



Examining how organizational leaders perceive internet-delivered cognitive behavioural therapy for public safety personnel using the RE-AIM implementation framework

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ABSTRACT

Background: Within Canada, internet-delivered cognitive behavioural therapy (ICBT) has recently been tailored by PSPNET to meet the needs of public safety personnel (PSP) to help address high rates of mental health problems within this population. Perceptions and outcomes of ICBT among PSP are promising, but it remains unknown how PSPNET is perceived by PSP organizational leaders. It is important to assess this gap because these leaders have significant potential to influence the uptake of ICBT.

Methods: In the current study, PSP leaders ($n = 10$) were interviewed to examine their perceptions of PSPNET and opportunities to improve ICBT implementation. The RE-AIM evaluation framework was used to assess PSP leaders' perceptions of PSPNET in terms of reach, effectiveness, adoption, implementation, and maintenance.

Results: The results evidenced that leaders perceived PSPNET as effective in reaching and serving PSP and PSP organizations. PSP leaders reported perceiving ICBT as effectively implemented, especially for being freely offered to individual PSP and for improving PSP's access to experienced therapists specifically trained to work with PSP. Participants indicated organizations have promoted and will continue promoting PSPNET longer-term, facilitating adoption and maintenance. Factors perceived as facilitating successful service delivery included building relationships and trust with PSP organizations and general support for PSP leadership mental health initiatives. PSP leaders identified perceived areas for improving ICBT implementation (e.g., ensuring leaders have access to data on PSPNET uptake and outcomes, creating promotional videos, expanding availability of PSPNET to other provinces, offering additional options for receiving therapist support).

Implications: Overall, the study provides insights into PSP leaders' perceptions of the implementation of ICBT among PSP and ideas for optimizing implementation efforts.

1. Introduction

Public safety personnel (PSP) are diverse occupational groups working to keep communities safe, including, but not limited to, border services officers, correctional services workers, firefighters (career and volunteer), Indigenous emergency managers, operational intelligence personnel, paramedics, police (municipal, provincial, and federal), public safety communicators, and search and rescue personnel (Canadian Institute for Public Safety Research and Treatment [CIPRST], 2019). Elevated rates of mental health challenges have been observed

among PSP worldwide (Benedek et al., 2007; Courtney et al., 2013; Maia et al., 2007; Motreff et al., 2020). Within Canada specifically, PSP across all sectors are at increased risk for developing symptoms of major depressive disorder, posttraumatic stress disorder (PTSD), generalized anxiety disorder, social anxiety disorder, panic disorder, and alcohol use disorder, with 44.5 % reporting clinically significant symptoms of one or more mental health disorders and 18.0 % reporting symptoms of three or more (Carleton et al., 2018). Unfortunately, despite high mental health needs, PSP experience many barriers to accessing mental healthcare services (e.g., stigma, time barriers, geographical barriers,

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confidentiality concerns; Jones et al., 2020; McCall et al., 2021a).

In response to the high rates of mental health challenges faced by PSP and barriers to care, Public Safety Canada invested in the development of a clinical research unit called PSPNET, tasked with developing, delivering and conducting research on ICBT tailored for PSP (Public Safety Canada, 2019). ICBT consists of cognitive behavioural treatment materials provided in the form of an online course, which can be self-guided or therapist-guided (Andersson, 2016). There is now a large evidence base for the effectiveness of both therapist-guided and self-guided ICBT for reducing symptoms of mental disorders (e.g., Andersson et al., 2019a; Andersson et al., 2019b; Lewis et al., 2019; McCall et al., 2021b). Moreover, ICBT can help overcome barriers to mental healthcare (e.g., geographical, time, and attitudinal barriers; Andersson, 2016). To date, PSPNET's research has focussed on examining ICBT from the perspective of PSP who have used therapist-guided ICBT services. Results have been encouraging, showing that PSP perceive therapist-guided ICBT to be beneficial (Beahm et al., 2021) and those who participate in it experience significant reductions in symptoms of anxiety, depression, and posttraumatic stress (Hadjistavropoulos et al., 2021; McCall et al., 2023).

The objective of the current study was to extend research on ICBT tailored for PSP by examining the perceptions of PSPNET by leaders within PSP organizations (i.e., administrative leaders, organizational leaders, management, and frontline supervisors). There is a need to identify leaders' perceptions of ICBT tailored for PSP because perceptions of program outcomes and implementation and ideas for improvement can vary between different types of interested parties (Lyles et al., 2021; Neher et al., 2022), and past research on mental health programs targeted to PSP has highlighted that PSP leaders and organizational policies supportive of mental health programs represent major facilitators to program uptake and implementation (Knaak et al., 2019; Milliard, 2020). Therefore, leaders' perceptions of ICBT tailored for PSP could impact decisions by policymakers or PSP organizations regarding program support (Damschroder et al., 2022; Shelton et al., 2018). Research has also shown that most prospective clients of PSPNET learn about PSPNET through employers, unions, colleagues, or professional associations, further highlighting the potential influence that leaders of PSP organizations may have on uptake (McCall et al., 2021c). Leaders may also be able to provide novel ideas for improving the implementation of ICBT tailored for PSP.

