

# How a shared humanity model can improve provider well-being and client care: An evaluation of Fraser Health's Trauma and Resiliency Informed Practice (TRIP) training program

Healthcare Management Forum  
2021, Vol. 34(2) 87-92  
© 2020 The Canadian College of  
Health Leaders. All rights reserved.



Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/0840470420970594  
journals.sagepub.com/home/hmf



Stephanie Knaak, PhD<sup>1,2</sup> ; Marika Sandrelli, MEd<sup>3</sup>; and Scott Patten, MD, PhD<sup>2</sup>

## Abstract

Stress in the healthcare sector is an important concern, with worrying trends in provider burnout, secondary traumatic stress, and lower mental health. Importantly, provider stress is also connected to patient care, with recent research on Canada's opioid crisis finding that compassion satisfaction and burnout are linked to the perpetuation of negative attitudes and behaviours towards people with opioid use problems. In 2017, the Fraser Health Authority developed a training program for direct service providers designed to address this important connection—a mental health and resiliency program based in the principles of trauma-informed practice and care. This article reports the results of an evaluation of this program. Findings suggest that embedding resiliency and self-compassion within trauma-informed training programs is a promising approach for cultural change in healthcare practice. Leaders are encouraged to explore how such a model may be implementable for their own organizations and departments.

## Introduction

Stress in the workplace is an important concern. This is particularly the case for Canada's healthcare sector, with worrying trends being observed in provider burnout, secondary traumatic stress, and lower mental health.<sup>1-3</sup> These trends are brought into even starker relief in the context of two concurrent public health emergencies—the COVID-19 pandemic and the opioid, poisoning, and overdose crisis—which increase stress and trauma exposures of both health providers and their patients. In British Columbia alone, 175 people died in the month of June 2020 of suspected illegal drug toxicity that represents a 127% increase from January 2020. This is the highest monthly number of overdose deaths on record in British Columbia and equates to 5.8 deaths per day. Prior to the COVID pandemic, illegal drug toxicity deaths were steadily decreasing since 2018.<sup>4</sup>

Importantly, workplace stress is also connected to patient care. Evidence shows burnout and secondary traumatic stress to be important indicators of providers' caring orientation, including compassion satisfaction and distancing behaviours.<sup>5-11</sup> The concept of compassion satisfaction is generally understood as professional fulfillment experienced through helping others. It occurs when empathy drives altruistic behaviour in order to alleviate the suffering of the people they are healing.<sup>8</sup> Burnout is associated with feelings of hopelessness and difficulties in dealing one's work or in doing one's job effectively. It occurs in response to interpersonal and emotional stressors that are experienced in the workplace and is characterized by emotional exhaustion, depersonalization, and lack of feelings of personal accomplishment.<sup>10-11</sup> Secondary traumatic stress is

conceptualized as a reaction to the severe emotional demands that arise from exposure to traumatic client experiences. It can emerge from a variety of scenarios involving close contact with another traumatized person.<sup>5,6,9-11</sup>

A recent study on compassion satisfaction in United Kingdom emergency departments found that providers with low compassion satisfaction scores were more likely to report being irritable with patients, reducing their standards of care, and have less ability to maintain empathy for their patients.<sup>6</sup> An important quality of care connection was also observed in recent Canadian research on the experiences of direct service providers in the context of the opioid, poisoning, and overdose crisis.<sup>7</sup> Results of this qualitative study directly linked experiences of burnout and vicarious trauma to the problem of stigmatization of patients with opioid problems, including social and emotional distancing, disconnection, and apathy.<sup>7</sup> One of the key findings from this research was the need for more inward-facing training and support for direct service providers, not only as a way to build resiliency and reduce burnout but also as a promising approach to reducing stigmatizing attitudes and behavioural intentions towards people with opioid use problems.<sup>7</sup>

<sup>1</sup> Mental Health Commission of Canada, Ottawa, Ontario, Canada.

<sup>2</sup> Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada.

<sup>3</sup> Mental Health & Substance Use (MHSU) Services, Fraser Health Authority, Maple Ridge, British Columbia, Canada.

## Corresponding author:

Stephanie Knaak, Mental Health Commission of Canada, Ottawa, Ontario, Canada.

