Evaluating A.S.K. Gatekeeper Training: Supporting Mental Health in Post-Secondary Settings

Heather Stuart, Terry Krupa Queen's University

Dwight Druick St. Lawrence College

Alexandria Melvin Queen's University

ABSTRACT

This article describes the evaluation of the A.S.K. Gatekeeper Training Program which focuses on improving post-secondary participants' ability to identify, reach out to, and support those experiencing mental health issues. Students at one Canadian college provided data at registration, prior to and following the intervention. Data from 105 matched surveys showed that prior to training participants held positive attitudes about those experiencing mental health issues but were uncertain of their abilities to assist. There was an improvement in their self-perceived confidence and skills following training. Further evaluation is needed to determine its effectiveness with other campus stakeholders, including those experiencing mental health issues.

Keywords: gatekeeper training, mental health, evaluation

RÉSUMÉ

Cet article porte sur l'évaluation du A.S.K. Gatekeeper Training Program (ask about suicide programme de formation en prévention du suicide), lequel se concentre sur l'amélioration de l'habilité de

Heather Stuart, Department of Public Health Sciences, Queen's University, Kingston, Ontario; Terry Krupa, School of Rehabilitation Therapy, Queen's University, Kingston, Ontario; Dwight Druick, Wellness and Accessibility Services, St. Lawrence College, Kingston, Ontario; Alexandria Melvin, Department of Public Health Sciences, Queen's University, Kingston, Ontario.

Funding for this work was provided by the St. Lawrence College Foundation—Cohoe Family Fund and the Royal Bank of Canada The authors extend thanks to the students who participated and the services that supported the implementation of this evaluation.

Correspondence concerning this article should be addressed to Heather Stuart, Department of Public Health Sciences, Abramsky Hall, Queen's University, Kingston, Ontario, K7L 3N6. Email: heather.stuart@queensu.ca

participants du postsecondaire à identifier, entrer en contact et aider les personnes aux prises avec des problèmes de santé mentale. Les étudiants d'un collège canadien ont transmis des données avant et après l'intervention. Les données de 105 enquêtes appariées ont établi qu'avant la formation, les participants et participantes faisaient montre d'une attitude positive à l'égard des personnes aux prises avec des problèmes de santé mentale, mais doutaient de leur capacité à leur apporter de l'aide. Une amélioration de leur autoperception en termes de confiance et de compétence s'est manifestée à l'issue de la formation. Des évaluations supplémentaires sont nécessaires pour déterminer l'efficacité du programme avec des participants d'autres campus incluant les personnes aux prises avec des problèmes de santé mentale.

Mots clés: formation prévention, santé mentale, évaluation

This article reports on the results of the evaluation of the A.S.K. Gatekeeper Training Program (Druick & Bonham, 2013), which was designed to enable students, faculty, and staff to identify when others in the post-secondary setting are experiencing mental health problems, to respond to them in a caring manner, and to encourage their access to appropriate supports.

For the past two decades, concerns over the mental health of students have increased across North American post-secondary institutions (De Somma et al., 2017; Kadison, 2004). For example, a trend analysis of data from 2013 to 2016 using the Canadian reference data from the National College Health Assessment II indicated significant increases over time in the proportion of students reporting symptoms of psychological distress, mental illness diagnoses, and help-seeking for mental health related challenges (Linden et al., 2021). This elevated distress among postsecondary students has been attributed to external stressors that may include the financial burden of post-secondary education, increased pressure to excel academically, having to adjust to a less structured environment, as well as difficulties related to balancing academic, extracurricular, and social activities (Kadison, 2004).

While a significant number of post-secondary students struggle with emotional or psychological distress, the majority do not seek out treatment (American College Health Association, 2016). Low levels of treatment-seeking for adverse mental health issues may be due to a number of factors. For instance, it has been suggested that those experiencing depressive symptoms may not be able to accurately recognize or appraise how they are feeling and may be more likely to withdraw or isolate themselves rather than seek the help they need (Washburn & Mandrusiak, 2010). In addition, it has been proposed that the negative attitudes surrounding depression, as well as other mental health issues, may act as a barrier that inhibits both help-seeking (Barney et al., 2006; Pedersen & Paves, 2014), and one's natural instinct to reach out to others who are experiencing emotional or psychological distress (Burnette et al., 2015).

In recognition of these mental health concerns, post-secondary institutions across Canada are implementing initiatives and organizational changes to better address these issues (Giamos et al., 2017). One approach focuses on reaching and engaging the population of people who study and work in a post-secondary context. Population-based interventions to mental health issues on campus can have a range of aims such as raising awareness, enhancing the mental health promoting capacities of strong social relations, reducing stigma, "normalizing" mental health issues on campus, supporting the development of campus cultures

characterized by caring and thriving, and creating an environment where there is broad acceptance of individual-level approaches such as screening and counselling.