Prior to PSPNET being implemented, interviews conducted with 126 Canadian PSP (56 %; $n = 70$ in leadership positions) evidenced that 93 % perceived a need for ICBT tailored to PSP, and 62 % reported believing that PSPNET would be used by PSP (McCall et al., 2021a). A national survey conducted by PSPNET assessed perceptions of ICBT and insights into expanding access across Canada approximately two years after initial implementation (Landry et al., 2023). The results indicated that most PSP leaders believed having PSPNET available to members of their organizations should be a priority (80.9 %; $n = 207$) and would be effective for improving members' mental health (82.4 %; $n = 210$). The results of both studies (i.e., Landry et al., 2023; McCall et al., 2021a) suggested PSP leaders have positive perceptions of ICBT tailored to PSP and perceive a need for ICBT; however, previous studies did not comprehensively investigate PSP leaders' perspectives on PSPNET, barriers to and factors facilitating implementation, or opportunities to improve services.

The current qualitative study used the RE-AIM evaluation framework (Glasgow et al., 1999, 2019; Holtrop et al., 2021), which has recently been applied in other ICBT implementation research (e.g., Lundström et al., 2023; Sit et al., 2022), to assess PSP leaders' perceptions of PSPNET along five dimensions including: reach, effectiveness, adoption, implementation, and maintenance. Quantitative data has typically been used during evaluations using the RE-AIM framework; however, there has recently been increased emphasis on using qualitative data to provide insights into the five dimensions (Holtrop et al., 2018). Qualitative data is helpful for understanding what has and has not worked and what

can be improved in terms of both the intervention and implementation approach. For example, qualitative data can help evaluators understand the best way to reach certain groups, why programs do not reach certain groups, and help identify ways to better reach target populations (Holtrop et al., 2018). Qualitative data can also be used to understand various stakeholders' perceptions on program effectiveness, such as whether they view the results as meaningful and beneficial enough to make the program worthwhile (Holtrop et al., 2018). Adoption of an intervention can be explored using qualitative data to help understand why certain organizations chose to participate in an intervention or not (Holtrop et al., 2018). Qualitative data can be particularly important for understanding stakeholders' perceptions of implementation efforts and what was successful and unsuccessful, and for identifying areas for improvement (Holtrop et al., 2018). Qualitative data is also useful for identifying potential maintenance sustainability problems with an intervention and assessing whether organizations have intentions to continue to adopt or promote an intervention or not (Holtrop et al., 2018).

The current study uses a qualitative RE-AIM framework. In line with this framework, reach referred to examining leaders' perceptions of whether PSPNET was reaching those in need and whether certain groups were not reached. Effectiveness referred to assessing whether leaders had heard feedback about PSPNET and their perceptions of PSPNET's success in making a difference in the lives of PSP, making a difference in PSP organizations, and improving awareness of posttraumatic stress injuries. Adoption referred to the extent to which leaders had promoted PSPNET. Implementation referred to assessing leaders' perceptions of the strengths and weaknesses of PSPNET's services as they were implemented. Maintenance referred to leaders' perceptions of the consequences of not maintaining PSPNET and their willingness to advocate for the long-term sustainability of program. In addition to assessing PSP leaders' perceptions of PSPNET along the five RE-AIM dimensions, we aimed to understand perceived facilitators and barriers to PSPNET's service delivery across the five dimensions and leaders' suggestions for optimizing PSPNET across those dimensions. There is increasing emphasis on developing digital or online mental health programs targeting the needs of PSP (Moghimi et al., 2022; Voth et al., 2022); accordingly, results from the current study are expected to inform the implementation of both PSPNET and other interventions and resources targeted to PSP.

2. Materials and methods

2.1. Context

At the time of data collection, PSPNET had made available two therapist-guided ICBT courses in both English and French to residents of Saskatchewan (beginning in December 2019), Quebec (beginning in June 2020), Nova Scotia, New Brunswick, and Prince Edward Island (beginning in November 2021). One ICBT course was transdiagnostic (i.e., *The PSP Wellbeing Course*; see Hadjistavropoulos et al., 2021 for details), and one course was PTSD specific (i.e., *The PSP PTSD Course*; see McCall et al., 2023 for details). Both courses have demonstrated good outcomes, with high client engagement, high treatment satisfaction, and moderate to large reductions in most types of symptoms for clients reporting clinically significant symptoms at pretreatment (Hadjistavropoulos et al., 2021; McCall et al., 2023). *The Self-Guided PSP Wellbeing Course*, which was virtually identical to *The PSP Wellbeing Course* but did not include therapist support, was also made available to PSP residing anywhere in Canada (beginning in December 2021). An English version of *The Self-Guided PSP Wellbeing Course* tailored to spouses or significant others of PSP (i.e., *The Spouse or Significant Other Wellbeing Course*) was also released for use across Canada (beginning in August 2022). At the time of data collection for the current study, PSPNET had offered services to over 900 PSP and 115 spouses or significant others. Within Saskatchewan specifically, 318 PSP had enrolled in a therapist-guided

PSPNET ICBT course, 12 PSP had enrolled in the self-guided *PSP Well-being Course*, and 26 spouses and significant others had enrolled in the *Spouse or Significant Other Wellbeing Course*. Over 4000 PSP in Saskatchewan had attended a presentation on PSPNET delivered by a PSPNET team member.

