CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology is described in this chapter, consisting of research design, site selection, study sample, study instruments, definitions of terms and operational definitions of variables, data collection and management, data analysis, and ethics and considerations.

3.2 Research Design

This research was designed as a combination of Formative research (qualitative) and Explanatory Research (quantitative) approaches, based on the assumption that both approaches can provide sufficient insights and ideas into the reasons behind the study samples' decision making process, their seeking help or services when facing an unplanned pregnancy. Moreover, the quantitative approach identifies the influencing variables that led to the choices of abortion, parenting, or adoption selected to solve unplanned pregnancies. The study is separated into 2 phases as follows:

Phase I: Formative Research (Qualitative)

This phase was a qualitative approach, which aim at gathers a wide range of information, which is used to develop contents later. The formative research tools are based on the interview guide including Focus Group Discussions (FGDs) and in-depth interview guidelines, which were conducted at the beginning of the study. The interview guides important for the formative research because it relies entirely on the spontaneous generating of questions as they come out naturally from the free –flowing discussion between researcher and respondents. So, a researcher concentrates on guiding the discussion around the themes.

Phase II: Explanatory Research (Quantitative)

Phase II was an explanatory study that employed quantitative approach for data collection and management. It conducted following an analysis of the Phase I data, which aimed at explains association among choices including abortion, parenting, and adoption with the 3 set of factors (interval independent variables) i.e., personal history, individual psychosocial factors, and relationship with significant person.

Inter-relationship of the Phase I and Phase II research. The results from Phase I were utilized to readjust the study's conceptual framework. The most important for this research is an inter -relationship between the qualitative and quantitative approach. The qualitative research results in Phase I was used for guiding the structure interview development. It helped constructing the questions in a meaningful way, and avoiding the sensitive questions. Also, the quantitative research in Phase II or explanatory research helps me identify the influencing variables, which emerges from the qualitative research in Phase I. Moreover, I used the qualitative results to explain the identified valuables, which influence choices of the young women i.e., abortion, parenting, and adoption. In addition, the descriptive data from Phase II used for cross-check data consistency of both qualitative and quantitative. The different data collection methods in this Phase were also used to check for data validity and consistency (data triangulation).

Also, it was clear that qualitative data from the young women alone could only provide information from the users' perspectives. So, additional information was obtained from representatives of reproductive health service providers, i.e., drugstore personnel, clinicians, nurses, lay practitioners, and social workers at shelters. The data collected were in addition to those proposed in the study objectives. The information collected from the provider group helped strengthen the validity of the study results through other methods. Moreover, the information helped to arrange appropriate recommendations for youth-friendly services for young women with unplanned pregnancies.

