CHAPTER 3

RESEARCH METHODOLOGY

This chapter deals with the methodology approaches adopted in the study. The study design and the participants of the study were described, followed by the methods of data collection, discussion of relevant ethical issues as well as the procedures adopted, data analysis both qualitatively and quantitatively.

The study design

Participatory action research method was employed as a methodological framework for this study. There were two phases of the research methods being described, the preparation phase and the implementation phase.

The preparation phase

During the preparation phase, the researcher and the clinical nurses shared concerning of the cardiovascular patient problems occurred in CCU. The researcher purposed the project to improve clinical practice, the discharge planning project. Discussion between senior CCU nurses and the researcher was carried out. Then the working group was formed and the plan for group activities were proposed. The

researcher also shared idea and discussed with nurse executives as well as other staff nurses about discharge planning in order to obtain ideas and perceptions of discharge planning development and also to identify strategies for raising awareness among nurses in the setting.

In preparation phase, the researcher introduced the concept of discharge planning and the method of action research used in this study to the research team, overall of the planned strategies were proposed. Members of the team were allowed to confirm their understanding with the researcher along the study process.

The research team formation

The formation of research team in this study is the necessary step in conducting action research. The team was formed after the researcher and clinical nurses shared concerns about the clinical problems with the aim to develop discharge planning protocol for their own setting. The team emerged after the reconnaissance step which is the raising awareness among CCU nurses. For developing discharge planning protocol which involved all members in CCU and other relevant members, the research team decided to divide members into two groups: the working group and the research team. The working group consisted of ten nurses from CCU who were prepared for facilitating all members in CCU to conduct a discharge planning protocol. The research team included all CCU nurses, patient and family members, and other relevant health care

providers during the study period. However, members of the working group and the researcher were also included in the research team.

The implementation phase

This phase involved all members of the ward, the research team and the co-researchers. The research process started as following steps;

Problem identification

In this step, the research team analyzed the problems of patients who were admitted to CCU. Group critique of problems related to discharge planning practice in CCU was used. The discharge planning practice problems raised from this step were needed to be explored and planned for investigation in the next step.

Planning

In this step, the results from problem identification were presented to the research team during group meeting, the research team planned for developing the strategies to approach such problems. Planning included exploring the evidences related to discharge planning practice and setting strategies to approach the raised problems.

Implementation

Implementing of the plan, discharge planning strategies and protocol planned by the research team were brought into action using a PAR approach. Throughout sixteen months of implementation phase, the process was conducted through the spiral design of action research. In the PAR method, it stresses that many problems are not solved until they have been reformulated, and that strategies designed to address them have been implemented over time. Each spiral consists of activities as the following

Reflecting is the moment where the co-researchers examine and construct, then evaluate and reconstruct discharge planning practice strategies. Reflecting includes the presumptive discussion of all members at which they identify and share concern or the particular problem. Reflecting in action was the main method during group working throughout the study period. It was the group described their view on the topics along the research process. Reflecting resulted in refining the questions related to discharge planning practice raised from the team and contributed to the strategies to approach such problems.

Planning is constructing the discharge planning strategy which was done after reflecting during discussions among the co-researchers. Planning during implementation step was the outlined strategies to be undertaken in order to approach problems that raised from the research team. Strategies to evaluate the change were included in this plan.

Acting happens when the planned strategies from planning step were put into practice with the hope for improvement of the current clinical situation. This acting will be deliberate and strategic. It is here PAR differs from other research methods since the acting or changing is happening in a real situation and not as an experiment. The acting is usually followed planning that it is the strategy of practice according to discharge planning.

Observing is defined as studying the effect of discharge planning practice. The changing as outlined in the planning are observed for its effects and the context of the situation. In the spiral process, observing was used to revise the plan for the next step. Observing and acting often occur simultaneously.

Evaluation

Evaluation was the final step in implementation phase. It is the evaluation of change. In this moment discharge planning practice of CCU nurses and the satisfaction of care in CCU were monitored using the satisfaction of care instrument as well as qualitative data from patient and family members' perspective of care were obtained.

