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## **Predictors of Secondary Traumatic Stress among Children's Advocacy Center Forensic Interviewers**

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*This study examined various predictor variables that were hypothesized to impact secondary traumatic stress in forensic interviewers (n = 257) from children's advocacy centers across the United States. Data were examined to investigate the relationship between organizational satisfaction, organizational buffers, and job support with secondary traumatic stress using the Secondary Traumatic Stress Scale. The most salient significant result was an inverse relationship between three indicators of job support and secondary traumatic stress. Also significant to secondary traumatic stress were the age of interviewer and whether the forensic interviewer had experienced at least one significant loss in the previous 12 months. Implications for future research, training, program practice, and policy are discussed.*

**KEYWORDS** *secondary trauma, secondary traumatic stress, forensic interviewers, children's advocacy centers*

There is increasing awareness of the secondary traumatic stress (STS) that human service professionals may experience due to the emotional demands of their profession. Forensic interviewers of children's advocacy centers (CACs) who interview children that have been physically or sexually abused are professionals who may be likely to experience secondary trauma. STS is

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defined by Figley (1999) as “the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other [or] the stress resulting from helping or wanting to help a traumatized or suffering person” (p. 10). STS is a syndrome of the signs and symptoms that parallel those of post-traumatic stress disorder. Rather than experiencing the trauma of the event directly, however, the forensic interviewer experiences the trauma indirectly, through the child describing his or her traumatizing experience (Ting, Jacobson, Sanders, Bride, & Harrington, 2005). The forensic interviewer is rendered a victim of the trauma through indirect exposure to the trauma survivor (Bride, Robinson, Yegidis, & Figley, 2004).

Bride and colleagues (2004) reported there is an abundance of research that analyzes the effects of psychological trauma for those who have experienced many forms of victimization, whether the victimization takes the form of natural disaster, criminal, or war and terrorism, individuals who personally experience these are trauma victims. Influenced by Figley, Bride and colleagues (2004) proposed that professionals who work with trauma victims are likely to suffer from secondary trauma. To measure symptoms and the prevalence of secondary trauma among those in the helping profession, Bride and colleagues (2004) designed the Secondary Traumatic Stress Scale (STSS).

This study explores various predictor variables that are hypothesized to impact the risk and/or the effects of STS in CAC model forensic interviewers. These forensic interviewers are a unique human service population because of their specific job responsibilities and constraints. This research seeks to identify predictor variables to foster a better understanding of STS among forensic interviewers and promote prevention and intervention.

## LITERATURE REVIEW

### Stress and Coping

This research is based on stress theory as it relates to STS and forensic interviewers within CAC models. According to Collins and Long (2003), STS theory predicts that professionals impacted by secondary trauma have a higher risk of making poor decisions and forecasts that “personal, professional and organization support may provide protective factors to mediate against the risks relating to the development of secondary stress” (p. 423). Since CACs are an integral venue for the alleged child victim and family to obtain justice and to begin the healing process, these centers are a natural forum where forensic interviewers are at risk of STS since they are the staff responsible for conducting the neutral, child-friendly forensic interview. Perron and Hiltz (2006) found few empirical studies that examine the training, support needs, and the consequences of forensic interviewing, so it

is unclear how to structure the work environment to reduce work-related trauma. Therefore, it is paramount to understand any trauma that the forensic interviewers are experiencing as a result of listening to the egregious accounts of abuse shared by child victims. Organizations need to develop strategies to prevent and minimize the effects of secondary trauma and to “insulate” workers from its impact (VanDeusen & Way, 2006).

STS is believed to be one of the reasons human service workers leave the field prematurely (Figley, 1999), which is costly for CACs owing to the extensive training required to perform CAC model interviews. It may also decrease the ability of the forensic interviewers to be considered expert witnesses based on years of job experience. Bride (2007) cited various studies that highlight the short- and long-term emotional and physical costs of professional helpers working with people in crises or who have been traumatized. These costs can strain multiple relationships, including those at home and on the job, while also increasing the risk of burnout and/or negative coping strategies such as substance abuse. Figley (1999) raised concerns that STS may impair the job-related abilities of those in the human service field and put their consumers at risk of not receiving best practice services.

Numerous studies provide evidence of the effects on helpers who work with and/or treat sexual abuse survivors and sex offenders, which include “intrusive imagery and avoidance, emotional numbing, hypervigilance, personal difficulties, isolation and decreased trust in their own competencies, especially for clinicians new to the field” (VanDeusen & Way, 2006, p. 711; see VanDeusen & Way, 2006, for a complete list of research studies). VanDeusen and Way (2006) also suggested that direct practice workers with STS may have a reduced strengths-based focus and be more suspicious of and cynical toward clients.

