CHAPTER 3

Methodology

The research methodology is provided with detailed description of the research design, the research setting, and the research participants followed by the research instruments. This chapter also presents the methods of data collecting procedures, the procedures of participatory action research, ethical considerations, rigor of study, as well as data analysis procedures.

The Research Design

The participatory action research (PAR) design was used with the ultimate goal of inquiring the critical components of a depression prevention model suitable for Thai adolescents throughout a genuine and non-coercive process which involves listening to adolescents, parents and teachers views and so recognizing their value and equality. The PAR approach (Kemmis & MaTaggart, 2007) sufficiently empowered adolescent, parent, and teacher participants to create their networks of openly rational debate communication and acting regarding depression prevention through a spiral of self-reflective cycles that guided by their perspectives and experience to cooperative identify critical components of depression prevention to develop a depression prevention model for Thai adolescents.

The Research Setting

Lamphun province, northern Thailand, was purposively selected to be the research area because its incident rate of depression was the highest in Thailand in 2008, 2009, 2011, ranked second in 2010, and ranked fifth in 2013 (DMH, MPH, 2016). Specifically, the prevalence of current depression has recently increasing in selected district, Lamphun province during 2008-2013 (Mental Health and Psychiatry Division, Mae Tha Hospital, 2013). The participants were also purposively selected from a selected district in Lamphun province which has the highest population level, 10,961

people. Hence, the selected setting provided support resources during every phase of this study. Most of the people practice Buddhism, are religious, and maintain the Northern Thai Buddhist practices associated with the local traditions, cultures, and beliefs. However, their lifestyles changes resulting from working as factory worker in the industrial district of Lamphun instead of at home as in the past. Teachers and parents in this community were concerned that their community members did not have enough quality time for their families leading to the disruption of family structure, such as divorce and separation problems, and in turn causing stress, depression, and suicide. Teachers and parents were willing to be volunteers and let adolescents participate in this study. The adolescents, parents, and teachers living in the selected district of Lamphun province, Thailand were eligible to volunteer to participate in this study.

Research Participants

The research participants of participatory depression prevention model development comprise three main groups: adolescents, parents, and teachers, all living in selected district, Lamphun province, Thailand, who volunteered to participate in this research in order to develop a participatory depression prevention model. The details are described below.

Adolescent Participants

The adolescent participants aged between 10 and 14 years old comprising adolescents who participating in depression risk assessment, adolescents who participated as informants and co-researcher, as well as adolescents who participated in the model feasibility evaluation.

Adolescents who participated in the depression risk assessment were 197 (98 males and 99 females). There were 26 eligible participants from the primary school aged between 10 and 11 years old and 171 adolescents eligible participants from the secondary school, aged between 12 and 14 years old. Twenty of them (seven males and 13 females), which comprise of 10 adolescents from the primary school, and 10 adolescents from the secondary school, who participated as informants participated in critical components identification. Six of them had depressive experiences (depression

score greater than 15 on the Children Depression Inventory (CDI) scale mean=13.95, SD=8.36). Fourteen adolescent participants had a depression score less than 15. Two of them took responsibility as facilitators for co-planning, creating, and subsequently became co-researchers worked throughout the entire process of research study. Six adolescents who participated in the model feasibility evaluation which comprised of two girls from the primary school and four girls from the secondary school to participate in the model feasibility evaluation.

Parent Participants

The parent participants living with adolescents took significant roles in parenting during the studying period. There are parents who participated as the informants and parents who participated in the model feasibility evaluation. All of them had experience related with depression and suicidal problems, such as depression and suicidal problems in their families and community.

Five parents were willing to be informants as interviewers and participated in the focus group discussions in order to identify the critical components of depression prevention model for adolescents. Two of parents becoming the research team participated in the meeting for co-planning during the model development. Six mothers took part in evaluating the parents' handbook on depression prevention for Thai adolescents during the model feasibility evaluation.