Participants of the study

The participants of the study or the co-researchers were selected by purposive method. This study approach was the unit based development. Populations primarily

were CCU nurses who working during April 2000- December 2001. All participants agreed to participate. All of them have been informed about the research process and methods of discharge planning practice. They knew that the researcher would be approaching them continuously to encourage and continue their participation. The researcher did not identify any of these participants by name although they gave the consent. Other participants were patients, family members, and other relevant health care providers during the study period.

Methods of data collection

Various methods used in this study, generally common to the qualitative research paradigm, were semi-structured interviews, document survey and analysis, participant observation recording, keeping a research journal and questionnaire surveys. Each method was used appropriately to suit the objective for each phase of research process.

Interviews

A semi-structured interview was performed using the interview guide. This method was used to investigate the clinical nurses' understanding of discharge planning at the beginning of the project. Interviewing begun in May, 2000. With the aims to explore the recognition of discharge planning among nurses, the first group of people being interviewed were thirty clinical nurses who were still working at the time. These

clinical nurses received information regarding the study purpose and invitation for participation. All nurses agreed to be interviewed. They were asked about their perspective on discharge planning and were encouraged to reflect their thought on their everyday practice. From reflection, the researcher learned how discharge planning practice in CCU being viewed from the insider at its beginning phase and how it had changed over time, with particular emphasis on the phase of research. The interview guide being used in this process were composed of six questions (Appendix A).

Prior to the interview, the researcher spent several minutes discussing the current critical care situation and how it had provoked the researcher's interest in this study. The interview, then started and mostly it lasted about an hour. Data were recorded by note taking. Data from the interview helped the researcher understand how changing health care situation affect the discharge planning and nursing education.

The second group of people being interviewed were the Head of Medical Nursing Service Section and the Head of Nursing Division. These two key informants were interviewed using the same interview guide. The researcher met each informant individually explaining the objectives of the study, and asked for permission to interview them. After getting permission, the researcher did the interview which also lasted around an hour. Data were recorded also by note taking while interviewing and were summarized soon after the interview.

Informal interviews were also conducted with some of key informants, the three head nurses of medical wards, the intensive care unit and other nursing service sections.

These people were also positioned as the information providers and were prepared to be the key persons to develop discharge planning in each nursing service section too.

Since the researcher's position was a clinical instructor and the assessor of the practice, there was inevitably a power imbalance between the researcher and co-researcher who are CCU nurses. It was possible that the co-researchers said something just to please the researcher. Therefore, the researcher decided to confirm the data obtained by group discussion.

Considering the relationship between the researcher and the co-researchers, it was found to be varied. For some nurses, the researcher had been working with for quite a long time and had closed relationship with them, while for other relevant health care providers, the relationship was not be that closed.

For times of interviews, even though most interviews lasted about an hour, some lasted longer to nearly two hours. However, the researcher felt that she should response to the needs expressed by the interviewees rather than to restrict the length of the interview only to obtain the data needed. A nurse did provide valuable information about her difficult working environment. Since the researcher concern very much about the quality of data obtained, all questions were asked in the same manner and concluded the questioning by allowing the interviewees to ask any other questions

During the interviews, clarifying the questions and elaborating the answers were made and note taking was done by the researcher. Immediately after gathering the interview data was completed and before analysis had begun, the researcher asked co-

researchers to validate the data. However, most of them preferred to share and discuss issues during the group meeting.

Document survey and analysis

Documentary survey and analysis was another method used in this study with the purpose of exploring the evidence of discharge planning in the setting. The research team used recorded material held at the wards, Nursing Service Division, and elsewhere to investigate how discharge planning was set up and how it should be implemented in CCU. Two sources of document were surveyed and analyzed, all hospital records and the annual or other periodical reports. The researcher also reviewed the hospital policy, mission, and objectives. Other hospital records being reviewed include standard of practice and guidelines, medical records, nursing records, and the minutes of the regular meeting summarization, the incidence report, and so on. The researcher used the instrument called the Document survey guide (Appendix B) to collect data.

