

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the research methodology used for this study. It consists of a description of study design, procedure and methods which are listed in the following order: the study design, reasons for selecting PAR for the study, participants of the study, setting, methods of data collection, ethical considerations, data collection, trustworthiness, data analysis, and reflection from the participants and the researcher.

The Study Design

The methodology that was considered to be appropriate for this study was a participatory action research (PAR) since it allowed the participants to work together examining the breastfeeding problems in preterm infants and in developing a breastfeeding support program for preterm infants, thereby enhancing practical nursing practice. The program emerged from this collaborative inquiry. The relationship between the researcher and nurse participants was that of researcher and co-researcher, allowing participants to be partners, and participants were fully involved in the whole process of action research. The Action Research Planner (Kemmis & McTaggart, 1988) was adapted to in this study for providing a way of thinking systematically about what happens in the setting; that is, identifying the problem, planning, implementing action where improvements were considered to be

possible, and monitoring and evaluating the effects of the action for continued future improvement.

Reasons for Selecting PAR for the Study

Participatory action research (PAR) method was employed as the methodological framework for this study for several reasons. PAR has been heralded as an important research methodology to address issues of research relevance, community involvement, democracy, emancipation, and liberation (Henderson, 1995). In this sense, PAR is a way of creating knowledge to effect necessary action and change (Cornwall & Jewkes, 1995). The people on whose behalf the investigation is initiated get directly involved in the research process for problem formulation, inquiry, and action. A fundamental assumption underlying PAR is that knowledge is related to power, and that power is related to change (Henderson, 1995).

PAR promotes a critical consciousness, which exhibits itself in political as well as practical action to promote change. There are two goals in this approach. The first goal is to increase the closeness between the day-to-day problems encountered by the participants and the theory used to explain and resolve the problem. The second goal is to assist participants in lifting their veil of clouded understanding, and help them to better understand fundamental problems by raising their collective consciousness (Holter & Schwartz-Barcott, 1993). This is accomplished by developing a social critique, wherein the consideration of theory and practice come together. Development of this sort of social criticism has three parts: theory, enlightenment, and action. The coming together of theory and enlightenment provides

the emancipation and empowerment to the participants, that then leads to action and change (Berg, 2001).

In addition, human beings are considered as holistic in PAR. They are comprehended as self directing, having initiative and being responsible for their own learning. Human beings are seen not just as passive participants in their working community, but also as being capable and willing to contribute to their community's functions. The basic assumption in action research is that only members of a community can explore and develop their own community's functions in the best possible way (Holter & Schwarz-Barcott, 1993). If the participants have been seen as passive objects of the inquiry or recipients of the results but not as actual researchers, the development of a program has not been appropriate (Hyrkas, 1997).

Another reason for selecting PAR for this study is that action research is a research method that combines the elements of theory, research, and practice. It is considered to decrease the gap that is traditionally identified as existing between theory, research, and practice (Holter & Schwarz-Barcott, 1993). Action research can influence nursing practice development for the improvement of the breastfeeding situation as desired concerning the current theory-practice gap in clinical practice. Ideals of broad theories that apply universally and equally to all humans neglect to notice the contextual factors that result in social inequality (Seng, 1998). People are the experts on their own lives. They bring knowledge about their own bodies, beliefs, social contexts, and needs, as well as skills. If the complexity of phenomena is recognized, experimental design and strict empiricism are realized as having rather limited applications. Knowledge based on scientific experiments turns out to be not

completely true since it may not be generalizable to others, or since the results may be artifacts of the artificial circumstances of the controlled experiment (Seng, 1998).

Action research is seen as one way of dealing with this because, by drawing on practitioners' intuition and experience, it can generate findings that are meaningful and useful to them (Meyer, 2000). This is consistent with the finding of Hart and Bond (1995) who said that action research is particularly suited to identifying problems in clinical practice and helping develop potential solutions in order to improve practice (Hard & Bond, 1995). Moreover, as mentioned by Foster (1969), research which has as its purpose the bringing about of change must involve the people themselves in the planning phases if it is to be successful.

Participants of the Study

In this study, the participants were nurses who were working in the premature infant unit of BMA Medical College and Vajira Hospital during the study period. They were chosen to participate on a volunteer basis based on their involvement in caring activities, their knowledge of their culture, and their understanding of their clients. The researcher contacted potential participants by telephone and set up a meeting to explain information regarding the study purpose, research process, potential benefits and risks, and activities to be involved and to, invite them to take part in the study, confirm informed consent and make a plan for all the participants. The participants were not coerced or seduced into participating because they had to be knowing, active and contributing subjects. They were also given an opportunity to ask any questions related to the study.

