ANNOTATED BIBLIOGRAPHY on SECONDARY TRAUMA
(Prepared by the OSAC Human Factors Committee)

Andersen, J. P., Papazoglou, K., Gustafsberg, H., Collins, P., & Arnetz, B. (2016). Mental Preparedness Training. *FBI Law Enforcement Bulletin*, 1.

This article featured on the online Law Enforcement Bulletin, provided by the FBI Training Division. The article states that incident response among law enforcement personnel can incur psychological and physiological costs, and thus recommend that law enforcement agencies incorporate mental preparedness training into their tactical training. Such training should provide an overview of physiological and mental elements of resilience and should also cover practical techniques that can be utilized before and during incident exposure. The authors suggest that appropriate mental preparedness techniques include controlled breathing, visualization, and developing positive mental focus. Such techniques, coupled with instruction on physiological response to stress (e.g., activation of 'fight or flight' response), may assist officers respond effectively in high-stress situations. The authors suggest that mental preparedness training is suitable for operational officers, but also other law enforcement personnel such as crime scene investigators and dispatchers.

Arnetz, B. B., Nevedal, D. C., Lumley, M. A., Backman, L., & Lublin, A. (2009). Trauma resilience training for police: Psychophysiological and performance effects. *Journal of Police and Criminal Psychology*, *24*(1), 1-9.

This article does not specifically discuss indirect trauma exposure, but was included in the present literature review for providing a prospective solution for cultivating resilience among police officers. The authors begin in discussing the significance of job-related trauma exposure among police officers and provide an overview of the onset of PTSD among officers. They suggest the cost of trauma exposure among officers requires a development of a prevention intervention to assist officers respond optimally to stressful and traumatic events. In a randomized trial, 18 officers participated in a critical incident simulation, where some officers received additional training in imagery training, while others received no additional training. Imagery training involved psychoeducational instruction, engagement in relaxation methods, and an exercise in which officers visualized work stressors and mentally rehearsed optimal responses, followed by cognitive and behavioral skills training. The researchers found that officers that engaged in the intervention experienced less negative mood and less heart rate reactivity following the stressful simulation.

Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C. C. (2014). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services*, *11*(1), 75.

In this meta-analysis analyzing data of 8,256 workers who experienced secondary traumatic stress as part of their occupation, researchers found there was high correlation between job burnout and secondary traumatic stress, indicating that those who experienced secondary traumatic stress are likely to experience similar levels of job burnout. Studies under the "compassion fatigue" framework showed a significantly higher correlation between secondary traumatic stress and job burnout. Job burnout is characterized as "exhaustion, cynicism, and inefficacy," while secondary posttraumatic stress is cited as having symptoms that parallel PTSD, including re-experiencing of traumatic material, increased physical arousal, and avoidance of trauma triggers (p. 76). The workers included in the meta-analysis were not specific to any one occupation. The literature cited job burnout and secondary traumatic stress mental health providers, soldiers, and human services workers more broadly.

Edelmann, R. J. (2010). Exposure to child abuse images as part of one's work: possible psychological implications. *Journal of Forensic Psychiatry & Psychology*, *21*(4), 481–489.

This article reviews literature that may inform the psychological implications of seeing child abuse images as part of one's work in computer forensics. The author states such exposure can occur among police officers, but may include workers more broadly in organizations combating child pornography. As part of this line of work, professionals must categorize images based on content for sentencing of offenses. The author suggests exposure to such images can incite vicarious traumatization. The author cites literature that refers to psychological costs of trauma among various occupational groups, including police officers and emergency responders, to draw conclusions about the potential psychological costs of exposure to child abuse images. However, the author states there are no extant studies that analyze this topic specifically, and suggests "the need for an evidence base to inform counseling provision in this area is overdue" (p. 488).

Hensel J.M., Ruiz C., Finney C., Dewa C.S. (2015). Meta-analysis of risk factors for secondary traumatic stress in therapeutic work with trauma victims. *Journal of Traumatic Stress, 28*, 83-91.

Jarero, I., Amaya, C., Givaudan, M., & Miranda, A. (2013). EMDR individual protocol for paraprofessional use: A randomized controlled trial with first responders. *Journal of EMDR Practice and Research*, *7*(2), 55-64.

Eye Movement Desensitization and Reprocessing (EMDR) is a psychotherapeutic treatment approach that considers "dysfunctional stored memories" as the basis of psychopathology (p. 57). The EMDR for professional use in acute trauma situations (EMDR-PROPARA) is an adapted tool to teach paraprofessionals how to provide EMDR training in acute trauma contexts. Specifically, EMDR-PROPARA involves: gathering demographic information; inquiring about the critical incident; assessing emotional, physical, and symptoms; self-soothing techniques; traumatic memory processing, self-belief enhancement; body scan; and provision of stress management information. In a randomized controlled trial with first responders, the researchers found that first responders receiving EMDR-PROPARA treatment showed significant decrease in the Short PTSD

Rating Interview following a 3-month follow-up (when compared to a general supportive counseling intervention). This article does not deal with indirect trauma exposure specifically but does offer a potential intervention among one of the target populations of interest (i.e., first responders).

