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Abstract

How can victim service providers, the organizations they work for, and the communities they serve help respond to the issue of occupation-based secondary trauma? Over the last few years, federal agencies in the United States have spent millions in research and programming to answer this important scientific and policy question. The current study builds on this work by describing and evaluating a community-based participatory research project focused on finding manageable, effective, sustainable, and ethical ways to respond to occupation-based secondary trauma in two separate communities: a rural American Indian community, Blackfeet Tribal Nation, and a predominantly white county in Montana, Gallatin County, United States. Findings from evaluation questionnaires ($n=178$; 80.10% women; 64.60% American Indian; 29.14% White) representing a wide range of occupations document that: (1) the implementation of the project was successful; (2) toolkits created for the project were useful to both individual participants and organizations; (3) training outcomes improved significantly; and (4) findings were consistent across the two different community contexts. Contributions, lessons learned, and future directions are discussed.

Keywords: occupation-based secondary trauma; victim service providers; community-based participatory research; rural; American Indian

Introduction

How can victim service providers, the organizations they work for, and the communities they serve respond to the issue of occupation-based secondary trauma? This is an important scientific and policy question that is finally receiving national attention. Federal organizations in the United States like the Office for Victims of Crime (2019), the National Institute of Justice (2019), and the National Institutes for Health (2019) are spending millions of dollars to fund research and programming. This trend is significant because victims have long depended on providers of all types (e.g., child protective service workers, sexual and domestic violence advocates, law enforcement officers, attorneys and court personnel, mental and physical healthcare providers, religious clergy) to help them find safety, access resources, seek justice, and manage what can be an arduous healing process. This work is critical to survivors but often has serious and untold consequences for the well-being of those who work to help them.

A growing body of research has begun to theorize the process through which victim service provision leads to secondary trauma (Ellis & Knight, 2018; Newell et al., 2016) and document the consequent mental and physical health issues among providers (Baum, 2016; Elwood et al., 2011; Knight et al., 2018; Sabin-Farrell & Turpin, 2003), as well as problems that can result in the workplace – including low morale and job satisfaction, high turnover, poor leadership, increased operating costs, and poor service provision (Faller et al., 2010; Merchant & Whiting, 2015; Mor Barak et al., 2001; Powell & York, 1992; Ullman & Townsend, 2007; Wood et al., 2019). A related body of literature is attempting to offer solutions (Bober & Regehr, 2006; Sansbury et al., 2015; Vilardage et al., 2011), but methodologically rigorous interventions are virtually nonexistent (Bercier & Maynard, 2015). As a result, providers and the organizations they work for are often at a loss as to how to prevent and address issues related to occupation-based secondary trauma.

The current study seeks to tend to these gaps in research and practice. We begin by describing a ‘community-based participatory research’ (CBPR) project (Wallerstein & Duran, 2006) focused on finding manageable, effective, sustainable, and ethical ways to respond (Holkup et al., 2014) to occupation-based secondary trauma in two separate communities: a rural American Indian community, Blackfeet Tribal Nation¹; and a predominantly white county, Gallatin County, Montana, United States. We then document the success of the project by analyzing data from training evaluation questionnaires. Last, we outline lessons learned and future research directions that will ultimately lead to a rigorously tested intervention adaptable in other communities.

Project background

This CBPR project unfolded in five stages (see Figure 1). First, a needs assessment was conducted that illustrated the prevalence of occupation-based secondary trauma and a lack of awareness and education on the issue (Ellis & Knight, 2021). Second, two community advisory boards (CABs) were formed, one in each community, to help develop and organize a response. Third, individualized toolkits were created (Clements et al., 2018; Bear Chief et al., 2018). Fourth, trainings were hosted to disseminate the toolkits and encourage participating organizations to implement the tools presented in the toolkits. Fifth, the impact of the project was evaluated. Each stage is described below.



