CHAPTER 1

INTRODUCTION

Background and significance of the study

The Coronary Care Unit (CCU), one of the critical care stations, is the unit designed for patients with life-threatening cardiovascular diseases who need intensive care from a cardiovascular health care team. Care provided for patients in this setting are closed observation and monitoring of the cardiovascular functions or hemodynamics. Patients who are admitted to CCU include patients with coronary heart disease (CHD), heart failure, hypertensive crisis, and severe conditions of unstable vital signs who need invasive diagnostic investigation and treatment. Among all conditions requiring intensive care in CCU, CHD is a major one.

CHD is the leading cause of mortality for adults in various countries including Thailand. Care for this group of clients emphasizes both reducing risk factors with several strategies and developing high technologic management. Much attention to care has been given to closed observation; and critical care investigation it was shown that CCU can decrease mortality rates and complication of CAD (Urden, Stacy, & Lough, 2002).

Besides CHD patients, those with congestive heart failure and hypertensive crisis also require acute intensive and continuing care. The severe problems of these groups are hemodynamic changes from decreased cardiac output, leading to hypoperfusion of the body tissues. The decrease of cardiac output is severe enough to

cause permanent end organs damage. The myocardium, kidneys, and brain are at particular risk as the hemodynamic changes from hypertensive crisis, while all organ systems are affected by inadequate cardiac output resulting from congestive heart failure (Burke, 1994; Schigoda, 1994). Therefore, these patients need admission to CCU for hemodynamic monitoring.

As in many other countries, Thailand has reported cardiovascular disease as the major leading cause of death among its population during last decade. Cardiovascular disease remains one of the top five causes of death among Thai people. It was the third leading cause in 2001(Health Information Division, Bureau of Health Policy and Planning, Ministry of Public Health, 2001). At Maharaj Nakorn Chiang Mai Hospital, Chiang Mai, cardiovascular disease was found to be the leading cause of death among hospitalized patients from 1997-2000 (Medical Record and Hospital Statistics Section, Maharaj Nakorn Chiang Mai Hospital, 2000).

Basically, the medical regimens in CCU include closed hemodynamic monitoring, counterpulsation with an intra-aortic balloon pump which is used to treat decreased cardiac output, and pharmacologic management which includes the use of agents to prevent and control symptoms. Pharmacologic management seems to be effective only when treatment is implemented early and the drug doses are carefully adjusted.

Non-pharmacologic management incorporates modification of risk factors. Lifestyle changes, control of hypertension, hyperlipidemia, obesity and diabetes, and elimination of the use of cigarettes, proper physical exercise have been advocated for selected patients with ischemic heart disease to decrease the complication of CHD (Woods, Sivarajan, Froelicher, Helpenny, & Motzer, 1995). A rehabilitation program

is also an effective management for cardiovascular patients in which exercise will be started as early as possible (Reigel, 1996). Information as well as psychological support will be given throughout rehabilitation program. Most patients are specifically fear of early death and the impact of serious illness on their finances, family role, lifestyle, and sexuality, (Miller, 1988). Facilitate coping with stress from admission to CCU, many interventions are required such as building trust, enhancing self esteem, answering questions, giving information, and teaching patients and families (Reigel, 1996).

Currently, patients were discharged from hospital earlier than before. Most of the patients were discharged in 5 to 7 days (Riegel, 1996). According to the evidence of an increasing in number of hospitalized patients, high cost of intensive care, and the trend of critical care nowadays is a shift from discharge to transition (AHA, 1995). These trends of care allow the patients to be discharged from the CCU as soon as possible. Patients may be discharged from the CCU while they are too sick and require continuing care and, thus, the patients' condition may be too complex for next level of care or families to manage it (George & Gwyther, 1996). The patients therefore, will be adversely affected from an early discharge from the CCU. However, high readmission rates, high costs, and diminished quality of life were reported as the consequences from early discharge (Denis, Blue, Stahl, Benge, & Shaw, 1996; Kee & Borcher, 1998; Proctor, Morrow-Howell, Albaz, & Weir, 1992).

Other consequences of early discharge, especially among patients with heart disease are limited ADL capabilities, inadequate information for care of themselves, less patient and family's satisfaction (Haack, 1997; Morrium, 1997), and psychological distress and dependence (Burgess, Learner, Agostine, Voconas,

Hartman, & Gaccione, 1987). Moreover, early discharge from CCU can cause stress, anxiety and uncertainty regarding to the next levels of care (Rawl, Easton, Kwiatkowski, Zemen, & Burczyk, 1998; Woods, Sivarajan Froelicher, Helpenny, & Motzer, 1995).

As the existing changes in the health care environment cause care providers to create innovative solutions to complex health care settings, the changes have forced hospital administrators and clinicians to reconsider the continuum of care. Discharge is the end point of that continuum of care for hospitalized patient. This care process is always an issue of concern for nurses. The health care providers' ability, which is instrumental in effective discharge of patient, is becoming more urgent and complex (Anthony & Hudson-Barr, 1998). Even though chronic disease has become replaced the acute diseases, advances in medical technology in both short-term and chronic diseases have resulted in shorter length of hospital stay and shifts to outpatient services. Consumers often feel that they are discharged 'quicker and sicker', and informal care providers must cope with the time pressures of providing more complex care to patients. Within this environment, discharge planning and continuing care have become the increasingly important services that bridge the gap between acute inpatient services and the less acute ones in order to provide community services that the patients need in post discharge (Shine, 1993; Zarle, 1989).