To date there have been few population-level interventions for the post-secondary context that have been developed and evaluated for broad dissemination. One example is The Inquiring Mind (TIMPS) program for post-secondary students, developed as an adaptation to existing evidence-based programs that focused on mental health in the workplace and the mental health of first responders (see for example, Carleton et al., 2018). TIMPS provides knowledge, activities, and discussions specifically relevant to the post-secondary context. It is offered in a three-hour workshop and aims to promote individual mental health, improve coping and resilience in the student population, and reduce stigma. Initial evaluation of the program demonstrated promising results with respect to its positive impact on the attitudes of participants towards mental health issues and their sense that they were better equipped to deal with stressors (Szeto et al., 2021). It is not known whether this program helped participants feel more comfortable in guiding people experiencing mental health difficulties to appropriate resources or improved their sense of efficacy in doing so. Mental Health First Aid (MHFA) is a well-known program, originally developed in Australia, that uses a literacy approach to educate participants about signs and symptoms of common mental illnesses, offer strategies to intervene in crisis situations related to these common mental illnesses, decrease social distancing, and increase participants' ability to connect individuals with appropriate mental health supports (Mental Health First Aid Australia. 2021). Several versions of Mental Health First Aid have been developed. A version developed specifically for post-secondary contexts was offered in a 12-hour training program to residence advisors with five modules focusing on literacy related to signs, symptoms, and appropriate responses for five common mental disorders. Results of an evaluation of this training program suggested that the self-perceived knowledge and ability to intervene improved among participants (Lipson et al., 2014). This is a proprietary program and can only be given under a licence from the developers.

Another population-level approach with a growing evidence-base focuses on training "gatekeepers." A gatekeeper is a person who recognizes individuals who are at risk, provides an appropriate initial response, and enables the individual to access help or treatment when needed (Condron et al., 2015; Kalafat, 2003; Tompkins et al., 2009). A gatekeeper is typically not a physician, counsellor, or mental health professional. Often, a gatekeeper is a part of the person-at-risk's community, such as a peer, or a member of the school's faculty or staff (Kalafat, 2003). Theory related to gatekeeping is aligned with the Theory of Planned Behavior (Ajzen, 1991). Factors assumed to influence an individual's decision to intervene in response to a mental health issue have been found to include knowledge about the issue, beliefs and attitudes, reluctance to intervene, perception of responsibility, and self-efficacy to intervene (Burnett et al., 2015). A study of factors predicting enactment of gatekeeping behaviours in relation to suicide risk suggested that together, attitudes, knowledge, and self-perceived efficacy were predictive of both intention to enact and actual enactment of gatekeeping behaviours (Kuhlman et al., 2017). Most evaluations of gatekeeper programs in post-secondary settings have focused on suicide prevention. Evaluations of these programs have demonstrated positive changes in participants with respect to knowledge, self-efficacy, and intention, although evaluations have been limited with respect to sample size and control group design (Rallis et al., 2018; Kuhlman et al., 2017).

The focus of this article is the A.S.K. Gatekeeper Training Program. This is a hands-on, skill-building program designed to support the development of the knowledge, attitudes, behaviours, and tools that are

foundational to the skills needed to identify, reach out, and support emotionally distressed persons in the post-secondary context (Druick & Bonham, 2013). The training program was designed to reach a wide range of stakeholders in post-secondary settings—non-clinical faculty and staff and students, including student leaders such as peer ambassadors, residence advisors, mentors, and the general student population—so that they can better respond to the mental health issues that they may encounter during the course of their daily interactions. All of these individuals are integral parts of the campus culture, and each can be an important point of contact for individuals in distress.

The program teaches trainees to *Ask* pertinent questions, *Scan* for readiness, *Know* their limits and how and when to seek support (Druick & Bonham, 2013). The role of a gatekeeper entails responding to concerns by simply noticing, gathering information, and redirecting. The core training focuses on the human need to respond to concerns, but recognizes that each individual will have limits that must be recognized and respected.

To ensure that the program was accessible, it was designed to be brief, making few demands on time for attendance. Unlike MHFA which emphasizes information related to expressions of specific mental health disorders, the A.S.K. Gatekeeper Training Program presents participants with information about common signs of general emotional distress as well as specific attention to risk of suicide. This was done deliberately to avoid triggering any stereotypes or negative attitudes associated with diagnostic labels. In addition, in recognition that the general student body could benefit from training to respond to concerns among their peers, or in future educational or work environments, the training can be made available to academic programs as part of their curricula. If successful, the program should reduce the worry often experienced when interacting with students in distress.

METHODS

The A.S.K. training program was developed and pilot tested on students and faculty in a community college in Kingston, Ontario. Due to the results and feedback from the pilot, study design and data collection methods were modified to improve the validity of comparisons. In this evaluation we implemented the A.S.K. training in the same community college in Kingston to groups of up to 24 individuals. The training included a one-hour online training module followed by a three-hour classroom module that included lecture and video clip presentations along with practical, didactic, and group skills exercises. All participants were given a copy of the *A.S.K. Gatekeeper Training Program Manual* (Druick & Bonham, 2013), which included more detailed content and relevant resource information. Data were collected during the 2017/2018 academic year. All study methods were approved by the Queen's University Health Sciences & Affiliated Teaching Hospitals Research Ethics Board (ROMEO/TRAQ: #6015933).

