Development and Evaluation of a Suicide Prevention Program for Secondary School Students

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Abstract: Adolescent suicide is a major public health concern in many countries, including Thailand, and the importance of suicide prevention programs at secondary school level has been recognized. This is the second paper of a large action research study focused on the development, implementation and evaluation of the Thai Suicide Prevention Program for Secondary School Students, undertaken in collaboration with stakeholders of adolescent peer leaders, students, parents, school teachers and administrators. This involved seven steps: 1) establishing mutual commitment and engaging a core working group; 2) conducting a situational analysis; 3) analyzing problems and needs; 4) designing; 5) implementing; 6) evaluating; and 7) critiquing feasibility. Qualitative data were collected from focus group discussions and in-depth interviews and analyzed using content analysis. Quantitative data was collected using suicide knowledge and attitude questionnaires and analyzed using descriptive statistics, and a t-test was used to compare scores pre- and post-training.

The Program outcomes indicated significant positive change in the scores of the three stakeholder groups in suicide knowledge and attitude compared with the baseline scores. Stakeholder reflections noted that adolescent peer leaders developed leadership skills and parents and teachers learnt how to identify at-risk children. The process described illustrates how nurses can work with communities to improve health and build knowledge regarding suicide and prevention programs for adolescents.

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Introduction

The World Health Organization estimated that 1.2 million adolescents aged between 10 to 19 years died in 2015 – over 3000 every day – mostly from preventable or treatable causes, and suicide accounted for 101,799 deaths.[1] A Thai study of 3,100 secondary students investigating the prevalence of

mental health disorders found that the prevalence of suicidal ideation, suicidal plans and attempted suicide were 2.8, 0.8 and 0.4 respectively.[2] A recent central Thai study of 437 adolescents aged 12-19 years and attending secondary school reported that 20.6% reported suicidal ideation.[3] Of particular concern are the high rates in Chiang Mai, northern Thailand of suicide for all age groups, being the second highest in the country in 2014 and third highest in 2016.[4]

Adolescent suicide has serious impacts not only for the individual but for family and friends, especially the adolescent's peers[5], and results in a substantially increased risk of subsequent suicide attempts.[6] Completed suicide represents a high economic cost to the community.[7] School-based awareness programs have been shown to reduce suicide attempts[8] for example, a European multi-country, randomized control trial of universal, school-based interventions of short duration was found to be effective in preventing adolescent suicide and suicidal ideation.[9]

However, to date there have been no programs specifically targeting suicide prevention with secondary school students in Thailand, and little is known about what constitutes an effective program in the Thai context. This article describes the development, implementation, and evaluation of such a program in a Thai secondary school.

Literature review

Concerns about suicide globally and adolescent suicide in particular are well documented.[10,11,12] High suicide rates in Thailand have led to a number of initiatives to tackle the rising problem although programs specifically targeting suicide prevention with secondary school students in Thailand have not been implemented, and most school-based prevention strategies have been carried out in Western countries.[13,14] Although several research prevention studies overseas have claimed positive results, the methodological rigor of these studies has generally been weak and lacking a theoretical framework to guide implementation, to measure effectiveness, or show evidence of clinical significance.[15,16] These programs are not without their critics,[17] and poorly managed programs in schools are at risk of raising the possibility of suicide among vulnerable young people.[16]

Action research (AR), chosen for this study, was developed by Lewin who was interested in the study of human groups and bringing about change.[17] In the AR process the researcher enters a real-world situation, in this case the school, and aims both to improve it and to acquire knowledge following along a path that unfolds through working with participants on the chosen task.[17] This research was designed so that participants could become active collaborators in shaping the outcomes, a philosophy that is congruent with that of AR. The approach is particularly well suited to knowledge development and has been used in a number of studies where adolescents have been both participants and collaborators.[18,19,20]

