; O'Brennan et al., 2017). This may manifest as actual or perceived ineffectiveness and emotional, physical, and attitudinal exhaustion (O'Brennan et al., 2017; Travers, 2017). Burnout can present as absenteeism due to stress in the workplace and may be especially high for new staff who are younger or less experienced (Bottiani et al., 2014; Guarino et al., 2006; Ingersoll, 2000; O'Brennan et al., 2017).

A sweeping systematic review of burnout in secondary school teachers estimated the prevalence along three key domains: severe emotional exhaustion (28.1%), depersonalization (37.9%), and low levels of professional efficacy (40.3%; García-Carmona et al., 2019), with overall estimates 25 to 74% across studies (Agyapong et al., 2022). Burnout is prevalent among teachers and extends to other school personnel, including counselors, principals, and other school administrative staff (Beausaert et al., 2016; Fye et al., 2020; Schermuly et al., 2011). Higher rates of burnout have been documented to increase the need for staffing changes, substitution, and disruption in the flow of classroom projects and activities (García-Carmona et al., 2019). This condition correlates with worse student academic achievement, including lower grades and exam performance (Klusmann et al., 2016) and lower student motivation (Madigan & Kim, 2021). These negative consequences highlight the importance of understanding and addressing burnout among school personnel.

Burnout in School Settings

Studies examining demographic factors have demonstrated inconsistent results regarding the association between individual participant characteristics and the prevalence and severity of burnout. Studies have shown mixed results regarding the role of gender in burnout among school personnel, with some positing men are more

likely than women to experience burnout (De Heus & Diekstra, 1999; Rumschlag, 2017; Saloviita & Pakarinen, 2021) and others suggesting women are more vulnerable to emotional exhaustion and men experience more depersonalization (Purvanova & Muros, 2010). Additional findings highlight no statistically significant relationships between gender and burnout among school personnel (Hooper, 1998; Lent & Schwartz, 2012; Maslach & Jackson, 1981). A similar pattern is noted regarding the relationship between age and burnout. Some have found older age is associated with increased teacher burnout (De Heus & Diekstra, 1999). However, older principals may experience decreased burnout (Flynn, 2000). Further, other studies have found no significant relationship between age and burnout (Kara, 2020). Evidence from a meta-analysis of 34 studies suggests more experienced teachers report higher job satisfaction and burnout than those who are newer to the field (Brewer & Shapard, 2004).

Preliminary findings have demonstrated years of work experience predicts symptoms of burnout across multiple school personnel job roles with varied results. No statistically significant association between years of experience and burnout was discovered among school principals (Combs et al., 2009). However, Persson et al. (2021) found work experience significantly predicted only one component of burnout (emotional exhaustion among male principals.) School counselors have been shown to have significantly higher depersonalization and personal accomplishment dimensions from years one to three and seven to 10 (Yildirim, 2008). Others reported school counselors who had been working for 20 or more years had significantly higher burnout than those who had fewer years of experience (Lent & Schwartz, 2012), while other research found no relationship between the length of experience and burnout (Butler & Constantine, 2005).

Multi-faceted organizational factors may also contribute to burnout among school personnel. For example, lack of organizational support and the presence of organizational stressors have been shown to increase burnout among school personnel (Bakker & Schaufeli, 2000; Buonomo et al., 2020; King et al., 2018; Saloviita & Pakarinen, 2021). Moreover, higher co-worker support has been established as a protective factor mitigating the effects of burnout (Greenglass et al., 1997; Kunk-Czaplicki et al., 2023; Yildirim, 2008). However, some suggest how co-workers seek and provide support influences burnout; co-workers sharing work related-stress more frequently may increase the risk of burnout among educators (Bakker & Schaufeli, 2000). Conversely, those who experience isolation are more likely to develop emotional burnout (Stephenson & Bauer, 2010).

