School-Based Suicide Prevention Through Gatekeeper Training: Development and Evaluation of Three Approaches

Grant Final Report

HOPE lab   UNIVERSITY OF CALGARY   PolicyWise for Children & Families

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For More Information
This report draws on a forthcoming publication in the *Canadian Journal of Community Mental Health.* For information on this and our other suicide prevention work, please visit www.hopelab.ca.

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Key Messages

- This report presents details on the **development and evaluation** of a **school-based suicide prevention strategy**.

- Schools are a key location for suicide prevention, due to their frequent access to a broad range of children and youth.
    - **Gatekeeper training** is a promising preventive intervention in school settings. It helps address discomfort among teachers and other school staff around helping students in distress, not knowing how to ask about suicide, and fears around making the situation worse.
    - The gatekeeper training used in this study was called **Question, Persuade, Refer (QPR)**® training.
    - Although gatekeeper training on its own can be helpful, teachers and other school staff often need support beyond the initial training to sustain changes. As such, this project developed a **natural leader training**. Natural leaders are school staff that teachers naturally go to for support with students in distress. We developed the natural leader training so that these individuals could serve as implementation supports for suicide prevention activities in their school buildings.

- In this project, we trained 191 teachers and other school staff in QPR across two Alberta school divisions. We also trained 17 teachers and other school staff to serve as natural leaders in their school buildings.

- From before to after QPR training, participants in this study reported significant increases in both their preparedness to serve as suicide prevention gatekeepers, and in their knowledge about role-appropriate responses.

- In interview and focus group data, QPR training was viewed as an appropriate training for teachers, and participants shared that post-training, their comfort levels increased when discussing suicide with students.

- Participants shared that the most valuable part of natural leader training was building a supportive team, the role plays, and the opportunity to get feedback from professionals.

- Findings from this study demonstrate that natural leader approaches are worthy of further study, in combination with existing training approaches like gatekeeper training.

Executive Summary

Context: Suicide is a leading cause of death for children and youth in Canada. Teachers and other school staff play an important role in suicide prevention, as they are in daily contact with students and have the opportunity to intervene. Yet, many school staff have not been trained in suicide prevention. As a result, comprehensive training is needed.

Gatekeeper training is a promising suicide prevention approach in school settings. Goals of gatekeeper training are to build knowledge on youth suicide, risk and protective factors, and warning signs, and to improve attitudes, comfort and capacity for teacher intervention with students in distress. However, although promising, brief gatekeeper training on its own is often not enough to retain and use skills long term. Thus, this study also developed a new training – called Natural Leader training – to leverage strengths within a school to support ongoing suicide prevention efforts.

> *The current study developed a natural leader training to support the real-world implementation of QPR, a selective gatekeeper intervention. In this project, we explored the development of the natural leader training, as well as the mixed-methods pilot evaluation of our implementation strategy.*

Natural Leader Team. We used principal selection to choose the natural leader team for this project. The principal at each school was told to recommend individuals who they felt other teachers/school staff in their building naturally went to for support with students in distress. Individuals that the principal recommended as potential natural leaders were contacted by the study principal investigator by email to invite them to join their school's natural leader team.

Trainings. In this project, we offered three trainings. Two (flyer, Natural Leader) were created for this study, and one (Question, Persuade, Refer – QPR) was an existing training. As described above, natural leaders were chosen via principal selection.

    Flyer. All study participants were given a two-page flyer on suicide prevention that was developed for this study. The first page contained information on the connection between caring classrooms and suicide prevention, and the second page contained information on suicide prevention, including an overview of the QPR procedure and who to contact within the school for referrals. This flyer was emailed to all participants with their QPR log-in code.

    QPR Training. The gatekeeper training offered in this study was online Question, Persuade, Refer (QPR)® training (available via https://qprinstitute.com). This ~60-minute training covers information on suicide, how to identify someone who is at risk, and how to complete each step of the QPR procedure.

    Natural Leader (NL) Training. The NL training consisted of both asynchronous (videos; ~2 hours) and synchronous (three, 60-minute sessions) components. Because of the COVID-19 pandemic, all synchronous components were conducted via Zoom. For the asynchronous component, natural leaders were asked to watch whatever videos would be helpful to them

(i.e., based on their training and experience, they may not need to watch all videos). During the synchronous component of the training, the natural leader team for each school participated in activities where they a) identified suicide/mental health stigma at their school, and its potential impact on teacher response to students in distress (Session One), b) role-played the QPR technique (Session Two), and c) created an implementation plan to support suicide prevention in their schools (Session Three), based on barriers identified in Session One. The three sessions were all held afterschool for this study.

Procedure: This study involved 18 schools across two school divisions. These schools were assigned to one of two conditions: 1) QPR + NL training or 2) QPR only. Six of these schools received NL training, and the remaining 12 did not. Participants who agreed to do research completed surveys (before and after QPR training) which evaluated their perceived preparedness to perform suicide prevention activities. Participants were also asked how much they knew about various parts of role-appropriate response for teachers/school staff (referrals, what to say/not to say, reporting requirements) and about their demographic characteristics. Other data collection approaches included a training feedback form and interviews/focus groups.

Key Findings – Quantitative: From before to after QPR training, participants in both conditions reported significant increases in both their preparedness to serve as suicide prevention gatekeepers (**Figure 1**), and in their knowledge about role-appropriate suicide prevention responses (**Figure 2**).
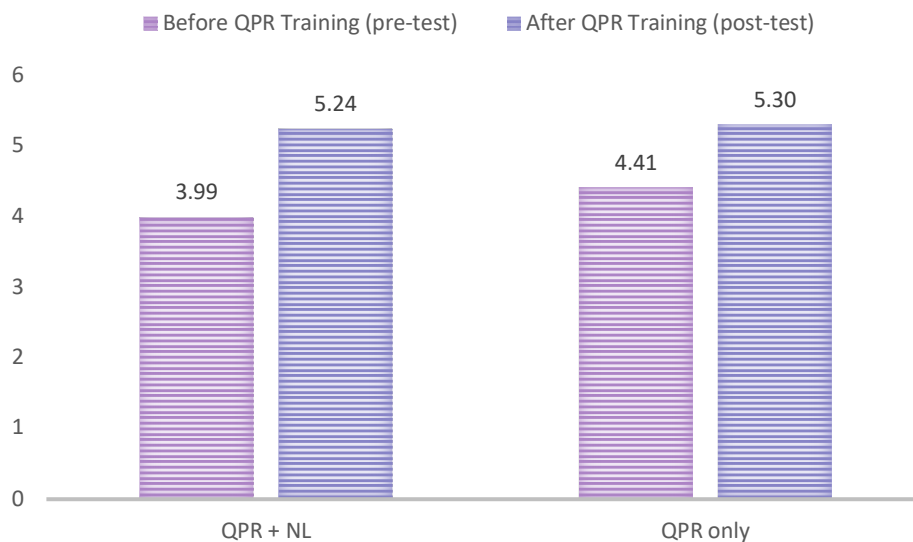