### Organizational Satisfaction

The literature suggests that the quality of organizational satisfaction can be a significant predictor of secondary trauma among both forensic interviewers and social workers (Badger, Royse, & Craig, 2008; Perron & Hiltz, 2006). Regehr, Hill, Knott, and Sault (as cited in Badger et al., 2008) suggested that organizational satisfaction has an effect on one’s reaction to trauma. According to Badger and colleagues (2008), workers who are already stressed with their work environment have greater negative reactions to stress/trauma, and occupational stress is a significant predictor of secondary trauma. Perron and Hiltz (2006) found that disengagement and exhaustion is minimal when organizational satisfaction is high, and they also found a slight significant inverse relationship between organization satisfaction and secondary trauma. Individuals who have positive interactions with professional peers and satisfaction in their jobs have reduced fatigue and burnout (Conrad & Kellar-Guenther, 2006).

## Organizational Buffers

### SUPERVISION, MENTORING, AND CLINICAL SUPERVISION

According to a study of vicarious trauma and the impact on clinicians of providing sexual abuse treatment (VanDeusen & Way, 2006), professional coping strategies such as case consultation, supervision, and/or group supervision produced better outcomes in workers. Supervision also plays a key role in the management of burnout (Perron & Hiltz, 2006). Brief and Weiss (2002; as cited in Perron & Hiltz, 2006) indicated that distressed leaders can negatively impact their workers while enthusiastic leaders can energize employees, suggesting that supervision plays a significant role in the management of burnout and possibly secondary trauma.

Webster and Hackett (1999; as cited in Perron & Hiltz, 2006) found that burnout was systematically related to leadership behavior and quality of supervision by mentors or clinical supervisors. Perron and Hiltz (2006) argued that “the present research on secondary trauma focuses almost exclusively on the relationship between the victim and service provider, largely ignoring the organizational factors that may meaningfully impact the relationship” (p. 230) and suggested exploring whether collegial and/or clinical support reduces secondary trauma among service providers who work with traumatized clients.

Badger, Royse, and Craig (2008) recommended continual assessment of environmental characteristics that contribute to secondary trauma as well as full disclosure of the potential risks of secondary trauma during the hiring process. Proper education and training, self-awareness programs, and confidential counseling to workers should reduce the risk of secondary trauma (Collins & Long, 2003). Forensic interviews that are structured (or semistructured), objective, and time limited reduce emotional connectedness (Perron & Hiltz, 2006) while reduced workload, less red tape, and increased staff helps reduce worker stress (Van Hook, 2008).

### JOB EFFICACY

Workers motivated to help others inevitably will have some type of exposure to distressed and traumatized clients. Their motivation to assist is, in some manner, shaped by their satisfaction from their work in the helping relationship (Collins & Long, 2003). Tehrani (2007) found that helpers who felt competent, had a sense of fulfillment, and believed they did a good job experienced less of a negative impact from job related stressors. Conrad and Kellar-Guenther (2006) found that workers who see their job as their “vocational calling” had high satisfaction with their work. Van Hook (2008) contended that when workers understand the importance of the contributions they make to the people they serve, burnout and stress are reduced.

## TEAMWORK

Clinicians who participate in debriefings, supervisions, training, and peer support to process cases have reduced stress levels, which helps alleviate the effects of secondary trauma (Pulido, 2007). Bride (2007) stated that secondary trauma is thought to be one of the reasons social workers leave the field. Van Hook (2008) suggested that high turnover in child welfare workers can be attributed to work-related stressors and given the cost of training workers and the impact turnover has on service quality for children (and families), it is critical to identify ways to reduce worker stress. Thus, ongoing effective supervision, collegial peer reviews, and multidisciplinary teams that work effectively together may ameliorate the risk and effects of secondary trauma. Tehrani (2007) stated that while there is considerable variance in supervision and working with traumatized people is such a challenge, it is paramount for employers to provide sufficient support to their workers as “part of their duty of care” (p. 338).

## JOB SUPPORT

Collins and Long (2003) maintained that individuals engaged in work with trauma victims need to have on-the-job support to process painful emotions. Tehrani (2007) maintained that support from friends and colleagues, professional supervision, and talking to family, in that order, are top sources of support that lead workers to have positive attitudes and beliefs about the nature of their jobs. Van Hook (2008) suggested that support from administration and incentives help workers cope with trauma and stress. Support in the workplace is needed to buffer the negative effects of job stress for workers who “observe and hear the affect-laden experiences,” such as child welfare workers (Dane, 2000, p. 27) or, as suggested in this study, forensic interviewers of child abuse victims.

## GOALS OF CURRENT STUDY

The purpose of this study is to examine factors that may predict the risk or impact of secondary trauma among forensic interviewers of CACs. Prior to the study conducted by Perron and Hiltz (2006), there was no empirical data that specifically analyzed the condition of secondary trauma among CAC model forensic interviewers. The paucity of research pertaining to the effects of secondary trauma experienced by CAC forensic interviewers and the fact that there are now more than 700 such centers across the United States providing forensic interviews justifies the need for such research.

There are three basic hypotheses for this study: (a) the higher the level of satisfaction with the organization, the lower the secondary trauma;

(b) the higher the organizational buffers, the lower the secondary trauma; and (c) the higher the perception of job support, the lower the secondary trauma. We include additional demographic variables as control variables and explore which are associated with secondary trauma.