Teacher Participants

The teachers who were teaching full time, three teachers from the primary school, and four teachers from the secondary school of the adolescent participants. They had significant roles as advisory or guidance teachers for adolescents. Some of them had experienced related with depression and suicidal problems such as suicidal attempts, taking care of person with emotional problem, depressive disorder, and suicidal attempts. In this study, the teachers participating as the informants, the co-researcher, and the teachers who participated in the model feasibility evaluation.

Seven teachers participating as the informants were required to identify critical components of depression prevention for adolescents. Two of them consequently became significant co-researchers that worked together with the researcher such as co-planning, collaborative operating, co-creating, and facilitating throughout the entire process of research study. Five teachers who participate in model feasibility evaluation included two teachers of the secondary school (one male, one female) agree to be the trainers for the depression prevention model feasibility evaluation, as well as three teachers evaluated the teachers' handbook on depression prevention in adolescents.

Research Instruments

In this participatory action research approach, the researcher obtained both qualitative and quantitative procedures. The research instruments and their quality are described as follows:

A: Instruments Used for Quantitative Data Collection

The instruments used for quantitative data collection consisted of the demographic data interview protocol and four self-reports:

1. The demographic data interview protocol developed by the researcher. Adolescents' demographic data interview, includes gender, age, and problems related to depression, such as parent's marital status, loss of the loved one. The parents and teachers demographic data includes gender, age, and educational background.

2. The Children's Depression Inventory (CDI) is a self-report measuring three frequencies of depressive experience screening among children and adolescents (age < 15 years). It includes the 27-item measure and three choices, consisting of 13 negatively-worded items and 14 positively-worded items. Scoring 0 "absence of symptom" to 2 "definite symptom"; total scores range from 0 – 54; the scores greater than 15 on the scale as a cut-off for significant depression. The CDI has Cronbach's reliability alpha coefficient = 0.83, sensitivity = 78.7%, specificity = 91.3%, and accuracy = 87% (DMH, MPH, 2013). The testing reliability of the scale was conducted in 15 samples (6 boys, 9 girls) of adolescents aged between 10 and 14 years old in Chiang Mai province. The reliability coefficient of the scale is at 0.75.

3. Rosenberg Self-esteem Scale is an ordinal rating scale measuring four frequencies of social adaptation. It is a measure of an individual's global perception of his or her self-worth, and endorses the view of self-esteem being a unidimensional construct. Tungjitpakdeesakul (2003) developed a Thai version of this scale includes a 10-item list which are answered on a four point scale ranging from strongly agree to strongly disagree; consisting of five negatively-worded items and five positively-worded items. The scale ranges from 0-30; scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem. The content validity scale shows Cronbach's alpha coefficient at 0.6728 (Tungjitpakdeesakul, 2003 cited in Phatthrayuttawat, 2013). The testing reliability of the scale was conducted on 15 samples of adolescents aged between 10 and 14 years old in Chiang Mai province. The reliability coefficient of the scale is 0.82.

4. The Resilience Inventory was developed based on the resilience concept of Edith Henderson Grotberg (1997; 1999; 2001) by Nintachan, Vanaleesin, Sanseeha, and Thummathai (2011). The scale has 28 items on the list and are answered on a five-frequency rating scale ranging from strongly agrees to strongly disagree; it is a measure of three components: *I have, I am*, and *I can*. The scale ranges from scores between 28 and 140 which are within normal range; high scores suggest high resilience and shows Cronbach's alpha coefficient = .79 (Nintachan et al., 2011). The testing reliability of the scale was conducted on 15 samples of adolescents aged between 10 and 14 years old in Chiang Mai province. The reliability coefficient of the scale is 0.85.

5. The Problem Solving Inventory is an ordinal rating scale measuring six frequencies of three types of problem solving, including problem solving confidence, approach-avoidance style, and personal control. The Problem Solving Inventory includes 35 items consisting of 14 negatively-worded items and 21 positively-worded items. Lower scores show better performance in problem solving. The Cronbach's alpha coefficient shows at 0.72-0.85 (subscale) and .90 (total scale) respectively (Ngamthipwattana et al. as cited in Phatthrayuttawat, 2013). The testing reliability of the scale was conducted on 15 samples of adolescents aged between 10 and 14 years old in Chiang Mai province. The reliability coefficient of the scale is 0.70.

