The Effects of the Resilience Enhancing Nursing Program on Depression and Life Goals among Pregnant Teenagers

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ชื่อเรื่องวิทยานิพนธ์ ผลของโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตต่อภาวะซึมเศร้า และการมีเป้าหมายชีวิตในหญิงตั้งครรภ์วัยรุ่น

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บทคัดย่อ

การตั้งครรภ์ในวัยรุ่นนำมาซึ่งภาวะเสี่ยง และภาวะแทรกซ้อนที่เพิ่มขึ้นสำหรับมารดาวัยรุ่นและทารกแรกเกิด การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อประเมินผลของโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตต่อภาวะซึมเศร้า และการมีเป้าหมายชีวิตในหญิงตั้งครรภ์วัยรุ่น เป็นการวิจัยเชิงทดลองโดยการสุ่ม จำนวน 130 ราย (กลุ่มทดลอง 64 ราย และกลุ่มควบคุม 66 ราย) เครื่องมือในการวิจัยครั้งนี้ ประกอบด้วย เครื่องมือในการเก็บข้อมูล และเครื่องมือในการทำกิจกรรมการวิจัย เครื่องมือในการเก็บข้อมูล ได้แก่ แบบสอบถามข้อมูลส่วนบุคคล แบบประเมินความเข้มแข็งในชีวิต แบบประเมินภาวะซึมเศร้า และแบบประเมินการมีเป้าหมายชีวิต ส่วนโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิต เป็นเครื่องมือกิจกรรมการวิจัยประกอบด้วย 3 ขั้นตอน ได้แก่ ขั้นตอนที่ 1 การสร้างสัมพันธภาพ และความไว้วางใจ ขั้นตอนที่ 2 การเพิ่มความเข้มแข็งในชีวิต ขั้นตอนที่ 3 การติดตาม และกระตุ้นการปฏิบัติการเสริมสร้างความเข้มแข็งในชีวิต โดยเครื่องมือในการวิจัยทั้งหมดได้ผ่านการพัฒนาคุณภาพของเครื่องมือ ได้แก่ การหาความตรงเชิงเนื้อหาจากผู้ทรงคุณวุฒิ 5 ท่าน และการหาค่าความเที่ยงของแบบประเมิน จากการทดสอบสัมประสิทธิ์แอลฟาของครอนบาค การวิเคราะห์ข้อมูลโดยใช้สถิติ ร้อยละ ค่าเฉลี่ย ค่าส่วนเบี่ยงเบนมาตรฐาน การทดสอบค่าไคสแควร์ การทดสอบความแตกต่างของค่าเฉลี่ยสองกลุ่มที่อิสระต่อกัน และการวิเคราะห์ความแปรปรวนแบบวัดซ้ำ

ผลการศึกษาพบว่า ภาวะซึมเศร้าของกลุ่มตัวอย่างทั้งหมด ต่ำกว่าก่อนได้รับโปรแกรมฯ อย่างมีนัยสำคัญทางสถิติในสัปดาห์ที่ 4 (p =.001) และลดลงอย่างต่อเนื่องจนถึงสัปดาห์ที่ 8 อย่างไรก็ตาม ไม่มีความแตกต่างระหว่างสองกลุ่มของภาวะซึมเศร้าในการเปลี่ยนแปลงทุกช่วงเวลา (p = .969) การมีเป้าหมายชีวิตของกลุ่มตัวอย่างในสัปดาห์ที่ 4 และ 8 มีการเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติ เมื่อเปรียบเทียบกับก่อนได้รับโปรแกรมฯ (p < .001) อย่างไรก็ตามกลุ่มตัวอย่างในกลุ่มทดลองมี

การเพิ่มขึ้นของการมีเป้าหมายชีวิตมากกว่ากลุ่มควบคุมอย่างมีนัยสำคัญทางสถิติในสัปดาห์ที่ 4 (p = .001) และ 8 (p < .001) โปรแกรมฯนี้ สามารถเป็นแนวทางให้พยาบาลนำไปใช้ในการดูแลหญิงตั้งครรภ์วัยรุ่นในการตั้งเป้าหมายในชีวิตเพื่อส่งเสริมคุณภาพชีวิตที่ดีขึ้น

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ABSTRACT

Teenage pregnancy leads to increase risks and complications for the teenage mother and her newborn. This study aimed to evaluate the effects of a resilience enhancing nursing program (RENP) on depression and life goals among pregnant teenagers. A randomized controlled trial was conducted with 130 participants (experimental group = 64, control group = 66). Research instruments included the instruments for data collection and instruments for research intervention. The instruments for data collection consisted of a demographic data form, the resilience scale, depressive scale and life goals scale. The RENP was the research intervention, and included three steps; step 1: establishing a trusting relationship, step 2: improving the resilience, and step 3: monitoring and encouraging the resilience practice. All instruments were content validated by five experts and reliability was examined using Cronbach's alpha coefficient. Data were analyzed using percentage, mean, standard deviation, Chi-square test, independent t-test, and repeated measures ANOVA.

The findings revealed that the depression of all participants was significantly lower than that before receiving the program at the 4th week (p = .001), and was

sustained until the 8th week. However, there was no difference between the two groups in term of change in depression over time (p = .969). The life goals of participants at the 4th and 8th weeks were significantly improved compared to before receiving the program (p < .001). However, the participants in the experimental group had a significantly greater improvement in life goals than did the control group at the 4th (p = .001) and 8th weeks (p < .001). This program can guide nurses to encourage pregnant teenagers in setting life goals that can improve their quality of life.

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CHAPTER 1

INTRODUCTION

Background and Significance of the Study

Nowadays teenage pregnancy is a significant problem and social concern. Approximately 16 million girls aged 15-19 years give birth every year which represents 11% of all births worldwide (WHO, 2014a). In developing countries, the teen birth rate is 133 births per 1,000 women. About 16 million girls, including some 1 million girls under the age of 15 years, give birth every year, mostly in low and middle-income countries (WHO, 2016). Many teenage pregnancies are not merely unplanned but also unwanted, as seen by the estimated 2.2 to 4 million teenage girls who have an abortion each year (WHO, 2015).

A worldwide teenage pregnancy survey showed that the overall rate of teenage pregnancies was 65 per 1,000 girls, while the rate was 56 in Asia and 70 in Thailand (Caspani & Moloney, 2014). In the North Eastern region of Thailand, 15.44% of all pregnant women were teenagers (Ministry of Social Development and Human Security, 2015). An unintended teenage pregnancy affects parents and family members (Areemit, Suphakunpinyo, Lumbiganon, Sutra, & Thepsuthammarat, 2012). In addition, teen mothers have higher risks of complications than older mothers (Perry, Hockenberry, Lowdwemilk, & Wilson, 2014). Thus, teenage pregnancy is an important issue for health care providers.

In general, there is an increased rate of sexual activity among teenagers and a lack of services available to deliver necessary information to them (Pillitteri, 2015; Ricci & Kyle, 2009). As a result, teenagers have limited access to accurate information about good family planning methods. In addition to long-term social implications of parenthood in teen mothers, studies have revealed low educational attainment in this group (Perry et al., 2014). Teenage girls who lack strong positive role models in their lives, those with low self-esteem, and those who feel vulnerable are all at risk of early sexual debut (Murray & Mackinney, 2010). Moreover, most teenagers who experience sexual activity early have unplanned pregnancies (Lowdermilk, Perry, & Cashion, 2010).

Teenage pregnancy is an important issue for several reasons. There are many negative consequences impacting on pregnant teenagers including increase depression, poor obstetric outcomes, education and socioeconomic risks such as reduced employment opportunities (Logan, Holcombe, Manlove, & Ryan, 2007; Lumbiganon et al., 2010; Pillitteri, 2015). In particularly, previous studies have indicated that antenatal depression is associated with depression in the postpartum period (Almond, 2009). Depressive symptoms can also contribute to physical, emotional, and psychological un-wellness (Bartell, 2005), which can lead to an increased risk of poor self-care behaviors (Panthumas et al., 2012). Thus, depression in pregnant teenagers has serious negative consequences that may impact on the mother and newborn in regards to the aspects of emotional and physical health in the future.

Furthermore, pregnant teenagers have to handle the childbearing period including preparing for the responsibilities of parenthood, seeking opportunities of

employment and also possibly continuing their education (Carey, Ratliff, & Lyle, 1998; Collins, 2010). A life goal specific to pregnant teenagers is to continue their education in school and find support from husband and others. Life goals can contribute to one's health and psychological well being (Ingrid, Majda, & Dubravka, 2009). Several studies have investigated the effectiveness of evidence-based interventions to create meaningful connections and motivations for pregnant teens to plan for success in their employment and academic achievement (McGaha-Garnett, Tyler, & Alvarez, 2013). In order to do this, resilience can lead to higher expectations for parenting and overall achievement, as well as increased educational aspirations during their pregnancy (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed, Keogh, & Borkowski, 2006).

Therefore, pregnant teenagers need to have life goals so that they can make good decisions and make plans for their future life. Basically, there are some teenagers who have resilience that they can overcome in each situation when they faced the adversities in the crisis situation but they can keep survival (Lee, Cheung, & Kwong 2012). However, in particular group, pregnant teenagers who have low resilience that may present to increase depression and decrease life goals during prenatal period (Collins, 2010). Therefore, enhance resilience can help teenagers to overcome many adversities and lead them to improve outcomes in teenage pregnancy.

According to Grotberg (2003), resilience is a person's capacity to face, overcome and be strengthened by the even transformation or the adversities of life. Resilience can allow individuals to perform competencies to maintain good health behaviors and are effective in the education and employment of a teenage mother

(Collins, 2010). Resilience is a significant factor that can improve the health behavior, mental health, and life satisfaction in an adolescent's period of life (Fraser & Pakenham, 2008). Thus, resilience should be encouraged in teenage pregnant women during their pregnancy (Collins, 2010; Weed et al., 2000). In summary, teenage pregnant women who lack resilience are less likely to face and overcome the challenges of adversity, including the risks and complications associated with physical and mental health from a potentially crisis situation of pregnancy.

Resilience can be increased in a universal capacity and enhance persons to prevent and overcome adversities from crisis situations as well as their damaging effects (Grotberg, 2003). Furthermore, the consequence of resilience may help to provide a good outcome in order for them to maintain and have stronger developmental tasks during the prenatal period in pregnant adolescents (Weed et al., 2006). The outcomes will include decreasing depressive symptoms and establishing positive life goals. Thus, the promotion of personal capability for a resilience epistemology is needed in which adversity is culturally specific and appeals to collective responsibility (Luthar et al., 2000). Such a nursing intervention not only needs to enhance the resilience of these young adolescents but also needs to help them overcome any adversities during the prenatal period.

In addition, resilience can increasingly help pregnant teenagers to overcome adversities from crisis situations such as the damaging effects of an unintended pregnancy. In particular, the promotion of resilience in a person needs to be culturally specific (Luthar et al., 2000). Resilience is a strength based concept, meaning its focus is on providing support and opportunities which promote life success (Luthar et al., 2000).

Therefore, encouraging pregnant teenagers to be resilient can overcome the negative effects of adversity and improve their lives.

Existing evidence based programs presented the effective interventions of resilience enhancing in teenage pregnant women that were as follows: promoting to build resilience problem solutions and construct a way to reduce depressive symptom in teenage pregnant women the face of adversity by health care providers (Black & Ford-Gilboe, 2004; Collins, 2010; Salazar-Pousada et al., 2010), providing friendly services that can decrease depression during pregnancy in pregnant teenagers (Weed et al., 2006), promoting resilience to reduce depression and develop coping competencies skills to set life goals in teenage pregnancy (Grant, 2006; Harville, Xiong, Buekens, Pridjian, & Elkind-Hirsch, 2010; Weed et al., 2006).

In addition, the interventions showed reductions in depression levels, and also this program may be useful for collaborations with health service providers who can help build these protective factors in teenage mothers (McDonald et al., 2009). Therefore, to understand this concept by nurses will better prepare them to perform resiliency assessments and intervention appropriately to enhance well-being and positive outcomes in pregnant teenagers. Most successful programs did not contribute to an increase of inner resources for pregnant teenagers such as resilience, and self confidence which are necessary for a competent mother without an inclusion of long term interactive nurse intervention (Carey et al., 1998; Collins, 2010).

However, there were limitations for appropriated program in teenage pregnant women that can be reduced depression and improved life goals. In addition, few

interventions have the resilience enhance in pregnant teenager group, and also limited programs with proven success in using resilience enhancing aspects were not addressed in teenage pregnant women during pregnancy. Therefore, specific programs need to incorporate other supports to enhance family function that increase resilience of pregnant teenagers that can reduce depression and improve life goals in pregnant teenagers in the early childbearing period.

This experimental study aimed to evaluate the effects of a resilience enhancing nursing program on teenage pregnant women. In addition, this study employed the construct of resilience and healing presence to develop a nursing intervention for pregnant teenagers. The consequences of resilience are reduced depression and improved life goals throughout the prenatal period in order to have more positive outcomes. It is hoped that this program will be useful for clinical practice and implementation to improve resilience in a Thai context.

Objectives of the Study

The objectives of this study are stated as follows:

General objective

To examine the effects of the resilience enhancing nursing program on depression and life goals among pregnant teenagers.

Specific objectives

1. To compare differences in depression scores between the experimental group and the control group at 4th and 8th week.

2. To compare differences in life goals scores between the experimental group and the control group at 4th and 8th week.

3. To compare changes in depression scores and life goals scores within the experimental group at baseline, 4th and 8th week.

Research questions

The research questions of this study are as follows:

1. Is there any difference in depression scores among pregnant teenagers after receiving the resilience enhancing nursing program and those after receiving regular care at the 4th and 8th week?

2. Is there any difference in life goal scores among pregnant teenagers after receiving the resilience enhancing nursing program and those after receiving regular care at the 4th and 8th week?

3. Are the depression scores among pregnant teenagers after receiving the resilience enhancing nursing program at the 4th and 8th week lower than those at the baseline?

4. Are the life goals scores among pregnant teenagers after receiving the resilience enhancing nursing program at the 4th and 8th week higher than those at the baseline?

Conceptual Framework of the Study

The conceptual framework was constructed upon the conceptualization of resilience by Grotberg (2003), the concept of healing presence (Dossey & Keegan, 2009), and the literature reviews regarding teenage pregnancy. In this study, the resilience enhancing nursing program was modified based on the concept of resilience from the literature review and also from evidence-based practice. These were used as a guide to measure the outcomes of study including, depression and life goals. Therefore, three frameworks underpinned the study of the resilience enhancing nursing program for pregnant teenagers.

This resilience concept by Grotberg (2003) was adopted as a process for enhancing the resilience in teenage pregnant women. The concept consists of three components: inner strength, external support and interpersonal and problem solving skills. Inner strength (I am) refers to psychological factors that are, having the capability to show emotions including self-esteem, positive thinking, and assertiveness. External support (I have) refers to the source of support including personal support and other kinds of support. Interpersonal and problem solving skills (I can) refers to the characteristics that determine problem solving skills, and a balance of personal and social skills.

Dossey and Keegan (2009) recognize that healing presence offered by a nurse is committed to nurturing the essence, wholeness, and integrity of an individual and can be pivotal for patients and families. Enhanced healing is defined as a bridge to the presence of being with collaboration for nursing care (Dossey, 2000).

Moreover, the relationship and connection encourage clients to have expectations and confidence that can help them to overcome adversities in crisis situations (Dossey & Keegan, 2009). The process of healing is one in which the nurse connects and communicates with clients to help them adjust to their own healing process (Jonas & Crawford, 2004). Furthermore, the concept of presence concerns identifying interactions between a nurse and client. For example being with each other and doing things with each other, In addition, the results of this process can reveal meaningful awareness and balance in a relationship (McKivergin & Day, 1998). Consequences are the healing presence outcomes that present the improving healing, confidence, and providing the relationship, and connection between a nurse and a patient (Tavernier, 2006). Therefore, the concept of healing presence was used to ensure that the nurse would join the clients' journey to the development of a resilience enhancing nursing program.

Healing presence is a part of the holistic care concept in nursing which is the interaction between nurses and patients. The components consist of physical presence (body to body; or "being there") such as touching, hearing, seeing and examining; psychological presence (mind to mind; or "being with") such as feeling empathy, communicating and counseling; therapeutic presence (spirit to spirit; or "being intentional") such as centering, meditating, connecting, intuitive knowing, and being intentional (Dossey & Keegan 2009).

Therefore, in this study, healing presence was used to develop interventions in each step as follows: In the first step, the researcher used the physical presence domain that was consisted of touching, hearing, and examines to provide the

establishing a trusting relationship with pregnant teenagers. In the second step, the researcher used the psychological presence domain that were consisted of feeling empathy, communicating, reflecting, and counseling to provide the improving the resilience practice, and the last step, the researcher used the therapeutic presence domain that were consisted of centering, meditating, and connecting to provide the monitoring and encouraging the resilience practice in pregnant teenagers.

Previous studies of intervention related to resilience in this group suggest to the social support that can be performed effectiveness for positive outcome for such as to promote a supportive from friend, supportive positive behavior, and establish network for social and family for teenage pregnant women (Grant, 2006; Grote & Bledsoe, 2007; Harris & Franklin, 2009; McDonald et al., 2009; Wolchik, Schenck, & Sandler, 2009). For the activities of promoting the decision making or problem solving skills that should be conducted the teaching learning curriculum, group discussion, performed connecting, learning and communicating skills of this group (Fraser & Pakenham, 2008; Wolchik et al., 2009; Wong et al., 2009). In addition, the effectiveness of an intervention program to enhance resilience, create coping strategies and protective factors, as well as decrease depressive symptoms during a period of increased stress (Steinhardt & Dolbier, 2008). From assessing all of the interventions that have been suggested in performing a program that should conduct factors associating with resilience and provide the components of resilience.

Accordingly, resilience can improve life goals in pregnant teenagers and can lead them to make decisions and provide life plans for their future (Collins, 2010).

Having life goals is needed for higher expectations of parenting and overall achievement, and increased educational aspirations during pregnancy (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed et al., 2000). Life goals are associated with the inspiration and motivation, and general well-being that can contribute to health and psychological well-being in a person (Ingrid et al., 2009) and are also influenced by earlier advantageous and disadvantageous experiences in a person's life (Sivaraman Nair, 2003). Reinforcement of resilience can help to guide individuals set goals in their life (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed et al., 2000). This is particularly important for pregnant teenagers who need to have life goals during pregnancy.

Therefore, the researcher integrated the resilience concept and the concept of healing presence were developed the nursing interventions for pregnant teenagers which consisted of three components as detailed below.

Establishing a trusting relationship: This component began by having the patient relax with light music playing in the background, touching and massaging the participant's shoulders, introducing themselves and encouraging them to have an open mind and a willingness to discuss their problems, and sharing experiences regarding their pregnancy.

Improving the resilience: The interventions were implemented as follows: watching a video clip regarding inspiration for enhancing resilience, discussing and sharing ideas related to teenage pregnancy of each clip, writing what the pregnant teenagers are feeling proud how they are inspired by the clip and how they understand

their life goals, developing a peer group through problem solving skills, connecting and communicating by the social network of pregnant teenagers in group intervention.

Monitoring and encouraging the resilience practice: This component consisted of continuing to practice the resilience enhancing program via telephone follow up. Problems arising during their pregnancy were discussed and participants were asked how they had practiced resilience over the previous week, monitoring practice from the self report of the resilience practice, and sharing problems and experiences by technology of the social network.

Resilience can help teenage mothers set life goals and increase aspirations for a positive future including having life goals and higher achievement expectations (Collin, 2010). Pregnant teenagers need external stimulation during the post-partum period to help them set goals in their lives. If they have life goals then they are more likely to have increased educational aspirations during pregnancy (Minnick & Shandler, 2011). However, teenage mothers may also fear that they will lose their jobs, their friends, be removed from school or home, or suffer from other negative consequences (Logan et al., 2007). Moreover, promoting resilience can lead to lower depressive symptoms and improved health outcomes during pregnancy among teenagers (Salazar-Pousada, Arroyo, Hidalgo, Pérez-López, & Chedraui, 2010). Therefore, encouraging pregnant teenagers to be resilient should help them to overcome the negative effects of adversity and improve their lives, including reduced depression and improved life goals during their pregnancy.

Therefore, all interventions of the resilience program in teenage pregnant women during the prenatal period may help to increase their resilience and improve the program outcomes. This study evaluated the effectiveness of this program, which aimed to increase the capacity of pregnant teenage women to reduce depression and improve life goals during the prenatal period. Enhancing the resilience capacity in pregnant teenagers will enable health care providers to promote suitable nursing interventions. This study was implemented using an experimental design to find a suitable nursing program for pregnant teenagers. In addition, the results of the study were successful in providing good outcomes for pregnant teenagers. The conceptual framework for this study is shown in *Figure 1*.

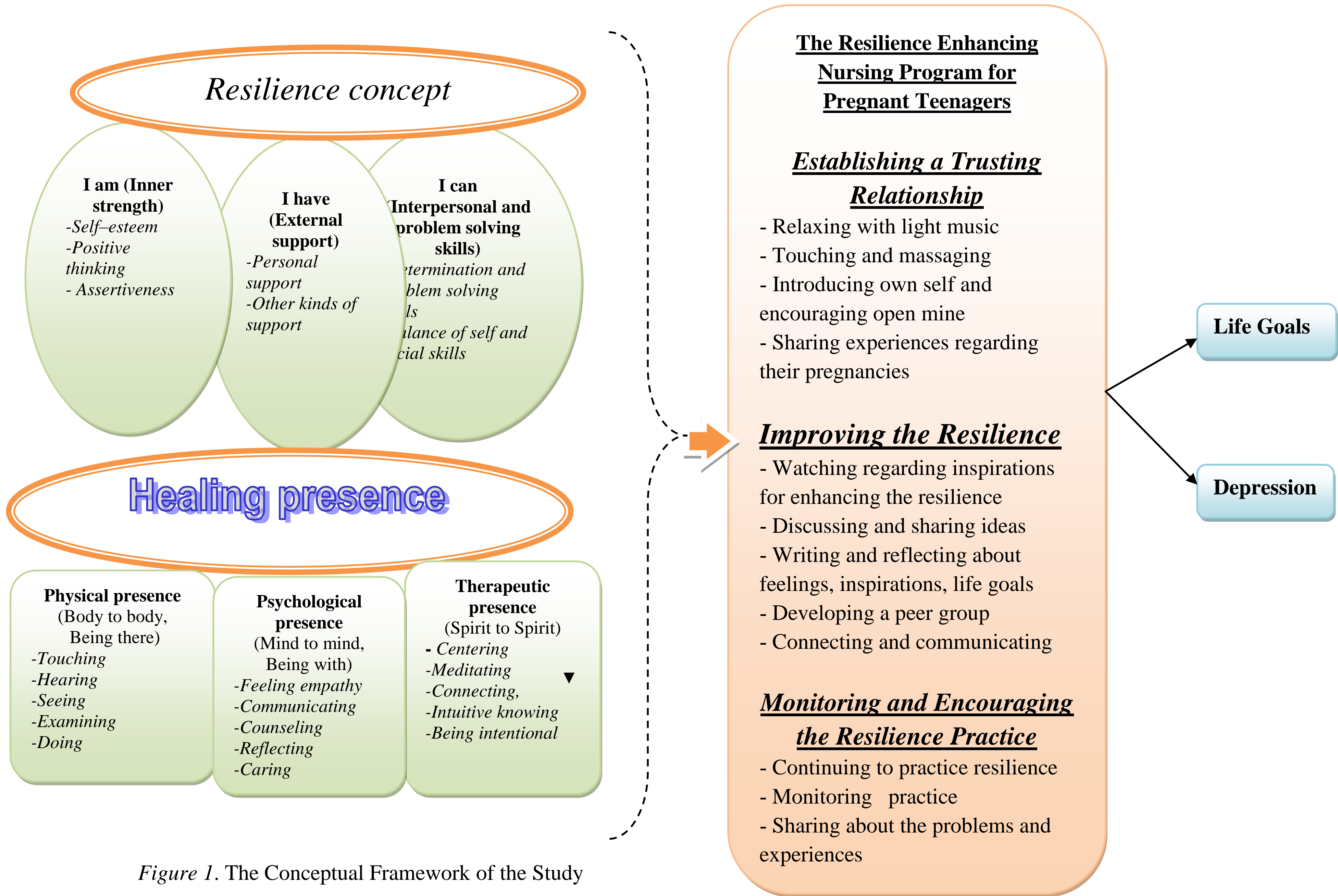


Figure 1. The Conceptual Framework of the Study

Research Hypotheses

The hypotheses of this study are as follows:

1. The depression scores in pregnant teenagers after receiving the resilience enhancing nursing program in the experimental group will be lower than those of the control group who receive the regular care.

2. The life goals scores in pregnant teenagers after receiving the resilience enhancing nursing program in the experimental group will be higher than those of the control group who receive the regular care

3. The depression scores in pregnant teenagers after receiving the program will be lower than at the baseline in the experimental group who receive the resilience enhancing nursing program.

4. The life goals scores in pregnant teenagers after receiving the program will be higher than at the baseline in the experimental group who receive the resilience enhancing nursing program.

Definition of Terms

1. The Resilience Enhancing Nursing Program (RENP) refers to a set of nursing interventions developed by the researcher based on the concept of resilience by Grotberg (2003) and the healing presence concept by Dossey and Keegan (2009) which are integrated with the concept of resilience in pregnant teenagers. This program was developed by the researcher in three steps Step 1: establishing trust and relationship. This step consisted of relaxation by beginning with

light music, touch and massage, introducing own-self to the group, and the sharing of experiences regarding the subjects' pregnancies. Step 2: improving the resilience; improving inner strength (I am), interpersonal and problem solving skills (I can), and external support (I have). This step consisted of watching regarding inspiration for enhancing resilience, discussing opinions, developing a peer group and connecting and communicating to share experiences. Step 3: monitoring and encouraging the resilience practice and evaluating the program outcomes. This step included continuing to practice resilience, the monitoring practice of resilience practice, and sharing problems and experiences.

2. Depression is defined as the feelings of pregnant teenagers involving depressed affect, positive effect, somatic and retarded activity, and interpersonal relationships that are affected by depression during the prenatal period. This included conditions of excessive worrying, difficulties in concentrating, and feelings of sadness, depression and loneliness, anxiety, sleep disturbances, the inability to enjoy life and a lack of energy in the prenatal period. In this study, the depression scale was assessed by measuring the depressive symptoms of pregnant teenagers. This instrument was used the CESD-10 of the Depression in Thai Adolescent Mothers which modified by Nirattharadorn, Phancharoenworakul, Gennaro, Vorapongsathorn, & Sitthimongkol (2005).

3. Life goals are defined as the feelings of pregnant teenagers that have set a future plan for achievement in their life, pregnant teenagers need to have goals for higher expectations for parenting and overall achievement, and increased educational aspirations during their pregnancy, and teenagers can make good decisions and make plans for their future life goals. Their tasks of life goals can be

identified through goals that include accepting the pregnancy, affiliated pregnancy issues, and extrinsic values including financial support, a family with a husband and a happy home, achievement in education and a good job, self-transcendence and considering the spirituality of life during pregnancy with the need to have a healthy maternal consideration for her child. The life goals scale was modified by Twenge, Campbell, & Freeman (2012) and used for the life goals in young adults of American high school seniors. This scale was developed based on the structure of goal contents across 15 cultures which consisted of the primary dimensions underlying the goals in a person including, the intrinsic and extrinsic, self-transcendent, and physical dimensions.

4. Regular Care is defined as the usual counseling services and also routine care in the hospital system regularly available for pregnant women. The care included adult and teenage women pregnancies. Antenatal care was provided by nurses at the antenatal clinics. The goal was to reduce physical maternal complications during teenage pregnancy. However, care for each teenager was limited to a short time; about 15-20 minutes per group in a maternal health education class. In some cases, problems to could be identified and solved directly, making the pregnant teenagers feel a sense of security.

Scope of the Study

The randomized controlled trial used consisted of two groups which included a control and experimental group. The effects evaluation was used pre-post test of the resilience enhancing nursing program on the outcomes including

depression and life goals among pregnant teenagers. All variables were measured at 1st, 4th week and 8th week while attending at antenatal care clinic and receiving the interventions. The resilience enhancing nursing program consisted of three components based on the resilience concept of Grotberg (2003).

Significance of the Study

The results of the study is hoped to provide empirical evidence on the positive effect of this program on depression and life goals among pregnant teenagers. This program was anticipated to also be useful in guiding practice nurses and counseling nurses who incorporate this intervention as a part of their own routine to reduce depression and improve life goals for pregnant teenage women in clinical practice. In addition, this program can be implemented in a health care service for guiding nurses to enhance resilience for improving life goals in pregnant teenagers to overcome adversities throughout the prenatal period. Nurses can employ this program in health care service for gaining a better understanding of how to help pregnant teenagers improve life goals during their pregnancy.

This program can be implemented by nurses and health care providers to enhance the resilience in pregnant teenagers by establishing a trusting relationship before employ nursing intervention, in addition, nurses can implement this program to improve, monitor and encourage the resilience during prenatal period in teenage pregnant women who come to attend at antenatal care clinic.

Particularly, the resilience enhancing nursing program can be used for a clinical guideline to nurses and midwives, those in antenatal care units, and other

health care professionals to enhance resilience for pregnant teenagers that can lead to reduce the complications and overcome adversities throughout the prenatal period. Finally, the results of the study are expected to provide significant information for future studies associated with enhancement of resilience among teenage pregnant women and also to improve the good outcomes in health care services and other areas.

CHAPTER 2

LITERATURE REVIEW

This literature review describes the main concepts and related knowledge on the effectiveness the RENP program for pregnant teenagers. The study outline is presented as follows:

1. Introduction of Teenage Pregnancy
   1.1 Development and tasks of teenagers
   1.2 Definitions of teenage pregnancy
   1.3 Incidence of teenage pregnancy
   1.4 Policies related to teenage pregnancy
   1.5 The impact of teenage pregnancy
   1.6 Program for caring for pregnant teenagers
2. Concept of Resilience
   2.1 Definitions of resilience
   2.2 Overview of the resilience concept
   2.3 Factors associated with resilience
   2.4 The consequence of resilience
3. Depression in Pregnant Women
   3.1 Definitions of depression
   3.2 Types of depression
   3.3 Factors influencing depression

3.4 Depression in teenage pregnant women

3.5 Measurement of depression

3.6 Resilience and depression

4. Life Goals in Pregnant Women

4.1 Definitions of life goals

4.2 Types of life goals

4.3 Factors influencing life goals

4.4 Life goals in teenage pregnant women

4.5 Measurement of life goals

4.6 Resilience and life goals

5. Strategies for Enhancing Resilience

5.1 Concept of healing presence

5.2 Definitions of healing presence

5.3 Components of healing presence

5.4 The evidence based of healing presence interventions

6. The Nursing Program of Resilience Enhancing

Introduction of Teenage Pregnancy

Teenage pregnancy is a common public health concern and a worldwide problem that impacts on every society in both developed and developing countries. This introduction will be determined by the following: development and tasks of teenagers, definition of teenage pregnancy, incidence of teenage pregnancy, and policies related to teenage pregnancy, impact of teenage pregnancy, and caring programs for pregnant teenagers, respectively.

Development and Tasks of Teenagers

Teenage development is defined as the physical, mental, emotional, and social changes of a teenager. These changes have positive and negative results on the teenagers' mental health (Collins & Laursen, 2004). In addition, physical change in a teenager can be identified as including; the biggest change which is defined as puberty, the process of becoming sexually mature, and also the normal changes which occur between the ages 10 and 14 for girls and 12 and 16 for boys (Steinberg, 2004). The teenage years are the most important developmental stage of life. In this stage, teenagers experience many significant changes.

During this stage, teenagers start to develop unique personality and opinions. They undergo physical changes and become sexual. Some changes may increase feelings for independence from parents, increase concern about body image and clothes. Teenagers may be more influenced by peers, and have a greater–sense of right

and wrong (Kiuru, Aunola, Nurmi, Leskinen, & Salmela-Aro, 2008). All these developmental changes in teenagers can lead to be overwhelmed by negative feelings, including feeling moody, sad, hopeless or worthless. This is a sign that the teenager may need encouragement and support from their parents, teachers, school counselors or health care providers.

Teenagers are also influenced by external factors such as; environment, culture, religion, school, technology, and social media. Teenage development is a time of great change for young people when physical changes are happening at an accelerated rate. In addition, teenagers experience cognitive, social/emotional and interpersonal changes as they grow and develop. Therefore, this period of maturation has been identified as a risk factor for conduct problems, depression, early substance abuse, poor body image, pregnancy, and early sexual initiation and so management or self-regulation of emotions is important for any teenager. Developmental tasks refer to a task that arises at or about a certain period in life, unsuccessful achievement of which leads to an inability to perform tasks associated with the next period or stage in life.

Simpson (2001) identified the ten tasks of teenagers as follows:

Task 1: Adolescence adjusts the sexuality and physical feelings. Adolescence has faced with bodies that gain more their size and the sexual vary of characteristics. In addition, they will try to monitor bodies and sexual changes for behaviors for sexual healthy. This task aspect is consisted of the providing the sexual identities and skills for making the relationships (Simpson, 2001).