Figure 1: Stages of CBPR Project

Needs assessment

Occupation-based secondary trauma, defined as the trauma that results from repeated empathetic engagement with traumatized individuals or traumatic material in the workplace (Ellis & Knight, 2021), was not the initial focus of this study. The original project, initiated by two of the co-authors, both white academics, began as a statewide victim needs assessment that involved interviewing providers, broadly defined to include a wide range of occupations. The goal was to identify key victimization issues not evident in official statistics due to high rates of underreporting (Langton et al., 2012), especially in rural areas (DeKeseredy & Schwartz, 2009). The intention was to develop a long-term research agenda to help inform policy and improve service provision in Montana. During data collection, however, respondents repeatedly emphasized stories related to the difficulties of working with traumatized populations. This theme appeared to cut across participants from community-based nonprofits and government organizations, male- and female-dominated professions, American Indian and predominantly white communities, and volunteer and professional staff (Ellis & Knight, 2021). As a result of these findings, the primary objective of the research shifted and a new question emerged: How can victim services in Montana be improved by first recognizing and then addressing the toll this work takes on providers themselves?

Community Advisory Boards (CABs)

Using a CBPR approach, two separate CABs were organized, one in each community. The boards were designed to represent local leaders (most in supervisory positions) in a wide array of

service professions (e.g., criminal justice, protective services, victim advocacy, healthcare), many of whom became involved with the project through the process of conducting the needs assessment. A recruitment dinner was hosted in each community to explain the project and solicit participation on the board. Only one employee per organization was invited to join. Each CAB met for two hours or longer, approximately once a month, over the course of two years. At the beginning of each meeting, a blessing was offered (for the CAB in the Blackfeet Tribal Nation only), a modest meal was served, and an agenda was distributed. At the end of each meeting, board members received a cash honorarium of US\$80 for their attendance. In total, 44 CAB meetings were hosted.

Initially, the boards spent these meetings learning from one another by discussing the issues they face in their respective organizations and offering emotional support. As the project progressed, various tools that might be helpful in addressing occupation-based secondary trauma at the individual and organizational levels were brainstormed. These tools included, for example, meditation training, debriefing skills, and personality assessment. Eventually, experts were invited to attend meetings to discuss and train CAB members in specific tools. At the end of these meetings, board members completed simple evaluation forms to assess the tool's usefulness, recommend changes, and determine (using a scale ranging from 1 to 10) the extent to which the tool should be included in the toolkits being developed. Toward the end of the project, the CAB meetings were used to solicit feedback on the written chapters of the toolkits and their design, as well as plan the trainings at which the toolkits would be distributed. Overall, the boards: (1) were well balanced, representing a wide range of service organizations; (2) received training on trauma and related tools; (3) offered social support to fellow CAB members, many of whom felt socially isolated given the hierarchical nature of their positions; and (4) helped create an equitable and mutually beneficial partnership with the researchers and service organizations in their respective communities. The Blackfeet Tribal Nation's CAB, for example, was created and facilitated with the ongoing guidance of a respected community member and elder.

Toolkits for responding to secondary trauma

The two toolkits, coauthored with CAB members (Clements et al., 2018; Bear Chief et al., 2018), were tailored to each community. For instance, the cover of the toolkit for the Blackfeet Tribal Nation is a photograph of a mountain, sacred to the Tribe, and the title is in the Tribe's language. Likewise, the beginning of each toolkit includes lengthy acknowledgments and biographies of CAB members to honor the hard work and dedication of all involved. A personalized introduction grounds the project within the larger community context and includes the story of how the project began, with a plea to join a larger movement to build awareness and educate others on issues related to secondary trauma. The introduction also presents an outline of the toolkit's chapters, which are divided into three sections: awareness, self-care, and organizational response. Each chapter begins with a quote from a CAB member to help readers

identify with local leaders in their fields. To increase accessibility, chapters are concise and can stand alone, self-published hard copies of the toolkits are pocket-sized, and PDFs are made freely available.

Section I: Awareness. This section was designed to educate readers on the topic of secondary trauma. The three tools in this section explain the different types of trauma, the physical and emotional consequences of secondary trauma, and the factors that put individuals most at risk of suffering its effects. The first chapter, titled “Understanding the different forms of trauma”, serves as an introduction to the topic of trauma as a whole. It begins by defining two types of trauma – primary trauma and historical trauma – before providing a definition of secondary trauma and explaining how all three can interact. It then lists the professions that put a person at risk of secondary trauma, outlines key concepts, and dispels several myths.