Initially, fifteen nurses who worked in the premature infant unit of BMA Medical College and Vajira Hospital agreed to participate in the study. The study was mainly conducted at the premature infant unit from June 2003 to January 2004. The participants agreed to participate in the study for the entire period, and were jointly responsible for the research process. From October 2003 to January 2004, the head nurse who was also a participant paused from the study for 4 months study leave. However, she always received all documents that emerged from the study, such as invitation letters for meetings and meeting reports. In November 2003, after completing the first breastfeeding support program, another participant was excluded from the study as she began working in another province. Therefore, there were finally 14 participants at the end of the study.

Kemmis and McTaggart (1988) suggested that it is generally wise to start with a small number of participants, rather than to try working with a very large group in the enquiry process. But in this study, the researcher worked with every nurse in the unit because each of them was highly interested in and committed to improving the situation, so better to include everyone in the study. The participants knew that the researcher would be approaching them continuously to encourage their ongoing participation. The researcher did not identify any of the participants by name although they gave permission to reveal their name or identity. The only compensation provided for the participants was a meal allowance during the meetings.

Setting

The study took place in the 30 bed premature infant unit at BMA Medical College and Vajira Hospital.

Data Collection

Methods of data collection

Three methods were used to conduct the investigation in this study to permit a triangulation approach. There were group meetings, participant observation, and keeping of a research diary (Silverman, 2000; Zuber-Skerritt, 1996). Each method was used appropriately to the objectives for each phase of the research process.

Group meetings The intention of conducting group meetings was to facilitate group discussion or reflection in order to explore, identify, brainstorm, collect and clarify the findings. The group meeting has also been shown to be effective for the dynamic exploration of different experiences and perceptions and therefore was a valuable inclusion in this research project. In this way, differences in some perceptions as well as consensus on others were investigated.

Participants met formally twice a month during the study. These meetings were facilitated by the researcher, and took place in the unit that was available for the participants. Two participants volunteered to be secretaries and all sessions were scheduled ahead. Most meetings lasted about three hours, though some lasted to nearly four hours, and the meetings were all taped and transcribed. During the group meetings, clarifying of the questions and elaborating on the answers took place and note taking was done by the secretary of the group. At the end of the meetings, the researcher confirmed whether or not the participants wanted to add more information, and then summarized the discussion into a meeting report. Before analysis began, the researcher asked the participants to validate the data. Meeting reports were distributed by the researcher to all participants, both those present in the meetings and those who

were not. Participants were asked to correct the meeting reports for each meeting, adding to or changing what had been reported as preparation for the next session.

In all dialogue and conversation during group meeting, there were no predetermined items, but rather there were guiding questions. These conversation guides used during the meeting were developed based on the study objectives and were reviewed for content validity by advisors before this study (Appendix A). The conversation started with a broad statement. During the course of the meeting, the researcher probed more deeply on specific topics and issues that the participants initiated. The questions were also used to initiate flow of the group meeting, however they remained open-ended to allow for unexpected exploration.

Participant observation enabled the researcher to view the situation objectively and assisted in the validation and interpretation of information provided by the participants. The purpose of the observation was to discover the progress of knowledge, improvement, changes and learning occurring in the study and how the breastfeeding support program for preterm infants was developed and employed in the premature infant unit, where and when the practices were presented, how the strategies were implemented and what the breastfeeding support documentation was. The researcher observed the participants' practices pertaining to breastfeeding support and always made notes during observations. Information from this activity was employed continuously by the researcher from the time of the study started until it finished.

A research diary was recorded mainly by the researcher at the end of each day during the four cycles of the data collection stage. It was a reflective diary containing information about the participant observation, the meetings and the setting

to remind the researcher of the particular event, action, and interaction. The researcher noted what she said and did, asked herself how she felt and what she thought and then noted her reactions as thoroughly as possible in the research diary. The participants were also asked to keep a reflective journal and to make a copy of each journal for their own reference in composing the subsequent journals while one copy was submitted to the researcher.

Procedure of data collection

The total period of data collection using the methods mentioned above extended over 8 months from June 2003 to January 2004. Sixteen meetings were held during the research process to discuss, monitor and reflect the progress of the research. These provided further opportunity for reflection and discussion, allowing modification and change as appropriate. Three phases of the procedure for data collection were as follow:

1. The preparation phase (June-July, 2003)

It is necessary to conduct a preparation phase before implementing participatory action research. The preparation phase was composed of two steps. The first step was to prepare for the researcher for entering the field, while the second step was for preparing the participants for working on the research process. These steps and procedures are explained as follows:

1.1 Entering the field

A number of steps for entering the field were taken as follows:

1.1.1 Letters from the Graduate School of Chiang Mai University asking for participation in the research from was handed to the president of the Medical Department, Bangkok Metropolitan Administration in order to ask for

permission to collect data in the Premature Infant Unit of BMA Medical College and Vajira Hospital, and to ask for the participation of one doctor who would be responsible for program implementation in the setting.