Figure 1. *Changes to preparedness to intervene with students in distress*
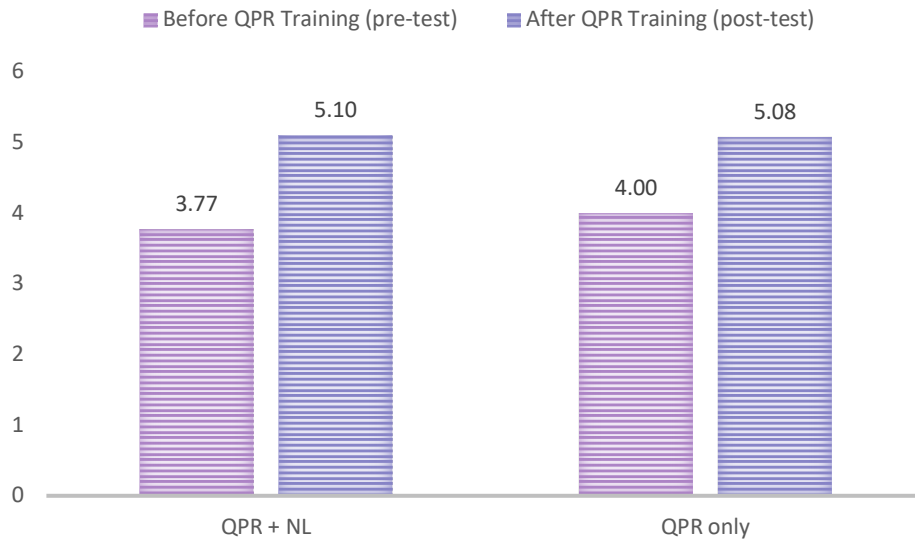
Figure 2. *Changes to knowledge about role-appropriate responses*

Key Findings - Qualitative: Several themes were identified regarding the feasibility, acceptability, and utility of our three trainings and our overall approach. For example, the flyer was viewed as a helpful tool, but we learned that we need to do a better job communicating its purpose and availability to participants. Participants said that QPR training was preferred over the flyer, and over other trainings they have taken in the past. They also felt QPR was appropriate for teachers, and increased comfort levels when asked about suicide. The most valuable part of natural leader training was building a supportive team.

Implications:

- In this study, a brief, low-cost training (QPR) was associated with large changes in school staffs' self-perceived preparedness to intervene with students in distress, as demonstrated by both quantitative and qualitative data. Additional data are needed on the sustainment of these effects, but as time to attend training is a key barrier for teachers, these findings are promising. **Policy makers in education settings** could consider ways to incorporate training into professional development days as a way to increase attendance.
- For **practitioners and school staff**, as an intervention for suicide, gatekeepers with limited time (e.g., teachers, school staff, etc.) can benefit in taking an online-only gatekeeper training.
- The use of natural leaders as a strategic approach to capitalize on brief training for all school staff is promising and should be the subject of future research.
- In terms of other **future research,** additional work is needed to explore the effectiveness of our approach across diverse settings.

Context

Deaths by suicide are a leading cause of death for children and youth in Canada (Children First Canada, 2021). Yet, little is known about effective suicide prevention (Arango et al., 2021). In addition, understanding of real-world implementation strategies for evidence-based suicide prevention approaches is an area in need of research attention. Because of their frequent access to a broad range of children and youth, schools are a key suicide prevention site (Arango et al., 2021; Pistone et al., 2019). The purpose of this project was to explore the development and evaluation of a new strategy for school-based suicide prevention in Alberta.

School-Based Suicide Prevention

Comprehensive suicide prevention in school settings is comprised of universal (e.g., psychoeducational), secondary (e.g., gatekeeper training) and tertiary (e.g., screening) approaches (Arango et al., 2021). Within this comprehensive approach, teachers (and other school staff within the building) play a critical role as suicide prevention supports (Nadeem et al., 2011). Specifically, teachers – and many other school staff, like learning support positions – are in daily contact with students, and thus have multiple opportunities to intervene (Gould et al., 2009; Hatton et al., 2017). Further, since many youth at risk for suicide are reluctant to ask for help (Reis & Cornell, 2008), teachers and other school staff can play an important role in proactive prevention.

However, despite their important role, many school staff have not been trained on what to do when youth make a disclosure, and report that they are unsure of their role within suicide prevention (Cross et al., 2011; Freedenthal & Breslin, 2010; Hatton et al., 2017; Westefeld et al., 2007). Although teachers and other school staff desire training to address these gaps (Hatton et al., 2017; Nadeem et al., 2011), many have not received sufficient training (Freedenthal & Breslin, 2010). As such, training for teachers and other school staff is a vital element of comprehensive school-based suicide prevention.

How Can School Staff Be Trained?

The literature on relevant training content for teachers highlights the need to overcome common barriers to their active participation in suicide prevention, including discomfort with helping, not knowing how to ask about suicide, and fear of making the situation worse (Hatton et al., 2017). Related to these training goals, recent systematic reviews of youth suicide prevention have focused on gatekeeper training[1] as a promising preventive intervention for the school setting (Arango et al., 2021; Pistone et al., 2019; Zalsman et al., 2016). For example, research by Katoaka et al. (2007) found that following referral from a school gatekeeper, over two-thirds of students accessed mental health services. Gatekeeper training may also be more acceptable to school administrators than more intensive approaches (e.g., screening; Nadeem et al., 2011; Scherff et al., 2005), and ensuring school buy-in is critical for implementation success.

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[1] The Indigenous knowledge keeper on the intervention development team noted the problematic nature of the term 'gatekeeper' (i.e., as referring to military interventions). We use this phrase here because this is how it was described in our original grant proposal and in the larger literature, but this is a critical issue which we will discuss in a forthcoming publication on this project.

General goals of gatekeeper training are to build knowledge on adolescent suicide; support teachers to understand risk/protective factors and warning signs; and to improve attitudes, comfort and capacity for teacher intervention (Coleman & Quest, 2015; Robinson et al., 2013). One commonly used brief gatekeeper training for school personnel is the *Question, Persuade, Refer* (QPR) program (Mo et al., 2018), developed by the QPR Institute. QPR® is offered as an ~60-minute online training. A systematic review by Zalsman and colleagues (2016) gave QPR an overall Oxford Evidence grade of '1B' (i.e., good evidence based on one strong study by Wyman et al., 2008) for school staff. In this longitudinal, cluster-randomized trial, Wyman and colleagues (2008) found moderate to large increases in knowledge, preparedness and self-efficacy among teachers who participated in QPR at one-year follow-up as compared to those that did not. Teachers also report finding QPR training helpful and feel it increases confidence, knowledge, and expertise (Reis & Cornell, 2008; Tompkins et al., 2009).

> **Goals of QPR Training**
> **QUESTION**: Support school staff to recognize warning signs and learn to ask youth questions about suicide.
> **PERSUADE**: Talk with youth about reaching out for help through the acceptance of a referral.
> **REFER**: Refer youth to an appropriate resource.
> (Ghoncheh et al., p.2)

How Can School Staff Be Supported?