E-mail: sknaak@mentalhealthcommission.ca

In 2017, British Columbia's Fraser Health Authority developed an innovative training program for direct service providers designed to address this important connection—a mental health and resiliency program based in the principles of Trauma-Informed Practice (TIP) and care. The program aims to reduce stigmatizing behaviours by enhancing knowledge and skills related to trauma awareness, self-compassion, and compassion satisfaction. This article reports on the results of a recently completed evaluation of the Trauma and Resiliency Informed Practice (TRIP) program. The evaluation sought to understand the extent to which the TRIP program was effective at reducing stigmatizing attitudes and behaviours towards patients with opioid use disorders and increasing provider self-compassion and perceived resiliency. We were also interested in exploring whether the program had any impact on provider burnout, secondary traumatic stress, compassion satisfaction, self-compassion, and resiliency skills as these variables are important program outcomes in their own right—and may also mediate benefits of the intervention on stigma.

### Trauma and Resiliency Informed Practice program description

Trauma and Resiliency Informed Practice focuses on integrating knowledge and skills about how people are affected by trauma into workplace policies, procedures, and services. The goal of TRIP is to reduce the effects of past and current experiences of violence and trauma and to avoid re-traumatizing individuals. This includes patients, clients, families, natural supports, and service providers. Since 2013, when the BC Ministry of Health released its Trauma Informed Practice Guide,<sup>12</sup> Fraser Health Mental Health and Substance Use (MHSU) Services has strategically invested in TRIP development across its service continuum. Evaluation findings after the first 4 years substantiated two major needs: to increase efforts to reduce the effects of trauma for service providers and to expand the TIP principles.

Originally, four principles provided a framework to enact trauma-informed approaches—trauma awareness; emphasis on safety and trustworthiness; opportunities for choice, collaboration, and connection; strengths-based and skills building.<sup>12</sup> In 2017, two more principles were added—based on Nova Scotia's Trauma Informed Approaches—recognition of cultural, historical, and gender issues, and promotion of service user and peer involvement.<sup>13</sup>

Between 2013 and 2017, over 2,500 service providers in Fraser Health completed TIP training which also heightened their awareness of the effects of trauma and distress in their workplaces. Many practitioners disclosed having experienced and/or witnessed varying degrees of trauma themselves, with many more having been exposed to repeated stories of trauma. The cumulative effect on the service provider was being seen and felt on both a personal and professional level through decreased productivity, fixation on detail, decreased confidence, exhaustion, staff conflicts, loss of interest, and avoidance of certain tasks and people. Vicarious trauma, secondary stress,

and burnout became more apparent as awareness of trauma and its effects increased. Evidence for more protective factors led to bringing resiliency to the foreground by incorporating mindful self-compassion and compassion satisfaction into TIP development. Hence, TIP became TRIP.

This newly designed TRIP strategy involved a service provider training program comprised of a 1-day workshop and post workshop coaching and support activities. The learning objectives were as follows:

1. Define psychological and social trauma and recall the different types of trauma that can be experienced.
2. Become familiar with the effects of trauma (past and current) for the people one serves and for oneself as a service provider.
3. Describe how the effects of trauma can be activated and/or intensified by triggers and be able to apply skills to reduce re-traumatization and increase effective engagement and safety.
4. Be able to appraise one's own response to distress experienced from trauma and be able to employ compassion-led strategies that support one's resiliency.

### Methods

The evaluation of the TRIP program aimed to inform three main research questions:

- Does the TRIP program reduce stigmatizing attitudes and behavioural intentions towards people with opioid and other drug use problems?
- Does the TRIP program improve resiliency skills, compassion satisfaction, secondary traumatic stress, burnout, or self-compassion among health services staff?
- Do improvements in compassion satisfaction, secondary traumatic stress, burnout, self-compassion, and/or resiliency correlate with reductions in stigma?