When data were assembled the research team discussed to identify the existing practical problems and their meaning, then shared these finding with all members in the ward. Data from this survey was validated and triangulated with the information from interviews.

To find out the discursive underpinnings of the official meaning of the practice development with respect to discharge practice and its place, both historically and currently data record related to discharge planning were necessary. These documents

were also helpful for the researcher came to understand the culture of practice and further for development of the practice strategies. As a research resource, document analysis provided additional information that supported the interpretations and claims made by informants in a study. Inevitably, given both the size of the task and the limitations which were later made to access to these documents, the researcher may has missed specific records which could have contributed significantly to the real discharge planning development in this institution. So, this perspective could only be partial.

Participant observation

Observation enabled the researcher to view the CCU objectively and assisted in the validation and interpretation of information provided by participants. The purpose of these observations was to discover the progress of their discharge planning practice. The main evidences to be observed were discussed and critiqued by the research team prior to observation. The observational guide was used in order to triangulate the significant process of discharge planning. Information from this section has been employed continuously by the researcher since patients were first admitted to the ward until they were discharged or transferred to other care settings. Patient and family reaction during hospitalization including both their facial expression and body language were observed. The way in which these reactions were manifested may be culturally determined. The researcher needs to have a talent for making social contact with patients and families.

The team agreed to observe how the discharge planning practice was employed in CCU, where and when this practice was present, how co-researchers proposed practice strategies to the team, how the strategies were implemented and what the discharge planning documentation was. The researcher observed the practices pertaining to discharge planning of nurses and always made notes during observations. All observational data obtained were discussed and validated regarding the meaning, and for further action plan.

Group reflection and group process

Group reflection was the method of data collection and clarification of the findings. Because of the unfamiliarity with the written reflective journal, most of the co-researcher agreed with the group reflection method during each meeting. In all dialogue conversation with each co-researcher and during group discussion, there were no predetermined items, but there were some guiding questions to look for;

What information, ideas or options according to discharge planning have been shared and exchanged during our group discussion?
Was there any conflict or frustration regarding the practice?
How were strategies for discharge planning practice developed throughout the discussion?

During the process of data gathering, the researcher continually monitored the practitioners' progress, evaluated the results of action, identified possible aspects of practice improvement, shared with the research team, and modified the plan for further

actions. The team completed three cycles of the action research spiral at the end of December 2001.

Satisfaction with care monitoring

Satisfaction with care during the protocol implementation was evaluated by both quantitative and qualitative methods. The ward's recording form was used to monitor the client's responses every three months. This satisfaction form consists of ten questions with five rating scales regarding care receiving during CCU admission. To confirm the satisfaction with discharge planning among all members, the researcher conducted the in depth interviews. Evaluating the outcomes was also performed using debriefing session among the senior CCU nurses.

Trustworthiness/scientific rigor

Action research has been criticized for its lack of scientific rigor. However, scientific rigor might be less important to its proponents than the methodology's usefulness to participants (Argiris & Schon, 1991). To improve the precision of this study, the member checking was the method used. The researcher's interpretation of data was checked for validity on an ongoing basis by asking the co-researchers 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 researchers and participants. Final meeting

was conducted with the working group to review the result of the study data and to ask for opinion regarding validity of researcher's interpretation.

Validity

To assure validity, this research was done in collaborative way with all stakeholders. Several types of validity, such as democratic validity which means that the research was done in collaboration with all stakeholders, and outcome validity which means the intervention led to a resolution of the problem under study. However, validity was not easy to establish. Ellis and Crookes (1998) suggested that it must be established through self validity, participant validity, and peer evaluation. Face validity was the most important safeguard for ensuring that the findings of the action fit reality (Greenwood, 1994).