## METHODS

### Sample and Procedure

The sample population consisted of professionals who conduct CAC model forensic interviews of minor aged children at/for CACs in the United States. At the time of the study, there were 613 CACs nationwide with 650 contacts listed on the National Children's Alliance (NCA; the accrediting body for CACs). The sample population included all identified CACs, chapters, and coordinators on the national list serve, which included an estimated 450 forensic interviewers. One state chapter coordinator of CACs and multi-disciplinary teams (MDTs) agreed to serve as the e-mail contact liaison for the researchers and this project. This state chapter coordinator secured support of her liaison role from the appropriate administrative authority at the NCA and permission was obtained to use the national directory of CACs list serve as the sample population.

The website link survey was administered through a secured Internet data collection mechanism via a university affiliated applied research lab. The data collection site was secured so that only the first author could access the data. The study liaison sent an e-mail to the identified professional on the national LISTSERV that contained information from the researchers about how they were selected, the purpose of the research, confidentiality, voluntary participation, and that the data would be aggregated with no identifying information retained. The identified professional (typically the executive director or CAC coordinator) on the LISTSERV was asked to forward the email to those professionals who met the eligibility criteria for participation (the professionals who conduct the CAC model forensic interviews with children). A total of 171 participants responded to the first e-mail survey, while 100 responded to a follow-up reminder e-mail. Although 271 individuals opened the survey, 14 did not complete the survey, leaving a final sample size of 257.

The survey included demographic information including the participant's gender, age, state of residency, work experience, degree, and professional title. All of the questions were closed-ended questions regarding the professionals' experiences and perspectives, except for two open-ended questions at the end of the survey asking about training helpfulness and if there was anything else the respondent would like to share with the researchers.

## Measures

### INDEPENDENT VARIABLES

*Satisfaction with Organization Scale (SOS).* Satisfaction with organization was measured using an adapted version of the SOS revised instrument (Kimball, Shumway, Klorinek, & Arredondo, 2002). Kimball, Shumway, Korinek, and Arredondo's (2002) SOS revised contains five questions such as, "In most ways, this organization is close to my ideal" and uses a six point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Kimball and colleagues (2002) reported the scale has content validity and evidence of excellent reliability (Cronbach's alpha = .90).

In this study, the five questions from the SOS developed by Kimball and colleagues (2002) were used; however, to keep the scale scoring consistent with other item responses in the survey, the 6-point response range for the SOS was reduced to a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). We conducted an exploratory factor analysis (EFA) using principal axis extraction (results not shown). Examination of the scree plot and factor loadings suggested a one factor solution best fit the data. The Cronbach's alpha for the five-item SOS scale was .94 ( $n = 256$ ). The responses for the five items were added to yield a satisfaction with organization score, with higher scores representing higher levels of organization satisfaction.

*Organizational buffers.* Several questions were developed based on the existing literature to explore if they served as a buffer to secondary trauma. A 5-point scale was used with responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The questions included: "My mentor has a positive effect on me"; "I have a positive relationship with my supervisor"; "I can make a difference in the lives of children"; "I can contribute to improving my agency"; "The multi-disciplinary team works together well"; and "I have a positive relationship with my 'clinical' supervisor." We conducted an exploratory factor analysis on these six items using principal axis extraction and varimax rotation (results not shown—available on request). The scree plot indicated a three-factor solution. The first factor included the items regarding mentor, supervisor, and clinical supervisor, which reflected "relationship with leaders." The Cronbach's alpha for positive relationship with supervisors was .83. The second factor reflected "job efficacy," with two items loading: "making a difference in the lives of children" and "contributing to improving the agency." The Cronbach's alpha for job efficacy was .70. The "multidisciplinary team works well together" loaded separately as a third factor, which makes sense since this reflects the collaboration of the different agencies collectively responding to the allegation of child abuse.

*Job support scale.* Horwitz (2006) defined job support as "receiving positive feedback about work, confiding in others about work and perceiving



support about work from a range of sources" (p. 7), and operationalized job support using 11 items. Horwitz (2006) suggested there were three dimensions of job support: support from outside the workplace, support from inside the workplace, and confiding variables, which was confirmed by a principal components analysis in his study. The first factor included items that represented "received support outside the workplace," and the Cronbach's alpha coefficient was .77 for this scale. For the items representing "received support from inside the workplace," the alpha reliability coefficient was .65. Horwitz (2006) indicated the two composites as moderately associated ( $r = .40$ ,  $p < .001$ ). "Confiding in others" (at work, outside work) was not associated with the other two job support scales. Horwitz (2006) stated, "Again the three factors were converted to summated scales by averaging the items that loaded most heavily on each factor" (p. 9).