A pre-post design was used to assess program outcomes. A follow-up time point was also planned, but attrition was too high to include these data in the analysis. Only 18 participants completed the follow-up assessment, probably due to the impact of the pandemic. A mix of quantitative and qualitative measures were used. This included: The Opening Minds Provider Attitudes Towards Opioid use Scale (OM-PATOS)<sup>14</sup>; the Professional Quality of Life Scale which measures burnout, secondary traumatic stress, and compassion satisfaction<sup>10</sup>; a 5-item ad hoc measure of perceived resiliency skills, which has shown good reliability, face validity, and responsiveness to change in other workplace mental health program evaluations<sup>15,16</sup>; the short version of the Self-Compassion Scale (SCS-SF) which measures six dimensions of self-compassion<sup>17</sup>; and qualitative questions, asking participants to provide insight into perceived program learnings and value. Also, demographic information was collected at pre-test. Participants completed the evaluation survey at three time points: immediately before the beginning of the training, at the end of the

**Table 1.** Score changes for compassion satisfaction, burnout, secondary traumatic stress, resiliency skills, compassion satisfaction, and stigma scores

	Pre-test mean (SD)	Post-test mean (SD)	t test	P value	Effect size (Cohen <i>d</i> )
Professional quality of life					
Compassion satisfaction <sup>a</sup>	40.40 (6.28)	40.90 (5.29)	$t(61) = -0.68$	.500	.08
Burnout <sup>a</sup>	22.95 (5.80)	21.80 (5.01)	$t(62) = 2.32$	.024	.21
Secondary traumatic stress <sup>a</sup>	21.99 (7.53)	21.93 (6.37)	$t(61) = 0.08$	.939	.01
Resiliency skills <sup>b</sup>	3.67 (.78)	3.92 (.66)	$t(57) = -2.74$	.008	.34
Self-compassion <sup>b</sup>	3.30 (.67)	3.44 (.63)	$t(56) = 1.76$	.084	.21
Self-kindness	3.27 (.86)	3.54 (.73)	$t(56) = -2.41$	.019	.33
Self-judgment	3.10 (.95)	3.31 (.77)	$t(56) = -1.86$	.068	.24
Common humanity	3.61 (.77)	3.54 (.74)	$t(55) = .604$	.519	-.08
Isolation	3.05 (.88)	3.27 (.78)	$t(55) = -1.89$	.063	.26
Mindfulness	3.88 (.75)	3.87 (.62)	$t(55) = .105$	.917	.01
Over-identification	2.92 (.89)	3.19 (.91)	$t(55) = -2.67$	.010	.30
OM-PATOS Scale <sup>c</sup>	1.64 (.60)	1.56 (.49)	$t(57) = 1.72$	.091	.14
Pre-test score of 1.50 or less	1.20 (.13)	1.23 (.21)	$t(30) = -.921$	.364	-.17
Pre-test score over 1.50	2.16 (.52)	1.94 (.44)	$t(26) = 2.47$	.020	.44

Abbreviations: OM-PATOS, Opening Minds Provider Attitudes Towards Opioid Use Scale.

<sup>a</sup>22 or less = low; 23-41 = moderate; 42 and above = high.

<sup>b</sup>Scores can range from 1 to 5; higher scores indicate higher resiliency skills/self-compassion.

<sup>c</sup>Scores can range from 1 to 5; lower scores indicate less stigma.

training, and again at 3 months post training. Ethics approval was received from the University of Calgary Conjoint Health Research Ethics Board, and Fraser Health conducted a privacy impact assessment and approved both the consent forms and data collection instruments.

Paired *t* tests were used to analyze the statistical significance (at the 95% confidence interval) of mean score changes from pre to post workshop. Effect sizes (Cohen's *d*) were also calculated to estimate the magnitude of change. Conventionally, a benchmarking criterion is used to interpret effect sizes. Values around .20 are considered small in impact, effect sizes around .50 are considered moderate, and effect sizes of .80 and greater are large. Similar to other interventions of this type and length, improvements in the small to medium effect size range were expected.<sup>15,16</sup>

Using change scores, regression models were used to examine the relationship between burnout, compassion satisfaction, secondary traumatic stress, resiliency skills, and self-compassion on stigma change. First, separate regression analyses were completed for each predictor variable. Second, a stepwise linear regression approach was used to examine which variables were the strongest predictors of stigma change. Collinearity was assessed with a scatter plot matrix and Variance Inflation Factor (VIF) statistics.

## Results

Three sessions of the TRIP program were delivered to approximately 79 MHSU staff across the Fraser Health region between February 28, 2020, and March 6, 2020. While six workshops were scheduled, remaining sessions were cancelled due to the COVID-19 pandemic. Follow-up coaching and support was also suspended as a result of the pandemic. Analyses of pre-post score changes were based on

62 matched pre-post surveys. Only 18 participants completed the follow-up survey. Given the high rate of attrition, statistical analysis could not be completed on the follow-up scores. However, qualitative feedback from the follow-up survey was still analyzed. Participant characteristics are provided in Supplementary Table A.