Task 2: Adolescence in development and thinking skills Adolescence changes the way of thinking, to find more understanding the effective abstract ideas, to think about possibilities, to try assuming in future think about to create philosophies in life (Simpson, 2001).

Task 3: Adolescence develops and applies the complex perceptions. They try to a powerful new ability to understand human relationships, in which, having learned to take into account both their perspective and another person to use this new ability for resolving problems and conflicts in relationships (Simpson, 2001).

Task 4: Adolescence develops and applies the coping skills. There are consisted of the decision making, problem solving, and conflict resolution. These are connected with in new think about for planning in their future. They try to enter the new strategies for solving and setting their life goals in their lives (Simpson, 2001).

Task 5: Adolescence tries to identify the meaning of the standard of moral values, and believes in various aspects. They provide the skill resulting, nurturing and understanding for the moral complexities in each aspect and adopting child to guiding for making decisions (Simpson, 2001).

Task 6: Adolescence tries to understanding and expressing the emotion complexity in any experiences. This task is identified changing to communicate more complexity in any experiences in adolescences. They try to understand the any emotions in abstract aspects (Simpson, 2001).

Task 7: Adolescence provides the form friendships for supportive them. Adolescence will have peer group in this task. Normally, they try to provide the peer

relationships for supporting, connecting, and sharing in the same interests and activities with the trust creating each other (Simpson, 2001).

Task 8: Adolescence mentions the main aspects of identity. There are typically consisted of the developing an identity that reflects an individual sense of connection for peer group. This task is provided the positive identity including the gender, physical attributes, sexuality, and, if appropriate, having been adopted that are the sensitivity to various groups (Simpson, 2001).

Task 9: Adolescence takes the responsibilities in any roles. Adolescence engage take on the expected roles of adult. In addition, they try to learning the skills and gaining the managing including the commitment with their families and communities (Simpson, 2001).

Task 10: Adolescence keeps royalty's relationships with adults in parenting roles. However, this task has been described as " separating " from parents and other caregivers. Relationship has to provide a balance of independent with the concerning of the family's background (Simpson, 2001).

Therefore, all of tasks in teenager which are the main tasks including; teenager should be learning with friends of sex health, accepting for physical and keeping it healthy, making decisions about marriage and family life, preparing for a stable occupation, acquiring a set of values to behavior and becoming socially responsible. In summary, understanding these tasks of teenagers may guide health care providers in employing the appropriate programs to support teenagers for ongoing the good developmental tasks in period time of young person.

Definitions of Teenage Pregnancy

There are several definitions for teenage pregnant women. Similarly, statistics on the mother's marital status are determined by whether she is married at the end of the pregnancy (Pillitteri, 2015; WHO, 2012a). Most interpretations of teenage pregnancy define it as a woman who got pregnant under the age of 20 years old and also if the pregnancy began in women aged 19 but they delivered when 20 years old. In summary, the definition of teenage pregnancy refers to a teenage girl who got pregnant before the age of 20 and that gave birth to the child.

Incidence of Teenage Pregnancy

The increased incidence of teenage pregnancy has accordingly increased costs under the national health plan. Teenage mothers have more risks and complications than older mothers, and there is a higher mortality rate of approximately 60% in this group (Perry, Hockenberry, Lowdwemilk, & Wilson, 2014). And also pregnancies among unmarried adolescent mothers are more likely to be unintended and to end in induced abortion (WHO, 2016). About 16 million girls aged 15-19 years give birth every year which represents 11% of all births worldwide in teenage mothers (WHO, 2016). The increased incidence of teenage pregnancy, according to health care providers, is higher than the national health plan by at least 10% (WHO, 2015). Longitudinal studies showed that birth rates have declined 11% for women aged 15–17 years and 7% for women aged 18–19 years. This may be due to delayed or reduced sexual activity, and more of the teens who are sexually active may be using birth control than in previous years (Center

Table 1

Definitions of Teenage Pregnancy

Authors	Definitions
Brownell et al (2008)	Teenage pregnancy is defined as a female between the ages of 12-19 years old who got pregnant.
Bureau of Reproductive Health of Thailand (2012)	Teenage pregnancy is referred to a woman who got pregnant while less than 20 years old.
Drake (1996)	Teenage pregnancy is referred to women who represent of adolescent maturity as the period of age 14 to 20 years old that got pregnant and experienced childbirth.
Oxford Bibliographies (2013)	Teenage pregnancy is referred to a pregnant teenager between 13 and 19 years of age.
Pillitteri (2015)	Teenage pregnancy is defined as a teen girl who got pregnant during the period between childhood and adulthood, usually between 13 and 20 years old.
UNICEF (2008)	Teenage pregnancy is defined as a teenage girl becoming pregnant between the ages of 13-19 years.
WHO (2012a)	Teenage pregnancy is usually defined as a teenage girl between the ages of 13-19 years old that became pregnant. This time is further indicated as the mother's age at the time the baby is born in most statistics.

for Disease and Prevention, 2014). In the past two decades, sexual activity has increased among adolescents in developed and developing countries WHO (2013b). About 16 million girls aged 15–19 years give birth every year which represents 11% of all births worldwide (WHO, 2014a).

In developing countries, the figure for 15-19 year olds shows 133 births per 1,000, about 16 million girls, including some 1 million girls under 15, give birth every year mostly in low and middle-income countries (WHO, 2016). Statistics for teenage pregnancies in Thailand showed that from 2009 to 2012. There was an increase in the number of girls aged 15-19 years old who gave birth from to 38 per 1,000 (Ministry of Public Health, 2015). A worldwide teenage pregnancy survey showed that the average number of pregnancies was 65 per 1,000 girls while it was 56 in Asia overall and 70 in Thailand (Caspani & Moloney, 2014). Particularly in the north eastern area of Thailand, there was a high rate of teenage pregnancies, 15.44% in 2014 (Ministry of Social Development and Human Security, 2015). Moreover, the statistics in Thailand from 2004 to 2009 showed an increase in figures for teenage pregnancies from 13.86% to 16.05% (Ministry of Public Health, 2009). In addition, north eastern Thailand showed a higher rate of teenage pregnancies at 15.40% in 2010. The incidence of teenage pregnancy in Thailand thus remains high that is continually increasing statistically with teenage pregnancy.

Policies related to Teenage Pregnancy

Policies aimed at addressing the prevention of pregnancy in teenagers may not be focused on the psychological, economical, and societal causes (WHO, 2014a). Both global and Thai health policies provide opportunities for schooling to continue to ensure educational attainment in teenage mothers (Harris & Franklin, 2009; Strunk, 2008; WHO, 2012a). Additionally, these policies provide a way for teenage pregnant women and teenage mothers to return to education. These policies and legislation also enable teenage girls' access to treatment during their pregnancy which ensures knowledge of good health behaviors during the prenatal period, positive attitudes and skills according to sex and-consideration regarding abortion utilization in teenage group.

There are several existing policies for specific programs for prevention of teenage pregnancy and to promote family planning aspects in reproductive health programs. Previous policies have focused on developmental psychopathology to help pregnant teens adapt and have positive outcomes in adolescents (Ahern, 2006; Centers for Disease Control and Prevention, 2014; WHO, 2015). Drawing from evidence based interventions diminishing stress and increasing well-being for the mother and newborn, taking responsibility to seek social support, focusing on empowerment to decrease the risks for pregnant teenagers, planning and motivation, and creating meaningful connections were used in this study (Rutter, Freedenthal, & Osman, 2008). However, some policies have demonstrated evidence of deficiencies in antenatal care during teenage pregnancy, particularly related to mental health and psychological aspects. These deficiencies impact significantly on teenage pregnancy and teenage parenthood in areas

such as inner strength and resilience. Appropriate interventions and programs need to be urgently implemented with an approach that is appropriate for this particularly vulnerable group. Individual case management must also be explored, particularly for unplanned or unwanted pregnancies in teenagers.

In conclusion, the policies related to teenage mothers should be considered in the recruitment, planning, and implementation stages of related research and interventions. Furthermore, several research findings have shown that the implementation model can influence the health care system and can encourage policy creation in the future. In summary, policy makers must be concerned about pregnant teenagers in order to provide the appropriate care and services for them. Therefore, health care policy makers should develop policies that address strategies aimed at this group.

The Impact of Teenage Pregnancy

This describes the impact of teenage pregnancy including the maternal impact, the impact surrounding the child and the family impact respectively. These are presented as follows:

The Maternal Impact

The maternal impact is a major aspect of teenage pregnancy. The maternal impact can be identified as follows: physical aspects, psychological aspects, and social aspects.

Physical aspects

Several studies have mentioned the physical aspect including increased risks for poor obstetrics outcomes in teenage pregnancy. Teenage pregnant women are more likely to give birth early to term. Furthermore, they are at risk due to a maternal mortality rate, an unsafe abortion rate, pregnancy induce hypertension, anemia, prolonged labor, obstructive labor and fistula (a major cause puerperal sepsis), sexual transmitted diseases and HIV infection (Acharya, Bhattarai, Poobalan, van Teijlingen, & Chapman, 2010; Pillitteri, 2015; WHO, 2007). In addition, teenage pregnancy may lead to hospitalization with one of the following diagnosis; live born, missed abortion, ectopic pregnancy and intrauterine death (Marten et al., 2010). Complications may further include pregnancy induced hypertension, iron-deficiency anemia, and premature delivery in teenage pregnancy (Pillitteri, 2015). Pregnant adolescents who have experienced substance abuse are more likely to have lower pregnancy weight compared with others (Ricci & Kyle, 2009). In addition, teenage pregnancy at poverty levels often contributes to delayed prenatal attendance which creates medical complications related to poor nutrition such as anemia during pregnancy (Ricci, Kyle, & Carman, 2013). Therefore, the physical aspect of the maternal impact may be increased when associated with teenage pregnancy which alters the mother’s long term health status and care of their child.

Psychological aspects

There are several psychological factors impacting on pregnancy in teenage women which must be considered. Because pregnancy in teenagers involves the transition to motherhood, and this is a time when they experience great psychological and

emotional change (Emmanuel & St John, 2010). Most of them are found to have depressive symptoms that display a lower resilience and lead to poor outcomes of health in the mother and newborn (Salazar-Pousada et al., 2010). Moreover, teenage pregnancies increase the likelihood of depression much more than in other maternal groups (Orr & Miller, 2007). They may fear the stigmatization that always appears among those who become teenage mothers (Montgomery, 2003).

Most teenage pregnancies are unplanned or unwanted which leads to psychological complications and have implications for maternal mental health (Bartell, 2005; Finer & Zolna, 2011; Kjelsvik & Gjengedal, 2011). Depression during teenage pregnancy is considered to be an increased risk for attempted suicide, especially for unplanned pregnancy (Benute et al., 2011). Furthermore, pregnancy in teenagers changes the hormone levels of estrogen and progesterone which have a great impact on emotion during pregnancy (Neamsakul et al., 2008). Emotions may be more intense for pregnant teenagers or unmarried mothers and they may affect how the mother deals with the psychological aspects of pregnancy. Therefore, these aspects are being a pregnant teenagers leads to many emotional and psychological complications.

Social aspects

Pregnant teenagers may not be mature enough or have appropriate skills for solving problems. They may face several issues related to the social aspects. Pregnant teenagers are subjected to social stigmatization and similar conditions that cause them to be less likely to seek the necessary antenatal care (Murray & Mackinney, 2010). This care includes education possible effects of pregnancy such as dropping out of

school, and socioeconomic risks such as reduced employment opportunities (Acharya et al., 2010; Vieira et al., 2012). If pregnant teenagers prematurely drop out of school, this leads to higher levels of poverty and a limited chance of acquiring a good career to develop their lives in the future (Clutter, 2009; Griswold et al., 2012; Sethosa, 2007).

In addition, a teenage pregnant woman may also lose her jobs or friends, or suffer from other negative consequences, such as being removed from her school or home (Minnick & Shandler, 2011). Almost all teenagers have inadequate self-support which places the burden on their families (McDonald & Coburn, 1988). Teenage pregnant women are shown to be more likely than older women to smoke and drink alcohol (WHO, 2013a). These practices contribute to health problems for children (WHO, 2012a). Therefore, the impact of the social aspects for pregnant teenagers is an important issue. Nurses must be able to provide a comprehensive approach to enhance the teenager's life for a successful transition through the developmental tasks of pregnancy while maintaining good physical health during the prenatal period.

The Impact on the child

The impact on the child was presented the infant outcomes. There are increased significant risks related to inadequate prenatal care and nutrition in teenage pregnancy including low birth weight and infant mortality (Ryan & Dogbey, 2015; WHO, 2012b). All these conditions in teenage pregnancy increase the chance of death or future health problems for the newborn. Furthermore, there is a higher rate of preterm births, low birth weight and asphyxia, among the children of adolescent girls (Perry, et

al., 2014; Pillitteri, 2015). Moreover, these risks can lead to infant and child mortality that are highest among children in teenage pregnant women (Ward, Hisley & Kennedy, 2016). In addition, teenage pregnancy is related to fetal growth retardation, or preterm delivery (Miller, Girgis, & Gupta, 2009; Orr & Miller, 2007). Therefore, the impact on child issues can result in several adverse consequences for children of teenage pregnancy to include the health risks of these children as they progress through their formative years.

The Impact on Family

Teenage pregnancy can cause suffering in the lives of the teenagers, their partners and families. The impact of teen marriage family also leads to a higher rate of divorce, a common state for women who have children in an older age group (Black & Ford-Gilboe, 2004). The experience of a family can be one that proves a poor familial relationship and acceptance during the adolescent childbearing stage (Neinstein, Rabinovitz, & Schneir, 1996). The developmental stage of adolescence is a vulnerable time in pregnancy because the developmental tasks of pregnancy are superimposed on those of adolescence (Pillitteri, 2015). Furthermore, an unintended pregnancy in teenagers affects teen parents, and their families (Areemit et al., 2012). Teenage pregnant woman may have difficulty perceiving the transition between adolescence and the developing task of pregnancy to fulfill the expectations for her family and a maternal context. Further studies presented the impact of teenage pregnancy including, poor

familial relationships, poverty, low economic status and family and familial cultural acceptance of adolescent childbearing (Neinstein et al., 1996).

Family support is a major resource during the prenatal and postnatal period for teenage mothers (Samankasikorn et al., 2016). In addition, family dysfunction and poor self-esteem are also major risk factors for teenage pregnancy especially for teenagers that have experienced a history of troubled family relationships with their parents or fathers of the babies (Klima, 2003; Pillitteri, 2015). The consequences of lack of family support on pregnant teenagers have been identified to include high divorce rates which result in single parent families (Acharya et al., 2010). Nurses and health care providers should concern themselves with the family impact during the teenage pregnancy. Therefore, all the important factors that influence personal maintenance and wellbeing during pregnancy need to be considered including; the maternal impact, the impact on the child and the impact on family.

Caring Programs for Pregnant Teenagers

There are various existing care programs aimed at teenage pregnancy which may apply the most effective methods for providing care for pregnant teenagers and their families. Several programs promote a multidisciplinary caring model which consists of practitioners working collaboratively with the purpose to assess, plan implement, monitor and evaluate the intervention that needs to be offered to this vulnerable part of the population (Sarantaki & Koutelekos, 2007). Teenage pregnant

women need to be informed and empowered to develop their life skills and improve their links to social supports that can be of help to them in this crisis situation.

For example, as an intervention for pregnant teenagers, a centering pregnancy model was developed which proved to be more effective than individual care in a teenage pregnancy group. In this model, the individual met providers in sessions that were facilitated by a certificated midwifery nurse, a registered nurse, and an education coordinator (Grady & Bloom, 2004). The health status improved their attendance at the sessions in this program. Furthermore, the pregnancy program was extended by providing supportive, educational home visits, and helping in the health care system (Samankasikorn et al., 2016; Rogers, Peoples-sheps, & Suchindran, 1996). This program focused on reduction of the risk factors during prenatal care including, smoking, drug use and poor nutrition (Rogers et al., 1996). Findings indicated that more pregnant teenagers received better antenatal care early during their pregnancy.

The program centered on group work interventions for teenage mothers and their families. This study presented and discussed some promising support for the effectiveness of Multi Family Groups (MFGs) in engaging teenage mothers (McDonald et al., 2009). After the interventions, the results showed reductions in stress levels and irritability and improvements in the community involvement of these teenagers. The study of the MFGs may be useful for collaborations with health service providers who can help build these protective factors in teenage mothers. Particularly, the advocacy work is needed to educate husbands and families who act as gatekeepers to service providers for teenage pregnant women.

The nursing program was effective in improving teenage skills of maternal function and knowledge in components of child care. Most successful maternal care programs did not contribute to an increase of inner resources for pregnant teenagers such as resilience, and self confidence which are necessary for a competent mother without an inclusion of long term interactive nurse intervention (Carey et al., 1998; Collins, 2010). Few interventions have included partners or other family members. However, the weak points of some interventions that were studied were that they did not allow sufficient time for the program or did not encourage follow ups to enhance their programs.

Therefore, specific programs need to incorporate other supports to enhance family function that increase resilience of pregnant teenagers in the early childbearing period. However, limited programs with proven success in using resilience enhancing aspects were not addressed either in the nursing content or implemented as a process of intervention. Nurses must be concerned about pregnant teenagers to provide the appropriate support for them.

Concept of Resilience

The resilience concept can be demonstrated in a strengths based model, meaning its focus is on providing the supports and opportunities which promote life success, rather than trying only to eliminate the factors that promote failure. This topic will identify its attributes including, definitions of resilience, overview of the resilience

concept, the factors associated with resilience, the consequences of resilience and nursing interventions for enhancing resilience.

Definitions of Resilience

Several scholars have stated that resilience is a complex and difficult concept to define. The original resilience definition came from the Latin term “resilire” that means to leap back (Windle & Bennett, 2012). In general dictionary definitions note that the noun “resilience” can be defined as a person’s recovery in an easy and quick manner from certain misfortune or illness (Windle & Bennett, 2012). The definition of resilience is a person’s capability to overcome an adverse situation or suffering in life (Grotberg, 2003; Masten & Coatsworth, 1998; Wagnild & Young, 1993). Some definitions indicated that resilience results in the person’s ability to meet stress and adversity in coping and adapting as an individual or member of a group (Adger et al., 2001; Ahern, 2006; Lee et al., 2012). Furthermore, resilience is defined as the human characteristic of rebounding in the strength of expression face of adversity (Clarke & Clarke, 2003; Dyer & McGuinness, 1996; Garmezy, 1991). Most researchers usually use the term resilience rather than resiliency; to describe positive adjustment to the adversity they were facing (Luthar et al., 2000; Masten & Coatsworth, 1998).

From these definitions, the resilience definition in this study is summarized as an operational definition of resilience which must invest all of the distinguished characteristics of resilience including, the components of capacity, process,

Table 2

Definitions of Resilience

Author(s)	Description
Adger et al (2001)	Resilience is functional in any cultural context, institutional changing of adaptation, and indeed the differing conceptions of human environment that interacts within different knowledge systems.
Alvord and Grados (2005)	Resilience is defined as the skills, attributes, and abilities that enable individuals to adapt to the hardships, difficulties, and challenges of life. It is also personal characteristics as well, that can make up resilience, both through situations regarding resilience that are innate or learned.
Cornor and Davidson (1998)	Resilience is conceptualized in terms of personal competence, stress tolerance, acceptance of change and a belief in mystical influences
Clarke and Clarke (2003)	Resilience is defined as the building of a human system, as with characteristics engaged between individuals in the strength of expression, which in any way is modulated by experience.
Dyer and Mc-Guinness (2003)	Resilience consists of the characteristic of rebounding and carrying on a sense of self - determination and attitude of prosaically.
Grotberg (2003)	Resilience is defined as a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity
Garmezy (1991)	Resilience is refers to the tendency to spring back, rebound, or recoil and recovery from trauma.
Lee et al. (2012)	Resilience is referred to an effective process of mobilizing internal and external resources for adapting or managing significant sources of stress or trauma.
Masten and Coatsworth (1998)	Resilience is defined in terms of an individual's capacity, the process person goes through the high risk status for a good outcome
Wagnild and Young (1993)	Resilience is defined as the personality characteristic that moderates the negative effects of stress and promotes positive adaptation.

and outcome or result from adaptation in person. Therefore, the definitions of resilience can the capability of a person to cope or adapt to the difficult situation they face or the adversity in their life they can overcome. Also, the definitions of the resilience concept vary depending on the sample, setting, and variables under study. There are several scholars that give the definition of resilience as shown in the Table 2.

Overview of the resilience concept

Resilience is a dynamic process, and also a personal characteristic that provides protection regardless of the challenges faced for adaptation. Grotberg (2003) stated the definition of resilience that is used in the International Resilience Project and identifies resilience is a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity. The findings of the International Resilience Project categorized three sources of resilience which identified 36 qualitative factors that contribute to resilience. These can be classified into three major domains; I am, I have, and I can. All of the factors of resilience can be categorized by three sources of resilience as follows: I am (inner strength), I have (external support), and I can (interpersonal and problem solving skills). Almost all people worldwide understand this concept as the idea of overcoming adversity with courage, skills and faith.

The concept of resilience has been of interest to various professional groups for many years. In essence, the resilience phenomenon is a reflection of the relationship between characteristics and factors in the environment. It is only recently that the nursing profession has started to recognize the potential contribution of the concept of resilience in

diverse clinical contexts (Gillespie, Chaboyer, & Wallis, 2007). The concept of resilience can be considered a strength based model, meaning its focus is on providing the supports and opportunities which promote life success, rather than trying only to eliminate the factors that promote failure.

There is widespread opinion that resilience is a complex and multidimensional construct (Peterson & Bredow, 2013). The complexities of defining what appears to be the relatively simple concept of resilience are widely recognized, particularly within the behavioral sciences (Windle & Bennett, 2012). Resilience concept has been commonly indicated to as the ability to spring back and is more likely in research and clinical practice (Ahern, 2006). And also is strengths based concept analysis, meaning its focus is on providing the supports and opportunities which promote life success (Luthar et al., 2000). This concept is significant in the human capability to face, overcome and be strengthened by or transform a situation when faced with adversities in life.

Therefore, resilience results from a combination of these themes. In addition people who need to become resilient to overcome the many adversities they face and will face in their life, cannot do it alone, so, they need people who know how to promote resilience and are becoming more resilient themselves.

Factors associated with resilience

The reviewed literature identified various factors that are associated with resilience. There are many associated factors that predict levels of resilience. Factors

associated with resilience in pregnant teenagers are divided as follows: psychological factors, external support factors and social inter-relationship factors.

Psychological factors

The psychological factor is important as it highly influences resilience in people. Psychosocial factors focused on depression, self-esteem, positive intrapersonal characteristics which includes self efficacy, attitude that is important of an individual's feelings (Mandleco & Peery, 2000). However, pregnant teenagers had lower resilience that tended to have depressive symptoms and poor health outcomes during prenatal and postpartum period (Salazar-Pousada et al., 2010). The psychosocial factors investigation of resilience that is associated with factors in adolescent pregnancy. Particularly, depression is frequently reported to be predictive of better individual factors (Weed et al., 2006). In addition, psychological symptoms may affect teenage pregnant women with negative cognitions, and interpersonal conflicts during their pregnancy (Bunevicius et al., 2009). Specifically the symptoms of depression have been shown to mediate the effects of child abuse and to be associated with reports of becoming pregnant or of having an abortion in high school (Becker-Lausen & Rickel, 1995).The psychological status of pregnant women has shown more evidence of complex physiological in prenatal period. Particularly, lead to low self-esteem, negatively influence resilience such as emotional change in teenage pregnancy (Lee et al., 2012).

Furthermore, teenagers who have an unplanned pregnancy can experience problems which consist of a failure to make the transitional period to becoming a mother

who can lead to depression over time (Nirattharadorn et al., 2005). They may not be overcome complexities during the early prenatal period for psychological symptoms including, depression, anxiety, and low self-esteem (Weed et al., 2000). Especially, an early pregnancy that is a significant time of changing life in teenage period for needing major psychological adjustments (Da Costa, Larouche, Dritsa, Brender, 1999), and the perception and expectation of resources on maternal psychological well being (Neter, Collins, Lobel, & Dunkel-Schetter, 1995). In addition, the psychological factors can lead to depression the ante partum period that can risk postpartum depression in pregnant teenagers (Nirattharadorn et al., 2005).

Thus, teenage pregnant women with lack of any kind of supports, they can lead to increase more depressive symptoms. Therefore, the positive emotions assist high-resilient individuals in their ability to effectively overcome daily depression in teenage pregnant women and reduced quality of life than adult during pregnancy (Simpson & Creehan, 2014). Previous studies found that the individual factors related to the effective coping ability may seem to be a synonym for resilience, it is a separate construct in the coping process that can be action or adaptation oriented (Mandleco & Peery, 2000; Marcellus, 2010; Ngom, Magadi, & Owuor, 2003). Teenage pregnant women may lack effective psychosocial resources that lead to insufficient emotional and instrument support from their families and friends (Elsenbruch et al., 2007). Thus, nurses should encourage resilience in teenage pregnant women. Otherwise, they lead to depression during pregnancy.

External support factors

External support factors are included the support from family or other support. There were highly associated with or were predictive of various aspects of resilience. These are namely factors related to social warmth support, social support, living with family, finding support and spousal support (Black & Ford-Gilboe, 2004). One study found that pregnant teenagers with unplanned had negative paternal supports lead to the lowest levels of resilience scores (Maxson & Miranda, 2011). In addition, the social support is relatively stable for teenage mothers; it also features as an indicator of maternal social and psychosocial functioning and a predictor for continued resiliency in the teenage mother (Weed et al., 2006). There are external supports associated with resilience in teenage pregnant women including, education, and employment, and finances, supportive school environments, enabling pregnant and young parenting women to remain in education and gain qualifications (Collins, 2010). In addition, addressing needs in relation to information and practical support such as engagements in work and income, parenting programs, housing and childcare for support for groups of teenage mothers (Scudder, Sullivan, & Copeland-Linder, 2008). Additionally, the social support of teenage pregnant women is a critical factor that may lead to an outcome for good behaviors (Strunk, 2008).

According to factors associated with resilience in young mothers including, education, employment, and finances, supportive school environments, these functions enabled pregnant and parenting young women to remain in education and gain qualifications (Collins, 2010). In addition, addressing needs in relation to information and

practical support such as engagements in work and income, parenting programs, housing and childcare for support for groups of teenage mothers (Scudder et al., 2008). Therefore, nursing should encourage and provide many kinds of support to assist this group for finishing their education so they can lead a successful life.

Social-interrelationship factors

There are many factors that are related to the social-interrelationship including, high expectations from parents (Maxson & Miranda, 2011), positive social orientation, knowing a caregiver (Ngom et al., 2003), relationship duration (Sipsma., Ickovics, Lewis, Ethier, & Kershaw, 2011), relationship with partner, decision for self, resolution of crisis (Andrews & Boyle, 2003). Moreover, these factors can increase resiliency in pregnant teenagers. In particular, the unit of prenatal care is the strongest and most critical determinant reducing stress for the adolescent mother and her newborn (McDonald & Coburn, 1988). For the factors of teenage pregnant women, their personal relationships with family members and other important persons for pregnancy decisions in social relationship.

To sum up, the factors that influence resilience and promote resilience have been associated with gains in these factors for using to this concept, in addition we can develop a model or intervention to improve health outcomes to enhance resiliency in efforts to decrease depressive symptom and prenatal risk health behaviors in teenage pregnant women. Particularly, the factors associated with resilience in teenage pregnant

women including, depression, the self-esteem, social support, and decision making or problem solving skills in childbearing period.

The consequences of resilience

Resilience results in better outcomes for pregnant teenagers. These can be divided into physical outcomes, psychosocial outcomes and social outcomes. Good outcomes help to stronger developmental tasks during the prenatal period of pregnant teenagers. These outcomes can be classified as follows:

The physical outcomes

Maintaining good levels of resilience can prevent complications as well as provide better outcomes for the physical outcomes such as good health behaviors and self care behaviors. Pregnant teenagers who demonstrate risky health behaviors have been found to be significantly negative outcomes during pregnancy (Perry et al., 2014; Pillitteri, 2015). Therefore, resilience can be increased in a universal capacity and allow pregnant teenagers to prevent and overcome adversities as well as the damaging effects of adversity. Pregnant teenagers may especially suffer from medical conditions such as hypertension, anemia, and poor birthing outcomes which are related to risky health behaviors during pregnancy such as cigarette smoking (Perry et al., 2014). Furthermore, resilience may help teenage pregnant women to provide a good outcome in order for them to maintain and have stronger developmental tasks during their prenatal period (Wong-Arsa & Sitkul-a-nan, 2008). This is congruent with Panthumas et al. (2012) in

which it was found that perceived self-efficacy and knowledge of pregnancy were predictors of good self-care behaviors in pregnant Thai teenagers, indicating they will have better health promoting behaviors during their pregnancy. The physical outcomes of resilience include, following good health behaviors or avoiding risky health behaviors. Therefore, resilience can promote pregnant teenagers to have better health for physical outcomes.

The psycho-social outcomes

There are various psycho-social outcomes of resilience. Resilience can help one overcome life's adversities. Resilience is a strengths based concept which promotes opportunities for life success (Luthar et al., 2000). In addition, the consequence of resilience can lead to less risk health behaviors, and having positive life goals among other positive outcomes (Lee et al., 2012). The reinforcement of resilience could assist to guide the individual and to find hope and strength in their life. This is particularly important for pregnant teenagers who need to have life goals for higher expectations for parenting and overall achievement and increased educational aspirations during pregnancy (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed, Keogh, & Borkowski, 2000). Generally, the psychological factor is an important factor that highly influence to resilience in person. There are factors that impact on resilience promoting in teenage pregnant women including, depressive symptoms that display a lower resilience and lead to well-being outcome of health in maternal and newborn (Salazar-Pousada et al., 2010).

Specifically the symptoms of depression have been shown to mediate the effects of child abuse and to be associated with reports of becoming pregnant or of having an abortion in high school (Becker-Lausen & Rickel, 1995). Furthermore, teenagers who have an unplanned pregnancy can experience problems which consist of a failure to make the transitional period to becoming a mother which can lead to depression over time (Nirattharadorn et al., 2005). They may overcome complexities during the early prenatal period for maternal distress symptoms that focus on depression (Weed et al.,2000).

Especially, an early pregnancy that is a significant time of changing life in teenage period for needing major psychological adjustments (Da Costa, Larouche, Dritsa, & Brender, 1999), and the perception and expectation of resources on maternal psychological well being (Neter, Collins, Lobel, & Dunkel-Schetter, 1995). In addition, they need to try to continue their education in school and find support to establish positive life goals (Weed et al., 2006). This includes the need for social support or other support including peer support in the school, parent, family or spousal, and financial support from other resources (Nintachan, Vanaleesin, Sanseeha, Thummathai, & Orathai, 2011). Pregnant teenagers often prematurely drop out of school which leads to higher levels of poverty and limited opportunities to acquire a good career or to develop their lives in the future (Clutter, 2009; Griswold et al., 2012; Sethosa, 2007).

Furthermore, pregnant teenagers have to manage the childbearing period including balancing the need for their development in the adolescent stage, the responsibilities of parenthood, and also possibly continuing education (Carey et al., 1998;

Collins, 2010). In addition, the resilience can help them to set life goals and increase inspiration for planning for a positive future including having higher expectations for teen parenting and increased educational aspirations during pregnancy and occupational achievement in the future (McGaha-Garnett et al., 2013). Resilience can promote the opportunities for life success and positive outcomes. These may include physical outcomes and psycho-social outcomes. Consequently, resilience can help pregnant teenagers to overcome many adversities during the prenatal period. Therefore, an increasing resilience in pregnant teenagers may help them overcome life adversities and the negative effects of teenage pregnancy. Nurses and other health care providers should provide promote resilience for pregnant teenagers for the well being of both the mothers and their babies.

Depression in Pregnant Women

Depression is the particular outcome of the global burden of disease and influences all developmental periods of people. This section will demonstrate the definitions of depression, types of depression, factors influencing depression, measurement of depression, depression in teenage pregnant woman, and the association between resilience and depression as follows:

Definitions of depression

Depression has been defined in various dictionaries. One meaning is of the feeling, mood, acting out of a person's expression regarding sadness, no hope for the

future, being less active than usual, and also being unhappy and anxious (Webster, 1995). From various definitions of depression, it can be described as the expression of emotional responses in a person. Almost all people with depression often suffer from anxiety symptoms, sleep disturbance and increased appetite (Marcus, Yasamy, Ommeren, Chisholm, & Saxena, 2014). Therefore, people who have depression that can cause for the affected several suffering and poor work functioning in their family and community.

Types of depression

There are two types of depressive and they can be categorized as mild, moderate, or severe. The two types of depression consist of unipolar depression and bipolar mood disorder. This study will only look at unipolar depression which is typical in teenage pregnancy. This type identified the depressive episode to experience symptoms such as depressed mood, loss of interest and enjoyment and increased fatigability (Marcus et al., 2014). Furthermore, unipolar depression can result in reduced energy levels leading to diminished activity for at least two weeks (WHO, 2014b). In this type of depression sufferers can be found to have poor concentration, low self-worth or guilt feelings and even medically unexplained symptoms (WHO, 2014b). A depressive episode can be divided into three aspects of levels as follows: mild, moderate, or severe (Marcus et al., 2014). An individual with a mild depressive episode will have some difficulty in continuing with ordinary work and social activities, but will probably not cease to function completely (Pires, Araújo-Pedrosa & Canavarro, 2014). During a severe

depressive episode, it is very unlikely that the sufferer will be able to continue with social, work, or domestic activities, except to a very limited extent (Marcus et al., 2014).