B: Instruments Used for Qualitative Data Collection

The identification of problems and critical components mainly assesses the needs regarding depression prevention and acquiring knowledge, along with strategies to protect Thai adolescents from depression. Particularly, qualitative data collection used focus group discussions and in-depth interviews including brainstorm meetings during the model development process. The reliability of all qualitative data depends on the quality of the researcher who serves as the instrument to conduct the entire process of the PAR procedures. They are described as follows:

The researcher serving as the instrument: according to the participatory action research approach, the researcher served as the instrument throughout the process of data collection, since the researcher has to establish contact and build trust with local organizations, schools and community administrators. The researcher conducted in-depth interviews, focus group discussions were used to obtain significant data on depression prevention among participants, with data analysis and synthesizing based on the researcher's reliability and validity. Additionally, the researcher trained participants who work as co-researchers in order to understand the process of research, observing, recording, data analysis, mind mapping, project writing, and roles and functions, of the leader and the facilitator of the group activities.

In-depth interview guideline: the guideline developed by the researcher based on the aim of this study was reflecting on what the critical components of depression prevention for Thai adolescents were. The questions led to establishing what and how to protect adolescents from depression, what the essential strategies are. The researcher prepared the initial questions and guided the further probing to be used to in-depth interviews with adolescents, parents, and teacher participants (Appendix D).

Focus group discussion guideline: the guideline developed by researcher based on the aim of this study was to reflect and identify what were the critical components of depression prevention for Thai adolescents. The questions led to share experiences among participants and establishing what needs to be done regarding depression prevention, what the essential strategies are and how to protect adolescents from depression. The researcher prepared the initial questions and guided further probing to be used to discuss and summarize with adolescents, parents, and teacher participants (Appendix D).

Group meeting guideline: the guideline developed by researcher. The group meetings with participants focused on how to assess the depression risk and how to enhance the self-esteem which is crucial to the protection of adolescents from depression. The researcher developed the main questions guiding the subordinate questions and the probing which was used during the brainstorming. The questions devised led to critique, discussion, and summarization about what needed to be done to enable sustainable depression prevention intervention for adolescents. Additionally, the researcher conducted discussion by asking such questions about the processes of planning, acting, and reflection, carrying on discussion and activities undertaken by the participants' views.

Methods of Data Collecting Procedures

The methods used in the study included survey, group meeting, focus group discussions, and in-depth interviews. The methods of data collecting procedures can be described as follows:

Survey

This method aims to assess depression risk among adolescents in the target group, aged between 10 and 14 years old. The researcher and the teachers who were co-researchers coordinated to assess the depression risks using the Children's Depression Inventory (CDI), Rosenberg Self-esteem Scale, the Resilience Inventory, and the Problem Solving Inventory, involving 197 adolescents aged between 10 and 14 years old. In post PDP model development, the adolescent participating the model

development (13 females and six males) received assessment of depression risks through four self-reports again. During the model feasibility evaluation of the pre-post PDP model implementation, six adolescents obtained assessment of the depression risks (see Chapter 4).

Focus Group Discussions

This method aims to investigate critical components of depression prevention, strategies, and means to protect adolescents from depression. The researcher and the co-researchers cooperated and conducted four focus group discussions with each participant group which comprised of a group of teachers (1 male and 4 females); a group of adolescents aged between 10 and 11 years old (5 males and 5 females); and a group of adolescents aged between 12 and 14 years old (1 male and 9 females); and a group of parents and teachers (2 males and 3 females). Each session involved six to ten participants and took 90-120 minutes. The participants enjoyed the informality and the warmth generated by sharing their opinions about depression prevention implementation.