For the first outcome, stigma change, score improvements were observed from pre to post program, although the change did not meet the threshold for statistical significance (see Table 1). As an examination of baseline scores showed a high number of participants scoring very low at pre-test (which suggested the possibility of ceiling effects in change scores), the sample was divided and the analysis was repeated. In the repeated analysis, stigma scores for those participants who did not already have very low levels of baseline stigma improved significantly from pre to post workshop, with an effect size in the medium range (see Table 1).

For the second research question—does TRIP program improve resiliency skills, compassion satisfaction, secondary traumatic stress, burnout, or self-compassion among health services staff—statistically significant improvements were observed for resiliency skills, burnout, and two dimensions of self-compassion (Table 1). The largest improvements were observed in participants' perceived resiliency skills (effect size = .34).

In regard to the third question of whether improvements in compassion satisfaction, secondary traumatic stress, burnout, self-compassion, and/or resiliency correlate with reductions in stigma, results of the regression analysis found that compassion satisfaction, self-compassion, and resiliency skills were the most important predictors for stigma change, accounting for 57% of the variance in stigma score change

**Table 2.** Stepwise regression for stigma change<sup>a</sup>

	Coeff.	Std. error	Adjusted R <sup>2</sup>	P value	VIF
Model 1			.47		
Resiliency skills	-.361	.052		<.001	1.00
Model 2			.54		
Resiliency skills	-.232	.063		.001	1.74
Compassion satisfaction	-.278	.088		.003	1.74
Model 3			.57		
Resiliency skills	-.167	.068		.017	2.15
Compassion satisfaction	-.232	.088		.011	1.84
Self compassion	-.155	.071		.034	1.78

Abbreviation: VIF, variance inflation factor.

<sup>a</sup>n = 56.

(see Table 2, model 3), with no issues with collinearity (VIF = 1.78-2.15).

With respect to participant perceptions of the value of the program, post workshop participant feedback emphasized numerous positive personal and client-oriented impacts. The following comments illustrate the main types of feedback provided by participants:

- I learned more about meditation and will employ that in my practice.
- I will be more aware of the importance of being present and fostering connections versus focusing on “outcomes.”
- I was getting burnt out by seeing clients/patients frequently being brought into the emergency room and [this workshop] gave me a renewed perspective.
- I will change some language; not “drug seeker” but “seeking relief.”
- “Will this person be intimidated by me?” The way I approach people will change.
- The self-compassion exercises are excellent. Everyone in healthcare should learn these.
- It was helpful to have the reminder that we need to be kind to the people we serve, as well as ourselves.
- I hope that these ideas can reach further into the system and be taught to other service providers. (Follow-up survey)
- I have shared and emphasized the importance of self-love at work and in my personal life several times since this program. (Follow-up survey)
- I try to remember the 4 R’s whenever I am dealing with our patients/clients. (Follow-up survey)
- I am grateful to see Fraser Health pushing these important ideas forward into the public consciousness. (Follow-up survey)
- It helps to remind ourselves that we cannot save the world, so work well when you are at work and then go home and recharge for the next day, but leave work at work. (Follow-up survey)

In terms of suggestions for program improvements, the main feedback provided by participants was that the program should be longer to provide more time to work through all the material. Participants also suggested that the course be offered annually or that refresher sessions or similar be provided.

## Interpretation and conclusions

Overall, the evaluation of the TRIP program showed number of encouraging results, including reductions in burnout and stigma scores and improvements in perceived resiliency and self-compassion. Feedback from participants was equally encouraging, showing both inward-facing and outward-facing positive impacts. Our results were also consistent with other research that suggests the health, well-being, and job satisfaction of providers is crucial for quality patient care.

Our findings are important for several reasons. First of all, they provide additional evidence to the emerging understanding that stigmatization towards people with mental health and substance use problems is not only a problem of knowledge, attitudes, and behaviours<sup>18</sup> but is also very much related to health providers’ own sense of emotional wellness and satisfaction with the care they are providing to their patients. As such, health leaders and managers looking to address the problem of stigmatization-related quality care should not only look to evidence-based “outward-facing” training and interventions (eg, see the study by Knaak et al<sup>19</sup>) but also to “inward-facing” solutions that aim to protect and enhance provider well-being.