Factors influencing depression

There are several factors that influence depression in a person. These can be identified as a complex interaction of physical factors, and psycho-social factors. Each factor is presented as follows:

Physical factors

Physical factors influence depressions that are interrelationships between depression and physical health. Longitudinal studies revealed some factors influencing depression that gestational age in teenage pregnancy (McClanahan, 2009). Pregnancy in teenagers is a heterogeneous group who undergo rapid metabolic, hormone, physiologic, and developmental changes and also increase severity of depression in second and third trimester (McClanahan, 2009). Normal stress responses that could be maintain a good mental and physical health in prenatal period. Moreover, pregnant teenager's preterm newborn delivery, low birth weight, and also retardation for mental, emotional and physical development of the child in adolescent lead to severity of depression during pregnancy and postpartum mother (Keawjanta, 2012).

Psychological factors

The psychological factors; Depression may affect pregnant teenagers by creating negative cognitions, and interpersonal conflicts during their pregnancy (Bunevicius et al., 2009). In addition, depression of teenage mother in the ante partum

period can lead to an increased risk of postpartum depression (Nirattharadorn et al., 2005). Specifically, depression has been shown to mediate the effects of child abuse and to be associated with reports of becoming pregnant or having an abortion in high school (Becker-Lausen & Rickel, 1995). Furthermore, teenagers who have an unplanned pregnancy can experience problems including a failure to make the transitional period to becoming a mother which can lead to depression over time (Nirattharadorn et al., 2005). They may overcome complexities during the early prenatal period for symptoms including, depression, anxiety, and low self- esteem (Weed et al., 2000).

Social factors

The social factors; to many factors which influence depression in pregnant adolescent including, education, employment, and finances and supportive school environments, enable pregnant and parenting young women to remain in education, and gain qualifications (Collins, 2010). Some factors related to stress frequency during pregnancy including financial, spousal, physical, and occupational are also predictors of postpartum depressive symptoms (Grote & Bledsoe, 2007). In addition, necessary to address the needs of teenage mothers in relation to providing information and practical support such as engagements in work and income, parenting programs, housing and childcare support (Scudder et al., 2008). Moreover, teenage mothers need more information in regards to services available to support good mental health especially during this often stressful time in their life (Jonge, 2001). Therefore, depression is one of the potential concerns for health care providers. Thus, the nurses must encourage and

provide supports for pregnant teenagers to allow finishing their education so that they can lead a successful life. Otherwise, they lead to maternal depression during pregnancy.

Measurement of depression

There are several to measure depression in any person. The instrument for screening depression in teenagers is divided into two groups. Screening for depression can be by a self-rating scale and/or a clinician scale as follows: Screening depression by self-rating scale such as Beck Depression Inventory (BDI); The Beck Depression Inventory (BDI) is a 21-item (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) self-report rating inventory that measures characteristic attitudes and symptoms of depression (Carleton et al., 2013). There is also the Center for Epidemiologic Studies Depression Scale (CES-D) which is a free commonly used available self-report measure of depressive symptoms (Radloff, 1997). There are studies have measured at the depression scores during pregnancy used the Edinburgh Depression Scale and the Post-Traumatic Stress Checklist as an indirect measure of mental health resilience (Harville et al., 2010). This measurement was indicated depression score for participants in postpartum period.

However, several recent investigations have called into question the robustness and suitability of the commonly used 4-factor 20-item CES-D model in any population (Carleton et al., 2013). The Depressive symptoms scale is often employed for measurement. This instrument is based on the CESD-10 (The Center for Epidemiologic Studies Depression). In this study, the suitable measurement for depression in pregnant teenagers will be employed from the scale for depression in Thai adolescent mothers

from the study of Nirattharadorn et al. (2005). It was a modified scale of a 20-item self-report questionnaire which has been designed to measure the current level of depression in terms of feelings that have occurred during the past week including today (Nirattharadorn et al., 2005). The CES-D scale consists of 4 major depressive symptoms: depressed affect, positive effect, somatic and related activity, and interpersonal relationships. The possible response of each item is summed to create a total score ranging from 0 to 60. A score between 0 to15 is considered "not depressed", a score between 16 to 20 is considered "mild depressed", a score between 21 to 30 is considered "moderately depressed", a score between 31 or greater is considered "severely depressed". The Cronbach's alpha coefficient of the CES-D scale was 0.85 for teenage pregnant women in the prenatal period (Nirattharadorn et al., 2005).

Depression in teenage pregnant woman

Depression in teenage pregnancy is one of the potential concerns for health care providers. Several studies have shown that adolescent mothers had higher levels of depression than pregnant adult women (Collingwood, 2014). Depression is a consequence from low self-esteem and low social support during pregnancy (Nirattharadorn et al., 2005). Identified distress among teenage mothers was a distinct phenomenon that warrants its own term maternal distresses (Finer & Zolna, 2011). In addition, maternal distress occurs during the transition to motherhood, a time when women experience great physical, social and emotional changes (Emmanuel & St John, 2010). Moreover, maternal distress can lead to depression over time (Nirattharadorn et

al., 2005). Teenage pregnancy is a high risk to the teenager in developing maternal depression, as well as slow mental and emotional consequences (Keawjanta, 2012). Therefore, teenagers who have a pregnancy can experience problems which consist of a failure to make the transitional period to becoming a teen mother.

Findings from previous studies have indicated that antenatal depression is associated with depression in the postpartum period (Almond, 2009; Coelho et al., 2013; Logsdon, Birkimer, Simpson, & Looney, 2005; Reid & Meadows-Oliver, 2007). Psychological symptoms may affect teenage pregnant women with negative cognitions, and interpersonal conflicts during their pregnancy (Bunevicius et al., 2009). Specifically the symptoms of depression have been shown to mediate the effects of child abuse and to be associated with reports of becoming pregnant or of having an abortion in high school (Becker-Lausen & Rickel, 1995). In addition, maternal depression in the ante partum period can lead to an increased risk of postpartum depression (Nirattharadorn et al., 2005). Moreover, there are several serious consequences that may impact on the newborn including preterm delivery, low birth weight, and also retardation for mental, emotional and physical development of the child in the future (Keawjanta, 2012)

Resilience and depression

Resilience can increase the capacity of a person to prevent and overcome adversities from crisis situations as well as the damaging effects of adversity. In particular, period of life is a vulnerable time that becomes the experience negative effects in developmental tasks (Hart, Brannan, & de Chesnay, 2012; Phaneuf, 2013; Stephens, 2013).

The psychology outcomes are indicated to depression in teenage pregnant women. Depression is psychosocial consequences that may be one particular problem, and prior investigations in prenatal period (Van den Hove et al., 2012). Depression in teenage pregnancy is a consequence aspect during pregnancy that can lead to postpartum depression in teenage mothers (Nirattharadorn et al., 2005). Specifically the symptoms of depression have been shown to mediate the effects of child abuse and to be associated with reports of becoming pregnant or of having an abortion in high school (Becker et al., 1995). Thus, teenage mothers need more information in regards to services available to support good mental health especially during this often stressful time in their life (Jonge, 2001). Accordingly, depression may affect teenage pregnant women with negative cognitions, and interpersonal conflicts during their pregnancy (Bunevicius et al., 2009). Therefore, nursing interventions not only need to enhance the resilience of these young adolescents but also need to help them to overcome any adversities in their life.

Therefore, increasing resilience in teenage pregnant women can provide better outcomes and prevent future problems including problem behaviors, poor decision making, and psychosocial impacts. Additionally, having an understanding of the importance of resilience for pregnant teenagers can enable the health care providers to promote a suitable model for care in this group (Woods, Melville, Guo, Fan, & Gavin, 2010). Thus, people need to become resilient to overcome the many adversities they face such as depression during pregnancy. Therefore, nurses should encourage resilience in teenage pregnant women; otherwise, they may face depression during pregnancy.

Life Goals in Pregnant Women

This section presented definitions of life goals, types of life goals, factors influencing life goals, life goals in teenage pregnant women, measurement of life goals and the association between resilience and life goals.

Definitions of life goals

Several scholars have defined life goals in various meanings and contexts. Life goals are often defined as our aspirations for who we want to become and what kind of life we want to live (Sivaraman Nair, 2003). Compared with personal values, they are at a more concrete level, and yet are general principles that can transcend contexts. Being more than dreams, they provide structure and purpose, direct future lives, and guide everyday choices. Life goals are associated with the aspirations and motivation, general well-being and quality of life of a person and are also influenced by earlier advantageous and disadvantageous experiences in a person's life (Sivaraman Nair, 2003). Therefore, life goals are the desired states for people to find and obtain as they can assist people maintain or avoid with advantageous and disadvantageous factors.

Types of life goals

Life goals can be divided into two types: intrinsic and extrinsic depending on the basis of their content (Kasser & Ryan, 1996). These are presented as follows: 1) Intrinsic goals can be identified as those focused on personal growth, health, relationships, and service care and enhanced personal well being (Zhang & Yu, 2014)

and 2) Extrinsic goals are focused on financial success, fame, physical appearance, and power; factors which may indicate a person who is extrinsically oriented (Zhang & Yu, 2014).

Factors influencing life goals

There are several factors which can help people to succeed in their life goals. Some of these various influential factors are specific to the development of healthy and spiritual values (Zhang & Yu, 2014). Previous studies showed that personal traits such as age, gender, personality, experience, environment, extroversion, openness, agreeableness and conscientiousness influence life goals (Ingrid et al., 2009; Sivaraman Nair, 2003). In addition, there are psycho-social factors that family support is the basis factor for approaching about the life goals that what encourages person to think and try the right things and lead to positive outcomes (ArrÁNz Becker, 2013). Basically, life goals can contribute to one's health and psychological well being (Ingrid et al., 2009). Forming positive life goals can motivate and guide a person's daily behavior and help him or her achieve full potential (Gabrielsen, Ulleberg, & Watten, 2012). This is especially important for pregnant teenagers who are in a crucial period in life when personal values and life goals are developed. This is a critical time when most teenagers enter college or school, explore possibilities for their lives, and make the transition from dependent teenagers to independent teenagers (Gabrielsen et al., 2012).

On the other hand, there are some factors that have a negative influence on life goals; including family dysfunction and poor self-esteem, a history of troubled family

relationships, poor school achievement and risky heath behaviors, especially in adolescents (Klima, 2003; Pillitteri, 2015). Moreover, some factors influencing the life goals of individuals change from early adulthood to late in life while gender also influences the choice of life goals as women tend to give more importance to family, domestic and social goals, and men to economic goals and occupation (Sivaraman Nair, 2003). Thus, the factors which influencing life goals can be categorized as physical and psychological factors such as, change of life events, emotional distress, illness, and disabilities.

Life goals in teenage pregnant women

A life goal may be specific to pregnant teenagers for planning motherhood and their future life. In addition, life goals have increased educational aspirations and also are important for pregnant teenagers to continue their education in school and find support during pregnancy (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed et al., 2000). Although, parenting demands expectation of life, it has been found that pregnant teenagers had fewer life goals than their peers (Sivaraman Nair, 2003).

Pregnancy is considered to be a life changing event which significantly influences the life goals of teenagers. For pregnant teenagers life goals create meaningful connections and motivation to plan for success in a career and academic achievement (McGaha-Garnett et al., 2013). When teenagers experience pregnancy they need to have family support, professional health support and assistance to adapt to their pregnancy, to keep good health, and to promote well being during their pregnancy (Wong-Arsa &

Sitkul-a-nan, 2008). Previous studies have focused on developmental psychopathology for maintaining positive outcomes in adolescents (Rutter, 1987). As people face adversities in their lives, they need people who know how to promote resilience and who can assist them to become more resilient themselves (Thomas & Revell, 2016). Moreover, Panthumas et al. (2012) found that perceived self-efficacy and knowledge of pregnancy were predictors of the self-care behaviors of pregnant teenagers. Therefore, when they have good levels of resilience this can prevent complications as well as maintain good health behaviors throughout the prenatal period.

Several substantial researches have shown that an intrinsic value orientation promotes increased personal well-being in comparison to extrinsic orientations. In particular, pregnant teenagers need to have goals in life that include higher expectations for parenting and overall achievement, and increased educational aspirations during pregnancy (Carey et al., 1998; Collins, 2010; Flynn, 1999; Weed et al., 2000). They need to try continuing their education in school and finding support (Weed et al., 2006), such as peer support, and financial support from other sources (Nintachan et al., 2011).

In addition, pregnant teenagers often prematurely drop out of school which leads to higher levels of poverty and a limited chance of acquiring a good career to develop their lives in the future (Clutter, 2009; Griswold et al., 2012; Sethosa, 2007). Furthermore, they have to handle the childbearing period including balancing the need for developing during adolescence, the responsibilities of parenthood, and also possibly continuing education for their life goals (Carey et al., 1998; Collins, 2010). Having life

goal leads to pregnant teenagers having higher expectations for parenting and overall achievement. Resilience enhancing may promote aspirations for life goals and also can help pregnant teenagers to set life goals. Therefore, pregnant teenagers require life goals in order to improve outcomes for the prenatal period and provide appropriate support for them.

Measurement of life goals

Many instruments have been modified for measuring life goals in a person. This topic will present the instruments that have always been used in previous studies as follows:

The Aspirations Index

This instrument was developed from Kasser and Ryan (1996) and assesses the life goals of the participants (Kasser & Ryan, 1996). These items of aspiration index were developed in the eight domains of life, four of them refer to the extrinsic aspect that consist of financial success, physical appearance, fame, and power and the intrinsic aspect which consists of personal growth, and community This instrument uses a scale of 1 to 5 defined as not at all important to very important.

The Adolescent Life Goals Profile Scale

The adolescent life goals profile scale (ALGPS) is a new approach to measure personal goals, meaning, structure and direction in adolescent lives (Gabrielsen et al., 2012). It was developed based on the available theory, clinical experience and previous work. Furthermore, this scale aims to assess the particular

perception of four life goal categories including, relations, generatively, religion and achievements and also the perceiving attainment of life goals in adolescent lives. This scale has 20 items for each life goals category. A Likert scale is indicated by 1-7 that present I totally disagree, 7: totally agree 1. This scale shows reliability by Cronbach's alpha coefficient; 0.77, 0.84 and 0.70, for each factor that consists of the relation and religion, achievement and generatively, respectively.

The Monitoring the factors of Life Goals Scale

The scale in this study was modified from the instrument of the life goals in young adults of American high school seniors (Twenge et al., 2012). This original instrument was used to the study to monitoring the future: a continuing study of the lifestyles and values of youth annual surveys that were designed to explore changes in important values, behaviors, and lifestyle orientations of contemporary American youth. The instrument was developed based on the structure of goal contents across 15 cultures that can be identified to primary dimensions underlying the goals in a person including, the intrinsic and extrinsic, self-transcendent, and physical dimensions (Grouzet et al., 2005). In this study, the researcher used the life goals scale for measuring in teenage pregnant women. All items of this instrument were measured the context of life goals in teenage pregnant women during pregnancy.

Resilience and life goals

The relationship between resilience and life goals in social context, though stability here must incorporate the possibility of adaptation in person. Accordingly the

resilience concept can be described as a dynamic process that results in adaptation in the context of significant adversity. The resilience phenomenon is a reflection of the relationship between characteristics and factors in the environment (Cicchetti, 2010). Resilience results in the person have increased ability to meet stress and adversity and it is the adaptation of an individual or group (Ahern, 2006). And also, person has to need someone who know how to promote resilience and are becoming more resilient people (Thomas & Revell, 2016). Goals are accessible by conscious awareness and can be identified to the pursuit and attainment of life goals affect sense of well-being in a person (Sivaraman Nair, 2003). In fact, goal setting theory is generally accepted as among the most valid and useful motivation theories in industrial and organizational human psychology, and organizational behavior (Locke & Latham, 1990). Life goals are powerful influences in motivating and inspiring people. The life goal is recognized that basics incorporated and entire management systems, like management by purposive that have goal setting (Locke & Latham, 1990).

In this study concept of resilience is defined as the psychological trait in a resilient person at risk circumstance. Previous studies have shown that people with a high sense of well-being had better recognition of life goals, commitment to life goals, perception of life goals and sense of achievement of life goals (Sivaraman Nair, 2003). Accordingly, resilience can be identified as the capacity of a person to prevent and overcome adversities from crisis situations as well as the damaging effects of adversity (Kumpfer, 2002). In particular, the period of life in person is a vulnerable time that becomes the experience negative effects in developmental tasks (Hart et al., 2012; Phaneuf, 2013;

Stephens, 2013). Therefore, increasing the person' motivation to participate in compliance when that person has resilience can lead to better life goals. The association between resilience and life goals show person can lead to improved life goals other positive outcomes. Nurses should provide pregnant teenagers with resilience enhancing skills support so as to improve life goals and outcomes.

The Strategies to Enhancing Resilience

There are several strategies that need for enhancing resilience in teenage pregnant women as well as policy and regulatory framework for effective health care services. The main strategies for enhancing resilience in teenage pregnant women or mothers were reported as following: Providing childbirth preparation program during prenatal period to improve maternal skills and knowledge (Marcellus, 2010; Maxson & Miranda, 2011), encouraging the teenage pregnant women to identify the problems and conflicts of pregnancy and parenting (Maxson & Miranda, 2011; Ngom et al., 2003), Promoting participants' strength offerings clues to problem solutions to build resilience and to construct a way for teenage pregnant women to respond in the face of adversity by teacher or health care providers (Black & Ford-Gilboe, 2004; Collins, 2010; Salazar-Pousada et al., 2010), providing friendly services that are easy to access (Marcellus, 2010; Maxson & Miranda, 2011; Weed et al., 2006), promote self-esteem, self-efficacy, and positive attitudes in teenage pregnancy and develop coping competencies and adaptive skills in their life (Grant, 2006; Harville, Xiong, Buekens, Pridjian, & Elkind-

Hirsch, 2010; Weed et al., 2006), Integrating social support in nursing intervention for teenage mothers (Harville et al., 2010; Maxson & Miranda, 2011; Weed et al., 2006), Home visiting teenage pregnant women (Carey et al., 1998; Collins, 2010; Hurd & Zimmerman, 2010; Steinhardt & Dolbier, 2008). Therefore, to understand this concept by nurses will better prepare them to perform resiliency assessments and intervention appropriately to enhance well-being and positive outcomes for the teenage pregnancy.

There are several strategies that provided throughout the pregnancy in order to increase resilience in pregnant adolescent population. In particular, the health provider should establish suitable programs to enhance resilience in pregnant teenagers that need to be designed specifically for our cultural setting in health care service. In this study, healing presence was used in the first step of establishing relationships and trust between the researcher and the pregnant teenagers. The researcher integrated the concept of healing presence for developing the resilience enhancing nursing program for pregnant teenagers.

Concept of healing presence

The concept of healing presence is used in health care. Especially for those of nursing area, it has been suggested this concept to creation of the person's psychological and spiritual needs to help find the inner resources (Breggin, 1997). In this study, the researcher has used the healing presence to guide for conducting the nursing interventions in the resilience enhancing nursing program. This title included definitions

of healing presence, components of healing presence, and the evidence base of healing presence in nursing interventions. Details were presented as follows:

Definitions of healing presence

Healing presence has been clarified to various definitions in any context. Dossey and Keegan (2009) identified a nurse as an instrument of healing and she has discussed the important of practice of foundation upon with provide for nursing intervention. Moreover, the healing presence has been explained in psychological processes of person responds for the effects of expectation or goal of person (Jonas & Crawford, 2004). In addition, the presence focus on the patient through attentiveness to their needs by offering of one whole self to be with the patient for the purposes of healing for the mutual act of intentionally (Tavernier, 2006). In addition, Breggin (1997) had summarized the healing presence in the context of a spiritual aspect and it is a way of being helpful for patient, friend, or family member with anyone who feel hopeless and needs help to provide the confidence that can overcome suffering and continue to develop in their ways. Additionally, Dossey and Keegan (2009) recognized the important of honoring for nurse self-care that can be defined the presence as a bridge to be collaboration with a state of mindfulness while caring for the patient. Therefore, healing presence is defined as the ways of being in relationship and connection with a person to encourage the views of the reality that for the effects of expectation or goal and provide the confidence that can overcome adversities in person.

Components of healing presence

Two components of presence including physical and psychological components, as can be described in term of presence in "being there" and "being with" were identified (McDonough-Means, Kreitzer, & Bell, 2004). The component of physical can be clarified in details; physical presence will be involved in body-to-body proximity and this component need the skills to support as follows skill of seeing, examining, touching, doing, hearing, and hugging or holding for person who need help (McDonough-Means et al., 2004). For the psychological presence is involved to mind-to-mind contact and the requirement for this component need the caregiver to have many skills including, listening, attending to, caring, empathy, being non judgmental, and accepting to the person or patient who need help in any situation (McDonough-Means et al., 2004). Therefore, the components of healing presence could be guide for establishing the relationship between pregnant teenagers healing presence and nurse should provide the holistic and good quality nursing intervention.

The evidence based of healing presence interventions

Healing presence is addressed to interpret in the nursing program and nursing intervention in nowadays. To develop and promote the healing presence that should pay attention to the ways of person respond before offering the healing relationship (Breggin, 1997). For example, the nursing education, the healing presence within nurse and patient and faculty student relationship (Coffman, 2007). Beck (2001) has identified the experience for nursing how to care relationships with faculty in nursing

education by meta analysis as followings: a) uplifting effects of caring, b) being respect, c) belonging, d) growth, e) transformed, f) learn to care and g) desire to care (Beck, 2001). In order to, the components of healing presence include the physical presence, psychological presence, and therapeutic presence. There are some factors associated with resilience including as psychological factors, external factors, and social interrelationship that related to the concept of healing presence. Therefore, entering the healing presence can guide to develop the nursing interventions for increasing the resilience in pregnant teenagers and improve the outcomes of this study.

Most nursing interventions or education programs for health care professionals have been identified the healing presence is a primary mode of nursing practice for provide the nursing intervention (Dossey & Keegan, 2009). Thus, all the specific components of healing presence were related to approach and establish the relationship between nurse and participant. In this study, the researcher has selected and integrated for developing the program based on the concept of healing presence by Dossey and Keegan (2009), including physical presence (body to body; being there), psychological presence (mind to mind; being with), and therapeutic presence (spirit to spirit; being intentional). These components and details are provided in the conceptual frame work of this study (see Figure 1).

The Nursing Program of Resilience Enhancing

Previous studies of program related to resilience in this group suggest to the social support that can be performed effectiveness for positive outcome for such as to promote a supportive from friend, supportive positive behavior, and establish net work for social and family for teenage pregnant women (Grant, 2006; Grote & Bledsoe, 2007; Harris & Franklin, 2009; McDonald et al., 2009; Wolchik, Schenck, & Sandler, 2009). For the activities of promoting the decision making or problem solving skills that should be conducted the teaching learning curriculum, group discussion, performed connecting, learning and communicating skills of this group (Fraser & Pakenham, 2008; Wolchik et al., 2009; Wong et al., 2009). From assessing all of the interventions that have been suggested in performing a program that should conduct factors associating with resilience and provide the components of resilience.

Several current studies, the intervention specifically designed to increase resilience factors that are the components in adolescents can improve outcomes and prevent future problem behaviors, poor decision making and psychosocial impacts which are becoming increased threats in their lives (Kumpfer, 2002).The purpose of this inquiry was to summarize, in general, the explanations given in this collection previous research on the program or intervention regarding promoting resilience on teenage pregnant women or related groups. In order to, the four programs of activities that performed appropriately to promoting resilience, there were interactive workshops for teenage and family such as, consulting and sharing about nursing intervention to promote stress management, depressive,

coping, self esteem (Fraser & Pakenham, 2008; Grant, 2006; Grote & Bledsoe, 2007; Harris & Franklin, 2009; Wong et al., 2009). Therefore, nursing implications for assessments, communication techniques, teaching strategies, and family interventions are in developing nursing interventions to enhance the resilience for teenage pregnant women. Moreover, pregnant teenagers need more information in regards to services available to support good mental health especially during this often stressful time in their life.

To summarize the literature review, it can be seen that most pregnant teenagers, as well as their newborn infants, are vulnerable to a variety of potentially serious health problems. In addition, few previous studies have focused on the concept of enhancing resilience in pregnant teenagers. Nurses should be concerned with resilience in pregnant teenagers so as to provide appropriate support for them. Several resilience interventions have demonstrated effectiveness in adolescents. These interventions include counseling approaches for individual case management, enhanced cognition, problem-solving and social skills for children and adolescents and school-based programs. Therefore, the RENP program was developed based on three concepts including; the three components of resilience concept, the healing presence concept was guided to develop the nursing interventions, and also the concept of teenage pregnancy from literature review and evidence based practice. Furthermore, resilience, depression, and life goals among pregnant teenagers can be measured by using the instruments. Therefore, it is important to conduct this study to examine the effectiveness of a RENP program on depression and life goals among pregnant teenagers that may help to provide better outcomes for these pregnant teenagers in Thai context.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the research methodology approaches to test the resilience enhancing nursing program (RENP) as compared to regular care. The topics of this chapter are presented as follows: research design, research setting, population and sample, instrumentations, validity and reliability, ethical considerations, data collection procedures, controlling threats validity, and data analysis.

Research Design

A randomize controlled trial with an experimental repeated measures design was used to investigate the effect of the resilience enhancing nursing program on depression and life goals among pregnant teenagers. The experimental and control groups consisted of the inclusion and exclusion criteria, and randomized minimization techniques for the confounding variables in the study.

Variables

The study variables consisted of an independent variable, dependent variables, and controlled variables. The independent variable in this study was the resilience enhancing nursing program and the dependent variables were depression and life goals of pregnant teenagers. The potential confounding variables included gestational

age, marital status, and total family income per month that were controlled through the inclusion criteria. These variables were controlled by randomization, because they might affect the intervention process and the study outcomes. The researcher used random minimization version 2.01 (Zeller, 1997) to assign the subject to the experimental or the control group to avoid potential confounding variables that may unexpectedly appear.

		Baseline 1st week		4th week		8th week
			X1		X2	
Experimental group	R	O1		O2		O3
Control group	R	O4		O5		O6

R = randomization for the subjects to experimental group and control group.

X1 = an intervention in the 1st week, the Resilience Enhancing Nursing Program

X2 = an intervention in the 4th week, the Resilience Enhancing Nursing Program.

O1 = baseline data or pre test scores in the 1st week.

O2 = post test scores of the intervention period and when the program was completed in the 4th week.

O3 = post test scores of the intervention period and when the program is completed in the 8thweek.

O4 = baseline data or pre test scores of the regular care period in the 1st week.

O5 = post test scores of the regular care period in the 4th week.

O6 = post test scores of the regular care period in the 8th week.

Figure 2. The Research Design of the Resilience Enhancing Nursing Program (RENP)

Research Settings

This study was carried out in antenatal care clinics at the Mahasarakham and Kalasin hospitals in North-Eastern Thailand. These two hospitals provide similar guideline standardized care. Nowadays, the maternal health care service in Thailand provides routine care for all pregnant women with at least four prenatal care visits at a general hospital. Moreover, the standard recommendation was that adult pregnant women and pregnant teenage females should be in the antenatal care unit when they realize their pregnancy. For routine care in normal cases, pregnant women attended an antenatal clinic unit for a checkup every month until 28 weeks of gestation, then every two weeks after the 28 - 36 weeks of gestation, and every week after 36 weeks of gestational age.

Mahasarakham hospital had 472 beds for general patients. The hospital antenatal clinic was open from 8.00-16.30 hours. In 2011 and 2012, there were 146 and 154 cases, respectively, of teenage pregnant women who attended the antenatal care clinic in Mahasarakham hospital; the mean number per month was 13 pregnant women. Kalasin hospital had 505 beds for general patients. The antenatal clinic was open from 8.00-12.00 hours. In 2013, there were 480 teenage pregnant women who attended the antenatal care clinic in Kalasin hospital; the mean number of pregnant teenagers per month was 50 cases. Mahasarakham and Kalasin hospital had patient’s baseline scores of research out comes representing teenage pregnant women within the general framework of the research criteria. The hospitals also provided antenatal care supporting the health care policy to this group through an appropriate health care program for teenage pregnant women.

Population and Sample

Population

In this study, the population consisted of primiparous pregnant teenagers. The researcher selected the pregnant teenagers who visited the antenatal care unit at Mahasarakham hospital and Kalasin hospital. Teenage pregnant women who met the criteria were recruited.

Sample

The sample were drawn from all the teenage pregnant women who attended the antenatal care clinic at either Mahasarakam hospital or Kalasin hospital and who met the inclusion criteria as GA < 28 weeks and articulate in Thai language.

Sample size

The study was a hypothesized-tested study, using independent t-test measures. In this regard, the power analysis was used to determine the sample size needed to ascertain the desired power in order to ensure the validity of statistical conclusion. The standard power analysis of .80 was used to reduce the risk for Type II error in this study. The level of significance is provided to determine whether the findings reject or accept hypothesis. The minimal level of significance was set at .05 to reduce the risk for type I error. Effect size was a statistical expression of the magnitude of the relationship among variables. The larger the index of effect size indicated stronger

relationship among variables and higher ability to detect the significance of statistics with a small sample size (Polit & Beck, 2008).

From literature review, no studies were related to resilience programs in pregnant teenagers. Therefore, this study selected the medium effect size at a level of statistical significance of α .05, u = 1 and sample size was determined at 64 per group (Cohen, 1988, p. 384, Table 8.4.4). The sample size of each group was 64 subjects in both the experimental and control group. The entire sample was recruited from two settings, Mahasakham and Kalasin hospitals. There were 64 pregnant teenagers enrolled in this study, of which 64 cases were planned in Figure 3.

The researcher selected the participants by using randomized controlled trial. After screening samples from 234 cases in this study, that were conducted with 140 pregnant Thai women, eligible participants were randomized into two groups (Intervention n = 70; control group n = 70). Finally, total 130 cases were recruited and randomly assigned to either the experimental group or control group. Data showed that in the intervention group (n = 64), 5 cases withdrew, 5 cases were lost to follow up in 4th week, an additional 9 cases were lost to follow up in 8th week. For the control group (n = 66), 4 cases were lost to follow up and an additional 5 cases were lost to follow up in 8th week. 66 cases in the control group and 64 cases in the experimental group completed data collection. The samples included 130 teenage participants, with 64 in the experimental group, and 66 in the control group. The final total of participants for analysis was 130.

Sampling technique

The researcher recruited eligible subjects who met the inclusion criteria for randomization. The eligible subjects were randomly assigned by using minimized randomization software version 2.01 (Zeller, 1997) thereupon data collection at baseline, data on gestational age, marital status, and total family income per month took place. The exclusion criterion was incompletely received for the program in this study. The minimized randomization software (Zeller, 1997) provided was used to balance of the potential effect of confounding factors in randomized controlled trials. Purposive sampling was used to recruit subjects from February 2015 to March 2016 from antenatal care clinics in the hospitals. In order to assure homogeneity between the experimental and controlled groups, all subjects were matched using the minimized randomization program (Zeller, 1997) to control variables affecting outcome variables. These variables were gestational age, marital status, and total family income per month. Thus, this study decreased the threat of internal validity.

The randomized controlled trial used two groups which included a control and experimental group. An effects evaluation was used pre-post test of the resilience enhancing nursing program on the outcomes including depression and life goals among pregnant teenagers. About 130 subjects were recruited from the setting from March 2015 to March 2016 and were randomly assigned to either of the experimental group or control group. The RENP program was divided into details including, establishing a trusting relationship, improving the resilience, monitoring and encouraging the resilience practice.