The creditability was assured by using multiple methods of data collection in order to confirm the uniqueness of findings, having members checking of data, and debriefing sessions for discussion of findings. In this study, the team set up about one of debriefing session in which all members discussed their experiences in the development of discharge planning protocol.

Transferability

To ensure transferability or suitability of this study, the researcher explained the situational context and the specific aspect of the PAR method which finding was the practice strategies or local theory built on a specific context. Thus, it is only the methodology which could be generalized.

Confirmability

In order to establish confirmability, members were asked to share what they had learned in the process, and their recommendations to improve the discharge planning protocol. The reflection in their practice was the method used to confirm the co-researchers perception. The team also confirmed the findings of each cycle analysis to validate the finding. Summarization of each finding and sequence was sent back to the ward nurses.

Data analysis

Data obtained from this research process included both quantitative and qualitative data. The analysis process took place during the entire research process. For quantitative data, descriptive statistics was used.

Data analysis was divided into two parts. Firstly, there was a general overview of the stages of analysis, which were processing the conceptual evidence and theoretical evidence, mapping the data, interpreting the evidence, and presenting the results. Secondly, the research team looked more closely at the process of analysis which consisted of observing events, selecting observations within the event on which to focus, interpreting or drawing conclusion about the perceived situation and critically examining the conclusion.

In order to identify any discrepancies in accounts, data from this study were cross checked from different sources, such as practitioners, patients and their families and observers from outside using different methods such as interviews, diary and questionnaires. Most of these methods went through group reflection and discussion and the research iterative process.

The iterative process

The combination of input of discharge planning theory explained by the researcher and the clinical nurse practitioners' practical experience resulted in a continual cycle of synthesized theory with practice. This process created a revised iteration of the design out of each group discussion to apply to work and evaluate for the next meeting. Reflection on the past and current iterations continued to unearth more assumptions that lead to practices over time.

Cycles of the research process represent the evolution of specifying learning, which was the research outcome. One of the reason why action research is seen as preferably carried out in cycles is the opportunity that it allows for strengthening research findings by building on evidence gathered from previous iterations in the action research cycle. Ketchum and Trist (1992) viewed the frequency of the iterations in action research cycle as likely to decrease in variation of findings and that are found as a result of the specifying learning.

As described earlier, participatory action research is a cyclical research process. It is considered as participatory, action, and research elements (Wadsworth, 1998) and considered to be dynamic and flexible. Change does not happen at the end, but it happens throughout the process. This study required over three iterative cycles as presented in chapter 4.

Ethical considerations

In this study, ethical approval for the study was obtained from the graduate committee of the Faculty of Nursing, Chiang Mai University, Thailand, and this project had permission from Maharaj Nakorn Chiang Mai Hospital. All co-researchers were informed in advance about the nature of this research process.

Some possible limitations with regard to bias and perceived obligation on behalf of interviewees have already been referred to. Power differentials between nursing personnel and the researcher may have limited their feelings free to tell about the related

problem of discharge planning practice. Fortunately, it did not appear to the researcher in this study.

A major limitation of the study has been the positioning of discharge planning within a quality improvement program. This limitation did not undermine the researcher's claim that action research is a useful catalyst for change, rather, it underlines the importance of getting the context right.

The situational context

Maharaj Nakorn Chiang Mai Hospital, the biggest hospital in northern Thailand, was built in 1939 in order to expand the service of the Chiang Mai municipality Hospital to the public. Known locally as Suan Dok Hospital, it was officially named Nakorn Chiang Mai Hospital in 1941 and became the teaching hospital for the Faculty of Medicine in 1959. Thereafter, both expansion and development of hospital services had been developed continuously. The name was changed to Maharaj Nakorn Chiang Mai Hospital in 1983 by Royal permission. The hospital consists of 12 sections: Blood Bank, Central Laboratory, Central Supply, Dental Service, Hospital Secretariat, Housekeeping, Medical Records and Hospital Statistics, Medical Social Service, Nursing Service, Nutrition and Dietary Service, Pharmacy and Public Relations Section. The hospital contains 1,800 beds which serve approximately 414,362 out-patients and 49,200 in-patients each year. The services provided to patients included either general and specialty care.