In this study, we used the 11 items developed by Horwitz (2006) to measure the respondents' perceived levels of social support with regard to their work as forensic interviewers. We conducted an exploratory factor analysis using principal axis extraction and varimax rotation (results not shown—available on request), which yielded three distinct loadings that were slightly different from the original research by Horwitz (2006). The first factor included items regarding perceptions of support from professionals, colleagues, supervisors, and administrators and compliments about work and confiding at work, which reflected "internal job support." The Cronbach's alpha for this first factor was .82. Items that loaded with the second factor included perceptions of support from clients and the public, which reflected "external work related job support." Since an ongoing working relationship is not established by the forensic interviewer with the children and families, "clients" seem to blend with "the public" for this loading. The alpha coefficient for this scale was .78. The final factor included perceptions of support from family and friends and confiding outside of work, which reflected an "external social support" factor. The Cronbach's alpha for "external social support" was .63. However, "confiding outside of work" did not load heavily with the other two items (family and friends), and eliminating that item increased the alpha to .72. Therefore, confiding outside work was dropped from the external social support subscale. Confiding outside of work is discouraged in the human services due to confidentiality, ethical obligations, and standards of best practice; therefore, it makes sense that this item would not load satisfactorily with any of the job support factors.

To assess whether we could compute an overall measure of job support, we conducted a reliability analysis using 10 items (with confiding outside work excluded) and obtained an alpha of .94. Therefore, we computed four job support scales: overall job support (10 items), internal job support (6 items), external work related job support (2 items), and external social support (2 items). Based on our multivariate analyses, we report results using the three subscales separately.

## DEPENDENT VARIABLE

*Secondary Traumatic Stress Scale (STSS)*. STS was measured using Bride and colleagues' (2004) STSS. The scale consists of 17 items comprised of three subscales designed to measure symptoms within the past seven days associated with indirect exposure to traumatic events through the social worker's professional relationships with traumatized clients. Bride and colleagues (2004) conducted a confirmatory factor analysis to assess whether the items divided into three subscales (intrusion, avoidance, and arousal) as predicted. Each item loaded on its intended factor (see Bride et al., 2004, p. 31), with factor loadings ranging from .58 to .79, and the symptoms were clustered into the three subscales as predicted. Evidence supporting the instrument was found for reliability (full STSS alpha = .93; intrusion alpha = .80; avoidance alpha = .87; arousal alpha = .83). Bride and colleagues (2004) reported evidence of convergent and discriminant validity as well. Bride (2007) concluded that "the STSS has demonstrated evidence of convergent, discriminant, and factorial validity and high levels of internal consistency" (p. 65).

The original STSS asks the respondent to indicate symptoms in the past seven days. In our study, we modified the STSS by asking the respondents to indicate symptoms in the past six months because some forensic interviewers may not interview on a weekly basis. For example, (a) the CAC director sometimes may serve as an alternate forensic interviewer as needed; (b) some forensic interviewers are part-time rather than full-time; (c) small rural centers may receive an infrequent rate of referrals; and (d) centers may rely on forensic interview services from a government agency such as child protection where trained child welfare staff rotate positions and experience high turnover. In addition, typically there is a one time exposure to the child/family trauma for forensic interviewers, rather than an ongoing case worker/case manager relationship. All of these factors suggest the possibility that STS for forensic interviewers may be a "cumulative" effect of hearing the traumas and, thus, a time frame of the past six months was used.

Due to the modification to the STSS and administration to a new population, we conducted an exploratory factor analysis using principal axis extraction and varimax rotation. Examination of the scree plot suggested a one-factor solution was appropriate, which concurred with results reported by Ting and colleagues (2005; see p. 192). The Cronbach's alpha for the 17-item STS scale used in this study was .94.

One global item, "As a result of my work as a forensic interviewer, I feel as though I am indirectly traumatized," was used as a concurrent validity check that secondary trauma was indeed the construct being measured. There was a statistically significant and very high positive bivariate correlation ( $r = .717$ ,  $p < .01$ ) between that item and the aggregate secondary stress traumatic scale score, which supports the concurrent validity of the overall STSS scale.

## CONTROL VARIABLES

Age was measured in years and based on self-report. Gender was a binary variable with female coded as 1. Advanced degree was a binary variable coded 0 if respondent had a bachelor's degree and 1 if the respondent had a master's or doctoral degree. Location was a categorical variable (rural, suburban, and urban) represented by a set of dummy variables, with urban location being the omitted reference category. Respondents were asked if they had experienced a significant loss in the past year, which was coded as 0 = no and 1 = yes. Respondents who held a leadership position (either executive director or clinical supervisor) were coded as 1; nonleaders were coded as 0. If the respondent had a clinical supervisor, they were coded as 1; others were coded as 0. Respondents were also asked what percentage of their position was spent conducting forensic interviews. This variable was coded as an ordinal level variable ranging from 1 (0% to 25%) to 4 (76% to 100%).

## Procedures

First, we examined the univariate distributions and computed means and standard deviations. Second, we examined bivariate relationships, primarily Pearson's correlations. The three hypotheses were tested by running a series of hierarchical Ordinary Least Squares multiple regressions. In Model 1, we entered the control variables. In Model 2, we entered the five-item SOS as a second block after entering the control variables. In Model 3, we entered the three job support variables as a separate block after entering the control variables. In Model 3, we omitted the SOS variable because of collinearity with job support and because it was not a statistically significant predictor of secondary trauma (whether entered with or without the job support variables).