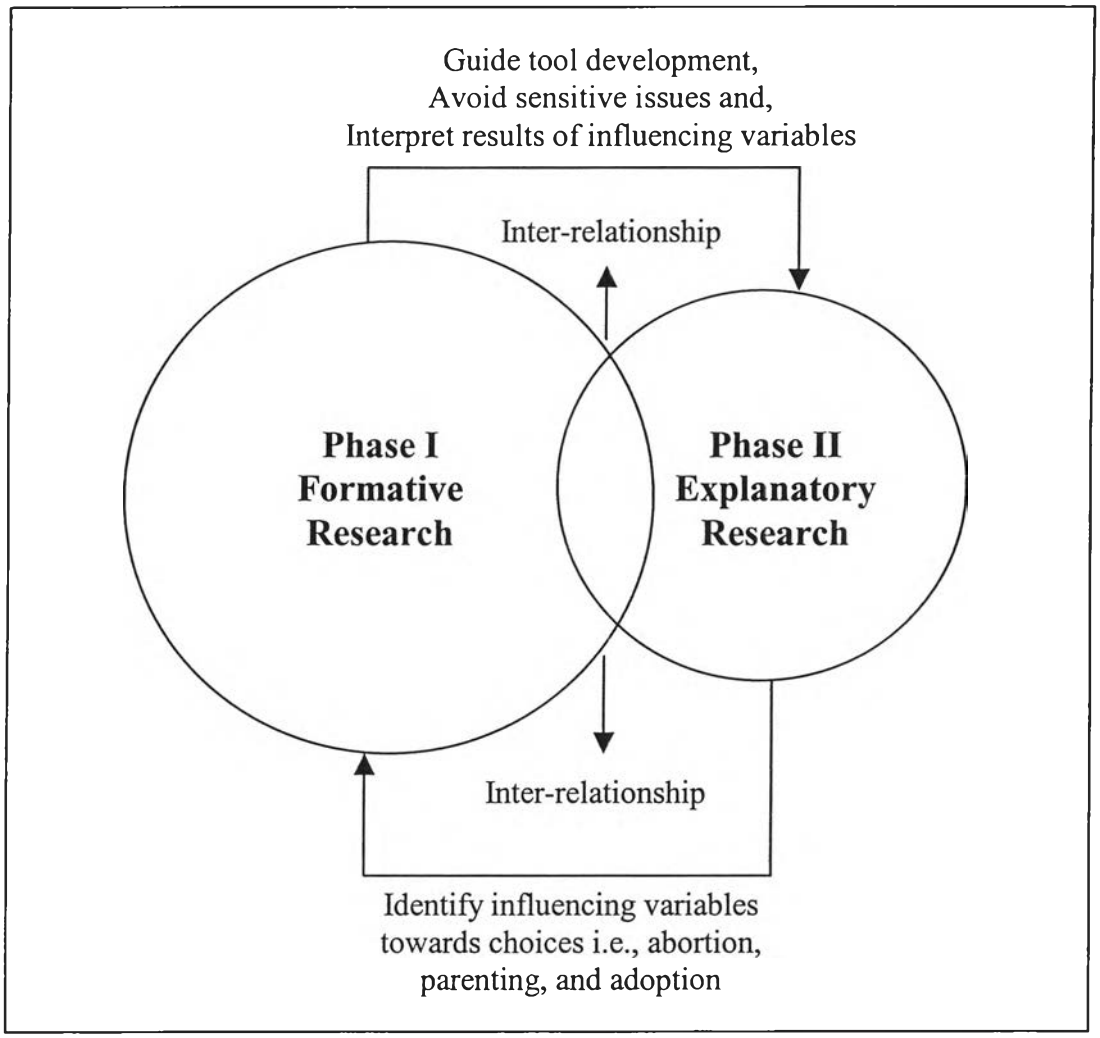

Figure 3.1: Research Design

3.3 Sites Selected and Sampling Technique

The study conducted in Bangkok which most of the shelters are located. Listed of all the five active government and non-government shelters, and a foster home both located in Bangkok and outskirt in the women networks' bulletin were purposively selected. A foster home was selected for recruiting unplanned pregnancy women during they visited the home for putting the baby for adoption, or for temporary cares. Moreover, some low-income communities were purposively drawn for the study due to there were actively young women who voluntary participated in the study.

Listed of shelters and a foster home: The five selected shelters were Banpak Chuk Chern 2 and 3, Ban Sukruthai, Ban Prakoon, and Banpak Dek Lae Krobkrua. All five shelters shared the same objectives, to provide services for women who faced unplanned pregnancies and to provide post-delivery care for both mother and newborn baby. Also, one foster home, the "Holt Sahathai Foundation", provided care for children whose parents were unable to take care of them until their family situations improved. While the women visited the children at the foster home, they would be interviewed before leaving. The women with unplanned pregnancies were also recruited from low-income communities through their peers. The communities were located in Bangkok and Thonburi. Participants in the study were recruited on a voluntary basis.

All the study shelters and the foster home were under the government, non-governmental organizations (NGO), and various religions organizations providing shelter for mothers and their babies. If a woman lived in a city where there was no shelter, she might be referred to a shelter located in Bangkok. Details of each selected organization include:

a) **Banpak Chukchern 2-3** (Emergency house) was founded in 1987 by a nun (Khun Ying Mae Chee Kanichtha Vichiencharoen) who had a clear mission to empower and strengthen women's capabilities. It was the largest emergency house for women, located in northern Bangkok. It provided comprehensive services, including temporary stay, food, drugs, education and counseling, vocational training, and finding a new job for women when they were ready to resettle. It could shelter more than 100 cases, both women and children. The house was established in the same compound as other buildings for seminars, vocational training, etc. The emergency house was a place where women who continued their pregnancy and other women who in crisis situations lived together. Some of the women with unplanned pregnancies decided to raise the baby by themselves after the babies were born, while some of them gave them up and put them up for adoption. The social worker who was head of the shelter cooperated very well with the researcher after she understood the rationale of the study. The shelters had separate rooms for women who were in different situations, e.g., women

who were in the first, second or third trimesters lived in the same building and the women who were nearly full-term or had delivered lived together, but separate from the others. The building was a single floor next to the nursery, so that the staff could easily look after both the women and the newborn babies.