Although gatekeeper training is promising as part of comprehensive school-based suicide prevention, we know that brief training is not enough to support many teachers to retain and use skills long-term (Han & Weiss, 2005). Yet, offering more intensive training to all teachers takes time and resources, both of which are consistent implementation barriers in the school setting. When thinking of what is required to support gatekeeper skill retention specifically, a qualitative study of 45 teachers, administrators and other school staff by Nadeem and colleagues (2011) found that "many teachers relied heavily on their informal networks of communication, working with their peers and others that they had a positive experience consulting in the past" (p. 218). Thus, to supplement all-staff gatekeeper training, Wyman and colleagues (2008) recommend additional "skills training for staff serving as 'natural gatekeepers'" (p. 104), so that they can coach and support other colleagues. These findings also align with the larger literature on the role of peer opinion leaders in supporting the implementation and sustainment of mental health promotion activities in schools (e.g., Atkins et al., 2008), and past work within Indigenous communities exploring the role of "natural helpers" in suicide prevention (Middlebrook et al., 2001). In sum, offering more intensive training to existing sources of support in the school building (i.e., a smaller, targeted group of natural leaders), who can then go on to support their colleagues' adoption and implementation of a new practice in real time, is a promising avenue for promoting real-world implementation.

> **Natural Leaders Are…**
> - School staff (e.g., teachers, learning supports, administrators) that peers naturally seek out for support when a student is in need.
> - Natural keepers of knowledge who can coach and support colleagues.
> - Staff that can support their peers to adopt and implement a new practice.

Approach

Effectively addressing suicide prevention in school settings requires a holistic and comprehensive approach (Arango et al., 2021; Robinson-Link et al., 2020). Evidence is needed for effective suicide prevention strategies that support teachers and other school staff to intervene with students in distress. In addition, approaches that are implementable within real-world school settings are critical to prioritize for development and testing.

The current study developed a natural leader training to support the real-world implementation of QPR, a selective gatekeeper intervention. In this report, we describe the development of this training, as well as the mixed-methods pilot evaluation of our implementation strategy.

Method

Participants

This study was conducted in two school divisions in Alberta. These school divisions serve urban, suburban, and rural areas of the province. For the pilot evaluation, teachers and school staff from 18 middle and high schools were recruited through existing partnerships. Participating schools were stratified by location and school size, and then randomized to condition: intervention (8 schools) or attention-control (10 schools). The intervention schools received QPR + Natural Leader (NL) training (see below), while the attention-control schools received QPR training only. Although 8 schools were originally assigned to receive both QPR + NL training, due to COVID-19 related staffing constraints, these schools could not participate in NL training, and thus received QPR training only. In total then, we had 6 schools that received both QPR + NL training, and 12 schools that received QPR training only.

At all schools, principals were told they could invite all eligible teaching and school staff to participate in QPR training. Eligible staff were defined as those who worked in a full-time capacity in the school building. Staff who chose to participate in QPR training were also invited to participate in the associated research project; however, participation in the research project was not required to receive QPR training. This research was approved by a university research ethics board and the participating school divisions.

Across participating schools, 191 teachers and school staff completed QPR training. Just over half of these participants declined to participate in the attached research project or did not complete the consent form. Of those who agreed to participate in some part of the research project, 77 (40% of all QPR trainees) agreed to complete a project survey, and 51 ended up providing pre- and post-test survey data (66% follow-up rate).

Procedures
Interventions
The first goal of this project was to develop a natural leader training to support implementation of QPR in the school setting. To adapt QPR for the Canadian context, we also developed a flyer with geographically relevant suicide prevention information.

Flyer
All QPR participants were given a two-page flyer on suicide prevention (Figures 1A and 1B), developed for this study. The first page contained information on the connection between caring classrooms and suicide prevention, and the second page contained information on suicide prevention, including an overview of the QPR procedure and who to contact within the school for referrals. This flyer was emailed to all participants with their QPR log-in code.

QPR Training
As described above, the gatekeeper training offered in this study was online QPR® training (available via https://qprinstitute.com). This ~60-minute training covers information on suicide, how to identify someone who is at risk, and how to complete each step of the QPR procedure. The cost of training at the time of this study was $29.95 USD/per person.

Natural Leader (NL) Training
The NL training consisted of both asynchronous (videos; ~2 hours) and synchronous (three, 60-minute sessions) components (Table 1). Because of the COVID-19 pandemic, all synchronous components were conducted via Zoom. For the asynchronous component, individuals on the natural leader team (see below) were asked to watch whatever videos would be helpful to them (i.e., based on their training and experience, they may not need to watch all videos).

During the synchronous component of the training, the natural leader team participated in activities where they a) identified suicide/mental health stigma at their school, and its potential impact on teacher response to students in distress (Session One), b) role-played the QPR technique (Session Two), and c) created an implementation plan to support suicide prevention in their schools (Session Three), based on barriers identified in Session One. The three sessions were all held afterschool for this study. We focused an entire session on roleplay given research demonstrating the importance of skills practice to successful implementation of QPR (Coleman & Quest, 2015; Cross et al., 2011). For Session Three, implementation planning was based on the Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2009).

Natural Leader Team
We originally planned to select the natural leader team at the intervention school via social network analysis. However, the COVID-19 pandemic made conducting this process to select natural leaders impractical (both due to timing and access to teachers), and thus we instead used principal selection to choose the natural leader team for this study. Follow-up analyses from one school division demonstrated that principal selection led to a natural leader team who were viewed by their peers as trusted sources of information for supporting students in distress (data available from the principal investigator). The principal at intervention schools

was told to recommend individuals who they felt teachers/school staff in their building naturally went to for support with students in distress. Individuals that the principal recommended as potential natural leaders were contacted by the principal investigator by email to invite them to join their school's natural leader team. The email stated that although the individual had been recommended by their principal to join the team, their final decision was completely voluntary. Of the 21 individuals contacted, 17 agreed to participate and received NL training in spring or fall 2021. Natural leaders received a completion certificate and a $100 gift card as a thank-you for participating in the training.

Data Collection

All teachers and school staff who participated in QPR training and who consented to research were asked to participate in up to two research activities: 1) online surveys completed via REDCap at pre-test (before QPR training), post-test (one week post QPR training) and two-month follow-up[2], and/or 2) a focus group (~4 months after QPR training). Teachers and school staff at intervention schools in one division were also asked to complete an online social network analysis survey, to assess the robustness of our principal selection method. Finally, individuals who participated as a natural leader were asked to 1) provide anonymous feedback at the end of NL training via a Qualtrics survey, and/or 2) participate in a separate focus group (with only natural leaders) (~2 months after NL training).

Measures

Surveys
Perceived Preparedness

Assessed using six items from the Survey of Knowledge, Attitudes, and Gatekeeper Behaviors for Suicide Prevention in School (Wyman et al., 2008). Participants were asked to indicate how prepared they felt to perform various prevention activities, such as ask appropriate questions about suicide, appropriately respond to disclosures of suicidal thoughts, and persuade a student to seek help. One item from the original scale (preparedness to elicit a commitment not to attempt suicide) was excluded, since getting people to agree to not attempt suicide is not a recommended best practice (Lewis, 2007). Items were rated on a 7-point Likert scale (1= *not prepared* to 7 = *quite well prepared*)*.* Items were averaged, such that higher scores represent more preparedness*.* This scale demonstrated good reliability at pre-test (α = 0.96) and post-test (α = 0.96).

