

Editorial

It's Not Easy – Impacts of Suicide Prevention Research on Study Staff

Jason I. Chen^{1,2}, Ginnifer L. Mastarone^{1,3}, and Lauren M. Denneson^{1,2}

¹Center to Improve Veteran Involvement in Care, VA Portland Health Care System, US Department of Veterans Affairs (VA), Portland, OR, USA

²Department of Psychiatry, Oregon Health and Science University, Portland, OR, USA

³Department of Communication, College of Liberal Arts and Sciences, Portland State University, Portland, OR, USA



Suicide prevention researchers who work with individuals at high risk of suicide or are exposed to details of suicide attempts and deaths may experience negative impacts on their own well-being. This is not unlike the experiences of mental health providers, where repeated exposure to clients' difficult experiences has long been identified as an occupational risk (Molnar et al., 2017). However, there have been few studies evaluating how exposure to details of suicide-related behavior impacts researcher well-being. This gap in the literature is worrisome, as researchers' mental health and well-being might be negatively impacted by repeated exposure to graphic details of suicide, discussing the often-painful experiences that lead to suicide attempts, and managing potential crises that arise during research activities. Left unaddressed, this repeated exposure may lead to negative outcomes for those working in the suicide prevention field and potentially the success of the field as a whole.

In this editorial, we argue for the importance of including coping support in suicide prevention research. We begin by reviewing definitions of terms that have been previously used to discuss harms associated with exposure to another's difficult mental health experiences: *vicarious trauma*, *compassion fatigue*, *secondary traumatic stress*, and *burnout*. We then discuss a subset of the extant literature regarding the impact of suicide prevention research activities on research staff. We conclude with a discussion of future directions for research and practice, including the implementation of a novel intervention to address mental health distress among researchers at our facility.

Definitions and Current Constructs

Vicarious trauma, *secondary traumatic stress*, *compassion fatigue*, and *burnout* are the more commonly used terms that have been developed to describe the experience and mental health sequelae of exposure to another's trauma or other difficult life events. A continuing struggle within this literature is the lack of clear definitions for constituent constructs (Branson, 2018). Inconsistent definitions have negatively impacted our ability to synthesize findings across studies to inform intervention development. Definitions of current terms in the extant literature include the following: (1) *Vicarious trauma* is defined as the indirect exposure to another individual's traumatic and/or other difficult experiences, such as via listening to another person's account of trauma through transcription or clinical interviews (Molnar et al., 2017); (2) *secondary traumatic stress* is considered the set of symptoms associated with acute stress reactions (e.g., increased alertness, sleep disturbance) that may result from vicarious trauma (Figley, 1999); (3) *compassion fatigue* focuses on the avoidance and numbing posttraumatic stress disorder symptom clusters that individuals experience following vicarious trauma that may lead them to feel less engaged in their work or avoid distressing tasks (Figley, 1995); and (4) *burnout* refers to feelings of emotional exhaustion and lack of fulfillment in work, more commonly thought of as precipitated by organizational factors such as bureaucratic barriers and lack of perceived supervisor support rather than patient interactions per se (Maslach & Jackson, 1984). For simplicity, we use *vicarious trauma* to describe exposure to the details of another's difficult mental health experiences and *mental health distress* to describe the negative impacts resulting from repeated exposure to suicide-related details

and other sources of vicarious trauma within our proposed conceptual framework and intervention. When describing studies from the literature, we employ the terminology utilized by the original authors to accurately report their work.

Mental Health Distress Among Researchers

Although there is little literature specific to suicide prevention research, consequences of vicarious trauma have been explored predominantly among qualitative researchers studying trauma and related health topics. In one study of social science researchers working with at-risk populations, over 85% reported exposure to trauma through research activities (Whitt-Woosley & Sprang, 2018). Further, approximately 58% of this sample endorsed moderate-to-extreme distress associated with their research projects. Engaging in qualitative research (vs. quantitative) and conducting more hours of trauma-related research per week were significantly associated with higher levels of secondary traumatic stress. In qualitative analyses, Whitt-Woosley and Sprang (2018) identified the most common sources of stress as general distress from trauma research and exposure to participants' childhood trauma or other abuse. Researchers also reported challenges with maintaining objectivity and being frustrated with the slow progress of research in effecting change.