School leadership, administration, and organizational support have been established as significant factors impacting teacher burnout (Anomneze et al., 2016; Bakker & Schaufeli, 2000; Brown & Roloff, 2015). Additionally, peer support has been found to decrease academic burnout and engagement in school personnel directly (Lee et al., 2022). Furthermore, teachers who perceive their principals to share decision-making power and view their principals as supportive are less likely to experience burnout (Dworkin et al., 1987). Finally, school personnel with higher levels of observed warmth and sensitivity experience more severe burnout (Bottiani et al., 2019; Wink et al., 2021), yet when they express their natural emotions, their levels of distress diminish (Yin et al., 2019).

Secondary Traumatic Stress

Unfortunately, burnout is not the only occupational stressor impacting school personnel as many are indirectly exposed to the trauma experiences of students through their interactions, seeing the aftermath of trauma and interfacing with other professionals (i.e., child welfare professionals). Secondary traumatic stress (STS) is a term used when people are exposed to the primary trauma of others through helping work and develop symptoms parallel to but not reducible to post-traumatic stress disorder (PTSD; Sprang et al., 2019). Consequently, STS has four symptom clusters, including intrusion, avoidance, negative alterations in cognition and mood, and alterations in arousal and reactivity (American Psychiatric Association, 2013).

The emotional nature and labor required of school personnel are well-documented (Bottiani et al., 2019; Silbaugh et al., 2023; Wink et al., 2021; Yin et al., 2019) and may increase their risk of developing STS responses if indirect exposure is high. A study including 229 school staff members across six schools found that school staff reported very high levels of STS despite high levels of job satisfaction (Borntrager et al., 2012). An additional study noted a similar level of distress in school staff and found that high STS undermined the perceived effectiveness of trauma-informed care strategies (Christian-Brandt et al., 2020). Unfortunately, the relationship between STS and burnout is preliminary and is over-reliant on correlational studies, which do not consider potential moderators of any possible relationship. A meta-analysis of cross-disciplinary research suggests studies which apply the framework of burnout as related to emotional exhaustion (not trauma exposure) and STS (as a trauma condition) demonstrate a significant, positive bivariate association (Cieslak et al., 2014). However, these investigations are largely cross-sectional, limiting understanding of how these constructs influence one another. One longitudinal study of health and behavioral health professionals found burnout may increase the risk of developing STS, but trauma symptoms are unrelated to burnout at follow-up (Shoji et al., 2015). While scholarship examining the relationship between burnout and STS in other disciplines is emerging and limited, it is rare to find studies examining the association between these conditions among school personnel. More scholarship is needed to investigate further the relationship between burnout and STS among this population, considering a range of covariates.

Given the threats to the well-being of school personnel posed by the risk of STS and burnout, this study investigates factors which impact the expression of burnout in school personnel over time in the context of a trauma-informed schools' initiative. This study is unique in its focus on the relationship between burnout and secondary traumatic stress in an educational setting.

METHOD

Procedure

This study involved secondary data analysis of two years of baseline and post-initiative surveys collected from school personnel involved in Trauma-Informed Practices for Educators learning collaborative. During the initiative, school personnel

(i.e., teachers, school administrators, school mental health professionals, teaching assistants, teaching aids, and student support personnel) received specialized training in trauma-informed care, burnout, and secondary traumatic stress as well as ways to address these conditions; and participated in data-driven goal setting and action planning to become more trauma-informed. School leaders learned alongside their staff, participating in knowledge and skill development learning activities and ways to support staff experiencing burnout or secondary traumatic stress. Staff representing 42 schools and districts completed a cloud-based survey at baseline (before the start of the collaborative) and at post, approximately 12 months later, to guide data-driven goal setting and evaluation of progress toward those aspirations. Participation in the surveys was voluntary, and no identifying data was collected. A six-item self-generated code was created at the beginning of the survey and later used to link baseline and post-surveys. Once merged, the code was removed, resulting in a deidentified database of baseline and follow-up responses. Only those participants who completed baseline and post-surveys were included in the analysis to ensure the longitudinal perspective was retained (N = 249). The study was approved via an exemption by the appropriate university Institutional Review Board.