Role Appropriate Suicide Prevention Knowledge

Assessed using eight items from the Survey of Knowledge, Attitudes, and Gatekeeper Behaviors for Suicide Prevention in School (Wyman et al., 2008). Participants were asked to indicate how much they knew about various parts of a role-appropriate response for teachers/school staff, such as referral resources for students, what to say and not to say in discussions with a student,

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[2] As we are still collecting final follow-up data from schools who received QPR training in January 2022, we do not present follow-up data in this report. The report will be updated with follow-up data when it is available for the full sample.

and reporting requirements for suicidal ideation or attempts. One item from the original scale (how to provide appropriate documentation) was excluded because this was not a role-appropriate item for the target population in our study. Items were rated on a 7-point Likert scale (1= *nothing* to 7 = *very much*)*.* Items were averaged, such that higher scores represent greater role-appropriate knowledge*.* This scale demonstrated good reliability at pre-test (α = 0.98) and post-test (α = 0.97)

Demographics

At pre-test, we collected data on survey participants' age, race/ethnicity, gender identity, number of years' experience working with children and youth in an educational setting, current teaching information, and highest level of education completed.

Training Feedback Form

At the end of NL training, participants were asked to complete an anonymous training feedback form. This form asked what videos they had watched; if the training had increased their perceived preparedness and capacity to serve a suicide prevention support person in their building; and for feedback on the NL training. We also asked for basic demographics. This form was completed by 14 natural leaders (93% response rate).

Interviews/Focus Groups

Natural leaders (*n* = 17) and teaching/school staff who gave consent to participate in a focus group (*n* = 55) were contacted in spring 2021 (division one) and fall 2021 (division two) to participate in a 60-minute focus group to provide feedback about the materials they received (i.e., information flyer) and the training they participated in (i.e., QPR and/or Natural Leader training) as part of this project. Natural leaders were also invited to discuss the implementation plan they created at NL training Session Three. Individuals who were not able to meet as part of a group due to scheduling conflicts were given the option to participate in an individual interview, instead. Interview and focus group participants were given a $30 gift card as a thank-you for their participation.

So far, three natural leaders and four teaching/school staff have participated in qualitative data collection that has been analyzed (all from division one). We are still collecting qualitative data in division two, and will update this report with those analyses once they are available. In division one, a total of two focus groups were conducted with two people in each group. One focus group included only natural leaders and the other had non-natural leaders from the intervention (QPR + NL) school. Another natural leader was interviewed on their own due to scheduling conflicts, and an additional two school staff from the QPR-only schools were also interviewed.

Analysis

Quantitative

Given the small sample size in this pilot evaluation (n = 51 with pre- and post-test data), we used descriptive and bivariate statistics. For bivariate analyses, we conducted paired samples t-tests to examine differences in a) preparedness and b) knowledge from pre-test to post-test. These t-tests were run separately for each condition. We also used independent samples t-tests to explore differences between conditions (i.e., QPR + NL vs. QPR only). Cohen's d was used to provide an estimate of effect size.

Information from the NL training feedback form was summarized using descriptive statistics, and by reviewing open-ended feedback on suggested improvements to NL training.

Qualitative

All interviews and focus groups were audio-recorded and transcribed verbatim. Two team members reviewed these transcripts independently and met to discuss emerging ideas and create a draft codebook. The draft codebook was then reviewed by a different set of team members. These four team members then met for a team discussion, which informed further refinement of the codebook. This refined codebook was used by the original two team members to code all transcripts, using a blend of descriptive coding, subcoding, and simultaneous coding (Saldaña, 2013). These individuals reviewed each other's coding and then met to come to agreement on any inconsistencies. All coded transcripts were also reviewed by the principal investigator. All individuals involved in the coding process then met to discuss codes and create themes.

Table 1. *Intervention Development Timeline*

Intervention Development Component	Key Dates	Description
Literature Review	12/2019-01/2020	• Principal investigator led a team of graduate research assistants to conduct a literature review on best practices in school-based suicide prevention • Although a literature review is a key piece of intervention development, suicide prevention research is heavily focused on individual level risk and protective factors (Gould et al., 2009), and has historically omitted structural root causes that are linked to suicide (e.g., racism, homophobia, transphobia, colonialism, ableism, gender role expectations, and their intersections; Austin et al., 2020; Chandler & Lalonde, 1998; Evans et al., 2011; Opara et al., 2020) o Because understanding these structural factors is key to effective prevention, we grounded all training development in an intersectional approach to suicide prevention
Intervention Development Team Meeting #1	01/2020	• Full development team discussed findings from the literature review, reviewed QPR training content, and identified what the flyer and NL training should include • Additional feedback on intervention development was provided based on development team members' experiences, expertise, and wisdom

Youth Feedback	03/2020-04/2020	• Through our team's partnership with one of the participating school divisions, youth were asked to provide feedback on intervention with students in distress, in order center youth voice in the development of all materials
		    o Gathered youth feedback via an anonymous survey that was completed by 42 youth in grades 9-12 (online and paper survey options provided)
		        ▪ Example survey questions include "What do you want teachers to know about mental health?" and "How could a teacher best support a student who they thought was at risk of harming themselves?"
		• Also gathered feedback on these questions from an existing youth advisory of adolescent boys that the principal investigator is engaged with

Draft Intervention Creation & Intervention Development Team Meeting #2	04/2020	• Core research team created draft training materials based on discussion at first development team meeting and youth feedback • Full development team reviewed the draft training materials, and provided feedback/suggestions for revision • Full development team discussed required changes to project due to COVID-19 pandemic (e.g., offering NL training entirely remotely)
Final Revisions to Intervention Materials	04/2020-05/2020	• Core research team revised flyer and NL training based on feedback from second full development team meeting • Revised materials sent to all development team members for final review and comment • Revised materials sent to Centre for Suicide Prevention for expert review
Final Versions of Intervention Materials Created	Summer 2020	• Principal investigator created final versions of intervention materials (i.e., flyer and NL training) based on last round of development team and Centre for Suicide Prevention feedback

Natural Leader Training: Asynchronous Components Recorded	Fall 2020	• Asynchronous NL training videos were recorded by members of the intervention development team
		   ○ Part 1, Video 1: Perceived Barriers & Stigma – An Overview (10 min)
		   ○ Part 2, Video 1: Youth Suicide – Prevalence & Warning Signs (45 min)
		   ○ Part 2, Video 1: Youth Suicide – Prevention & Intersectionality (15 min)
		   ○ Part 2, Video 3: Suicide Ideation Response Protocol Overview (15 min)
		   ○ Part 3, Video 1: An Intersectional Approach – Risk Factors (20 min)
		   ○ Part 3, Video 2: An Intersectional Approach – Protective Factors (20 min)

Natural Leader Training: Synchronous Components Delivered	Spring 2021 & Fall 2021	• Synchronous portions of the NL training were delivered to NL teams via Zoom
		   ○ Session 1: Getting to Know Our Context – Understanding Barriers & Stigma in Our School (60 minutes)
		   ○ Session 2: QPR Roleplay (60 minutes)
		   ○ Session 3: Returning to Our Context – Implementation Planning (60 minutes)
		• Sessions were facilitated by multiple intervention development team members

SUICIDE PREVENTION & CARING CLASSROOMS

What does a **caring classroom** look like?