Comprehensive suicide prevention programs for adolescents comprise several critical elements that include at primary health level: a) education and awareness, b) screening for a person who at high risk, c) medical treatments, d) psychotherapy, e) continuing care for suicide attempts, f) access to lethal means restriction and g) suicide guidelines for media reporting.[21] The key aspects for the implementation of comprehensive suicide prevention were recognized by the National Action Alliance's Transforming Communities and include "1) Unity—sharing a vision for broad-based support attainment, 2) Planning—a strategic planning process that lays out stakeholder roles and intended outcomes, 3) Integration—multiple integrated use suicide prevention strategies, 4) Fit—activities alignment with context, culture, and readiness, 5) Communication—clear, open, and consistent communication, 6) Data—surveillance use and evaluation data to guide action, assess progress, and make changes, and 7) Sustainability—a focus on long-lasting change".[22(p17)]

In Thailand, previous studies have focused on reducing depressive symptoms among Thai adolescents.[23, 24, 25] Although these programs did not include strategies for preventing suicidal risk behaviors among Thai secondary school students, they were primarily developed and delivered by researchers. A suicide prevention program requires close collaboration among professionals, parents, school teachers, adolescents, and peers because adolescent suicide risk behavior is complex and multidisciplinary input is required. This involves school and community levels in order to implement effective programs which include consideration of risk reduction and enhancement of protective factors related to adolescent suicidal behavior. Research has indicated that the most effective methods for gaining commitment and acceptance is active participation in problem solving. Thus an AR approach[26] was chosen to be the appropriate methodology for developing and guiding the implementation in this study because stakeholder participation is so fundamental to success. This study built on a previous study phase that explored the perceptions of adolescents, teachers, and parents towards causes and prevention of suicide in secondary school students[26], and which included the above mentioned elements recommended by the National Action Alliance.

Study aim

To develop a pilot program on suicide prevention for Thai secondary school students, and then implement and evaluate this in a northern Thailand school.

Method

Design

An AR design[27] was used to focus on empowering adolescent peer leaders to develop a collaborative program to prevent adolescent suicide. The full study comprised three phases: 1) situational analysis of a secondary school students suicide prevention, in-depth interviews with parents, and school teachers, and focus group discussions (FGDs) with secondary school students: 2) collaborating with adolescent Core Working Group (CWG) to develop and implement a suicide prevention program, including revising the plan until the program was appropriate for the school context: and 3) evaluating the program using Suicide Knowledge and Attitude Questions (SKAQ) and group discussion guide questions for evaluating the feasibility and appropriateness following the pilot program: phases 2 and 3 are addressed in this article.

Setting and participants

The research took place at an urban school in Chiang Mai Province, Thailand under the administration of the Ministry of Education. The school provides education from grades 7-12. Participants included 12 CWGs, 165 school students involved in program implementation, and 113 parents, and 60 school teachers who participated in the pilot program.

Ethical considerations

Study approval was granted by the Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University, Thailand (Approval number l #Full-007-2014) and permission obtained from school authorities. The principal researcher (PI) asked all participants >18 years to sign a consent form. For those <18 years, parents or guardians signed this form. Audio recordings were made with permission. Confidentiality was rigorously maintained throughout, for example, to ensure anonymity and confidentiality of participants' information, code numbers were given for names and questionnaires. Had students become distressed they would have been referred to the school counsellor but this was not required.

Data collection

The Thai Suicide Prevention Program for Secondary School Students (TSPPSSS) was developed, piloted, implemented and evaluated between June 2014 and July 2016. See Figure 1. The development and evaluation phases employed both quantitative and qualitative methods.

Situational analysis identified the key components to be included in the Program, and depended on information collected from focus group discussions (FGDs) with 40 secondary school students, in-depth interviews (IDIs) with four parents, and three school teachers as described in previous paper.[26] These key elements were then used to design the program in conjunction with the critical elements identified from the literature and the CWG was consulted about program content and contextual fit at every stage of program development.

Implementation strategies were divided into two parts: 1) preparing the 12 adolescent CWG members by conducting a 6-hour, 1-day workshop comprising ten elements using a participatory approach. Activities included brainstorming and sharing experiences to assist participants to generate ideas in problem solving. Throughout the study the PI acted as a consultant, observer and facilitator to support the CWG implementation team.