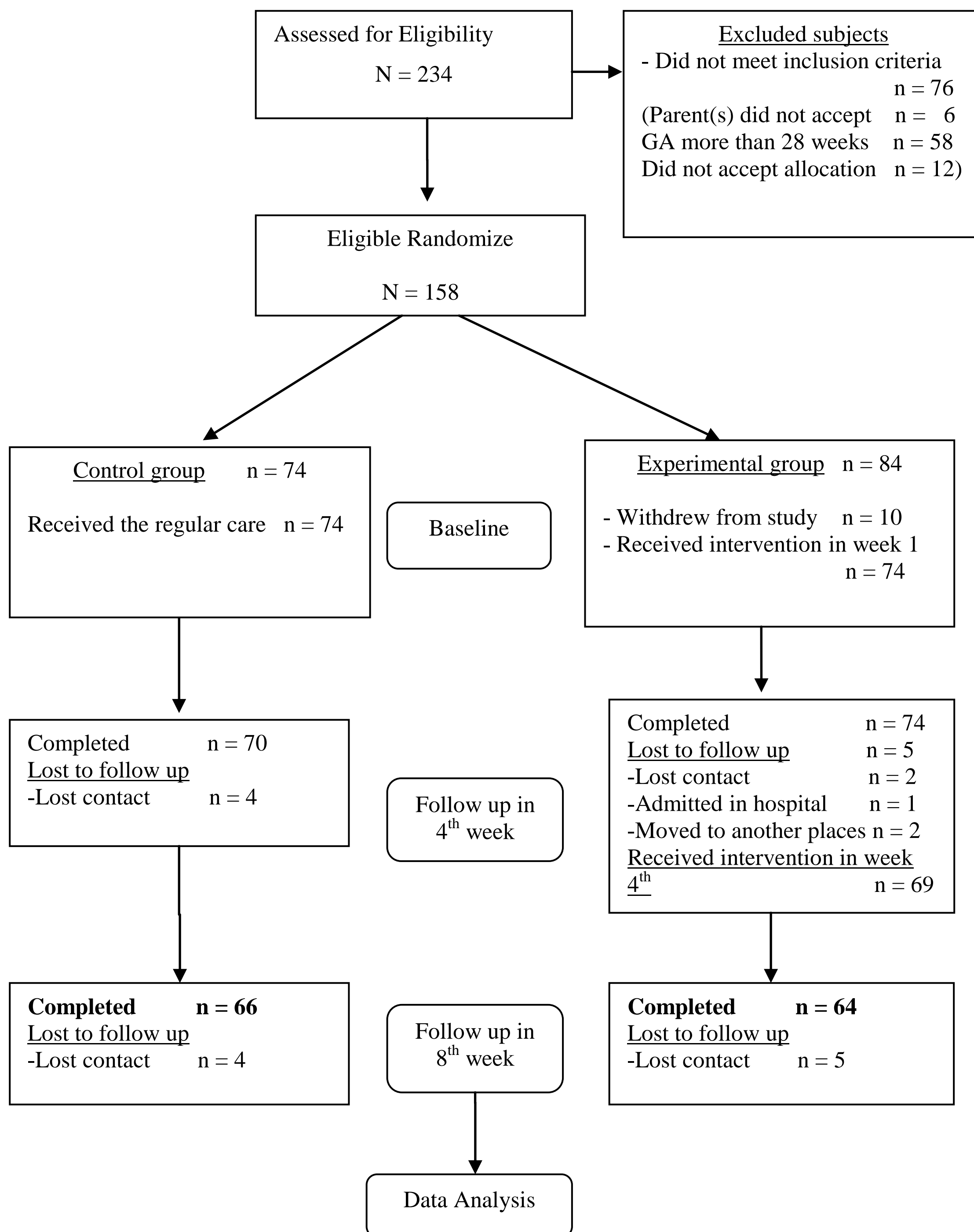


Figure 3. The Consort Diagram of all Subjects Recruitment and Follow-up

This program emphasized using the resilience concept including three domains; inner strength (I am), external support (I have), and interpersonal and problem solving skills (I can). All outcome variables were measured at 4th week and 8th week for pregnant teenagers who attended an antenatal care clinic and received the interventions.

Instrumentations

The instruments in this study consisted of instruments for research intervention and the instruments for data collection. The resilience enhancing nursing program (RENP) was the research intervention. In addition, the instruments for data collection consisted of a demographic data form, and measures of the depression scale and life goals scale. The content validity and testing reliability of each instrument was used to assess quality in this study. Details of the instrumentation process are as follows:

Instruments for research intervention

The instrument for research intervention in this study was the resilience enhancing nursing program. It was presented as follows:

The resilience enhancing nursing program

The resilience enhancing nursing program is the set of interventions for teenagers pregnant women which was developed based on the concept of resilience, healing presence and evidence from literature reviews (Crane, Winder, Hargus, Amarasinghe, & Barnhofer, 2012; Grotberg, 2003; Kruizinga, Scherer-Rath,

Schilderman, Sprangers, & Van Laarhoven, 2013; McDonald et al., 2009; Steinhardt & Dolbier, 2008; Thanoi, Phancharoenworakul, Thompson, Panitrat, & Nityasuddhi, 2010; Wong et al., 2009). The subjects in this study were pregnant teenagers that employed the interventions in this program. The interventions were developed from the findings of several studies related to enhancement of resilience in teenage groups and also teenage mothers.

The researcher found that both evidence based practices, and the resilience enhancing nursing program were integrated in the intervention and also, the outcomes of program were evaluated by the instruments of study. Therefore, the resilience enhancing nursing program was divided into section including, establishing a trusting relationship, improving the resilience, and monitoring and encouraging the resilience practice.

Step 1; establishing a trusting relationship

This step consisted of establishing trust and building a relationship between the teenage pregnant woman and the researcher. The researcher established the relationship and an understanding of the teenage pregnant women's background and problem, before explaining the objectives of the study, the time duration of this study, and the expected response from patients based on the resilience enhancing nursing program. The researcher conducted this step in 1st week. It took about 30 minutes. The interventions were as follows: provide appropriate and private environment for individual approach, provide warm welcome climate and willing to establish trust with subject, encourage subject to be opened-mind, express feeling and problem ventilation, understanding the background and problems during teenage pregnancy.

Step 2; improving the resilience

This step was provided in 1st week to provide information and discussion and took approximately 45-50 minutes. This step consisted of three activities of nursing interventions for entering in subjects as follows:

The 1st activity was the watching the inspiration in motherhood video for around 10 minutes. After that the subjects responded to what they had seen. The researcher encouraged the teenage pregnant woman to open her mind and express her feelings about the video.

The 2nd activity was the tree of resilience; this activity was provided to encourage self-talk and positive thinking, concerning self confidence and self respect that they had to learn to live through crisis during pregnancy, empower teenage pregnant women to deal with the situation and have strong belief and faith they can stay with the task until the end. The researcher encouraged the teenage pregnant woman to make an effective plan to achieve life goals in the future such as, child care, continue to study i.e. describe thorough preparation and management of appropriate behaviors in developmental tasks during pregnancy, explain training of effective skills for communicating and making relationships with partner or family member during pregnancy. The researcher considered and evaluated the problem solving in a right way, by informing subjects about available services to perform connecting and communicating skills during pregnancy.

The 3rd activity was concerning the social network of teenage pregnant women. This activity provided social support and searched resources to support teenagers during pregnancy including, the researcher will provide the friendly services to easily access that were available for consultation during pregnancy, searching for personal support from trusted people during pregnancy, informing knowledge regarding the significance of resilience in pregnant teenagers, contacting the and connecting to the network and using communication skills during pregnancy.

Step 3; monitoring and encouraging the resilience practice

This step was monitoring the program until the final follow up for completing post-intervention. It included researcher surveys by telephone from 2nd to 7th to express concerns and ask about problems. In step 3, pregnant teenagers were trained about resilience skills for duration of approximately 10-15 minutes. This step was assessed by the resilience scale in order to monitor pregnant teenagers' resilience level. This evaluation of the RENP program was conducted in the 8th week; in this step the researcher met the pregnant teenager at the clinic for approximately 30 minutes. The program evaluation was measured, by the all outcome instruments including, depressive scale and life goals scale. Therefore, providing strategies for evaluation for each session in this step including: scheduling time for a follow up visit and discussion 4 weeks later to determine continuing actions in the promotion of resilience in pregnant teenagers, presenting examples of how pregnant teenagers incorporate the enhancing of resilience, opening doors to reinforce them, and evaluating open doors of pregnant teenagers in the 8th week after they have a check- up at the antenatal care clinic.

The guidelines of the resilience enhancing handbook contained information consisting of the educational resilience content and the approaches of resilience enhancing in pregnant teenagers, the details of which are presented as follows:

Part 1: Introduction; this part consisted of an introduction to resilience in pregnant teenagers and suggestions for using the handbook guideline. Information was provided regarding the procedures in the resilience enhancing nursing program.

Part 2: Content; this part contained information on resilience including a definition, components, and the importance of resilience in pregnant teenagers, the approaches of resilience, enhancing procedures, guidelines and information in regards to each session of the resilience enhancing program for teenage pregnant women to practice as follows: the internal strength (I am) consisted of practice regarding ventilation, breathing exercises, muscle relaxation. The external support (I have) consisted of practice regarding positive thinking about a problem, self-talk, and assertiveness. The interpersonal and problem solving skills (I can) consisted of the practice regarding changing a crisis situation in a positive way, considering positive ways of problem solving, planning and managing problem solving, finding other support, and increasing self-esteem to enhance problem solving. The participants provided the experience necessary to test the responsiveness of participants to achieve their life goals.

Part 3: Documents of the resilience enhancing nursing program; this part contained information about the documents in each activity of the RENP program, including the Tree of Resilience, the social network of teenage pregnant women, the resilience scale, the lists of resources and information for teenage pregnant women to find

out. All of the documents were used for the resilience enhancing nursing program. The researcher provided the documents to the teenage pregnant women who attended the antenatal care unit at the first meeting. The subjects practiced all procedures at their homes and were followed up by telephone in the 2nd, 3rd, 5th, 6th, and 7th weeks and for the program evaluation and completing post-intervention in 8th week. The Self-report of resilience enhancing practice is a self-report measuring and continuing the length of participation by the experimental group engaged in the practice of the resilience enhancing nursing program techniques during the previous week. The experimental group was quantified according to the step sessions they attended. A record of the subjects' attendance at the step sessions served as the instrument for measuring the exposure received. Pregnant teenagers practiced at least one day per week. The subjects practiced for all procedures at their homes and were followed-up by telephone in the 2nd, 3rd, 5th, 6th, and 7th week. This record form was kept in order to ensure the adequacy of the practice.

Instruments for data collection

The instruments for data collection included a demographic data form, and the outcome measures consisted of the depression scale, the life goals scale, the resilience scale in pregnant teenagers, and a self-report. Details of each instrument are presented in the following sections.

1. The Demographic Data Form

The demographic data form of teenage pregnant women was used to collect demographic data including, age, age of baby's father, gestational age, gestational age at first attending at antenatal care, period of contraception before pregnancy, education, current student status, employment, total income per month, source of payment for health care, religion, marital status, partner's attitude, current relationship with partner/husband, responsibility of partner/husband, living arrangements. There were 16 items for collecting data in pregnant teenagers (Appendix A).

2. The Outcome Measurement Instruments

This study uses two assessments to measure depression symptoms and life goals score of pregnant teenagers.

2.1 The Depression Scale

This instrument has been used to measure the symptoms of depression in Thai adolescent mothers (Nirattharadorn et al., 2005). This instrument was modified based on CESD-10 (The Center for Epidemiologic Studies Depression) which was a 20-item self-report questionnaire which designed to measure the current level of depression in terms of feelings that have occurred during the past week including today. The CES-D scale consists of 4 major depressive symptoms: depressed affect, positive effect, somatic and related activity, and interpersonal relationships. For each of 20 items, the subjects rated how much experience they had of these symptoms in the past week, from rarely or none of the time to most or all of the time. This scale measured the outcome of the program (Appendix A).

The depressive scale was tested for reliability with 30 teenagers with pregnancies that met the inclusion criteria, and had the same characteristics as the subjects at Mahasarakham and Kalasin hospitals. Cronbach's alpha coefficient was computed to ascertain internal consistency to test the reliability of the depression questionnaire. In this study, Cronbach's alpha coefficient of the CES-D scale was .90. The purpose of this scale was to ask about pregnant teenage women's feelings and behaviors during pregnancy (Nirattharadorn et al., 2005). Each frequency can be defined as follows: Level of frequency refers to rarely or none of the time referred to feeling and behaviors during pregnancy less than 1 day or none of the time that the scoring is 0, the level of frequency refers to referred to or your feeling and to 1-2 days behaviors during pregnancy that the scoring is 1. The level of frequency is occasionally or a moderate amount of the time that referred to your feeling and behaviors during pregnancy and 3-4 days or a modern rate amount of time, the score is 2. The level of frequency is most or all of the time referred to your feeling and behaviors during pregnancy 5-7 days or all of the time, the score is 3.

For each of 20 items, the subjects rated how much they experienced symptoms in the past week, from rarely or none of the time to most or all of the time. To score the items, subjects assigned a value to each of the 20 items as follows: For negative items, 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20: Rarely or none of the time = 0, Some or none of the time = 1, Occasionally or moderate amount of the time = 2, and Most or all of the time = 3. For positive items 4, 8, 12, and 16: Rarely or nine of the time = 3, some or none of the time = 2, occasionally or moderate amount of the time = 1, and Most or all of the time = 0 (Appendix A).

The criteria for determining depression can be described as the scoring of 20 items in the sum of scores. The possible response of each item is summed to create a total score ranging from 0 to 60 (Radloff, 1997). The categories are divided into four levels of depression as follows: A score between 0 to15 is considered “not depressed”, a score between 16 to 20 is considered “mild depressed”, a score between 21 to 30 is considered “moderately depressed”, a score between 31 or greater is considered “severely depressed”.

2.2 The Life Goals Questionnaire

This instrument was used to measure the life goals in teenage pregnant women during pregnancy. The scale has been modified from the instrument of the life goals in young adults of American high school seniors (Twenge, Campbell, & Freeman, 2012). This original instrument was used in the study ‘monitoring the future: a continuing study of the lifestyles and values of youth annual surveys that were designed to explore changes in important values, behaviors, and lifestyle orientations of contemporary American youth. The instrument was developed based on the structure of goal contents across 15 cultures that can be identified by primary dimensions underlying the goals in a person including, the intrinsic and extrinsic, self-transcendent, and physical dimensions (Grouzet et al., 2005). The original version of the life goals in young adults of American high school seniors has been translated using back translation of questionnaire as follows:

1. The researcher translated the original version of the life goals scale into Thai language, and then the life goals questionnaire (Thai version) were corrected by the researcher's advisor.

2. Back translation of the life goals scale (from Thai to English language) was performed by an instructor of the Faculty of Nursing at the Mahasarakham University, Thailand, who was expert in quality of life and life goal research area.

3. An American English professor who is a senior lecturer of the Faculty of Medicine, Prince of Songkla University, Thailand, compared the original version of the life goals with the back-translated version (English language). Six items including 6, 7, 8, 11, 12, and 13 were changed due to unclear statements. Three of them (6, 7, and 8) in the back-translated version needed to be changed or have some words added. Three items (11, 12, and 13) needed to be changed in the Thai version. After that, the same instructor retranslated the six items. Finally, the American English professor compared six items in both versions again. Cronbach's alpha coefficient for reliability and content validity ensured accuracy before the instrument was employed. The life goals scale was tested for reliability with 30 pregnant teenagers with pregnancy that met the inclusion criteria, and had the same characteristics as the subjects at Mahasarakham and Kalasin hospitals.

Cronbach's alpha coefficients were computed to ascertain internal consistency to test the reliability. In this study, Cronbach's alpha coefficient was .96. This scale consisted of four categories of opinion. Rate the degree to which the subject agrees with each item using the following four-point continuum: The given answer of life

goals of teenage pregnant woman provided the rating score on a 1 to 4 point scale and this scale was indicated the in each item (Twenge et al., 2012). The level of life goals, the meaning, and the score of each level are as follows: Meaning of the feeling referred to you rated this statement was not important, the score is 1, meaning of the feeling referred to you rated this statement was somewhat important, the score is 2, meaning of the feeling referred to you rated this statement was quite important was quite important, the score is 3, meaning of the feeling referred to you rated this statement was extremely important, the score is 4.

The score of 14 items were summed to create total scores that ranged from 14-56. A higher score indicated a higher life goals level. The score less than 28 is referred to “low level of life goals”, the score from 29 to 42 is referred to “normal level of life goals”, and the score greater than 42 is referred to “high level of life goals” (Appendix A).

2.3 The Resilience Scale

In this study, the resilience scale was the instrument for monitoring and measuring the resilience capacity before and after the intervention was implemented in pregnant teenagers. This scale displayed the level of resilience gathering when the subject received the interventions in this program. This instrument used the resilience factors scale for Thai adolescents developed by Takviriyanan (2008). This instrument was developed from the concept of resilience according to Grotberg (2003).

There were 25 items to assess the resilience score. In this study, the resilience scale was tested for reliability with 30 pregnant teenagers that met the inclusion

criteria, and had the same characteristics as the subjects at Mahasarakham and Kalasin hospitals. Cronbach's alpha coefficient was computed to ascertain internal consistency to test the reliability. In this study, Cronbach's alpha coefficient was .90. Each item statement has a rating scale, ranking from 1 to 4 points, associated with four possible answers. The higher score indicates higher degree of resilience in adversities during pregnancy. All respondents were asked to provide subjective opinions by using scale in response to each item (Takviriyanan, 2008).

The level of resilience, the meaning, and the score of each item level were presented as follows: Meaning of the feelings is referred to feel this statement was not true; the level of feeling is not true, the score is 1. The meaning of the feelings is referred to feel this statement was partly true; the level of feeling is partly true, the score is 2. The meaning of the feelings is referred to feel this statement was quite true; the level of feeling is quite true, the score is 3. And also, the meaning of the feelings is referred to feel this statement was completely true; the level of feeling is completely true, the score is 4. The score of 25 items was summed to create a total score that ranged from 25 to 100. A higher score indicates a higher resilience level. The categories were divided into three levels of resilience as follows: The score less than 65 is referred to as resilience lower than standard level, the score from 65 to 85 is referred to as resilience standard level, and the score greater than 85 is referred to as resilience higher than standard level (Appendix A).

Validity and Reliability

In this study, the tests were conducted for qualified instruments to ensure content validity and reliability. The details are presented as follows:

Content validity

In this study, the content validity was tested for the Thai versions of the resilience enhancing nursing program and the handbook guideline of resilience enhancing. They were examined by five experts. The experts were a physician of obstetrics, APN of midwifery, and three nurse instructors who were experts in obstetric nursing, maternal and newborn nursing, and psychiatric nursing. All suggestions from five experts have been incorporated in the final revision of the questionnaires, program and handbook. The back translation of the life goals scale was only tested by the bilingual Thai-English nursing expert when translating the Thai version to English version, and an American-English medical expert to compare the original versions with the back-translated Thai to English version in the life goals scale.

Reliability

The resilience, depressive, and life goals scale were tested for reliability with 30 teenagers with pregnancy that met the inclusion criteria, and had the same characteristics as the subjects at Mahasarakham and Kalasin hospitals. Cronbach's alpha coefficients were computed to ascertain internal consistency to test the reliability of the

resilience, depression, and life goals scale. Cronbach's alpha coefficient, yielding values of .90, .96, and .90, respectively, indicating a value of more than .80.

Ethical Considerations

Ethical approval for this study was obtained from the Ethical Research Committee, Faculty of Nursing, Prince of Songkla University, Thailand and the hospital ethical committees before collecting the data. First, the researcher met the hospital director in Mahasarakham and Kalasin Province, Thailand. Both directors of hospitals were informed of the details of this study as well as the benefits and risks to the subjects. A letter from Faculty of Nursing, Prince of Songkla Unversity asking for permission to collect data for screening teenage pregnant women was sent to the hospital director. Participants were assured as to the confidentially of their personal information. They were informed of all the activities in this study as well as the identified the risks and benefits that may result from taking part in the process of this study. They were free to withdraw from the study at anytime. After the pregnant teenage women indicated their willingness to participate, their parents were contacted and informed about the activities of the research project and the rights of their child to participate in this study by signing consent form.

Additionally, the researcher prepared a comprehensible consent form that was based on an absence of any form of coercion during the research process, since the participants were less than 20 years old and obtain permission and consent from their

parents. Therefore, the researcher should be able to recognize most of the potential ethical scenarios that may be faced during the research process. Interestingly, this process allows itself to minimize the stigma of pregnant teenagers. The subjects of experimental group were provided with the researcher and research assistant's name, home address, and mobile phone number so that they could request assistance if they had any problems such as risks and/or complications of a physical and/or psychological nature during the study.

Therefore, they were advised by the researcher to take certain precautions. They contacted the researcher immediately or as soon as possible. While, conducting this study, the researcher gave participants step by step orientations for each procedure. In addition, the participants could ask for any part of the program and lesson content to be repeated as needed. They were free to express their feelings and contradictions while taking part in the study. In this study, the issues of potential concern or harm both physically and emotionally, were kept confidential in regards to the participants (Appendix B).

Data Collection Procedures

Data collection procedures were divided into two steps, the preparation phase and implementation phase. These steps were presented as follows:

Preparation phase

This preparation phase consisted of five steps presented as follows:

1) The researcher reviewed the literature regarding teenage pregnancy, the resilience concept, depression, and life goals in pregnant teenage women.

2) The researcher was trained the counseling program in the pregnant teenagers for 1 week from 10-17 October 2014. Before the data collecting the researcher surveyed the antenatal system in both settings and informed nursing staff about the program.

3) Three graduate nurses working in the antenatal care unit, Mahasarakham and Kalasin hospitals were trained as research assistants.

4) Permission from the Directors of Mahasarakham and Kalasin hospitals were obtained to conduct the study as well as cooperation from health care providers and others related to the subjects.

5) Most of the subjects came from the outpatient departments of Mahasarakham and Kalasin hospitals, and several cases from the private clinics and primary care units. The aims, procedures, and benefits of the study were explained to the subjects and their parents.

Implementation phase

This Implementation phase consisted of all procedures presented as follows:

1) The researcher recruited subjects for both groups at the antenatal care clinic; Mahasarakham and Kalasin hospitals. The subjects who met the inclusion criteria were invited to participate in this study. The eligible subjects in this study were divided into two groups: the experimental group and control group. There were 64 subjects in experimental group and 66 subjects in control group.

2) The subjects were randomized to the experimental group by using a computer minimized randomization program. They were informed of the objectives of the study, assured of their confidentiality, and their right to participate or withdraw from the study at anytime without any disadvantages.

3) After the subjects were randomized to the experimental group and control group, they agreed to participate in the study, and filled in and signed the consent forms.

4) The questionnaires of demographic data, resilience scale, depression scale, and life goals scale were administrated to the subjects; they were once again informed of the ethical considerations. The subjects in experimental group were asked to complete the questionnaires of demographic data, resilience, depression, life goals scale before receiving the resilience enhancing nursing program.

5) After completing the 3 steps of interventions, the research assistant distributed the questionnaires by the 8th week. After completing all the post-test questionnaires, the researcher acknowledged them for their voluntarily participation.

All the subjects in this study were divided into two groups including the experimental group and control group. Both of groups were presented as follows:

The experimental group

The experimental group started the resilience enhancing nursing program. In this study, the experimental group were administered the interventions that consisted of four steps; each step was approximately 30-45 minutes long. After that the final step was in the 8th week. The participants in the experimental group completed the entire questionnaire before receiving the program. The resilience enhancing nursing program was implemented to the experimental group as follows;

Step1: establishing a trusting relationship. This step was conducted in the 1st week and took approximately 30 minutes. The objective of this step was to establish a relationship with participants by: 1) providing a private environment for program activities, 2) introducing and encouraging them have an open mind and a willingness to discuss problems regarding her pregnancy and their current situation and background, 3) explaining the objectives and details of the program, and obtaining their consent to join the study. After consenting, the pre-test instruments including, demographic data form, resilience scale, and life goals scale were administered, 4) developing a trusting relationship by starting with light music, touching and massaging the shoulders, self introduction to the group, and sharing experiences regarding pregnancies, 5) forming a trusting relationship under the climate of a warm welcome for talking between the researcher and the participant, talking together, and encouraging participants to be open minded and to speak openly regarding their pregnancies, 6) providing the program handbook and explaining how to use it and also scheduling a second appointment for the program.

Step 2: improving the resilience. This step was divided into three nursing activities: The 1st activity was watching a short video clip that focused on a case study scenario in order to provide inspiration for motherhood. After the video the researcher led an open discussion. The 2nd activity titled the “Tree of My Mind” aimed to encourage participants in the areas of self-talk, self respect and positive thinking, so that they were more able to learn and live through the crisis of a pregnancy. The focus of this activity was to empower the participants to deal with their pregnancy and to have a strong belief and faith in themselves and their ability to complete tasks. The 3rd activity in this step was to formulate a strong social network, including support services. The researcher was readily available for consultation regarding who the participant could trust for personal support, information regarding why resilience was significant for them assistance in connecting them to a net-work and help in developing better communication skills during pregnancy.

Step 3: monitoring and encouraging the resilience practice. This step involved monitoring the participants. The researcher surveyed the participants by conducting telephone interviews in the 2nd, 3rd, 5th, 6th and 7th week. This step took about 10-15 minutes. Topics covered problems arising during their pregnancy and how they had practiced resilience over the previous week in order to increase internal strength (I am), practicing positive thinking, self talk, and assertiveness to increase external support (I have), and considering positive ways of problem solving, planning and managing problems and finding other support to increase interpersonal and problem solving skills (I can). This evaluation was surveyed at 8th week using all data collection instruments. After

completing the 3 steps, the researcher distributed the questionnaires to participants in both groups in the 8th week. After all the post-test questionnaires were completed, the researcher thanked the participants for their voluntarily co-operation.

The control group

The controlled subjects were informed of the objectives of the study. After the subjects have agreed to participate in the study, they filled in and signed the consent forms. After the subjects were randomized to the controlled group, the controlled subjects were received the regular care that was the usual counseling services and also routine care in the hospital system regularly available for both adult and teenage pregnant women. Antenatal care was provided by nurses at the antenatal clinics. This regular care was limited to 15-20 minutes for each teenager or per group for giving in a maternal health education class. In some cases, problems could be identified and solved directly, giving the teenagers a sense of security. All the instruments, the resilience, depression, and life goals scale were administrated to the subjects. The control group received the usual counseling services and also regular care available at the antenatal care clinic provided by the nurses who provide guidance to pregnant teenage women. In each procedure of the program, baseline, week 4, and week 8, the subjects in this group were assessed by the resilience, depression, and the life goals scale.

Controlling Threats to Validity

In order to minimize threats to internal validity, a within-group, between group, pre and post-test measured designs were used at two different periods of time: the regular care period and the post intervention period. This section describes the potential threats to internal validity in this study and the strategies used for controlling them.

Controlled the selection bias

This study is a random selection method used to assign the study subjects to either the experimental and control groups based on the antenatal care clinic attended. The researcher employed the selection bias of subjects on a nonrandom basis that produced differences in experimental and control groups. This process addressed selection bias; a threat to the internal validity of the study designed as a minimized strategy. Therefore, using randomization removed investigator bias in the allocation of subjects in this study.

Prevented the diffusion of treatment

In this study, the researcher only informed the staff nurse and the subjects who received the treatment of the treatment. The researcher's concern of a threat to internal validity from diffusion found in this study as the experimental and control groups studied. The researcher concerned about these issues while inclusion the subjects in the experimental group that they did not know each other while they came to antenatal care

unit during the study. In addition, the researcher monitored the subjects in the control group who were not contaminated and diffused by each other and the staff nurses during entering the intervention. The routine care in antenatal clinic was given by the staff nurses.

Controlled history

In this study, the factors influencing the period of the intervention and the control variables in regular care, differentiating this time period of pre-intervention measurement, were analyzed. The researcher reviewed the literature that indicated the characteristics of pregnant teenage women, socioeconomic characteristics, and any experience within the family and their environments could impact the intervention. The results of this study were all shown to be non significant differences between the two periods among characteristics of pregnant teenage women variables.

Controlled the mortality

The researcher informed subjects of the details and briefly explained them before randomly assigning the subjects to the experimental or the control group. The researcher provided all strategies in this study, to minimize threat of participant loss and early drop out. Therefore, several strategies were employed as follows: (1) the subjects were reminded either by telephone or in person 2 days before their appointment, and (2) if the subjects did not attend their scheduled appointments, the researcher immediately contacted them to reschedule as soon as possible. In the study, there were several

strategies that diminished barriers to participation. The researcher gave money to the subjects as a reward and transport expenses of 300 Baht for each person. Moreover, the researcher made appointments at convenient as well as flexible times for each session depending on the subjects date and time for their follow up appointments at the antenatal care clinic.

Data Analysis

In this study, the data was analyzed by computer. This consisted of data screening, preliminary data analysis, descriptive analysis, and inferential statistics. The usage of statistics is presented below:

1. Data screening and cleaning; data were screened for completeness and accuracy. The coding was prepared for demographic data on group including; age, age of baby's father, gestational age, gestational age at first attending at antenatal care, period of contraception before pregnancy, education, current student status, employment, total income per month, source of payment for health care, religion, marital status, partner's attitude, current relationship with partner/husband, responsibility of partner/husband, living arrangements before being entered into the computer program.

2. Preliminary data analysis; the assumptions of dependent variable data was analyzed for normality and homogeneity of variance. Histogram, skewness, and kurtosis, stem and leaf plot for dependent variables in each group was performed to test for normality. Data on resilience score, depression, and life goals were entered before and

after receiving the program. The data was initially checked for missing values, out of range data, and data accuracy with descriptive statistics.

3. Descriptive statistics were used to analyze and describe the demographic data and any characteristic data of participants. Means, frequencies, rank, and percentages were used to analyze them. The means and standard deviation were used to analyze the mean scores of the resilience scale, the life goals questionnaire, and the depressive symptoms scale before and after receiving the interventions.

4. The assumptions of normality and homogeneity of variance of the variable were tested using inferential statistics and were checked before the appropriate statistical analysis was performed. All tests in this study set a significance level of $p < .05$.

4.1 The independent t-test statistics was used as tests for depressive symptom and life goals and the difference of the mean score between the group comparisons at baseline, 4th and 8th week in the experimental group and control group. They were measured before and after receiving intervention in both the experimental and the control group.

4.2 Repeated measures was used to determine change in depression, life goals, and resilience scores over time and whether these changes differed between the groups for the experimental and control groups before and after receiving the program.

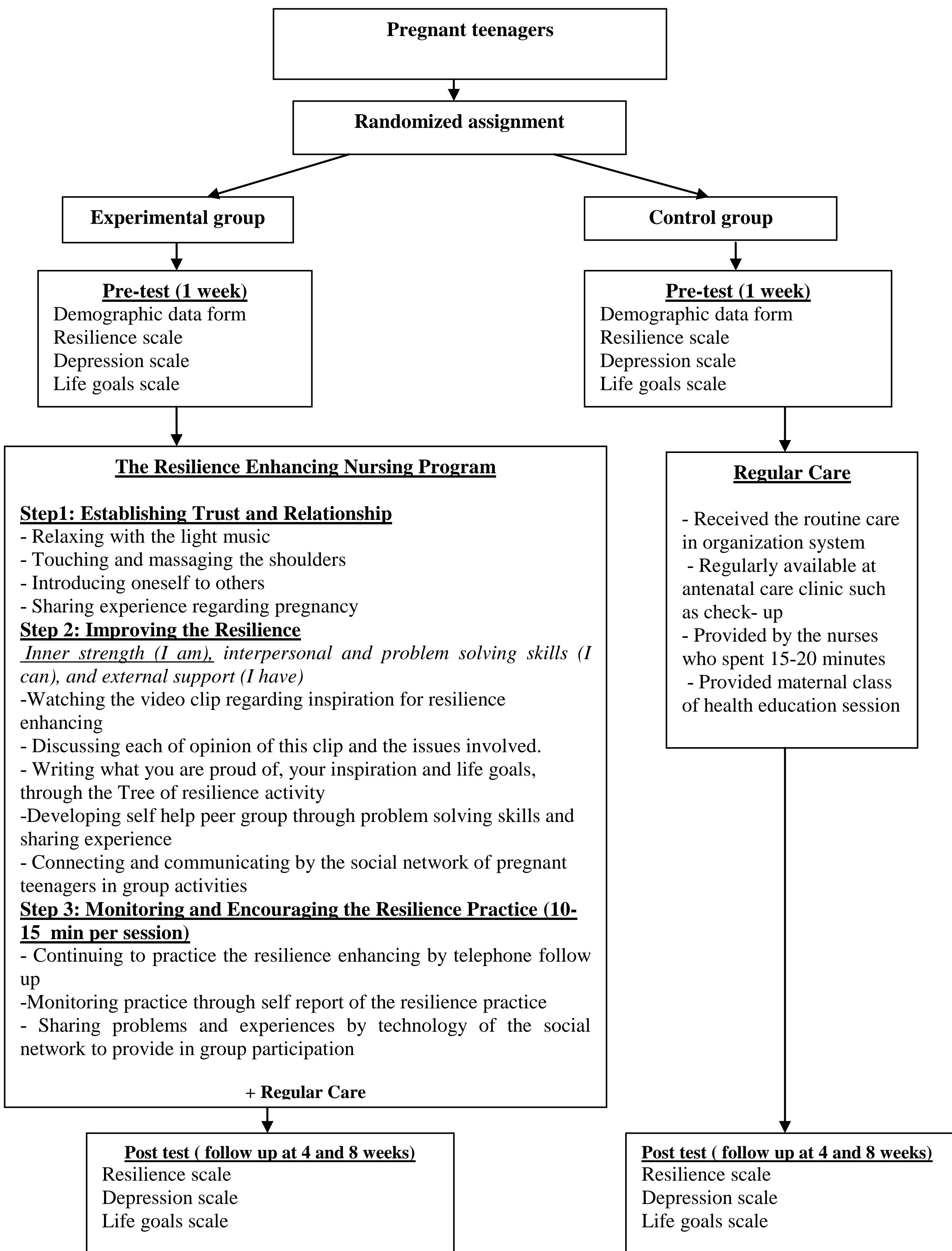


Figure 4. The Experimental Group and Control Group Design Used in this Study

CHAPTER 4

RESULTS AND DISCUSSION

The results of the study testing the effects of a resilience enhancing nursing program (RENP) among pregnant teenagers are presented in this chapter. The results of the study and discussion are organized as follows:

Results of the Study

The research findings are presented as follows:

Part I. Demographic Characteristics of the Participants

Part II. Hypotheses Testing

Part I: Demographic Characteristics of the Participants

The demographic data of participants who were randomly assigned to the experimental (n = 64) and control groups (n = 66) were as follows: In the experimental group, the mean age was 17.39 years (SD = 1.83), the age of the baby's father was an average of 20.52 years (SD = 3.51), and the gestational age at baseline was 19.08 weeks (SD = 5.52), the gestational age when first attending the antenatal care clinic was 13.50 weeks (SD = 5.01) and the period of contraception before this pregnancy 5.26 months (SD = 8.01). The majority of pregnant teenagers in this group had studied at or graduated from high school (87.5 %) or worked in a family business or on a farm (57.6%). Approximately twenty five percent had quit their studies, while thirty-four percent were

still actively studying at school. The total income per month of the pregnant teenager and her partner was less than 5,000 baht (73.4%), and they paid for their own health care during their pregnancy (100%). Most of the participants still lived with their partners while 48.4% of their parent(s) on both sides did not accept their unmarried status. However, 45.3% of pregnant teenagers still lived with family. The majority of teenagers had partners who accepted the pregnancy and acknowledged the baby was theirs (89.4 %), 95% had a good current relationship with their partners or husbands, and 92.4% had received good care from the responsible partner or husband. There were almost no complications during pregnancy in the experimental group (96.9 %) (see Table 3).