In-Depth Interviews

This method aim to identify critical components of depression prevention, strategies, and means to protect adolescents from depression. The researcher conducted 17 in-depth interviews with eight adolescents (4 males and 4 females); one father and two mothers; four teachers (females) and two school administrators (1 male and 1 female). conducted with eight adolescents, one father, two mothers, four teachers, and two school administrators. Each session took 45-60 minutes, depending on the availability of voluntary participants. The atmosphere created was friendly and acceptance was fostered, enabling trust and cooperation to generate a rich discussion. In addition, the researcher conducted in-depth interviews with key participants who have experience related to the risks of depression and experience of managing the troubled situations for depression prevention implementation.

Group Meetings

This method aim to validate the critical components of depression prevention, strategies, and means to protect adolescents from depression. Additionally, the researcher and the research team set a cooperative plan, with an aim of planning and working collaboratively through planning, acting and observing, reflecting and re-planning over and over until participatory depression prevention model was settled. The 32 participants comprising 20 adolescents, five parents, and seven teachers who volunteered to collaborate and participate in this study. They were willing to fully participate in the whole process of this study and were committed to cooperative development of the depression prevention model. The researcher encouraged them to conduct group meetings during problem and critical component identification, model development, and model feasibility evaluation.

Procedures of Participatory Action Research

The researcher established trust and collaboration with local organizations and schools and community leaders in order to provide clarification of the significance of the research problem, the research purpose, processes and participant recruitment strategies. The researcher generated the discussions about the significance of depression prevention and how depression negatively affects people, including suicide problem in their community. Then, free time was made available to discuss a variety of issues between the researcher and the participants, leading to mutual understanding and building of relationships.

Regarding the preparation of the research team, the researcher announced the opening period for the applications to join this study. Then, the researcher's home visit along with the guidance teachers and the participants to discussed about how depression and suicide problem negatively affects people in the community. This positive atmosphere helped promoting the information sharing, understanding, helping, trust, which allowed the research team to be set up and collaborate in the entire research process of depression prevention model development.

In total, the eleven participants consisted of four teachers, five adolescents and two parents who volunteered to take part in the research team. Four teachers and two of the adolescents acted as co-researchers. Then, the research team worked on the participatory depression prevention model development cycle, namely 5Ps: 1) problem identification, 2) planning to collaboratively identify appropriate solution, 3) production of essential media and materials, 4) putting plan into action, and 5) propose depression prevention model (Figure 3-1).