Participants

From the initial dataset of 249 responses, cases were deleted due to missing Time 2 data (n=21) and missing observations for sex and age (n=21). A disproportionate number of participants (n=2) reported "other" for sex and, thus, were also deleted, thereby leaving a total analytic sample of 205 individuals. Table I provides descriptive information about the sample of K -12 school staff. The average age of the sample was 40 years of age. Most of the sample, which included primarily females (n=171, 83%) and mental health providers and social workers (n=84, 41%), had been working for 14 years in an educational setting. Sixty percent (n=122) reported "Rank 1" (post-graduate certification) as their highest level of education. Over 50% of the sample were exposed to their trauma at least once per day.

Table 1: Demographics of Subjects at Baseline

Baseline Characteristic N=205		
	M	SD
Age	40.32	8.04
Years in Education	14.19	7.81
	n	%
Gender		
Female	171	83.41
Male	34	16.59
Job Role		
Teacher	44	21.46

Mental Health/Counseling/Social Work	84	40.98
Administration	43	20.98
Other Certified	26	12.68
Other Classified	8	3.9
Education		
Associate degree or less	3	1.46
Bachelor's Degree	15	7.32
Master's Degree	60	29.27
Rank 1*	122	59.51
Doctorate	5	2.44
Exposure to Student Trauma		
At least once a day	114	55.61
At least once a week	67	32.68
At least once a month	16	7.8
Less than 3 times during school year	8	3.90

*Rank 1 = post-graduate certification for teachers

Measures

Secondary Traumatic Stress Informed Organizational Assessment (STSI-OA) Sprang et al. (2017) assessed the degree to which an organization is STS-informed using 40 items representing the organizational promotion of *resilience-building activities* (7 items); the *promotion of physical and psychological safety* (7 items); the amount of *STS relevant policies* (6 items); how *STS informed respondent rate leadership practices* were (9 items); and *routine organizational practices* (11 items). Respondents were asked to rate each item on the STSI-OA based on the degree to which they perceived their organization addressed the specified practice or protocol. These response categories include (0) not applicable, (1) not at all, (2) rarely, (3) somewhat, (4) mostly, and (5) completely. Total scores range from 0 to 200, with higher scores indicating the organization is more STS-informed. Cronbach's alphas for the subscales demonstrate high internal consistency with coefficients all ranging from .88 (Organizational Practices), .903 (Resilience and Safety), .95 (Policy), and .96 (Leader Practices).

The Secondary Traumatic Stress Scale (STSS) for DSM-5 (Bride, 2017) is a 21-item measure used to assess the professional's self-reported symptoms of STS within the last seven days using a total score and four domain sub-scores representing intrusion, avoidance, alterations in cognitions and mood; cognition, and alterations in arousal and reactivity). Respondents endorsed the frequency of symptoms using a Likert-type scale of responses ranging from 1 = never to 5 = very often. One item e, "I felt discouraged about the future," does not map onto the DSM-5 symptoms clusters and was excluded from the scoring of the STSS, leaving a possible range of

scores from 20–100. Higher scores on the STSS correspond to higher levels of distress. Cronbach's alphas were high across all subscales, ranging from .85 to .96.