## RESULTS

Univariate results are shown in Table 1. The sample ( $n = 256$ ) consisted of 229 females (89.5%) and 27 males (10.5%) who ranged in age from 24 to 68 years, with a mean age of 40.8 ( $SD = 10.3$ ). A slight majority of respondents had a master's degree (54%) while 43% had a bachelor's degree and 4% had a doctoral degree. Slightly over 40% were in urban locations, while 27% were located in suburban areas and 33% in rural locations. The majority (66%;  $n = 249$ ) reported no significant loss in the previous year; 26% indicated one significant loss while 9% reported experiencing two or more significant losses in the past 12 months.

Of the 256 responding forensic interviewers, the majority (55%) indicated that they were not the coordinator of the CAC's multidisciplinary team.

**TABLE 1** Descriptive Statistics for Control Variables, Independent Variables, and Dependent Variables (N = 257)

	Percentage or Mean	SD	Range	$\alpha$
Control Variables				
Age	40.80	10.27	24–68	
Percentage female	89%			
Master's or doctorate education	57%			
Experienced significant loss	35%			
Location				
Urban	40%			
Suburban	27%			
Rural	33%			
MDT Coord. and/or ED	46%			
Has clinical supervisor	34%			
Percentage job interviewing				
Up to 25%	27%			
26–50%	22%			
51–75%	23%			
76–100%	28%			
Independent Variables				
SOS score	19.47	4.89	5–25	.94
Internal job support	23.07	4.07	14–30	.82
External job support	5.96	1.96	2–10	.78
External social support	8.32	1.50	3–10	.63
Dependent Variable				
STS score	36.69	12.13	17–76	.94

Likewise, a large majority of the responding forensic interviewers indicated that they were not the coordinator or executive director of the agency (84%). Many of the respondents (66%) reported they did not have a clinical supervisor. In determining the percentage of their job responsibilities that involve conducting forensic interviews, 28% indicated 76–100% of their job involved conducting the forensic interviews, 23% reported 51–75% of their job was conducting forensic interviews, 22% indicated 26–50 % of their job was forensic interviewing, and 27% reported 25% or less of their job involved conducting the interviews.

For context, we now report frequency distributions for several variables that were not controlled in the multivariate equations. A vast majority of the CACs were nonprofit organizations (79%); the remaining centers (21%) were either private entities or hospital based centers or government related. Seventy-six percent of the respondents provided CAC forensic interviews with centers that were accredited members of the NCA, while 24% were affiliated with associate members who had not yet received full accreditation by NCA.

The respondents had an average of 6.3 ( $SD = 5.4$ ) years of experience working as a forensic interviewer, with a minimum of less than one year to a maximum of 35 years. The average number of interviews conducted

per week was 4.01 ( $SD = 4.01$ ), with a minimum average of zero interviews per week to a maximum of 20 interviews per week. The total number of interviews conducted in the past year ranged from zero to 856, with a mean of 144.5 ( $SD = 122.7$ ). The respondents reported the nature of the alleged abuse was typically exclusively sexual abuse (88%), whereas only 1.2% was exclusively physical abuse and 11% reported an equal amount of alleged sexual and physical abuse.

Initial forensic interviewer training was received by almost all of the respondents (99.2%), which would be expected since 100% of the centers with which they were affiliated were either accredited by the NCA or an associate member working toward full accreditation. Only two forensic interviewers in the study sample indicated they had not yet received forensic interviewer training. In terms of training, 90% reported receiving ongoing "forensic interview" trainings, while 25 respondents (10%) reported they did not. The majority of respondents ( $n = 252$ ) indicated that training was very helpful (49.2%) or extremely helpful (15%) while 26.6% found training moderately helpful and 9.1% slightly helpful.

With regard to STS, the mean score of 36.7 and standard deviation of 12.1 in our study is slightly higher than Perron and Hiltz (2006) found in their study of 66 forensic interviewers ( $M = 34.2$ ;  $SD = 10.6$ ) and is suggestive of mild STS on average. Bride (2007) found a lower level of STS in their random sample of 600 social workers in a Southern state ( $M = 29.7$ ;  $SD = 10.7$ ). In our study, the STSS scores are nearly normally distributed.

### Relationship between Organizational Satisfaction and Secondary Trauma

Satisfaction with the organization as measured by the five-item SOS score was not significantly correlated with STS at the bivariate level ( $r = -.07$ ,  $p = .261$ ). Examination of Table 2 under Model 2 also leads to rejection of the first hypothesis. The unstandardized regression coefficient was not statistically significant ( $b = -.12$ ) and the standardized beta weight was weak ( $B = -.05$ ). The first hypothesis, therefore, was not supported.