CCU and Sub CCU are the special care wards in the Medical Nursing Service Section, Nursing Service Division, Maharaj Nakorn Chiang Mai Hospital, which is under the Faculty of Medicine, Chiang Mai University Thailand. Both wards provide intensive care for cardiovascular patients and work collaboratively with the Northern Cardiac Center especially with the Cardiac Catheterization Lab Unit and Non- invasive cardiovascular unit. CCU and Sub CCU locate on the 8th floor of Sripat Building which is designed for caring and investigating the cardiovascular patient with more complex condition.

Service provided by the hospital is as tertiary care setting and as teaching hospital for all health care students. The development of health care service of this setting, like other settings, is considered as the integral part of hospital leaded by hospital managers. In this hospital health care disciplines work together as a partnership for client service within organization.

The Nursing Service Section is a part of the hospital, taking responsibility according to the mission of the university such as teaching, doing research, and providing patient care, which has earned national and international recognition. The mission of the Nursing Service Section is to provide quality nursing service as well as education. The Nursing Service Section represents the discipline of nursing within this academic community, conducting research and nursing practice and health care delivery, advance intra and interdisciplinary education, practicing and researching with departments and individuals, providing continuing nursing education opportunities in order to improve the quality of nursing practice. Besides, nursing services include participating in health care

services that are responsive to the needs of the public and the general health and well being of the communities, and involving in the development of public policies that affect both the design and delivery of health care.

In Thailand, over the past few years the health care reform has been considered as a result of rapid change in socioeconomic development and national political revolution. Public awareness of patients' rights, also is the main focus of the health care reformed. Many quality-improved strategies were also developed and implemented resulting in changes of health care services. Nevertheless, the consequence of such change was in a short term period. Therefore, major change in health care provider roles and health care system were necessitated so as to achieve the sustainable improvement in the patient care delivery process. Health care providers, hence, have to develop appropriate strategies to meet the quality of care.

Since 1997, Thailand 's Health care Organization has prepared for developing the Hospital Quality Improvement and Accreditation Project which is the most acceptable strategy for improving quality of care. Maharaj Nakorn Chiang Mai Hospital also had to change its policies and protocols for practice in order to develop and improve the quality of their practice. Policies and strategic plans necessary for quality of care have then been developed. Within a rapid change of health care context, discharge planning was considered to be an appropriate strategy for promoting quality of patient care. As a unit of Maharaj Nakorn Chaing Mai Hospital, CCU also has to improve its services. The quality care is accepted to be the goal of nursing practice. Generally, nursing process is needed as a tool for daily nursing practice and care for patient in CCU.