Participants

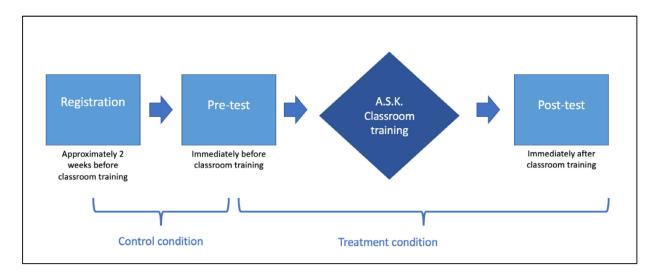
Training participants were recruited through social media. In addition, some educational programs included the training as part of their regular curricula. Though the training program and recruitment was designed for students, faculty, and staff, only students participated in this evaluation.

Study Design and Procedures

Data were collected using identical survey instruments at three timepoints: at registration, which occurred approximately two weeks before the classroom training condition; immediately before the classroom training sessions; and at the post-test condition, occurring immediately after the classroom training sessions (see Figure 1). Using this design, the time between the registration survey and the pre-test survey (approximately 2 weeks) served as the control condition. In addition, participants were asked to provide demographic information at the registration or the pre-test time point.

Participation was voluntary, and consent was implied by the submission of the surveys. All surveys were anonymous and unique, anonymous identifiers were used to match surveys over time and the demographics form.

Figure 1
Study Design for the Evaluation of the A.S.K. Gatekeeper Training Program



Measures

Demographic Information Sheet. Participants completed a demographic information sheet including information about their age, gender, place of birth, ethnicity, first language, fluent language, level of education, and marital status.

Attitude Survey. We included a number of attitude items to assess participants' views regarding interacting and supporting students with mental health issues (e.g., "It's not a good idea to ask a person if they are experiencing mental health difficulties"). The Attitude Survey contained eight self-report items, all of which were scored on a five-point agreement scale ranging from strongly agree to strongly disagree. We selected constructs that were used in previous evaluation work and adapted them to be appropriate to a community college environment (see Koller & Stuart, 2021). To avoid potential response sets, some items were positively worded while others were negatively worded. The attitude items were not intended to be scaled and were used individually to assist in understanding areas where negative perceptions existed—areas that may be important for targeting.

Worry Scale. The Worry Scale (Linden & Stuart, 2019) was our main outcome measure. It assesses the extent to which participants worried about different aspects of interacting with an individual with a mental health issue (e.g., "I worry that I may trigger an emotional reaction in someone with a mental health difficulty"). The Worry Scale contained 14 items that were scored on a 10-point agreement scale, ranging from strongly agree (10) to strongly disagree (1). All items were worded in a consistent direction such that higher scores indicated higher levels of worry. Cronbach's alpha for this scale was high (all $\alpha > .90$) so scale scores were averaged to show mean scores across all items.

The validity of the Worry Scale has been previously assessed by Linden and Stuart (2019) and has demonstrated both content validity and internal structure validity when the sample of interest was teachers. It is of note that in the assessment of content validity for the Worry Scale by Linden and Stuart (2019), three of the 14 items on the scale were dropped because the content validity indices for the individual items were <0.70. It was anticipated that these items may be relevant in the student population and as such, these items were retained in the Worry Scale for this study.

As the participants in the current study were not teachers, the internal validity was assessed using the student participants. Internal structure validity was assessed through factor analysis (principal axis factoring), where retained factors were determined using the Kaiser criterion and examining scree plots. For the Worry Scale, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.91 (Bartlett's test for sphericity, p < 0.001), indicating that items on the scale were suitable for exploratory factor analysis. Though two factors had eigenvalues over 1.0, examination of both the factor loadings and the scree plot supported a single factor solution for the Worry Scale. All items on the Worry Scale loaded strongly on a single factor with an eigenvalue of 8.6, accounting for 61% of the variance in scores. All factor loadings were at 0.64 or above and a drop (or "elbow") was evident in the scree plot following the first factor. Cronbach's alpha for this scale far exceeded the .70 threshold (all $\alpha > .90$) so scale scores were averaged to show mean scores across all items.