Second, in as much as provider stigma is also related to lower job satisfaction and higher turnover,<sup>20</sup> programs that show promise in improving attitudes and behaviours towards clients—and that also improve resiliency skills and mitigate burnout—may be a helpful avenue for leaders wanting to improve workplace climate and employee retention.

Third, stress within healthcare has become increasingly normalized—even revered—when leaders, managers, and service providers are complimented for how much they can endure, even though it is well-known that prolonged exposure to high levels of stress can lead to illness and can also compromise patient safety and diminish service outcomes. For this reason, programs that show promise in improving the stress resiliency of providers should be prioritized. This has become ever more important in the frenetic nature of the current healthcare environment and in the higher stakes in outcomes related to opioid-related overdose and poisoning events.

An important limitation of this study is that the COVID-19 pandemic led to a cancellation of several sessions. As a result, we were not able to evaluate the program across as many sessions or participant groups as we had originally planned. The ceiling effects observed on the OM-PATOS also made it difficult to understand the full stigma reduction impact of the program. The COVID-19 pandemic also prevented the delivery of post-workshop support and coaching, which is a key part of the program design. These factors—along with the

high attrition of survey responses from post to follow-up (which also may have been impacted by the pandemic) and the experiences of providing care in the context of a pandemic—precluded the ability to complete our preplanned follow-up assessment, leaving uncertain how program impacts may have changed over time. Ideally, a program such as TRIP would see continuing improvements over time as participants practice and become more comfortable with the skills and teachings (eg, see the study by Beaulieu et al.<sup>21</sup>), although we believe that a supportive environment and ongoing opportunities to practice and receive coaching would also be important in this regard.

It is worth noting that changes brought about by COVID-19 have also provided opportunities for future evaluations. Now, TRIP has been adapted for live interactive web-based delivery, and modifications have been made to the model for post-program coaching and support. This new delivery model is currently being piloted and evaluated.

The overall results of this evaluation provide preliminary evidence in support of embedding resiliency and self-compassion within trauma-informed training programs to mitigate burnout, improve provider resiliency, and improve care by reducing stigma. We feel that principles taught in TRIP may be a promising approach for cultural change in healthcare practice, especially if implemented widely and thoroughly across units, teams, and organizations.<sup>22</sup> Thorough implementation would also help ensure that TRIP skills can be more easily practiced in daily workplace routines and supported and reinforced by fellow colleagues, enhancing the potential for culture change.<sup>22</sup>

Leaders and managers are encouraged to explore how TRIP principles may be implementable in their own organizations and departments. This includes adopting and/or adapting the TRIP program, modelling the TRIP approach by prioritizing and practicing mindful self-compassion and trauma-informed communication in their own roles as leaders, embedding TRIP practices and principles into stigma reduction programs and initiatives, and/or by taking a shared humanity and mindful compassion lens to other initiatives focussed on employee wellness or quality care. It will also be important to continue to research the potential value of TRIP-related principles on employee wellness, compassion satisfaction, and quality care. Larger studies with longer-term follow-up and randomization are now needed.

### Funding

This evaluation project was supported by the Mental Health Commission of Canada (MHCC), which is funded through Health Canada. The views expressed in this article are those of the authors and do not necessarily represent the views of the MHCC or Health Canada.

### ORCID iD

Stephanie Knaak, PhD  <https://orcid.org/0000-0001-7663-3451>

### Supplemental material

Supplemental material for this article is available on-line.