2.2. Sample and recruitment

Data for the current study were collected from 10 PSP leaders residing in Saskatchewan, Canada between November 2022 and January 2023. Leaders from Saskatchewan were selected because Saskatchewan was the first province in which PSPNET implemented its services, and sufficient time (i.e., three years) had passed since initial implementation to answer the research questions. The sample was recruited by contacting leaders of organizations that had previously been contacted to promote PSPNET. Previous PSPNET outreach activities with these leaders included individual meetings, presentations, webinars, and submitting newsletter articles to PSP organizations. For the current study, PSP leaders were sent an email invitation with a consent form and a one-page summary of PSPNET and its key research findings. Potential participants were asked to schedule an interview using an online scheduling tool called Coconut Calendar at their discretion.

Email invitations were sent to 23 PSP leaders. The final sample included 10 leaders from the following sectors: EMS/paramedics ($n = 2$), fire ($n = 2$), municipal police ($n = 2$), Royal Canadian Mounted Police ($n = 1$), and border services ($n = 1$). Two leaders worked for organizations that included multiple public safety sectors, and two had some responsibilities in other provinces. The sample was comprised of six men and four women. The sample size is adequate for qualitative research (Boddy, 2016) and similar to that of prior qualitative interview studies with a similar purpose (e.g., Melia et al., 2021).

2.3. Data collection

Leaders took part in a semi-structured interview with author JDB over the phone (Olson, 2011). Phone interviews are known to allow for participation of hard-to-reach populations, such as those within PSP organizations who have busy schedules (Saarijärvi and Bratt, 2021; Sturges and Hanrahan, 2004). Previous research has demonstrated that the use of phones to conduct interviews does not affect the quantity, quality, or content of data collected (Saarijärvi and Bratt, 2021; Sturges and Hanrahan, 2004). Prior to beginning the interview, leaders were asked if they had reviewed the consent form and verbally consented to participate. The interview guide included 18 questions to assess leaders' perceptions of PSPNET and to identify areas for improvement along the five RE-AIM framework dimensions (see the Appendix A). Interviews lasted approximately 20 to 30 min and were recorded and transcribed verbatim by a professional transcription service.

2.4. Analyses

After identifying information was removed, transcripts were uploaded into the qualitative analysis software NVIVO (QSR International NVivo 20 Qualitative Data Analysis Software, 2020). Data were coded using a directed content analysis (Hsieh and Shannon, 2005), which refers to a content analysis that is guided by a pre-existing theory or framework (Hsieh and Shannon, 2005). The RE-AIM framework dimensions were used as domains, and the interview data were coded into categories and subcategories within these dimensions. Data were coded by meaning units (Graneheim and Lundman, 2004). The data were coded by author JDB (who was near completion of a PhD in psychology at the time of analyses) and then reviewed and checked by a PSPNET clinical research associate (ID—see Acknowledgements—who held a master's degree in social work), who provided feedback on the coding structure and identified coding categories. A final review of the data was

carried out by author HDH, who holds a PhD in clinical psychology and has expertise in qualitative analysis. Changes were applied to the final coding structure and codebook based on the derived feedback.

Qualitative research requires researcher reflexivity (Lazard and McAvoy, 2020). Author JDB has no history of working as a PSP, which may have made stakeholders feel less comfortable sharing their perspectives on PSPNET. JDB and ID are both affiliated with PSPNET and hold positive attitudes toward ICBT and its effectiveness, which may have biased interpretations of stakeholder responses. The current study was designed to describe stakeholder perspectives rather than identify underlying systems of meaning. As such, data were coded by searching only for overt themes in responses, potentially limiting the impact of positivity biases.

3. Results

3.1. Reach and adoption

Assessment of whether leaders perceived PSPNET as successful in reaching PSP was strongly conceptually related to whether leaders perceived that PSPNET had been adopted/promoted by organizations, and results in the reach and adoption categories are therefore presented together. Overall, most leaders indicated that they perceived PSPNET to be successful in reaching PSP because information had been sent out to everyone within their organization. Leader #4 stated, "I think from our organizational perspective, everybody is aware of it". A couple leaders indicated it is difficult to determine whether the information was actually received by PSP or whether PSP engaged with the information. One leader stated, "I know the emails have been sent to everybody, but how many people have agreed to read those, who've clicked the links, who've reached out, that I don't know. But, the broad information dissemination has happened..." (Leader #7).

Some leaders reported perceiving that specific PSP groups have not been reached as effectively as others. Leader #6 reported perceiving a need to find ways to reach former PSP who are no longer directly connected with an organization: "Another group that I don't know if you've reached, or is aware of who you are, are former PSP". One leader reported the perception that there are specific groups within their organization that are not reached as successfully as others, such as those not traditionally associated with frontline work (e.g., inspectors; training division personnel). There were mixed perceptions about whether older or younger PSP were reached. For example, Leader #4 reported that younger PSP are less likely to perceive a need for the program, having experienced relatively fewer PPTs. Leader #9 reported that older PSP are harder to reach because they are more likely to have an "old school mindset" toward mental health.