Gatekeeper Feedback Questionnaire. To obtain self-reported assessments of the usefulness of the training, we included a feedback questionnaire that was given immediately after the course was completed. Participants were asked to assess the impact of the course in a variety of areas, such as an increased

Table 1
Sample Characteristics of Study Participants (n = 105)

Demographic Characteristics	·	,			
Gender Male Male Pemale Male 76.2% (80) Other 1.9% (2) Age 18–21 52.4% (55) 22–25 26.7% (28) 26–29 30–55 Place of birth Canada 95.2% (99) Other 4.8% (5) Missing —(1) Ethnicity White/Caucasian Other Missing Missing Missing Pirst language English Other 9.6% (10) Missing First language English Other 9.5% (95) Other 9.5% (10) Fluent language English Other 3.8% (4) Highest level of education High school Post-secondary degree or diploma Missing —(1)	Demographic Characteristics	Participants			
Male 21.9% (23) Female 76.2% (80) Other 1.9% (2) Age 18-21 18-21 52.4% (55) 22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth		-			
Female Other 1.9% (2) Age 18-21 52.4% (55) 22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing -(1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing -(1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma Missing -(1)	Gender				
Female Other 1.9% (2) Age 18–21 52.4% (55) 22–25 26.7% (28) 26–29 9.5% (10) 30–55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing -(1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing -(1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma Missing -(1)	Male	21.9% (23)			
Other 1.9% (2) Age 18-21 52.4% (55) 22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing — (1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education 68.3% (71) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Female	` '			
18-21 52.4% (55) 22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing — (1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education 68.3% (71) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Other	` '			
18-21 52.4% (55) 22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing — (1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education 68.3% (71) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Age				
22-25 26.7% (28) 26-29 9.5% (10) 30-55 11.4% (12) Place of birth Canada 95.2% (99) Other 4.8% (5) Missing — (1) Ethnicity White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)		52.4% (55)			
26-29 9.5% (10) 30-55 11.4% (12) Place of birth	22–25				
30-55 11.4% (12)	26–29	9.5% (10)			
Canada 95.2% (99) Other 4.8% (5) Missing — (1) Ethnicity — (1) White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language — (1) English 90.5% (95) Other 9.5% (10) Fluent language — (10) English 96.2% (101) Other 3.8% (4) Highest level of education — (1) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	30–55				
Other 4.8% (5) Missing — (1) Ethnicity — (1) White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language English English 90.5% (95) Other 9.5% (10) Fluent language — (10) English 96.2% (101) Other 3.8% (4) Highest level of education — (10) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Place of birth				
Missing — (1) Ethnicity — (2) White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language — (1) English 90.5% (95) Other 9.5% (10) Fluent language — (1) English 96.2% (101) Other 3.8% (4) Highest level of education — (1) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Canada	95.2% (99)			
Ethnicity White/Caucasian Other Other Missing -(1) First language English Other 90.5% (95) Other 90.5% (95) Other 90.5% (10) Fluent language English Other 40.2% (101) Other 30.8% (4) Highest level of education High school Post-secondary degree or diploma Missing -(1)	Other	4.8% (5)			
White/Caucasian 90.4% (94) Other 9.6% (10) Missing — (1) First language — (1) English 90.5% (95) Other 9.5% (10) Fluent language — (11) English 96.2% (101) Other 3.8% (4) Highest level of education — (11) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Missing	—(1)			
Other 9.6% (10) Missing — (1) First language — (1) English 90.5% (95) Other 9.5% (10) Fluent language — (11) English 96.2% (101) Other 3.8% (4) Highest level of education — (11) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	Ethnicity				
Missing — (1) First language 90.5% (95) English 90.5% (10) Fluent language English English 96.2% (101) Other 3.8% (4) Highest level of education 68.3% (71) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	White/Caucasian	90.4% (94)			
First language	Other	9.6% (10)			
English 90.5% (95) Other 9.5% (10) Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing -(1)	Missing	—(1)			
Other 9.5% (10) Fluent language 96.2% (101) English 96.2% (101) Other 3.8% (4) Highest level of education 68.3% (71) High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing — (1)	First language				
Fluent language English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing -(1)	English	90.5% (95)			
English 96.2% (101) Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing -(1)	Other	9.5% (10)			
Other 3.8% (4) Highest level of education High school 68.3% (71) Post-secondary degree or diploma 31.7% (33) Missing -(1)	Fluent language				
Highest level of education High school Post-secondary degree or diploma Missing 68.3% (71) 31.7% (33) — (1)	English	96.2% (101)			
High school Post-secondary degree or diploma Missing 68.3% (71) 31.7% (33) — (1)	Other	3.8% (4)			
Post-secondary degree or diploma 31.7% (33) Missing — (1)	Highest level of education				
Missing $-(1)$	High school	68.3% (71)			
•	Post-secondary degree or diploma	31.7% (33)			
Marital status	Missing	—(1)			
	Marital status				
Single 75.7% (78)	Single	75.7% (78)			
Not single 24.3% (25)	Not single	24.3% (25)			
Missing — (2)	Missing	—(2)			

knowledge of how mental health issues present in the classroom and how to facilitate a request for support from appropriate resources.