Studies of specific research roles have found that among transcriptionists (transcribing qualitative interviews), exposure to sensitive health information and descriptions of difficult experiences such as end-of-life issues, child abuse, and mental health were identified as specific topic areas contributing to traumatic stress (Kiyimba & O'Reilly, 2016; Wilkes, Cummings, & Haigh, 2014). Specifically, transcriptionists in these studies endorsed experiencing a number of symptoms including negative emotions (e.g., anger, sadness, exhaustion) and physical distress (e.g., nausea, headaches). However, transcriptionists also reported engaging in several coping strategies (e.g., acceptance, detachment) and experiencing personal growth (e.g., enjoying the story, changing attitudes toward difficult topics).

Dickson-Swift and colleagues (2008) completed a qualitative study of public health researchers who conducted regular interviews including risk assessments with high-risk populations. Interviewers reported feeling especially distressed owing to their limited training and support as nonclinicians for managing mental health distress from working with these populations. Within psychosocial oncology research, interviewers discussed similar difficulties in terms of lacking sufficient training regarding maintain-

ing professional boundaries and managing difficult emotions (Kennedy, Hicks, & Yarker, 2013). One participant even reported engaging in several maladaptive coping strategies to manage negative emotions stating (Kennedy et al.):

I am displaying behavior associated with someone under duress ... I have put on weight and I am drinking more alcohol than ever, although I don't consider this to be at harmful levels, but I am certainly more argumentative than before this work. (p. 468)

Adaptive coping strategies that interviewers reported finding helpful included debriefing sessions and social support from other team members. In another study, qualitative interviewers reported feeling overwhelmed at times and experiencing feelings of emptiness after hearing accounts from individuals describing deaths by suicide of loved ones (Boden, Gibson, Owen, & Benson, 2015). One interviewer in the study of Boden et al. (2015) described working with recent suicide attempt survivors and discussing fears that the interview may trigger distress and future suicide attempts. Another interviewer noted having dreams about attempting suicide after conducting interviews with suicide attempt survivors.

McKenzie and colleagues (2017) had similar findings among research assistants who interviewed and completed chart reviews of emergency department patients with suicidal behaviors. Research assistants reported feelings of horror and shock when reviewing graphic details involving suicide attempts accompanied by intrusive images and dreams. They discussed becoming entangled with the different narratives of suicidal patients including concerns regarding whether these patients survived their suicide attempt and their long-term outcomes. Participants also reported feeling emotionally exhausted, having difficulty continuing in their work, and becoming desensitized and numb after repeated exposure to suicide-related content. To manage this distress, participants endorsed working on building insight into personal limits, taking breaks, and avoiding exposure to related topics during leisure time.

In summary, researchers working with high-risk populations may experience mental health consequences of vicarious trauma. Individual researchers have worked to engage in adaptive and maladaptive coping strategies to manage their distress. However, it remains unknown the degree to which suicide prevention researchers are impacted by vicarious trauma and whether they are at elevated risk of mental health disorders or death by suicide. Similarly, it is unclear if the specific type of suicide research (quantitative, qualitative, intervention) has a differential impact on symptoms associated with vicarious trauma. These are all areas for important future investigation.

Interventions

Our review of the literature revealed no known studies on interventions to address mental health distress among researchers. However, interventions have been evaluated in other workers who experience vicarious trauma such as mental health professionals and police officers. These interventions have focused predominantly on early debriefing following exposure to trauma. However, meta-analytic research and systematic reviews point to limited-to-no evidence for these interventions in part due to a lack of high-quality studies (Bercier & Maynard, 2014; Lewis, 2003; Phipps & Byrne, 2003). Current approaches to addressing burnout generally focus on organizational factors (e.g., training, job redesign) and coping skills (e.g., mindfulness, relaxation). A recent meta-analysis showed significant improvements in burnout among mental health providers who received interventions (Dreison et al., 2018). However, these improvements were generally small, and no benefits were seen for enhancing personal job satisfaction. Interventions directed toward increasing personal coping skills appeared to show greater improvement in burnout than those focused on organizational factors.