For the control group, the average age was 17.35 years (SD = 1.70), the age of the baby's father was 21.28 years (SD = 3.93), and the gestational age was 18.64 weeks (SD = 6.27) at baseline, the gestational age when first attending the antenatal care clinic was 12.67 weeks (SD = 5.50) and the average period of contraception before pregnancy (See above) was 3.92 months (SD = 5.88) (see Table 3). The majority had studied at or graduated from high school (81.8 %), or had worked in a family business or on a farm (43.8 %). Approximately thirty percent had quit their studies while twenty seven percent were still actively studying at school. The total income per month of the pregnant teenager and her partner was less than 5,000 baht (65.1%), and the majority paid for their own health care during their pregnancy (93.8%). This group had a higher number of participants living with partners where the parents accepted the unmarried status (57.6%). All of their partners accepted the pregnancy and acknowledged the baby was theirs (100%). Most of the participants had a good current relationship with their

partner or husband (98.4%), 94.3% said they had received good care from the responsible partner or husband (95.3%), and 90.9% reported that there were no complications during pregnancy (see Table 3).

The independent t-test and Chi-square test indicated that there were no differences in mean variables between the groups. There were no differences in age, gestational age, and gestational age at first attending antenatal care, and the period of contraception before pregnancy between the groups at the baseline by independent t-test. Results showed that there were no differences in education, employment, current study status, income, sources of payment for heath care, marital status, partner's attitude, and current relationship with partner, responsibility of partner or husband, and living arrangements by Chi-square test.

Table 3

Frequency, Percentage, Mean, and Standard Deviation of Demographic Characteristics in the Control and Experimental Groups at Baseline (N = 130)

Variables	Control group (n = 66) n (%)	Experimental group (n = 64) n (%)	Statistical value	*p*
Age (years)			.119 [a]	.906
Mean (SD)	17.35 (1.83)	17.39 (1.70)		
Age of baby's father (years)			1.163 [a]	.247
Mean (SD)	21.28 (4.39)	20.52 (3.93)		
Gestational age (week)			-.424 [a]	.672
Mean (SD)	18.69 (6.27)	19.08(5.52)		
Gestational age at first attending antenatal care			-.908 [a]	.366
Mean (SD)	12.67 (5.50)	13.50(5.01)		
Period of contraception before pregnancy (week)			-1.023 [a]	.308
Mean (SD)	3.92 (6.88)	5.20(8.00)		
Education			1.416 [c]	.702
No	3 (4.5%)	1(1.6%)		
6th Grade	2 (3.0%)	1 (1.6%)		
High school	54 (81.8%)	56 (87.5%)		
College or Undergraduate	7 (10.6%)	7(8.3%)		

Note. [a] = t-test independent, [b] Fisher's Exact test, [c] = Likelihood Ratio

Table 3 (Continued)

Variables	Control group (n = 66) n (%)	Experimental group (n = 64) n (%)	Statistic value	*p*
Employment			5.828 [c]	.120
Employed by company or store	0 (0%)	4(6.2%)		
Works in family business or farm	38(57.6%)	28(43.8%)		
Student	15(22.7%)	16(25%)		
Part-time/temporary work	(13(19.7%)	16(25%)		
Current student status			1.014 [c]	.798
Active	18 (27.3%)	22(34.4%)		
Leave of absence	17 (25.8%)	17 (26.6%)		
Unapproved leave	11 (16.7%)	9 (14.1%)		
Quit	20 (30.3%)	16(25%)		
Total family income per month			1.961 [c]	.743
< 5,000 Baht	43 (65.1%)	31 (48.4%)		
5,001-10,000 Baht	18 (27.3%)	16 (25%)		
10,001-15,000 Baht	4 (6.1%)	13 (20.3%)		
15,001-20,000 Baht	1 (1.5%)	2 (3.1%)		

Note. [a] = t-test independent, [b] Fisher's Exact test, [c] = Likelihood Ratio

Table 3 (Continued)

Variables	Control group (n = 66) n (%)	Experimental group (n = 64) n (%)	Statistic value	*p*
Sources of payment for health care			1.000 [b]	.679
Self-payment	66 (100%)	60 (93.8%)	4.256 [b]	.056
Partner/husband	34 (51.5%)	24 (37.5%)	2.583 [b]	.076
Teenager's parent (s)	30 (45.5%)	37 (57.8%)	1.982 [b]	.109
Partner's parent (s)	16 (24.2%)	22 (34.4%)	1.613 [b]	.141
Relatives/ Others	4 (6.1%)	5 (7.8%)	.155 [b]	.480
Religion				
Buddhist	66 (100%)	64 (100%)	N/A	
Marital status			6.269 [c]	.180
Married	1 (1.5%)	0 (0%)		
Still living with husband parent (s) accepted unmarried status	38 (57.6%)	31 (48.4%)		
Still living with husband / partner, parent (s) did not accept unmarried status	21 (31.8%)	30 (46.9%)		
Living separately	6 (8.1%)	3 (4.7%)		
Partner's attitude			1.039 [b]	.492
Accepted pregnancy	66 (100%)	63 (98.4%)		
Did not accept pregnancy	0 (0%)	1 (1.6%)		

Note. [a] = t-test independent, [b] Fisher's Exact test, [c] = Likelihood Ratio, N/A = None Applicable

Table 3 (Continued)

Variables	Control group (n = 66) n (%)	Experimental group (n = 64) n (%)	Statistic value	*p*
Current relationship with partner/husband			.969 [b]	.321
Good relationship	63 (95.5%)	63 (98.4%)		
Poor relationship	3 (4.5%)	1 (1.6%)		
Responsibility of partner/husband			1.558 [c]	.459
Giving good care	61(92.4%)	61 (95.3%)		
Giving some care	4 (6.1%)	1 (1.6%)		
Not giving any care	1 (1.5%)	1 (1.6%)		
Living arrangements			4.841 [c]	.304
Teenage pregnant women and partner/husband	9 (13.6 %)	17 (26.6%)		
Teenage pregnant women by herself	1(1.5%)	0 (0%)		
Living with teenage mother's father and mother	31 (47%)	29 (45.3%)		
Living with partner's father and mother	21 (31.8%)	16 (25%)		
Living with others: friend/ relatives	4 (6.1%)	2(3.1%)		

Note. [a] = t-test independent, [b] Fisher's Exact test, [c] = Likelihood Ratio

Part II. Hypotheses Testing

***Hypothesis 1*:** The depression scores in pregnant teenagers after receiving the resilience enhancing nursing program in the experimental group would be lower than the control group after receiving the program. In the control group, the mean scores of depression at baseline, 4th week, and 8th week after receiving the program were 16.76 (SD = 8.14), 12.74 (SD = 5.9), and 13.14 (SD = 4.84). For the experimental group, results showed a decrease in depression at the 4th week, and 8th week. The mean scores of depression for this group were 17.44 (SD = 9.25), 12.92 (SD = 6.57), and 12.38 (SD = 6.02). Therefore, the null hypothesis is accepted that there were no significant differences in the decrease of depressive scores between the experimental and control groups at each designated week point (see Table 4, Figure 5).

Table 4

Comparison of the Depression Scores in the Experimental and Control Groups Classified by Time Point (N = 130)

Time point	Control group (n = 66)	Experimental group (n = 64)	*t*	*p*
	Mean (SD)	Mean (SD)		
Baseline (T1)	16.76(8.14)	17.44(9.24)	-.444	.658
4th week (T2)	12.74(5.91)	12.92(5.57)	-.164	.870
8th week (T3)	13.14(4.84)	12.38(6.02)	-.793	.428

Figure 5 shows the mean scores of depression at each time point between the experimental group and control group. A repeated measure of ANOVA was used to examine the differences in depression scores over time between the experimental group

and control groups. There was a significant difference in depression scores by time alone (F = 14.199, $p < .001$) (see Table 6). These findings may reflect that the resilience enhancing nursing program performed over the 4th week and 8th week was not significantly effective in enhancing resilience in pregnant teenagers. ANOVA (split-plot design) was tested three times to compare depression between the experimental and control groups (see Figure 5).

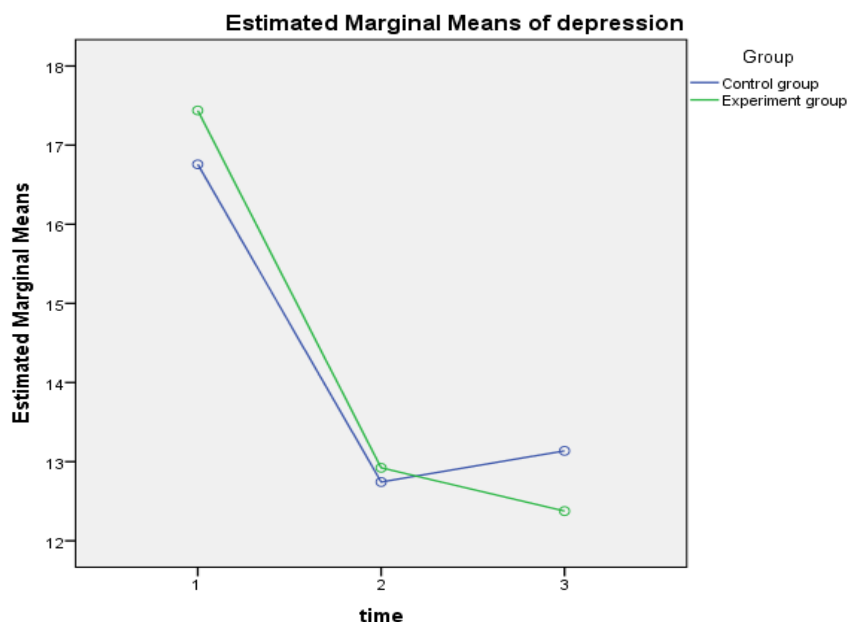


Figure 5. Mean Scores of Depression between the Control and Experimental Groups at the Baseline (T 1), 4th week (T 2), and 8th week (T 3).

Hypothesis 2**:** The scores of life goals of pregnant teenagers after receiving the resilience enhancing nursing program would be higher than those in the control group which received regular care. The means score of life goals in the control group-revealed at the baseline, 4th week, and 8th week were 45.80 (SD = 6.74), 46.71(SD

= 2.62), and 48.03 (SD = 3.19). For the experimental group, the means score of life goals showed a slight increase from baseline, 4th week, and 8th week of follow-up. The mean scores were 47.03 (SD = 6.28), 49.13 (SD = 5.07), and 52.37 (SD = 2.95). When compared to the 4th week, and 8th week after follow-up to baseline, there was a slight increase in the mean score of life goals. There were significant differences in the mean score of life goals between the experimental and control group at the 4th week (t = -3.426; *p* = .001) and 8th week (t = -8.103 *p* < .001) (see Table 5, Figure 6).

Table 5

Comparison of the Life Goals Scores in the Experimental and Control groups Classified by Time Point (N = 130)

Time point	Control group (n = 66)	Experimental group (n = 64)	*t*	*p*
	Mean (SD)	Mean (SD)		
Baseline (T1)	45.80(6.75)	47.03(6.28)	-1.074	.285
4th week (T2)	46.71(2.68)	49.13(5.07)	-3.426	.001
8th week (T3)	48.03(3.19)	52.37(2.92)	-8.103	.000

Figure 6 shows the mean scores of life goals at each time point between the experimental and control group. To examine the differences in life goals over time between the experimental group and control group, a repeated measure was used. There was a significant difference in life goals scores by time alone (*p* < .001). These findings may reflect that the program performed over the 4th and 8th week significant effectiveness in resilience enhancing for pregnant teenagers. Thus, this finding supported hypothesis 2.

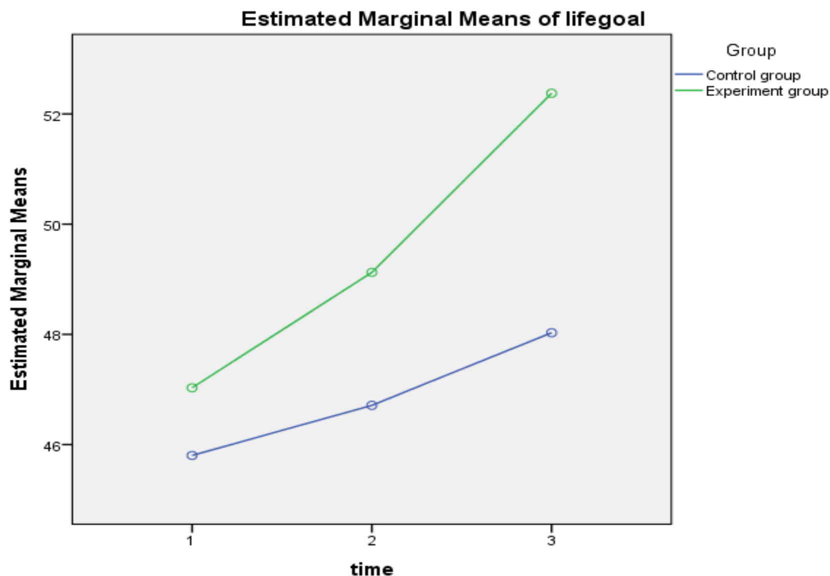


Figure 6. The Mean Scores of Life Goals between the Control and Experimental Groups at Baseline (T 1), 4th week (T 2), and 8th week (T 3)

***Hypothesis 3*: The scores of depression in pregnant teenagers after completing the RENP program is lower than at the baseline in the experimental group.** The mean score of depression between the experimental and control groups were analyzed using repeated measures ANOVA. The results revealed that there were lower significant differences in depression scores by time alone at the baseline, 4th week, and 8th week over time for all participants in both the experimental and control groups (F = 14.199, $p < .001$) while there was no significant difference by group alone. (F = .002, $p = .969$). In addition, there were marginally non-significant differences in the interaction within the groups (F = .526, $p = .592$) (see Table 6). In this study, there was no difference in the depression scores among pregnant teenagers who received the program and those

who received regular care after completing the program and at 4th and 8th week of follow up. Therefore, hypothesis 3 was not supported in this study.

Table 6

Analysis of Variance for Depression in Pregnant Teenagers at Baseline, 4th Week and 8th Week after Receiving the Program by Time Point (Test Between and Within Group) (N = 130).

Source of Variation	SS	*df*	MS	*F*	*p*
Between group					
Group	78936.412	1	78936.412	.002	.969
Error	8681.252	128	67.822		
Within group					
Time	1605.168	2	802.554	14.199	.001
Group*time	34.798	2	17.399	.526	.592
Error	9814.622	256	38.338		

According to a significant difference was found in depression scores over time between two groups ($p < .001$). The post-hoc pairwise comparisons presented the depression scores in the experimental group changed significantly in each of measurement over time after receiving the program compare to the baseline ($p < .05$). In addition, depression scores showed a decrease significant difference from baseline to 4th week ($p = .001$), from baseline to 8th week ($p < .001$), while the depression scores from 4th week to 8th week were no significant difference in experimental group ($p = .504$) (see Table 8).

Table 7

Multiple Pairwise Comparisons of the Depression Scores across the Three Time Periods in both Experiment (N = 64) and Control group (N = 66)

Depression scores/ Time point	Control group / Mean difference	*p*	Experimental group/ Mean difference	*p*
(T1) - (T2)	4.015	.000	4.516	.001
(T1) - (T3)	3.621	.002	5.063	<.001
(T2) - (T3)	-.394	.614	.547	.504

Hypothesis 4**:** The scores of life goals for pregnant teenagers after receiving the RENP program would be higher than at the baseline. Differences in life goals between the groups were analyzed using a repeated measure ANOVA. There was a significant difference in life goals scores by time alone (F = 27.272, $p < .001$). In addition, there were marginally significant differences in the interaction between group and time, (F = 4.745, $p = .01$) (see Table 7).

This demonstrates that the RENP intervention stimulated a positive increase in life goals scores compared to scores prior to entering the program. To examine the differences in the variables over time between the experimental group and control groups, the repeated measures ANOVA was used. The results revealed that the difference by group alone was significant (F = 22.262, $p < .001$) (see Table 7). The results of this study indicated there was a difference in the life goals scores among pregnant teenagers who received the program and those who received the regular care after receiving the program at 4th and 8th week. Pregnant teenagers in the experimental

group showed a significant difference in the improvement in their life goals at 4th and 8th week when compared to those in the control group. There was a significant difference in life goals scores between the experimental and control group. Therefore, hypothesis 4 was supported by this study.

Table 8

Analysis of Variance for Life Goals in Pregnant Teenagers at Baseline, 4th Week and 8th Week after Receiving the Program (Test of Between Group) (N = 130).

Source of Variation	SS	*df*	MS	*F*	*p*
Between group					
Group	690.710	1	690.710	22.262	<.000
Error	3971.434	128	31.027		
Within group					
Time	944.505	2	472.253	27.272	<.000
Group*time	160.813	2	80.406	4.745	.01
Error	4736.43	256	18.502		

According to a significant difference was found in life goals scores over time between two groups ($p < .001$). In addition, pos-hoc pairwise comparisons presented the life goals scores in experimental group changed significantly in each of measurement over time after receiving the program compare to the baseline ($p < .05$). On the other hand, there was no significant changed in the life goals scores of control group across from baseline to 4th week ($p = .273$) (see Table 9).

Table 9

Multiple Pairwise Comparisons of the Life Goals Scores across the Three Time Periods in both Experiment (N = 64) and Control group (N = 66)

Life goals scores/ Time point	Control group / Mean difference	*p*	Experimental group/ Mean difference	*p*
(T1) - (T2)	-.909	.273	-2.094	.014
(T1) - (T3)	-2.227	.015	-5.344	.000
(T2) - (T3)	-1.318	.003	-3.250	.000

Discussion

The aim of this study was to evaluate the effects of the resilience enhanced nursing program on pregnant teenagers. The dependent variables of depression and life goals were measured at the 4th and 8th week post-intervention. Each of the hypotheses in this study are stated and discussed as follows:

Hypothesis 1 and hypothesis 3

Hypothesis 1 stated that the depression scores among pregnant teenagers in the experimental group would be lower than the control group after at the 4th and 8th weeks. Hypothesis 3 of this study stated that the depression scores among pregnant teenagers in the experimental group would be lower than at the baseline.

The depression scores decreased at the 4th and 8th week after the program compared to baseline. In addition, there was no significant difference in depression scores

among pregnant teenagers who received the program and those who received regular care after completing the program at the 4th and 8th week of follow up (see Tables 4, 6, 7). Our findings were not related to theory based on resilience. Resilience has been shown to be associated with a decrease in depression, which is a protective factor welcomed in pregnant teenagers (Pidgeon, Ford, & Klaassen, 2014). So, the promotion of resilience in pregnant teenagers can reduce depression during pregnancy. However, this study was not supported the hypothesis 1 and 3.

This result can be explained as follows: the majority of unmarried participants in both groups had parents who accepted their unmarried status. In addition, they had the support of their partners, or the father of their baby, and many also had the support of their parents. Thus, the pregnant women in both groups received practical support such as encouraging work and income, as well as housing and child-care support from their family members. Moreover, the majority of women still lived with their husbands and families. This shows that the majority of women's partners accepted the pregnancy and had a good relationship and took good care of the pregnant adolescents.

These findings are consistent with a study by Collins (2010) who stated that finacial support from a family is a factor which influences depression in pregnant adolescents and also predicts depression in the postpartum period. In addition, pregnant women who received financial support from their families and received any kind of support from their husbands can lead to a decrease in depressive symptoms during pregnancy (Grote & Bledsoe, 2007; Clauss-Ehlers, 2008). Moreover, there were no complications during pregnancy for women in either the experimental or the control

group. Studies have shown interrelationships between depression and physical health, particularly complications during pregnancy among teenagers (McClanahan, 2009). According to both groups were given regular care in a setting that provided the usual counseling services and also routine antenatal care from the hospital, which was provided by nurses at the antenatal clinics. The goal was to reduce physical complications during pregnancy. However, caring for each teenager was limited to 15-20 minutes per group consisting of a maternal health education class. In some cases, problems could be identified and solved directly, giving the teenagers a sense of being cared for. A similar result was found in a study of pregnant women in which health education classes and mental support given in antenatal care clinics could reduce stress and depressive symptoms (Leung & Lam, 2012; Logsdon et al., 2015).

The results were consistent with that of another study of pregnant teenagers which showed that depressive scores were significantly different at baseline but these differences were no longer significant 3 months postpartum (Samankasikorn et al., 2016). In our study, the participants in the experimental group did not show significantly lower levels of depression at the 4th week. This study similar to the investigating the effectiveness of the personal resilience and enrichment program showed that promoting resilience can reduce depressive symptoms (Yuen et al., 2013). In addition, Songprakun & McCann (2012a) provided a self-help manual on the promotion of resilience and found that the intervention was not effective in reducing depression. Sockol et al. (2011) reported that pregnant women who entering IPT group in 8 week showed a significant reduction in depression over time than the control group who only received the standard

care and the effects were maintained at 3 months follow up. It can be explained to our intervention that effects were not sustained after 4 weeks of receiving intervention. Therefore, the booster sessions of intervention should be engaged to participants after 4 weeks that may reduce the depression difference between the experimental group and control group.

A meta-analysis and review by Horowitz and Garber (2006) revealed higher levels of depression at baseline and depression increased over time in participants who had a basis of risk status and subclinical symptoms. During early pregnancy, most pregnant teenagers may feel uncertain about their pregnancy (Goyal, Borrero, & Schwarz, 2012). In another study, participants in the experimental group moved to another area with their partners or families which may have been affected by increasing depression (Escribe-Aguir, Artazcoz & Perez-Hoyos, 2008). In addition, pregnancy can often lead to higher rates of depression in teenagers compared to adults (Hodgkinson, Colantuoni, Roberts, Berg-Cross, & Belcher, 2010). Moreover, the negative consequences of depression can impact on teenage mothers more than older women (Logan, Holcombe, Manlove, & Ryan, 2007; Lumbiganon et al., 2010; Pillitteri, 2015).

In conclusion, the resilience enhancing nursing program did not result in significantly different mean scores of depression in pregnant teenagers in the experimental group when compared to the control group. Health care providers should be aware of the context of the participants' and resources available to them. This study should be indicated in other group such as a high risk of pregnancy. Therefore, future studies should focus on the strategies that enhance resilience in pregnant teenagers and

should be undertaken by health care professionals in health care services, educationalists, and social workers.

Hypothesis 2 and hypothesis 4

Hypothesis 2 stated that the life goals scores in pregnant teenagers after receiving the resilience enhancing nursing program in the experimental group would be higher than the control group who receive the regular care. Hypothesis 4 stated that the life goals scores in pregnant teenagers after receiving the program would be higher than at the baseline in the experimental group who receive the resilience enhancing nursing program. This study was supported the hypothesis 2 and 4.

The results of this study showed the participants in the experimental group had significantly more improvement in life goals over time than those in the control group (see Table 6). There were significant differences in life goals scores after receiving the program at 4th and 8th week in the follow up period (see Table 6). In addition, the mean score of life goals of participants in the experimental group were significantly different in their improvement at 4th and 8th week when compared to those groups (see Table 5). Additionally, the mean score of resilience had increased at 4th and 8th week after receiving the program as compared to before receiving the program (see Table 10 in Appendix D). In addition, the participants in the experimental group had significantly more increase in resilience scores over time than those in the control group (see Table 11 in Appendix D). However, the life goal scores as well as the resilience scores were high for both groups.

According to Dyer and McGuiness (1996) stated that life goals among pregnant teenagers are not only associated with an increase in inspiration and motivation, general well-being, and quality of life, but are also influenced by previous advantages and disadvantages experienced in that person's life. Resilience is also the important for pregnant teenagers who need to have life goals for higher expectations for parenting and overall achievement and increased educational aspirations during pregnancy (Flynn, 1999; Collins, 2010; Craey, 2012). In particular, a major life situation in pregnant teenagers is a significantly influences by life goals during pregnancy (Sivaraman & Wade, 2003). Moreover, the life goal which is an important psychological trait in a resilient person at risk circumstance in children and adolescence group (Grotberg, 1995; Grotberg, 1996; Kumpfer, 2002). Thus, pregnant teenagers need external stimulation during the ante partum period to help them set goals in their lives.

Additionally, in this study, the demographic data of participant showed that the majority of participants in both groups still lived with their partner's families or their own families, providing essential resources and social support during their pregnancy. In addition, more than 90 % of women in both groups received good care from their partners and families. In addition, the majority of the participants in the experimental group was still actively studying in school and finished study in high school level. That is consistent with other studies which found that support from family and establishes social networks that can have a positive effect on women and result in them having good outcomes (Grote & Bledsoe, 2007; Harris & Franklin, 2009; Wolchik, Schenck, & Sandler, 2009). A pregnant

teenager may need external stimulation to help improve her life goals during the ante partum period.

This study found that the life goals scores in pregnant teenagers increased from baseline after receiving the program as compared to before receiving the program. These findings in this study are similar to a previous study which found that the life goals in teenage mothers can increase positive expectations for the parenthood role and educational aspirations for higher achievement (Carey, 2012; Dyer & McGuinness, 1996; Mercer & Walker, 2006; Weed et al., 2006). Therefore, a pregnant teenager needs to have a goal in life that includes higher expectations for parenting and overall achievement, and increased educational aspirations during pregnancy.

McGaha-Garnett, Tyler and Alvarez (2013) had similar findings in adolescent mothers who indicated that their future goals included higher academic inspirations. There was a significant difference in the life goals scores among the pregnant teenagers who received the program and those who received the regular care at the 4th and 8th week of the follow up period. In addition, this study was congruent with a meta analysis of other resilience programs which revealed that the Penn Resilience Program increased life goals in adolescents (Brunwasser, Gillham, & Kim, 2009). In this study, the pregnant teenagers were employed the program that they can be increased of life goals after receiving this program.

However, in the Thai family context, family and parent (s) rarely encourage children and teenagers to set life goals in their future such as prepare to study in high school, prepare for selecting suitable employment after finished study. Therefore,

the results of this study provide nurses and midwives who work with pregnant teenagers an effective intervention to help this high risk group for setting important life goals during their pregnancy. In general, in this study, the families encouraged the pregnant teenagers to set life goals and gave some support of the resilience enhancing nursing program. The participants in the experimental group were encouraged to set their life goals by writing the name of the intervention as “Tree of My Mind” that employed pregnant teenagers to set life their goals in the future. They were also encouraged to make decisions making when planning future life goals such as whether to continue their education and prepare for child birth. This findings of this study showed that the pregnant teenagers in the experimental group who received the program had life goals scores higher than pregnant teenagers in the control group.

Therefore, the important features of the RENP program include the content of the handbook that are consisted of the content of practicing techniques for managing a crisis situation in a positive way, considering positive ways for problem solving and providing the experience necessary for achieving their life goal. Pregnant teenagers may need this type of stimulation to improve achievement of set life goals during the prenatal period. Therefore, providing social support and resources during pregnancy is important for pregnant teenagers.

In addition, the researcher, who is a nurse, provided a friendly, easily accessible service which included consulting, searching for trust in personal support, providing knowledge regarding the significance of resilience, and effective results for improving life goals in pregnant teenagers. In this study, most of the participants were in

the first and second trimester. The mean gestational age was 19.08 weeks in the experimental group and 18.69 weeks in the control group. All the findings indicate the importance for guiding nurses to enhance pregnant teenager's life goals during their first trimester in the antenatal care unit.

Furthermore, the intervention was developed a trusting relationship with the pregnant teenagers that can be affected in helping them to have the high confidence to overcome many disadvantages during pregnancy (Dossey & Keegan, 2009). Accordingly resilience can increase the ability of a person to prevent and overcome adversities as well as limit the damaging effects of adversity. In addition, the promotion of the personal capability for a resilience epistemology is needed in which adversity is culturally specific and appeals to collective responsibility (Luthar et al., 2000). Moreover, in this study the research integrated the healing presence for developing interventions of the resilience enhancing nursing program.

This study is similar to a systematic review which explored the teenagers who participated in the Penn Resilience Program, this study revealed that the teenagers who received the program had life goals scores higher than the control group in the follow up assessment (Brunwasser et al., 2009) and also, Moeller et al. (2012) investigated the relationship between student goal setting and achievement in high school classrooms with a goal setting process. From these results of this study it can be seen that the measured outcome of the resilience enhancing nursing program improved the life goals for teenagers during pregnancy.

In this study presented the goal setting that was process required to establish action plans and to write a reflection at the end of the session. The setting of life goals is an important psychological trait for a resilient person in an at risk circumstance (Kumpfer, 2002). In addition, studies from a meta-analysis of the program revealed the significance of 6-12 months follow up interventions which can increase the level of life goals in teenagers (Brunwasser et al., 2009). This study showed congruence with systematic reviews indicated in the Penn Resilience Program (PRP) that can promote optimism, decision making skills, problem solving skills and positive feelings in teenage students (Cutuli et al., 2013; Gillham et al., 2007; Seligman, 2011; Seligman et al., 2009). Therefore, this study showed a significantly positive affect towards improving life goals for pregnant teenagers. There are identifying and setting valuable personal and setting life goals that can direct to important activities such as set life goals activities, may help achieving for their goals in the future.

In summary, this study described a RENP program to promote resilience which can be increased in a universal capacity that will help to prevent many negative outcomes or risk factors associated with the prenatal period in pregnant teenagers. Nurses should promote more competencies in areas including inner strength, external supports, and interpersonal and problem solving skills to manage the adversities associated with teenage pregnancy. As a result of serious outcomes, nurses and midwives who are closely associated with pregnant teenagers should be concerned about this potentially risky group for early detection complications or problems in the prenatal period and provide an effective intervention or appropriate nursing program. Such nursing interventions need to

be aimed at enhancing the resilience of these pregnant teenagers in order to overcome the many adversities which are most important for them to understand during the prenatal period.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter is divided into five sections consisting of the conclusions of the study, recommendations for further study, implications for nursing, strengths of this study, and limitations of this study.

Conclusions of the Study

The randomized controlled trial consisted of two groups; a control and experimental groups to test the effect of the resilience enhancing nursing program (RENP) on the outcome variables of depression and life goals among pregnant teenagers. The intervention was conducted over an approximate one year period, from March 2015 to March 2016. A final 130 participants who completed the study were recruited and randomly assigned to either the experimental or the control group.

There were 66 cases in the control group and 64 cases in the experimental group having complete data sets. Data from the baseline, 4th and 8th week evaluations were analyzed using descriptive statistics, chi-square tests, independent t-tests, and repeated measures ANOVA. The two groups were homogeneous in all participant characteristics at the baseline with no significant differences existing in age, age of baby's father, gestational age, gestational age at first attending antenatal care, and the period of contraception before pregnancy (see Table 3).

The main purpose of this study was to examine the effects of the resilience enhancing nursing program among pregnant teenagers. In all steps of the RENP program as following; step 1: establishing a trusting and relationship, step 2: improving the resilience, and step 3: monitoring and encouraging the resilience practice. It was revealed, using repeated measures ANOVA, that depression was significant by time alone from the base line at the 4th week to the 8th week ($F = 14.199$, $p < .001$) (Table 7, 8). In addition, the difference of life goals in establishing life goals was significant by time alone ($F = 27.272$, $p < .001$) as well as by group alone ($F = 22.262$, $p < .001$) (see Table 8, 9). Participants in the experimental group also had rate of more improvement in life goals at 4th and 8th week ($t = -3.443$, $p < .001$; $t = -8.103$, $p < .000$) as well as significantly more improvement in resilience at 4th and 8th week when compared to those in the control group ($p = .001$, $p < .001$) (see Table 13, 14).