### Relationship between Organizational Buffers and Secondary Trauma

None of the organizational buffers were significantly related to STS in the multivariate analyses (not shown). Although all three organizational buffer constructs had a significant bivariate correlation to secondary trauma, the correlations were weak. The bivariate correlation for the relationship between leader and secondary trauma was  $-.14$  ( $p = .01$ , one tailed) and the standardized beta, net of controls, was  $-.05$ . The bivariate correlation between job efficacy and secondary trauma was  $-.11$  ( $p = .05$ , one tailed),

**TABLE 2** Multivariate Results Predicting Secondary Trauma with Controls, Organizational Buffers, and Job Support (N = 244 individuals)

Predictors	Secondary Trauma					
	Model 1		Model 2		Model 3	
	<i>Unstandardized Coefficient</i>	<i>Beta</i>	<i>Unstandardized Coefficient</i>	<i>Beta</i>	<i>Unstandardized Coefficient</i>	<i>Beta</i>
Control Variables						
Age	-.252**	—	-.254**	—	-.196**	-.168
Gender	1.243	.216	1.324	.218	2.272	.057
Advanced	1.523	.031	1.475	.033	.924	.038
Degree	7.074**	.063	6.975**	.061	6.029**	.238
Significant		.279		.275		
Loss	-.007		-.110		.408	.015
Community	.878	.000	.871	-.004	2.250	.088
Size						
Suburban	.187	.034	.265	.034	.368	.015
Rural	4.037**	.008	3.931*	.011	2.113	.084
Leader	.500	.160	.519	.155	.532	.051
Has clinical supervisor		.048		.050		
Percentage interviewing						
Organizational Buffer						
Sos_sum			-.118	-.048		
Job Support						
Internal job support					-.462*	-.155
External job support					-.585	-.095
External social support					-1.431**	-.176
R Square	.157**		.160**		.255**	
Change in R Square			.002		.098**	

Note: Dependent variable: Secondary trauma.

\* $p < .05$ . \*\* $p < .01$ , one-tailed.

and the standardized beta, net of controls, was .009. The Pearson's correlation between the level of MDT team cooperation and secondary trauma was  $-.12$  ( $p = .03$ , one tailed), while the standardized beta, net of controls, was  $-.061$ . The second hypothesis, therefore, was not supported.

### Relationship between Job Support and Secondary Trauma

Each measure of job support was significantly related to secondary trauma at the bivariate level (results not shown). The 10-item overall job support scale was moderately and inversely related to secondary trauma as predicted ( $r = -.38$ ;  $p < .01$ ). Each of the subscales was also inversely and moderately

correlated at the bivariate level (internal job support,  $r = -.30$ ,  $p < .01$ ; external job support,  $r = -.29$ ,  $p < .01$ ; external social support,  $r = -.30$ ,  $p < .01$ ). All four of the measures were also moderately related to secondary trauma in the multivariate equations. In Model 3 in Table 2, we present results with the three dimensions of job support entered as a block. External social support had the strongest effect on secondary trauma, with an unstandardized slope of  $-1.43$  ( $p < .01$ ) and a beta of  $-.18$ . Internal job support was the next strongest predictor, with an unstandardized effect of  $-.46$  ( $p < .05$ ) and a standardized beta of  $-.16$ . External job support was also negatively associated with secondary trauma ( $b = -.59$ ;  $\beta = -.10$ ). Although it was not statistically significant in the multivariate equation because of collinearity with internal job support and external social support, it was statistically significant and moderately related to secondary trauma if it was entered without the other two measures of job support (results not shown). The overall 10-item job support measure was also significantly and moderately related to secondary trauma when entered by itself after controls (results not shown). Therefore, the third hypothesis is well supported.

### Effect of Control Variables

Two of the control variables were significant predictors of secondary trauma once the job support variables were entered into the equation. Age was modestly and negatively associated with secondary trauma ( $b = -.20$ ,  $p < .01$ ;  $\beta = -.17$ ). The best predictor of the level of secondary trauma was whether the respondent had experienced a significant loss in the past year. Respondents who reported one or more significant losses were predicted to have scores six points higher on the trauma scales than respondents who did not report a loss ( $b = 6.03$ ,  $p < .01$ ), net of controls and levels of job support. In fact, this variable was the strongest determinant of secondary trauma with a beta of  $.24$ .

### Supporting Qualitative Data

The response to the qualitative question "Is there anything else you would like to share with us?" resulted in comments ( $n = 77$ ) that were thematically categorized. The three most salient themes that emerged supported the quantitative data in this study and were: "work related concerns," "suggestions for direct practice coping," and "regulatory implications to explore." The comments related to work concerns pertained to issues surrounding how the dual roles of forensic interviewing and coordinating or some other job-related duty are draining; how a lack of strong leadership or job support can be more frustrating than the children's stories; poor teamwork; acceptance of the status quo rather than striving for best practice; the

physical and emotional drain of the job with little room for debriefing or feeling supported and validated; the need for more information about secondary trauma prevention, intervention, and treatment; and the huge gap in self-care in this field and the need for accreditation standards to address this gap. Suggestions for direct practice coping focused mainly on the need for training that included ongoing forensic interviewer training, court preparation and expert testimony training, STS training, and stress management. Policy-related concerns made up the “regulatory implications to explore” category and included nationally mandated training funded and supported by the regulatory agency or accreditation agency to meet the direct practice coping needs, certification requirements for forensic interviewers that requires continuing education credits and includes stress management training and self-care to enhance resilience, restricting the number of interviews per day, accreditation requirements that mandate “clinical” supervision, and mental health service availability for workers exposed to secondary trauma.

