



# THE CORE CONNECTORS INITIATIVE: DEVELOPMENT OF A YOUTH MENTAL HEALTH PROGRAM

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Article abstract

This paper provides an overview of the development and field-test evaluation of a group-based youth mental health promotion program known as the Core Connectors Initiative (CCI). CCI is a program that aims to help youth gain mental health knowledge and peer support competencies, and reinforce positive help-seeking behaviour. The purpose of the study was to evaluate and refine CCI by examining whether it attains its training objectives of mental health literacy, gatekeeper training, and fostering positive youth development, while exploring helpful and unhelpful participant experiences of the program. CCI was field-tested during the latter half of the 2017/2018 school year at 3 different locations: a private school, a community centre, and a public school. Using mixed methods, the evaluation yielded information on the strengths and areas of growth for future program development. The quantitative data were collected from a sample of 29 youth, while the qualitative data were collected from 9 youth using the Enhanced Critical Incident Technique. The converging data highlight the importance of connection, the value of critical mental health literacy, and the importance of clarifying expectations. The lessons learned from implementing this program can be applied to other youth mental health promotion programs.



## THE CORE CONNECTORS INITIATIVE: DEVELOPMENT OF A YOUTH MENTAL HEALTH PROGRAM

**Fred Chou, Kesha Pradhan, and Carmen Huang**

**Abstract:** This paper provides an overview of the development and field-test evaluation of a group-based youth mental health promotion program known as the Core Connectors Initiative (CCI). CCI is a program that aims to help youth gain mental health knowledge and peer support competencies, and reinforce positive help-seeking behaviour. The purpose of the study was to evaluate and refine CCI by examining whether it attains its training objectives of mental health literacy, gatekeeper training, and fostering positive youth development, while exploring helpful and unhelpful participant experiences of the program. CCI was field-tested during the latter half of the 2017/2018 school year at 3 different locations: a private school, a community centre, and a public school. Using mixed methods, the evaluation yielded information on the strengths and areas of growth for future program development. The quantitative data were collected from a sample of 29 youth, while the qualitative data were collected from 9 youth using the Enhanced Critical Incident Technique. The converging data highlight the importance of connection, the value of critical mental health literacy, and the importance of clarifying expectations. The lessons learned from implementing this program can be applied to other youth mental health promotion programs.

**Keywords:** youth, mental health promotion, mental health literacy, program development, program evaluation

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Mental health concerns are becoming more widespread for youth. Based on analysis of the Canadian Community Health Survey ( $N = 71,700$ ), the prevalence of negative mental health outcomes for adolescents (ages 12–24) has increased from 2011 to 2018 (Wiens et al., 2020). For instance, diagnosed mood and anxiety disorders increased over this period from 4.3% to 7.8% and 6.0% to 12.9% respectively, while past-year suicidality increased from 4.3% to 7.8%. Other associated trends indicate that suicide rates (per 100,000) have been increasing since the 1950s, from 7.3 in the 1950s to 12.8 in the 1990s (Canadian Association for Suicide Prevention, 2009). Skinner and McFaull (2012) reported that suicide was the second leading cause of death amongst youth in Canada. These trends in youth mental health highlight a growing need for preventive efforts through mental health promotion and literacy (Mental Health Commission of Canada, 2016; Wiens et al., 2020).

Our study was situated in British Columbia, a Canadian province where 15% of students aged 12 to 19 ( $N = 38,015$ ) endorsed having some form of mental illness, including anxiety, depression, or post-traumatic stress disorder (Smith et al., 2019). The students also indicated having difficulty managing stress (17%), considering suicide (17%), attempting suicide (5%), and self-harm (17%). These numbers are consistent with the international and Canadian prevalence of mental health concerns (see Kieling et al., 2011; Wiens et al., 2020). In Smith et al.'s (2019) survey, 50% of the respondents identified wanting to learn more about their mental health — specifically, how to manage symptoms of depression, stress, and anxiety, and how to support their peers — indicating a desire for mental health literacy.

In light of these trends, a community- and school-based mental health promotion program was developed and field-tested. This program, known as the Core Connectors Initiative (CCI), trained youth to gain peer support competencies and mental health knowledge by working with them, in a dialogical group-based format, to take leadership in addressing mental health concerns in their school communities. The purpose of this paper is to provide an overview of CCI, report the results of the field-test evaluation, and discuss lessons learned for future youth mental health promotion programs.

### ***The Core Connectors Initiative: Program Description***

The Core Connectors Initiative (CCI) is a peer gatekeeper-training (GKT) leadership program developed in British Columbia that incorporates a structured mental health literacy component. CCI aims to train youth leaders to be mental health advocates and peer gatekeepers in their school communities. The core components of the program involve: (a) mental health literacy, (b) peer GKT, and (c) fostering positive youth development (PYD). CCI follows the mandate set by the United Nations Convention on the Rights of the Child (1989), which asserts that children and youth have a right to make decisions regarding programs that affect their lives (e.g., schools and communities) and have a fundamental right to express themselves (see Articles 12, 13). CCI draws from Freire's (1970) philosophy of praxis, the iterative process of critical reflection and social

action, and critical pedagogy. The manifestation of these principles is demonstrated in its dialogical approach to program facilitation and its two-phase programming, with a training phase and an action phase. These two phases are based on Freire's praxis, with Phase 1 fostering reflexivity of lived experiences of mental health and Phase 2 using this reflection to facilitate social action.

The training phase (Phase 1) of the program involves 14 modules that focus on the following topics: understanding mental health and stigma, peer support skills (e.g., active listening, empathy, how to support a friend), mapping local support networks, managing stress, suicide prevention, and positive mental health and resilience. During the action phase (Phase 2), youth participants who have completed the training phase have the option to form localized action teams to advocate and raise awareness about mental health, and take part in providing peer support and gatekeeper efforts. Throughout the program, youth are supervised by two facilitators trained in counselling.