The second chapter, “Recognizing the consequences of secondary trauma”, identifies the physical and psychological symptoms of secondary trauma (van Dernoot Lipsky, 2009). This chapter also breaks down the consequences of secondary trauma into three categories – individual, interpersonal and organizational – emphasizing how its effects can ripple through the different strata of a person’s life. It notes how geographical and historical factors can also exacerbate secondary trauma.

The third chapter, “Weighing risk factors and resiliency”, explains the factors that put a person most at risk of suffering from secondary trauma, such as a personal history of primary or historical trauma (Brokenleg, 2012; Brave Heart et al., 2011). It also touches on the importance of cultivating resiliency.

Section II: Self-care. This section consists of tools to help mitigate the effects of secondary trauma and increase resilience. These tools focus on the importance of self-assessment, cultivating mindfulness, and recognizing how trauma imprints on the body as well as the mind. The first chapter of this section, titled “Assessing for secondary trauma”, is designed to help providers recognize the degree to which, if any, they are exhibiting symptoms of secondary trauma. It includes several questions that can help them increase their awareness, as well as professional questionnaires and scales that can be accessed online (e.g., Bride, 2007). The chapter also offers tips for supervisors and managers on how they might implement these resources at an organizational level.

The next chapter, “Cultivating mindfulness”, introduces the concept of mindfulness and explains how cultivating a practice can allow readers to find quiet in an otherwise stressful day, notice and slow down their racing thoughts, and tend to the negative emotional consequences of their work (Boyd et al., 2017). It also includes a simple “mindfulness of breathing” exercise designed by a retired surgeon and meditation teacher who trained the CABs. The last chapter of

this section, “Retraining the nervous system”, is based on the neurophysiology of trauma (Payne et al., 2015) and the principles of Somatic Experiencing Trauma Resolution (sometimes called SE for short; Levine, 2010). The chapter was coauthored by a member of academic staff at the Somatic Experiencing Trauma Institute who also worked with the CABs. In this chapter, a description of the principles of SE are provided and then several exercises are listed that readers can use to tune in to their body’s response to trauma and help regulate their nervous systems. Section II of the toolkit for the Blackfeet Tribal Nation includes an additional chapter developed by their CAB that stresses the importance of traditional methods of self-care and healing.

Section III: Organizational Response. This section contains tools that organizational leaders can adopt to improve the work environment and that providers can use to effect change in their organizations, including holding better meetings, learning better ways to debrief, and proposing more meaningful ways to interact with coworkers. The first chapter of this section, titled “Running better meetings”, recognizes the ubiquity of meetings in most workplaces and discusses how they can be detrimental to those in high-stress professions. In earlier research, for example, providers have noted how meetings at the workplace can easily devolve into opportunities for coworkers to lash out at one another, blurt out the details of their most disturbing cases, or engage in games of one-upmanship over whose workload is the heaviest (Ellis & Knight, 2021). With this in mind, the chapter offers ten tips for holding meetings that are more mindful and less traumatizing.

The next chapter, “Implementing low-impact debriefing”, discusses the practice of debriefing, a common procedure in victim service professions, wherein a worker who has been involved in a particularly traumatic case or incident speaks with someone (ideally a supervisor or mental health professional) about their experience. For many providers, however – particularly those in rural areas or at small and underfunded organizations – there is no formal process for debriefing. This often leads to “sliming”, which occurs when a person dumps all of the gruesome details of a case or event on to a coworker, friend, or family member without that person’s consent. Though this may result in relief on the part of the person sharing, it has the potential to shock, upset, and dysregulate the listener. This chapter introduces the rules of “low-impact debriefing”, a method pioneered by Mathieu (2012) that can decrease the risk of traumatizing the listener.

The final chapter of the book, “Connecting with others”, emphasizes the power of connecting with colleagues and talking openly about secondary trauma. Creating widespread awareness and normalizing secondary trauma as an occupational hazard are critical to ensuring that organizations begin treating it as the serious health issue that it is. This chapter also stresses that recognizing and addressing secondary trauma as an occupational hazard requires commitment and accountability on the part of employers. Investment in organizational processes designed to respond to and prevent the ill effects of secondary trauma is essential.