1.1.2 After receiving approval from the committee on the Review and Control of Human Research of Bangkok, and obtaining permission from the president of the Medical Department, Bangkok Metropolitan Administration and the director of BMA Medical College and Vajira Hospital, the researcher contacted the division of nursing to clarify the objective of the study and to ask for cooperation.

1.1.3 The researcher introduced herself, informed the nurses working in the premature infant unit about the purpose of the study and asked for their participation. All the nurses were willing to participate and then indicated their willingness in the informed consent form that was prepared by the researcher. Then they were all accepted as participants of the study.

1.2 Preparing the participants

The method of participatory action research was explained to the participants in detail including basic assumptions for working together, how and where to make an appointment, and roles and activities of the participants. They were allowed to ask questions of the researcher during the study process. The participants then shared their ideas concerning breastfeeding issues in the unit. The researcher explained that the purpose of the project to improve the situation and practices of breastfeeding in the unit and to develop a breastfeeding support program for preterm infants. The problems and concerns regarding breastfeeding in preterm infants were shared, and all participants agreed to work on improving the situation via the project. The discussion in this step was conducted in order to obtain the participants' ideas and

perceptions regarding the program development, and also to identify strategies for raising participant awareness.

The participants proposed doing a preliminary survey in the premature infant unit regarding breastfeeding practice to confirm that breastfeeding in their setting was a problem. Therefore, a survey was conducted in the unit by them using the breastfeeding record form they developed. Types of milk and the methods of feeding in each preterm infant were recorded on the form for every meal during June 2003. This information was analyzed and presented to the whole group by the researcher, enabling participants to perceive the problems and the need for developing a breastfeeding support program for preterm infants in their unit. The participants agreed that a breastfeeding support program was needed and that it was important to proceed with the research.

2. The implementation phase

Action research is composed of a series of cycles. Each of the cycles consists of a spiral of steps which include planning, acting, evaluating, and reflecting on the result of the action (Kemmis & McTaggart, 1988). Therefore, in the implementation phase the research process started with the following steps; planning, acting, observing and reflecting, on the basis of which the research group could formulate new plans, new action, observation and reflection, and then further planning. The participants met together to identify the problems, design action plans, implement and evaluate their actions, then redefine and adjust group tasks. The study was conducted by following steps in the spiral of action research for 4 cycles over a time period of eight months.

Cycle 1 (August 1-December 12, 2003)

Problem identification

Problem identification was done by using the reflection process with the participants as the main method. From the preparation phase, the nurse participants perceived that breastfeeding among preterm infants in this setting had problems, and needed to be improved by developing a breastfeeding support program for preterm infants. Breastfeeding in preterm infants was set to be the thematic concern. This step aimed to identify problems by the reflective process, so the participants were encouraged to explore, identify, brainstorm about and clarify breastfeeding problems and their causes in preterm infants by group discussion and reflection. Since the group had some data about the breastfeeding situation in their unit, they began by making an initial reconnaissance or reflection of their situation as a basis, and then reflecting on it. The initial diagnosis was gained from this step.

Planning The objectives of planning were to design strategies for solving the problems and to plan who would be the ones responsible for a specific task. The plan provided the group with a benchmark for later reflection and replanning. It oriented the group for action, and served as a reference point for later reflection as something the group could modify and develop in later plans.

In this step, the results analyzed from problem identification were presented and discussed during a group meeting. After getting consensus on the problems, the participants prioritized a list of topics to be developed into the program. They also developed goals and different activities and strategies which they felt would be most effective. In addition, the participants were encouraged to discuss about the tasks, responsibilities, and meeting schedules. The draft of the breastfeeding support

program for preterm infants was initiated from literature review support by principles and theories, and was drawn out from the reconnaissance or initial diagnosis of the situation.

In the planning step, the breastfeeding support program developed from general questions: What is to be done about what, by whom, where, when and how. The participants were asked to think about what they could change. The program identified the particular responsibilities of members of the action group and the plan was discussed openly and critically.

Moreover, the plan included ideas about monitoring the implementation and effects (and the side effects) of the action. Participants drew their ideas together in a detailed plan for action and to focus on what were the most practically important, significant and useful to do. In this stage participants worked hard to put their own plan together, then shared their plans, drafting and redrafting to create a group plan before going into action.

Additionally, the plan was validated and approved by five experts in the field of breastfeeding in preterm infants (Appendix B) including a pediatrician, an obstetrician, a nursing instructor and two professional nurses. The draft of the breastfeeding support program was revised and improved according to the suggestions of these experts before it was implemented. It was established that the plan was negotiated by the group to form a basis for agreement about what they were planning to do, and that the plan could be revised in light of the group's feedback. At this point, the first draft of the breastfeeding support program was finalized.

Acting The purpose of this step was to put the plan into action and therefore, the desired breastfeeding support program and action plans developed by

the group were carried out. The participants were the main care providers responsible for implementing and monitoring the plan during and after its implementation. The researcher and participants made a journal during or after the implementation. The task emerging from group discussion was performed by the participants responsible for this step.