### ***Mental Health Promotion and Literacy***

Mental health promotion involves the process of enhancing the capacity of individuals and communities to take ownership of improving their mental health (Joubert et al., 1996). Its goals are to increase protective factors, decrease risk factors, and reduce inequities (Kobus-Matthews et al., 2014). Mental health literacy refers to knowledge about mental health and comprises the following components: (a) understanding how to obtain and maintain positive mental health; (b) understanding mental disorders and their treatments; (c) decreasing stigma associated with mental illness; and (d) enhancing help-seeking behaviours (Kutcher et al., 2016). Mental health literacy is considered to be one of the outcomes of mental health promotion as the knowledge of mental health encourages agency with regard to enhancing one's own positive behaviours relating to mental health (Bjørnsen et al., 2017; Jorm, 2012).

Meta-analyses and reviews on mental health promotion among youth and in schools indicate that these interventions positively impact social, emotional, behavioural, and academic outcomes (Clarke, 2019; O'Reilly et al., 2018; Roach, 2018). Studies that focus on school-based mental health literacy programs show that these bring significant increases in knowledge of mental health and illness and fostering help-seeking intentions (Mansfield et al., 2020; Ojio et al., 2015). One mental health literacy program involved the integration of a standardized mental health curriculum into high schools in Canada (Milin et al., 2016). Utilizing a randomized controlled trial ( $N = 534$ ), the study showed that the curriculum resulted in a significant reduction in mental health stigma and increase in mental health knowledge compared to the control group (Milin et al., 2016).

Despite positive outcomes, there is need for more research on school-based mental health promotion and literacy programs (O'Reilly et al., 2018; Salerno, 2016; Wei et al., 2013). Efforts to bring greater health literacy to schools typically focus on knowledge dissemination as opposed to opportunities to critically understand and act upon the information provided to youth (Peralta et al., 2017; Sykes et al., 2013). Mental health literacy in schools tends to be based on mental disorder literacy as opposed to critical and culturally sensitive models of mental health (Mansfield et al.,

2020). Meanwhile, best practices on youth mental health promotion highlight the need for skill-building and empowerment (Kobus-Mathews et al., 2014). Taken together, the current challenges and opportunities for mental health promotion and literacy illustrate a need to move towards critical mental health literacy that is adapted to adolescent learning, incorporates critical pedagogy, and involves action-oriented skill-building initiatives (Kobus-Mathews et al., 2014; Mansfield et al., 2020; Peralta et al., 2017).

### ***Peer Gatekeeper-Training and Positive Youth Development***

Suicide prevention programs within schools can be categorized in the following manner: curricula for all students, skill-building programs for students at risk of suicide, and peer leader programs (Substance Abuse and Mental Health Services Administration [SAMHSA], 2012). Curricula for all students have a broad scope that focuses on general suicide prevention, typically in a classroom setting. Skill-building programs are more targeted and aim to build skills for coping with mental health challenges among at-risk populations. Lastly, peer leader programs identify students who are capable of helping at-risk peers, building connections with other students, and improving school environments (SAMHSA, 2012).

Based on SAMHSA's (2012) categorization, CCI can be situated as a peer leadership program that focuses on developing peer support competencies and youth leadership through peer GKT. Peer support serves as a protective factor against negative mental health (e.g., suicide, depression, anxiety) and is associated with positive mental health (Roach, 2018), while GKT focuses on training members in a community to identify people at risk for suicide and enhancing help-seeking behaviours for target populations (Robinson-Link et al., 2020; Wyman et al., 2010). Peer-based youth GKT is a promising preventive approach for youth suicide and mental health concerns as it can enhance mental health literacy and help youth identify peers at risk (Wyman et al., 2010).

Although there are several GKT programs that focus on suicide prevention for youth, these programs usually target adult supports such as parents, teachers, and school staff to increase knowledge about youth suicide behaviour and risk factors. Some of the more popular programs include QPR (Question. Persuade. Refer) and Kognito (Robinson-Link, 2020; Wyman et al., 2010). Though these models are beneficial in enhancing suicide prevention knowledge among gatekeepers, research indicates that gatekeeper training for adults in schools is insufficient to change their suicide prevention behaviours, thus indicating the need for a more comprehensive approach (Robinson-Link et al., 2020). Furthermore, there are potential limitations to adult gatekeepers, as youth are more likely to confide in their peers about distressing issues and typically seek help from their peers (Gilchrist & Sullivan, 2006; Smith et al., 2019).

There are several peer-based youth leadership GKT programs, including How Not to Keep a Secret, Students for Students, Just Talk About It, Connect Youth Leaders, and Native H.O.P.E. (SAMHSA, 2012; Suicide Prevention Resource Centre, 2021); however, most programs have not been empirically studied. Programs covered in at least one published study include the LifeSavers Training program (Walker et al., 2009), Sources of Strength (Wyman et al., 2010), Saving and

Empowering Young Lives in Europe (SEYLE) Awareness program (Wasserman et al., 2012), and, in Canada, the Alive group (also known as Youth as Gatekeepers; Ohlmann et al., 2014; Wicker, 2012). These peer GKT programs show positive benefits for the youth peer leaders who are involved in them, including “a significant increase in knowledge and positive attitudes towards suicide prevention, and also self-esteem” (Walker et al., 2009, p. 335), enhanced knowledge about mental health (Wasserman et al., 2012), increased positive coping and connection to adults (Wyman et al., 2010), and perceived interpersonal resilience (Ohlmann et al., 2014).

The dissemination of knowledge about suicide prevention, mental health, and peer connection in GKT programs can be understood as a way to promote PYD (Lobenstein, 2018). PYD aims to enhance youths’ strengths, as opposed to focusing on deficits, by establishing supportive contexts and opportunities to help them flourish in their environments (Taylor et al., 2017). School-based interventions that target social and emotional learning can build on PYD in the areas of well-being and social behaviours (Curran & Wexler, 2016; Taylor et al., 2017). Focusing on PYD can be a broad strategy for suicide prevention in school as it can facilitate connection within schools and communities, thus enhancing protective factors against suicide (White, 2016).