Trainings

Each CAB helped organize daylong training retreats to disseminate the toolkits and, using a train-the-trainer approach, encourage their implementation in local organizations. Flyers advertised the event, and online registration was made available. Trainings were held offsite (i.e., not at the participants' workplaces). Packets were distributed to participants and included an agenda for the day, a copy of the toolkit, an evaluation questionnaire, and raffle tickets for gift cards drawn for at the end of each break. Content-based multiple-choice questions were printed on raffle tickets to boost engagement with the toolkit.

Each training opened with an introduction to the project and an overview of the toolkit. At the first two trainings – one in Gallatin County, the other in the Blackfeet Tribal Nation (both of which were grant-funded) – three guest speakers elaborated on the content in the toolkit and led related experiential activities (e.g., mindfulness of breath exercises). For the initial training with the Blackfeet Tribal Nation participants, American Indian speakers were invited and the day included drumming, singing, and prayer. Two of the co-authors, both academics, served as the only speakers for the last two trainings, which also took place in the Blackfeet Tribal Nation. Lunch and refreshments were provided. The day closed by collecting the evaluation questionnaires.

The current study

The primary goal of the project was to organize CABs, produce toolkits, and host trainings to encourage organizational response to the issue of occupation-based secondary trauma. While not the focus of this manuscript, qualitative findings from post-training focus groups suggest that the process was largely successful. The project has garnered widespread support, receiving numerous requests, both locally and internationally, for additional trainings and hard copies of the toolkits (e.g., the toolkit has been disseminated in Australia by a state agency and is currently being translated into German).

An important objective of the current study, however, is to document, quantitatively, the extent to which the project was successful as assessed by training participants. To that end, we analyze data from evaluation questionnaires to answer the following four research questions: (1) Was the implementation of the project successful? (2) Were the tools in the toolkit useful to individuals and organizations? (3) Did outcomes change as a result of participation in the training? And (4), were there differences across community-level contexts?

Method

Data

Anonymous evaluation questionnaires ($n=178$) were collected from four trainings (described above) held in rural Montana: three in the Blackfeet Tribal Nation and one in Gallatin County. The questionnaires were vetted, revised, and ultimately approved by each CAB. They were designed to be short and straightforward, which was especially important in the Blackfeet Tribal Nation given the understandable mistrust of white academics conducting research in a tribal context (Henry et al., 2017). At the beginning of each training, participants received a packet that included the questionnaires. At the end of the trainings, participants were given time to anonymously complete them. Institutional review boards (IRBs) for both the Blackfeet Tribal Nation and Montana State University approved all study procedures. In addition, all subsequent publications are approved by both CABs and the Blackfeet Tribal Nation's IRB.

Participants

Training participants were recruited by CAB members. Specifically, flyers advertising the events were distributed to employees at the CAB members' organizations and to other organizations they thought would be interested in participating. Across all four trainings, a wide range of service-providing occupations were represented, including: administrative or support staff (12.87%), administrators (18.13%), advocates (2.92%), clergy (1.17%), court personnel (2.92%), educators (6.43%), police officers (1.75%), mental healthcare providers (10.53%), nurses (4.09%), and social workers (29.24%), as well as miscellaneous classifications listed under an "other" category (e.g., volunteers and students; 9.94%). The number of months participants were employed in their positions ranged from 0.50 to 696 months ($M=81.00$; $SD=104.65$).

For the entire sample, participants ranged in age from 19 to 82 ($M=48.94$, $SD=14.42$), consisted predominantly of women (80.10%), and were largely American Indian (64.60%) or white (29.14%). The majority were college educated (25.70% associate degrees, 37.10% bachelor degrees, and 25.10% graduate or professional degree) and married or living with a partner (46.90% and 10.90%, respectively). The median household income category was \$30,000 to \$39,999. The number of months participants lived in the area where the training was hosted ranged from 0.00 (i.e., less than 1 month) to 984 ($M=418.39$, $SD=259.98$).

Demographic characteristics are described in Table 1 (and disaggregated data of each training are available in supplemental tables upon request). As expected, there were significant demographic differences across trainings. Compared to the three trainings held in the Blackfeet Tribal Nation, participants at the Gallatin County training were younger, $F(3,155)=9.07$, $p<.001$;

almost entirely white, $X^2(3)=99.64, p<.001$; more likely to have a bachelor's degree or higher, $X^2(3)=29.07, p<.001$; marginally more likely to be married, $X^2(3)=7.50, p=.06$; in a higher household income category, $F(3,154)=3.39, p=.02$; and lived in their local communities for fewer months, $F(3,149)=16.45, p<.001$. Compared to the other three trainings, participants at the first Blackfeet Tribal Nation training held their positions longer, $F(3,154)=3.39, p=.02$. No differences across trainings were found for gender or marital status.