### References

1. Mealer M, Burnham EL, Goode CJ, Rothbaum B, Moss M. The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses. *Depress Anxiety*. 2009;26(12): 1118-1126. doi:10.1002/da.20631
2. Duxbury L, Higgins C, Lyons S. *The Etiology and Reduction of Role Overload in Canada's Health Care Sector*. Sprott School of Business, Carleton University; 2010.
3. Coyle D, Edwards D, Hannigan B, Fothergill A, Burnard P. A systematic review of stress among mental health social workers. *Int Soc Work*. 2005;48(2):201-211. doi:10.1177/0020872805050492
4. BC Coroners Service. Illicit drug toxicity deaths in BC January 1, 2020—September 30, 2020. Ministry of Public Safety & Solicitor General. Published 2020. Accessed October 30, 2020. Available at: <https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicit-drug.pdf>
5. Huggard P, Stamm BH, Pearlman LA. Physician stress: compassion satisfaction, compassion fatigue and vicarious traumatization. In: Figley C, Huggard P, Rees CE, eds. *First Do No Self-Harm: Understanding and Promoting Physician Stress Resilience*. Oxford University Press; 2013: 127-145.
6. Dasan S, Gohil P, Cornelius V, Taylor C. Prevalence, causes and consequences of compassion satisfaction and compassion fatigue in emergency care: a mixed-methods study of UK NHS Consultants. *Emerg Med J*. 2015;32(8):588-594. doi:10.1136/emered-2014-203671
7. Knaak S, Christie R, Mercer S, Stuart H. Harm reduction, stigma and recovery: tensions on the frontlines of Canada's opioid crisis. *JMHAN*. 2019;3(1):e8-e21.
8. Sacco TL, Carman Copel L. Compassion satisfaction: a concept analysis in nursing. *Nurs Forum*. 2018;53(1):76-83.
9. Ivicic R, Motta R. Variables associated with secondary traumatic stress among mental health professionals. *Traumatology*. 2017; 23:196-204.
10. Hudnall Stamm B. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). St. Paul, MN: Center for Victims of Trauma; 2009.
11. Zhang Y-y, Zhang C, Han X-R, Li W, Wang Y-L. Determinants of compassion satisfaction, compassion fatigue and burn out in nursing. *Medicine*. 2018;97(26):e11086. doi:10.1097/MD.000000000011086
12. BC Provincial Mental Health and Substance Use Planning Council. Trauma informed practice guide. 2013. Accessed August 21, 2020. Available at: [https://bccewh.bc.ca/wp-content/uploads/2012/05/2013\\_TIP-Guide.pdf](https://bccewh.bc.ca/wp-content/uploads/2012/05/2013_TIP-Guide.pdf)
13. Nova Scotia Health Authority. Trauma-informed approaches: an introduction and discussion guide for health and social service providers. 2015. Accessed August 23, 2020. Available at: [https://novascotia.ca/dhw/addictions/documents/TIP\\_Discussion\\_Guide\\_1.pdf](https://novascotia.ca/dhw/addictions/documents/TIP_Discussion_Guide_1.pdf)
14. Knaak S, Stuart H. Measuring opioid related stigma. In: Dobson KS, Stuart H, eds. *The Stigma of Mental Illness*. Oxford University Press; 2021 (forthcoming). Chapter 7.

15. Szeto A, Dobson K, Knaak S. The road to mental readiness for first responders: a meta-analysis of program outcomes. *Can J Psychiatry*. 2019;64(1\_suppl):18s-29s.
16. Dobson K, Szeto A, Knaak S. The working mind: a meta-analysis of a workplace mental health and stigma reduction program. *Can J Psychiatry*. 2019;64(suppl 6):39s-47s.
17. Raes F, Pommier E, Neff KD, Van Gucht D. Construction and factorial validation of a short form of the self-compassion scale. *Clin Psychol Psychother*. 2011;18(3):250-255.
18. Thornicroft G. *Shunned: Discrimination Against People With Mental Illness*. Oxford University Press; 2006.
19. Knaak S, Modgill G, Patten SB. Key ingredients of anti-stigma programs for healthcare providers: a data synthesis of evaluative studies. *Can J Psychiatry*. 2014;59(10 suppl 1):S19-S26. doi:10.1177/070674371405901s06
20. Kulesza M, Hunter SB, Shearer AL, Booth M. Relationship between provider stigma and predictors of staff turnover among addiction treatment providers. *Alcohol Treat Q*. 2017;35(1):63-70. doi:10.1080/07347324.2016.1256716
21. Beaulieu T, Patten S, Knaak S, Weinerman R, Campbell H, Lauria-Horner B. Impact of skill-based approaches in reducing stigma in primary care physicians: results from a double-blind, parallel-cluster, randomized controlled trial. *Can J Psychiatry*. 2017;62(5):327-335. doi:10.1177/0706743716686919
22. Knaak S, Luong D, McLean R, Szeto A, Dobson K. Implementation, uptake and culture change: results of a key informant study of a workplace mental health training program in police organizations in Canada. *Can J Psychiatry*. 2019;64(suppl 6):30s-38s.