All PSP leaders suggested that their organization has promoted PSPNET. Having a PSPNET team member give a talk or webinar on PSPNET was among the most commonly cited types of promotion. Organizations often reported having promoted PSPNET during meetings (e.g., critical incident stress management meetings; peer support meetings; internal team meetings). Other ways leaders described promoting PSPNET included: mentioning PSPNET in their newsletters, mental health minutes, hanging up posters, and providing a link to PSPNET's website on their own websites or resource pages on social media.

3.2. Effectiveness

All PSP leaders reported the perception that PSPNET was making a difference in the individual lives of PSP. Participants also reported perceiving that having PSPNET available was beneficial for their organization. Almost all feedback was positive. A couple leaders reported having received a small amount of feedback indicating that the services did not meet certain PSP's needs. Themes related to effectiveness are shared below.

3.2.1. No negative reports

According to PSP leaders, no negative feedback represented positive feedback about PSPNET.

We have not heard anything bad. So what we're taking that as is that those that are connecting are getting what they need from PSPNET. We are hearing, in – on the reverse, though, we are hearing that our [other] program is not hitting par. So, I mean, if this one wasn't hitting par, I think we'd be hearing about it (Leader # 2).

3.2.2. Helpful program

Overall, PSP leaders reported perceiving that the program is beneficial because it is helping PSP with mental health challenges. For example, Leader #8 reported, "Provinces that don't have it up and running at the moment are really excited to receive the service, because it really, I think on a personal level, it really does help." Another leader echoed this sentiment, "Generally speaking, I've heard people say that it's a very helpful program" (Leader #1).

3.2.3. Positive perceptions of PSPNET's ICBT characteristics

Overall, PSP leaders reported hearing positive feedback about several aspects of ICBT. They stated that PSP found PSPNET beneficial because of factors such as accessibility and convenience, how PSPNET is tailored to all PSP, the confidentiality of the program, how PSPNET is free to use (for both the individual and PSP organizations), and how therapists are knowledgeable about PSP and also offer different options for offering support. For example, Leader #3 highlighted the importance of knowledgeable therapists, "One of the biggest things, I'll be honest with you, is that our people feel comfortable knowing that they're getting a bona fide clinician and somebody that's privy to the emergency services world." In terms of access, Leader # 6 reported, "many like the – the convenient access to PSPNET." Regarding confidentiality, Leader # 2 stated, "They really thought it was good and that they absolutely trusted that their information wouldn't go any further." In terms of costs, Leader #1 reported, "I think that financial piece is probably one of the best benefits. Just because of the fact that we have so many different types of workplaces within our sector. And so that is extremely helpful".

3.2.4. Bridge to other care

One leader suggested that they heard from a PSPNET client that the program was helpful and also helped them seek out other forms of mental healthcare. Leader #5 reported, "There was one person that we referred and they came back and said, yeah, you know what, it helped. And it was a good bridge to continuing their care."

3.2.5. Increases availability and options for mental health treatment

Most leaders reported the perception that PSPNET was beneficial because it allowed them to provide another treatment option in addition to other available options. Some PSP leaders, for example, indicated that they believed PSPNET is beneficial because it increases availability and options for mental health programs for PSP. Leader #6 stated, "I think it just makes sense. It's another resource that we can refer people to".

3.2.6. Fills a gap in treatment needs

A couple of PSP leaders reported perceiving that PSPNET was filling gaps in treatment that their current programs were not meeting. One leader reported that the program filled a need for more treatment options because current programs were not available for some employees (e.g., contract workers and volunteers) who lacked benefits.

[Our organization] has benefits that the paramedics can access, which allow them all kinds of different services for their mental health. However, a lot of our contracted services have either no benefits, or limited, and then of course the volunteers (Leader #1).

Another leader reported perceiving that PSPNET was beneficial for their organization because the program is external to their organization,

whereas other programs are internal.

We're a very low-trust organization. I know some people will not reach out for help internally. Because they do not have confidence that will be kept confidential... So, the fact that you're completely external and have nothing to do with any of us directly, I think, is – is a really critical element for people (Leader #7).

3.2.7. Increases awareness

All of the PSP leaders stated their perception that PSPNET is one piece of a larger initiative that has played a vital role to increase awareness within their organizations about posttraumatic stress injuries, including anxiety, depression, and posttraumatic stress disorder, and other mental health issues. One leader stated, "It has absolutely improved awareness. No question about it. You know? In combination with all of the other things that have been happening. This has absolutely increased awareness" (Leader #2).

A few PSP leaders reported the perception that PSPNET is helpful for increasing awareness because it provides a specific action that PSP can take. In the words of Leader #1:

People, I think, are more willing to listen. Because they know that there's a solution. They know that there's help. And before that there was an awful lot of awareness about all of these things. Folks would talk about it but that was where it ended. So this is awareness and action attached.

3.2.8. Does not meet all PSP's needs

The only negative feedback that PSP leaders reported hearing was that some individuals felt that they needed more therapist interaction or that they would prefer a face-to-face service over PSPNET. Leader #9 identified that they heard primarily positive comments from several individuals except for one who felt like they would prefer face-to-face support:

I think there's only one person that I recall that said that it didn't really work for them, or they didn't really like it. Everyone else was very positive about their experience with it. And the person that said that they didn't enjoy it, or it didn't, just wasn't for them, they just said they prefer kind of face-to-face because they have a therapist who they see also.