There are limitations to the peer GKT training programs discussed above. Studies of such programs tend to focus on the program’s influence on youth leaders and thus do not make clear whether the program contributes to changes in suicide prevention behaviour in school settings. All of the programs except Alive and SEYLE’s Awareness program were developed and situated in the United States. The sociohistorical context of Canadian education differs from that of the United States to the extent that contextually relevant programming is needed (Robson, 2019). Lastly, mental health awareness and literacy appear to be core components of peer GKT programs; however, the programs approach these components didactically. To engage with mental health awareness and literacy in a way that is consistent with the critical mental health literacy model, these programs should move towards a youth-driven critical and dialogical approach to discussing mental health (Mansfield et al., 2020).

### ***Purpose of the Study***

A partnership between The Centre for Group Counselling and Trauma at the University of British Columbia and the Adam’s Apples Foundation (a non profit organization) was formed to field test CCI and to conduct a formative evaluation of the training phase (Phase 1). The CCI program was field-tested during the latter half of the 2017/2018 school year at three different locations: a private school, a community centre, and a public school. As the purpose of the study was to further develop the CCI training, it was not necessary to examine the action phase (Phase 2). As Phase 2 is youth-led and contextually based, it would be fluid and operate differently at each of the sites, whereas Phase 1 is structured and is conducted similarly at each site, making it amenable to further program refinement. The evaluation focused on whether the CCI training phase was able to meet its training objectives — mental health literacy, GKT, and fostering PYD — and examined how it could be improved.



## Method

An explanatory sequential mixed-methods design was used for the formative program evaluation to assess the CCI (Creswell & Plano Clark, 2011). This approach involved the collection and analysis of quantitative data followed by qualitative data. In this study the quantitative data were collected from nearly all the participants who took part in CCI ( $n = 29$ ), while the qualitative data were collected from nine randomly selected participants who completed the program. The purpose of the quantitative data was to determine the effects of CCI on mental health literacy, GKT, and PYD; the qualitative portion identified features of the program that were helpful, a hindrance, or missing, and gave insight into what could be improved for future implementation. The mixed-methods approach allowed us to determine whether CCI was able to address its outcome goals and to utilize qualitative data to provide a richer understanding of participant experience in order to offer a more nuanced explanation of the quantitative analysis. The timeline of the field test and evaluation is illustrated in Table 1.

Table 1. *Explanatory Sequential Mixed-Methods Research Overview*

Step	Procedure	Outcome
Step 1: Field test preparations	Coordination with 3 sites Training of program facilitators ( $N = 5$ ) Purposive sampling of youth participants ( $N = 30$ )	Establish conditions for program and research implementation
Step 2: Quantitative data collection	Demographic and pretest measures ( $N = 30$ ) Field test of CCI program Post-test measures of participants who completed the program ( $n = 29$ )	Demographic information Pretest and post-test measures for 29 participants
Step 3: Quantitative data collection	SPSS data analysis	Quantitative analysis results
Step 4: Qualitative data collection	Recruitment of nine participants Enhanced Critical Incident Technique (ECIT) for interviews Transcription of interviews	Audio recordings Transcriptions
Step 5: Qualitative data analysis	Atlas.ti analysis Thematic analysis based on ECIT	Helping, hindering, and wish-list categories
Step 6: Integration of quantitative and qualitative results	Explanation of quantitative and qualitative data	Discussion and limitations Implications for future programming
Step 7: Revision of CCI program	Utilizing the analysis to revise the CCI program based on participant feedback	Revised version of CCI program for future study

### ***Participants***

All procedures of the study were approved by the Institutional Review Board at the University of British Columbia before any participants were recruited. Purposive sampling recruited 30 youth participants from three different sites (Group 1:  $n = 13$ ; Group 2:  $n = 10$ ; Group 3:  $n = 7$ ) during the latter half of the 2017/2018 school year. CCI program coordinators collaborated with administrative staff, teachers, and school counsellors at each site to identify potential candidates (15–18 years old) who were interested in learning more about mental health. Of the 30 recruited participants, 29 completed Phase 1 of the CCI program; one member did not complete the program, resulting in a 3.33% attrition rate.

Overall, the participating youth ranged from 15 to 17 years of age ( $M = 15.35$ ,  $SD = 0.55$ ). The majority of participants were female (65.5%) and in grade 10 (79.3%). The youth were largely from European (51.7%) or Asian (41.4%) backgrounds, with the remainder being of mixed backgrounds (6.9%).

Youth who completed the CCI training phase served as the sampling frame to recruit for the qualitative interviews. Participants were randomly sampled from each group and invited to share their experiences of the CCI program. Ten youth participants were invited for interviews, with nine agreeing to participate (Group 1:  $n = 3$ ; Group 2:  $n = 5$ ; Group 3:  $n = 1$ ). Overall, their ages ranged from 15 to 17 years old with five participants from grade 10 and four from grade 11. Six participants were female and the majority of the participants identified as Chinese. Youth were interviewed individually at the site where they had participated in the CCI program. The interviews were an hour long.

### ***Researcher Description***

The three authors were all involved in different aspects of the research process. At the time of the study, the first author was a doctoral candidate in a counselling psychology program. He designed the CCI program and coordinated with the non-profit organization that hosted the program. The two other authors were master's students in counselling psychology. To limit the potential bias of the first author having a dual role, this author was not involved in any program facilitation or data collection. The first author was involved in the qualitative analysis; however, credibility checks were incorporated into the procedures to ensure the trustworthiness of the analysis. The second author was also involved as a facilitator and research assistant and, to address any potential bias, this author was not present when the quantitative data were collected for the group she facilitated. The third author conducted the qualitative interviews. There were no prior researcher–participant relationships or interactions that would have impacted the research process.

### ***Data Collection***

The CCI program's training phase (Phase 1) ran from February to June in 2018. Youth met for 1.5 hours at the same day and time each week for 14 weeks in a confidential space within their respective schools or a community centre. Each week focused on one of the 14 modules, in the



order listed above. The CCI used a dialogical approach to facilitation; as such, it was situated in the perspectives that the youth brought to the program to ensure ecological validity. Youth were not provided with any additional incentives or compensation for their participation.