b) Ban Sukruthai was part of the social activities run by the Catholic Church under the Pakineesrichumpaban group, which was located in southeastern Bangkok. It could provide shelter for up to 35 women. A kindergarten, vocational training center and adult learning center were in the same compound. The house was a shelter specifically for women with unplanned pregnancies. There was a nursery section in the house, so that the women could learn how to raise their babies after delivery from each other. Sisters who had been trained as counselors were in charge of the house.

c) Ban Prakhoon was run by a Christian volunteer. It was the only shelter located on the outskirts of Bangkok. It was selected because most of the clients were referred from Bangkok and it had linkages to other shelters in Bangkok. Two buildings served as shelters for women with unplanned pregnancies. It could provide shelter for up to 15 women.

d) Banpak Dek Lae Krobkrua was a shelter for women and children, which was under the Child Welfare Protection Division, Department of Public Welfare, Ministry of Labor and Social Welfare. It was located in western Bangkok, on the main road next to a large government university. The house provided emergency shelter for women and children in crisis situations. Services included shelter for temporary stays, food, medical care, and necessary daily supplies. Unplanned pregnancy was one of the problems found in this shelter.

e) Sahathai Foundation was a non-profit and non-sectarian child-welfare organization, established in 1975. The principal aim was to help neglected children, or those who have been separated from their natural parents. The foundation offered professional services in the area of family and single-parent counseling, foster care, family rehabilitation, family planning, health and nutrition, and adjustment. Most of the

babies were from mothers who were unready to raise their babies after delivery, so they sought help and support from the foundation. At that time, the foundation supported more than 100 children. The staff of the foundation worked with above mentioned shelters and hospital where there were newborn babies whose mothers were not ready to raise them after delivery. The women who planned to raise their babies themselves could keep the baby at the foster home for up to six months, or more, depending on each woman's situation. There was an open house for women to see their babies every month. The researcher recruited the women with unplanned pregnancies during a "Visit Baby Day".

Low income communities: the women with unplanned pregnancies were purposively recruited through the network of their peers using snowball technique, social workers in the Community Health Centers (CHCs), and staff of non-governmental organizations (NGO). The entire sample recruited through these channels lived in low-income communities in Bangkok.

The communities where the peers lived were:

a) Ding Daeng District, Flat Ding Daeng community
b) Bang Kaen District, Bang Bua community
c) Laksi District, Chai Klong Bang Bua communities
d) Don Muang District, Patana Taladklang community
e) Bangkok Yai District, Wat Hong Ratanaram community
f) Klongsan District, Klong Tonsai community
g) Pathumwan District, Patana Bornkai community

Service providers: additional information from service providers were purposively selected for each type of service facility located in Bangkok, i.e., drugstores, clinics, hospitals, lay practitioners, and social workers at shelters. Details are as follows:

a) Drugstore personnel. This group was recruited from representatives of drugstore personnel, who used to provide reproductive health services, especially

abortifacient or menstruation-inducing products for young women with unplanned pregnancies, and who were willing to participate in the study. The participants in this group were selected through the reproductive health network.

b) Physicians, obstetricians, and gynecologists. This group was recruited from the representatives of physicians, obstetricians, and gynecologists who were identified and selected through the reproductive health network, and who were willing to participate in the study.

c) Other trained healthcare providers. This group was recruited from other trained medical staff, and included nurses, midwives, medical-trained social workers, and community health workers. This study group was identified and selected through the reproductive health network and from CHCs and shelters for women and children.

d) Lay practitioners. Lay practitioners included local traditional birth attendants or healers. This study group was identified and selected through the reproductive health network.

3.4 Study Samples

Women

The women with unplanned pregnancies were recruited from women who utilized the five government and private (NGO) shelters, a foster home, and women who lived in low-income communities. Verbal reports by the social workers at the shelters disclosed that women with unplanned pregnancies were aged 13 years and more, and 13 was the youngest age of those temporarily staying in the shelters. Thus, this study selected women aged 13-24 who volunteered to participate. Also, young women aged between 13-24, who had experienced unplanned pregnancies at least once, or women currently experiencing unplanned pregnancies, were selected, including young women in and out of school, and married and unmarried.