Observing Observing was defined as studying the effect of the program implementation. The changes as outlined in the planning were observed for their effects within the context of the situation. Observing and acting occurred simultaneously. The researcher and the participants continually monitored the participants' progress, evaluated the results of action, identified possible aspects of practice improvement, and modified the plan for further actions. The observing was used to revise the plan for the next step.

Reflecting refers to the point in time when the research team examined and constructed, then evaluated and reconstructed the breastfeeding support program. Reflection included the presumptive discussion at which the participants identified and shared concern about the problems. The initial breastfeeding support program was evaluated for its success and effectiveness in subsequent weeks or months on a regular basis through group discussion by the participants.

Cycle 2-4 (December 12, 2003-January 30, 2004)

After finishing the first cycle, the researcher and participants started a new cycle of similar activities (of analyzing, planning, acting, evaluating, reflecting) in the continuous spiral of action research. The participants discussed and reflected on the results and drew conclusions for the next revision of the program. The program was

reshaped in every meeting. Four cycles took place over 8 months through 15 meetings. Detail for a series of these cycles is demonstrated in Figure 2

3. The evaluation phase

Evaluation was the final phase, and was conducted with respect to two main conditions. The first condition was that the criteria for program evaluation were met. The other was that the desired program was accomplished. At this point, the breastfeeding support program was monitored and evaluated using the quantitative and qualitative data. The participants met together for group reflections in order to determine the objectives that had been accomplished and those that remained unaccomplished. The outcomes of this evaluation phase were comprised of two main things. First was the outcome of implementing the best practice in this breastfeeding support program for preterm infants. The second outcome was the reflection of the participants towards the study.

Ethical Considerations

Ethics approval was granted by the Ethical Committees of both Faculty of Nursing, Chiang Mai University and Bangkok Metropolitan Administration before the initiation of data collection. The researcher provided the participants in this study introductory information about the study, and the nature of their participation rights as a participant, as well as their potential risks and benefits. They were given the opportunity to ask questions, and given the option to withdraw participation at any time. The meeting and research proposal were used to disseminate this information. The participants were reassured that the data collected in the research would be used entirely for the purpose of developing a breastfeeding program, and all photographs

and tape recordings were procured with full permission. Throughout the study the researcher was sensitive to the workload of the participants and made sure the study was not too great a burden.

Moreover, since the nature of the group interview and some of the questions might have caused some discomfort, the participants could refuse to be audiotape recorded if they so chose. The results of the data analysis would not in any way affect their working status. The protection of confidentiality was explained verbally to all participants; individual nurses would not be identified in the report of the study, and the participant names used in the text are fictitious.

All of the written data, including notes and the research diary, used to keep account of the participants in the study were kept by the researcher until the study was completed, and then shredded. After completion of the study, the tapes were erased. In this study, written informed consent was obtained from individual nurses willing to participate in the research.

Trustworthiness

The strategies used to achieve validity in this study were Guba's criteria for validity of qualitative research (Millis, 2000) by addressing the following characteristics of the study: credibility, transferability, dependability, and conformability.

1. Credibility

The credibility of the study refers to the researcher's ability to take into account all of the complexities that present themselves in a study and to deal with

patterns that are not easily explained. To achieve this, the following methods were used:

1.1 The researcher was at the setting for at least 6 months of prolonged participation at the study site to overcome distortions produced by the presence of the researcher and to provide the researcher with the opportunity to test biases and perceptions.

1.2 The credibility was also assured by using multiple methods of data collection or triangulation to compare a variety of data sources and methods in order to cross-check data to confirm the accuracy of the findings. According to Lather (1991), triangulation is established through multiple data collection methods and sources. In this study, triangulation was established by data collection from group meeting, participant observation, and keeping a research diary.

1.3 The researcher performed member checks to test the overall report with the participants before sharing it in final form (Guba, 1981; McTaggart, 1994) in order to improve the precision of this study. The transcripts and provisional categorization were returned to the participants for verification. Also, the researcher's interpretation of data was checked for validity on an on going basis by asking the participants for their perception of the findings in each cycle during the research as well as by inspecting the level of agreement in the interpretations of the researcher and the participants.

Moreover, the researcher set up a debriefing session in which all participants discussed their experiences in the development of the breastfeeding support program, reviewed the results of the study data and gave their opinion regarding validity of the researcher's interpretation. According to Lather (1991), this

process engenders construct validity which is established by determining that constructs are actually occurring rather than being mere inventions of the researcher's perspective. In this study, construct validity was supported by providing the participants with the analyzed data to judge for representativeness and accuracy. Each of the participants agreed that the analysis accurately reflected their experiences.