Evaluation included the administration of instruments described below, and given to the 12 adolescent CWG members at baseline before starting the program activities and immediately after the program. 2) The adolescent CWG members conducted a campaign of suicide prevention in school with 165 target students in a month of this campaign. In addition a family nurse was invited to conduct 4 training sessions with 113 parents including topics such as understanding adolescent development; parenting styles; parent-teen communication; and managing parents' expectations. In addition, a mental health nurse conducted a seminar on the basics of counseling with 60 school teachers. The SKAQ was given to the 113 parents and 60 school teacher participants at baseline and immediately after the program. In this study measure a suicide knowledge and attitudes that congruent with the results of a systematic overview of adolescent suicide prevention program.[17]

Instruments

Evaluation methods included the Lifeline Pre-Test Questionnaire developed by Kalafat and Underwood in 1989.[28] With the authors' permission it was translated into Thai by the researchers following the WHO procedure for the process of back-translation and adaptation of an instrument.[29] The SKAQ was verified for content validity with three experts in adolescent suicide prevention. The SKAQ comprises 12 items contained within two components: 1) Attitude Questions (AQ) (8 items). Each item is scored on a 4-point scale (1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree). The total AQ score ranges from 8-32. The reliability of attitude based on Cronbach's alpha coefficient was tested with group of 10 adolescents, 10 parents, and 10 teachers and values were 0.74, 0.73, and 0.97 respectively. 2) The Suicide Knowledge Questions (SKQ) component has 4 true-false items. Scoring the form is accomplished by dichotomizing each item into a value of 1 (True answer) or 0 (False answer). The possible score ranges 0-4. The reliability of SKQ based on KR20 was tested with groups of 10 adolescents, 10 parents, and 10 teachers and values were 0.84, 0.74, and 0.75 respectively.

In the evaluation phase, the PI encouraged 12 adolescent CWG members, 30 students, 2 parents, 7 school teachers, 3 deputy directors of the school, and the director of the school to share their experience and ideas for refining and integrating the program into the school curriculum and also for assessing the program's ongoing feasibility and appropriateness.