Inclusion criteria for the women's group. To meet the study objectives, the selection criteria for the young women with unplanned pregnancies were as follows:

1. Experience of unplanned pregnancy.
2. Willing to participate in the study.
3. Total family incomes less than 10,000 bath per month.

Providers

Additional information was obtained from two or three providers from each type of facility, in either the health or social sectors i.e., drugstores, clinics, hospitals, lay practitioners, and social workers at shelters were elicited to provide more in-depth information.

Inclusion criteria for selecting providers. The criteria for selecting this group were as follows:

1. Experience of providing reproductive health services for young women with unplanned pregnancies, at least once.
2. Can give comprehensive information of service provision for young women with unplanned pregnancies.
3. Willing to participate in the study.

3.4.1 Phase I Formative Research

In this phase, there were no fixed figures for the number of young women with unplanned pregnancies. The numbers of the study sample were elicited until information related to the objectives became saturated. Data collection took six months, after getting permission from the directors of the shelters.

3.4.2 Phase II Explanatory Research

In this phase, all new cases of young women with unplanned pregnancies who were not exposed to the Phase I study were purposively selected on a voluntary basis. The sample was drawn purposively and a snowball technique was used. There was no predetermined number for the sample size for this phase. The sample size was based on

the number of samples that could be drawn in the five months November 2003-March 2004 from the same sites as Phase I.

3.5 Study Instruments

3.5.1 Phase I: Formative Research

Data collection for the formative research included group discussions, and in-depth interviews. Moreover, additional information gathered through field observations and in-depth interview of service providers. Details of each method are as follows:

Focus Group Discussion (FGDs). FGDs guidelines were constructed to understand the group attitudes and perceptions towards series of themes which they expressed in the public, commencing with the more neutral subjects of group's expectations towards the family and pregnancy; feelings and concerns about unexpected pregnancy; the meaning of unplanned pregnancy; choices for women concerning unplanned pregnancy; social reactions towards women who terminated pregnancy, parenting, or adoption; and expectations of services for young women (see Appendix B for more details).

Data collection began with introductory group discussions in order to get to know each other and build understanding and a sense of trust between the researcher (a moderator in the FGDs) and the study group. Moreover, they helped to promote, discuss, and foster a friendly atmosphere between the researcher and the sample population prior to in-depth one-on-one discussions.

The results of the FGDs were analyzed to identify key issues that needed further investigation in the in-depth interviews. More important, the results of the FGDs provided an independent cross-check on the validity of the in-depth interviews, and structured interviews among the samples.

After the group discussion, the researcher met with the women who were willing to participate in the in-depth interviews to make next appointments for the

interviews. The tapes were sent to research assistants for transcription. The tapes were transcribed in Thai and entered into computer files to facilitate further analysis.

In-depth interview. In-depth interviews with the women were developed to assess the women's experiences of unplanned pregnancy, interaction with their significant persons, the community and providers, the patterns of help- or health-seeking behaviors, and the reasons behind the choice(s) regarding the unplanned pregnancy. In-depth interviews were employed for both the young women with unplanned pregnancy at the shelters and the women who lived in the low-income communities in Bangkok. Details of themes in the guideline are as follows:

Key Themes for Data Collection

The main part of the study focused collecting and analyzing qualitative information, to understand when, where, how and why women with unplanned pregnancies sought health and social services, their service-seeking patterns, and the gaps between their needs and the services available. Key themes and issues included the definition of unplanned pregnancy and their interaction with themselves once they faced the problem; interactions and feelings among the women towards their significant persons; sources of information and the persons the women consulted; the processes and patterns of decision making of the women who opted for abortion, adoption, or parenting, and their feelings about their choice; interactions and feelings between themselves and service providers; social culture and stigmatization of sex, sexuality, and their pregnancy; and the reactions of others towards their sex, sexuality and pregnancy, and the ways the women responded to these reactions. The information for Phase I was a foundation for constructing a grounded theory on the decision-making process, and health-seeking behavior of young women with unplanned pregnancies.

Additional Information

Field observation. Field observation was developed to assess the shelters where the women were recruited. During data collection, observations were carried out at the shelters to get a better sense of what the women did during their leisure time; and their socialization/networking. Also, it helped understanding providers and peers affecting

choices i.e., parenting or adoption of the young women, and could describe the settings, meanings, activities of young women in the shelters, and their networks. The most important was to strengthen the validity of data collection through in-depth interview. Also, the results of the observations were used to explain the findings from the interview results, to describe overall service characteristics and the environments of the shelters where the women lived (please see Appendix 2 for more details).