RESULTS

Only students participated in the training; 211 students submitted a survey at registration, 186 students submitted a survey immediately prior to the training, 190 students submitted a survey immediately after the training, and 141 students submitted a survey to provide training feedback. Of the 211 students who participated in the evaluation, we were able to successfully match 105 across all three survey times (50%) with the unique, anonymous identifiers. Table 1 shows the full demographic breakdown of the matched participants. The majority were female, young, and enrolled in health-related programs.

Table 2 shows the proportion of participants who agreed or strongly agreed with each item on the Attitude Survey. In the control condition, most students endorsed positive and supportive attitudes towards those experiencing a mental health issue, and there was little change between registration and immediately before the training. In the control condition, the greatest change was seen for the item "I would employ someone who I knew had a history of mental health difficulties," where the proportion who agreed or strongly agreed with this statement increased by 5.8 percentage points. The second largest change in the control condition was for the item "I never know what to say to a person who is experiencing mental health difficulties," where the proportion who agreed or strongly agreed with this statement decreased by 3.9 percentage points. Similar to the control condition, most students in the treatment condition endorsed positive and supportive attitudes, with little change observed in the survey items from immediately before to immediately following training. Comparing pre-test and post-test scores, some of the largest changes were seen among items that concern how comfortable students feel about interacting with a person who is experiencing mental health difficulties. The largest change was seen for the item "I don't know how to help a person with mental health difficulties," where the proportion who agreed or strongly agreed with this statement deceased by 6.9 percentage points. In addition, the proportion of students who agreed or strongly agreed with the item "I never know what to say to a person experiencing mental health difficulties" decreased by 4.6 percentage points.

Table 3 shows the proportion in agreement (scores 6–10) for each of the items on the Worry Scale. We first examined item-specific differences. Compared to the pre-test, all of the post-test items were less, indicating a reduction in worry. The largest difference between pre- and post-test was for the item "I worry that I may be unable to help" (31.2% reduction in worry). Six of the 14 items showed a drop of more than 20%, six showed a drop of between 10 and 20%, and the remainder showed a drop of less than 10%. The smallest change occurred for the item, "I worry that I may glamorize mental illness" (2.1% drop). With respect to changes from registration to pre-test (the control condition) three of the items were statistically significant using the McNemar chi square test of significance: trigger an emotional reaction in someone with a mental health difficulty (p = .009); Do more damage than good (p = .007); and answer a question incorrectly (p = .049). With respect to the difference between the registration and the pre-test (the control condition), eight items were less than 5 percentage points (some positive and some negative) showing little change. One item was at 5 percentage points and five items had more than 5 percentage points difference, with the largest difference being a 16.7% reduction in worry for "I worry that I may trigger an emotional reaction

Table 2

	ranie 7				
The Proportion of Participants Who Strongly Agreed or Agreed with Items from the A.S.K. Attitude Survey (n = 105)	d or Agreed wi	th Items fr	om the A.S.F	K. Attitude Survey (n =	= 105)
Survey Item	Registration (%)	Pre-Test (%)	Post-Test (%)	Registration Pretest Difference	Pre-Test Post-Test Difference
1. I don't know how to help a person with mental health difficulties	17.3	14.6	7.7	-2.7	6.9-
2. If I knew that someone had a mental health difficulty, I would not consider them for a leadership role	3.8	3.8	8.7	0	4.9
3. I never know what to say to a person who is experiencing mental health difficulties	21.0	17.1	12.5	-3.9	-4.6
4. I would employ someone who I knew had a history of mental health difficulties	79.0	84.8	2.98	5.8	1.9
5. It's not a good idea to ask a person if they are experiencing mental health difficulties	14.6	11.5	9.6	-3.1	-1.9
6. I find it difficult to work with people who have mental health difficulties	6.7	7.6	8.7	6.0	1.1
7. If someone had a mental health difficulty, I would not want him or her to tell me	3.8	2.9	8.9	6.0-	3.9
8. I know little about the mental health problems others are likely to face	27.9	27.9	29.1	0	1.2

Table 3 $\label{eq:continuous}$ Percentage of Participants in Agreement on Worry Scale at Registration, Pre-Test, and Post-Test Surveys (n=105)