- Well-managed with clear, fair rules and expectations.
- Full of positive relationships (student-to-student, teacher-to-student).
- Free from violence, bullying, and harassment.

Why are caring classrooms important for **suicide prevention**?

- Teachers who have positive relationships with their students may be better able to **recognize warning signs** of suicide.
- By creating positive relationships in your classroom, students may feel more **comfortable asking you for help** (for themselves or a peer).
- Caring and empathetic relationships are one of the best **protective factors** (positive conditions or influences that improve well-being) against emotional distress. By creating a safer space for youth to express their thoughts and feelings without judgment, teachers can counteract risk factors.

How do we create caring classrooms?

Promote **positive relationships** and a **caring climate**

- Reward positive behaviours and praise effort (instead of reacting to unwanted behaviours).
- Express care by actively listening to your students without judgment.
- Encourage students to be themselves.
- Value positive relationships as much as the curriculum.

- *Positive relationships allow students to feel safe and accepted in their classrooms. It lets them know that their teachers are there for them in good times and bad.*

Encourage **youth voice**

- Share the power by including your students in decisions that affect them.
- Ask students for their thoughts and feelings about what happens at school.
- Recognize, acknowledge and validate normal feelings to abnormal experiences.
- Ask what makes them happy or how their school could be improved. Work with them to generate solutions. For example, if students share that there is peer conflict at school, you could ask how they might address it. In turn, you could help them develop school-wide postcards or "caring cards" that express kind words.

- *This lets students know their ideas matter, and teachers will listen. By asking for their opinions, teachers empower students to make a difference!*

Talk about **safety** in the classroom

- To ensure classrooms are safe from violence, bullying, and harassment, ask students what it means to be fair and what they think it means to care about someone.
- Encourage students to develop classroom rules on physical and emotional safety.
- Be proactive in modelling self-care and wellness, this will also help build teacher resiliency and safety.
- While humor can be used to develop connections, sarcasm is often misunderstood and can be perceived as ridicule, leading to a tense and perhaps fearful classroom.
- Historically, some teachers' actions have created unjust, colonial classrooms. To continue creating safe classrooms, reflect on teaching practices and ensure they are fair and respectful of student diversity.

Caring classrooms are about building positive relationships

Figure 1A. *Flyer Side A*

INTERVENTION FOR SUICIDAL THOUGHTS AND BEHAVIOURS
WHAT CAN SCHOOL STAFF DO?

We want to let you know that this flyer talks about intervening with suicidal students. We know this is a hard topic to read about for many people. If you would like support, we encourage yo[...] Centre [redacted] where help is available 24/7. For further assistance, the [redacted] provides mental health support, and can be reached at [redacted]

About suicide

- Suicide is the second leading cause of death for youth
- Suicide is preventable

Who can help prevent suicide?

You! Teachers and other school staff can help by being able to **recognize** when a student might be in crisis, **asking** the appropriate questions, and offering **hope**. Anyone can help someone thinking about suicide by referring them to appropriate support.

The 3 Step Procedure: QPR (Question, Persuade and Refer)

- If students are in a physical health emergency, we offer CPR. For a mental health emergency, we offer QPR.
- QPR helps us to recognize warning signs, ask about suicide, and offer hope.
- You do not need to be a psychiatrist, psychologist or social worker to support a student in distress – everyone has a role to play!

What should I do if I am worried about a student in my class?

o **Question** them about how they are feeling
  - If in doubt, ask the question NOW
  - Asking directly about suicide lowers students' anxiety, opens up communication, and reduces the risk of an impulsive act
  - If the person is reluctant, be persistent
  - You can ask the Question in any of these ways:
    - "Have you been so unhappy lately that you have been thinking about taking your life?"
    - "Do you ever wish you could go to sleep and never wake up?"
    - "I wonder if you are thinking about suicide?"
    - "Are you thinking about killing yourself?"

o **Persuade** them to seek help by offering hope
  - Do not rush to judgement
  - Offer hope in any form
    - "There are ways to deal with the pain you're feeling."
    - "Will you go with me to get help?"
    - "Will you let me help you get help?"

o **Refer** the student to [redacted]. This is your school's point person and knows what to do next
  - For more information on your role, please review the attached Suicide Ideation Protocol for School Staff.
  - If you are unable to get in contact with your school's point person, please contact the following individuals in this order: an administrator, if they are unavailable then the school psychologist, followed by the lead psychologist [redacted] If you cannot reach any of these individuals, contact Access Mental Health (403) 943-1500.

Figure 1B. *Flyer Side B*

Findings

Intervention Development

The flyer and NL training were co-created via an iterative, multi-step process by an interdisciplinary team consisting of school mental health professionals; researchers in psychology, education, and social work; a former teacher; and an Indigenous knowledge keeper. A detailed description of intervention development is provided in **Table 1**.

Pilot Evaluation: Feasibility, Acceptability and Utility
Demographics

Participant demographics for the survey sample are shown in **Table 2**. Most participants identified as white, cisgender women, and about half had over 15 years of experience working with children and youth in an educational setting. Approximately 60% of the participants in our sample were currently teaching from K-12, and 40% had another role within the school.

From the demographic information collected on the NL training feedback form, we found that, like the overall sample, most natural leaders had more than 15 years of experience working with children and youth, and all had either completed a bachelor's or master's degree. Just over half of the natural leaders had previously received any suicide prevention training. Natural leaders had a variety of roles within the school building (administration, mental health support, learning support, teacher).

Table 2. *Sample Demographics for Participants with Pre- and Post-Test Survey Data*

Variable		Overall Sample (*N* = 51)		QPR Only (*n* = 31)		QPR + NL (*n* = 20)	
		n	*%*	*n*	*%*	*n*	*%*
Age	20 – 40 years	13	25.5	9	29.0	--	--
	40 – 50 years	23	45.1	14	45.2	9	45.0
	50 – 60 years	15	29.4	8	25.8	7	35.0
Gender Identity	Man	9	17.6	6	19.4	--	--
	Woman	42	82.4	25	80.6	--	--
	Prefer not to answer	--	--	--	--	--	--
Years of Experience Working with Children and Youth	1 – 5 years	5	9.8	--	--	--	--
	6 – 10 years	10	19.6	7	22.6	--	--
	10 – 15 years	7	13.7	--	--	--	--
	More than 15 years	28	54.9	15	48.4	13	65.0
Highest Level of Education	Bachelor's degree	31	60.8	20	64.5	11	55.0
	Master's degree	11	21.6	7	22.6	--	--
	Other	8	15.7	-	--	5	25.0

Note: Any cells with a sample size of less than 5 are not reported (reported as --). Detailed information on race/ethnicity not provided, as cell size per category was less than 5; the sample was almost 100% white. No significant differences were found between conditions (i.e., between QPR + NL vs. QPR only) on any variables.