The results of the main hypotheses tested were as follows: Hypothesis 1 and 3 were not supported in that depression scores decreased at the 4th week and 8th week after receiving the program as compared to before having received the program. However, the results showed a non-significant difference in the depression scores when the experimental and control groups were compared. The mean CES-DC scores at baseline were > 16 which can be interpreted as mild depression levels in each group and this may have impacted on the results. The results showed that the RENP intervention significantly increased life goals at 4th and 8th week time points after receiving the RENP program.

The life goal scores increased, at 4th week and 8th week after receiving the program as compared to before receiving the program. That means higher scores in life goals were evident at 4th and 8th week after receiving the RENP program to compare this variable before and after entering the program at the base line, 4th and 8th week among the pregnant teenagers receiving the program and those receiving regular care. The participants had higher scores in life goals in the experimental group after receiving the program compared between groups or within groups. There was a significant difference as there was an increased level in life goals compared to the control group. Therefore, these results were supported hypothesis 2 and hypothesis 4 in this study.

Recommendations for Further Study

Further study is recommended to provide an effective intervention for developing the appropriate research in this population.

1. Further longitudinal studies, such as a longer period of follow-up and the long term effects of the group program need to be explored besides improving in pregnant teenagers and their families. Further studies need to explore what areas are being improved, for example; relationships, or overall health or understanding. As in this study the group who received the RENP and follow-ups measured the other outcomes after having completed the program over 12 weeks to one year time period.

2. In regards to further research to improve the research outcomes, the program should provide counseling, workshops, and nursing guidelines. An evaluation of

the study should include a booster program and/or mixed methods consisting of both a controlled trial with a longer timeframe up to the postnatal period and also a follow-up after 6-8 weeks after the birth.

3. The research area including a diverse population and setting using a randomized controlled trial should be replicated to assess the effectiveness of the RENP program in each trimester of the gestational age during teenage pregnancy and for teenage mothers in the postpartum period and also for pregnant teenagers who have psychosocial problems or pregnant teenage women who live in shelters.

4. This study had an attrition rate of more than 5% due to a number of factors. Several of the participants did not respond because they were away from home and did not come to the follow up in the evaluation period of the program. Some participants were lost as they moved to another place, or because they migrated to the city. However, significant effects were not sustained after having received interventions. Since, several significant tests were done; it is possible that one or more might be statistically significant on the basis of chance alone.

Implications for Nursing

The findings of the study for nursing practice, nursing education, and nursing research of pregnant teenagers are presented as follows:

Nursing practices

The RENP program should be incorporated into the regular service of the maternal and newborn care units in both hospitals and community service centers since it demonstrated its effectiveness for pregnant teenagers. The administrators of health care services may provide training for nurses in the delivery of the RENP program and facilitate them to work based on the guidelines of the program. Nurses can act as co-networkers and provide a quality of care for pregnant teenagers by enhancing their resilience, as well as maintaining and monitoring the interventions of the program.

Nursing education

The RENP program should be conducted resulting in enhancement of the resilience program in nursing education as it promotes positive outcomes, and skills, in pregnant teenagers. Advanced nursing education is needed prepare nurses to work with this particular group of pregnant teenagers and teenage mothers and other high risk groups in antenatal care clinics. This program should be conducted for pregnant teenagers in hospitals in the community. Pregnant teenagers may need stimulation to reduce depression and improve life goals while in the ante partum period before giving birth. Also other methods of intervention should be studied to evaluate efficacy and effective results for improving positive outcomes in pregnant teenagers. As demonstrated in this study, nursing education needs to consider integrating this program into the regular nursing system and antenatal care services.

Nursing research

This research finding suggests that the cost of the resilience enhancing nursing Program (RENP) should be analyzed in a future study. This will be useful for improving management and the implications in clinical practice that could increase the quality of life for the teenage mother and the newborn. Further replication of the research with a larger population size and randomly selected participants in other settings with other variable outcomes is needed to broaden the generalization of the study.

Strengths of this Study

The researcher followed up the participants in each group at each time point to measure the effects of the resilience enhancing nursing program outcomes. These scores were the actual responded from the experimental and control groups. In addition, this intervention was measurable, consistent, and given the three steps of the nursing interventions. The duration consisted of 1st week for the base line, 4th week for follow up, and 8th week for follow up and an evaluation after completing the intervention program when the participants returned to antenatal clinic for a health check.

The identification and measurement of various potential confounding factors such as age, lack of complications or risk during pregnancy, and gestational age could have a profound effect on the findings. This constitutes one of the strengths of this study.

Limitations of this Study

The important limiting issues are presented as follows: There were some participants in this study that lost of follow up during intervention. Because, they moved to another place and did not give a forwarding address to the researcher, they were away from their home and they did not respond. Also, this program may not be suitable for this group.

In regard to the generalized program for pregnant teenagers, this study was conducted only at hospitals in North Eastern of Thailand, which may not represent the other regions that have different culture aspects in regards to the details of the context. Therefore, this program would have limited application for other setting in this group.

REFERENCES

Acharya, D. R., Bhattarai, R., Poobalan, A., van Teijlingen, E. R., & Chapman, G. (2010). Factors associated with teenage pregnancy in South Asia: A systematic review. *Health Science Journal, 4*, 3-14.

Adger, N. W., Kelly, M. P., & Ninh, N. H. (2001). *Routledge research global environmental change: Living with environmental change socail vulnerability, adaptation and resilience in Vietnam*. London: Taylor & Francis Group.

Ahern, R. N. (2006). Adolescent resilience: An evolutionary concept analysis. *Journal of Pediatric Nursing, 21*, 175-185.

ArrÁNz Becker, O. (2013). Effects of similarity of life goals, values, and personality on relationship satisfaction and stability: Findings from a two-wave panel study. *Personal Relationships, 20*(3), 443-461. doi: 10.1111/j.1475-6811.2012.01417.x

Almond, P. (2009). Postnatal depression: A global public health perspective. *Perspect Public Health, 129*, 221-227.

Alvord, M. K., & Grados, J. J. (2005). Enhancing resilience in children: A proactive approach. *Professional Psychology: Research and Practice, 36*, 238-245. doi: 10.1037/0735-7028.36.3.238

Areemit, R., Suphakunpinyo, C., Lumbiganon, P., Sutra, S., & Thepsuthammarat, K. (2012). Thailand's adolescent health situation: Prevention is the key. *Journal of Medicine Association Thailand, 95*(7), 51-58.

Andrews, J. L., & Boyle, J. S. (2003). African American adolescents' experiences with unplanned pregnancy and elective abortion. *Health Care for Women International, 24*, 414-433.

Bartell, S. S. (2005). Family focus teen pregnancy: The impact on a family system. *International Journal of Childbirth Education, 20*, 19-21.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *4*, 561-571.

Beck, C. T. (2001). Caring within nursing education: A meta synthesis. *Journal of Nursing Education, 40*(3), 101-109.

Becker-Lausen, E., & Rickel, A. U. (1995). Integration of teen pregnancy and child abuse research: Identifying mediator variables for pregnancy outcome. *Journal of Primary Prevention, 16*, 39-53.

Benute, G. R., Nomura, R. M., Jorge, V. M., Nonnenmacher, D., Junio, R., Lucia, M. C., …, Zugaib, M. (2011). Risk of suicide in high risk pregnancy: An exploratory study. *Review Assocociated Medical Brasil, 57*, 583-587.

Black, C., & Ford-Gilboe, M. (2004). Adolescent mothers: Resilience, family health work and health-promoting practices. *Journal of Advanced Nursing, 48*(4), 351-360. doi: 10.1111/j.1365-2648.2004.03204.x

Breggin, P. R. (1997). *Heart of being helpful: Empathy and the creation on a healing presence*. New York: Springer publishing Company.

Brown, J., Harris, S., Woods, E., Buman, M., & Cox, J. (2012). Longitudinal study of depressive symptoms and social support in sdolescent mothers. *Maternal & Child Health Journal, 16*, 894-901. doi: 10.1007/s10995-011-0814-9

Brownell ,M., De Coster, C., Penfold, R., Derksen, S., Au, W., Schultz, J., & Dahl,. M. (2008). *Manitoba Child Health Atlas Update*. Winnipeg, MB: Manitoba Centre for Health Policy.

Brunwasser, S. M., Gillham, J. E., & Kim, E. S. (2009). A meta-analytic review of the Penn Resiliency Program's effect on depressive symptoms. *Journal Consult Clinical Psychological, 77*(6), 1042-1054.

Bunevicius, R., Kusminskas, L., Bunevicius, A., Nadisauskiene, R. J., Jureniene, K., & Pop, V. J. (2009). Psychosocial risk factors for depression during pregnancy. *Acta Obstetric Gynecology Scandinavia, 88*, 599-605.

Bureau of Reproductive Health of Thailand. (2012). Teenage pregnancy, Retrieved 10 December, 2012, from http://rh.anamai.moph.go.th/home.html

Carey, G., Ratliff, D., & Lyle, R. R. (1998). Resilient adolescent mothers: Ethnographaic interviews. *Families, Systems & Health, 16*, 347-364. doi: 10.1037/h0089860

Caspani, M., & Moloney, A. (2014). Thailand's teenage pregnancy rate is 'the highest' in SE Asia, should schools have condom-vending machines? Retrieved 30 May, 2014, from http://ireport.cnn.com/docs/DOC-1054641

Carleton, R. N., Thibodeau, M. A., Teale, M. J., Welch, P. G., Abrams, M. P., Robinson, T., & Asmundson, G. J. (2013). The center for epidemiologic studies depression scale: A review with a theoretical and empirical examination of item content and factor structure. *PLoS ONE, 8*(3), 1.

Centers for Disease Control and Prevention. (2014). *Reproductive Health and Teen Pregnancy*, Retrieved from https://www.cdc.gov/teenpregnancy/about/

Cicchetti, D. (2010). Resilience under conditions of extreme stress: A multilevel perspective. *World Psychiatry, 9*, 145-154.

Clarke, A., & Clarke, A. (2003). *Human resilience: A fifty yera quest*. New York: Jessica Kingsley.

Clauss-Ehlers, C. S. (2008). Sociocultural factors, resilience, and coping: Support for a culturally sensitive measure of resilience. *Journal of Applied Developmental Psychology, 29*, 197-212. doi: 10.1016/j.appdev.2008.02.004

Clutter, L. B. (2009). *Adolescent birth mothers after unintended pregnancy and infant open adoption.* (Ph.D.), Indiana University. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2011033142&site=ehost-live Available from EBSCOhost rzh database.

Coelho, F. M., Pinheiro, R. T., Silva, R. A., Quevedo Lde, A., Souza, L. D., Castelli, R. D., . . . Pinheiro, K. A. (2013). Major depressive disorder during teenage pregnancy: Socio-demographic, obstetric and psychosocial correlates. *Revista Brasileira de Psiquiatria, 35*, 51-56. doi:10.1016/j.rbp.2012.03.006

Coffman, S. (2007). Healing presence ceremony in nursing education. *International Journal for Human Caring, 11*(4), 52-56.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New Jersey: Lawrence Erlbaum Associates.

Collingwood, J. (2014). Depression in teenage pregnancy Retrieved 20 April, 2014, from http://psychcentral.com/lib/depression-and-teenage-pregnancy/0003965

Collins, B. (2010). Resilience in teenage mothers: A follow-up study. Wellington: Ministry of Social Development.

Collins, W. A., & Laursen, B. (2004). Parent-adolescent relationships and influences. *Handbook of adolescent psychology*, *2*, 331-362.

Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depress Anxiety, 18*(2), 76-82. doi: 10.1002/da.10113

Crane, C., Winder, R., Hargus, E., Amarasinghe, M., & Barnhofer, T. (2012). Effects of mindfulness-based cognitive therapy on specificity of life goals. *Cognitive Therapy & Research, 36*, 182-189. doi: 10.1007/s10608-010-9349-4

Cutuli, J. J., Gillham, J. E., Chaplin, T. M., Reivich, K. J., Seligman, M. P., Gallop, R. J., . . . Freres, D. R. (2013). Preventing adolescents' externalizing and internalizing symptoms: Effects of the Penn Resiliency Program. *The international journal of emotional education, 5*(2), 67-79.

Da Costa, D., Larouche, J., Dritsa, M., & Brender, W. (1999). Variations in stress levels over the course of pregnancy: Factors associated with elevated hassles, state anxiety and pregnancy-specific stress. *Journal of Psychosocial Research, 47*, 609-621.

Drake, P. (1996). Addressing developmental needs of pregnant adolescents. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 25*, 518-524. doi: 10.1111/j.1552-6909.1996.tb01473.x

Dossey, B. (2000). *Florence nightingale: Mystic, visionary, healer*. Philadelphia, PA: Lippincott, Williams and Wilkins.

Dossey, B. M., & Keegan, L. (2009). *Holistic Nursing*. Sudbury Massachusetts: Jones and Bartlett Publisher

Dyer, J. G., & McGuinness, T. M. (1996). Resilience: Analysis of the concept. *Archives of Psychiatric Nursing, 10*, 276-282. doi: 10.1016/s0883-9417(96)80036-7

Elsenbruch, S., Benson, S., Rucke, M., Rose, M., Dudenhausen, J., Pincus-Knackstedt, M. K., . . . Arck, P. C. (2007). Social support during pregnancy: Effects on maternal depressive symptoms, smoking and pregnancy outcome. *Human Reproduction, 22*, 869-877. doi: 10.1093/humrep/del432

Emmanuel, E., & St John, W. (2010). Maternal distress: A concept analysis. *Journal of Advanced Nursing, 66*, 2104-2115. doi: 10.1111/j.1365-2648.2010.05371.x

Escriba-Aguir, V., Artazcoz, L., & Perez-Hoyos, S. (2008). Effect of psychosocial work environment and job satisfaction on burnout syndrome among specialist physicians. *Gac Sanit, 22*(4), 300-308.

Finer, L. B., & Zolna, M. R. (2011). Unintended pregnancy in the United States: Incidence and disparities, 2006. *Contraception, 84*, 478-485. doi: 10.1016/j.contraception.2011.07.013

Flynn, L. (1999). The adolescent parenting program: Improving outcomes through mentorship. *Public Health Nursing, 16*, 182-189.

Fraser, E., & Pakenham, K. I. (2008). Evaluation of a resilience-based intervention for children of parents with mental illness. *Australian & New Zealand Journal of Psychiatry, 42*, 1041-1050.

Gabrielsen, L., Ulleberg, P., & Watten, R. (2012). The adolescent life goal profile scale: Development of a new scale for measurements of life goals among young people. *Journal of Happiness Studies, 13*, 1053-1072. doi: 10.1007/s10902-011-9306-2

Garmezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatric Annual, 20*, 459-460.

Gillespie, B. M., Chaboyer, W., & Wallis, M. (2007). Development of a theoretically derived model of resilience through concept analysis. *Contemporary Nurse: A Journal for the Australian Nursing Profession, 25*, 124-135.

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatte, A. J., Samuels, B., . . . Seligman, M. E. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal Consulting Clinical Psychology, 75*(1), 9-19.

Goyal, V., Borrero, S., & Schwarz, E. B. (2012). Unintended pregnancy and contraception among active-duty servicewomen and veterans. *American Journal of Obstetrics and Gynecology, 206*, 463-469. doi: 10.1016/j.ajog.2011.11.018

Grady, M. A., & Bloom, K. C. (2004). Pregnancy outcomes of adolescents enrolled in a centering pegnancy program. *Journal of Midwifery & Women's Health, 49*, 412-420. doi: 10.1111/j.1542-2011.2004.tb04435.x

Grant, D. (2006). Resilience of girls with incarcerated mothers: The impact of girl scouts. *Prevention Researcher, 13*, 11-14.

Griswold, C. H., Nasso, J. T., Swider, S., Ellison, B. R., Griswold, D. L., & Brooks, M. (2012). The prenatal care at school program. *Journal School Nursing, 9*(1), 9. doi: 10.1177/1059840512466111

Grotberg, E. H. (1995). A guide to promoting resilience in children: Strengthening the human spirit. Retrieved from http://resilnet.uiuc.edu/library/grotb95b.html

Grotberg, E. H. (1996). The international resilience project: Finding from the research and the effectiveness of interventions. *Proceedings of the 53 rd Annual Convention of ICP: Cross-culteral encounters*.

Grotberg, E. H. (2003). What is resilience ? How do you promote it ? How you do use it? Westport: CT: Prager.

Grote, N. K., & Bledsoe, S. E. (2007). Predicting postpartum depressive symptoms in new mothers: The role of optimism and stress frequency during pregnancy. *Health and Social Work, 32*, 107-118. doi: 10.1093/hsw/32.2.107

Grouzet, F. M., Kasser, T., Ahuvia, A., Dols, J. M., Kim, Y., Lau, S., . . . Sheldon, K. M. (2005). The structure of goal contents across 15 cultures. *Journal of Perspective Socio-Psychology, 89*, 800-816. doi: org/10.1037/0022-3514.89.5.800

Harris, M., & Franklin, C. (2009). Helping adolescent mothers to achieve in school: An evaluation of the taking charge group intervention. *Children & Schools, 31*(1), 27. doi: 10.1093/cs/31.1.27

Hart, P. L., Brannan, J. D., & de Chesnay, M. (2012). Resilience in nurses: An integrative review. *Journal of Nursing Management, 22*(6), 720-730. doi: 10.1111/j.1365-2834.2012.01485.

Harville, E. W., Xiong, X., Buekens, P., Pridjian, G., & Elkind-Hirsch, K. (2010). Resilience after Hurricane Katrina among pregnant and postpartum women. *Women's Health Issues, 20*, 20-27. doi: 10.1016/j.whi.2009.10.002

Harville, E., Xiong, X., & Buekens, P. (2010). Disasters and perinatal health: A systematic review. *Obstetric Gynecology Survey, 65*(11), 713-728.

Hodder, R. K., Freund, M., Bowman, J., Wolfenden, L., Campbell, E., Wye, P., . . . Wiggers, J. (2012). A cluster randomised trial of a school-based resilience intervention to decrease tobacco, alcohol and illicit drug use in secondary school students: study protocol, *BMC Public Health, 12*, 1471-2458.

Hodgkinson, S. C., Colantuoni, E., Roberts, D., Berg-Cross, L., & Belcher, H. M. (2010). Depressive symptoms and birth outcomes among pregnant teenagers. *Journal Pediatric Adolescent Gynecology, 23*, 16-22.

Horowitz, J. L., & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: A meta-analytic review. *Journal Consulting Clinical Psychology, 74*(3), 401-415.

Hurd, N. M., & Zimmerman, M. A. (2010). Natural mentoring relationships among adolescent mothers: A study of resilience. *Journal of Research on Adolescence, 20*(3), 789-809. doi: 10.1111/j.1532-7795.2010.00660.x

Ingrid, B., Majda, R., & Dubravka, M. (2009). Life goals and well-being: Are extrinsic aspirations always detrimental to well-being? *Psihologijske teme / Psychological Topics, 18*, 317-334.

Jonas, W. B., & Crawford, C. C. (2004). The healing presence: Can it be reliably measured? *Journal Alternative Complement Medicine, 10*(5), 751-756.

Jonge, A. (2001). Support for teenage mothers: A qualitative study into the views of women about the support they received as teenage mothers. *Journal of Advanced Nursing, 36*(1), 49-57.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 280-287.

Keawjanta, N. (2012). Depression in teenage pregnancy: Factors, affect and prevention. *Journal of Nursing Science& Health, 35*, 83-90.

Kiuru, N., Aunola, K., Nurmi, J. E., Leskinen, E., & Salmela-Aro, K. (2008). Peer group influence and selection in adolescents' school burnout: A longitudinal study. *Merrill-Palmer Quarterly*, 23-55.

Kjelsvik, M., & Gjengedal, E. (2011). First-time pregnant women's experience of the decision making process related to completing or terminating pregnancy : A phenomenological study. *Scandinavian Journal of Caring Sciences, 25*, 169-175. doi: 10.1111/j.1471-6712.2010.00807.x

Klima, C. S. (2003). Centering Pregnancy: A model for pregnant adolescents. *The Journal of Midwifery & Women's Health, 48*(3), 220-225. doi: 10.1016/s1526-9523(03)00062-x

Kruizinga, R., Scherer-Rath, M., Schilderman, J. B. A. M., Sprangers, M. A. G., & Van Laarhoven, H. W. M. (2013). The life in sight application study (LISA): design of a randomized controlled trial to assess the role of an assisted structured reflection on life events and ultimate life goals to improve quality of life of cancer patients. *BMC Cancer, 13*, 1-9. doi: 10.1186/1471-2407-13-360

Kumpfer, K. L. (2002). Factors and processes contributing to resilience. *In Resilience and development* (pp. 179-224). Springer US.

Lee, T. Y., Cheung, C. K., & Kwong, W. M. (2012). Resilience as a positive youth development construct: A conceptual review. *Scientific World Journal*. doi: 1100/2012/390450

Leung, S. S., & Lam, T. H. (2012). Group antenatal intervention to reduce perinatal stress and depressive symptoms related to intergenerational conflicts: A randomized controlled trial. *International Journal of Nursing Studies, 49*(11), 1391-1402.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.

Logan, C., Holcombe, E., Manlove, J., & Ryan, S. (2007). The consequences of unintended childbearing. *Washington, DC: Child Trends and National Campaign to Prevent Teen Pregnancy*, *28*, 142-151.

Logsdon, M. C., Birkimer, J. C., Simpson, T., & Looney, S. (2005). Postpartum depression and social support in adolescents. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 34*, 46-54. :doi.org/10.1177/0884217504272802

Logsdon, M. C., Gagne, P., Hughes, T., Patterson, J., & Rakestraw, V. (2005). Social support during adolescent pregnancy: Piecing together a quilt. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 34*, 606-614. doi: 10.1177/0884217505280194

Logsdon, M. C., Winders Davis, D., Stikes, R., Ratterman, R., Ryan, L., & Myers, J. (2015). Acceptability and initial efficacy of education for teen mothers. *The American Journal of Maternal Child Nursing, 40*(3), 186-192. doi: 10.1097/nmc.0000000000000126

Lowdermilk, D. L., Perry, E. S., & Cashion, K. (2010). *Maternal nursing*. Canada: Wiley-Blackwell Publising.

Lumbiganon, P., Laopaiboon, M., Gülmezoglu, A. M., Souza, J. P., Taneepanichskul, S., Ruyan, P., . . . ,Villar, J. (2010). Method of delivery and pregnancy outcomes in Asia: The WHO global survey on maternal and perinatal health 2007–08. *The Lancet, 375*, 490-499. doi: 10.1016/s0140-6736(09)61870-5

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*, 543-562.

Mandleco, B. L., & Peery, J. C. (2000). An organizational framework for conceptualizing resilience in children. *Journal of Child & Adolescent Psychiatric Nursing, 13*, 99-111.

Marcellus, L. (2010). Supporting resilience in foster families: A model for program design that supports recruitment, retention, and satisfaction of foster families who care for infants with prenatal substance exposure. *Child Welfare, 89*,

Marcus, S. M. (2009). Depression during pregnancy: Rates, risks and consequences. *Canada Journal of Clinical Pharmacology, 16*(1), 22.

Martens, P., Brownell, M., Au, W., Mac Wiliam, L., Prior, H., Schultz, J., . . . Serwonka, K. (2010). Health inequities in Manitoba: Is the socioeconomic gap in health widening or narrowing over time? Winnipeg, MB: Manitoba Centre for Health Policy.

Marcus, M., Yasamy, M. T., Ommeren, M. V., Chisholm, D., & Saxena, S. (2014). Depression: A global public health concern. *WHO: Department of Mental Health and Substance Abuse*.

Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *Amarican Psychological, 53*, 205-220.

Maxson, P., & Miranda, M. L. (2011). Pregnancy Intention, demographic differences, and psychosocial health. *Journal of Women's Health, 20*, 1215-1223. doi: 10.1089/jwh.2010.2379

McClanahan, K. K. (2009). Depression in pregnant adolescents: Considerations for treatment. *Journal of Pediatric and Adolescent Gynecology, 22*(1), 59-64. doi: http://dx.doi.org/10.1016/j.jpag.2008.04.006

McDonald, L., & Coburn, A. F. (1988). Predictors of prenatal care utilization. *Social Science & Medicine, 27*, 167-172. doi: 10.1016/0277-9536(88)90325-5

McDonald, L., Conrad, T., Fairtlough, A., Fletcher, J., Green, L., Moore, L., & Lepps, B. (2009). An evaluation of a groupwork intervention for teenage mothers and their families. *Child & Family Social Work, 14*, 45-57.

McDonough-Means, S. I., Kreitzer, M. J., & Bell, I. R. (2004). Fostering a healing presence and investigating its mediators. *Journal of Alternative Complement Medicine, 10*(1), 25-41.

McGaha-Garnett, V. (2008). Needs assessment for adolescent mother: Building resiliency and student success towards high school completion. *Compellin counselling interventions: Celebrating VISIAS' fifth anniversary*, 11-20.

McGaha-Garnett, V., Tyler, H., & Alvarez, A. (2013). Examining emotional resilience of adolescent parenthood and the role of school counselors. *The Annual VISTAS Project Sponsored by the American Counseling Association.*

McKivergin, M., & Day, A. (1998). Presence: creating order out of chaos. *Seminars in Perioperative Nursing, 7*(2), 96-100.

Mercer, R. T., & Walker, L. O. (2006). A review of nursing interventions to foster becoming a mother. *Journal of Obstetric Gynecologic and Neonatal Nursing 35*, 568-582.

Miller, L. J., Girgis, C., & Gupta, R. (2009). Depression and related disorders during the female reproductive cycle. *Womens Health, 5*, 577-587.

Ministry of Public Health, (2009). Rate of teenage pregnancy. Retrieved from http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health.

Ministry of Public Health, (2015). Statistics of teenage pregnancy: Thailand. Retrieved from http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html

Ministry of Social Development and Human Security, (2015). Teenage pregnancy situation, Department of Technology Information: Thailand. Retrieved from https://www.m society.go.th/ewtadmin/ewt/mso_eng/main.php?filename=index

Minnick, D. J., & Shandler, L. (2011). Changing adolescent perceptions on teenage pregnancy. *Children and Schools, 33*, 241-248.

Montgomery, K. S. (2003). Nursing care for pregnant adolescents. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 32*, 249-257. doi: 10.1177/0884217503252191

Moeller, A. J., Theiler, J., & Wu, C. (2012). Goal setting and student achievement: A longitudinal study. *Modern Language Journal*, 96,153-169.

Murray, S. S., & Mackinney, E. S. (2010). *Foundation of maternal newborn and women's health nursing*. Missouri: River Lane.

Neamsakul, W. (2008). *Unintended Thai adolescent pregnancy: A grounded theory study*, University of California, San Francisco. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010284757&site=ehost-live Available from EBSCOhost rzh database.

Neinstein, S. L., Rabinovitz, J. S., & Schneir, A. (1996). *Adolescents health care: A pratical guide*. London: Williams& Wikins.

Neter, E., Collins, N. L., Lobel, M., & Dunkel-Schetter, C. (1995). Psychosocial predictors of postpartum depressed mood in socioeconomically disadvantaged women. *Womens Health, 1*, 51-75.

Ngom, P., Magadi, M. A., & Owuor, T. (2003). Parental presence and adolescent reproductive health among the Nairobi urban poor. *Journal of Adolescent Health, 33*, 369-377. doi: 10.1016/s1054-139x(03)00213-1

Nintachan, P., Vanaleesin, S., Sanseeha, L., Thummathai, K., & Orathai, P. (2011). Resilience and Thai youth risk behavior. *Ramathipbhodi Nursing Journal, 17*, 430-443.

Nirattharadorn, M., Phancharoenworakul, K., Gennaro, S., Vorapongsathorn, T., & Sitthimongkol, Y. (2005). Self-esteem, social support and depression in Thai adolescent mothers. *Thai Journal of Nursing Research, 9*, 63-75.

Orr, S. T., & Miller, A. C. (2007). Unintended pregnancy and the psychosocial well-being of pregnant women. *Women's Health Issues, 7*, 38-46. doi: 10.1016/s1049-3867(96)00017-5

Oxford Bibliographies Online. (2013). Definition of teenage pregnancy, Retrieved from https://www.sheffield.ac.uk/library/ebook/oxbib

Panthumas, S., Kittipichai, W., Pitikultang, S., & Chamroonsawasdi, K. (2012). Self-care behaviors among Thai primigravida teenagers. *Globol Jornal of Health Science, 4*, 139-147.

Perry, S. E., Hockenberry, M. J., Lowdwemilk, L. D., & Wilson, D. (2014). *Maternal child nursing care* (5 th ed.). Canada: St. Loius, Misouri.

Peterson, S. J., & Bredow, T. S. (2013). *Middle range theories* (3 rd ed.). Philadelphia: Lippincott Williams& Wilkins.

Phaneuf, M. (2013). Resilience: Abstract concept or survival Skill? Retrieved from http://www.infiressources.ca/fer/Depotdocument_anglais/Resilience_abstract_concept_or_survival_skill.pdf

Pidgeon, A. M., Ford, L., & Klaassen, F. (2014). Evaluating the effectiveness of enhancing resilience in human service professionals using a retreat-based Mindfulness with Meta training program: A randomized control trial. *Psychology Health Medicine, 19*(3), 355-364. doi: 10.1080/13548506.2013.806815

Pires, R., Araújo-Pedrosa, A., & Canavarro, M. (2014). Examining the links between perceived impact of pregnancy, depressive symptoms, and quality of life during adolescent pregnancy: The buffering role of social support. *Maternal & Child Health Journal, 18*(4), 789-800. doi: 10.1007/s10995-013-1303-0

Pillitteri, A. (2015). *Maternal and child health nursing: Care of the childbearing and childrearing family* (7 th ed.). Lippincott Williams & Wikins: Wolter Klower.

Polit, D. F., & Beck, C. T. (2008). *Nursing research: Generating and assessing evidence for nursing practice* (8 ed.). New York: J. B. Lippincott Company.

Radloff, L. S. (1997). The CES-D scale: A self report depression scale for research in the general population. *Applied Psychology Measurement, 1*, 385-401.

Reid, V., & Meadows-Oliver, M. (2007). Postpartum depression in adolescent mothers: An integrative review of the literature. *Journal Pediatric Health Care, 21*, 289-298.

Ricci, S. S., & Kyle, T. (2009). *Maternity and pediatric nursing*. New York: Lippincott Williams & Wilkins.

Ricci, S. S., Kyle, T., & Carman, S. (2013). *Maternity and peditric nursing* (2 nd ed.). Philadelphia: Wolters Kluwer: Lippincott Williams& Wilkins.

Rogers, M. M., Peoples-sheps, M. D., & Suchindran, C. (1996). Impact of a social support program on teenage prenatal care use and pregnancy outcomes. *Journal of Adolescent Health, 19*, 132-140. doi: http://dx.doi.org/10.1016/1054-139X(95)00227-J

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*, 316-331.

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annual New York Academic Science*, 1-12.

Rutter, P. A., Freedenthal, S., & Osman, A. (2008). Assessing protection from suicidal risk: Psychometric properties of the suicide resilience inventory. *Death Studies, 32*(2), 142-153.

Ryan, J. G., & Dogbey, E. (2015). Preterm Births: A Global Health Problem. *American Journal of Maternal Child Nursing, 40*(5), 278-283. doi: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=ovftq&AN=00005721-201509000-00002

Salazar-Pousada, D., Arroyo, D., Hidalgo, L., Pérez-López, F. R., & Chedraui, P. (2010). Depressive symptoms and resilience among pregnant adolescents: A case-control study. *Obstetrics & Gynecology International*. doi: 10.1155/2010/952493

Salonen, A. H., Kaunonen, M., Åstedt-Kurki, P., Järvenpää, A.-L., Isoaho, H., & Tarkka, M.T. (2011). Effectiveness of an internet-based intervention enhancing finnish parents' parenting satisfaction and parenting self-efficacy during the postpartum period. *Midwifery, 27*, 832-841. doi: 10.1016/j.midw.2010.08.010

Samankasikorn, W., Pierce, B., St. Ivany, A., Gwon, S. H., Schminkey, D., & Bullock, L. (2016). Effect of Home Visiting with Pregnant Teens on Maternal Health. *The American Journal of Maternal/Child Nursing, 41*(3), 162-167. doi: 10.1097/NMC.0000000000000235

Sarantaki, A., & Koutelekos, I. (2007). Teenage pregnancy. *Health Science Journal, 1*, 1-6.

Scudder, L., Sullivan, K., & Copeland-Linder, N. (2008). Adolescent resilience: Lessons for primary care. *The Journal for Nurse Practitioners, 4*, 535-543.

Seligman, M. E. (2011). Building resilience. *Harvard Bussiness Review, 89*(4), 100-106.

Seligman, M. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: positive psychology and classroom interventions. *Oxford Review of Education, 35*(3), 293-311. doi: 10.1080/03054980902934563

Sethosa, G. S. (2007). *Teenage pregnancies as a management issue in township schools in George.* (Master of Education), Nelson Mandela Metropolitian University, George.

Sipsma, H. L., Ickovics, J. R., Lewis, J. B., Ethier, K. A., & Kershaw, T. S. (2011). Adolescent pregnancy desire and pregnancy incidence. *Women's Health, 21*, 110-116. doi: 10.1016/j.whi.2010.09.004

Simpson, A. R. (2001). Raising teens: A synthesis or research and a foundation for action. *Center for Health Communication, Harvard School of Public Health.*

Simpson, K. R., & Creehan, P. A. (2014). Perinatal Nursing. China: Philadelphia.