Table 1: Demographic characteristics of participants (n=178)

	N	Range	Mean/%	SD	Missing
Age	159	19-82	48.94	14.42	19
Gender/Sex	171	—	—	—	7
Women	—	—	80.10	—	—
Men	—	—	19.30	—	—
Other	—	—	0.60	—	—
Race	175	—	—	—	3
American Indian	—	—	64.60	—	—
Alaskan Native	—	—	0.60	—	—
Asian	—	—	0.60	—	—
Black or African American	—	—	0.00	—	—
Hispanic or Latino	—	—	2.86	—	—
Native Hawaiian or Other Pacific Islander	—	—	0.00	—	—
White	—	—	29.14	—	—
Other Race	—	—	0.60	—	—
More Than One	—	—	1.70	—	—
Education	175	—	—	—	3
Did Not Complete High School	—	—	0.60	—	—
High School or Equivalent	—	—	2.90	—	—
Some College or Post High School Training	—	—	8.60	—	—
Associate's or 2-Year Degree	—	—	25.70	—	—
Bachelor's Degree	—	—	37.10	—	—
Graduate or Professional Degree	—	—	25.10	—	—
Marital Status	175	—	—	—	3
Married	—	—	46.90	—	—
Living with Partner	—	—	10.90	—	—
Divorced/Separated	—	—	14.90	—	—
Single	—	—	18.90	—	—
Widowed	—	—	6.90	—	—
Other	—	—	1.70	—	—

Annual Household Income	167	—	—	—	11
Under \$9,999	—	—	4.80	—	—
\$10,000 to \$19,999	—	—	4.20	—	—
\$20,000 to \$29,999	—	—	10.80	—	—
\$30,000 to \$39,999	—	—	19.80	—	—
\$40,000 to \$49,999	—	—	16.20	—	—
\$50,000 to \$59,999	—	—	7.80	—	—
\$60,000 to \$69,999	—	—	6.60	—	—
\$70,000 to \$79,999	—	—	4.80	—	—
\$80,000 to \$89,999	—	—	6.00	—	—
\$90,000 to \$99,999	—	—	6.00	—	—
\$100,000 to \$109,999	—	—	4.20	—	—
\$110,000 to \$119,999	—	—	2.40	—	—
\$120,000 to \$129,999	—	—	1.80	—	—
\$130,000 or more	—	—	4.80	—	—
Months in Position	160	.50-696	81.00	104.65	18
Months in Area	154	0-984	418.39	259.98	24

Measures

The evaluation questionnaire assessed the following topics: (1) implementation of the project; (2) evaluation of tools; (3) training outcomes; (4) open-ended comments; and (5) demographic questions.

Implementation of the project

The evaluation questionnaire assessed respondents' views of the project's implementation and its efficacy. It consisted of five questions, with each measured on a 5-point scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The questions consisted of: "This retreat will make a difference", "The information presented at this retreat is [culturally] relevant to [the Blackfeet People/the community I work in]", "The toolkit is a practical way to respond to secondary trauma in this area", "The 'train-the-trainer' model is a sustainable response to secondary trauma in this area", and "MSU personnel and [the Blackfeet people/the local providers involved in hosting this project] worked well together". There was also an option of "Not Applicable" on each question for respondents who did not feel the question was relevant to them. Responses to these individual questions were analyzed, as was a measure of *overall* implementation success created by calculating the mean of these five questions ($\alpha=.89$).

Evaluation of tools

Another section of the questionnaire assessed the tools covered in the training: “Understanding the Different Forms of Trauma”, “Recognizing the Consequences of Secondary Trauma”, “Weighing Risk Factors and Resiliency”, “Remembering Traditional Self Care” (for the Blackfeet Tribal Nation only), “Assessing for Secondary Trauma”, “Cultivating Mindfulness”, “Retraining the Nervous System”, “Running Better Meetings”, “Implementing Low-Impact Debriefing”, and “Connecting with Others”. The respondents evaluated the tools based on a 3-point scale, including: 1 (“Not Useful”); 2 (“Useful”); and 3 (“Very Useful”). Respondents evaluated the usefulness of each tool for both themselves personally and their organizations more broadly. Responses to these individual questions were analyzed, as were measures of *overall* personal and organizational usefulness created by calculating the mean of these questions ($\alpha = .91$ and $\alpha = .93$, respectively).