In addition, there are challenges unique to the research setting that may impact burnout such as limited funding opportunities, unstable employment, and competitive environments (e.g., “publish or perish”). Future studies should explore shared and unique predictors of burnout within suicide prevention research to inform future intervention development.

Toward an Intervention for Mental Health Distress in Suicide Prevention Research

We found that our study staff were experiencing distress from repeated exposure to participants’ suicide-related thoughts, behaviors, associated traumatic experiences,

and other life stressors. The lack of guidance in the literature led us to develop our own system to support our study staff. To develop our intervention, we used an extension of the systems engineering initiative for patient safety (SEIPS) model, which is a human factors, work systems framework that has been applied to safety and health (Carayon & Smith, 2000). We chose this model owing to its incorporation of job duties/tasks and systems-level factors as opposed to those that solely focus on individual factors.

The SEIPS model conceptualizes a work system to include: the person and their individual attributes (e.g., training, mental health), the tasks they complete to do their work (e.g., qualitative interviews), the tools and technologies that they interact with (e.g., transcripts), aspects of the physical work environment, and organizational conditions (e.g., training, support structures) (see Figure 1; Carayon & Smith, 2000; Smith & Sainfort, 1989). These factors interact with each other to produce different work outcomes, such as safety and workplace satisfaction. Based on this framework, we propose that interventions targeting mental health distress among suicide prevention researchers should address one or more of the following components: (1) organizational and project-specific policies and procedures for facilitating prevention of mental health distress; (2) active leadership support for normalizing distress and taking time for coping; (3) evaluation of research tasks and associated strategies for mitigating potential risks to staff; (4) evaluation of staff knowledge, skills, and other attributes that may impact coping abilities; and (5) development of programs to enhance coping or other protective mechanisms. Finally, programs should incorporate ongoing program evaluation and quality improvement through feedback from research staff and facilitators.

We chose to develop our intervention around personal and organizational attributes, as we believed this component of the framework would be more readily modifiable. In our examination of this aspect of the SEIPS model, we determined that two staff attributes that may contribute to mental health distress and other adverse effects of suicide research are (1) limited coping skills and (2) low workplace

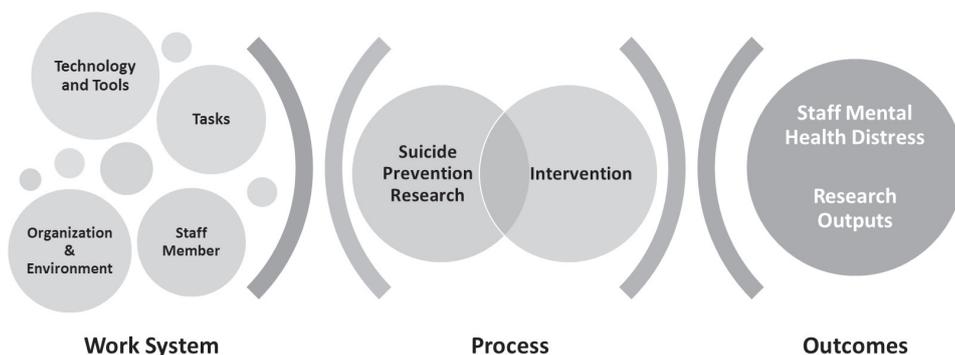


Figure 1. Intervention framework adapted from the systems engineering initiative for patient safety (SEIPS) model.

\$[protocol]://econtent.hogrefe.com/doi/pdf/10.1027/0227-5910/a000595 - Jason I. Chen <jason.chen1@va.gov> - Monday, May 13, 2019 9:43:36 AM - IP Address: 152.131.10.71

social support. Key to our conceptualization of the problem of mental health distress associated with suicide research is the realization that suicide research is not easy. Discussion of suicide attempt accounts and other stimuli can be difficult for staff to process. Often, researchers hire staff for their technical skills or experience working in subject domains across their research portfolio. Staff hired to contribute primarily to one project might also work on another project where their technical skills are complementary. We argue that this practice, while necessary to staff research teams, might contribute to mental health distress in suicide research as staff might have less domain experience with trauma-related content. This situation is also true for novice research assistants who might be working on their first trauma-related project. They simply might not have the experience necessary to cope with difficult content and vicarious trauma.