The researcher endeavored to remain with open to ideas that had not entered into her beliefs, values, and thoughts, and to operate with reflexivity or an openness to the counter interpretations which were offered by the participants. Reflexivity is a form of critical self-awareness that must be maintained as part of the data analysis. Throughout the research, maintaining the validity of the PAR groups renders a need to protect research from the researcher's enthusiasm or in other words to protect the participants from the researcher's potential exploitation. The researcher used the reciprocal relationship to debrief the participants in order to clarify the intersubjective meaning that had emerged. This process created a useful, valid theory that could empower and free the participants, rather than dominate and oppress them. The researcher discussed what had emerged from recent group conversations in every meeting, as well as the transcribed verbatim of those meetings. Meeting reports were reviewed by all participants for their correction and comment. This is known as member checking in traditional qualitative research (Comstock, 1982).

In addition, the research included the participants' perspective on the data by providing them feedback findings and incorporating their responses as new data in the final report. Seng (1998) indicated that scientists working from postmodern feminist or multiculturalism commitment advocate including those researched in the research process as co-participants with the researcher as a means of

enhancing quality and accountability by allowing them to serve as a check on the researcher's biases and to have a voice in the conduct and dissemination of the work.

2. Transferability

Guba's second criteria of transferability refers to qualitative researchers' beliefs that everything they study is context bound and that the goal of their work is not to develop truth statements that can be generalized to larger groups of people. To facilitate the development of descriptive, context-relevant statements, the researcher developed detailed descriptions of the context to make judgements about fittingness with other contexts possible (Guba, 1981). Action research is often subsumed under the umbrella term of qualitative research, so generalizations made from action research studies differ from those made on the basis of more conventional forms of research (Waterman, 1998). To some extent, reports of action research studies rely on readers to underwrite the account of the research by drawing on their own knowledge of human situations (Meyer, 2000). Therefore, to ensure the transferability or suitability of this study, the researcher explained the situational context and the specific aspect of the PAR methods which the findings are practice strategies or local theory built on a specific context. Thus, it is only the methodology which can be generalized.

3. Dependability

According to Guba (1981), dependability refers to the stability of the data. To address issues related to the dependability of the data collected, the researcher utilized overlap methods (similar to a triangulation process). The researcher used several methods in such a way that the weakness of one was compensated by the strength of another.

4. Conformability

The final characteristic that Guba addresses is the conformability of the data or the neutrality or objectivity of the data that has been collected. The researcher addressed this issue by triangulation whereby a variety of data sources and different methods were compared with one another to cross-check data. The researcher kept a research diary in which reflections were recorded on a regular basis. This practice is supported by Seng (1998), who indicated that another strategy used to address any the researcher's bias was writing self reflective field notes during the research.

In addition, the researcher used a form of peer-debriefing to sort out possible ideas and patterns that may have been overlooked and that could be surfacing from the data. The transcripts and provisional categorization of the participants group's interviews were also given to the dissertation's advisors who are expert witnesses for verification.

Data Analysis

Data obtained from the research process included both quantitative and qualitative data. The analysis process took place during the entire research process.

Data analysis was divided into three parts as follows:

1. Quantitative data was analyzed by descriptive statistics in terms of frequency, percentage distributions, means, standard deviations and cross tabulations which were all used to describe the demographic data of the participants and the prevalence of breastfeeding in the study.

2. The data gathered from group meetings and a research diary were analyzed by content analysis which involved two parts. Firstly, there was a general

overview of the stage of analysis, which included processing the conceptual evidence and theoretical evidence, mapping the data, interpreting the evidence, and presenting the results. Categories were developed by clustering together all responses of a like nature. Each category was then subdivided into more specific complaints.

Secondly, the researcher looked more closely at the process of analysis by observing events, selecting observations within the event on which to focus, and critically interpreting and drawing conclusion about the perceived situation.

In order to identify any discrepancies in accounts, data from this study were cross-checked with the participants using different methods such as group meeting, participant observation and keeping a research diary. Most of these methods went through group reflection and discussion and the research iterative process. In order to ensure accuracy of meaning, some parts of the transcriptions were translated from Thai to English. In addition, the researcher discussed and improved the content and meaning with native speaker for the entire text.