The researcher acted as observer, in order to observe the interactions of the women and the providers in the shelter setting. Informal observations in the shelters include client-provider interactions, for supplementary insights into how the services were provided to the young women, including:

- The process of providing services and related services.
- Physical and visual privacy.
- Privacy and confidentiality during the service process.
- Overall characteristics of the interaction among women with service providers, and women with their friends.

In-depth interview with service providers. The in-depth interview guideline for service providers (doctors, nurses, drugstore personnel, social workers, traditional birth attendants, and traditional healers) were developed to assess reproductive health service availability, and the management of women who sought abortifacient products or pregnancy termination. For the providers, four key questions were emphasized:

- Are there any reproductive health services available?
- Are the providers youth-friendly?
- Are the administrative procedures youth-friendly?
- Are there any psychosocial barriers preventing youth from seeking services?

3.5.2 Phase II: Explanatory Research

Structured interviews were used to assess the factors that influenced women's decisions to opt for abortion, parenting, or adoption. The assessment factors both independent and dependent variable are as follows:

Independent Variables

a) Personal history included age at the first sexual intercourse, age at the latest unplanned pregnancy, number of sexual partners, and number of unplanned pregnancy.

b) Individual psychosocial factors included attitudes towards contraception, attitude towards sexuality, attitude towards unplanned pregnancy, attitude towards service facilities and personnel, consult partner, consult parents, consults friends, and making decision without consultation were included and assessed.

c) Relationships with significant people. Significant people included parents, partners, and peer relationships.

Dependent Variable

d) Choices or Decisions. When an unplanned pregnancy occurred, the women had three choices: 1) terminate pregnancy; 2) keep the baby to term and put it up for adoption; 3) keep the baby to term and parent the baby. Questions about the factors that influenced the women's option(s) were assessed.

Process of Instrument Development and Pre-testing

After the research guidelines had been constructed based on information obtained through the reviewed literature, some ideas and suggestions were obtained through consultation with the academic advisory team, the researchers, and experts in adolescent health. The constructed guidelines and interview forms were pre-tested using face-to-face interviewing with women who complied with the same inclusion criteria of the study sample. The pre-testing and the sample group were different groups so that it was confident that the instruments could be used with the study group. Pre-testing allowed the researchers to crosscheck appropriate translation of the questions, the appropriateness of the order, the thoroughness of the response, and assessment of

the reliability and validity of the interviewees' responses (for the attitudinal section). Moreover, pre-testing was conducted to permit the researcher to know how much time was required to conduct the interview, and the most appropriate place to conduct the interview. Pre-testing was part of the interviewer training process, to gain more skills before the actual data collection. The women who were exposed to pre-testing were excluded from the study.

Phase I Formative Research: the in-depth interview and FGD guidelines were pre-tested. Participants were elicited for the pre-testing until the researchers felt confident about the quality of the instruments, questions, responses, and the interviewers' skill levels. Participants who completed the pre-testing had similar characteristics to the intended study participants.

Phase II Explanatory Research: a structured interview questionnaire was used as a tool for data collection. Thirty participants were elicited for pre-testing. Cronbach's alpha was used for reliability testing for attitudinal part. The respondents who participated the pretest were similar to the intended participants of the study. At the end of the pre-testing, the interviewees were asked about appropriateness, and feedback was requested on any issues concerning the researchers and the participants. Following the pre-testing, appropriate modifications were made prior to data collection.

3.6 Definition of Terms

3.6.1 Definitions of Terms

a) Young women or young people refer to women aged 13-24 years. However, there are different words, definitions, and age ranges used to describe the transition from childhood to adulthood among this age group. Thus in this study, the terms "Adolescents", "Youth", "Young Adults" and "Young People" are interchangeable.

b) Health-seeking patterns refers to young, low-income women with unplanned pregnancies utilizing the services of both the formal and/or informal sectors

(popular, professional, and folk sectors), to seek care, support, or treatment once they have decided to opt for abortion, birth and adoption, or birth and keeping the baby. Health-seeking patterns are influenced by several factors, including socio-demographic characteristics, individual psychosocial factors, significant others, and environmental factors of the service facilities.

c) **Patterns** refers to the regularity (similarity, commonality) in what women with unplanned pregnancies disclose about their processes of seeking help and/or utilizing services based on selecting choice(s).