The Professional Quality of Life (ProQOL-5) Burnout subscale (Stamm, 2010) is a 10-item self-report tool which queries respondents about symptoms of burnout over the past 30 days. Stamm's operationalization focuses on specific aspects of burnout: exhaustion, frustration, and anger with the workplace, feeling depressed by the work environment, and diminished self-efficacy or hopelessness. According to Stamm (2010), burnout is a byproduct of compassion fatigue, though earlier reports reveal the shared variance between burnout and compassion fatigue is about 21%. This may be attributable to the distress common to both conditions, even though the two subscales represent distinct constructs (Stamm, 2005). Response options follow a Likert-type scale approach where 1 = never to 5 = very often. Possible scores on the ProQOL burnout subscale range from 10 (low burnout) to 50 (high burnout). Summed item totals of 22 or less equal low burnout, 23 – 41 equal average burnout, and 42 or higher equal high levels of burnout (Stamm, 2010). The Cronbach's alpha for the total burnout score is .907.

Senior leader engagement was assessed using the query, "How engaged is senior leadership of your school in the trauma-informed care for education initiative?" Respondents were asked to select from one of the following response options: 1= senior leadership is not aware of TIPE; 2= senior leadership is aware and wants to implement but has not begun to do so; 3= senior leadership is aware of and has started to implement trauma-informed care practices; 4= senior leadership is fully implementing trauma-informed care practices. The Leader Practices domain from the STSI-OA (described above) was examined as an additional potential covariate in the GLMM representing leadership engagement.

A series of demographic variables were collected, including age in years, sex (0=other; 1=female; 2=male), the number of years the individual has worked in education, and their highest level of education. Additionally, respondents were asked to quantify their frequency of exposure to details of student trauma (1= once a day, 2= once a week, 3= once a month, 4= less than three times over the school year, 5= between 4 and 8 times over the school year).

Analytic Plan

Frequencies were calculated for all categorical variables, and mean, standard deviation and minimum and maximum values were calculated for all continuous variables. A general linear mixed model (GLMM) was used in all analyses to account for the non-independence of the subject responses pre- and post. GLMM includes a random factor for the subject to account for the repeated measures and fixed factors for all covariates.

Total burnout scores were entered into the GLMM as a continuous dependent variable. Because this was an exploratory analysis, a p-value of .1 was selected to establish statistical significance. Preliminary analyses indicated that except for STSS-arousal, all the other STSS subscales (avoidance, intrusion, negative cognition, and mood) were insignificant. In addition, all but one STSI-OA subscales (i.e., routine

organizational practices) were insignificant. This analysis did not include the remaining STSI-OA subscales (resilience, safety, policies, and leadership).

An initial preliminary model consisted of STSS-arousal, time, and the interaction of STSS-arousal and time, as well as routine organizational practices and the covariates. We found that some of the covariates were highly correlated: 1) age and years in education, and 2) job role and years in education. Due to the overlap between these covariates, we decided to retain years in education. Finally, we removed sex from the model because burnout scores did not differ significantly between males and females.

Significant independent variables were included in the final model: the remaining covariates (i.e., years in education and details of exposure to student trauma), time, STSS-arousal, the interaction of time and arousal, engaged leadership and routine STSI-OA organizational practices. All analyses were performed in SAS 9.4.

RESULTS

Table 2 includes bivariate findings for Time 1 and 2. First, scores on the ProQOL burnout subscale decreased from Time 1 (μ=23.52, SD=6.0) to Time 2 (μ=21.05, SD=5.0): $t(204)= 9.87$, $p<.001$. According to the respondents, the number of senior leaders fully implementing TIPE increased from 2 (.98%) to 36 (17.56%). Also, senior leaders who were aware of and starting to implement TIPE practices increased from 34 (16.59%) to 119 (58.05%). In addition, mean scores for total STSS-arousal decreased significantly decreased from Time 1 (μ =12.8, SD=4.27) and Time 2 (μ =11.05, SD=4.12): $t(204)= 7.49$, $p<.001$. Finally, mean scores for STSI-OA-organizational practices significantly increased from Time 1 (μ=17.40, SD=7.4) to Time 2 (μ=22.14, SD=6.5): $t(204)= -12.83$, $p<.001$.