3.3. Implementation

When asked about PSPNET implementation, PSP leaders generally reported the perception that implementation success was based on two factors; specifically, the nature of ICBT and the promotional activities that were undertaken. Most leaders identified at least one intervention characteristic of PSPNET's ICBT that they believed made the program successful. Intervention characteristics that were perceived as contributing to successful implementation included accessibility and convenience, quality of psychoeducational information provided, knowledgeable clinician support, and no cost for enrolling in the program. Secondly, several PSP leaders reported perceiving that the program was successful because the promotional activities carried out by PSPNET team members were engaging and provided a personal contact with the program.

Close second is the fact that [PSPNET team member] is, you know, very, very engaging and has taken the time to speak to whomever and do the presentations and give that information freely and openly and have those discussions. Because when you actually have more than just an email, people get more out of it (Leader #1).

3.4. Maintenance

PSP leaders were supportive of PSPNET and wanted to see PSPNET maintained. All PSP leaders reported that the discontinuation of PSPNET would affect their organization and leave a gap in the services available for PSP. Many PSP leaders claimed that PSPNET had filled a gap in services that would be hard to replace with other programs. For example, Leader #7 reported:

I feel like that would be a gaping hole. Because you do provide a service that's anonymous, that's third-party, that's accessible. And I don't think there's anything else that would meet that for anybody. So I feel like that would be a big gap.

A couple PSP leaders also reported the perception that the loss of PSPNET would create further barriers to promoting mental health services. Participants described the time required to develop trust with a service and indicated that having to start the promotion process over with a new program would set back efforts for promoting mental health services. Overall, PSP leaders reported perceiving that the availability of PSPNET is important and is filling a need for mental health services.

All PSP leaders reported the perception that PSPNET is an important program and that they would be willing and eager to continue to promote and advocate for PSPNET. In the words of Leader #3, "100%. 100%. Like I said, you're right now, you're number one in what I'm promoting". Similarly, Leader #2 replied, "Absolutely. Both locally here and provincially. Actually, not willing to. Eager to. How's that?" For a summary of PSP leader perceptions pertaining to each domain of the RE-AIM framework, see Table 1.

3.5. Facilitators

3.5.1. Creating trust and reliability

A major perceived facilitator for PSPNET was developing trust and rapport with PSP and making the materials relatable to PSP. PSP leaders emphasized their perception that the personal aspect of the promotions was key to making PSPNET successful. Leader #5 reported, "It's nice to have the face-to-face or a Zoom type thing. I think those were way more

Table 1
Summary of leader perceptions pertaining to each domain of the RE-AIM framework.

Domain/theme
Reach and adoption
All members of PSP organization have been informed about PSPNET.
The degree to which PSP have engaged with information about PSPNET remains unclear.
Certain PSP groups have not been reached as effectively as others.
PSP organizations have promoted PSPNET using various modes of communication.
Effectiveness
No negative feedback received.
PSPNET's programming is perceived as helpful.
Positive feedback on specific characteristics of PSPNET's services.
PSPNET's programming as a bridge to other care.
PSPNET provides another treatment option in addition to other available options.
PSPNET fills a gap in treatment needs.
PSPNET helps increase awareness about mental health issues.
Some PSP would have preferred more therapist interaction or face-to-face therapy.
Implementation
Certain intervention characteristics contribute to successful implementation.
PSPNET's promotional activities facilitated implementation.
Maintenance
Discontinuation of PSPNET would leave a gap in services available to PSP.
Loss of PSPNET would create further barriers to promoting mental health services.
PSP organizations would be willing and eager to promote and advocate for maintenance of PSPNET.

beneficial than just a poster or an email". Another way to increase relatability was identified by Leader #7 who mentioned that she tries to personalize PSPNET messages.

I've shared the vast majority of the messages and I try to put a context on them how it links to us, so it links to our work... I try to, like, make it relatable to everybody and consumable for them.

3.5.2. Growing recognition of the need for mental health supports and supportive leadership

Some PSP leaders reported perceiving that a major facilitator for reaching PSP was the growing recognition that PSP organizations need mental health initiatives. Leader #2 reported, "[PSPNET has] come at a really good time when that's such a salient issue. And police leaders are looking for ways to allow the members to access the services they need." Moreover, increased leadership and management support of mental health initiatives was viewed as a facilitator for promoting PSPNET. Leader #5 stated, "I mean, management was – has been great about allowing us to take time out of the training slots to promote mental health and then to promote PSPNET". Recognition and support of mental health issues by the organization and management was one of the most frequently cited facilitators for promoting PSPNET.

3.6. Barriers

3.6.1. General barriers to mental healthcare (e.g., stigma, time, confidentiality)

PSP leaders described several perceived barriers to the rollout of PSPNET that are not necessarily specific to PSPNET but reflect general barriers to mental health services. The perceived barriers included issues such as continuing stigma about mental health problems, concerns about confidentiality, and not having the time to engage with services. These perceived barriers are illustrated in the following quote:

The barriers are always in our members' perceptions of do they need to reach out? Is it confidential? That's always a concern for them. But other than that, the only barriers would be the self-imposed barriers that people would put on themselves (Leader #2).