Quantitative Findings

Data from pre- and post-test surveys suggest the utility of our approach. From pre- to post-test, participants in both conditions (i.e., QPR + NL or QPR only) reported significant increases in both their preparedness to serve as a suicide prevention gatekeeper, and in their knowledge about role-appropriate responses (Table 3 and Figures 2 and 3). For preparedness and knowledge, effect sizes across conditions were very similar (Table 3). In psychology, an effect size indicates the magnitude of an intervention effect: small (usually around 0.20); medium (usually around 0.50); and large (usually around 0.80). In this study, effect sizes were very large (Table 3), indicating both statistical and practical significance. At post-test, there were no differences in preparedness or knowledge *between* conditions. In other words, participants in the QPR + NL condition improved just as much as participants in the QPR only condition. However, it is important to assess these differences at two-month follow-up before drawing final conclusions (data forthcoming).
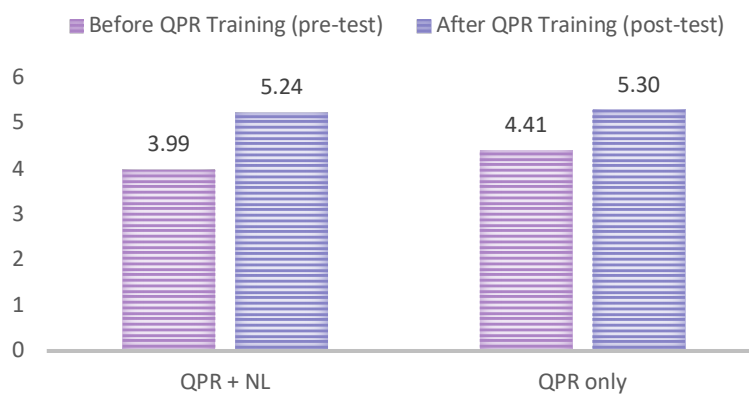

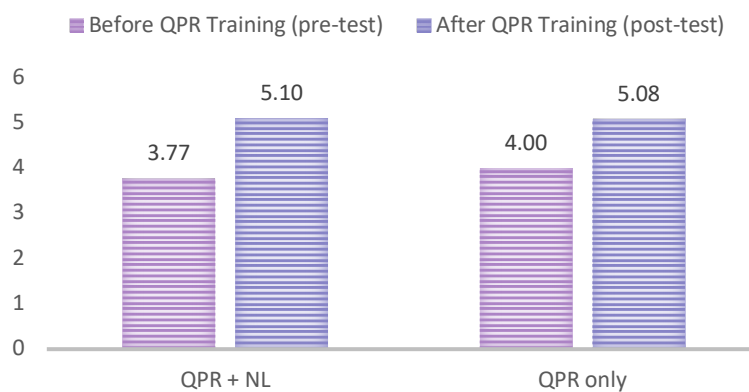Figure 2. *Changes to Preparedness to Intervene with Students in Distress*

Figure 3. *Changes to Knowledge about Role-Appropriate Response*

Table 3. *Descriptive Statistics and Paired Sample t-test Results*

	Pre-Test		Post-Test						
	M	*SD*	*M*	*SD*	*n*	*r*	*t*	*df*	Cohen's *d*
Preparedness – QPR only	4.41	1.54	5.30	1.16	31	0.70	-4.44***	30	1.42
Preparedness – QPR + NL	3.99	1.59	5.24	1.27	20	0.63	-4.45***	19	1.47
	Pre-Test		Post-Test						
	M	*SD*	*M*	*SD*	*n*	*r*	*t*	*df*	Cohen's *d*
Knowledge –— QPR only	4.00	1.56	5.08	1.33	31	0.68	-5.14***	30	1.47
Knowledge – QPR + NL	3.77	1.54	5.10	1.20	20	0.66	-5.10***	19	1.42

Note: *p < .05, **p < .01, ***p<.001. *r* = correlation (used to correct Cohen's d calculation for paired nature of data). Analyses only include participants who had both pre- and post-test data (*N* = 51).

Qualitative Findings

Through interviews and focus groups with school staff who participated in the two conditions,[3] we identified several themes regarding the feasibility, acceptability and utility of our interventions and implementation approach. In this section, we also incorporate findings from the NL training feedback form.

Flyer

Feedback on the flyer was generally positive, though overall, we received limited feedback on this intervention. One interview participant (an administrator) at QPR only school shared that the content of the flyer was helpful because it *"explain[ed] the role that people can play in suicide prevention and then some very kind of straightforward things you can say."* However, a behavioral support staff participant at a different QPR only school found the flyer content difficult to remember. At the intervention school, the individuals who participated in the focus group (a teacher and a learning assistant) suggested there could be a version of the flyer for youth as well, but that the current version of the flyer *"gives you the…language that you can use and stuff like that…sometimes when it's emotionally charged and you're dealing with a student it's kind of nice for you to like separate your personal feeling from it, or your emotional connection and just have that language there for you."* Given these results, it appears that although the flyer can be a helpful tool, we need to do a better job communicating its purpose and availability to participants in future versions of this project.

QPR

A prominent theme across interviews/focus groups was a preference for QPR training over the flyer, and over other trainings participants had taken in the past. QPR was described as *"clear and concise"* (behavioral support staff), *"to the point"* (administrator), and *"very valuable"* (natural leader). Integrating with quantitative findings, a behavioral support staff participant noted that QPR training helped teachers understand their role-appropriate response: *"I think the [QPR] training helped the teacher to kind of have the conversation and then refer. Rather than we have a lot of helpers in our work and they try to fix it and try to take care of it..."* During a focus group at a QPR + NL school, a non-natural leader participant further shared that *"I can say speaking to all of the, all of my coworkers, everybody like, you know, you don't enjoy that kind of thing [QPR training] because it's hard. But you're like happy you did it. You're like 'Wow'. You know I know after, after it was done talking to a couple of the [staff] it was like we all felt really good that we had that [training]."*

Compared to other suicide prevention trainings, participants felt that QPR was appropriate for teachers because it *"addresses the issue but [is] not traumatizing, overwhelming [e.g., graphic images] … it was helpful but a stable way for the teachers to get the information without them feeling even more uncomfortable. Like it actually made them feel comfortable"* (behavioral support staff participant). Overall, QPR *"hit some very key points in an effective way without making it laborious [and losing] the message"* (administrator participant). As a result,

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[3] As we are still collecting final qualitative data in school division two, themes in this section are only from school division one, where we spoke to 7 participants.

participants felt that QPR training increased school staff's comfort when asking students about feelings of suicide, and confidence that they were responding appropriately. For example, a non-natural leader teacher from the intervention school shared that the most helpful thing they learned from QPR training was "*language, what to say and when to say it. I think that's what mostly people need it is just having confidence that if you say it like this you're gonna have, you're gonna make a difference in a positive way.*"

Natural Leader (NL) Training

Consistently, participants on the natural leader team shared that the most valuable part of NL training was building a team so they had support, and did not feel that one person had to take on everything. As a learning support staff member who served as a natural leader shared, "*the team we have and how supportive we are, if somebody is dealing with a situation. Everybody is checking in on them and making sure afterwards that they're ok....or if they need any support or help in the process or contacting anybody,*" and the administrator agreed that the NL training served to "*coalesce [us] as a team.*" The team approach was also helpful for ensuring members were familiar with school division policies and procedures, and allowed members from different backgrounds to share their experiences.