Altogether, the program was implemented by five (two male, three female) facilitators with backgrounds in counselling psychology. Two of the facilitators were clinical counsellors, while three facilitators were graduate students completing their training in counselling psychology. Each site had two facilitators, one a clinical counsellor and one a graduate student, with one of the counsellors working at two different sites. The facilitators received training and biweekly supervision from the first author, who at that time was also a clinical counsellor.

Youth identified as candidates for the CCI program were provided information about the program and consent procedures prior to starting the program. As the youth participants were all over the age of 15 and considered to be mature minors, the research team, with approval from the International Review Board, decided that participants could provide their own consent to take part in the project. On the first day, questions about the program and the research evaluation of the program were addressed and youth were invited to complete a written informed consent form. The consent form covered involvement in the CCI program and the quantitative and qualitative evaluation procedures. The participants' guardians were given a letter about the CCI program and its evaluation and invited to discuss their children's involvement with the research team. All the participants consented to take part in the project and no participant guardians questioned their children's involvement.

Baseline quantitative measures were collected from participants on the first day of the CCI training program while post-intervention measures were collected on the last day. In addition, as outlined in the consent form, participants were randomly invited to take part in the qualitative evaluation after completing the post-intervention measures. Those who agreed to take part in the qualitative evaluation were given a \$15 gift card as an honorarium.

### **Measures**

**Demographic questionnaire:** The demographic questionnaire was administered alongside the baseline measures. Youth were asked to indicate their age, gender, ethnic background, and school grade.

**General Help-Seeking Questionnaire (GHSQ):** The GHSQ (Wilson et al., 2005) is a 20-item measure of participants' intentions to seek help for their personal or emotional problems, and suicidal ideation. This measure asks two questions: "If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?" and, "If you were experiencing suicidal thoughts, how likely is it that you would seek help from the following people?" Participants rated their likelihood of seeking help from different people in their lives (e.g., intimate partner) on a 7-point Likert scale ranging from 1 (*extremely unlikely*) to 7 (*extremely likely*). The measure was scored and analysed both as a composite variable and on each problem-

type subscale (personal or emotional, suicidal ideation), with higher mean scores reflecting a stronger intention to seek help. The GHSQ has been used with adolescent populations and has demonstrated acceptable internal consistency reliability (overall:  $\alpha = .85$ ; personal-emotional:  $\alpha = .70$ ; suicidal ideation:  $\alpha = .83$ ) and good test-retest reliability (overall:  $r = .92$ ; personal-emotional:  $r = .86$ ; suicidal ideation:  $r = .88$ ; Wilson et al., 2005). The present study had good internal consistency reliability scores before implementation (overall:  $\alpha = .90$ ; personal-emotional:  $\alpha = .81$ ; suicidal ideation:  $\alpha = .81$ ).

After the program was implemented, the Cronbach's alphas for this measure were lower (overall:  $\alpha = .68$ ; personal-emotional:  $\alpha = .47$ ; suicidal ideation:  $\alpha = .26$ ). These lower internal consistency scores reflect participants' inconsistent responses to the GHSQ overall and its subscales. After participating in the CCI program, adolescent participants may have been reconsidering whom they would seek help from for personal-emotional concerns, for suicidal ideation, and overall; such an evolution is consistent with the sample's transitional developmental period.

**The Social Connectedness Scale-Revised (SCS-R):** The SCS-R (Lee et al., 2001) is an 8-item measure of the degree to which youth (14–18 years of age) feel connected to others in their social environment. Participants respond to items on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Items include statements like, “I feel disconnected from the world around me.” A composite score is calculated with higher scores indicating a higher sense of connection and belonging. In validation studies with a sample of 184 university students, the SCS-R demonstrated an internal consistency reliability of .92 and concurrent validity with measures of loneliness, self-esteem, and social avoidance and distress (Lee et al., 2001). The SCS-R has been used in studies with adolescents with an acceptable internal consistency reliability ( $\alpha = .70$ ; Chen et al., 2012). The present study had excellent internal consistency reliability, with scores of .90 before implementation and .94 after implementation.

**Positive Youth Development Inventory (PYDI):** The PYDI (Arnold et al., 2012) is a 55-item measure of the perceptions of PYD as an outcome of youth participation in a program. This measure uses the stem, “As a result of participating in this program” and asks people to rate their agreement with statements such as, “I feel connected to others in my community” on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The measure comprises six subscales: competence, confidence, character, connection, caring, and contribution. Subscale scores are calculated with higher mean scores reflecting PYD. The PYDI was validated with 748 adolescents between 11 to 19 years of age and found to have excellent internal consistency reliability ( $\alpha = .97$ ) and adequate convergent validity (Arnold et al., 2012). In the study, internal consistency reliability of scores for the subscales before the program ranged from .77 to .94, with scores of .69 to .88 after the intervention.

### ***Qualitative Interviews***

A semi-structured interview protocol was developed using the Enhanced Critical Incident Technique (ECIT; Butterfield et al., 2009) to examine the experiences that participants found either helpful or unhelpful when learning about mental health through the CCI program. All interviews were conducted by the third author and were approximately an hour long.

## **Data Analysis**

### ***Quantitative Analysis***

A  $p$  value of .05 was used as the criterion for all analyses. Effect sizes were interpreted using guidelines provided by Cohen (1992): small (.20), medium (.50), and large (.80). Descriptive statistics were calculated on the sample of 29 youth who completed the CCI program and used to evaluate normality assumptions. All dependent variables had skewness values between -1 and +1, suggesting that the distribution of dependent variables was approximately symmetric (GHSQ). One-tailed paired-samples  $t$ -tests were conducted to examine the impact of the CCI training phase on help-seeking, social connectedness, and PYD. Pairwise deletion was used to handle missing data; in consequence,  $t$ -test results reflect mean differences on the dependent variables among 21 youths.