## DISCUSSION

The purpose of this study was to explore predictor variables that were hypothesized to be associated with symptoms of STS among CAC model forensic interviewers for CACs nationwide. Three independent variables were hypothesized to be associated with secondary trauma: organizational satisfaction, job buffers, and job supports. Only one of the hypotheses was supported. Organizational satisfaction and job buffers (relationship with leaders, job efficacy, and level of MDT team cooperation) were not associated with secondary trauma, net of controls. On the other hand, all three dimensions of job support (internal job support, external social support, and external job support) were negatively associated with secondary trauma. Of the three support constructs, external social support was the strongest predictor by a slight margin, followed closely by internal job related support and external work related job support.

It is plausible that job support is related to STS in this unique population due to the fact that they have little to no ongoing relationship with the children and families as well as little to no control over the legal or judicial outcomes of the cases. Due to these job-related constraints, forensic interviewers are not able to have a direct impact on the case as it progresses postforensic interview and postjudicial process. As a result, there is less opportunity for the forensic interviewers to have reduced traumatic stress with job efficacy and case outcomes based on organizational factors but rather their ability to feel supported on the job. Hence, job support emerges as the significant predictor that can buffer the risk or impact of STS. Furthermore, the most important job support comes from external social support (which includes family and friends), possibly because the forensic



interviewer has the most control over these relationships. Internal job-related support was almost equally predictive and includes support from professionals, colleagues, supervisors, administrators, compliments about work, and confiding at work. This result indicates how strongly forensic interviewers are impacted by the support they receive on the job from their superiors and co-workers and that this support buffers the effects of STS. The weakest but still solid predictor was external work-related support, which included clients and the public. While support from these two populations are significant in reducing the impact of secondary stress, these folks are less likely to have frequent ability to support the forensic interviewer due to the nature of the job responsibilities.

In addition to job support, an important predictor was whether the forensic interviewer experienced one or more significant losses. Forensic interviewers who indicated that they had experienced a significant loss or losses in the past year reported higher levels of STS. It is plausible that an accumulation of stressors may make forensic interviewers more vulnerable to the risk of developing STS.

The third variable that emerged as significantly related to STS was the age of the forensic interviewer. The results indicated that the older the forensic interviewer, the lower the level of STS. It is possible that as workers age on the job, they develop the necessary positive and healthy coping skills to diminish the impact or build a resistance to STS. It is also plausible that as workers progress in age while doing this type of work they develop a "thicker skin" to the vulnerabilities of job-related stress in terms of the indirect trauma of hearing children's stories. Forensic interviewers cannot change the outcomes of the cases because they have little to no control over whether a disclosure occurs and whether there is sufficient evidence for prosecution and the outcome of the judicial process. This study guided by stress and coping theory, provides evidence of the importance of organizations and workers in facilitating healthy coping.

### Implications for Practice

Based on this study, job support from co-workers and supervisors is significant for reducing the impact or risk of STS, which has practice implications. It is particularly important to consider less tenured forensic interviewers since age was also a factor. Supervisors need to validate the challenging nature of the roles and responsibilities of forensic interviewers. It is critical that when workers are interviewed, trained, and receive ongoing support on the job, they are made aware of the potential negative effects of working with children and families and hearing egregious accounts of sexual and/or physical abuse. Equally as important is the responsibility of the supervisors to educate the forensic interviewers about stress management and positive coping strategies, both direct problem-focused and emotion

focused. Pulido (2007) suggested that in addition to debriefings, support training, and peer support, supervisors and agency administrators (who may be removed from the direct practice hazards) attend training on preventing STS in their workers and on taking appropriate actions within the organization itself to support direct practice workers. Trippany, White Kress, and Wilcoxon (2004) argued that agencies have the responsibility to assist their direct care workers who deal with traumatized clients in order to decrease the effects of indirect trauma. Our study supports their call for proactive measures such as supervision, continuing education, consultation, staffing, insurance for personal counseling, paid vacations, and limiting caseloads.

Reducing or preventing indirect trauma is an ongoing monitoring process that needs to be performed by not only the clinicians themselves but also colleagues, clinical supervisors, supervisors, and agency administrators. Supervision and opportunities for peer support or peer reviews allow the opportunity to assess one's own perspective and to debrief thoughts and emotions regarding the client situations in an ethical way due to the limitations of confidentiality with this type of work. Peer support, peer review, and supervision may also reinforce the worker's confidence by discussing his or her skills and having the opportunity to assess for best practice and evaluate a job well done or areas in need of strengthening. However, while this type of supervision and peer support may provide for collegiality, team building, and enhancing skills, it may not provide for the kind of support that allows for a "clinical" debriefing and emotional draining or the "proactive" mental health care that may be necessary to decrease the negative impact of job-related trauma for CAC model forensic interviewers. The results suggest that job support is a significant factor in reducing STS, and the qualitative comments supported this in that respondents felt the need for their mental health care concerns to be addressed by administrators, regulatory agencies, and/or accrediting bodies.