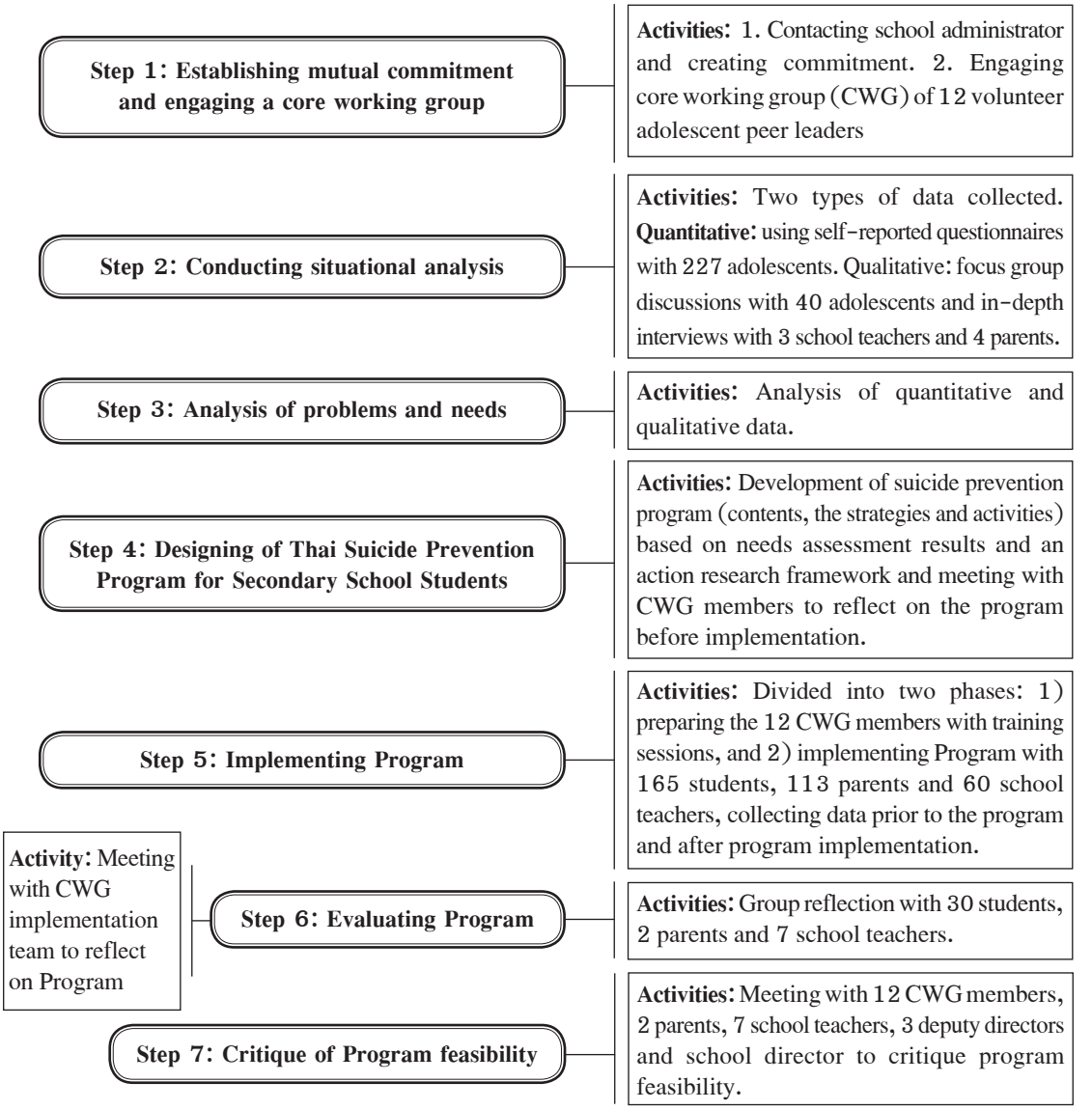

Figure 1: Processes in Action Research Study

Data analysis

Quantitative data were analyzed with descriptive statistics, and a t-test was used to compare scores pre- and post-training. Qualitative data were analyzed by thematic analysis.[30] Data were grouped into categories based on information that emerged from the transcripts. Emerging themes were identified from each category. Co-investigators reviewed the analysis to verify the appropriate of the categories chosen, and the consistency of coding qualitative data that obtained through participatory activity and group discussion.

Rigor and trustworthiness

This was evaluated using principles developed by Lincoln and Guba[31] to ensure study rigor. Credibility was initiated using triangulation and member checking.

Transferability is established by providing evidence that findings can be applicable to other contexts and was achieved through thick data description. Analysis of data was performed in conjunction with the co-investigators and aclear audit trail established to ensure confirmability and transparency.

Findings

These are reported in two sections: TSPPSSS development and design, and feasibility of program implementation.

1.1 TSPPSSS Development and Design

The critical components of a suicide prevention program for secondary school students in Thailand were outlined in a previous paper[26] and were used as the basis for the design of this program and its various elements as recommended by the National Action Alliance.[22] The Program comprises three modules: 1) *Adolescent Peer Leaders' Module* involving four elements: adolescent peer leaders' enhancement for suicide prevention, raising awareness of adolescent suicide prevention, suicide prevention education and fostering mutual support by adolescent peer leaders; 2) *Parents' Module* comprising three elements: raising awareness of suicide prevention, suicide prevention education and fostering mutual support by family; and 3) *School Teachers' Module* composed of raising awareness of adolescent suicide prevention, suicide prevention education and fostering mutual support by school. The adolescent peer leader module was a one-day workshop training for adolescent suicide prevention that included these critical components. The adolescent peer leader module used an "edutainment" approach that included games, role playing, and video clips. Parent and school teacher modules consisted of 3-hour modules that again included the same components and activities.