3.6.2. Information overload

Some PSP leaders reported that their organization is sending out information but indicated that the information may not be received because PSP receive a lot of information and do not open all emails they receive. As one leader stated, "Information overload. They get emails; they get messages. You know? Some of them we read, some we don't read, some we just move on to others" (Leader #2).

3.6.3. Organization-specific barriers and availability issues

PSP leaders also reported having perceived organization-specific barriers that made it difficult to promote PSPNET. One perceived barrier that some leaders mentioned was that the decentralization or vastness of their organization, with varied reporting structures, made promotion difficult. For example, Leader #1 illustrated this concept: "There's a barrier that we can't necessarily follow up on everyone. [There are a vast number of] services in the province. We don't know whether or not everyone has the information posted or if they're talking about it." Another perceived organization-specific barrier was technological issues, such as the blocking of hyperlinks.

A couple of PSP leaders described difficulties promoting PSPNET within their organization because therapist-guided ICBT is not available in all provinces and because some programs are not available in both English and French. These leaders were responsible for organizations that operated in jurisdictions larger than Saskatchewan, making accessibility an organization-specific barrier to promotion. For example, Leader #7 reported:

When I send out the messages, like I said, they go region wide. I was like

OK, if you're in Saskatchewan this is what you're entitled to... And in Manitoba you'd probably go and do the online courses. So I don't know if that gets confusing for people... So, broader availability would be helpful.

3.7. Improving PSPNET

PSP leaders provided suggestions for improving the promotion, reach, and implementation of PSPNET. This feedback is provided in Table 2, along with current status of PSPNET's efforts to respond to leaders' suggestions.

4. Discussion

ICBT has recently been tailored to PSP and found effective for

Table 2
Suggestions for improving PSPNET.

Suggestion	PSPNET response
Create promotional videos providing more details on nature of ICBT	The PSPNET team is working on creating an overview video showing how to access and progress through its courses to be included on its website.
Provide leaders data on use of PSPNET by members of their organization	PSPNET currently reports results concerning the uptake of PSPNET by sector on its website but not by organization because this could potentially breach client confidentiality.
Emphasize preventative aspect of PSPNET	PSPNET team members are increasingly emphasizing the effectiveness of ICBT among those with milder symptoms.
Create official partnerships with PSP organizations	PSPNET is working on creating official partnerships with large PSP organizations through which PSPNET will commit to offering services and organizations will commit to promoting PSPNET.
Increase availability of therapist-guided PSPNET programs across Canada so that organizations can more readily promote PSPNET without excluding some PSP	PSPNET is currently working on making therapist-guided programs available across Canada. All courses targeted to PSP are now available in both English and French.
Promote success stories (e.g., videos, testimonials)	The PSPNET team has added client quotes about ICBT to program materials. The PSPNET team has also created promotional videos which outline outcomes of PSPNET and feature PSP describing the importance of addressing mental health concerns. Inclusion of videos of client success stories (i.e., testimonials) is not possible due to professional ethical guidelines that recommend psychologists not employ testimonials to promote or advertise services (Canadian Psychological Association, 2001).
Add additional options for how therapist support is provided (e.g., videoconferencing, additional check-ins)	Suggestions for changes to therapist support are under consideration. Clients have the option of requesting additional check-ins beyond once-weekly check-ins.
Address timelines and concentration challenges (e.g., including audio of content)	The PSPNET team offers a flexible timeline from 8 to 16 weeks of therapist support and has found that most clients complete the course within this timeline. Therefore, the team does not intend to adjust the timeline but will ensure therapists remind clients of the flexibility of the program. Audio content is being added to all programs.

treating symptoms of several mental disorders (Hadjistavropoulos et al., 2021; McCall et al., 2023). The current study was designed to explore perceptions of PSPNET among PSP leaders along the five dimensions of the RE-AIM evaluation framework: reach, effectiveness, adoption, implementation, and maintenance (Holtrop et al., 2018). The study used a qualitative approach for the RE-AIM framework as this approach can provide insights to why programs are effective or not and can help guide improvements to interventions but also implementation efforts (Holtrop et al., 2018). Using a qualitative method helps provide an in-depth understanding of stakeholders' experiences. Understanding perceptions of effectiveness of ICBT for PSP among PSP leaders is critical because leaders can influence the uptake, implementation, and sustainment of services for PSP (Damschroder et al., 2022; Knaak et al., 2019; Milliard, 2020). To improve understanding of ICBT for PSP, the current study also explored what PSP leaders perceived to be facilitators and barriers to the implementation of ICBT for PSP, along with their perceptions of how ICBT for PSP could be improved. The results have implications primarily for the rollout of ICBT to PSP but may also serve to inform implementation of other mental health services for PSP.