The NL training also appeared to increase participants' comfort to intervene because they were able to role play, receive feedback, and recognize that they did not have to be an expert in suicide prevention to support a student. For example, a teacher natural leader shared that, during the role play, they "*liked seeing the words, I liked seeing the scenario, I thought that was super helpful especially, because that was the part I struggled with the most like 'What do I say?'*" A natural leader who worked in a learning support capacity further shared: "*My confidence grew in asking questions and talking about suicide with kids after that like tremendously.*" These findings align with training feedback form data, where 92% of respondents said that, post-NL training, they felt mostly or completely prepared to serve as a suicide prevention support person. In addition, all said that the training promoted their capacity to serve in this role, and provided a new way of thinking about how they support colleagues.

All 3 synchronous sessions and the asynchronous videos were viewed positively. For example, on the training feedback form, one natural leader shared that in Session One "*the discussion time was valuable.*" However, although the training overall was viewed positively, all three natural leaders we spoke with provided suggestions for updates to the NL training. Two natural leaders discussed that it is important to increase the time for the implementation planning session (Session Three) to have enough time to discuss strategies and debrief. In addition, two leaders discussed adding a bit more time to the role play session, since "*...it naturally led to questions and conversation that was very, very good.*" A suggestion was also made to end the training sessions on a "*lighter note*", since suicide is "*such a heavy topic.*" Finally, on the training feedback survey, one leader noted that an improvement to Session One would be to also focus on strengths within the school building, and not only stigma and barriers.[4]

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[4] We made both of these changes (end on a lighter note, also discuss strengths) when we offered natural leader training again in fall 2021. This feedback was from our first offering in spring 2021.

Discussion

In this study, we explored the development and mixed-methods pilot evaluation of a natural leader training designed to support the real-world implementation of QPR gatekeeper training. We developed the natural leader training to better understand a promising implementation-approach for school mental health interventions. The findings from our study demonstrate that natural leader approaches are worthy of further study, and provide some directions for this research.

Strengths of our intervention development process include the co-creation of the NL training by a multi-disciplinary team who brought a variety of research, practice and lived experiences; the inclusion of youth voice; and a focus on embedding intersectional understandings of suicide. Although we prepared a flyer as an intervention for this study, our results demonstrate that a stand-alone flyer would not have been sufficient to prepare teachers and school staff to participate as suicide prevention gatekeepers. Rather, our findings suggest that a low-cost, brief training (i.e., QPR training) – in addition to the flyer – may be helpful for many teachers and school staff. In our study, we found that teachers and other school staff who participated in QPR training reported significant and large changes on two commonly used gatekeeper evaluation scales, which assessed preparedness and knowledge of role-appropriate response. These changes were supported by qualitative data on QPR training, where participants reported that the training increased their comfort and confidence for participating as a gatekeeper. Recent research by Robinson-Link et al. (2020) with over 700 teachers in the northeastern United States who completed a one-hour long *Kognito* gatekeeper training also found a significant increase to preparedness post-training. However, teachers in their study did not report a change in actual gatekeeper behavior (e.g., proportion of students approached). They conclude that gatekeeper training "may be a necessary, but not sufficient, component of suicide prevention" in schools (p. 247). For our project, we are working to receive standard suicide referral data for the participating schools (data not yet available). These data will be for one year prior to and after training at each school, and thus would allow us to assess potential changes in actual referral behavior within and across conditions.

The NL training was also very well-received, and findings around roleplay increasing comfort and confidence to intervene align with past research (Cross et al., 2011). However, additional research is needed to understand whether training natural leaders with roleplay allows them to support others in their school setting with this activity, particularly those teachers for whom QPR training on its own is not enough to build intervention skills. Longer-term follow-up is also needed to determine if post-QPR improvements in school staff comfort and confidence for intervention are better sustained in natural leader schools (data forthcoming). Although the natural leader teams in our study was making progress on their implementation plans, an important theme was the need for additional time to create this plan as part of training, and the potential for "as-needed" follow-up support as leaders work to implement their plan. We feel the request for additional time still aligns with our implementation goal, as we would only be requesting increased professional development time for a small portion of the total school staff.

Limitations

First, our research project was interrupted by the COVID-19 pandemic, which means we are still in the process of collecting/analyzing data and creating knowledge mobilization products. Because our last schools were trained in January 2022, our final round of 2-month follow-up data will not be collected till March 2022, and so we were unable to include these data in this report. This limits what we can say about any potential differences between our two conditions. Second, our sample was predominately white women. In addition, because of the small sample size in this project, we were not able to explore effects separately for teaching and non-teaching school staff.

Implications for School-Based Suicide Prevention

We close with the following implications from our study:

- In this study, a brief, low-cost training was associated with large changes in school staffs' self-perceived preparedness to intervene with students in distress, as demonstrated by both quantitative and qualitative data. Additional data are needed on the sustainment of these effects, but as time to attend training is a key barrier for teachers, these findings are promising.

- These findings align with past research on online-only gatekeeper training (Ghoncheh et al., 2016), concluding that "gatekeepers with limited time and resources can benefit from accessibility, simplicity, and flexibility of Web-based training" (p. 1), which we also found in our Canadian sample.

- It is likely a brief training is not enough for all teachers (Han & Weiss, 2005). Thus, the use of natural leaders as a strategic approach to capitalize on brief training for all school staff is promising and should be considered more often in school mental health.

- Although research on the use of natural leaders as a school mental health implementation support is almost two decades old, we are aware of limited school mental health research that is taking this approach, especially as it relates to youth suicide prevention. Thus, additional work is needed to explore the effectiveness of this promising approach across diverse settings.

Additional Resources

To view the Natural Leader training videos created for this project, please visit
https://www.youtube.com/channel/UC6IHc4hKJBzmszrKb8idigQ/playlists.