Nurses use their knowledge and experience to provide nursing care for the patients. However, when hospital accreditation is accepted as the strategy for improving quality of services, the nursing care activity is systemized. Most protocols and practice guidelines have been developing. Among those protocol, discharge planning is identified as a necessary patient care activity which nurses should perform in every individual patient. CCU patient is not the exception.
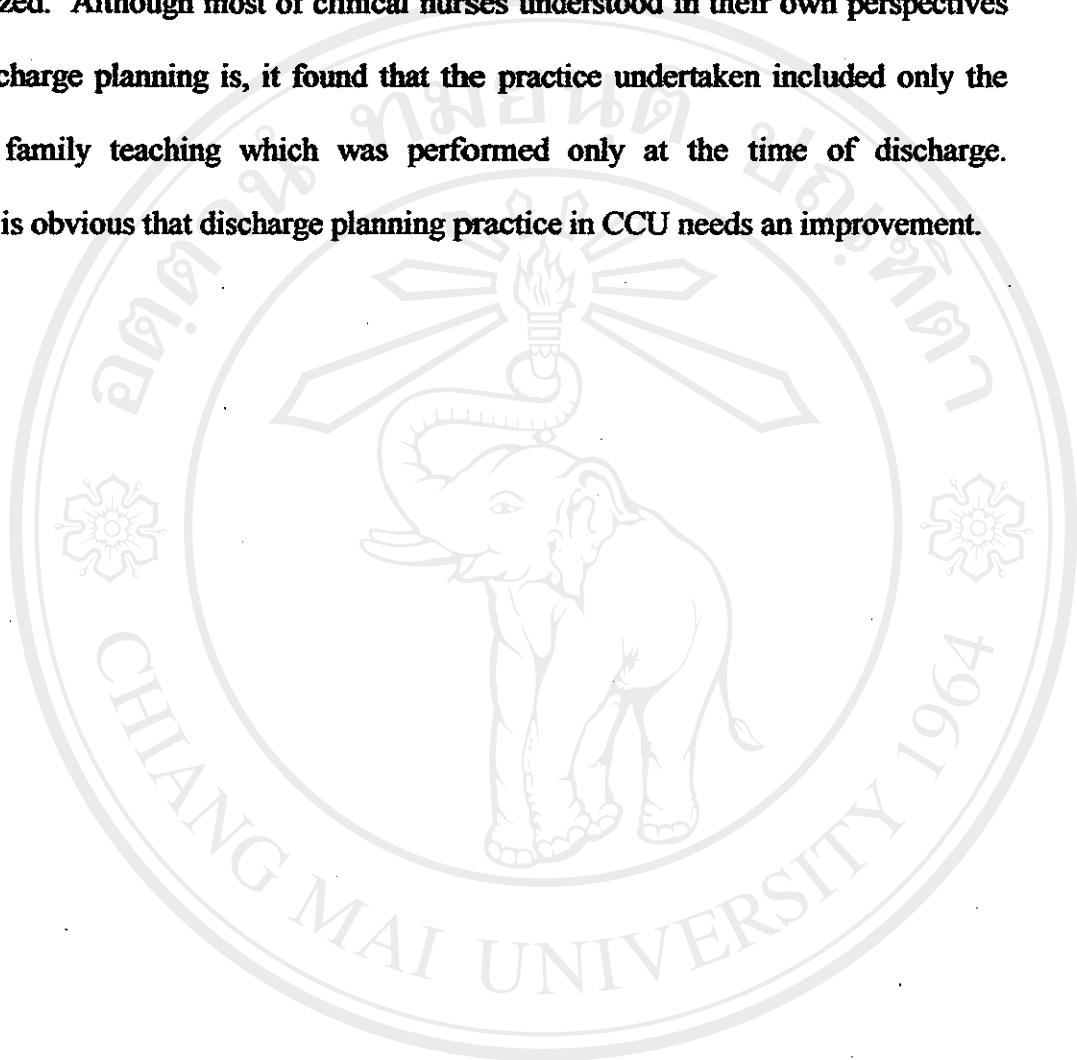
The nature of CCU clinical practice

Generally, nurses working in CCU are well accepted as one of the experienced critical care practitioners in the hospital. CCU nurses uses primary nursing as the method of care for patient. A nurse is responsible for 2-3 patients since admission until discharge or transfer to other wards. Each nurse will develop patient care plan, share the plan with the team, implement the plan, evaluate the plan, and revise the plan.

Currently, while the hospital is directed to quality improvement policy, nurses take a major part. Nurses have to involve in all quality assurance activities. Many roles emerged, for instance, quality assurance committee, infectious controlled committee, nurse educator, and so on. It is worth to note that while patient care is routinely provided, other care quality related functions still needed to be performed.

Various guidelines for critical care procedure which have been developed, included patient educational program for each group of cardiac patient, and care of patient undergoing specific procedures. Although various care guidelines have been

proposed, it had less function practically. In addition, discharge planning was found to be underutilized. Although most of clinical nurses understood in their own perspectives what the discharge planning is, it found that the practice undertaken included only the patient and family teaching which was performed only at the time of discharge. Therefore, it is obvious that discharge planning practice in CCU needs an improvement.