Training outcomes

A third section of the questionnaire examined outcomes of the training. This section contained six prompts, which included: “My awareness of secondary trauma”, “My knowledge of the consequences of secondary trauma”, “My understanding that secondary trauma is a normal response to working with traumatized people”, “My coping strategies for secondary trauma”, “Plans I have for myself to help reduce the impacts of secondary trauma”, and “Plans I have for my organization to help reduce the impacts of secondary trauma”. The questions were scored on a 5-point scale, including: 1 (“Poor”); 2 (“Below Average”); 3 (“Average”); 4 (“Above Average”); and 5 (“Excellent”). Respondents answered these questions in two different sections, one for *before* the training (retrospectively) and one for *after* the training. Before and after measures summarizing training outcomes were created by calculating the mean of these six questions ($\alpha = .94$ and $\alpha = .91$, respectively).

Open-ended comments

The fourth section of the questionnaire asked three open-ended questions: “What aspects of the training retreat were most helpful and why?”; “What could have been done differently to create a better training retreat?”; and “Do you have any other comments or suggestions?”.

Demographic questions

The last section of the evaluation consisted of nine demographic questions, including: job title, length of time in position, length of time in area, age, gender/sex, education, race/ethnicity, marital status, and household income. Job titles were recoded into the 11 occupational categories discussed above. Prevalence variables (no=0 and yes=1) were created for bachelor’s degree or

higher, married or living together, and training attended. Lastly, a community context variable was created to compare the Gallatin County training to the three Blackfeet Tribal Nation trainings (Gallatin County training=0 and Blackfeet Tribal Nation trainings=1).

Analytic strategy

Data were entered into and analyzed using SPSS, Version 25. Initial analysis explored demographic differences in trainings using descriptive statistics, chi-square tests, and one-way ANOVAs (reported above). To answer the first research question assessing implementation success and the second research question assessing usefulness of the tools, means and standard deviations were calculated and compared to the possible range of scores. In addition, multivariate OLS regression models tested whether demographic factors and specific trainings were associated with implementation success and usefulness of tools. For the third research question, descriptive statistics, paired t-tests, and multivariate OLS regression models controlling for baseline and demographic factors tested pre-post differences in training outcomes. For the fourth research question, bivariate and multivariate OLS regression models controlling for demographic factors (and baseline measures, as appropriate) tested whether there were differences in implementation, usefulness of tools, and training outcomes across community contexts (Gallatin County versus Blackfeet Tribal Nation trainings). Last, open-ended question or comments were organized into categories and frequencies were tallied. Missing data (reported in Table 1) were minimal (.03% on average); as such, casewise deletion was used as needed.

Results

Research Question 1: Was the implementation of the project successful?

First, we assessed the extent to which the implementation of the project was perceived as successful by participants. Means and standard deviations were calculated for participants' responses to five questions related to implementation success. Participants agreed to strongly agreed that: (1) the training will make a difference (Possible Range=1-5; $M=4.53$, $SD=.69$); (2) the information was community/culturally relevant ($M=4.41$, $SD=.82$); (3) the toolkits were a practical way to respond to secondary trauma ($M=4.42$, $SD=.72$); (4) the train-the-trainer model was a sustainable response to secondary trauma ($M=4.35$, $SD=.77$); and (5) the research team and community worked well together ($M=4.63$, $SD=.65$). These scores suggest high implementation success. In a multivariate regression model, demographic factors and specific training attended were not significantly associated with overall implementation success.

Research Question 2: Were the tools in the toolkit useful to individuals and organizations?