Sivaraman Nair, K. P. (2003). Life goals: The concept and its relevance to rehabilitation. *Clinical Rehabilily, 17*(2), 192-202.

Sockol, L. E., Epperson, C. N., & Barber, J. P. (2011). A meta-analysis of treatments for perinatal depression. *Clinical Psychology Review, 31*(5), 839-849.

Songprakun, W., & McCann, T. V. (2012a). Effectiveness of a self-help manual on the promotion of resilience in individuals with depression in Thailand: A randomised controlled trial. *BMC Psychiatry Journal, 12*(1), 12. doi: 10.1186/1471-244x-12-12

Songprakun, W., & McCann, T. V. (2012b). Evaluation of a bibliotherapy manual for reducing psychological distress in people with depression: A randomized controlled trial. *Journal Advance of Nursing, 68*, 2674-2684.

Steinhardt, M., & Dolbier, C. (2008). Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. *Journal of American College Health, 56*, 445-453.

Steinberg, L. (2004). Risk taking in adolescence: what changes, and why? *Annals of the New York Academy of Sciences*, *1021*(1), 51-58.

Stephens, T. M. (2013). Nursing student resilience: A concept clarification. *Nursing Forum, 48*, 125-133. doi: 10.1111/nuf.12015

Strunk, J. A. (2008). The effect of school-based health clinics on teenage pregnancy and parenting outcomes: An integrated literature review. *Journal of School Nursing, 24*, 13-20. doi: 10.1177/10598405080240010301

Takviriyanun, N. (2008). Development and testing of the resilience factors scale for Thai adolescents. *Nursing & Health Sciences, 10*, 203-208.

Tavernier, S. S. (2006). An evidence-based conceptual analysis of presence. *Holistic Nursing Practice, 20*(3), 152-156.

Thanoi, W., Phancharoenworakul, K., Thompson, E. A., Panitrat, R., & Nityasuddhi, D. (2010). Thai adolescent suicide risk behaviors: Testing a model of negative life events, rumination, emotional distress, resilience and social support. *Pacific Rim International Journal of Nursing Research, 14*, 187-202.

Thomas, L. J., & Revell, S. H. (2016). Resilience in nursing students: An integrative review. *Nurse Education Today, 36*, 457-462. doi: 10.1016/j.nedt.2015.10.016

Twenge, J. M., Campbell, W. K., & Freeman, E. C. (2012). Generational differences in young adults' life goals, concern for others, and civic orientation, *Journal of Personality and Social Psychology, 102*, 1045-1062.

The United Nations Children's Fund (UNICEF). (2008). Young people and family planning: Teenage pregnancy. Retrieved from https://www.unicef.org/malaysia/Teenage_Pregnancies_-_Overview.pdf

Van den Hove, D. L., Kenis, G., Brass, A., Opstelten, R., Rutten, B. P., Bruschettini, M., . . . Prickaerts, J. (2012). Vulnerability versus resilience to prenatal stress in male and female rats: Implications from gene expression profiles in the hippocampus and frontal cortex. *European Neuropsychopharmacol, 27*, 308-302.

Vieira, C. L., Coeli, C. M., Pinheiro, R. S., Brandão, E. R., Camargo Jr, K. R., & Aguiar, F. P. (2012). Modifying effect of prenatal care on the association between young maternal age and adverse birth outcomes. *Journal of Pediatric and Adolescent Gynecology, 25*, 185-189. doi: 10.1016/j.jpag.2011.12.070

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement, 1*, 165-178.

Ward, S. L., Hisley, S. M., & Kennedy, A. M. (2016). *Maternal-child nursing care* (2nd ed). Philadelphia: F. A. Davis Company.

Webster. (1995). *The new lexicon Webster's dictionary of the English language*. U.S.A: Lexicon Publications, INC.

Weed, K., Keogh, U., & Borkowski, J. (2000). Predictors of resiliency in adolescent Mothers. *Journal of Applied Developmental Psychology, 21*, 207-231. doi: 10.1016/s0193-3973(99)00036-2

Weed, K., Keogh, U., & Borkowski, J. (2006). Stability of resilience in children of adolescent mothers. *Journal of Applied Developmental Psychology, 27*, 60-77. doi: 10.1016/j.appdev.2005.12.007

WHO. (2007). Adolescent pregnancy unmet needs and undone deeds : A review of the literature and programmes issues in adolescent health and development. Retrieved 25 September 2012, from http://www.who.int/maternal_child_adolescent/documents/discussion/en/

WHO. (2012a). Addressing the sexual and reproductive health of adolescents. Retrieved 21 July 2012, from http://www.who.int/reproductivehealth/topics/adolescence/background/en/index.html

WHO. (2012b). Early marriages, adolescent and young pregnancies. Retrieved 21 October 2012. http://www.ghwatch.org/who-watch/eb130

WHO. (2013a). Sexual and reproductive Health. Retrieved 15 June 2013, from http://www.who.int/reproductivehealth/about_us/en/

WHO. (2013b). Millennium development goals: Progress towards the health-related millennium development goals. Retrieved 25 September 2013, from http://www.who.int/mediacentre/factsheets/fs290/en/index.htmlt

WHO. (2014a). Addressing the sexual and reproductive health of adolescents Retrieved 21 October 2014, from http://www.who.int/reproductivehealth/topics/adolescence/background/en/index.html

WHO. (2014b). Depression. Retrieved 30 April 2014, from http://www.who.int/topics/depression/en/

WHO. (2015). World Health Statistics. Retrieved 5 October 2016, from http://www.who.int/gho/publications/world_health_statistics/2015/en/

WHO. (2016). Adolescent pregnancy. Retrieved 20 January 2017, from http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en/

Windle, G., & Bennett, K. M. (2012). Caring relationships: How to promote resilience in challenging times:The social ecology of resilience. In M. Ungar: Springer New York.

Wolchik, S. A., Schenck, C. E., & Sandler, I. N. (2009). Promoting resilience in youth from divorced families: Lessons learned from experimental trials of the new beginnings program. *Journal of Personality, 77*, 1833-1868. doi: 10.1111/j.1467-6494.2009.00602.x

Wong, M. C., Sun, J., Lee, A., Stewart, D., Cheng, F. K., Kan, W.,… Ho, M. (2009). The impact of a newly designed resilience enhancing program on parent and teacher perceived resilience environment among health promoting schools in Hong Kong. *Journal of Epidemiology & Community Health, 63*(3), 209-214. doi: 10.1136/jech.2008.074260

Wong-Arsa, W., & Sitkul-a-nan, P. (2008). Factors affecting health promoting behaviors of adolescents with unplanned pregnancy. *Journal of Public Health, 38*(2), 221-232.

Woods, S. M., Melville, J. L., Guo, Y., Fan, M.Y., & Gavin, A. (2010). Psychosocial stress during pregnancy. *American Journal of Obstetrics and Gynecology, 202*, 61-67. doi: 10.1016/j.ajog.2009.07.041

Yuen, W. W., Wong, W. C., Tang, C. S., Holroyd, E., Tiwari, A. F., Fong, D. Y., & Chin, W. Y. (2013). Evaluating the effectiveness of personal resilience and enrichment program (PREP) for HIV prevention among female sex workers: A randomized controlled trial. *BMC Public Health, 13*(683), 1471-2458. doi: 10.1186/1471-2458-13-683

Xie, R., Yang, J., Liao, S., Xie, H., Walker, M., & Wen, S. W. (2010). Prenatal family support, postnatal family support and postpartum depression. *Australian & New Zealand Journal of Obstetrics & Gynaecology, 50*(4), 340-345. doi: 10.1111/j.1479-828X.2010.01185.x

Zeller, D. L. (1997). The program minimized randomization 2.01, Retrived from http://mahmoodsaghaei.tripod.com/Softwares/randalloc.html

Zhang, K. C., & Yu, E. D. (2014). Quest for a good life: Spiritual values, life goals, and college students. *Asia-Pacific Psychiatry, 6*, 91-98. doi: 10.1111/j.1758-5872.2012.00183.x

APPENDICES

APPENDIX A

Instruments

APPENDIX A1

Demographic Data Form

1. Date of birth ....years ....
2. Age of baby's father ……………………years
3. Gestational age (weeks)…………………………………………………
4. Gestational age at first attending antenatal care (weeks)…………………
5. Period of contraception before pregnancy (week)………………………
6. Education

○ 1. None ○ 2. Grade 6th

○ 3. Grade 9th ○ 4. High school

○ 5. College ○ 6. Bachelor

○ 7. Others (specify).............................

7. Employment

○ 1. Private employee ○ 2. Self- employed

○ 3. Trader ○ 4. Agriculturist

○ 5. Student ○ 6. Others (specify)..................

8. Current student status

○ 1. Active ○ 2. Leave of absence

○ 3. Unapproved leave ○ 4. Quit

9. Total income per month

○ 1. No income ○ 2. Less than 5,000 Bath

○ 3. 5,001-10,000 Bath ○ 4. 10,001-15,000 Bath

○ 5. 15,001-20,000 Bath ○ 6. More than 20,000 Bath

10. Source of payment for health care

○ 1. Self-payment ○ 2. Partner/ husband ○ 3. Parent(s)

○ 4. Partner's parents ○ 5. Others(specify).................

11. Religion

○ 1.Buddhist ○ 2. Christian ○ 3. Islam

○ 4.Others (specify).............................

12. Marital status

○ 1. Married

○ 2. Still living with husband parent (s) accept unmarried status

○ 3. Still living with husband parent (s) did not accept unmarried status

○ 4. Living Separate

○ 5. Relative/ Others (specify).....................................

13. Partner's attitude toward having a baby

○ 1. Accept to pregnancy

○ 2. Do not accept to pregnancy

14. Current relationship with partner/husband

○ 1. Good relationship

○ 2. Poor relationship

15. Responsibility of partner / husband

○ 1. Giving good care to you

○ 2. Giving some care to you

○ 3. Do not giving any care of you

16. Living arrangements

○ 1. Teenage pregnant women and partner/ husband

○ 2. Teenage pregnant women by herself

○ 3. Living with teenager's mother and father

○ 4. Living with partner/husband's mother and father

○ 3. Living with others: friends / relatives

APPENDIX A2

Life Goals Questionnaire

The purpose of this questionnaire is to ask for your life goals during pregnancy. You should to carefully consider each statement. And you can mark (√) in the answer blocks which related to the real situation of your feeling. Your answer will not be affected. The questionnaire consists of four categories of your opinion: please place the number that best fits your opinion. Rate the degree to which you agree with each item using the following four-point continuum:

Not important is referred to you feel this statement is not important

Somewhat important is referred to you feel this statement is somewhat important

Quite important is referred to you feel this statement is quite important

Extremely important is referred to you feel this statement is extremely important

Statements	not important (1)	somewhat important (2)	quite important (3)	extremely important (4)
1.Having good marriage and family				
2. Achievement of successful career				
3. Having a good relationship with friends				
4. Getting a permanent job				
5. Live on certainty and meaning for oneself				
6. Enable to seek opportunity rather than keep waiting for it				
7. Available to creative thinking on work				

Statements	not important (1)	somewhat important (2)	quite important (3)	extremely important (4)
8. Taking good socially adaptation				
9. Seeking means of improving life with new experience				
10. Having enough money				
11. Being close to family and having good relationship with family				
12. Being an acceptable person and account for society				
13. Being acceptable as a member of community				
14. Learn to live based on own society and environment				

APPENDIX A3

Depressive Symptom Scale

The purpose of this questionnaire is to ask for your feeling and behaviors during pregnancy. You should to carefully consider each statement. And you can mark (√) in the answer blocks which related to the real situation of your feeling and behaviors. Your answer will not be affected. All statement must be done. Instructions for question: below is a list of the ways you might have felt or behaved. Please tell me often you have felt this way during the past week. Each frequency can be defined as follows:

Rarely is referred to your feeling and behaviors during pregnancy have less than 1 day or none of the time.

Some is referred to your feeling and behaviors during pregnancy have 1-2 days or a little of the time

Occasionally is referred to your feeling and behaviors during pregnancy have 3-4 days or a modern rate amount of time.

All of the time is referred to your feeling and behaviors during pregnancy have 5-7 days or all of the time.

During past the week	Rarely (3)	Some (2)	Occasionally (1)	All of the time (0)
1.I was bothered by things that usually do not bother me				
2. I did not feel like eating; my appetite was poor				
3. I felt that I could not shake off the blues even with help from my family or friends				

During past the week	Rarely (3)	Some (2)	Occasionally (1)	All of the time (0)
4. I felt that I was just as good as other people				
5. I had trouble keeping my mind on what I was doing				
6. I felt depressed				
7. I felt that everything I did was as effort				
8. I felt hopeful about the future				
9. I thought my life had been a failure				
10. I felt fearful				
11. My sleep was restless				
12. I was happy				
13. I talked less than usual				
14. I felt lonely				
15. People were unfriendly				
16. I enjoyed life				
17. I had crying spells				
18. I felt sad				
19. I felt that people dislike me				
20. I could not get going				

APPENDIX A 4

Resilience Scale

The purpose of this questionnaire is to ask for your resilience during pregnancy. You should carefully consider each statement. And you can mark (√) in the answer blocks which related to your perceiving. Your answer will not be affected. All statement must be done. Instructions for question: below is a list of the ways you might have felt or behaved. Each item statement has a rating scale, ranking from 1 to 4 points, associated with four possible answers. The higher score will be indicated higher degree of resilience in the adversities during pregnancy. All respondents are asked to provide your subjective opinion, using scale, in response to each question. The scale is presented as follows:

Not true is referred to you feel this statement is not true

Partly true is referred to you feel this statement is partly true

Quite true is referred to you feel this statement is quite true

Completely true is referred to you feel this statement is completely true

Statement	Not true (1)	Partly true (2)	Quite true (3)	Completely true (4)
I have 1. people within the family that I can trust about my pregnancy				
2. people outside my family I can trust about my pregnancy				
3. limits as I seek support during my pregnancy				
4. good role models				

Statement	Not true (1)	Partly true (2)	Quite true (3)	Completely true (4)
5. people who encourage me to be independent				
6. people who support me when I have some problem				
7. available resources which ready to me for easy to accessing such as, health insurance, health caring .				
8. stable and safety family				
9. stable and safety community				
10. people who acknowledge me when I do the right things				
I am 11. respect myself and others				
12. responsible for own good behaviors and good outcomes				
13. feel confident, optimistic, and hopeful				
14. clam and more patient				
15. make a good plan for the future				
16. prepare to deal with				

Statement	Not true (1)	Partly true (2)	Quite true (3)	Completely true (4)
what might interfere with achieving my life goals				
17. honest even though it might make my life upset				
18. strong beliefs about faith what the right thing or wrong thing				
I can 19. express thoughts and feeling without feelings as though I am pregnancy				
20. generate new ideas and new ways of doing things				
21. stay with a task until finished my educational attainment				
22. solve problems in various settings such as, my study, work, problem with my friends, or private problem				
23. control and manage my feeling for needing related that become risk behaviors or harmful				

Statement	Not true (1)	Partly true (2)	Quite true (3)	Completely true (4)
24. request for helping from the others person that without feeling weakness of myself				
25. get a crisis intervention that it is not important and see the humor in this event , can face the stress management by myself				

APPENDIX A 5

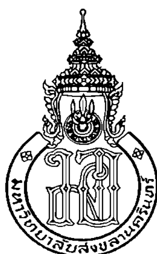
The Self-report form of the resilience enhancing practice

The purpose of this questionnaire is to ask for your resilience enhancing practice during pregnancy. You should carefully consider each statement. And you can mark (√) in the answer blocks which related to your practice. Your answer will not be affected. All statement must be done. All respondents are asked to provide your subjective practice in response to each category. The self-report is presented as follows:

No	Date/month/year	The problems in your situations	You have organized

APPENDIX A 6

Thai Version of the Resilience Enhancing Nursing Program



โปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตในหญิงตั้งครรภ์วัยรุ่น

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มหาวิทยาลัยสงขลานครินทร์

อาจารย์ที่ปรึกษาวิทยานิพนธ์
ผู้ช่วยศาสตราจารย์ ดร. โสเพ็ญ ชูนวล
รองศาสตราจารย์ ดร. อุไร หัถกิจ

คำนำ

โปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตในชีวิตในหญิงตั้งครรภ์วัยรุ่นโดยได้พัฒนาโปรแกรมการพยาบาลตามกรอบแนวคิดของกร็อทเบิก โดยเนื้อหาของโปรแกรมฯ นี้ประกอบรายละเอียดของขั้นตอน และกิจกรรมของการดำเนินการอย่างละเอียด ผู้จัดทำหวังเป็นอย่างยิ่งว่าโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตของหญิงตั้งครรภ์วัยรุ่นจะเป็นประโยชน์สำหรับพยาบาลในการนำไปเสริมสร้างความเข้มแข็งในชีวิตให้หญิงตั้งครรภ์วัยรุ่นเพื่อนำไปสู่การพัฒนาระบบการดูแลหญิงวัยรุ่นที่ตั้งครรภ์ให้มีคุณภาพชีวิตที่ดีต่อไป

อุมาภรณ์ กั้วสิทธิ์
ผู้จัดทำ

ส่วนที่ 1 โปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตสำหรับหญิงตั้งครรภ์วัยรุ่น

บทนำ

การตั้งครรภ์ในวัยรุ่นนอกจากจะส่งผลกระทบทั้งทางร่างกาย จิตใจ อารมณ์สังคม และสิ่งแวดล้อมของหญิงตั้งครรภ์ ยังมีผลต่อพัฒนาการการตั้งครรภ์ โดยหญิงตั้งครรภ์วัยรุ่นจะต้องเผชิญกับเหตุการณ์ที่ตนเองไม่ได้ตั้งใจในชีวิต ซึ่งแนวโน้มของการตั้งครรภ์ที่เพิ่มขึ้นนี้จะส่งผลต่อปัญหาที่จะเกิดขึ้นตามมาอีกหลายมิติในสังคมต่อไป การเสริมสร้างความเข้มแข็งในชีวิตในหญิงตั้งครรภ์วัยรุ่นที่ตั้งครรภ์ไม่พร้อมนั้นถือว่าเป็นการ เพิ่มศักยภาพให้กับหญิงตั้งครรภ์มีความสามารถในการยืนหยัดอยู่ได้ในช่วงระยะแรกของการตั้งครรภ์ซึ่งถือว่าเป็นช่วงเวลาที่หญิงตั้งครรภ์ภัยรุ่นที่จะต้องเผชิญกับสถานการณ์ที่ยากลำบาก และต้องอาศัยความเข้มแข็งในชีวิตที่จะข้ามผ่านพ้นไปได้โดยอาศัยความเข้มแข็งที่จะต้องมีในตัวเอง ดังนั้นจากแนวคิดความเข้มแข็งในชีวิตของกรอทเบิก (1997) พบว่าองค์ประกอบความเข้มแข็งในชีวิตและปัจจัยที่มีผลต่อการเสริมสร้างความเข้มแข็งในชีวิตนั้นขึ้นอยู่กับปัจจัยทั้งด้านร่างกาย จิตใจและสังคมของแต่ละบุคคล หากหญิงตั้งครรภ์วัยรุ่นมีความเข้มแข็งในชีวิตจะทำให้หญิงตั้งครรภ์วัยรุ่นมีความทนทานด้านอารมณ์ที่ดีไม่เกิดภาวะซึมเศร้ามีการวางเป้าหมายชีวิตและมีทักษะในการแก้ปัญหา รวมทั้งมีกำลังใจและแหล่งสนับสนุนทางสังคม มีความเข้มแข็งในชีวิตอันจะไปสู่การมีสุขภาพจิตที่ดีตลอดจนการมีความรู้และทักษะในการใช้เสริมสร้างความเข้มแข็งในชีวิตเมื่อต้องเผชิญกับปัญหาในชีวิตในขณะที่ตั้งครรภ์

ดังนั้นผู้วิจัยจึงได้พัฒนาโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตในหญิงวัยรุ่นที่ตั้งครรภ์ที่ไม่พร้อมตามกรอบแนวคิดของกร็อทเบิก (1997) ผลของโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตของหญิงตั้งครรภ์วัยรุ่นซึ่งผลที่คาดว่าจะได้รับจากการศึกษาครั้งนี้ส่งผลให้หญิงวัยรุ่นที่ตั้งครรภ์ไม่พร้อม ส่งผลให้หญิงตั้งครรภ์สามารถเผชิญกับปัญหาและอุปสรรคในการดำเนินชีวิตในสังคม ตลอดจนการมีทักษะในการจัดการกับปัญหาที่เกิดขึ้นอย่างเหมาะสม ทำให้หญิงตั้งครรภ์วัยรุ่นสามารถผ่านพ้นภาวะวิกฤติและสามารถเผชิญกับภาวการณ์ตั้งครรภ์ครั้งนี้ได้อย่างมีประสิทธิภาพ และดำเนินชีวิตอย่างมีความสุขเป็นผลดีต่อไปในอนาคตอันจะนำไปสู่การมีคุณภาพชีวิตที่ดีทั้งมารดาและทารกในครรภ์ต่อไป

วัตถุประสงค์ทั่วไป

เพื่อให้หญิงวัยรุ่นที่ตั้งครรภ์ไม่พร้อมได้รับโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิต ซึ่งจะส่งผลให้ลดการเกิดภาวะซึมเศร้า และมีเป้าหมายในชีวิตในหญิงตั้งครรภ์วัยรุ่น เป็นการส่งเสริมให้หญิงตั้งครรภ์วัยรุ่นมีศักยภาพสามารถดำเนินชีวิตในระยะตั้งครรภ์ได้อย่างมีประสิทธิภาพ ส่งผลต่อคุณภาพชีวิตที่ดีต่อไป

กลุ่มตัวอย่าง

กลุ่มตัวอย่างที่ศึกษาทั้งหมดจำนวน 128 ราย โดยแบ่งเป็นกลุ่มตัวอย่างที่เป็นกลุ่มที่ได้รับโปรแกรม จำนวน 64 ราย และกลุ่มตัวอย่างที่ได้รับการพยาบาลตามปกติจำนวน 64 ราย จากจำนวน 2 พื้นที่วิจัย ได้แก่ โรงพยาบาลมหาสารคาม และโรงพยาบาลกาฬสินธุ์ โดยกลุ่มตัวอย่างมีคุณสมบัติของเกณฑ์คัดเข้าดังต่อไปนี้

1. หญิงตั้งครรภ์วัยรุ่นครรภ์แรก
2. อายุครรภ์ไม่เกิน 28 สัปดาห์
3. ไม่มีภาวะแทรกซ้อนในระยะตั้งครรภ์ที่ เป็นอุปสรรคต่อการเข้าร่วมโปรแกรม
4. สามารถสื่อสารด้วยภาษาไทย
5. ยินดีและเต็มใจเข้าร่วมการวิจัย
6. อนุญาตให้เข้าร่วมโครงการวิจัยจากผู้ปกครอง

ผู้ดำเนินการ

นางอุมาภรณ์ กั้วสิทธิ์ นักศึกษาปริญญาเอก หลักสูตรพยาบาลศาสตร์ดุษฎีบัณฑิต สาขาการพยาบาล (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ อำเภอหาดใหญ่ จังหวัดสงขลา

สถานที่ดำเนินการ

1. แผนกฝากครรภ์ โรงพยาบาลมหาสารคาม
2. แผนกฝากครรภ์ โรงพยาบาลกาฬสินธุ์

อุปกรณ์ และสื่อดำเนินการ

1. คู่มือแนวทางการเสริมสร้างความเข้มแข็งในชีวิตในหญิงวัยรุ่นที่ตั้งครรภ์ไม่พร้อม
2. แผนการสอนเรื่องการเสริมสร้างความเข้มแข็งในชีวิตในหญิงวัยรุ่นที่ตั้งครรภ์ไม่พร้อมและสำหรับผู้วิจัย
3. แบบบันทึกการปฏิบัติตัวเพื่อเสริมสร้างความเข้มแข็งในชีวิต
4. แบบประเมินความเข้มแข็งในชีวิต
5. แบบประเมินภาวะซึมเศร้าในหญิงตั้งครรภ์วัยรุ่น
6. แบบประเมินเป้าหมายชีวิตในหญิงตั้งครรภ์วัยรุ่น

7. วิดีโอ ใช้ในกิจกรรมการมีเป้าหมายในชีวิตและการมีทักษะในการแก้ปัญหา ชุดทางเลือกที่ 2 จากโครงการ Up to me การรณรงค์สร้างความตระหนักเพื่อป้องกันการตั้งครรภ์ไม่พร้อมในวัยรุ่น จัดทำโดยองค์การPATH สนับสนุนโดยสำนักงานกองทุนสนับสนุนการสร้างเสริมสุขภาพ (สสส.) ระยะเวลาประมาณ 10 นาที

8. ใบงานทั้งหมด 5 ใบงาน โดยใบงานแต่ละใบงานผู้วิจัยใช้สำหรับให้หญิงตั้งครรภ์ร่วมกิจกรรมของโปรแกรมในแต่ละขั้นตอน ประกอบด้วย ใบงานที่ 1 ใช้สำหรับกิจกรรมต้นไม้แห่งชีวิตที่ฉันลิขิตเอง ใบงานที่ 2 สำหรับกิจกรรมเป้าหมายมีไว้พุ่งชน โดยหญิงตั้งครรภ์เขียนเป้าหมายชีวิตของหญิงตั้งครรภ์วัยรุ่น ใบงานที่ 3 สำหรับกิจกรรมเป้าหมายมีไว้พุ่งชน โดยใบงานนี้จะเป็นการฝึกทักษะการแก้ปัญหาซึ่งหญิงตั้งครรภ์จะวิเคราะห์สถานการณ์จากการชมวิดีโอเสร็จ ใบงานที่ 4 สำหรับกิจกรรมการสร้างเครือข่ายแม่วัยใสหัวใจเข้มแข็ง โดยหญิงตั้งครรภ์วัยรุ่นเขียนปัจจัยเกื้อหนุนโดยระบุชื่อบุคคลที่เป็นแหล่งสนับสนุนทางสังคม และใบงานที่ 5 สำหรับกิจกรรมการสร้างเครือข่ายแม่วัยใสหัวใจเข้มแข็ง โดยหญิงตั้งครรภ์เขียนชื่อที่อยู่ของตนเองเพื่อให้สมาชิกในเครือข่ายติดต่อสื่อสารแลกเปลี่ยนกัน

การประเมินผล

1. การสังเกตการมีส่วนร่วมของหญิงตั้งครรภ์วัยรุ่น
2. ความสนใจและการซักถามของหญิงตั้งครรภ์วัยรุ่น
3. ประเมินจากคะแนนของภาวะซึมเศร้าและคะแนนการมีเป้าหมายในชีวิตของหญิงตั้งครรภ์วัยรุ่นก่อนและหลังจากการได้รับโปรแกรมการพยาบาลเพื่อการเสริมสร้างความเข้มแข็งในชีวิต
4. พฤติกรรมความสนใจ และการร่วมแสดงความคิดเห็น ตลอดจนการซักถามปัญหาต่างๆ หญิงตั้งครรภ์วัยรุ่น

ลักษณะของโปรแกรม

การดำเนินการตามโปรแกรมการพยาบาลเพื่อเสริมสร้างความเข้มแข็งในชีวิตในหญิงวัยรุ่นที่ตั้งครรภ์ไม่พร้อม ในแต่ละขั้นตอนครั้งใช้เวลาประมาณ 20-45 นาที ประกอบด้วย 3 ขั้นตอน ได้แก่

ขั้นตอนที่ 1 การสร้างสัมพันธภาพ และการไว้วางใจ

โดยขั้นตอนนี้ผู้วิจัยจะสร้างสัมพันธภาพ กับหญิงตั้งครรภ์วัยรุ่นที่เข้าร่วมโปรแกรมในวันที่มารับบริการในแผนกฝากครรภ์ โดยเริ่มดำเนินการในสัปดาห์ที่ 1 ที่ผู้วิจัยพบกับหญิงตั้งครรภ์ครั้งแรก

ขั้นตอนที่ 2 การเติมเต็มความเข้มแข็งในชีวิต

โดยขั้นตอนนี้จะดำเนินการในสัปดาห์ที่ 4 ทั้งนี้หญิงตั้งครรภ์วัยรุ่นจะเข้าร่วมการทำกิจกรรมในขั้นตอนนี้ทั้งหมด 3 กิจกรรม หลังจากนั้นให้หญิงตั้งครรภ์แสดงความคิดเห็นต่อโปรแกรม และผู้วิจัยทำการสรุปจากข้อคิดเห็นและข้อเสนอแนะจากกลุ่ม และหญิงตั้งครรภ์จะนำคู่มือไปปฏิบัติทักษะการเสริมสร้างความเข้มแข็งในชีวิตให้กับตนเองเองที่บ้าน กิจกรรมในขั้นตอนที่ 2 ประกอบด้วย 3 กิจกรรมดังต่อไปนี้

2.1 กิจกรรมต้นไม้แห่งชีวิตที่ฉันลิขิตเอง

2.2 กิจกรรมเป้าหมายมีไว้พุ่งชน

2.3 กิจกรรมเครือข่ายแม่วัยใสหัวใจเข้มแข็ง

ขั้นตอนที่ 3 การติดตามและการกระตุ้น

โดยขั้นตอนนี้เป็นการติดตามและเป็นการกระตุ้นให้หญิงตั้งครรภ์มีการฝึกทักษะการปฏิบัติเพื่อเสริมสร้างความเข้มแข็งในชีวิตตนเองที่บ้านหลังจากที่หญิงตั้งครรภ์เข้าร่วมโปรแกรม ในขั้นตอนนี้เป็นการติดตามทางโทรศัพท์และกระตุ้นเพื่อให้หญิงตั้งครรภ์มีการฝึกปฏิบัติทักษะการเสริมสร้างความเข้มแข็งในชีวิตโดยในระหว่างนี้ผู้วิจัยจะมีการติดตามเยี่ยมทางโทรศัพท์ในสัปดาห์ที่2, 3, 5, 6, และ 7 ใช้เวลาครั้งละประมาณ 10-15 นาที โดยมีจำนวนครั้งในการติดตามทั้งหมด 5 ครั้ง

การประเมินผลโปรแกรม

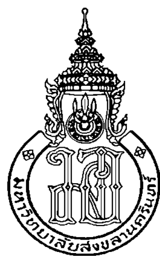
ขั้นตอนนี้เป็นขั้นตอนผู้วิจัยจะดำเนินการประเมินผลโปรแกรมโดยผู้วิจัยจะทำการประเมินผลลัพธ์ของโปรแกรม ได้แก่ แบบประเมินภาวะซึมเศร้า แบบประเมินเป้าหมายในชีวิต และแบบประเมินความเข้มแข็งในชีวิต ในสัปดาห์ที่ 8 ซึ่งขั้นตอนและกิจกรรมของโปรแกรมทั้งหมดนั้น ในแต่ละขั้นตอนจะประกอบด้วยกิจกรรมที่ดำเนินการกับหญิงตั้งครรภ์วัยรุ่น

รายละเอียด ขั้นตอนและกิจกรรม

ผู้วิจัยทำการสำรวจหญิงตั้งครรภ์วัยรุ่นที่มาฝากครรภ์ที่แผนกฝากครรภ์โรงพยาบาลมหาสารคาม และโรงพยาบาลกาฬสินธุ์ ที่เป็นกลุ่มตัวอย่างที่ศึกษาทั้งหมดโดยมีคุณสมบัติตามเกณฑ์

คัดเข้าของกลุ่มตัวอย่าง จำนวน 130 ราย โดยแบ่งเป็นกลุ่มที่ได้รับโปรแกรม จำนวน 64 ราย และกลุ่มที่ได้รับการพยาบาลตามปกติจำนวน 66 ราย หลังจากนั้นใช้โปรแกรมการสุ่มเพื่อเลือกกลุ่มสมาชิกหญิงตั้งครรภ์วัยรุ่นที่เป็นกลุ่มทดลอง

โดยการทำกิจกรรมรายกลุ่มที่ผู้วิจัยจะดำเนินการประกอบด้วย 3 ขั้นตอน ได้แก่ ขั้นตอนที่ 1 สร้างสัมพันธภาพและความไว้วางใจ ขั้นตอนที่ 2 เติมเต็มความเข้มแข็งในชีวิต ขั้นตอนที่ 3 ติดตามและกระตุ้น โดยผู้วิจัยจะดำเนินการตามกิจกรรมของในแต่ขั้นตอนของโปรแกรม กิจกรรมรายบุคคลประกอบด้วยกิจกรรมใน มีทั้งหมด 5 ครั้งได้แก่ ครั้งที่ 1 ติดตามทางโทรศัพท์และกระตุ้นในสัปดาห์ที่ 2 ครั้งที่ 2 ติดตามทางโทรศัพท์และกระตุ้นในสัปดาห์ที่ 3 ครั้งที่ 3 ติดตามทางโทรศัพท์และกระตุ้นในสัปดาห์ที่ 5 ครั้งที่ 4 ติดตามทางโทรศัพท์และกระตุ้นในสัปดาห์ที่ 6 ครั้งที่ 5 ติดตามทางโทรศัพท์และกระตุ้นในสัปดาห์ที่ 7 และสุดท้ายสัปดาห์ที่ 8 คือ ประเมินผลโปรแกรม ทั้งนี้กลุ่มทดลองจะเป็นหญิงตั้งครรภ์วัยรุ่นจะต้องเข้าร่วมโปรแกรมตามรายละเอียดและขั้นตอนและกิจกรรมดังตารางโปรแกรมต่อไปนี้