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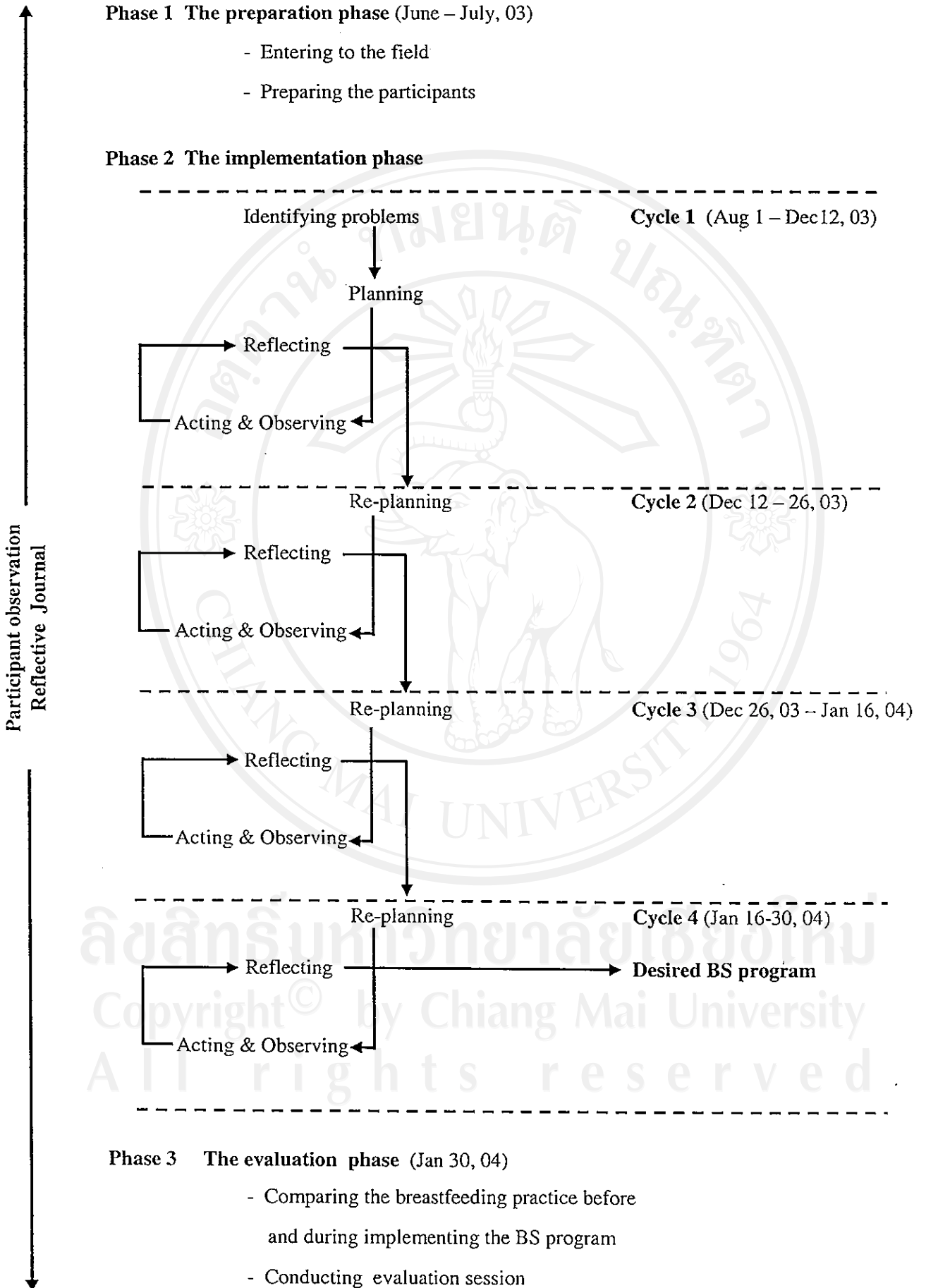


Figure 2: Diagram of procedure for data collection

Reflection from the Participants and the Researcher

At the end of the study there was a meeting of all participants in order to reflect on study and discuss their feelings. In addition, the researcher reflected on what the researcher learned and her feeling.

Reflection from the participants

The reflections of the participants to the study in several aspects include the advantages and some disadvantages from taking part in the study, the reflection record, the support for doing the study and feelings during the study.

1. Advantages and disadvantages from participating in the study

The participants reported that there were several benefits received by the participants themselves, and the mothers and infants involved. The participants learnt the action research process, and acquired breastfeeding knowledge and skills. They also got the breastfeeding support program for preterm infants as a guide for their practice in the ward. There were breastfeeding education and breastfeeding support devices, such as media and other equipment required for breastfeeding support. The participants were appreciated by the mothers. Their relationships improved substantially. The participants knew and understood one another better than before, and they learned how to work together. The most important thing was that they took pride in their work which leads to better results.

The study benefited mothers in several ways. The participants thought that the mothers received more information from them and were better able to breastfeed their infants while developing bonds and attachments with their infants and enjoying good relationships with the nurses. The benefits for the infants included access to

breastfeeding and its related health benefits. The statements below underscore the evidence above:

“There are a lot of benefits of the program. It is not just preterm infants being breastfed, but benefits for the nurse participants because they got the knowledge. For mothers, they knew the benefits of breastfeeding and could breastfeed their infants, and for the infants, they were breastfed and got the benefits of breastfeeding.”

“At first, Mrs. U wants to neglect her infant, but right now, when we promote breastfeeding, she said she won’t leave her infant.”

“I am so proud with the document that I translated from an English article.”