d) **Popular sector** is a matrix with several levels, including the individual, the family, social network, and community beliefs and activities. It is the lay, non-professional, non-specialist, popular culture arena in which illness is first defined and healthcare activities are initiated based on beliefs, attitudes, relationships, interactional settings, and institutions (Kleinman, 1980).

e) **Professional sector** is composed of professional physical and mental healing personnel. They have completed training in modern scientific medicine, and comprise trained drugstore personnel, nurses, doctors, social workers, and paramedics (Kleinman, 1980).

f) **Folk sector** is composed of non-professional healing personnel; traditional birth attendants (TBA), and traditional healers (TH) are in this sector. Folk medicine is a mixture of many different components; some are closely related to the professional sector, but most are related to the popular sector (Kleinman, 1980).

g) **Attitude** is defined as a manner of feeling or thinking that shows a woman's disposition, and opinion, which are ready to respond to reactions from outside towards the unplanned pregnancy. Attitude is composed of three components, 1) cognitive, or wording that shows their beliefs; 2) affective, or wording that shows their feelings; 3) and behavioral components, or wording/reaction that shows their practices (Prapapen, 1994). Attitude was assessed by adapted Likert Scale, with ratings ranging

from 1 to 3 (agree, neutral, and disagree, respectively). The attitudes of young low-income women with unplanned pregnancies in this study included attitude towards sex, sexuality, pregnancy, contraception, and services facilities and providers.

h) Low-income is defined as a total family income of less than 10,000 Baht per month (Pisalbutr, 1997).

i) Choices is defined as options available for young women to solve unplanned pregnancies, including abortion, parenting, or adoption.

j) Decision making process is adapted from Rutchukul (1998) which defined as a process that young women with unplanned pregnancies use to solve the problem by 1) seeking information; 2) arranging their choices; 3) finding rationales to support their choice; and 4) performing as planned. Women who made their decisions might seek services from the formal and informal sectors for abortion, birth and adoption, or birth and keeping the baby. Decisions were influenced by various factors, including socio-demographic characteristics, individual psychosocial factors, relationships with significant others, and environmental factors.

k) Personal history of young women with unplanned pregnancies refers to age at the first sexual intercourse, age at the latest unplanned pregnancy, number of sexual partners, and number of unplanned pregnancies.

l) Individual psychosocial factors of young women with unplanned pregnancies refers to attitudes towards contraception, attitude towards sexuality, attitude towards unplanned pregnancy, attitude towards service facilities and personnel, consult partner, consult parents, consults friends, and making decision without consultation were included and assessed.

m) Significant persons refer to parents, partner(s), and peers.

n) Marital status: married is defined as the status in which a woman decides to share her family life with her significant other and/or maintain the couple's relationship. Also, if the woman perceives that she can reveal her partner to the family member, or still maintain the relationship with her partner, it would be defined as married, and if it is not possible to disclose to others or the relationship with the partner collapsed, it was defined as unmarried.

3.7 Data Collection and Management

3.7.1 Phase I Formative Research

Data collection for Phase I took 6 months, from the first week of October 2002 to the end of March 2003, at the five shelters, and in the communities through peers in Bangkok. The researcher interviewed all the study women individually because the questions and discussion concerned premarital sex, pregnancy, and pregnancy termination, and were very sensitive and illegal in Thai culture, and also because the qualitative research had not targeted a sample size number. For this reason, it was important that it was the researcher who made the decision on when the data were saturated and when to stop further recruitment. In addition, most of the women did not disclose their experiences to anyone they were not familiar with. Moreover, by collecting data alone the researcher could ask for and probe in-depth information about each woman's experiences. At the beginning of data collection, the researcher visited each shelter to join their routine activities and assist the social worker teach how to prepare to be a healthy mother. At the session, the social worker introduced the researcher and let her share experiences of pregnancy with the women in the shelters. Thus, a sense of trust was gained from the women, which made it easier to get collaboration from the women. The steps of data collection and management were as follows:

1) **Preparation.** Prior to data collection, I as the researcher coordinated with peers, social workers, and the directors of all the shelters to make appointments to ask for permission to conduct the study. After receiving permission from the directors and commitment from the peers, the study sites and logistics were prepared, and the data collection tools were developed and pre-tested.