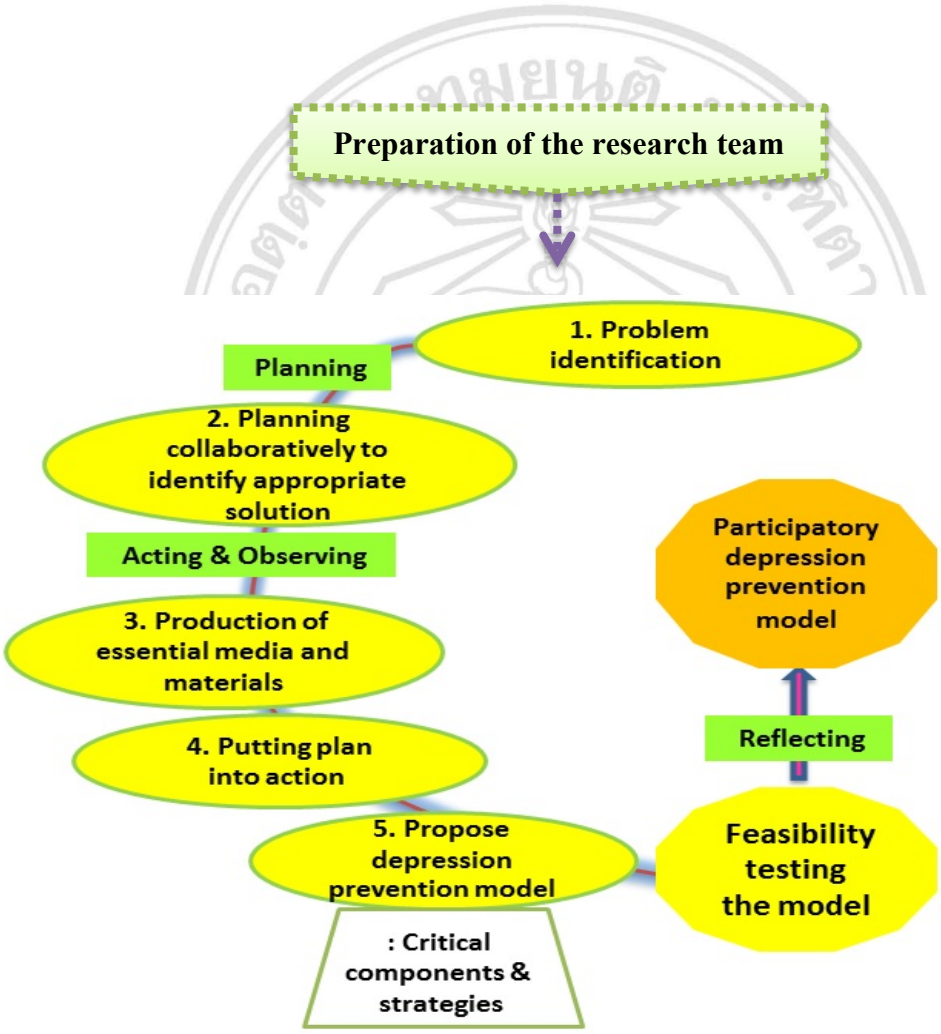

Figure 3-1. The cycles of participatory depression prevention model development

The development of depression prevention model for Thai adolescents involved a spiral of self-reflective cycles (plan, act, observe, and reflect), namely 5Ps and methodology of the participatory action research are described as follows:

Problem Identification

The main concern of this phase is on problem identification, such as the depression risk factors associated with increased risk of depression in adolescents and a consensus on identifying the critical components of depression prevention model. Between August and September 2013, after the participant recruitment, the researcher and the co-researchers collaboratively conducted a survey of the depression risks in the adolescent target group, and an assessment of the depression risk through four self-reports, involving 197 adolescents aged between 10 and 14 years old. It was found that 34.01 % (n=67 or 31 males and 36 females) of them were susceptible to risks of depression. Although 74.11% had strong resilience, 58.88% had low self-esteem while 47.72% had weakness in problem solving. The age that was the most vulnerable to depression was found to be 12 years old (45.16%), with particularly higher risks among females (29.03%). With regard to the male participants, compared to those of 12 years old, the susceptibility to depression was higher among those of 13 years old (19.10%).

Planning Collaboratively to Identify Appropriate Solution

Between October and November 2013, the researcher and the co-researchers cooperated and conducted four focus-group discussions with each participant group comprised of one group of teachers, two groups of adolescents aged between 10 and 11 years old and 13 and 14 years old, and one group of parents and teachers. In addition, the researcher conducted 17 in-depth interviews with eight adolescents, one father, two mothers, four teachers, and two school administrators, which generated a rich discussion leading to deeper information regarding problem behavior issues and emotional difficulties.

Three critical components were identified as 1) early detection of depression risks among adolescents, 2) self-worth enhancement activities for depression prevention, and 3) effective communication regarding depression prevention (the detail is in Chapter 4). Later on the researcher and co-researchers arranged the group meeting with an aim to draw feedback, discuss, and reach a consensus on critical components of depression prevention model, which were sufficient to the further development of depression prevention model.

Production of Essential Media and Materials

This stage focuses on the aim of creating activities and depression prevention media based on critical components. Afterwards, a new body of knowledge of depression prevention model was reframed. The researcher facilitated and empowered 29 participants, including 11 adolescents, two parents, two psychiatric nurses, 10 teachers, one monk teacher, two school administrators and one Deputy Chief Executive of the Sub district Administrative Organization to collaborate and arrange the group meeting under the project *named Think, Speak, and Act in the good way to refrain from depression* on January 9th, 2014.