References

Arango, A., Gipson, P. Y., Votta, J. G., & King, C. A. (2021). Saving lives: Recognizing and intervening with youth at risk for suicide. *Annual Review of Clinical Psychology, 17*, 259-284. https://doi.org/10.1146/annurev-clinpsy-081219-103740

Atkins, M. S., Frazier, S. L., Leathers, S. J., Graczyk, P. A., Talbott, E., Jakobsons, L., Abdul-Adil, J., Marinez-Lora, A., Demirtas, H., Gibbons, R. B., & Bell, C. C. (2008). Teacher key opinion leaders and mental health consultation in low-income urban schools. *Journal of Consulting and Clinical Psychology, 76*(5), 905-908. https://doi.org/10.1037/a0013036

Austin, A., Craig, S. L., D'Souza, S., & McInroy, L. B. (2020). Suicidality among transgender youth: Elucidating the role of interpersonal risk factors. *Journal of Interpersonal Violence.* Advance online publication. https://doi.org/10.1177/0886260520915554

Chandler, M. J., & Lalonde, C. (1998). Cultural continuity as a hedge against suicide in Canada's First Nations. *Transcultural Psychiatry, 35*(2), 191-219. https://doi.org/10.1177/136346159803500202

Children First Canada. (2021). *Raising Canada 2021 – Top 10 Threats to Childhood in Canada: Recovering from the Impacts of COVID-19.* https://childrenfirstcanada.org/wp-content/uploads/2021/08/CFC-RC-Report-2021_Final.pdf

Coleman, D., & Quest, A. D. (2015) Science from evaluation: Testing hypotheses about differential effects of three youth-focused suicide prevention trainings. *Social Work in Public Health, 30*(2), 117-128. https://doi.org/10.1080/19371918.2014.938397

Cross, W. F., Seaburn, D., Gibbs, D., Schmeelk-Cone, K., White, A. M., & Caine, E. D. (2011). Does practice make perfect? A randomized control trial of behavioral rehearsal on suicide prevention gatekeeper skills. *The Journal of Primary Prevention, 32*(3-4), 195-211. https://doi.org/10.1007/s10935-011-0250-z

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science, 4*(1), 1-15. https://doi.org/10.1186/1748-5908-4-50

Evans, J., Frank, B., Oliffe, J.L., & Gregory, D. (2011). Health, Illness, Men and Masculinities (HIMM): A theoretical framework for understanding men and their health. *American Journal of Men's Health, 8*(1), 7-15. https://doi.org/10.1016/j.jomh.2010.09.227

Freedenthal, S., & Breslin, L. (2010). High school teachers' experiences with suicidal students: A descriptive study. *Journal of Loss and Trauma*, *15*(2), 83-92. https://doi.org/10.1080/15325020902928625

Ghoncheh, R., Gould, M. S., Twisk, J. W. R., Kerkhof A., & Koot, H. M. (2016). Efficacy of adolescent suicide prevention e-learning modules for gatekeepers: A randomized controlled trial. *JMIR Mental Health, 3*(1), e8. https://doi.org/10.2196/mental.4614

Gould, M. S., Marrocco, F. A., Hoagwood, K., Kleinman, M., Amakawa, L., & Altschuler, E. (2009). Service use by at-risk youth after school-based suicide screening. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(12), 1193-1201. https://doi.org/10.1097/CHI.0b013e3181bef6d5

Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology, 33*(6), 665-679. https://doi.org/10.1007/s10802-005-7646-2

Hatton, V., Heath, M. A., Gibb, G. S., Coyne, S., Hudnall, G., & Bledsoe, C. (2017). Secondary teachers' perceptions of their role in suicide prevention and intervention. *School Mental Health: A Multidisciplinary Research and Practice Journal, 9*(1), 97-116. https://doi.org/10.1007/s12310-015-9173-9

Katoaka, S., Stein, B. D., Nadeem, E., & Wong, M. (2007). Who gets care? Mental health service use following a school-based suicide prevention program. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(10), 1341-1348. https://doi.org/10.1097/chi.0b013e31813761fd

Lewis, L. M. (2007). No-harm contracts: A review of what we know. *Suicide and Life-Threatening Behavior, 37*(1), 50-57. https://doi.org/10.1521/suli.2007.37.1.50

Middlebrook, D. L., LeMaster, P. L., Beals, J., Novins, D. K., & Manson, S. M. (2001). Suicide prevention in American Indian and Alaska Native communities: A critical review of programs. *Suicide and Life-Threatening Behavior, 31*, 132-149.

Mo, P.K.H., Ko, T.T., & Xin, M. Q. (2018). School-based gatekeeper training programmes in enhancing gatekeepers' cognitions and behaviours for adolescent suicide prevention: A systematic review. *Child and Adolescent Psychiatry and Mental Health, 12*, 29. https://doi.org/10.1186/s13034-018-0233-4

Opara, I., Assan, M. A., Pierre, K., Gunn, J. F., Metzger, I., Hamilton, J., & Arugu, E. (2020). Suicide among Black children: An integrated model of the interpersonal-psychological theory of suicide and intersectionality theory for researchers and clinicians. *Journal of Black Studies, 51*(6), 611-631. https://doi.org/10.1177/0021934720935641

Pistone, I., Beckman, U., Eriksson, E., Lagerlöf, H., & Sager, M. (2019). The effects of educational interventions on suicide: A systematic review and meta-analysis. *International Journal of Social Psychiatry, 65*(5), 399-412. https://doi.org/10.1177/0020764019852655

Reis, C., & Cornell, D. (2008). An evaluation of suicide gatekeeper training for school counselors and teachers. *Professional School Counseling*, *11*(6), 386-394. https://doi.org/10.1177/2156759X0801100605

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K., & O'Brien, M. (2013). A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide-related behavior in young people. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, *34*(3), 164-182. https://doi.org/10.1027/0227-5910/a000168

Robinson-Link, N., Hoover, S., Bernstein, L., Lever, N., Maton, K., & Wilcox, H. (2020). Is gatekeeper training enough for suicide prevention? *School Mental Health, 12*, 239-249. https://doi.org/10.1007/s12310-019-09345-x

Saldaña, J. (2013). *The coding manual for qualitative researchers.* SAGE Publications Inc.

Scherff, A. R., Eckert, T. L., & Miller, D. N. (2005). Youth suicide prevention: A survey of public school superintendents' acceptability of school-based programs. *Suicide and Life-Threatening Behavior*, *35*(2), 154-169. https://doi.org/10.1521/suli.35.2.154.62874

Tompkins, T. L., Witt, J., & Abraibesh, N. (2009). Does a gatekeeper suicide prevention program work in a school setting? Evaluating training outcome and moderators of effectiveness. *Suicide and Life-Threatening Behavior*, *40*(5), 506-515. https://doi.org/10.1521/suli.2010.40.5.506

Westefeld, J. S., Kettmann, J. D. J., Lovmo, C., & Hey, C. (2007). High school suicide: Knowledge and opinions of teachers. *Journal of Loss & Trauma, 12*(1), 31-42. https://doi.org/10.1080/15325020600757839

Wyman, P. A., Brown, C. H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J. & Pena, J. B. (2008). Randomized trial of a gatekeeper program for youth suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology, 76*(1), 104-115. https://doi.org/10.1037/0022-006X.76.1.104

Zalsman, G., Hawton, K., Wasserman, D., van Heeringen, K., Arensman, E., Sarchiapone, M., … Purebl, G. (2016). Suicide prevention strategies revisited: 10-year systematic review. *The Lancet Psychiatry, 3*(7), 646-659. https://doi.org/10.1016/S2215-0366(16)30030-X