2) Training research assistants. The roles of the research assistants were to be note-takers while conducting the FGDs, transcribing tapes, and recruiting and screening the study participants for the researcher. Having the research assistants as the note-taker is important in case the samples do not give the verbal expression in response to the specific issues; then the note-taker can make a note on the fieldnotes. The inclusion criteria for the research assistants were that all of them had the opportunity to contact the potential study group, and had positive attitudes towards premarital sex, sexuality, and abortion. The training content included the sexuality in the Thai context, socio-political values and norms of pregnancy among young unmarried women, unplanned pregnancy and choices. Moreover, the research assistants were briefed about the how to take note in the qualitative ways. The pre-test guidelines were used as a training tool to reinforce the research assistants' skills.

3) Steps in data collection. The young women with unplanned pregnancies who complied with the inclusion criteria were elicited for the study. The researcher explained the purpose of the study and read the consent form to the participants in order to get permission to gather information according to the guidelines and the interview forms.

The main concerns at this stage were confidentiality and breaking the ice so that the respondents trusted and felt confident about disclosing their problems freely. The process maintained respondent confidentiality at all times. Information collected through interviews and observation was made permanent by removing the names and other identifying information from the data, to ensure that the names of the participants did not appear on any paper, in any circumstance. A signed consented form was utilized with all of the cases. All data were kept in a secure place to protect them from the authorities.

Tape recordings were used with all cases, if permitted. If any case did not permit tape recording, the researcher used short notes, key words and expanded the notes after returning from the field. The recorded tapes were transcribed and prepared

for data analysis. Apart from the notes, comments about the appearance and reactions of the respondents were observed and noted.

4) Performing quality control checks. All of the data were checked in the field to ensure that all the information was properly collected and recorded. Before and during data processing, the data and tapes were checked again for completeness and internal consistency before being sent to the research assistants for transcription. After the tapes had been transcribed, a hardcopy of the transcription results were rechecked again for data consistency. Moreover, the results were cross-checked with other sources of information, including observation, FGDs, and in-depth interviews.

5) Data processing: categorizing and coding. For the qualitative data, preliminary analysis identified the key themes and issues for further analysis. The preliminary data analysis was processed by hand on a master tally sheet, then content analysis was employed for data analysis.

The additional information collected from reproductive health providers was employed after the researcher completed collecting the women's group data. Providers were identified through the reproductive health network in order to obtain good collaboration for the study. After the researcher introduced the purposes and confidential nature of the study, most of the providers collaborated well with the researcher, but they did not allow tape-recording. After completion of the interviews, the researcher expanded the notes immediately after returning from the field, so that it was easier to recall the information.

3.7.2 Phase II Explanatory Research

Phase II, data collection started after the interview questionnaire was pre-tested and adjusted based on the qualitative results from Phase I of the study. It took five months--November 2003 to March 2004--at the same sites as Phase I, but with new set of samples, so that it could be assured that the factors identified in Phase I and the literature review could predict the selection of options (abortion, parenting, or adoption) of the women with unplanned pregnancies in this Phase. The elapse of time during

qualitative data collection and analysis allowed the researcher to recruit a new set of study samples after the Phase-1 study group had all left the shelters. The researcher interviewed most of the cases with an assistant from the peers, research assistants, and social workers at the shelters.

3.8 Data Analysis

3.8.1 Phase I Formative Research

During data collection, the researcher analyzed information case-by-case and built a set of basic key issues for further study and investigations in subsequent interviews, which formed the basis for the grounded theory. The accumulation of information with each case was gradually adjusted and the theory clarified until it had reached a stage of theoretical saturation. At this point, the researcher stopped recruiting new participants. Primary data analysis for Phase I took place immediately after collecting the data for each case, so that the researcher could complete the information while it was still fresh in memory.

Content analysis was used for analyzing the total data. The choice of options by the young women with unplanned pregnancies (abortion, parenting, or adoption) were constantly compared to identify commonality or difference for each choice that the women made to solve the unplanned pregnancy, factors that related to the options considered by the young women, their decision-making processes, their health-seeking patterns, and factors affecting their health-seeking behaviors. Using this method, the researcher could make inductive conclusions from the findings into a larger theoretical picture, or theory, of unplanned pregnancy.

3.8.2 Phase II Explanatory Research

Data Preparation

For the quantitative data analysis, the researcher thoroughly edited the structured interview forms for accuracy, consistency and completeness after the interviews were completed. Then, all of the interview forms were coded and transferred to the Excel program. After all the data were cleaned and double-checked (by double

entered the data into the Excel program, then running for frequencies to compare number and percentage of each variables) in the Excel program, this file was transferred to the SPSS PC version 10.0 (Coakes, SJ & Steed, LG, 2001) program for analysis.