4.1. Primary results and implications

Leaders reported generally positive perceptions of PSPNET, suggesting an implementation context conducive to successful ongoing implementation of ICBT tailored for PSP. Leaders also provided suggestions to further improve implementation. Some leaders reported perceiving that some PSP may not be reached as successfully as others, including retired PSP or volunteer PSP. For some PSP, leaders suggested that therapist support by email or phone may be insufficient. Previous PSPNET research has evidenced that leaders supported ICBT for PSP prior to implementation (McCall et al., 2021a) and after two years of implementation of PSPNET (Landry et al., 2023). The current study contributes to extant research on PSP leaders' perceptions of ICBT by demonstrating that leaders perceive a need for ICBT tailored for PSP and believe PSPNET's services are effective and beneficial for PSP and PSP organizations after seeing results from the services. The results are promising because leader support of programs is integral for promoting, implementing, and sustaining programs (Damschroder et al., 2022; Shelton et al., 2018), particularly programs within PSP populations (Knaak et al., 2019; Milliard, 2020). The results suggest PSP leaders are supportive of digital mental health interventions, at least within the context of ICBT tailored and implemented in collaboration with PSP.

The current paper contributes to needed research exploring stakeholder perceptions of ICBT. Previous research has examined the perceptions of ICBT service providers, managers, and ICBT users (e.g., Duffy et al., 2023; Folker et al., 2018). The current study provides insights into perceptions of leaders of organizations whose workers may benefit from the use of tailored ICBT. This research can inform implementation efforts.

In studying facilitators of ICBT implementation, one implication of the current study is that providers of ICBT and other digital mental health interventions can facilitate successful implementation by building relationships and establishing trust with PSP populations. Building trust can include promotional activities such as presentations that provide a personal connection to the program and word of mouth within an organization. The results align with a study on peer support during reintegration after an occupational stress injury in a police organization, which suggested word of mouth would be a facilitator for implementing and reaching police with the program (Jones et al., 2022). The current results reflect previous research indicating PSP are often skeptical about mental health services (Jones et al., 2020; McCall et al., 2021a), underscoring the need to build trust in services through direct relationship development. PSP leaders suggested that promoting PSPNET was also facilitated by shifting attitudes within PSP organizations, which are highlighting mental health challenges as a salient issue. Moreover, PSP leaders reported perceiving tailoring as a valuable aspect of ICBT for

PSP populations.

The above results are encouraging, but PSP leaders also highlighted some perceived barriers to promoting ICBT services, such as ongoing problems with stigma on an individual level. The ongoing evidence of stigma as a barrier suggests that ICBT, as a highly private treatment option, may be well poised to provide treatment to PSP who may avoid other treatments due to concerns about stigma. PSP leaders reported believing PSPNET helps to raise awareness about posttraumatic stress injuries, but more work is needed to reduce self-stigma and reach more PSP who struggle with mental health problems. Continued promotion of PSPNET, or similar mental health services within PSP organizations, may help with overcoming self-stigma, or individuals' lack of perceived need for mental healthcare or fears of seeking treatment. Some organization-specific barriers for promoting PSPNET existed within PSP organizations (e.g., communication can be difficult in large, decentralized organizations). Working directly with organizational leaders may help to overcome such barriers.

PSP leaders cited several characteristics of PSPNET's ICBT as perceived strengths that made the services effective and the implementation successful. Other ICBT or digital mental health providers should pay particular attention to these characteristics when designing and implementing services, as not all ICBT programs include these characteristics. First, PSP leaders suggested that they viewed therapist support as beneficial. PSPNET made efforts to ensure that PSPNET therapists were aware of the occupational duties of PSP and the occupational stressors that they face. Service providers who do not train ICBT therapists in these areas may not have as much success, particularly given PSP's skepticism about therapist cultural competence, PSP's beliefs that therapists will not understand them (Jones et al., 2020), and PSP's reports of past negative experiences with counsellors and therapists (McCall et al., 2021a). Second, PSP leaders reported perceiving that a strength of PSPNET was the fact that there were no costs for the clients to access the program. Therefore, service providers may be able to improve reach by seeking out grants or other external funding rather than requiring clients or PSP organizations to pay for services. Third, the results showed that leaders perceived the tailoring of the program to PSP as beneficial. PSPNET put effort into tailoring the course (e.g., case stories and examples) through interviews and incorporating PSP feedback on the case stories. Potential service providers should note the effort it takes to make stories and examples relatable, ensure they allot the time and resources required for tailoring, and use input from actual PSP throughout this process. Fourth, PSP leaders reported perceiving that the confidentiality of PSPNET was a significant strength. Providers seeking to offer services to PSP should ensure that they have secure encryption in place and ensure confidentiality among all team members. Selling of data should be strictly prohibited (e.g., Hurler, 2022).

The current study results were also used to make iterative changes to PSPNET and supports the use of feedback from leaders as a method of improving ICBT. Previous PSPNET research has used data from clients to improve PSPNET courses but did not provide insights into outreach or promotion (Beahm et al., 2022). Data from leaders in the current study provides complementary insights into facilitators, barriers, and improvements to outreach and promotion efforts.