### Implications for Policy

There are a variety of forums for CAC forensic interviewers to receive initial and ongoing forensic training and mentorship, such as workshops, conferences, current literature, role-play exercises, review of recorded interviews, observation of interviews, peer reviews, and ongoing supervision. However, the use and frequency of use of these opportunities vary among forensic interviewers. Since this study indicated the significance of job support, particularly with respect to both external and internal job-related constructs, policy and/or training participation mandates may be warranted by regulatory or accrediting bodies. The qualitative comments from respondents support this notion in terms of policy-related suggestions. Examples of suggested policies include (a) accrediting standards that require the provision of clinical supervision to forensic interviewers, (b) certification

of forensic interviewers, (c) mandated continuing education and training of forensic interviewers, and (d) mandatory mental health service opportunities and resources for workers exposed to STS.

### Limitations

Although this study had a good response rate (57%), it is impossible to know if those who chose not to respond may have qualities different from the respondents, such as average levels of STS, burnout, and/or job satisfaction. Respondents may have participated because of some variable(s) unknown to the researchers that made them more interested in the study than the non-respondents. We acknowledge that this study focused on a very specific and unique population, and, therefore, the results cannot be generalized to other work populations. This study also does not account for those forensic interviewers who already left the field due to STS or burnout. Finally, this was a cross-sectional study that relied solely on self-report by the respondents, both of which limit recall and raise the possibility of response bias.

### Future Research

Continued research is needed to expand our understanding of predictor variables to STS and ways to reduce the risk of and/or diminish its impact in the forensic interviewer worker population. The CAC model continues to grow in terms of providing a collective response to child abuse, and forensic interviewers are an ever growing specialized field of direct practice. The needs of this unique helper population are little understood and sparsely studied to date, yet these individuals provide a vital service to child victims and their families. Future research should be longitudinal to establish temporal order and allow more definitive causal conclusions. Studies that examine which interviewers leave the field would also be helpful. Additional direct measures of coping should also be developed.

### Conclusion

Forensic interviewers routinely work with clients who have traumatic histories, which makes STS possible. Agencies have a responsibility to provide an environment that is supportive of the workers' job-related roles and responsibilities and sensitive to the vulnerabilities that increase the likelihood of STS. Workers as well have a responsibility to understand the occupational hazards of direct practice and to take precautionary measures to reduce the risk of STS. More research is needed to understand the occupational hazards of forensic interviewers within the CAC model and to develop ways to prevent and intervene with the risks of STS.

## REFERENCES

- Badger, K., Royse, D., & Craig, C. (2008). Hospital social workers and indirect trauma exposure: An exploratory study of contributing factors. *Health and Social Work, 33*(1), 63–71.
- Bride, B. E. (2007). Prevalence of secondary trauma stress among social workers. *Social Work, 52*(1), 63–70.
- Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice, 14*(1), 27–35.
- Collins, S., & Long, A. (2003). Working with the psychological effects of trauma: Consequences for mental health-care workers—A literature review. *Journal of Psychiatric and Mental Health Nursing, 10*(4), 417–424.
- Conrad, D., & Kellar-Guenther, Y. (2006). Compassion fatigue, burnout, and compassion satisfaction among Colorado child protection workers. *Child Abuse & Neglect, 30*(10), 1071–1080.
- Dane, B. (2000). Child welfare workers: An innovative approach for interacting with secondary trauma. *Journal of Social Work Education, 36*(1), 27–38.
- Figley, C. R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, & educators* (2nd ed., pp. 3–28). Lutherville, MD: Sidran.
- Horwitz, M. J. (2006). Work-related trauma effect in child protection social workers. *Journal of Social Service Research, 32*(3), 1–18.
- Kimball, T. G., Shumway, S. T., Korinek, A., & Arredondo, R. (2002). Satisfaction with Organization Scale (SOS): Reliability and validity of a revised instrument. *Employee Assistance Quarterly, 17*(4), 45–52.
- Perron, B. E., & Hiltz, B. S. (2006). Burnout and secondary trauma among forensic interviewers of abused children. *Child and Adolescent Social Work Journal, 23*(2), 216–234.
- Pulido, M. L. (2007). In their words: Secondary traumatic stress in social workers responding to the 9/11 terrorist attacks in New York City. *Social Work, 52*(3), 279–281.
- Tehrani, N. (2007). The cost of caring—The impact of secondary trauma on assumptions, values and beliefs. *Counseling Psychology Quarterly, 20*(4), 325–339.
- Ting, L., Jacobson, J. M., Sanders, S., Bride, B., & Harrington, D. (2005). The secondary traumatic stress scale (STSS): Confirmatory factor analyses with a national sample of mental health social workers. *Journal of Human Behavior in the Social Environment, 11*(3/4), 177–194.
- Trippany, R. L., White Kress, V. E., & Wilcoxon, S. A. (2004). Preventing vicarious trauma: What counselors should know when working with trauma survivors. *Journal of Counseling and Development, 82*(1), 31–37.
- Van Hook, M. P. (2008, February). *Quality of life and compassion satisfaction/fatigue and burnout in child welfare workers: A study of the child welfare workers in community based care organizations in Central Florida*. Paper presented at the National American Association of Christians in Social Work Convention, Orlando, FL.

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