Kerig P.K. (2018). Enhancing resilience among providers of trauma-informed care: A curriculum for protection against secondary traumatic stress among non-mental health professionals. *Journal of Aggression, Maltreatement & Trauma.* https://doi.org/10.1080/10926771.2018.1468373

Lee, J. H., Lee, D., Kim, J., Jeon, K., & Sim, M. (2017). Duty-Related Trauma Exposure and Posttraumatic Stress Symptoms in Professional Firefighters. *Journal of Traumatic Stress*, *30*(2), 133.

In this recent article, the authors state that most extant research on trauma among rescue workers focuses on PTSD after workers have directly experienced a traumatic event, but that little research has evaluated the impact of exposure to potentially traumatic events (PTE) and indirect trauma exposure among this group. The authors state there is comparable PTSD prevalence among rescue workers who experience indirect trauma versus those who experienced direct trauma (4.6% vs. 6.4%, respectively; Zimering, Gulliver, Knight, Munroe & Keane, 2006; as referenced by Lee et al, 2017). To explore the multi-dimensionality of trauma exposure, the researchers assessed associations between PTE exposure (measured via a list of 17 traumatic event types) and posttraumatic stress symptoms (measured by the Impact of Event Scale-Revised) among a sample of 212 firefighters. The researchers found that a composite index inclusive of both PTE and peritraumatic suffering (i.e., suffering during and immediately after a traumatic event) predicted PTSS better than either measure alone; thus, suggesting these two kinds of trauma should be differentially measured.

May C.L. & Wisco B.E. (2016). Defining trauma: How level of exposure and proximity affect risk for posttraumatic stress disorder. *Psychological Trauma: Theory, Research, Practice,and Policy, 8*, 233-240.

Molnar et al., (2017). Advancing science and practice for vicarious traumatization / secondary traumatic stress: A research agenda. *Traumatology, 23*, 129-142.

Osofsky, J. D., Putnam, F. W., & Lederman, J. C. S. (2008). How to maintain emotional health when working with trauma. *Juvenile and Family Court Journal*, *59*(4), 91-102.

This article discusses vicarious traumatization among various professional groups including child welfare workers, police officers, medical personnel, and judges. The authors state that research on vicarious traumatization mainly focuses on welfare workers, officers, and medical professionals, but should also be extended to judges in juvenile and family law. For each occupational group, the authors articulate symptoms, risk factors, and professional costs of prolonged exposure to trauma. As with the Palm et al (2004) article cited in this review, the authors suggest that interventions to curb the effects of vicarious traumatization fall into two broad categories: individual and organizational. Osofsky and colleagues recommend that individuals self-assess their level of secondary traumatic stress via available questionnaires (Figley & Stamm, 1996; Stamm, 2002;

2005, as referenced by Osofsky, Putnam, & Lederman, 2008). If individuals find they have moderate to high secondary traumatization, the authors recommend they engage in self-care methods detailed in the Child Welfare Trauma Training Toolkit (available via the National Child Traumatic Stress Network website at: http://www.nctsn.org/nctsn_assets/pdfs/cwt3_sho_inventory.pdf). At the organizational level, the authors suggest that employers should reduce caseloads, provide strong supervision for frontline workers, offer mental health insurance coverage, acknowledge job stress and the possibility of secondary traumatization, offer educational workshops and develop peer support, provide staff coverage and backup, and encourage discussion regarding secondary trauma among staff.

Palm, K. M., Polusny, M. A., & Follette, V. M. (2004). Vicarious traumatization: Potential hazards and interventions for disaster and trauma workers. *Prehospital and disaster medicine*, *19*(1), 73-78.

The researchers review extant literature on the costs of vicarious traumatization and cite the following consequences: intrusive thoughts, avoidance, hyper-arousal, alcohol abuse, changes in identity, worldview, and spirituality. They then provide a description of differential indirect trauma exposure among disaster professionals, healthcare providers, emergency services personnel, and journalists. Moreover, the authors also provide recommendations for individual and organizational treatment for indirect trauma exposure for disaster professionals and journalists. Tailored support for disaster professionals might include social support, maintaining balance with non-professional activities (e.g. gardening, hiking), scheduling breaks, limiting caseloads, attending support groups, and taking vacation time, among other strategies. Targeted strategies for journalists may include education in stress reactions, interventions such as critical incident stress debriefings, self-care, and fostering a culture in news organizations that would allow professionals to discuss responses to incidents without negative consequences.

Perron, B., & Hiltz, B. (2006). Burnout and Secondary Trauma Among Forensic Interviewers of Abused Children. *Child & Adolescent Social Work Journal*, *23*(2), 216–234.

In this study, the researchers administered an online survey containing the Oldenburg Burnout Inventory, the Secondary Traumatic Stress Scale, the Satisfaction with Organization Scale, the General Self-Efficacy Scale, and a demographics questionnaire to forensic interviewers working at child abuse evaluation centers. The authors found "no substantive evidence that personal characteristics or the duties associated with forensic interview had a significant relationship" with burnout or secondary trauma. It seems that organizational satisfaction had the strongest relationship with burnout, and also had a small relationship with secondary trauma. The authors suggested this implies that organizational factors can buffer the stress of forensic interviewing.