Table 2: Bivariate Findings for Time 1 and Time 2

Engaged Leadership	n	%	n	%
	Time 1		Time 2	
Leaders are not aware of TIPE.	58	28.29	5	2.44
Leaders are aware of and want to implement TIPE but have not started.	111	54.15	45	21.95
Senior leadership is aware of and started to implement TIPE practices.	34	16.59	119	58.05
Senior leadership is fully implementing TIPE practices.	2	0.98	36	17.56
	M	SD	M	SD
	Time 1		Time 2	
ProQOL Burnout subscale*	23.52	6.0	21.05	5.0
STSI-OA Organizational Practices*	17.40	7.4	22.14	6.5
Secondary Traumatic Stress: Arousal*	12.80	4.3	11.05	4.1

***p*<.001

Table 3 shows the results of the GLMM. There are four primary findings to highlight. First, participants with low levels of STSS arousal (approximately below 12) showed an increase in burnout over time, while participants with high levels of STSS arousal showed a decrease (B =.28, p<.001). Figure 1 depicts burnout scores for different levels of arousal. Second, burnout decreased as years in education increased (B= -0.08216, p<= 0.0338). Third, burnout decreased as levels of engaged leadership increased. In particular, participants who rated their leaders as being aware of and starting to implement TIPE (B= -1.8, p=.0136) or who reported that they were fully implementing TIPE (B= -3.0, p=.0033) experienced a decrease in burnout over time. Finally, burnout scores decreased as STSI-OA routine organizational practices increased (B= -.18, p<.0001).

Table 3: Generalized Linear Mixed Model Predicting Burnout (*n* = 205)

	Estimate	Lower	Upper	Standard	p-value
Time (Post)	3.3565	1.6386	5.0743	0.8711	0.0002
Arousal	0.5034	0.3778	0.629	0.06367	<.0001
Arousal*Time (Post)	-0.2802	-0.4066	-0.1538	0.06409	<.0001
Organizational Practices	-0.1758	-0.2411	-0.1106	0.03308	<.0001
Years in Education	-0.0821	-0.1573	-0.0069	0.03813	0.0325
Engaged Leadership*					
a. Aware of TIPE but have not started implementing	-0.5927	-1.619	0.4337	0.5204	0.2562
b. Aware of TIPE and started implementing	-1.7375	-3.0986	-0.3764	0.6902	0.0126
c. Fully implementing TIPE	-2.9676	-4.9118	-1.0235	0.9859	0.003

*Reference group is senior leadership is not aware of TIPE.

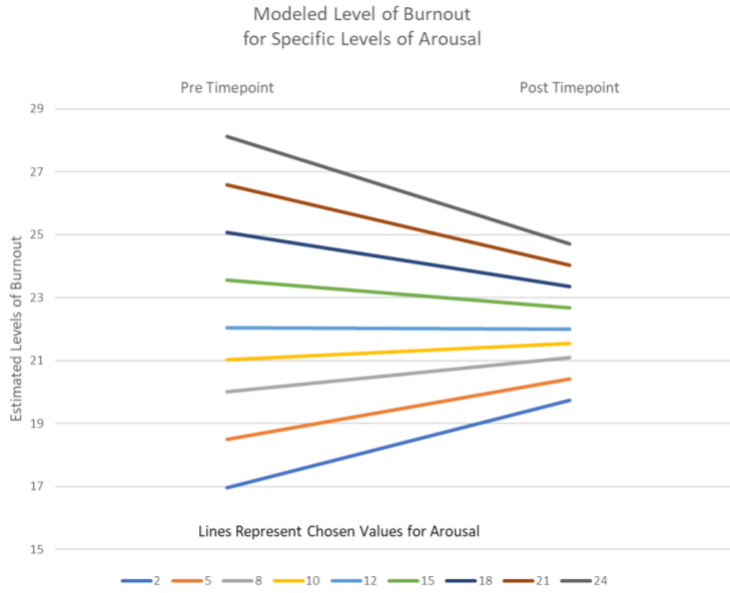

Figure 1: Estimated values of burnout for specified values of the arousal by time interaction