1. Program feasibility

Program feasibility and effectiveness were evaluated in two ways: (i) quantitatively, including changes in scores of suicide knowledge and attitude and (ii) qualitatively by exploring improving suicide knowledge and attitude, and opinions of the stakeholders regarding program implementation.

The results of quantitative data from piloting this program indicated significant enhancements in the mean scores of suicide knowledge and attitude among adolescent peer leaders, parents, and school teachers immediately after implementation compared to pre-implementation scores. These findings are summarized in Table 1.

Table 1 Comparisons of Mean Scores of Suicide Knowledge and Attitude among Adolescent Peer Leaders (N = 12), Parents (N= 113) and School Teachers (N=60) before, and immediately after Using Program

Participants	Variables	Before training (Mean ± SD)	Post training (Mean ± SD)	t	Sig. (2-tailed)
Adolescent peer leaders	Suicide knowledge (total: 0 - 4)	2.66 ± 0.77	3.33 ± 0.49	2.96	0.013
	Attitude toward suicide (Total: 8 - 32)	22.41 ± 2.01	26.41 ± 2.23	4.12	0.002
Parents	Suicide knowledge (Total: 0 - 4)	2.48 ± 0.98	3.30 ± 0.91	6.38	0.000
	Attitude toward suicide (Total: 8 - 32)	22.16 ± 3.31	27.38 ± 3.22	11.97	0.000
School teachers	Suicide knowledge (Total: 0 - 4)	2.91 ± 0.90	3.60 ± 0.55	5.69	0.000
	Attitude toward suicide (Total: 8 - 32)	22.21 ± 2.88	27.36 ± 2.63	10.91	0.000

*$P < .05$

Regarding qualitative findings, analysis of the experiences of the stakeholders resulted in two themes and two sub-themes as described below. The following abbreviations are used for different types of participants: APL=adolescent peer leader; S=student; ST=school teacher; P=parent

Theme 1: Improving suicide knowledge and attitudes

Peer leaders described an improvement to their knowledge and attitudes after the Program regarding adolescent suicide as indicated in the following quotes:

I learned how to cope with the worst circumstances if I encounter these problems. (APL, 04)

I learned what the risk factors of suicide are and I also realized that a friend of mine is at risk of suicide (APL, 01)

Parents also mentioned that they had improved suicide knowledge and attitudes:

The suicide prevention program for adolescents is a very good research project. I learned how to identify an adolescent who is at risk of suicide. ...I found out about children who were pressured and what the signs of suicide were and about behaviors of children at risk of suicide. (P, 01)

A school teacher indicated that he had improved his suicide knowledge and attitude stating:

This program helps teachers to identify students who are at risk of suicide...also I learned what the causes of adolescent suicide are. (ST, 06)

Theme 2: It's such a great campaign

Stakeholders' opinions about the feasibility of the pilot Program were unanimous in support of it and were divided into two sub-themes:

Subtheme 1: It's feasible

Most of the adolescents' mentioned that the program was feasible to apply in the school setting, with some indicating they had increased confidence and helped other students to seek help:

A campaign of suicide prevention in schools provides adolescent peer leaders with increased confidence; adolescent peer leaders could help other student by telling adolescents to seek help from a trusted adult and giving information about suicide prevention. (APL, 03)

It's such a great campaign. ...I never knew before that when an adolescent has suicided that it affects many people... I learned who I can talk with and where to ask for help. In particular, when I encounter stressful life events, I now can talk with my close friend, teachers, and family. (S, male, 28)

One parent stated that it is:

...a very good research project. This program helps parents to prevent the problem. (P, 01)

School teachers and administrators also supported that the program was feasible to apply in a school setting and the contents of the program covered all the people in the school context. They also recommended that this program be applied in other schools, in other communities.