A second personal attribute that might contribute to mental health distress is working on projects with different staff members. When staff membership is fluid there is less time to develop strong relationships with others. This has been found to be positively associated with workplace satisfaction, a sense of belonging, and social support (Acker, 2004). Social support has been conceptualized as an individual's perception of sharing, trust, reciprocity, and emotional or tangible support (Kawachi, 2006; Lochner, Kawachi, Brennan, & Buka, 2003). Within the context of suicide prevention research, emotional support (perceiving others care about you and your well-being) and network support (perceiving support is available that can be accessed when needed) may be of particular importance to ensure that staff feel supported when managing mental health distress to buffer against impacts of vicarious trauma (AbuAlRub, 2004; Ben-Zur & Michael, 2007; Thompson, Amatea, & Thompson, 2014). Therefore, we developed our intervention to foster emotion regulation and problem-solving skills to enhance coping and facilitate the development of social support networks within and across teams to increase network social support.

Intervention Model Overview

In applying these concepts, we propose the following steps for implementing a multilevel intervention to support research staff (see Figure 2):

- Step 1. Incorporate safety procedures into the research plan: Staff wellness groups should be held regularly and built administratively into project plans. These practices are intended to signal to our staff that they were empowered to take part in these groups and had managerial support.

- Step 2. Brief all staff on safety procedures: All staff should be briefed on safety procedures prior to beginning a project with potential vicarious trauma exposure. Staff feedback should be included in the development of these procedures in a safe space.
- Step 3. Conduct staff wellness groups: Groups should meet regularly at a frequency of no less than once a month. When possible, facilitators should aspire to exclude direct supervisors of staff participants from wellness groups to facilitate creation of a safe space for discussing mental health distress. Groups should focus on collectively identifying and practicing problem-solving and emotion regulation strategies to address staff distress. We recommend beginning with a quick check-in of current needs to empower staff to lead the group agenda. Research staff should be encouraged to share specific instances (within the confines of confidentiality) that they would like to discuss with the group. This allows the group to collaborate on strategies to support the staff member and problem-solve suggestions for how to cope with the situation. Specific coping skills relevant to these groups may include: planning for how to respond to sources of mental health distress (e.g., take breaks when coding), incorporate time for coping activities (e.g., scheduling breaks between interview sessions), and reaching out to colleagues (e.g., encouraging exchange of contact information). At the end of each session, feedback should be elicited from participating staff on the process so that the facilitators can be reflexive in responding to arising staff needs.
- Step 4: Debrief with facilitators: Facilitators should meet after every session to debrief regarding group content and process so as to inform future sessions. Facilitators should then discuss the proposed changes with staff at the next debriefing group before altering group structure.

Initial Experiences and Lessons Learned

On the basis of the identified components, we implemented an intervention designed to take a holistic approach to the suicide research process by incorporating social support mechanisms and tailoring the intervention to staff-level factors. Managerial support has been important for facilitating staff involvement and setting a clear expectation that wellness should be prioritized. Staff were not required to share their reflections with the group but were encouraged to keep a journal to reflect on their experiences and monitor use of coping strategies. Recent topics have included feelings of self-doubt, helplessness when trying



Figure 2. Staff wellness group conceptual model.

to support at-risk research participants, and anger at systems-level factors impacting care. Staff have generally reported positive experiences so far and have been active collaborators in adjusting group content to meet their needs. Based on their feedback, we have made several changes to the group including encouraging staff to use the group time for existing coping strategies (e.g., go for a walk) or address urgent work tasks to empower them to choose appropriate coping resources for their current needs, providing a list of planned attendees (e.g., potential supervisors, senior center staff) to allow staff to determine their own comfort in attending, and introducing discussion of physical safety considerations in research with at-risk populations.