DISCUSSION

Burnout has been described as a depletion of psychological resources after high levels of work-related stress in low-resourced contexts, which can lead to a diminished sense of effectiveness and disengagement from work (Bottini et al., 2020; Chen & Yu, 2014; Maslach et al., 1997). Implementation of trauma-informed care in the context of high levels of burnout by the workforce is a significant challenge. Hence, attention to this phenomenon is paramount in a systems change process. This study investigates factors that impact the expression of burnout in school personnel over time in the context of a trauma-informed school initiative. This investigation extends previous research by broadening the scope of inquiry to include the interplay between secondary trauma, senior leader engagement, organizational response, and burnout.

In this study, as the professional's years of experience in education increased, their reported levels of burnout decreased. This finding is consistent with a body of literature suggesting more experience can provide some protection against the negative impact of work-related stress (Craig & Sprang, 2010; Padmanabhanunni, 2020; Sodeke-Gregson et al., 2013). Meta-analyses suggest, although somewhat equivocal, there is evidence that those with more years of experience in education are less susceptible to burnout (Brewer & Shapard, 2004). This may be attributable to increased adaptability or acquisition of social support over time and tenure in a profession or an inverse association due to attrition, whereas those who cannot tolerate the stress leave the profession (Perryman & Calvert, 2020). Several studies seem to support the latter, with findings that school personnel with higher levels of

burnout report turnover intentions (Christian-Brandt et al., 2020; Goddard & Goddard, 2006; Schaack et al., 2020). To further understand these findings, future mixed-methods studies which allow for qualitative exploration of the coping skills needed to successfully adapt to workplace stressors at different stages of a person's career could assist in targeting interventions to professionals when they may be most vulnerable to the deleterious effects of burnout. This is important because specific self (e.g., mindfulness) and co-regulative (e.g., anticipating burdening episodes in colleagues and responding with support) approaches may serve different functions in reducing burnout at different time points in a person's career and under different circumstances (Pietarinen et al., 2021).

Mean STSS arousal scores in this sample were similar to published averages, ranging from 11.08 to 16.22 for the original STSS DSM 5 version (Sprang et al., 2022; Whitt-Woosley et al., 2020; Wolf et al., 2020) and 10.69 for the STSS DSM-5 French version (Jacobs et al., 2019), while burnout scores remained in the average range over time. While a diverse set of measures are used to capture burnout in the literature, these results are similar to other pre-COVID studies (like the current one), which report average levels of burnout in the majority of their samples, with minority percentages in the high range (Arvidsson et al., 2019; Combs et al., 2009;). Changes in burnout symptoms over time appear to be affected by acute arousal, with those with higher levels of secondary trauma in the past seven days showing declines in burnout scores over time, while those with lower levels of acute arousal show increases in burnout from pre to post. This suggests high arousal levels may be more salient to respondents than burnout. This phenomenon may be experienced in a strong, graded fashion once arousal reaches a certain tipping point. For example, school staff may experience difficulty falling or staying asleep or concentrating at work, which is more physically or psychologically taxing than burnout once they begin interfering with their functioning. Although there are other studies which demonstrate a significant positive association and/or linear prediction between these two constructs (Cieslak et al., 2014; Hinderer et al., 2014; Jeong & Shin, 2023; Malkina-Pkyh, 2017), this study is unique in suggesting the direction of this relationship may change as symptoms of STS reach elevated levels in the area of arousal where functioning may be impaired in one or more domains of an individual's life. The arousal-as-information model proposes that arousal can influence judgments, perceptions, processing, and memory by influencing the perceived personal relevance of an issue, the urgency of a potential response, or the importance of an event in context (Storbeck & Clore, 2008). Using this lens, one might expect the salience of burnout-related symptoms to decrease as the high emotional intensity associated with a trauma response to an experience (in this case, work) increases and dominates the individual's attention. Further research is recommended that investigates how a dose of indirect exposure may influence this relationship as it is the antecedent that starts the response chain, and various indices of indirect exposure (e.g., caseload volume, caseload ratios; perceptions of an unreasonable workload in high exposure occupations) have been positively linked to the subsequent development of STS (Cieslak et al., 2013; Hensel et al., 2015; Kulkarni et al., 2013; Kunk-Czaplicki & Wilson, 2023). Furthermore, the sociocultural context where these conditions originate is important to consider, as it may also impact perceptions