There was collaboration with other experts in the community in developing plans for workshop training to facilitate adolescents' and teachers' co-creation of the activities and media through group meetings to develop depression prevention model. Adolescent and teacher participants were trained to work as staff in group meetings with necessary skills such as note-taking, data entry, categorizing, problem solving, and project writing and management. The production of activities and media for depression prevention consisted of three creative teams: 1) the depression risk assessment tool, 2) the electronic (e)-books, and 3) the activity creation.

The researcher and co-researchers collaborated and organized the group meeting to stimulate essential knowledge and workshop training for the creation of activities and media, such as conducting in-depth interviews and discussions among key participants who have experienced related to the risks of depression and experience of managing troubled situations, leading to the creation of the scenarios for self-esteem enhancement and problem solving skill training. The researcher and the team shared opinions and

discussed again about each critical component of depression prevention, and added details for better media and activity preparations for depression prevention implementation. The activities and the media were designed and presented as follows:

Depression risk assessment tool. The tool creation team and the researcher created the depression risk assessment tool based on the findings. The characteristic risk factors to depression in adolescents were identified, verified and confirmed through group discussions and reviews under the participant's experience. The researcher and the team considered suitable format and design for the adolescents who could detect depression risk by themselves. Ultimately, the depression risk assessment tool was revised to be the depression risk assessment card (cartoon version) which is easy and convenient to use.

Depression prevention electronic books. The researcher and e-book production team prepared the handbook's content based on critical components of depression prevention model for Thai adolescents. After reaching a consensus on the main contents, the researcher and the team collaborated and arranged the training workshop e-books for adolescent depression prevention project on March 28th, 2014 at the Faculty of Nursing, Chiang Mai University.

Fifteen participants consisted of 11 adolescents, two parents and three teachers discussed in two issues: 1) how interesting the e-book is to the readers, and 2) what contents of handbooks on depression prevention for Thai adolescents are. The researcher and co-researchers facilitated and empowered the research team for collaborative design, and contributed the media based on the critical components of participatory depression prevention model.

Activity creation. The researcher and the activity creating team collaboratively created games, activities and the Facebook Pages under the name "Friend Pages." This name came from participants' reflection on the collaboration in development of depression prevention. The researcher trained adolescent and teacher participants for the role as Page Administrators ("Admin") so that they can continue to operate independently within their place to share and communicate about depression prevention.

Thereafter, the researcher and the research team discussed feedback and considered suitable format and design of activities and media through the group meetings. Providing easy access and practical usage, all of media and activities should be highly favored, easily accessed online and practiced through self-directed learning. The adolescents, parents and teachers should apply to prevent depression by themselves. Therefore, *Facebook Friend Pages* was used to distribute information regarding depression prevention activities on how to cope with problems related to depression. Eventually, a depression risk assessment card, the electronic-handbooks, and the activities were designed and created (Chapter 4).

Putting Plan Into Action

The aim of the model feasibility evaluation is to assure that the model of the participatory depression prevention was suitably designed. The researcher and the co-researchers collaboratively prepared model feasibility evaluation by creating tentative activities for depression prevention implementation through the group meetings and via online social network. There was collaboration in arranging a schedule and a plan of the participatory depression prevention (PDP) for Thai Adolescents workshop project for the model implementation (Appendix D).

The researcher and the co-researchers worked on two tasks: 1) outline suitable activities and others worksheet, and 2) prepare possible PDP trainer team. The researcher and the co-researchers facilitated and empowered the research team in creating and improving the problem solving scenarios, such as dealing with stress, a drunken father, a gambling mother, cyber bullying and love issues. The depression prevention guide for training was ensured with practical application for PDP implementation through the group meetings. The adolescent research team was trained to facilitate the work as staff in the model implementation, such as taking the role of leader and co-leader in activity arrangement, as well as using the tools and activities for self-worth enhancement.