The participants identified several benefits, including feedback from participating in the study. The first was that it was unsafe to return home alone after a meeting, as the time for meetings was usually set between 5.00-8.00 p.m. They had to ask their relatives to take them home. If the meeting time was set at dinner time, they got very hungry. Also, they used their personal time for meetings, so they could not have enough rest because they might have to work a night shift after the meeting. As a result, other relatives had to help them. If they were on duty, it affected their jobs sometimes. The final effect was on their income. They could have worked overtime instead of attending meetings. However, the participants were not overly concerned with these effects.

2. Reflection record

The participants did not write much on the reflection record and each one gave her own reasons to that failure of action as follows:

Mrs. B: *"I think it was good but we wouldn't be able to do it. I tried to write information down but I forgot when and what had happened. I thought if we could write, it would be good. It was not because of unfamiliarity, because I enjoyed keeping a journal. I wrote in it when I had free time, and right now it might be because we don't have much time. If this took just 15 minutes per day, I believe we could successfully record the day's events."*

Mrs. C: *"I usually talked about the things I could memorize, but other details I could not discuss because they were left unrecorded, so we needed to write information down. I rarely wrote because I focused on just the things I wanted to express. Another reason was lack of experience in the program."*

Miss. D: *"I loved to think about, not writing."*

Miss. F: *"I had no time to write, and when I had time, I usually forgot."*

Mrs. G: *"I don't like to keep anything, just do it. I don't like writing."*

Mrs. H: *"It was so hurried, there was no time to write comfortably."*

Miss I: *"We had to write it down immediately because later on, we would forget."*

Miss J: *"If I felt active, I wrote it, but when I felt lazy, I didn't."*

Miss K: *"I also didn't like writing. I didn't know how to start, how to write. I preferred group discussions."*

3. Support for doing the study

The participants recognized that there were numerous supports for conducting the study. These were the researcher, the program, the participants, and the breastfeeding training centers. The researcher was supportive as they received continuous encouragement and issued guidelines for action. Furthermore, the participants stated that the program offered a lot of benefits for the participants, their units, the mothers, and their infants. Another important element was the participants themselves. The participants wanted to help conduct the study and some willingly worked for the research, so these spirits motivated them to participate. The participants were active within their units, so this ensured a degree of success. When the first draft of the breastfeeding support program was initiated and implemented, it provided sound results. They wanted to do the study further. The lactation clinic at Siriraj Hospital was another support. The participants gained a lot of breastfeeding

knowledge and skills from there. Siriraj nurses at lactation clinic became excellent role models for the participants, who wanted to develop the breastfeeding support program and promote breastfeeding. The following statements indicate that support:

“The supporter of the study, Pee Tak (the researcher) encouraged us and issued guidelines for doing it.”

“There were a lot of benefits from the program, so the benefits themselves were like our supporter and encouraging agent.”

“It came from the heart, if we didn’t agree with it ourselves, we might have taken a step back.”

“We were at unit, helping another to be motivated, so the program was continuously developed and became a success pretty quickly.”

“Having seen others work hard, we fought to work hard also, and then we could not step back, even though sometimes we felt tired because we had to work at reading and writing several times before it was finished.”

“I think we got a lot from Siriraj, we had a chance to see and act. It showed me that it was possible to do. When we were successful once, we thought that we should do more.”

4. Feelings during the study

At first, when the nurse participants were invited to the study, they felt very enthusiastic to partake, even though they did not know exactly what the study was. After having participated in the early phase, they felt that it was too hard and more difficult than previously thought. They conducted a lot of meetings, and each meeting took a long time. They had to search and brainstorm more in order to develop the program. Initially, they were unsure that they would be able to complete it. However, they persevered as much as they could, because they agreed to work together as a motivation to finish. One participant became dependent on the researcher, but after the study was finished, she felt confident enough to do work independently. The participants enjoyed freedom of thought and expression. When the developed program was implemented, they saw the benefits of the program, and wanted to

continue until completion. Some participants suffered from stress, when they drafted the program, but the tension was completely removed after implementing the program. When the study was finished, the participants felt happy. The program became routine practice. The participants were proud of the program they had developed and with the results of the program. The following statements show their pride:

“I had no idea how difficult the meetings would become, it was so difficult. Having many meetings where each meeting required concentration.”

“I liked the fact that we were all on the same boat, we had to go together, to help one another and arrive at the shore.”

“I was happy to participate in the study but I did not know how hard it would be.”

“It was a great relief.”

“Nothing forced us, but now we do it routinely.”

“We did it with our hearts, and we are now familiar to do that (implementing the program).”

“Right now, it satisfies me, as there was an established pattern for breastfeeding support.”

“When I looked at you (the researcher) I felt very tired. You had to deal with all types of people, and had to encourage them. I felt sympathy for you.”

Reflection from the researcher

The reflections of the researcher to the study in two aspects include the feelings during the study and the lessons learned.