regarding the centrality of the event, which could influence how arousal is experienced and how arousal-as-information is processed.

Another key finding was how burnout decreased as levels of engaged leadership and STSI-OA organizational practices toward being more STS-informed increased over time in participating organizations. This finding is consistent with research from Handran (2015), who found professionals are less likely to develop burnout when they perceive more workplace support from supervisors, peers, and the organization as a whole, as well as Levin and colleagues (2021) who found professionals who believed their workplaces were addressing stress and promoting well-being reported lower levels STS and burnout. Sprang et al. (2022) reported findings from a multidisciplinary group of professionals that followed a similar trend, noting statistically significant declines in burnout scores over time. Interestingly, and in contrast to the current study, Sprang et al. (2022) did not find the STSI-OA domain of organizational practices as significantly related to burnout. Since similar scale means and patterns are noted across these studies, the organizational practices utilized functioned to impact burnout differently in this group of school-based respondents. Since respondent perceptions of how engaged their senior leader was in the overall trauma-informed care initiative was a significant predictor of burnout but STSI-OA Leader Practices was not sufficiently correlated, future research which investigates a more comprehensive list of leader practices specific to the reduction of burnout (vs. STS as assessed by the STSI-OA) is warranted.

Limitations

Despite the insights provided by the current study, certain limitations should be noted. Conceptually, there has been an evolution in the literature on the best way to define burnout operationally. The measure used to capture burnout in this study includes a specific conceptualization of burnout (related to compassion fatigue), which differs from other investigations, suggesting caution should be taken when comparing outcomes. The methodological approach used to collect data relied on self-report survey data, which could raise concerns about social desirability and self-selection bias. The anonymous nature of the responses and a high response rate (over 70%) suggest the effects of these limitations may have been diminished to some degree. The implicit theory of change suggests memory effects can create recall bias, whereas respondents may not accurately and directly remember emotional states retrospectively. However, the recent past approach (i.e., past seven days, past 30 days) used to assess many of the variables in this study falls within industry standards. It is likely matched to the characteristics of the phenomenon being studied (Stull et al., 2009). Engaged leadership was assessed using a single item. It could be further nuanced and investigated in future studies by using a more comprehensive approach including additional leadership characteristics and behaviors which may be associated with declines in burnout among school staff not included in this model (e.g., specific leadership behavior or style). Although the intent was to control for age and gender, these variables were subsequently dropped to meet the assumptions of the analysis and to investigate the most parsimonious model, preventing examination of their potential role in the expression of burnout. Finally, there is evidence that the

rates of high burnout increased during COVID for school personnel specifically (Martínez-Ramon et al., 2021; Pressley, 2021), providing an evolving context for the application of these findings given this data was collected pre-pandemic.

CONCLUSION

Professionals exposed to the trauma experiences of others and who work in high-demand, resourced, and ever-changing contexts can experience a myriad of stress responses which can shape their work life, well-being, and effectiveness. Few studies have examined the relationship between burnout and STS specifically as well as the potential covariates which may impact the expression of such distress in school personnel. This study provides some insights into this phenomenon by identifying the components of STS that may interact with burnout to influence the expression of distress and the role of organizational factors that may positively impact individual-level outcomes. The findings of this study suggest organizational and leader efforts can be harnessed to improve the well-being of professionals who work in schools.

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