Regambal, M. J., Alden, L. E., Wagner, S. L., Harder, H. G., Koch, W. J., Fung, K., & Parsons, C. (2015). Characteristics of the traumatic stressors experienced by rural first responders. *Journal of Anxiety Disorders*, *34*, 86–93.

The authors state that not at all events that meet Criterion A requirements for trauma in the DSM-5 incur PTSD. Moreover, the prevalence rates for traumatic events (e.g., combat, physical abuse, and accidents) are varied. In the present study, the authors sought to understand what characteristics of traumatic events contributed to the onset of PTSD. In a sample of rural first responders, which included police officers, ambulance personnel, and firefighters, researchers analyzed distressing events and "control events" (which are characterized as events that first

responders anticipated would be traumatic but were not). Participants completed the Posttraumatic Distress Disorder Diagnostic Scale, the Description of Event Questionnaire, the Peritraumatic Dissociation Experiences Questionnaire, and the Posttraumatic Cognitions Inventory-Abbreviated. Using a factor analysis, the researchers found two factors that characterize distressing, PTSD-inducing events: (1) chaos, and (2) resource limitations. Chaos entailed that first responders could not engage in normal procedures, felt unprepared to deal with the situation, and could not keep up with the demands of the event. Resource limitations reflect perceptions of insufficient personnel and a challenging environment. These factors were also associated with dissociation within the traumatic event.

Shoji, K., Lesnierowska, M., Smoktunowicz, E., Bock, J., Luszczynska, A., Benight, C. C., & Cieslak, R. (2015). What comes first, job burnout or secondary traumatic stress? Findings from two longitudinal studies from the US and Poland. *PloS one*, *10*(8), e0136730.

As implied by the title, the researchers sought to answer the question: "What comes first, job burnout or secondary traumatic stress?" The researchers tested this question with two longitudinal studies. The researchers tested whether burnout predicted secondary traumatic stress after 6-month follow-up or whether secondary traumatic stress predicted burnout in a 6-month follow-up among two participants pools: (1) U.S. mental healthcare providers working with U.S. military service members suffering from trauma, and (2) Polish social workers, healthcare professionals, and other human services professionals providing services for civilian trauma members. The researchers found that burnout predicted secondary traumatic stress (but not the inverse). This finding contradicts other literature suggesting that burnout and secondary traumatic stress co-occur. Rather, there appears to be a unidirectional relationship. Shoji and colleagues suggest this offers support of the Conservation of Resources Theory (COR), which articulates that as resources are depleted to cope with stressors, this compromises ability to deal with further exposure to indirect trauma. The researchers conclude in citing other research that might assist with resource maintenance such as caseload size and self-efficacy.

Sprang, G., Craig, C., & Clark, J. (2011). Secondary traumatic stress and burnout in child welfare workers: a comparative analysis of occupational distress across professional groups. *Child Welfare*, *90*(6).

This study attempts to identify predictors of secondary traumatic stress and burnout among child welfare workers. In an online survey among 669 child welfare workers, the researchers administered the Professional Quality of Life IV, which assesses compassion fatigue and burnout symptoms. They found that significant predictors of secondary traumatic stress: "being male, young, Hispanic, holding rural residence, and endorsing a lack of religious participation," while significant predictors of burnout included being male and young. To abate costs of secondary traumatic stress and burnout in this line of work, researchers advise that, "supervisors are key organizational players for developing the socioemotional and task environments that prevent worker attrition and distress" (p. 164). Supervisors can alleviate the burden associated with child welfare work by providing a balanced caseload with cases that vary in severity. As with other literature cited in the current annotated bibliography (Palm, Polusny, & Follette, 2004; Shoji et al, 2015), other strategies might include providing formal training on secondary stress, promoting work-life balance, and self-care.

Sprang G., Ford J., Kerig P., & Bride B. Defining secondary traumatic stress and developing targeted assessments and interventions: Lessons learned from research and leading experts. *Traumatology*. Advance online publication.

Walker, A., McKune, A., Ferguson, S., Pyne, D. B., & Rattray, B. (2016). Chronic occupational exposures can influence the rate of PTSD and depressive disorders in first responders and military personnel. *Extreme Physiology & Medicine*, 5(1), 8.

In this literature review, Walker and colleagues suggest that occupational exposures such as heat, smoke, disruptions to sleep, and injury, contribute to inflammatory activity and dysregulation of the HPA-axis, which may, in turn, contribute to PTSD and depression among first responders and military personnel. The authors suggest that future research should test their hypothesis. Finally, the researchers suggest that linking occupational exposure to increases in inflammatory activity would implicate the need for risk management for first responders and military personnel. Such risk management may include improving physical fitness and post-incident rehabilitation (e.g., restoring sleep). This article is not particularly insightful in examining secondary stress among the occupational populations of interest, but it does offer a novel perspective on the importance of physiological rehabilitation following distressing events (as compared to other articles reviewed which discuss psychological interventions).