1. Feelings during the study

The first thing that the researcher felt worried about was the cooperation from the potential participants, when the researcher decided to use PAR in the study as the study was not the participants' direct responsibility. In addition, at that time, the potential participants had a lot of work to do as the hospital was applying for Hospital

Accreditation. However, the researcher felt relieved after getting some information from one of the potential participants. She told the researcher that breastfeeding was an interesting issue. Several potential participants, who had worked in PU, wanted to improve the breastfeeding situation in their own settings. Furthermore, every unit in the hospital had to develop their units, even though there were no proposed projects for PU nurses to improve their setting. It would be beneficial, if the researcher would come to work with them.

Another concern was the status of the participants. In action research, the participants would act as co-researchers. However, in the study, the participants would not get any credit for being co-researchers, as it differed from other kinds of research. Therefore, the researcher explained this limitation to all the potential participants. They understood and voiced the reasons why they wanted to participate in this study. Their reasons included the need to learn more and improve the breastfeeding situation in their setting, as opposed to qualifying for academic promotion.

When the last phase approached, another concern was about sustainable program. Although several changes occurred, the researcher feared that the findings would be meaningless in an every changing environment, and that completed study would have little impact. However, the researcher bore in mind that the study was to promote changes, as one of the aims of action research. With this realization, the fears were sufficiently addressed.

2. Lessons learned

2.1 Scheduling meetings would be problematic, as the nursing profession can incur twenty-four hour cycles in order to successfully care patients. It

became difficult to coordinate meetings where all participants could attend. The most suitable time would be out of office hours, in order to guarantee full attendance. The participants themselves solved this problem. They proposed the best time at 4.30 PM to 7.30 PM. Furthermore, the meeting agenda would have to be set ahead of time to accommodate the participant workloads.

2.2 Lack of confidence happened throughout the study as there was always a degree of uncertainty. Action research is dependent on situational contexts, so the researcher had to manage time, and formulate a flexible activity plan in anticipation of any problems that may have arisen.

2.3 The proposed future plans of action would need to be discussed among the research team. It would be the group's decision, and all were informed of what needed to be done and the reasons. This guaranteed mutual cooperation. Sometimes, small group decisions were needed due to time constraints, any possible inter-group objections would be addressed whenever possible.

2.4 The researcher needed to be active and work rapidly in order to facilitate group dynamics. The researcher became a facilitator in order to manage the time to its maximum effectiveness. The researcher had to work efficiently in order to plan ahead, and anticipate any possible problems in the future. Data analysis and action research processes were conducted to help the participants in their work for the study.

2.5 Action research prompted the researcher to cooperate with the participants. For the most part, this was unproblematic; however, there were inevitable conflicts. The researcher had to develop patience, and learn to negotiate. This process proved to be quite tiresome, due to the pressures of the study, and the

wide ranging interactions with many different types of people. In order to minimize this stress, the researcher realized the need for stress management, either independently or with the assistance of an expert.

2.6 The researcher realized that the task was too complex to be handled independently. Thus, cooperation with the participants would be a major determining factor as to its success or failure. In addition, the researcher had to assume responsibility for facilitating and encouraging participants to work together efficiently. This unexpected duty proved to be more difficult than previously envisaged.

2.7 Whatever the participants experienced, the researcher also experienced. This called for the researcher to be in constant contact with the participants, and to be aware of the different stages each was at. For example, once the unit had begun to prepare for hospital accreditation, the participants found themselves busy aiming for that goal. Therefore, the researcher had to assist wherever possible; in terms of helping them fulfill their duties and provide peer support, opposed to the demands of the study itself that required the participants to do the study for the research only.

2.8 Creating a forum for the participants to express their thoughts and concerns was another important detail. The researcher had to learn to listen to their ideas, and allow them to demonstrate their abilities. This was yet another unforeseen task, which proved to be quite stressful. The researcher was compelled to repress negative thoughts and emotions in order to gain positive contributions from the participants. Eventually, it became clear that this approach was the best, as patience and free communication guaranteed good results.

2.9 When the program was implemented, the researcher adopted the role of a participant in order to fully understand their environment, and set an example of a successful partnership. Through this, the participants could better identify the process and objectives of the program. At this stage, the researcher concluded that preparing and executing plans were two very different tasks, which were not mutually compatible. All these unexpected additions to the program developed certain characteristics for both the researcher and the participants. The need for a positive working environment, with mutual respect, patience, encouragement, and consistent support became as important as the primary objectives of the study itself. These character building experiences led to a close and dynamic professional relationship that contributed heavily to the overall success of the program.

2.10 Although several major concerns were raised throughout the study, from the first phase until the final, the researcher learned that flexibility is the key to dealing with unplanned and unstable situations. Equipped with this knowledge, it became clear that unexpected events should be viewed as challenges, which can be resolved.