Second, we considered the extent to which participants perceived the tools in the toolkit as both personally useful and useful for their organizations. For overall personal usefulness, the average score across tools was 2.72 (Possible Range=1-3; $SD=.37$). For overall organizational usefulness, the average score was 2.76 ($SD=.40$). Findings from a multivariate regression model testing personal usefulness of the tools suggest that, compared to participants in the Gallatin County training, participants from the first Blackfeet Tribal Nation training were more likely to score the tools, overall, as more personally useful ($b=.28$, $SE=.13$, $p=.03$), as did the participants with a bachelor's degree or higher ($b=1.64$, $SE=.08$, $p=.04$). Likewise, in a second model testing organizational usefulness of the tools, participants with a higher income category were more likely to score the tools, overall, as more organizationally useful ($b=.03$, $SE=.01$, $p=.03$). No other variables were significant in these two models. Altogether, findings suggest that participants found the toolkit overwhelmingly valuable, with few demographic differences.

Research Question 3: Did outcomes change as a result of participating in the training?

Third, we looked at the degree to which the training changed participants' awareness, knowledge, and understanding of secondary trauma, as well as their coping strategies and plans to reduce its impact (for themselves and for their organizations). When asked to appraise their views before the training, retrospectively, participants rated themselves just below average on these outcomes (Range=1-5, $M=2.90$, $SD=.92$). When asked about their views after training, participants rated themselves as above average to excellent ($M=4.10$, $SD=.59$). The overall pre-post difference was statistically significant in a paired t-test ($t=-1.20$, $p<.001$). In a multivariate regression model exploring this relationship while controlling for demographic factors and the different training sessions, results also showed that scores on outcomes were significantly higher after the training ($b=.37$, $SE=.05$, $p<.001$). No other significant associations were found. In sum, these results document that, regardless of demographic and training session differences, the trainings were perceived as effective.

Research Question 4: Were there differences across community-level contexts?

Last, we considered differences in implementation, usefulness of tools, and training outcomes across community context (Gallatin County versus Blackfeet Tribal Nation). At the bivariate level, findings from only two regression models suggested differences. Specifically, compared to participants from the Gallatin County training, participants from the three Blackfeet Tribal Nation trainings: (1) scored lower the project's implementation success ($b=-.27$, $SE=.12$, $p=.01$) and (2) scored lower their own baseline measures of training outcomes ($b=-.37$, $SE=.16$, $p=.03$). Statistical differences, however, were not retained in multivariate models controlling for

demographic factors. In these models, only three significant and positive associations were found: (1) household income and organizational usefulness of tools ($b=.03$, $SE=.01$, $p=.02$); (2) before and after measures of training outcomes ($b=.37$, $SE=.05$, $p<.001$); and (3) being married and training outcomes post training ($b=.21$, $SE=.10$, $p=.03$). Overall, these findings suggest that, regardless of community context, participants evaluated the implementation of the project as successful, found the tools useful, and perceived positive changes in outcomes.

Open-ended comments

The above findings are corroborated in the analysis of the open-ended comments. In response to the first question “What aspects of the training retreat were most helpful and why?”, the most common response category was related to having the tools or toolkit available for later use ($n=41$). The next most common response categories were learning about primary or secondary trauma ($n=24$), presenters ($n=18$), mindfulness ($n=13$), all or everything about the training ($n=12$), nervous system regulation or resourcing ($n=11$), and cultural relevance ($n=10$). Only $n=20$ participants did not provide a comment. When answering the second question “What could have been done differently to create a better training retreat?”, the most common response category was related to the time length of the training (e.g., wanting it to be longer; $n=20$). The next most common response categories were related to space (e.g., how the tables were arranged, $n=11$); training after lunch needed better pacing ($n=5$); the room was too hot ($n=5$); and requests for more practical application ($n=5$). Altogether, $n=68$ participants wrote that nothing could have been different to create a better retreat. Also, $n=29$ participants did not provide a comment. In response to the last question “Do you have any other comments or suggestions?”, most participants left this blank ($n=53$) but several wrote “none” or similar ($n=40$), indicated “good job” or “well done” ($n=38$), or offered gratitude (e.g., “thank you”; $n=13$). Altogether, these findings suggest that the quantitative and qualitative findings are aligned.