Conclusion

Mental health distress among suicide prevention researchers is an important area requiring further exploration. In addition, the need to develop preventative strategies that create a safer, research-informed approach to coping with role-related mental health distress is high. Our approach to address mental health distress on research teams provides one example, albeit unstudied, that others may use to develop their own programs. Although we have had initial positive feedback for our group, we plan to conduct ongoing program evaluations to inform our efforts and the broader field. In addition, further research is needed to determine the prevalence of mental health distress among suicide prevention researchers and to develop optimal interventions for reducing distress and promoting well-being.

References

- AbuAlRub, R. F. (2004). Job stress, job performance, and social support among hospital nurses. *Journal of Nursing Scholarship*, 36(1), 73–78. <https://doi.org/10.1111/j.1547-5069.2004.04016.x>
- Acker, G. M. (2004). The effect of organizational conditions (Role conflict, role ambiguity, opportunities for professional development, and social support) on job satisfaction and intention to leave among social workers in mental health care. *Community Mental Health Journal*, 40(1), 65–73. <https://doi.org/10.1023/b:Comh.0000015218.12111.26>
- Ben-Zur, H., & Michael, K. (2007). Burnout, social support, and coping at work among social workers, psychologists, and nurses. *Social Work in Health Care*, 45(4), 63–82. https://doi.org/10.1300/J010v45n04_04
- Bercier, M. L., & Maynard, B. R. (2014). Interventions for secondary traumatic stress with mental health workers: A systematic review. *Research on Social Work Practice*, 25(1), 81–89. <https://doi.org/10.1177/1049731513517142>
- Boden, Z. V. R., Gibson, S., Owen, G. J., & Benson, O. (2015). Feelings and intersubjectivity in qualitative suicide research. *Qualitative Health Research*, 26(8), 1078–1090. <https://doi.org/10.1177/1049732315576709>
- Branson, D. C. (2018). Vicarious trauma, themes in research, and terminology: A review of literature. *Traumatology*. Advance online publication. <https://doi.org/10.1037/trm0000161>
- Carayon, P., & Smith, M. J. (2000). Work organization and ergonomics. *Applied Ergonomics*, 31(6), 649–662. [https://doi.org/10.1016/S0003-6870\(00\)00040-5](https://doi.org/10.1016/S0003-6870(00)00040-5)
- Dickson-Swift, V., James, E. L., Kippen, S., & Liamputtong, P. (2008). Risk to researchers in qualitative research on sensitive topics: Issues and strategies. *Qualitative Health Research*, 18(1), 133–144. <https://doi.org/10.1177/1049732307309007>
- Dreison, K. C., Luther, L., Bonfils, K. A., Sliter, M. T., McGrew, J. H., & Salyers, M. P. (2018). Job burnout in mental health providers: A meta-analysis of 35 years of intervention research. *Journal of Occupational Health Psychology*, 23(1), 18–30. <https://doi.org/10.1037/ocp0000047>
- Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Philadelphia, PA: Brunner/Mazel.
- Figley, C. R. (1999). Compassion fatigue: Towards a new understanding of the costs of caring. In B. Hudnall Stamm (Ed.), *Secondary traumatic stress: Self-care issues for clinicians, researchers, and educators* (pp. 3–28). Baltimore, MD: The Sidran Press.
- Kawachi, I. (2006). Editorial: Social capital and health: Making the connections one step at a time. *International Journal of Epidemiology*, 35(4), 989–993. <https://doi.org/10.1093/ije/dyl117>
- Kennedy, F., Hicks, B., & Yarker, J. (2013). Work stress and cancer researchers: An exploration of the challenges, experiences and training needs of UK cancer researchers. *European Journal of Cancer Care*, 23(4), 462–471. <https://doi.org/10.1111/ecc.12135>
- Kiyimba, N., & O'Reilly, M. (2016). An exploration of the possibility for secondary traumatic stress among transcriptionists: A grounded theory approach. *Qualitative Research in Psychology*, 13(1), 92–108. <https://doi.org/10.1080/14780887.2015.1106630>
- Lewis, S. J. (2003). Do one-shot preventive interventions for PTSD work? A systematic research synthesis of psychological debrief-