### ***Qualitative Analysis***

All interviews were audio-recorded, transcribed, and analysed using ATLAS.ti. The interviews were analysed using the ECIT method. ECIT examines both concrete events (critical incidents) that helped or hindered a specific phenomenon, and wish-list items — items not present in the studied phenomenon, but that would have been helpful (Butterfield et al., 2009). Data analysis involved three steps: (a) organizing the raw data, (b) identifying critical incidents and wish-list items, and (c) creating categories based on inductive reasoning and pattern identification. The coding and analysis were performed by the first author.

## **Results**

### ***Quantitative Analysis***

Table 2 provides descriptive information of the sample on all the dependent variables in the pre- and post-implementation phases of the CCI program. Table 3 provides the results of one-tailed paired-samples  $t$ -tests on help-seeking, social connectedness, and PYD. The results suggest that the CCI intervention impacted participants' intentions to seek help. Specifically, after engaging in the CCI program, youth participants were more likely to seek help, both overall and for the case of suicidal ideation (small effect size). While other mean scores increased or decreased post-CCI intervention, no other results were statistically significant.

Table 2. *Descriptive Statistics of the Dependent Measures Pre- and Post- CCI Implementation*

Measures	Pre-Implementation				Post-Implementation			
	<i>n</i> <sup>a</sup>	Range	<i>M</i>	<i>SD</i>	<i>n</i> <sup>b</sup>	Range	<i>M</i>	<i>SD</i>
GHSQ								
Personal-Emotional	29	2.20–5.11	3.91	0.71	22	2.33–5.50	4.09	0.92
Suicidal Ideation	29	1.50–5.75	3.72	1.17	21	2.33–6.38	4.27	1.23
Overall	29	2.27–5.00	3.83	0.84	22	2.33–5.94	4.17	1.01
SCS-R	29	17.00–48.00	35.62	9.23	22	9.00–48.00	34.41	10.58
PYDI								
Competence	29	1.71–3.86	3.05	0.45	22	2.43–3.64	2.99	0.37
Character	29	2.78–4.00	3.51	0.33	22	3.00–4.00	3.51	0.32
Connection	29	2.00–3.88	3.22	0.49	22	2.13–4.00	3.24	0.51
Caring	29	2.13–4.00	3.47	0.45	22	2.50–4.00	3.51	0.38
Confidence	29	2.22–3.89	3.14	0.45	22	2.22–4.00	3.07	0.43
Contribution	29	1.86–4.00	3.29	0.55	22	2.29–4.00	3.19	0.47

<sup>a</sup> *n* varies. One participant who completed the program was not available on the first day to complete the initial questionnaire package.

<sup>b</sup> *n* varies. Six participants across the three different sites were not present on the final day of the program to complete the final questionnaire package. One participant dropped out of the program and did not complete post-program measures.

Table 3. *Paired-Samples *t*-Tests Comparing Means on GHSQ, SCS-R, and PYDI*

Measure	Pre-Intervention		Post-Intervention		<i>t</i> (20)	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
GHSQ							
Overall	3.80	0.90	4.15	1.03	-3.08	< .001	0.36
Personal-Emotional	3.82	0.75	4.08	0.94	-2.00	.06	0.30
Suicidal Ideation	3.87	1.15	4.25	1.26	-2.39 <sup>a</sup>	.03	0.31
SCS-R	35.67	9.71	34.19	10.79	0.990	.33	0.14
PYDI							
Competence	2.99	0.45	3.00	0.37	-0.31	.76	0.04
Character	3.52	0.35	3.53	0.31	-0.23	.82	0.03
Connection	3.24	0.51	3.25	0.52	-0.29	.78	0.03
Caring	3.46	0.48	3.52	0.38	-0.69	.50	0.15
Confidence	3.10	0.45	3.08	0.44	0.33	.74	0.05
Contribution	3.26	0.56	3.20	0.48	0.62	.55	0.12

<sup>a</sup> *df* = 19 for this measure as one participant did not complete this subscale of the GHSQ.

### Qualitative Analysis

In the nine interviews, the features of the program (critical incidents) that participants identified included 131 helping incidents (54.4%), 69 hindering incidents (28.6%), and 41 wish-list items (17.0%), from which 7 helping categories, 7 hindering categories, and 6 wish-list categories were

developed. These categories, along with an example of a participant description for each category, are described in Tables 4, 5, and 6. The qualitative analysis demonstrates that CCI was generally beneficial for participants, specifically with having a positive learning environment, learning peer support skills, and learning relevant and meaningful content. The areas of difficulty and wish-list items can be broadly seen as having their source in a sense of disconnection from, and misunderstandings about, the program and its pedagogical approach.

Due to logistical challenges related to the project and because interviews were completed at the end of the school year, there were two ECIT credibility checks (exhaustiveness and cross-checking of participants) that could not be completed. Of the nine ECIT credibility checks (see Butterfield et al., 2009), seven checks were completed: (a) descriptive validity (achieved by audiotaping interviews), (b) interview fidelity (audiotapes were reviewed by the first author and feedback provided to the third author, who was the interviewer), (c) independent extraction of incidents by another researcher (100% agreement rate between the first and third authors), (d) participation rates (categories were viable if at least 25% of participants contributed to at least one of the helping, hinder, or wish-list areas), (e) independent placement of helping and hindering incidents into categories (agreement rate of 80% or higher), (f) expert opinion (one expert reviewer agreed that the categories were viable), and (g) theoretical agreement (the categories were supported by the literature).

## **Discussion**

Our evaluation indicates that the training phase of CCI was generally helpful for increasing help-seeking attitudes and knowledge, learning peer support skills, and engaging in meaningful mental-health-related topics. The significant quantitative outcomes regarding help-seeking are consistent with the literature on mental health promotion and literacy programs (Salerno, 2016; Wei et al., 2015). Positive help-seeking attitude outcomes are beneficial characteristics associated with gatekeeper-based suicide prevention programs (Katz et al., 2013). The qualitative data also show that there were a number of helpful incidents highlighting the value of group-based learning, skill development, and connection. Identifying hindering incidents and wish-list items was particularly valuable, as they constitute formative feedback that can be used to improve future iterations of the program.