This is a good program. It is completed as what I have seen. (Director of School)

I think that it is such a good program and it is feasible to apply it in other school contexts. I believe that the program will be a good model for other schools and communities. (Deputy Director of Student Affair Division)

I definitely think that it is possible.... because the contents of the program are created for adolescent peer leaders, ...it targets students, parents, and school teachers. The contents of the program also cover everyone ...it's a good program. (ST,01)

Sub-theme 2: It's appropriate

The participants stated that the program was appropriate and could help their friends, children, and students solve problems. Some also mentioned that it could be integrated into other schools and communities:

> *The program raised our awareness of the problem. Previously, we never thought that suicide was our problem. After the program started, it made me aware, step by step. It is appropriate for our school.* (ADL, male, 01)

> *It is good to start the program at school. ...it is appropriate for high school students. I think it is a good program. The program provides information for students, and also the program was implemented with parents and school teachers. Thus, school teachers could apply this knowledge to help their students. It helps us understand and have a simple access our students. The program is appropriate and beneficial to our school.* (Deputy Director of Academic Division)

> *Adolescent suicide prevention is not an interesting topic for many people to work with because it's a serious and sensitive issue. ...at first when I heard about the name of this project I thought it was an awful and sensitive topic. After I attended the program, I thought that it was a very good project indeed. Even though the rate of suicide is not high in statistics, it may have an impact on many people surrounding our school if someone commits suicide at our school.* (ST, female, 01)

> *Adolescent suicide prevention is a priority. We cannot reach our children. For instance, my child, I definitely think that my child has no problems but he may be faced with some problems. I don't know. They may not be brave enough to talk to us because they are afraid to talk. ...I also wish this program could be integrated into other schools and communities.* (P, 02)

Discussion

This AR study provides evidence of how to successfully design a program and implement a program to improve suicide knowledge and attitudes among adolescent peer leaders, parents, and school teachers. The qualitative data provides insights into how suicide knowledge and attitudes improved from the pilot program, and were integrated into the school setting. As a result of implementing the pilot program, all participants showed improvements in their suicide knowledge and attitudes, and the results of this study were comparable with the results of a systematic overview of adolescent suicide prevention programs.[21]

The program successfully improved suicide knowledge and attitudes among adolescent peer leaders, parents and teachers when baseline evaluation data was compared. The key success factor was the stakeholders' full involvement and participation in the AR process. In regard to the critical components of suicide prevention program as outlined by the National Action Alliance for Suicide Prevention,[22(p17)] the TSPPSSS incorporated these components in the following ways:

Unity—sharing a vision for broad-based support attainment[22(p17)] In this study students created an active collaboration between the PI and the CWG which motivated the group to be actively involved in all steps of AR process of problem identification, planning, implementation, and evaluation.[27] Action research was an effective way of building a shared vision because the strategies used for program development in this study were: raising awareness; promising all participants opportunities to share and discuss and to be listened to; creating partnerships; building capacity; health care personnel involvement; providing consultation and facilitating. The critical components of the TSPPSSS incorporated the ideas of full involvement, democratic process, liberation and emancipation using AR.[32,33]

Planning—a strategic uses planning process that lays out stakeholder roles and intended outcome[22(p17)] Again the process of AR facilitated clarity in delineating

roles for teachers, parents, and adolescent peer leaders. The three modules for adolescents, parents, and school teachers each included the critical components of suicide based on suggestions from the perceptions of these groups regarding the causes and prevention of suicide in secondary school students. The AR processes also involved people from different backgrounds who could identify the related issues and needs amongst the key stakeholders. Conducting a situational analysis in the first stage of the full study among the stakeholders allowed exploration of the critical issues and helped in the development of a suitable program to address stakeholder's concerns. There was an express purpose to encourage parents to raise awareness of caring for their children who were at risk of suicide and related problems, rather than just concentrating on their children's school achievement and study performance. Lastly, the teachers and administrators enabled their support for the whole processes in this study.