คู่มือการเสริมสร้างความเข้มแข็งในชีวิตสำหรับหญิงตั้งครรภ์วัยรุ่น

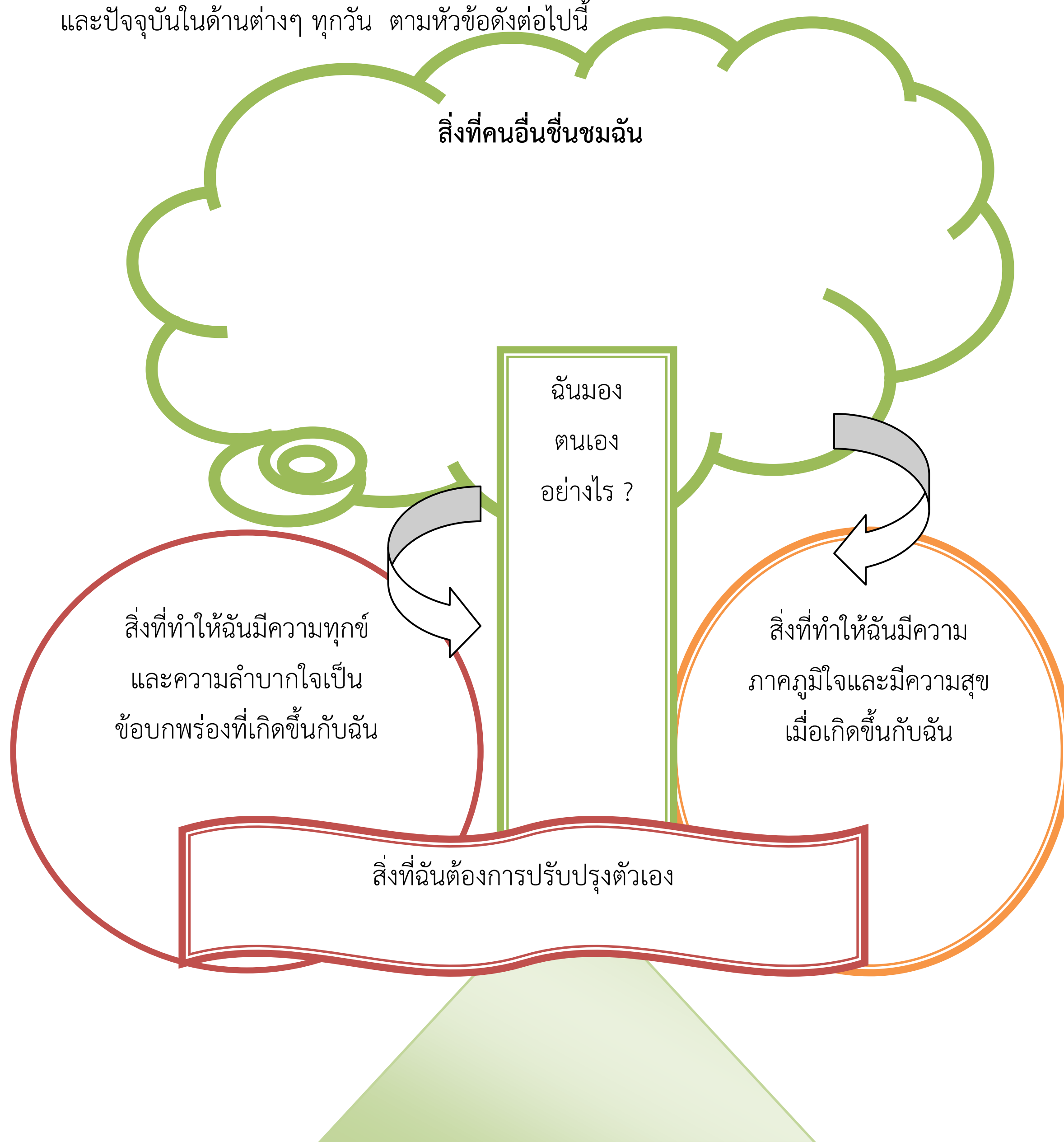
นางอุมาภรณ์ กั้วสิทธิ์
นักศึกษาปริญญาเอก หลักสูตรพยาบาลศาสตร์ดุษฎีบัณฑิต
สาขาการพยาบาล (นานาชาติ) คณะพยาบาลศาสตร์
มหาวิทยาลัยสงขลานครินทร์

อาจารย์ที่ปรึกษาวิทยานิพนธ์
ผู้ช่วยศาสตราจารย์ ดร. โสเพ็ญ ชูนวล
รอศาสตราจารย์ ดร. อุไร หัถกิจ

รหัส..
วันที่..

ใบงานที่ 1

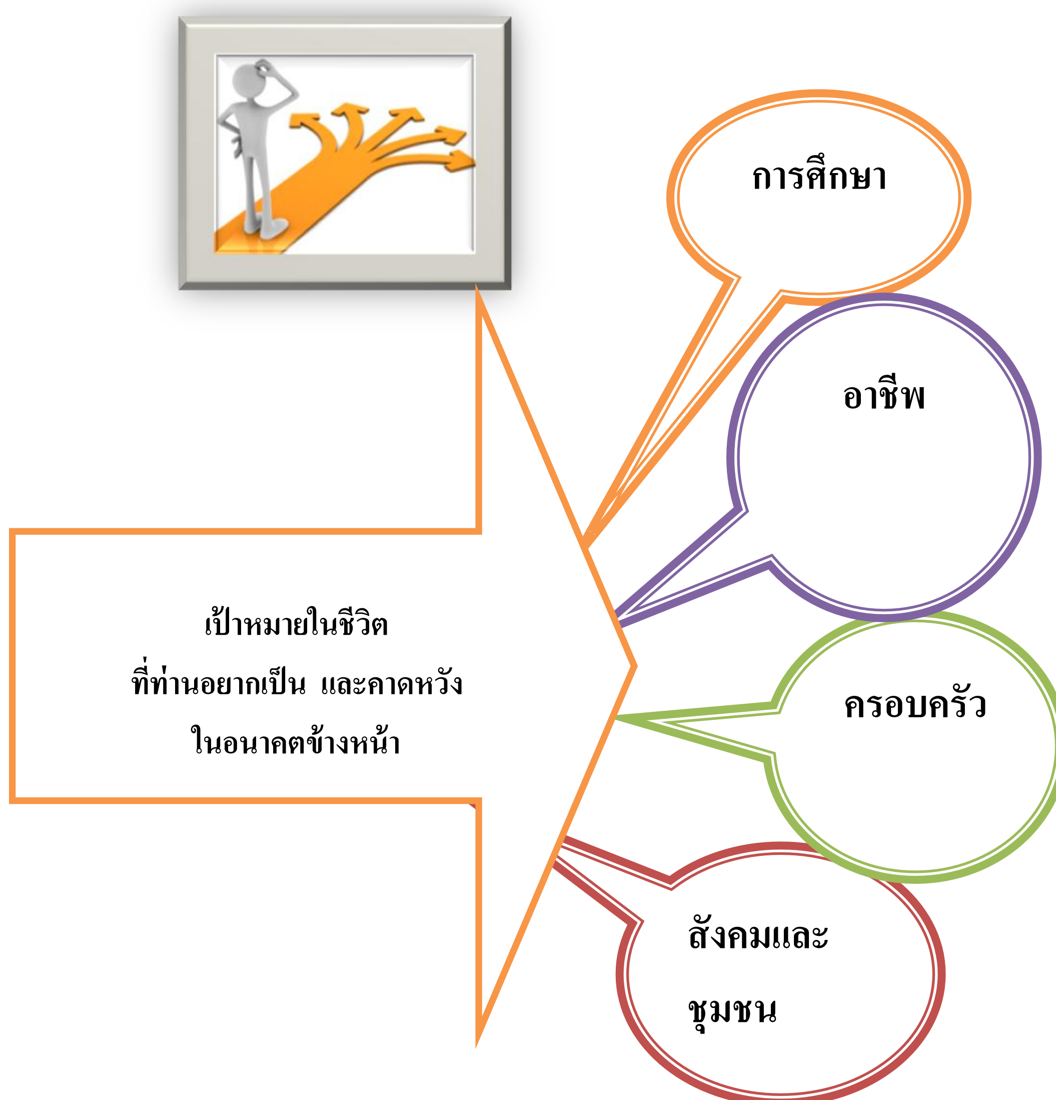
คำชี้แจง ใบงานนี้ใช้ประกอบกิจกรรมต้นไม้ชีวิตฉันลิขิตเอง โดยให้หญิงตั้งครรภ์เขียนแสดงความรู้สึก การกระทำ หรือสิ่งต่างๆ ในชีวิตของท่านที่ผ่านมา หรือท่านได้มีประสบการณ์ทั้งในอดีตและปัจจุบันในด้านต่างๆ ทุกวัน ตามหัวข้อดังต่อไปนี้



รหัส..
วันที่..

ใบงานที่ 2

คำชี้แจง ใบงานนี้ใช้ประกอบกิจกรรมเป้าหมายมีไว้พุ่งชน โดยให้หญิงตั้งครรภ์เขียนลงในใบงานเกี่ยวกับ ข้อมูลประวัติของตนเองที่ต้องการบอก และระบุเป้าหมายในชีวิตของตนเองตามหัวข้อดังต่อไปนี้



รหัส...
วันที่..

ใบงานที่ 3

คำชี้แจง ใบงานนี้ใช้ประกอบกิจกรรมเป้าหมายมีไว้พุ่งชน โดยหลังจากที่ท่านได้ชมวีดีโอสถานการณ์ตัวอย่างเกี่ยวกับการตั้งครรภ์วัยรุ่น ชุดทางเลือกที่ 2 จากโครงการรณรงค์สร้างความตระหนักเพื่อป้องกันการตั้งครรภ์ไม่พร้อมในวัยรุ่น แล้วให้ท่านตอบคำถามดังต่อไปนี้

1. ท่านคิดอย่างไรเกี่ยวกับการแก้ปัญหาที่เกิดขึ้นในสถานการณ์ตัวอย่าง

....

....

2. ถ้าท่านเป็นตัวละครทั้งฝ่ายหญิงหรือฝ่ายชายในเรื่อง ท่านจะทำอย่างไร เพราะอะไร

....

....

3. สิ่งที่ท่านทำตามที่ท่านระบุมาในข้อที่ 2 จงบอกเหตุผลว่ามีข้อดี และข้อเสียอย่างไร

....

....

4. เราจะมีแนวทางเพื่อให้ตัวละครในสถานการณ์ตัวอย่างสามารถแก้ปัญหา และสร้างเป้าหมายในอนาคตเขาได้อย่างไร

....

....

รหัส...
วันที่...

ใบงานที่ 4

คำชี้แจง ใบงานนี้ใช้ประกอบกิจกรรมการสร้างเครือข่ายแม่วัยใสหัวใจเข้มแข็ง ให้ท่านค้นหาแหล่งเกื้อหนุนที่เป็นบุคคลที่ท่านใกล้ชิด โดยให้ท่านเขียนชื่อบุคคลที่ท่านใกล้ชิดและคิดว่าไว้วางใจมากที่สุด และเป็นคนที่จะสามารถดูแลคุณในระยะตั้งครรภ์ได้จนกระทั่งคลอดลงในกระดาษที่เป็นนามบัตรหลังจากนั้นให้มอบให้กับผู้วิจัย

ชื่อของท่าน...
ชื่อบุคคลที่ใกล้ชิดท่านมากที่สุด...
เบอร์โทร...
ความสัมพันธ์กับท่าน...
ที่อยู่.. ....

รหัส..
วันที่..

ใบงานที่ 5

คำชี้แจง ใบงานนี้ใช้ประกอบกิจกรรมเครือข่ายแม่วัยใสหัวใจเข้มแข็ง ให้ท่านเขียนชื่อของท่าน หรือชื่อเล่นลงบนกระดาษรูปหัวใจ พร้อมกับระบุที่อยู่ ที่สามารถติดต่อได้กับสมาชิกในกลุ่มเครือข่ายแม่วัยใสหัวใจเข้มแข็ง โดยการติดต่อระหว่างท่านและสมาชิกคนอื่นผ่านช่องทางที่ท่านให้ไว้พื่อสื่อสารกัน และเป็นช่องทางที่เหมาะสมและสะดวกสำหรับท่าน ตัวอย่างเช่น โทรศัพท์ อีเมล์ แอดเดรส โปรแกรมไลน์ หรือเฟสบุ๊ค เป็นต้น

ชื่อ.......................................

ที่อยู่ที่ติดต่อสะดวก.......................................

Tel..

E mail..

Line..

Face book...

เนื้อร้อง "เพลง ฉันมีความสุขเล็ก ๆ / Little happiness "

โดย เสถียรธรรมสถาน

****

ฉันมีความสุขเล็กๆ ในใจฉัน (ในใจฉัน)

ฉันมีความสุขเล็กๆ ในใจฉัน (ในใจฉัน)

I feel little happiness in my heart (in my heart)

I feel little happiness in my heart (in my heart)

(ซ้ำอีกรอบ) ฉันมีความสุขเล็กๆ ในใจฉัน ((ในใจฉัน))

ฉันมีความสุขเล็กๆ ในใจฉัน ((ในใจฉัน))

I feel little happiness in my heart ((in my heart))

I feel little happiness in my heart ((in my heart))

เนื้อร้อง "เพลงเก็บดวงดาว “นำเสนอเป็น VCD

โดย เสถียรธรรมสถาน

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เก็บดวงดาวมาแต่งผม เก็บหมอกลม ลงกระออม

เก็บแผ่นฟ้าทำผ้าอ้อม เก็บไม้หอมล้อมเปลดี

เก็บความรักจากคนทั้งหล้า เก็บเมตตาไว้ที่นี่

เก็บไมตรีที่โลกมี เก็บสิ่งดีไว้ในใจ

เก็บทุกสิ่งไว้ให้ลูก แม่สร้างปลูกเอาไว้ให้

แม่เก็บฝันถึงวันไกล ยอดดวงใจเป็นคนดี

(ซ้ำอีกรอบ) เก็บดวงดาวมาแต่งผม เก็บหมอกลม ลงกระออม

เก็บแผ่นฟ้าทำผ้าอ้อม เก็บไม้หอมล้อมเปลดี

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แม่เก็บฝันถึงวันไกล ยอดดวงใจเป็นคนดี

APPENDIX B

Ethical Considerations

Protection of Subjects' Human Rights

I am Mrs. Umaporn Kuasit, Doctoral Student, Faculty of Nursing Prince of Songkla University, Tell: 043-730235 (home), Mobile: 093-3215425. I am doing my study in thesis title is the effect of the resilience enhancing nursing program on depression and life goals among teenagers with unplanned pregnancy. You will be informed of all the activities in this program study as well as the risks and benefits that may result from taking part in the process of this study.

You are free to withdraw from the study at anytime. After you indicate their willingness to participate, their parents will be contacted and informed about the activities of the research project and the rights of their child to participate in this study by signing a consent form. You are in the experimental group will be provided with the researcher and research assistant's name, home address, and mobile phone number so that they can request assistance if they have any problems such as risks and/or complications of a physical and/or psychological aspect during the study.

The resilience enhancing nursing program that provide to the 1st week for the teenage pregnant women attending antenatal care, they will practice for all procedures at their homes and the completing a post-intervention survey in the 5th, 6th , and 7th week that is the evaluation in 8th week after the evaluation step. Therefore, you will be advised from the researcher to take certain precautions. You can contact the researcher immediately or as soon as possible. While, conducting this study, the researcher will give orientations and train the participants step by step for each procedure. In addition, the participants can ask for any part of the program and lesson content to be repeated as needed. Your participation in this study is voluntary and you have the right to withdraw at any time and the health care team will not be affected. The study data will be coded so they will not be linked to your name. You identify will not be revealed while the study is being conducted or when the study is reported and published. Thank you for your cooperation.

Umaporn Kuasit

Researcher

Participant's Statement for parent / partner

The study information including objectives, procedures, data collection, and presentation has been explained by the researcher. I also understand about my rights regarding confidential, refusing to answer the question, and withdrawing at any point in the process. I am willing to participate in this study.

……………………………

Signature of the participant's parent(s)/partner

Date……………………..

APPENDIX C

List of Experts

LIST OF EXPERTS

1. M.D Worapong Worachet , Obstetrics and Gynecologist, Mahasarakham Hospital, Mahasarakham, Thailand.
2. Associate Professor Sasitorn Phumdoung, RN, Department of Obstetrics and Gynecology Nursing, Faculty of Nursing, Prince of Songkla University, HatYai, Songkhla, Thailand.
3. Assistant Professor Patcharin Nintachan, RN, Department of Nursing Science, Faculty of Medicine, Ramatipbodhi, Mahidol University, Bangkok, Thailand.
4. Ms. Chaweewan Sriboonreung, Nursing Instructor, RN, Boromrajchonnee Udonthani Nursing College, Udonthani province, Thailand.
5. Ms. Sumonta Kabinpat, APN (Midwifery), RN, MSN, Antenatal Care Clinic of Songkhla Hospital, Songkhla, Thailand.

APPENDIX D

Additional Data Analysis

Table 10

The Z -Values for Testing Assumption for Normal Distribution in Control Group

data	Control group					
	Skewness			Kurtosis		
	Statistics	*SE*	z	Statistics	*SE*	z
Age of teenagers pregnant	-6.1	0.279	-1.86	-0.674	0.552	-1.221
Age of baby fathers	1.186	0.279	4.251	2.015	0.552	3.65
Gestational age(GA)	-0.081	0.279	-0.29	-0.198	0.552	-0.359
GA at attending the antenatal care clinic	-0.974	0.279	-3.491	-0.517	0.552	-0.937
Contraception Period	2.880	0.295	9.76	9.068	0.582	16.43
T1Resilience	0.401	0.295	1.359	-0.091	0.582	-0.156
T2Resilience	0.672	0.295	2.278	0.53	0.582	0.911
T3Resilience	0.679	0.295	2.302	0.958	0.582	1.646
T1Life goals	-0.547	0.295	-1.854	-0.474	0.582	-0.814
T2Life goals	0.834	0.295	2.827	2.095	0.582	3.6
T3Life goals	0.354	0.295	1.2	-0.576	0.582	-0.99
T1Depression	0.817	0.295	2.769	0.53	0.582	0.911
T2Depression	0.206	0.295	0.698	-1.073	0.582	-1.844
T3Depression	0.354	0.295	1.563	-0.285	0.582	-0.49

Table 11

The Z -Values for Testing Assumption for Normal Distribution in Experimental Group

data	Experimental group					
	Skewness			Kurtosis		
	Statistics	*SE*	z	Statistics	*SE*	z
Age of teenagers pregnant	-0.498	0.263	-1.894	-0.674	0.552	-1.221
Age of baby fathers	1.013	0.263	3.433	1.506	0.552	2.587
Gestational age(GA)	-0.198	0.263	-0.753	-0.198	0.552	-0.359
GA at attending the antenatal care clinic	-0.517	0.263	-1.966	-0.517	0.552	-0.937
Contraception Period	2.429	0.299	8.123	5.951	0.590	10.086
T1Resilience	0.135	0.299	0.452	-0.091	0.590	-0.156
T2Resilience	0.759	0.299	2.538	0.53	0.590	0.911
T3Resilience	1.81	0.299	6.054	0.958	0.590	1.646
T1Life goals	-0.959	0.299	-3.207	-0.474	0.590	-0.814
T2Life goals	-2.176	0.299	-7.278	2.095	0.590	3.6
T3Life goals	-0.376	0.299	-1.258	-0.576	0.590	-0.99
T1Depression	1.496	0.299	5.003	0.53	0.590	0.911
T2Depression	0.616	0.299	2.06	-1.073	0.590	-1.844
T3Depression	0.51	0.299	1.706	.299	0.590	-0.49

Table 12

Comparison of the Resilience Scores in Experimental and Control Groups Classified by Time Point (N = 130).

Time point	Control group (n = 66)	Experimental group (n = 64)	*t*	*p*
	Mean (SD)	Mean (SD)		
Baseline (T1)	74.65(6.42)	76.50(8.12)	-1.436	.155
Wk 4(T2)	76.92(3.86)	78.86(3.86)	-2.310	.023
Wk 8(T3)	76.86(3.16)	78.70(5.26)	-2.421	.017

Table 13

Analysis of Variance for Resilience in Pregnant Teenagers at Baseline, 4th Week and 8th Week after Receiving the Program (Test of Between Group and Within Group) (N = 130).

Source of Variation	SS	*df*	MS	*F*	*p*
Between group					
Group	342.462	1	342.426	43665.767	<.001
Error	6791.336	128	53.057		
Within group					
Time	444.038	2	222.019	10.523	.001
Group*time	.181	2	.091	.004	.996
Error	5401.137	256	21.098		

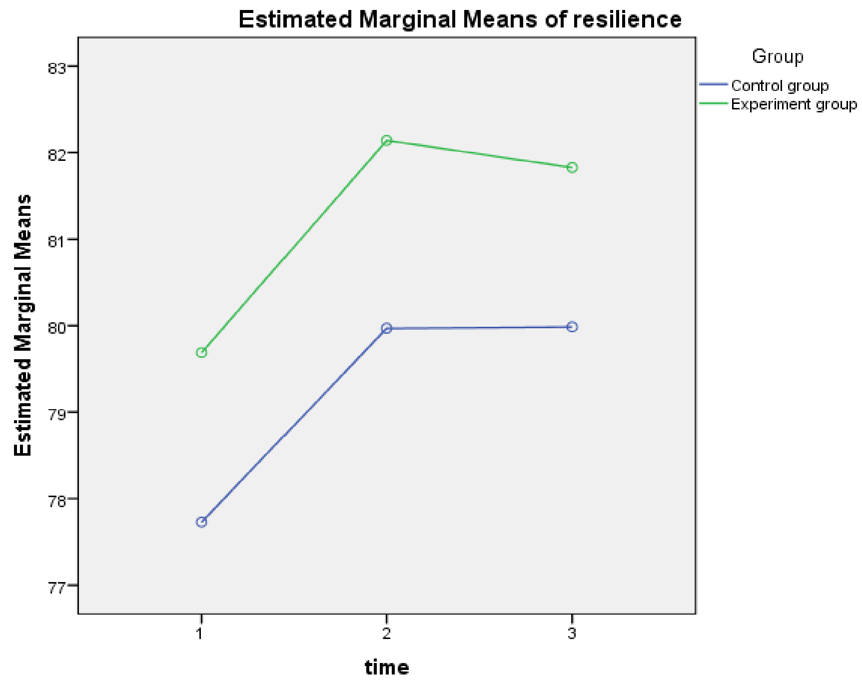

Figure 7. The Mean Scores of Resilience between the Control and Experimental Groups at the Baseline (T 1), 4th week (T 2), and 8th week (T 3)

APPENDIX E

The Guidelines of the Resilience Enhancing Nursing Program

The Guidelines of the Resilience Enhancing Nursing Program

Week	Duration	Actions	
		The Researcher	Subjects
Week 1	30 minutes	**Establishing trust and relationship** **1st Activity; establishing trust and relationship** - Providing a private environment for conducting the program and forming trust and relationship - Making a warm welcome and relaxed atmosphere for talking together - Encouraging subject to be open minded and vent problems regarding her pregnancy and current situation and understand the background and problem of pregnancy - Developing the relationship and trust by creating a relaxed atmosphere through light music, touching and massaging the shoulders, introduce themselves to the group , share experience regarding their pregnancies - Explaining the objectives of the study, and the expected response from pregnancy based on the resilience enhancing	a. Pay attention b. Listen carefully c. Respond to assessment instruments

Week	Duration	Actions	
		The Researcher	Subjects
		nursing program. - Informing the subject of procedures in resilience enhancing nursing program. - Explaining the resilience enhancing handbook guidelines which contains information regarding increasing resilience in pregnant teenagers. - Providing knowledge regarding the resilience concept including, a definition, components, and the importance of resilience education consisting of an introduction to resilience in pregnant teenagers.	
Week 1	30 minutes	Improving the Resilience; *improve the inner strength (I am), interpersonal and problem solving skills (I can), and external support (I have)* a. Watching the video clip for inspiration in teenage mothers (I am) - Providing the video case study of pregnant teenage women and	a. Pay attention b. Listen carefully

Week	Duration	Actions	
		The Researcher	Subjects
		facilitate subject response. - The subject can give feedback as follows: b. The tree of resilience (I can) - Providing activities for subjects regarding being open minded, expressing feelings about pregnancy - Providing the subject to do it in order to use the following strategies: self-talk, positive thinking about self confidence and self respect to learn and live through crisis intervention during pregnancy - Empowering teenage pregnant woman to deal with the situation having strong belief and faith they can stay with a task until the end through a counseling approach - Making an effective plan to achieve life goals in the future such as, child care, continue education in school -Describing effective preparation and management for appropriate behaviors in developmental tasks during pregnancy	

Week	Duration	Actions	
		The Researcher	Subjects
Week 1	45-50 minutes	**c. Social support during pregnancy (I have)** - Providing friendly service to be easily accessible and available for consult during pregnancy - Searching for personal support from trusted people during pregnancy - Informing knowledge regarding the significance of resilience in pregnant teenagers. - Entering evaluation strategies for each session as follows: 1. Presenting examples of how they will incorporate the enhancing of resilience in pregnant teenage women, open doors to reinforce resilience, 2. Scheduling time for a follow up visit and discussion to determine continuing actions in the promotion of resilience in pregnant teenagers.	a. Pay attention b. Listen carefully

Week	Duration	Actions	
		The Researcher	Subjects
Week 2,3	10-15 minutes	**Monitoring and encouraging resilience practice** 1. Asking the subject how they have practiced resilience in the previous week 2. Providing information regarding resilience including a definition, components, and the importance of resilience, and the procedures in the resilience enhancing nursing program from the resilience enhancing handbook The subjects will practice as follows: 1. Practicing for increasing internal strength (I am) 2. Practicing the positive thinking for problems, self-talk, and assertiveness for increasing external support (I have) 3. Practicing changing a crisis situation in a positive way, considering positive ways of problem solving, planning and managing problem solving , finding other support for increasing interpersonal and problem solving skills (I can)	

Week	Duration	Actions	
		The Researcher	Subjects
Week 4	30 minutes	**d. Setting of life goals (I have)** Activities 1. Providing a case study scenario of pregnant teenagers before the subjects complete the 2nd work sheet. The subjects respond as follows: making a good plan for achieving life goals in the future such as, child care, continue education in school, follow a good plan and manage appropriate behaviors in developmental tasks during pregnancy, effective skills for communicating and making a relationship with a partner or family member during the pregnancy. 2. Providing the video for pregnant teenagers to watch and explain how to do the assignment followed by the 3rd work sheet. After they have watched the video, subjects discuss their opinions about the case study of pregnant teenagers. The nurse will then collect the answers from the 3rd work sheet to show the group subjects. 3. Conclusion of all outcomes in the activity of setting life	1. Welcome participants into the program 2. Listen carefully and pay attention 3. Respond to the assessment instruments 4. Welcome participation to share experiences

Week	Duration	Actions	
		The Researcher	Subjects
		goals with pregnant teenagers are encouraged to share their opinions about their experience.	
Week 5,6,7	10-15 minutes	**Monitoring and encouraging resilience practice** 1. Following up by telephone 2.Asking the subject how they have practiced the resilience enhancing in previous week 3. Assessing the subject by the resilience scale 4. Providing procedures in the resilience enhancing nursing program from the handbook guidelines The subjects practiced as follows: 1. Practicing for increasing internal strength (I am) 2. Practicing positive thinking for problems, self-talk, and assertiveness to increase external support (I have) 3. Practicing changing a crisis situation in a positive way, considering positive ways of problem solving, planning and managing problem solving , finding other support for increasing	Respond to the questions

Week	Duration	Actions	
		The Researcher	Subjects
		interpersonal and problem solving skills (I can)	
Week 8		**<u>The evaluation of the program</u>** - The researcher gave the research instruments to the subjects including depression scale, resilience scale, and life goals scale.	Respond to all research instruments

VITAE

Name Mrs. Umaporn Kuasit

Student ID 5410430007

Educational Attainment

Degrees	Name of Institutions	Years of Graduation
Bachelor in Nursing and Midwifery	Sri-Mahasarakam Nursing College, Thailand	1994
Bachelor in Public Health Science	Sukothai-Thammathirat Open University, Thailand	1997
Master of Nursing Science (Maternal and Child Nursing)	The Faculty of Nursing, Mahidol University, Thailand	2000
Diploma of Nurse Practitioner	The Faculty of Nursing, Mahasarakam Uiversity, Thailand	2009

Scholarship Award during Enrolment

Scholarships/ Awards	Name of Institutions	Years
Scholarship for PhD study supporting	The Faculty of Nursing, Mahasarakham university, Thailand	2011
Scholarship for dissertation supporting	The Graduate School, Prince of Songkla University, Thailand	2013
PhD Visiting Scholar	The School of Nursing, University of Virginia, USA	2015

Work –Position and Address

Work position Assistant professor, Department of Family Nursing,

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List of Publications and Proceedings:

Kusit, U., Chunaun, S., Hatthakit, U. (2017). Concept analysis of moral support in teenage abortion. The international nursing conference on Ethics, Esthetics, and Empirics in Nursing: Driving Forces for Better Health. The Faculty of nursing, Prince of Songkla University, July 5-7, 2017, the 60 th Anniversary of His Majesty the King's Accession to the Throne International Convention Center, Prince of Songkla University, Thailand, Oral presentation.

Kusit, U., Chunaun, S. (2013). Enhancing the resilience in teenage pregnant women: A literature review. The 2013 International Nursing Conference on Health, Healing & Harmony: Nursing Values, Faculty of Nursing, Prince of Songkla University, Thailand, May 1-3, 2013, Phuket Orchid Resort and Spa, Phuket, Thailand. Poster presentation.

Kuasit, U., Deromram, C., Piyasuwan, S., Jandeekrayoom, S., & Siritanawuttichai, T. (2008). Health status and health promoting behaviors in the insturtors of Mahasarakam University. *Journal of Sciences and Technology, Mahasarakam University, Special Volume*, 339-345.

Kuasit, U., Sripola, S., & Pudanngua, B. (2008). Health belief and Thai-Isan wisdom for health care of families with postpartum mothers in Mahasarakam province *Journal of Humanities and Social sciences, Mahasarakam University, Special*, 135-141.

Kuasit, U., & Singhala, K. (2007). The factors influencing self care behaviors of late adult pregnancies in Mahasarakham province. *Journal of Sciences and Technology, Mahasarakham University, 26*(3), 256-264.

Kuasit, U. (2007). Quality of life women with unplanned pregnancy and their families: A room for critical family nursing role. *Thai Pharmaceutical and Health Science Journal, 2*(1), 103-114.

Kuasit, U., Srisarakam, P., & Prasertwong, P. (2006). Establising co-operative net work of family and health of reproductive women group: A case study for self care development model for family with the postpartum mothers on the community around Mahasarakam University. *Journal of Medicine and Health Sciences, Faculty of Medicine, Srinakharinwirot University, 13*(1), 156-168.

Kuasit, U., Athaseri, S., Chandaragga, Y., & Serisathien, Y. (2001). Health motivation and self care behaviors in pregnant adolescents. *Thai Journal Nursing, 50*(1), 27-36.

Yontrakul, S., Puttabut, S., Thonsomboon, R., Kuasit, U., & Thaewpia, S. (2013). Development breastfeeding participatory integrated promotion model among community network of Mahasarakham hospital. *Journal of Health Science 22*(6), 988-996.

Phutanbut, S., Ausawathanaboodee, P., Mootaporn, S., Tongsoombun, R., Thokkaew, N., Promrarak, P., & Kuasit, U. (2010). The model of breastfeeding promoting: The case of establishing the model villages breastfeeding supprted to network of Mahasarakham hospital. *Journal of Sciences and Technology Mahasarakham University, Special Volume*, 331-339.

Hornboonherm, P., Chaichan, A., Kuasit, U., Kaonaklai, J., & Thongkon, A. (2009). The effective teaching strategies in delivery room: Action research on nursing practice for childbearing family courses *2nd BIMP International Nursing Conference in Sabah Malaysia, proceeding*.

Sirithanawutichai, T., Rangsoi, O., Intaranongpai, S., & Kuasit, U. (2008). Criminal abortion with complications among adolescents who were admitted in Mahasarakham hospital. *Journal of Sciences and Technology, Mahasarakham University, 27*(3), 240-249.

Nakhapongse, S., Phutanbut, S., Thokkaew, N., Tongsoombun, R., Promrarak, P., & Kuasit, U. (2008). Breastfeeding promotion model development to success and sustainability in Mahasarakham Hospital. *Journal of Health Sciences, 17*(4), 553-563.