Table 4. *Helping Incidents: Categories and Descriptions.*

Category	Endorsement <sup>a</sup>	Description	Example Quote
Positive group environment (35; 27%) <sup>b</sup>	8	This refers to the group environment of CCI. Participants identified a friendly environment, equal power dynamics, trust and safety, and connection with other members as factors that facilitated their engagement in the program.	“It was like really nice because it was really inclusive and then it was such a small group and it was kind of like everyone was kind of shy before but like after a few weeks we got pretty close and so that makes it like easier to talk about this kind of issue.” (Youth 5)
Group structure (21; 16%)	8	This refers to how the group was structured and organized with its focus on dialogue. Participants appreciated the flexibility of the conversational learning style provided by this structure.	“I really liked the learning aspect ... it was more like a group therapy atmosphere. I feel like we shared a lot about ourselves, which I think is very important for what we were learning. It taught me a lot about myself and my classmates and I became closer with people who I didn’t really talk to.” (Youth 1)
Learning listening skills (19; 15%)	7	The participants appreciated the practical component of being able to learn and practise empathic listening skills.	“Ya there are many skills [when it came to] active listening ... [this] method is actually really good, I tried it out on my friends and they respond with, ‘Ya that is what I feel.’ ” (Youth 2)
Facilitation approach and experiential learning (14; 11%)	6	The way that the facilitators led the meeting and incorporated experiential learning was helpful for participants. Some incidents included: demonstration of skills, providing feedback, ensuring that everyone shares, and discussions.	“I think we just got to break things down. Like say at first if I just look at this formula [the listening skill] it’s like oh what is this who would say something like that? But once you get more fluent and comfortable with it, it actually comes out really naturally and because they showed us an example of how they would say it and it actually made a lot more sense.” (Youth 5)
Relevant content about mental health (13; 10%)	7	Participants found the topical discussions to be relevant to their own lives and found them to be impactful. Specific topics (e.g., addictions, and stress and anxiety) were especially relevant for participants.	“It was really random, they were talking about brain structure and three different stages of dealing with stress ... I didn’t like know it beforehand and then I kind of related to a period in my life because it was kind of hard and then I got a bit emotional and then we [the facilitator and I] talked afterwards.” (Youth 2)
Suicide content and skills (11; 8%)	6	The participants identified their appreciation for being able to talk about suicide and learning about strategies for suicide prevention.	“I hear a lot about suicide, but I guess we never really hear about what to do if someone approaches you.... So we learned about ‘ask, listen, and tell’, which I thought was really helpful because that way you can just kind of know [what to do] if someone says to you they’re considering suicide.” (Youth 3)



Category	Endorsement <sup>a</sup>	Description	Example Quote
Shared learning and experiences (9; 7%)	4	Participants appreciated having a space to share and learn from one another. In particular, hearing other members' personal experiences was helpful for their learning.	"The sharing is pretty good because people started sharing different experiences and we also have a common experience with them so it's easy to understand more.... At first a few people only shared a little bits but after — people after that started talking more and people got more engaged in sharing. (Youth 2)

<sup>a</sup> Number of participants ( $n = 9$ ) who endorsed the category.

<sup>b</sup> Number of incidents; % of 131 overall incidents.

Table 5. *Hindering Incidents: Categories and Descriptions*

Category	Endorsement <sup>a</sup>	Description	Example Quote
Fear of judgement and difficulty with vulnerability (17; 25%) <sup>b</sup>	6	This refers to concerns of being judged and being vulnerable to each other. For some this was due to the lack of cohesion or trust, and personal discomfort with feeling vulnerable when sharing.	"I feel like although [the group] was confidential, I'm 15 and everyone's 15–16 so it's hard to trust everyone when you haven't really talked to some of them.... It's kind of hard to like talk to people and share really personal things when you don't know them that well and you don't know if they're actually going to like abide by the confidentiality agreement." (Youth 1)
Discomfort with silence in group discussions (12; 17%)	6	Participants felt uncomfortable with silence during group discussions and felt that some unstructured discussions contributed to that silence.	"[The silence] was kind of uncomfortable.... I know a lot of people went into [this program] and they were super excited and so it was a little disheartening for some people [when there was] awkward silence that made it feel like you couldn't say anything, because no one else was." (Youth 1)
Peer and topical disconnection (11; 16%)	6	Participants experienced a sense of disengagement from some of their peers. Participants also identified difficulty connecting to the group when there were topics unrelated to their own experiences.	"I feel like my friends and I really got a lot from the experience but when some other people who maybe didn't want to participate or didn't go in by choice, like, didn't, so that kind of threw the group off a little bit." (Youth 1)

Category	Endorsement <sup>a</sup>	Description	Example Quote
External factors unrelated to the program (8; 12%)	5	External factors outside the program, such as other commitments, tiredness (as the group was conducted after school), and limitations with space and time, hindered some participants' engagement.	"I would say definitely like the lack of focus can make it a bit harder to participate just cuz I would be like tired from school." (Youth 3)
Facilitators not considering readiness (8; 12%)	6	This refers to a facilitation style where some of the youth felt pressured to share, while others felt there was not enough time to reflect about their experience.	"Most of the sessions felt slightly rushed, there was a curriculum to get to, but once we were done that we would go straight into closing. I feel like there wasn't exactly enough time to connect with each other about those issues." (Youth 4)
Issues with curriculum (7; 10%)	6	There were general challenges with some of the lessons. For instance, participants described how there was too much focus on curriculum, while others described difficulties learning some of the skills.	"Some topics people weren't really as interested in, I remember I know one week we talked about like substance abuse and we had a really good discussion about that, so I think it was dependent on what we were talking about that week." (Youth 3)
Discrepant program expectations (5; 7%)	3	Participants experienced a discrepancy between what they expected the program to be like and how they perceived it when it was running.	"I thought that it would be more classroom style, which isn't necessarily better, it was just what first came to my mind. I thought there'd be like more handouts.... I know I talked to a bunch of people as well and we all kind of expected it to be more like this is our lesson plan, this is what we're going to learn today." (Youth 6)

<sup>a</sup> Number of participants ( $n = 9$ ) who endorsed the category.