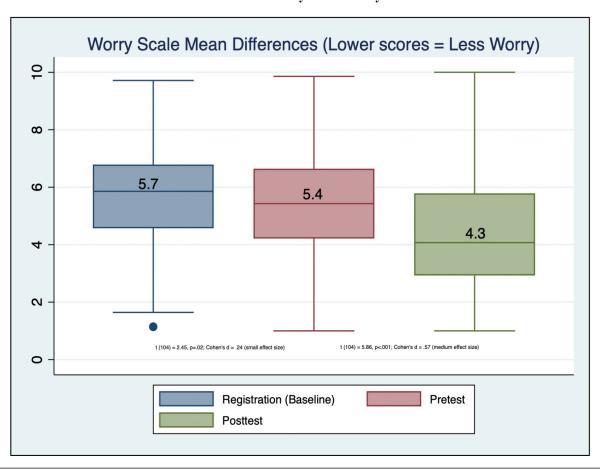
Survey Item	Registration	Pre-Test	Post-Test	Registration Pre-Test Difference	Pre-Test Post-Test Difference
I worry that I may	(%)	(%)	(%)	(%)	(%)
Answer a question incorrectly.	72.4	60.6	39.0	-11.8	-21.6
Be seen as the "expert."	43.8	41.3	33.7	-2.5	-7.6
Overstep my boundaries.	61.0	61.9	40.0	0.9	-21.9
See something as a small problem when really, it's a big one.	62.9	53.4	33.3	-9.5	-20.1
Be unable to help.	66.7	71.4	40.2	4.7	-31.2
Be seen as judgemental.	43.8	47.6	26.7	3.8	-20.9
Trigger an emotional reaction in myself.	58.1	49.5	37.1	-8.6	-12.4
Trigger an emotional reaction in someone with a mental health difficulty.	68.6	51.9	33.3	-16.7	-18.6
Cause someone to identify with a mental illness that they do not have.	37.1	40.0	22.9	2.9	-17.1
Do more damage than good.	56.2	41.3	26.7	-14.9	-14.6
Cause someone to second guess their own mental health.	41.0	38.1	23.8	-2.9	-14.3
Glamorize mental illness.	20.4	15.4	13.3	-5.0	-2.1
Single out someone who does have mental health difficulty.	38.5	36.2	23.8	-2.3	-12.4
Say the wrong thing.	70.5	66.3	39.4	-4.2	-26.9

in someone with a mental health difficulty." Unlike the difference between the pre- and post-test scores, no clear pattern emerged with the registration and pre-test scores, and most changes were small (less than 10%).

Next, we averaged the items to provide an overall scale score. Figure 2 shows the mean Worry Scale scores and the differences between the registration, pre-test, and post-test surveys. The centre box shows the median value along with the 25th and 75th percentiles. The whiskers extend to the extreme values. These results show that there was a small but statistically significant difference in the control condition between the registration and pre-test scores (t [104] = 2.45, p = .02; Cohen's d = 0.24). However, there was a larger statistically significant difference in the treatment condition between the pre-test and post-test scores which corresponded to a medium effect size (t [104] = 5.86, p < .001; Cohen's d = 0.57).

Figure 2

Mean Worry Scale Scores and Differences between the Registration, Pre-Test, and
Post-Test Worry Scale Surveys

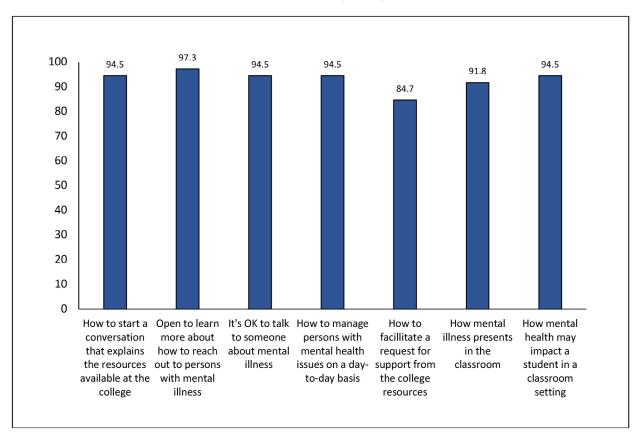


Note. The centre box shows the median value along with the 25th and 75th percentiles. The whiskers extend to the extreme values.

Figure 3

Proportion of Participants Who Agreed or Strongly Agreed with Statements on A.S.K. Gatekeeper Feedback

Questionnaire (N = 73)



Finally, participants were asked to self-report the impact they considered the A.S.K. training had on their knowledge and skills. Figure 3 shows that respondents gained an understanding of how a mental health issue could present in the classroom and how to manage conversations with people who may have a mental health problem. While all of the items were high, one stands out from the others as being slightly lower. Approximately 15% of respondents indicated that they did not increase their understanding of how to facilitate a request for support from the college resources. On review it was noted that in the training sessions this information was provided in a handout, but received less in-class attention and discussion than other sections.

SUMMARY OF RESULTS AND DISCUSSION

The students in this evaluation who completed the A.S.K. Gatekeeper Training Program were relatively homogeneous with respect to demographic characteristics and in this case, entirely comprised students from health or social programs with the result that we could not conduct sub-groups analyses. Future applications of the A.S.K. Program should endeavour to attract a more diverse sample. Participants entered the training with supportive attitudes overall, with little change over the time points. Worries about how to deal with mental health issues significantly declined from registration to pre-test (control condition), though this represented a small effect. Much larger differences occurred from pre-test to post-test (treatment condition) and these constituted a medium effect size. Participants reported the program to be helpful across a range of knowledge and skills.