- ings. *Aggression and Violent Behavior*, 8(3), 329–343. [https://doi.org/10.1016/S1359-1789\(01\)00079-9](https://doi.org/10.1016/S1359-1789(01)00079-9)
- Lochner, K. A., Kawachi, I., Brennan, R. T., & Buka, S. L. (2003). Social capital and neighborhood mortality rates in Chicago. *Social Science & Medicine*, 56(8), 1797–1805. [https://doi.org/10.1016/S0277-9536\(02\)00177-6](https://doi.org/10.1016/S0277-9536(02)00177-6)
- Maslach, C., & Jackson, S. E. (1984). Burnout in organizational settings. *Applied Social Psychology Annual*, 5, 133–153.
- Mckenzie, S. K., Li, C., Jenkin, G., & Collings, S. (2017). Ethical considerations in sensitive suicide research reliant on non-clinical researchers. *Research Ethics*, 13(3-4), 173–183. <https://doi.org/10.1177/1747016116649996>
- Molnar, B. E., Sprang, G., Killian, K. D., Gottfried, R., Emery, V., & Bride, B. E. (2017). Advancing science and practice for vicarious traumatization/secondary traumatic stress: A research agenda. *Traumatology*, 23(2), 129–142. <https://doi.org/10.1037/trm0000122>
- Phipps, A. B., & Byrne, M. K. (2003). Brief interventions for secondary trauma: Review and recommendations. *Stress and Health*, 19(3), 139–147. <https://doi.org/10.1002/smi.970>
- Smith, M. J., & Sainfort, P. C. (1989). A balance theory of job design for stress reduction. *International Journal of Industrial Ergonomics*, 4(1), 67–79. [https://doi.org/10.1016/0169-8141\(89\)90051-6](https://doi.org/10.1016/0169-8141(89)90051-6)
- Thompson, I., Amatea, E., & Thompson, E. (2014). Personal and contextual predictors of mental health counselors' compassion fatigue and burnout. *Journal of Mental Health Counseling*, 36(1), 58–77. <https://doi.org/10.17744/mehc.36.1.p61m73373m4617r3>
- Whitt-Woosley, A., & Sprang, G. (2018). Secondary traumatic stress in social science researchers of trauma-exposed populations. *Journal of Aggression, Maltreatment & Trauma*, 27(5), 475–486. <https://doi.org/10.1080/10926771.2017.1342109>
- Wilkes, L., Cummings, J., & Haigh, C. (2014). Transcriptionist saturation: Knowing too much about sensitive health and social data. *Journal of Advanced Nursing*, 71(2), 295–303. <https://doi.org/10.1111/jan.12510>

History

Accepted December 21, 2018

Published online May 10, 2019

Acknowledgments

This material is also the result of work supported with resources and the use of facilities at the VA Portland Health Care System,

Portland, OR. The views expressed in this editorial are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs, the National Institutes of Health, or the United States government.

We would like to acknowledge Steven Dobscha, MD, and Alan Teo, MD, who provided feedback on the ideas within this editorial. We would also like to thank our study staff, who have been actively working with us to mitigate mental health distress throughout our center.

Funding

This work was completed under the auspices of a Trans-NIH-funded K12 award in Emergency Care Research (5K12HL133115) and a VA Advanced Fellowship in Health Services Research & Development (TPH 98-000-02) funded by the VA Office of Academic Affiliations.

Dr. Jason Chen is Assistant Professor of Psychiatry at Oregon Health & Science University and Research Fellow at the VA Center to Improve Veteran Involvement in Care (CIVIC). His research focuses on suicide prevention for high risk populations, community-based approaches, and help-seeking processes.

Dr. Ginnifer Mastarone, PhD UXC, is a social scientist who specializes in human–computer interaction. Her work centers around the usability and usefulness of health information technologies (HIT) in operational settings. She also designs technological interventions, and examines how technologies and processes are implemented within health care systems.

Dr. Lauren Denneson is Core Investigator at the VA Portland Health Care System's Center to Improve Veteran Involvement in Care and Assistant Professor in the Department of Psychiatry at Oregon Health & Science University, OR, USA. Dr. Denneson is a social psychologist with a focus on health promotion and disease prevention.

Jason I. Chen

VA Portland Healthcare System (R&D 66)

3710 SW US Veterans Hospital Road

Portland, OR 97239

USA

jason.chen1@va.gov