<sup>b</sup> Number of incidents; % of 69 overall incidents.

Table 6. *Wish-List Items: Categories and Descriptions*

Category	Endorsement <sup>a</sup>	Description	Example Quote
Organization and session structure (10; 24%) <sup>b</sup>	5	Participants described wanting more structure to the modules and more effective use of time.	“I’d say programs can be a little bit more compact because right now its like each week is an hour and a half and the check-in and the check-out period really takes a long time and sometimes I feel it’s even dragging a little bit. So could’ve fit in more materials inside. (Youth 5)
Program structure (10; 24%)	6	This refers to general programmatic structure. Participants requested smaller groups, meetings outside of a school environment, and more time for the program.	“Being outside of the school environment would’ve been kind of helpful.... I think we should... all should’ve met without our uniforms and outside maybe ... just because it would help us to just get out of school and get rid of the pressure that school kind of holds.” (Youth 5)
Additional learning activities and opportunities (6; 15%)	5	Participants described wanting more learning activities and educational opportunities, such as guest speakers.	“I feel like, uh, there should be at least like one more module on empathy statements or on how to engage in a conversation with someone without scaring them off and making them defend themselves or to feel like they’re being attacked.” (Youth 8)
Additional support (5; 12%)	3	Participants shared that they wanted to have more directive support within the group setting.	“If [the facilitator] gave a little bit of advice or something; like, I’m not a counsellor so I don’t really know, but like more of a reaction response instead of trying to get more [information] cuz I feel like a lot of people didn’t like that.” (Youth 1)
More opportunities to practise skills (5; 12%)	4	This refers to participants wanting to practise their skills more and to have more opportunities to work together to improve their skills.	“I think [the skills] should be practised outside, but that would be weird maybe. There should be little assignments, like go talk to people and use empathy statements or something like that.” (Youth 8)
Engage through participant interests (5; 12%)	5	Participants wanted facilitators to connect more with their interests, and to have more concrete examples relevant to their experience.	“I guess if we had more times where they [the facilitators] started building off of interests and curiosity, I guess people would be a lot more interested to answer or ask questions.” (Youth 4)

<sup>a</sup> Number of participants ( $n = 9$ ) who endorsed the category.

<sup>b</sup> Number of incidents; % of 41 overall incidents.

No significant differences were found between the pre- and post-program data in the domains of PYD, consistent with other leadership programs that have examined PYD as an outcome. These studies showed non-significant quantitative results, but clear qualitative benefits (Curran & Wexler, 2017). In regard to the qualitative results, some of the categories seemed to contradict one another; however, it is important to understand that ECIT is about identifying specific incidents from a collective of participants. It is natural that various experiences would resonate more strongly with some participants than others; certain participants indicated that they had experienced both benefit and detriment from engaging with CCI. Their mixed reactions do not mean that the overall experience was problematic. Furthermore, incidents are contextualized to the participant's respective group, and some experiences can be considered group-specific. For instance, there were thematic differences in the experiences of participants who took part in Group 1 compared to those who took part in the other two groups.

Based on the evaluation of Phase 1 of CCI and the integration of the quantitative and qualitative analysis, three main themes can be discerned: (a) importance of connection, (b) value of critical mental health literacy, and (c) clarification of programmatic expectations.

### ***Importance of Connection***

According to the helping, hindering, and wish-list categories, having a sense of connection was vital for the success of the program. Most of the participants described having experiences of safety and comfort. However, some indicated feeling a sense of disengagement and desiring more connection. From the hindering categories, the fear of judgement, disengagement, and discomfort with silence can all be understood as being associated with disconnection and issues with group cohesion. For the program to be successful, it is important to focus on building safety, connection, and group cohesion.

Despite CCI's focus on dialogue and connection, it was interesting to find non-significant SCS-R results that showed a decrease in social connection. This contradicts the qualitative results that indicate positive experiences of the group environment, and valuing being able to share with one another, although it was clear that some participants encountered challenges related to the group environment. The qualitative analysis provides contextualized information that offers a more nuanced understanding of these results. Further analysis indicated that there were challenges unique to one of the groups, which may have skewed the results, with more reported hindering experiences and lower SCS-R scores.

As group cohesion is fundamental to all groups (see Yalom & Leszcz, 2005), it is valuable to have group "buy-in". Based on the evaluation, participants should be self-selected. Potential candidates can be identified by schools, but it must be the candidate's choice whether or not to take part in the group. It may also be beneficial to involve youth with diverse backgrounds and experiences. This is consistent with Curran and Wexler's (2017) review of PYD programs, where the authors suggested that a mixed group of youth can encourage positive peer-to-peer interactions.

### ***Value of Critical Mental Health Literacy***

CCI was facilitated according to principles of Freire's (1970) critical pedagogy that emphasize dialogical as opposed to didactic learning. Participants appreciated being able to link discussion topics to their own lived experiences and learn practical skills to support their peers. They generally found it unhelpful when the program focused on curriculum and didactic learning, as opposed to connecting topics directly to their own experiences. This further highlights the importance of situating topics in a relevant manner and offering space for youth to critically engage with the material.

Learning about helping skills (listening, speaking, and empathy) and engaging in particular topics, such as suicide, were found to be very helpful aspects of the program. In the quantitative analysis, these appeared to impact help-seeking attitudes and knowledge, resulting in significant positive benefits in this domain. The endorsement of these aspects by participants highlights the importance of learning helping skills and having an opportunity to learn experientially. The CCI program has the capacity to facilitate these types of lessons given that facilitators have been trained in and can model helping skills and behaviours. The desire to learn more about mental health and how to manage mental health challenges is consistent with what was endorsed by nearly half the participants in the BC Adolescent Health Survey (Smith et al., 2019, p. 100).