Post-secondary institutions in Canada have increasingly been focused on addressing the mental health needs of their students. In addition to individual-level interventions, such as those offered through counselling or therapy services, a range of population-level approaches are developing. This article describes one such population-level intervention, the A.S.K. Gatekeeper Training Program, and the results of an evaluation of its effectiveness conducted on one Canadian college campus. The evaluation suggests that student participants who received A.S.K. training had a decrease in worry about different aspects of interacting with an individual experiencing mental health issues. Student self-reports suggested that participants gained knowledge and skills related to identifying how a mental health issue could present in the classroom and how to manage conversations with people who may have a mental health problem. An important limitation of this work pertains to the potential for volunteer bias in the sample and our inability to estimate how this program would affect participants if it were mandatory.

A second related limitation pertains to the homogeneity of the sample with respect to demographics, particularly, the lack of diversity with respect to age and ethnic backgrounds. While the program was designed for and open to staff and faculty, the college experienced a faculty strike in the fall of 2017 for six weeks, and this was a barrier to their participation. For these reasons, the generalizability of the A.S.K. program is dependent on further research.

While the results of the A.S.K. Gatekeeper Training Program evaluation are promising, this work needs to be considered within the broader context of mental health and illness on post-secondary campuses. First, it needs to be remembered that A.S.K. is one of several types of population-intervention programs that are being or have been developed. For example, The Inquiring Minds program is a population level training program that has focused on building resilience and coping in the post-secondary student population, while

also supporting decreased social distancing and the creation of supportive campus cultures (Szeto et al., 2021). In contrast, A.S.K. is a gatekeeper training program, that is primarily meant to help all stakeholders on campus recognize others at risk, interact with them in a supportive manner, and enable their access to appropriate supports. In the selection of population-level interventions post-secondary campuses will need to consider what outcomes are seen as a priority and may even combine two or more evidence-based approaches.

Second, the selection of any population-level intervention will need to be considered in relation to a range of contextual factors, including logistics and resources. The A.S.K. Gatekeeping Training Program requires a relatively limited amount of "in-class" time compared to, for example, literacy-based programs such as Mental Health First Aid (MHFA, 2021), and was designed to be suitable for a range of stakeholders (students, peer leaders, staff, faculty, etc.). For a campus to have a successful and sustainable gatekeeper training program, institutional buy-in is needed to provide support. This could include funding, provision of space, and statements of support to promote campus involvement (Gask et al., 2017; Wallack et al., 2013). In addition, having faculty involvement is advantageous in that they can generate further support among colleagues (Wallack et al., 2013). Support from administrators, faculty, and student leaders is critical to future implementation of this program allowing it to reach a wider audience and increase its generalizability.

Finally, implementation of population-level interventions such as that offered by the A.S.K. Gatekeeper Training will require attention to the evaluation of long-term outcomes. For example, while the present study considered the impact on the experience of "worry" of individual participants, longer-term evaluations will need to consider how often stakeholders identify the need for and implement the strategies they learn as gatekeepers. In addition, evaluations will need to be developed to consider the impact on students experiencing mental health problems.

This evaluation of A.S.K. Gatekeeper Training has led to several recommendations for future development including modifying those aspects of the training program evaluated as least impactful by students—specifically identifying relevant resources on campus and in the community; identifying processes to ensure a more diverse set of participants in terms of demographic backgrounds, program of study, and in terms of the faculty/staff mix; consider how institutional structures and supports might be used to enhance participation of specific groups; complete a training manual and develop a train-the-trainer approach to scaling up the program to a broader base; develop and implement methods and processes to evaluate the impact of the training in the "real-world" support of individuals experiencing mental health issues in the post-secondary context.