Then, the researcher prepared two teachers (male and female) who agreed to be the trainers of the PDP model implementation. The workshop project on participatory depression prevention *(PDP)* with six girl adolescent participants for model feasibility

evaluation was collaboratively arranged on August 2nd, 2014. The teachers volunteered to be the trainers and the adolescent research team implemented activities of five sessions within eight hours, which led to the understanding of the key concepts for depression prevention, the practice of the depression risk assessment, and the skill training to minimize the risk of depression, enhance self-esteem and promote problem-solving skill through media and activities.

Propose Depression Prevention Model and Test Model Feasibility

The researcher and the co-researchers arranged group meetings with the aim of obtaining feedback and result of PDP model evaluation. The content of expert training handbooks was reconsidered and revised by the research team. All activities were improved in accordance with the consensual summary feedback from the research team. Ultimately, participatory depression prevention model was proposed. The tasks and outcomes of participatory depression prevention model development are described in Table 3-1.

Table 3-1

Development of Participatory Depression Prevention Model

Phases	Purpose	Participants	Methods and Activities
Preparing the research team	1. To understand the objectives of study. 2. To reach consensus on depression prevention for adolescents.	school teachers, administrators, parents and adolescent	1. Group meeting: talking with the administrators, school teachers, adolescent and parents. 2. Group meeting and home visit concerning depression prevention.
1. Problem identification	To identify problems.	197 adolescents	Survey using four self-reports: *1) CDI, 2) Rosenberg Self-esteem Scale, 3) The Resilience Inventory, 4) The Problem Solving Inventory*
2. Planning collaboratively to identify solutions	To identify appropriate solutions /critical components.	20 adolescent, 5 parents, and 7 teachers	1. Focus group discussions 2. In-depth interviews 3. Group meetings
3. Production of essential media and materials	To create activities and strategies: 1) Early detection of adolescent depression risks	5 adolescents, 2 parents, and 2 teachers	1. Group meeting for creating depression risk assessment tool.
	2) Self-worth enhancement activities	9 adolescents, 2 parents, and 3 teachers	2. Group meeting for enhancing self-esteem, problem solving, and relaxing training.
	3) Effective communication regarding depression prevention.	5 adolescents, 2 parents, and 3 teachers	3. Group meetings: development of handbook, e-book, online Friend Pages for depression prevention and e-book training workshop.
4. Putting plan into action	To determine plan for model implementation.	16 adolescents, 2 parents, and 6 teachers	Group meeting for planning model implementation.
5. Propose model and feasibility testing the model	To evaluate the model feasibility.	Research team: 6 adolescents, 6 parents, and 3 teachers	1. Evaluation of pre-post model implementation using four self-reports: *1) CDI, 2) Rosenberg Self-esteem Scale, 3) The Resilience Inventory, 4) The Problem Solving Inventory.* 2. Group meeting for reflection and model revision.

Ethical Considerations

This study has been approved by the Research Ethics Committee, Faculty of Nursing, Chiang Mai University (Appendix A). After, the Chief Executive of the sub district administrative organization, school administrators granted the permission to be conducted within their community. The researcher provided information to all participants regarding the main purpose of the study, interventions, including the benefits and risks to their adolescents and people in the community. All of adolescent participants received permission from their parents to participate in this study. They were informed of their right to refuse to participate or to withdraw from the study at any time, with no effects to their health care, hospitalization, government, school or community services. A number code was assigned to each participant for use in all transcriptions, and the voluntary participants were assured that all information was kept confidential and presented without individual identifying detail (Appendix B).

Data Protection Act also covered the reflective research diary, which meant that information records were treated as confidential. The participants' reflective opinions would be presented anonymously; identifying information would be removed in the quotes presented. Then written consents were given to teachers, adolescent and their parents who were willing to be participants and had signed the written protocol consent and assent documents (Appendix C). The researcher would take care and provide supportive counselling to any participants with psychosocial problems that caused them to feel sad and anxious during the course of the study. If any of the participants had psychiatric problems and needed treatment, the researcher would refer them to the hospital.