4.2. Limitations and future research

The current study results may be influenced by selection biases. First, PSP leaders were contacted based on their previous connections with PSPNET. Therefore, leaders selected were more likely to be supportive of PSPNET and have faced fewer barriers to being able to promote PSPNET. The selection process may have limited opportunities to identify certain barriers or areas for improvement. Second, given our sample size and convenience sampling methods, the current study was not able—or, indeed, intended—to identify broad tendencies in the favorability of perceptions of ICBT that might be generalized to other PSP leaders across Canada; rather, we sought to explore *nuances* in perceptions

among our sample. Third, PSP leaders' responses may have been influenced by a response bias as leaders may have been hesitant to report negative aspects of the program to a member of the PSPNET team. Throughout the interview process the interviewer attempted to manage response biases by emphasizing that feedback on areas for improvement was important to continuous improvement of PSPNET programs. The results nonetheless identified several factors acting as facilitators or strengths of ICBT for PSP. Future research can expand on identifying barriers by seeking out PSP leaders who have not promoted PSPNET in the past.

The current study's sample consisted of leaders from Saskatchewan, where PSPNET was first implemented, allowing for exploration of leader perspectives several years after initial implementation. There may be differences in perceptions of PSP leaders in other provinces, which warrants future research. For instance, there may be facilitators or barriers for reaching PSP that are regionally specific. There is also a need to assess PSP leaders' perceptions of ICBT or digital mental health interventions in other countries as implementation climates and attitudes may vary.

The current study used a qualitative approach to the RE-AIM framework which helped to highlight PSP leader's perceptions of the program and identify areas for improvement. Future research may address the domains of the RE-AIM using quantitative data. For example, research could evaluate the reach domain by considering the percentage of PSP who report mental health concerns compared to those who use PSPNET. PSPNET outreach data could also be used to assess the percentage of PSP organizations within Saskatchewan, or other provinces, who have accepted promotional materials, met with PSPNET members, or booked presentations by a PSPNET team member. Utilizing a quantitative approach could complement the results of the current study. Finally, future research could explore how tailored ICBT is perceived by leaders in various types of PSP and other occupations.

5. Conclusion

PSPNET has recently tailored ICBT to meet the needs of PSP. Prior research has shown that PSP have reported favorable perceptions of ICBT tailored for PSP and demonstrated promising clinical outcomes. The current study expanded on prior research on ICBT for PSP by exploring perceptions of ICBT among PSP leaders using the RE-AIM framework. It was important to explore leaders' perceptions of ICBT because they have significant potential to influence PSP's uptake of ICBT and were well poised to provide insights and suggestions to help facilitate more successful implementation efforts. The study results suggested PSPNET is perceived by leaders as reaching and effectively serving PSP and that PSP organizations have been promoting (adopting) and are eager to continue to promote (maintain) PSPNET. Leaders also perceived implementation as successful, especially in terms offering the service for free and increasing access to therapists who have specialized knowledge in working with PSP. Perceived facilitators for reaching PSP included building relationships with PSP and an organizational environment that is supportive of mental health initiatives. Despite support for mental health initiatives from PSP leaders, leaders reported perceiving that PSP still experience stigma, which prevents uptake of the program. PSP leaders have reported the perception that promotions of PSPNET have helped reduce stigma and increase awareness about posttraumatic stress injuries and mental health issues, suggesting that continued promotions may further reduce stigma and lead to increased uptake and reach of services. In terms of effectiveness, PSP leaders reported viewing PSPNET as effective for individual PSP and beneficial for their organizations. According to PSP leaders, the greatest strengths of PSPNET are the characteristics of PSPNET's ICBT and outreach presentations by the PSPNET team. PSP leaders also offered ideas for improving PSPNET. Some of the changes are already underway, demonstrating a need for improved communication with leaders so that they better understand ways PSPNET services are being improved. The

current study results can benefit other service providers seeking to offer ICBT or digital mental health services to PSP, as the results indicate ICBT is viewed as beneficial and filling a service gap. The results also provide insights for reaching PSP and promoting services.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Interview guide

Reach

1. To what extent do you feel that PSPNET reached PSP within your organization/sector?
2. Were there groups that were not reached?
3. What do you think helped or hindered PSPNET reaching PSP in your organization

Adoption

4. Has your organization promoted or partnered with PSPNET? In what ways?
5. [Only ask Q2 if respondent says "yes" to Q1] What factors allowed you to promote PSPNET within your organization?
6. What factors made it more difficult for you to promote PSPNET within your organization?

Effectiveness

7. Have you heard any feedback from PSPNET users about the program that you can share?
8. Do you feel that PSPNET is making a difference in the individual lives of PSP?
9. To what extent do you believe PSPNET is beneficial or not beneficial for your organization and why? [Prompts: Such as being able to refer individuals to PSPNET or being able to incorporate PSPNET into your workplace practices]
10. Do you feel that PSPNET has improved awareness about post-traumatic stress injuries within your organization?

Implementation

11. What do you think are strengths of PSPNET or factors that make the program successful?
12. What do you think are weaknesses of PSPNET or things the program could improve on?
13. Do you believe there are any disadvantages or unintended consequences of PSPNET?

14. Are there any other services that PSPNET should provide?

Maintenance

15. How would not having PSPNET available affect your organization?
16. Would your organization be willing to continue to work with PSPNET or to advocate for PSPNET to help sustain the program?
17. What else is needed to support mental health in your organization beyond what PSPNET does?

Other

18. Is there anything else you would like to tell us about PSPNET including things you liked, disliked, or things we should improve on?

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