CONCLUSION

This evaluation has advanced the evidence base for gatekeeper training programs and provided preliminary evidence for the effectiveness of the A.S.K. Gatekeeper Training Program. Given the growing concerns about the mental health of students in post-secondary settings across Canada, A.S.K. has the potential to make an important, evidence-informed contribution to the field. Future research conducted in other post-secondary campus settings with more rigorous study designs (such as randomized controlled trials), will be needed to fully understand the efficacy and generalizability of the A.S.K. training.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- American College Health Association. (2016). American College Health Association National College Health Assessment II: Reference Group Executive Summary Spring 2016. Hanover, MD.
- Barney, L. J., Griffiths, K. M., Jorm, A. F., & Christensen, H. (2006). Stigma about depression and its impact on help-seeking intentions. *Australian and New Zealand Journal of Psychiatry*, 40(1), 51–54. https://doi.org/10.1111/j.1440-1614.2006.01741.x
- Burnette, C., Ramchand, R., & Ayer, L. (2015). Gatekeeper training for suicide prevention: A theoretical model and review of the empirical literature. *Rand Health Corporation*, 5(1),16.
- Carleton, R. N. Korol, S., Mason, J. E., Hozempa, K., Anderson, G. S., Jones, N. A., Dobson, K. S., Szeto, A. & Bailey, S. (2018). A longitudinal assessment of the road to mental readiness training among municipal police. *Cognitive Behaviour Therapy*, 47, 508–528. https://www.tandfonline.com/doi/full/10.1080/16506073.2018.1475504
- Condron, S. D., Garraza, L. G., Walrath, C. M., McKeon, R., Goldston, D. B., & Heilbron, N. S. (2015). Identifying and referring youths at risk for suicide following participation in school-based gatekeeper training. *Suicide and Life-Threatening Behavior*, 45(4), 461–476. https://doi.org/10.1111/sltb.12142
- De Somma, E., Jaworska, N., Heck, E., & MacQueen, G. M. (2017). Campus mental health policies across Canadian regions: Need for a national comprehensive strategy. Canadian Psychology/Psychologie canadienne, 58(2), 161–167. https://psycnet.apa.org/doiLanding?doi=10.1037%2Fcap0000089
- Druick, D., & Bonham, A. (2013). A.S.K. Gatekeeper Training program; Supporting emotionally distressed persons. St. Lawrence College. Kingston, Ontario.
- Gask, L., Coupe, N., McElvenny, D., & Green, G. (2017). Pilot study evaluation of suicide prevention gatekeeper training utilising STORM in a British university setting. *British Journal of Guidance & Counselling*, 45(5), 593–605. https://doi:10.1080/03069885.2017.1335391
- Giamos, D., Soo Lee, A. Y., Suleiman, A., Stuart, H., & Chen, S.-P. (2017). Understanding campus culture and student coping strategies for mental health issues in five Canadian colleges and universities. *Canadian Journal of Higher Education*, 47(3), 120–135.
- Kadison, R. D. (2004). The mental-health crisis: What colleges must do. *The Chronicle of Higher Education*, 51(16), B.20. Kalafat, J. (2003). School approaches to youth suicide prevention. *American Behavioral Scientist*, 46(9), 1211–1223. https://doi.org/10.1177/0002764202250665
- Koller, M., & Stuart, H. (2021). Stereotype and social distance scales for youth. In K. S. Dobson and H. Stuart (Eds.). *The Stigma of Mental Illness* (pp. 81–90). Oxford: Oxford University Press.
- Kuhlman, S. T. W., Walch, S. E., Bauer, K. N., Glen, A. D., Castro, F. G., Yasui, M., & Gorman-Smith, D. (2017). Intention to enact and enactment of gatekeeper behaviors for suicide prevention: An application of the theory of planned behavior. *Prevention Science 18*, 704–715. https://doi.org/10.1007/s11121-017-0786-0
- Linden, B., Boyes, R., & Stuart, H. (2021). Cross-sectional trend analysis of the NCHA II survey data on Canadian post-secondary student mental health and wellbeing from 2013 to 2019. *BMC Public Health 21*, 590. https://doi.org/10.1186/s12889-021-10622-1
- Linden, B., & Stuart, H. (2019). Preliminary analysis of validation evidence for two new scales assessing teachers' confidence and worries related to delivering mental health content in the classroom. *BMC Psychology*, 7, 3–11. doi: 10.1186/s40359-019-0307-y
- Lipson, S., Speer, N., Brunwasser, S., Hahn, E., Eisenberg, D. (2014). Gatekeeper training and access to mental health care at universities and colleges. *Journal of Adolescent Health*, 5(5), 612–619. https://doi: 10.1016/j.jadohealth.2014.05.009
- Mental Health First Aid Australia. (2021). What we do at Mental Health First Aid. mhfa.com.au/about/our-activities/what-we-do-mental-health-first-aid. https://www.mhfa.com.au
- Pedersen, E. R., & Paves, A. P. (2014). Comparing perceived public stigma and personal stigma of mental health treatment seeking in a young adult sample. *Psychiatry Research*, 219(1), 143–150. https://doi.org/10.1016/j.psychres.2014.05.017

- Rallis, B. A., Esposito-Smythers, C., Disabato, D. J., Mehlenbeck, R. S., Kaplan, S., Geer, L., Adams, R., & Meehan, B. (2018). A brief peer gatekeeper suicide prevention training: Results of an open pilot trial. *Journal of Clinical Psychology*, 4, 1106–1116. https://doi:10.1002/jclp.22590
- Szeto, A. C., Henderson, L., Lindsay, B. L., Knaak, S., & Dobson, K. S. (2021). Increasing resiliency and reducing mental illness stigma in post-secondary students: A meta-analytic evaluation of the inquiring mind program. *Journal of American College Health*. https://doi: 10.1080/07448481.2021.2007112
- <u>Tompkins, T.</u> 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*, 39(6), 671–681. https://doi.org/10.1521/suli.2010.40.5.506
- Washburn, C., & Mandrusiak, M. (2010). Campus suicide prevention and intervention: Putting best practice policy into action. *Canadian Journal of Higher Education*, 40(1), 101–119.
- Wallack, C., Servaty-Seib, H. L., and Taub, D. J. (2013). Gatekeeper training in campus suicide prevention. *New Directions for Student Services*, 27–41. doi:10.1002/ss.20038