Rigor of Study

The methods were used to enhance the credibility of this study (Cohen & Crabtree, 2009; Loh, 2013; Speziale, 2007) include the following.

Triangulation

In this study triangulation was used to verify the findings through multiple data collection methods. The interview transcriptions, data from in-depth interviews, and focus group discussions were used to identify the critical components of the depression prevention model for Thai adolescents.

Audit Trail

The researcher wrote the field notes for observations, thoughts, and actions and lessons learned at each phase. Audit trail also included digital recordings, which provided enough information associated with the study, and the notes with a brief chronological index made each day of the study. These were used to review what had been done, and served in considering the alternative plans for future conduct. Additionally, the reflective research diary provided the researcher with assurance of the research credibility throughout the process of study, since it provided reflection on the research methodology and views about the data gathered in the real-time setting. Some of the activities which were planned in the research proposal resulted in changes of activities and adjustment of the approach adopted to achieve the study's objectives and engage suitably with each participant group. Moreover, the advisory panel also checked through discussions for confirmation.

Data Analysis Procedures

In this study, data were analyzed in order to acquire the essential components for protecting adolescents from depression and described factors related to the outcomes of depression. Therefore, both quantitative and qualitative data analysis approaches were used. They are described as follows.

Quantitative Data Analysis

The descriptive statistics was performed for the analysis of voluntary participant's demographic data and each self-report of the depression risk assessment. Demographic data were analyzed using the descriptive data analysis including frequencies, means, and percentages. The depression risk assessment which is the data related to outcomes of four scales: the depression experience, self-esteem, resilience, and problem-solving were analyzed by using the descriptive data analysis that includes frequencies, means, standard deviations, and percentages. The Chi-square test was used to compare the outcomes of depression in adolescent research team participants and the end of model development. Additionally, it was also used for comparison of the outcomes in adolescent participants at the two weeks of the feasibility evaluation phase.

Qualitative Data Analysis

Qualitative data were analyzed using content analysis (Miles, Hubeman, Saldaña, 2014). Beginning with the data from the digital recorder which was transcribed in the form of participants' verbatim accounts which were brought back to participants in order to proofread and verify them. Prior to the data analysis to discover what critical components of depression prevention for Thai adolescents, the researcher carefully reviewed the verbatim transcriptions for extracting significant statements by means of transcribing the interviews with each individual participating, focus group discussion, and the reflective research diary note to gain better understanding. Key words were underlined and significant direct quotations from the participants' speech were highlighted in the right-handed column of each transcription page.

The transcriptions were read repeatedly till the content became familiarized to the researcher and transcribed statements found similar were assessed for meanings, made concise, and gathered in codes before being grouped and sorted into categories with the aim to discover critical components for preventing the adolescents from depression. In order to ensure trustworthiness, the main components were identified, verified, repeated, and confirmed through member checking by selected participants during the group meeting. Then, the researcher gathered, clarified, and generated the themes from the meanings of subthemes (Table 3-2). Finally, the findings were integrated into a comprehensive description and audited by the advisory panel in relation to answering the research question.

Table 3-2

Example of the Theme from the Meanings of Subthemes

Theme: *Effective communication regarding depression prevention*		
Subthemes	*Social networking communication*	*Face-to-face communication*
Quotations	*"giving easy depression risk assessment tool /observation guide on Facebook or YouTube"* *"giving inspiration by using inspiration word, knowledge sharing about cause of depression for understanding about depression prevention through social media"* *"providing a scenario of problems related adolescent depression through videos or multi-media"*	*"talking for promoting acceptance, understanding, and caring between teachers and parents for depression prevention."* *"talking with inspiration words between teachers and adolescents* *"sharing / supporting /motivating between parents and adolescents* *"discussion for balancing emotion to depression prevention between adolescent and peers"*