As indicated in the qualitative analysis, certain topics — learning helping skills, and discussing suicide, stress, anxiety, and addictions — were vital to the program. It is important to understand that expecting students to excel in peer support helping skills in a limited time frame is unrealistic. Students may gain some proficiency; however, it is not expected that they will become full-fledged peer support providers. To do so requires further training and coordination with the respective locations; moreover, ethical and legal implications must be considered, and the developmental stage of youth taken into account. Lastly, though Phase 2 (the action phase) of the program was not examined in this study, it could be a potential avenue for continued skill development, critical reflection, and engagement in social action that would further realize the critical pedagogical intentions of CCI.

### ***Clarification of Programmatic Expectations***

As noted earlier, a critical approach to mental health literacy and peer GKT is valued by scholars in the field. However, this approach appeared to deviate significantly from the expectations of the youth regarding these types of programs, as indicated by one participant who had expected the program to be didactic (see “Discrepant program expectations” in Table 5). The participants may have become more accustomed to the banking model of mental health education, which emphasizes didactic learning, rather than the critical pedagogical approach (Freire, 1970). For some youth, the dialogical and experiential approach of CCI appeared similar to group therapy, which seems to have been a more commonly understood frame of reference. The lack of clarity about the intentional differences in how the program was being conducted may have left some participants confused. This shows that, when engaging youth in models of mental health literacy

that deviate from the norm, it is important to: (a) make sure that the administration at implementation sites clearly understand what to expect from the program, (b) explain the program model to potential participants in an information session prior to starting the program, and (c) create pathways for social action even during Phase 1 of the group and facilitate more situated and applied learning.

Table 7. *Revised Core Connectors Initiative Training (Phase 1) Curriculum*

Module	Description
1. Orientation and team building	Overview of CCI. Facilitators foster engagement by building the group and instill a sense of purpose about being part of the CCI program.
2. Mental health overview and stigma	Youth discuss mental health stigma and its impact on themselves and others.
3. How to support a friend	Youth share their perspectives on common social issues that impact youth and explore strategies they can utilize to support a friend.
4. Active listening skills	Youth learn how to utilize active listening and supportive speaking skills. Youth practise these skills as taught by the facilitator.
5. Stress and social media	This module highlights the connection between stress and mental health. Youth are invited to discuss the role of social media in their lives and its influence on well-being.
6. Empathy skills	Building on the active listening skills they have learned, youth hone their helping skills by exploring empathy. Youth practise skills modelled by the facilitator.
7. Anxiety and depression	Youth are provided with information about anxiety and depression and discuss how it relates to themselves and their peers.
8. Identifying support networks and online support	Youth create a visual map of the mental health and general support networks available, either in person or online, within their school and community. They explore strategies for helping others to get support.
9. Addiction awareness and prevention	Youth engage in discussions about addiction, then participate in an exercise to learn what to do to support a friend dealing with addictions.
10. Suicidal ideation and prevention	Youth learn about suicidal ideation through discussions that are facilitated in a sensitive manner. Youth learn the ACT (Acknowledge, Care, Tell) model for suicide prevention.
11. Positive mental health and resilience	This module focuses on well-being and involves exercises that foster mental health. It stresses the importance of connection.
12. Summarization of learning	In this module, material from previous sessions will be reviewed. It is an opportunity to debrief, and to consolidate learning garnered from the training.
13. Celebration	Youth receive a certificate commemorating their completion of the training and discuss the Action phase of CCI.



### ***Implications and Programmatic Changes***

The analysis shows that CCI contributes to enhanced help-seeking attitudes and knowledge, as well as perceived positive connections and skill-building. The study is in line with research that shows that peer leadership GKT can be beneficial for those who are involved as youth leaders (Ohlmann et al., 2014; Walker et al., 2009; Wasserman et al., 2012; Wyman et al., 2010). Uniquely, this study demonstrated the potential benefit of utilizing a critical pedagogical approach to youth mental health literacy and promotion and may have implications for other programs.

Suicide prevention and mental health promotion efforts require a comprehensive approach and cannot be sustained with just one program (Robinson-Link et al., 2019; White, 2016). The study did not examine whether the program can enhance overall suicide prevention within schools and community settings. The effectiveness of peer GKT on the overall suicide prevention within schools and communities continues to be an area that requires more research. Even while such research is pending, there remains a need for continued innovation aimed at promoting suicide prevention efforts, and mental health in youth populations in general.

The purpose of the study was to conduct a formative evaluation on Phase 1 of CCI and to integrate the findings into improving the program. Based on the evaluation, the CCI program was updated to be more relevant and concise (13 modules, rather than 14 as previously, with changes in module themes). The updated Phase 1 program can be found in Table 7. Other programmatic changes included the following: (a) inclusion of an information session for youth prior to starting the program; (b) implementation of the program on a weekend, as opposed to on a weekday after school; and (c) further refinement of logistical processes for program implementation.

### ***Limitations***

There were a number of limitations in this study. The overall research design did not include a control group or assessment of confounding variables; since other variables could not be controlled for, internal and external validity were limited. In regard to the quantitative results, the sample size was small ( $N = 29$ ), and a post-hoc power analysis ( $\beta = .72$ ) indicated that our study was underpowered. As such, there may have been more differences between pre- and post-scores on help-seeking, social connectedness, and PYD than were found in the study. Subsequent studies addressing these limitations are needed to better determine the impact of the CCI.

With the qualitative results, two ECIT credibility and trustworthiness checks could not be completed: exhaustiveness, and cross-checking of participants. Exhaustiveness refers to the saturation of critical incidents that form categories. However, given the time limitations of the CCI program being completed at around the same time the school year ended, it resulted in a limited sample size: participants had agreed to take part in the pilot study during the school year and were not available afterwards. As a result, there may be other helping or hindering incidents that were not represented in this study. Member-checking could not be completed due to the time constraints of the project and difficulty contacting participants after the school year ended.

### ***Conclusion***

Overall, the study shows a promising development effort and highlights a critical approach to peer GKT and mental health promotion and literacy. These types of programs can be empowering and can offer a situated approach that addresses the unique contextual needs of various youth-led communities. Preventive efforts and mental health promotion programs like CCI can play an important role as part of a broader strategy for youth suicide prevention in schools and communities, and can help to address the increasing mental health concerns of youth.

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