Discussion

This study offers a viable response to the issue of occupation-based secondary trauma, which has been largely ignored and is far too common (Hensel, Ruiz, Finney, & Dewa, 2015). Accordingly, recent attention has been paid to advance science and practice (Molnar et al., 2017). Building on this work, we describe and evaluate a successful CBPR project designed to be adapted and replicated in other communities. In doing so, we move forward our understanding of interventions for occupation-based secondary trauma on several fronts. First, using a CBPR framework to guide the project, we conducted a needs assessment, organized CABs, developed a toolkit, and hosted trainings to reduce the negative consequences of occupation-based secondary trauma in two distinct communities. Second, we evaluated the project by assessing its implementation, the usefulness of the toolkits, and training outcomes. Together, these strategies

continue to improve our knowledge of how providers, the organizations they work for, and the communities they serve can attend to the toll of victim service provision.

Three core findings emerged from the analysis. First, in terms of implementation, participants felt that the training will make a difference, the information was community or culturally relevant, toolkits were a practical way to respond, a train-the-trainer model was a sustainable response, and the research team and communities worked well together. Importantly, these findings, overall, hold after adjusting for important demographic factors and the different trainings.

Second, the toolkits created for the project were perceived as overwhelmingly useful. This is compelling given that the pocket-sized toolkits were designed to be succinct. Other important books are available, but we suspect reading dense and difficult material on secondary trauma is unlikely given the heavy workloads and symptoms of burnout that many providers experience (Maslach et al., 2001; Adams et al., 2017). Instead, the toolkit presented only the most relevant research and strategies.

Third, we were able to show significant improvements in participants' awareness, knowledge, and understanding of secondary trauma, as well as their coping strategies and plans to reduce its impact (for themselves and for their organization). This was true regardless of community context. Taken together, these core findings add to the literature on interventions for occupation-based secondary trauma.

Before considering the implications of these findings, it is important to recognize the study's limitations. To begin, a convenience sample was used. No employees were required to participate, and it is possible that the data do not represent providers at the tail ends of the spectrum (i.e., those suffering the least and most from the symptoms of secondary trauma). Strategically, the trainings were offered at no cost, provided incentives for participation (e.g., meals and door prizes), and, despite the small population size of the two communities studied, included a wide range of occupations. In addition, the data are cross-sectional. Longitudinal data collection could better test the stability of the findings over time. Moreover, measures assessing the prevalence of occupation-based secondary trauma and its correlates were not collected. As a CBPR project, engendering a trusting and equitable relationship with our community partners was paramount (Wallerstein & Duran, 2006). To be as unobtrusive as possible, a simple cross-sectional research design and a short evaluation questionnaire that included only the most essential measures were created. Despite these limitations, we believe that the study will make a substantial contribution to the existing literature.

The results have important implications for research and practice. The findings signal that more rigorous research designs, like randomized controlled trials, are warranted. We also learned

important lessons that need to be considered if such future research is going to be successful (Henry et al., 2017). For example, using a CBPR design took longer and required more people than typically needed for mainstream research, yet it yielded a solid community-research partnership that insured successful implementation of the project. Conducting a needs assessment required massive travel, but interviewing providers across the state helped to identify occupation-based secondary trauma as a predominant issue, especially in a rural and tribal context. Organizing and attending monthly CAB meetings with victim service leaders in two disparate locations was logistically complex and also entirely necessary because the extensive discussion and brainstorming at these meetings imbued the toolkits with a real-world applicability supported by our findings. Likewise, creating culturally and community-relevant toolkits and training materials was laborious, but we continue to get requests for both.

Recommendations for future research on secondary trauma include (1) increasing the use of CBPR-informed longitudinal and clinical trial designs, (2) incorporating measures of related adverse mental and physical health and substance use outcomes, and (3) testing the impacts of other types of traumatic exposures such as adverse childhood experiences. These recommendations are important because symptoms of secondary trauma are likely to stem from a complex mix of different types of exposure (e.g., childhood and workplace), ongoing adversity (e.g., racism, sexism, and economic disadvantage), and retraumatization that impacts health and work. Taken together, these lessons and recommendations will help the development of a greatly needed and rigorously tested intervention for reducing occupation-based secondary trauma—one that is informed by robust research, measures long-term health and occupational impacts, and is adaptable and replicable in other communities.

Notes

¹ Rather than remain anonymous, the Blackfeet co-authors prefer to name the tribe specifically as the Blackfeet Tribal Nation. In turn, we also identified our other community partner, as Gallatin County.

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