Integration— multiple integrated use suicide prevention strategies[22(p17)] This Program built on some strategies of previous ones such as the Lifeline Program and Signs of Suicide (SOS). The Lifeline Program is a school-based suicide prevention program initially developed in 1985 by Kalafat & Underwood[28] and the Signs of Suicide (SOS) was developed by Aseltine & DeMartino in 2004.[13] The major differences from these programs was how they addressed the needs, concerns and the strategies used for development of the Program in this study.

Fit—activities alignment with context, culture, and readiness[22(p17)] Extensive consultation with stakeholders ensured that all the AR processes and program activities were tailored to the school context. They were based on the stakeholders' needs and concerns and developed in a culturally appropriate manner incorporating input from students, parents and teachers as well as incorporating evidence-based interventions and expert clinical advice.

Communication—Clear, open, and consistent communication[22(p.17)] During the project the PI ensured that communication was optimised by holding regular meeting with school administrators, school teachers, adolescent peer leaders, and parents to create mutual understandings by sharing experiences and concerns about adolescent suicide risk behaviors and suicide prevention in schools. The adolescent peer leaders committed themselves to be as members of the CWG while the school provided practical support, and the PI took on the role of a facilitator by providing technical support throughout the study, recording discussions and taking responsibility for overall coordination.

Data—surveillance use and evaluation data to guide action, assess progress, and make changes[22(p17)]. Qualitative and quantitative data were collected through out to identify risk and protective factors and project effectiveness and feasibility, and make necessary changes along the way. An evaluation of the outcomes of the program was conducted, using both quantitative and qualitative data.

Sustainability—A focus on long-lasting change[22(p17)] There was a long-term aim of implementing it with ongoing support from the pilot site, and then rolling out the Program to other schools in Thailand using the learning from the pilot. It is hoped that all participants use the skills and knowledge gained to provide a supportive environment in terms of school policy and action plans to enable adolescent peer leaders to continue their roles as leaders for effective adolescent suicide prevention in the school.

Limitations

Evaluating the efficacy of school-based preventive interventions of suicidal behaviours is problematic because of the number of variables involved. Secondary school students who had attempted suicide or who were at risk of suicide were not including in this study so valuable learning from their experiences was a limiting factor. Also, this study had limitations in the evaluation of outcomes. Suicide knowledge and attitude among the participants were measured only in those who

attended the program and the long-time effects of the program have not yet been assessed: this is a common difficulty for adolescent suicide prevention programs because of issues of confidentiality. However, the Program was positively evaluated by stakeholders and succeeded in the short-term to raise awareness and assist parents and teachers to identify at-risk students.

Conclusions

The TSPPSSS is preliminary program that needs further testing. However, it can be used as a framework for nurses and other health professionals for implementing with adolescents who have been recognized as being at-risk of suicide. In a more general way it can be useful to enhance protective factors as well as good partnership with both families and schools, so as to promote adolescent mental health. Understanding the complex interaction among the social, cultural and environmental factors that contribute to adolescent suicide risk behaviors by applying an AR approach was very helpful in this study, and preliminary results study successfully demonstrated that the suicide prevention for secondary school students was effective in its aim to promote suicide awareness and knowledge. The key outcomes and actions of the adolescent peer leader group included enhancing their leadership skills, raising the awareness of the school students, providing a suicide prevention education and fostering mutual support. For the parents' and teachers the key actions included raising awareness, education and fostering mutual support by family or within the school. To determine its effectiveness and possible modification in future, the TSPPSSS should be tested in future research in other settings and tailored to address different school contexts.

Implications for Nursing Practice and Research

This study demonstrated that a group of nurses can perform a vital role in universal suicide preventive intervention in schools, and that nurses can work to enable collaboration between schools, families, and health care professionals to adapt an appropriately program for this population. Furthermore, nurses need to be involved in such research if health promotion and primary prevention strategies are to succeed for the benefit of adolescent mental health and suicide prevention. Nursing involvement in the design and ongoing implementation and evaluations of programs using context-specific studies such as this can be very useful to addressing health issues such as depression, sexual health, and substance use.