Variables of the Study

The variables in this study were categorized into two groups--dependent and independent variables. Each variable was measured by a categorical, interval, or ratio scale according to its operational definition (as shown in table 3.1). There were three groups of dependent variable (choices of the young women with unplanned pregnancies) i. e., abortion, parenting, and adoption.

Variables and Operational Definition

Table 3.1: Operational Definitions for Descriptive and Discriminant Analysis, Phase II

Independent Variables and Operational Definition	Scale
Descriptive Statistics	
• **Socio demographic characteristics**	
Educational status is grouped into three categories: grade 0-4, grade 5-10, and > grade 10.	*Categorical*
Living status is grouped into two groups; living with mother/father, and parents; and living with others/alone.	*Categorical*
Work status is grouped by working, studying, and unemployed/housewife.	*Categorical*
Marital status is coded following the definition of terms into having a relationship (married), and not having a relationship (unmarried).	*Categorical*
Parental education is measured as grade 1-4/no schooling, and>grade4.	*Categorical*
Parental marital status is classified into two categories: having a relationship, and not having a relationship.	*Categorical*
Discriminant Analysis	
• **Personal history**	
Age at the first sexual intercourse	*Ratio*
Age at the latest unplanned pregnancy	*Ratio*
Number of sexual partner	*Ratio*
Number of unplanned pregnancies	*Ratio*
• **Individual psychosocial factors**	
Attitudes towards sexuality, contraception, pregnancy, facilities and providers are classified into three categories: agree, undecided, and disagree.	*Interval*
• **Relationships with others**	
Parents. This variable includes the relationships of the young women with their parents, as well as their caretakers. This variable is constructed from the answers to the questions and is classified into three scales--good, fair, and poor.	*Interval*
Partner. This variable includes the relationships of the young women with their partner(s). The answers to the questions are classified into three scales--good, fair, and poor.	*Interval*
Peers. This variable includes the relationship of the young women with their peers. The answers to the questions are classified into three scales--good, fair, and poor	*Interval*
• **Seek consultation while having trouble.** The answers of the questions are classified into yes, or no (*Categorical scale)* which were transformed to be dummy variables as follow: - self (making decision without consultation)--yes=1, no=0. - consult partner--yes=1, no=0, - parents (father and mother), siblings and others --yes=1, no=0. - Peers, --yes=1, no=0.	*Dummy Variable*

Statistical Methods

The statistical analysis methods used were as follows:

1) Descriptive statistics using of frequencies and percent distribution, mean, and standard deviation (S.D.) were calculated to depict the distribution of young women with unplanned pregnancies to the 3 key sets of independent variables- personal history, individual psychosocial factors, and relationships with significant people. This analysis aimed at understanding the distribution of health-seeking behaviors and the decisions of the young women with the independent variables.

2) Discriminant analysis is a multivariate statistics technique, which the main purpose is to predict group membership based on the linear combination of interval variables. The second purpose of discriminant analysis is an understanding of the data set that can give insight into the relationship between group membership and the variables used to predict group membership. So, this study employed the second purpose of the discriminant analysis in order to identify influencing factors affecting the choices of young women with unplanned pregnancies i.e., abortion, parenting, or adoption.

3.9 Ethics and Confidentiality

During and after data collection, the maintenance of privacy and confidentiality was very strict. These issues are important because it is a sensitive topic that deals with sexuality, abortion, and political issues. The interviews were conducted where questions and responses could not be overheard.

In Thailand, premarital sex, sexuality and abortion are very sensitive issues for discussion among both clients and providers because abortion is illegal and involves moral and cultural norms and values. Thus, all of the sample population was informed about confidentiality. In addition, all information was kept confidential according to human subject protection guidelines. Anonymity was employed and maintained during the study. No full names or other information that could identify participants were recorded during any portion of the study. Field notes, tape transcripts, and any other

field data collection forms used during the research were collected and stored in a secure location where unauthorized persons could not access them. More importantly, all of the participants in the study were voluntary. The voluntary nature of the study was stressed at the time of recruitment and again at the start of the in-depth interviews. Also, at any time during an interview, a participant was free to leave or terminate the session.

According to the ethics committee standards in Thailand, for women aged under 15 years, the representative of the shelters is the one who is authorized to sign the consent form on behalf of these girls, while women aged 15 years or older were authorized to sign the consent form themselves.