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การพัฒนาและประเมินผลโปรแกรมการป้องกันการฆ่าตัวตายสำหรับนักเรียนระดับมัธยมศึกษาตอนปลาย

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บทคัดย่อ: การฆ่าตัวตายในวัยรุ่นนับเป็นปัญหาที่สำคัญทางด้านการสาธารณสุขในหลายประเทศทั่วโลก รวมทั้งประเทศไทยและการป้องกันการฆ่าตัวตายสำหรับนักเรียนในระดับชั้นมัธยมจึงมีความสำคัญเป็นอย่างยิ่ง การศึกษานี้มีวัตถุประสงค์เพื่อพัฒนาและประเมินผลโปรแกรมการป้องกันการฆ่าตัวตายสำหรับนักเรียนมัธยมศึกษาตอนปลายที่สอดคล้องกับบริบทของสังคมไทย การวิจัยเชิงปฏิบัติการ (Action Research) โดยอาศัยการมีส่วนร่วมของผู้มีส่วนได้ส่วนเสีย ได้แก่ นักเรียนชั้นมัธยมศึกษาตอนปลาย ผู้ปกครอง ครู และผู้บริหารของโรงเรียน ประกอบด้วย 7 ขั้นตอน ได้แก่ 1) การสร้างความร่วมมือ พันธะสัญญาและการจัดตั้งกลุ่มคณะทำงาน 2) การประเมินสถานการณ์ปัญหาและความต้องการ 3) การวิเคราะห์สถานการณ์ปัญหาและความต้องการ 4) การพัฒนาโปรแกรม 5) การนำโปรแกรมไปใช้ 6) การประเมินผลลัพธ์ของ โปรแกรม และ 7) การวิพากษ์ความเป็นไปได้ของ การนำโปรแกรมฯ ไปใช้ การรวบรวมข้อมูลเชิงคุณภาพประกอบด้วย การอภิปรายกลุ่ม และการสัมภาษณ์เชิงลึก และวิเคราะห์ข้อมูลเชิงคุณภาพโดยใช้วิธีวิเคราะห์เชิงเนื้อหา การเก็บรวบรวมข้อมูลเชิงปริมาณโดยใช้แบบสอบถามความรู้และทัศนคติเกี่ยวกับการฆ่าตัวตายและวิเคราะห์ข้อมูลโดยใช้สถิติแบบบรรยาย และวิเคราะห์ด้วยสถิติ T-test เพื่อเปรียบเทียบค่าเฉลี่ยของคะแนนก่อนและหลังการให้โปรแกรมฯ

ผลลัพธ์ของการนำโปรแกรมไปใช้กับนักเรียนแกนนำ ผู้ปกครองและครู พบว่า คะแนนของความรู้เกี่ยวกับการป้องกันการฆ่าตัวตายและทัศนคติเพิ่มขึ้นเมื่อเปรียบเทียบกับคะแนนของความรู้ก่อนนำโปรแกรมไปใช้ อย่างมีนัยสำคัญทางสถิติ และผลจากการสะท้อนคิดของผู้เข้าร่วมโปรแกรม เห็นว่า นักเรียนแกนนำได้พัฒนาศักยภาพของการเป็นผู้นำและความคิดสร้างสรรค์ในการรณรงค์การป้องกันการฆ่าตัวตายในโรงเรียน ผู้ปกครองสามารถสังเกตพฤติกรรมเสี่ยงต่อการฆ่าตัวตายของบุตรหลานวัยรุ่นได้ และครูได้นำความรู้ที่ได้ไปประเมินพฤติกรรมเสี่ยงต่อการฆ่าตัวตายและให้คำปรึกษาได้ จากกระบวนการวิจัยเชิงปฏิบัติการครั้งนี้เป็นหลักฐานเชิงประจักษ์พบว่าพยาบาลสามารถที่จะทำงานในการส่งเสริมสุขภาพและสร้างองค์ความรู้ร่วมกับโรงเรียนและชมชนได้

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