Discharge planning is defined as the interactive process of comprehensive patient care, using an interdisciplinary collaborative approach, with the goals of helping patients through the transition from one level of care to another, providing patient care needed, and insuring continuation of health care (Rorden & Taft, 1990). It is considered as a sound management practice or an organizational management

tool (Zarle, 1989). Moreover, it is well accepted among health care professionals that good discharge planning reflects the quality of care and leads to continuation of care. All patients have the right to discharge planning and it is also their responsibility to participate in discharge planning (Burke, 1998; Hansen, Bull, & Gross, 1998; Rorden & Taft, 1990).

An overview of discharge planning revealed that it has been widely researched over past two decades among various countries such as Australia, Europian countries and the United States (Amitage, 1991; Closs & Tieney, 1993; Taraborelli, Wood, Bloor, Pithouse, & Parry, 1998). Most of those revealed discharge planning was one of the strategies to provide continuing care and suggested developing in health care organization. It was found that nurse was considered the key person to assess patient needs and to help patients and families plan appropriately for transition in care (Rorden & Taft, 1990). This type of care process caused a decrease in the length of hospital stay by the average 0.8 days for various types of medical patients (Marchelt & Holloman, 1986). It also resulted in reduced costs and increased the patients' and families' satisfaction with the care, reduced heath care problems, and increased concern about their health care status (Summerton, 1998) and improved quality of life (Rich, Beckham, Wittenberg, Leven, Freedland, & Carney, 1995). However, many issues regarding discharge planning were raised. Issues ranged from the assessment of patients' needs and implementation of discharge planning to the outcomes of effective and ineffective discharge planning (Tierney, et al., 1994). Numerous studies described method of discharge planning, identifying advantages of early discharge, risk factors to assess, problems encountered in discharge planning, and difficulty patients experience following discharge (Anthony & Hudson-Barr, 1998; Bull, 1994;

Lowenstien & Hoff, 1994; Rorden & Taft, 1990; Water, 1987). However, standards and criteria for discharge planning that reflect both the patients' and professionals' perspectives are nonexistent and most studies showed that health professionals did not practice discharge planning correctly.

While health care in Thailand is encountering pressure to contain costs and follow reimbursement regulations, the attempt to minimize cost and maximize profits by transferring patients from the hospital or each care setting as soon as medically possible is challenging. Several strategies of discharge planning practice had been studied and used to develop and implement this practice. In the past, Thailand's health care system adhered to the concept of self-reliance and use of local wisdom or folk care in local communities (Ministry of Public Health, 1997). Recently, new technologies were introduced to increase the quality of health care services. Moreover, because of the increase of the population, the new technology has been an expansion of health care facilities including governmental hospitals, private hospitals, health centers, and other health care environments throughout different regions in the country (Boontong, 1990). It is expected that the new health care system would enhance both the standard and quality of care for consumers.

The need of good quality health care can be found throughout the current Thai health system. The major problems are those related to service standard and the lack of health service delivery which stem mostly from a lack of legal imperative to strengthen policy and implement it, including a quality assurance system and service accreditation (Ministry of Public Health, 1997). There are no regulations or codes of conduct that require any health professional to conduct discharge planning in the present system, which results in unsystematic and ineffective coordination among

health personnel. Health care providers have recognized these issues and tried to pursue strategies that could improve the standards of the health delivery in the country. Strategies to increase collaboration among staffs and facilities as well as promoting self care and involvement of patients and families have been considered (Health Development Plan Committee, 1996). These strategies point to the need of a discharge planning procedure. Obviously, nurses could contribute to the achievement of this plan through their nursing practices. Cooperation and efforts of their health personnel, as well as those of individuals, families, and communities, which are essential in order to make the goal of this plan attainable, can be facilitated by the nurse.

Several studies suggested that clinical practitioners should develop and implement discharge planning in various health care environments (Anderson & Helms, 1998; Reed & Morgan, 1999; Reiley, Iezzoni, Phillips, Davis, Tuchin, & Calkins, 1996). Discharge planning had been successfully used in health care settings in many countries. In Thailand, it has been regularly used only in some settings such as some hospitals under the Ministry of Public Health, especially regional hospitals. However, the outcomes of this practice have not been reported.

Basically this process should begin as early as possible when the patient is in admission. According to Arenth and Mamon, (1985) and Rorden and Taft, (1989), it is reported that effective communication, client participation, and a multidisciplinary team are contributing factors that can either promote or inhibit effective discharge planning process. Collaboration among health care disciplines, effective communication, patients and families participation and commitment, sharing of power

and empowering participants and team are necessary for implementing discharge planning.

Few studies investigated the practice with discharge planning strategies. Evidence from other countries showed that discharge planning has been put into practice among various groups of clients and in different care settings (Rorden & Taft, 1990; McNamara & Sullivan, 1995; Reed & Morgan, 1999; Summerton, 1998; Waters, 1987). Most of the authors are convinced that discharge planning guides are necessary to smooth the transition between care settings and it is necessary for continuing care for patients and families.

While discharge planning has been widely conducted among nurses and health care professionals in various countries, in Thailand, few studies reported this practice and little is known about the discharge planning function within the health care profession. Janepanich (1997) conducted a pilot study to develop a discharge planning program for the hospitalized elderly patients, however, the project has generated limited information on the topic. Among Thai nurses, it was revealed that the discharge process was conducted informally. Several factors affect the effectiveness of nurses' discharge planning practice (Pichitpornchai, Street, & Boontong, 1999). Moreover, most studies in Thailand revealed that professional nurses had not yet carried out discharge planning comprehensively. Also it was reported that hospital activities, particularly policy making, communication, and participation among the health care team were important for promoting a more comprehensive practice of discharge planning (Nualsuth, 1999).

Although discharge planning is well recognized as an important nursing activity, the complexity of everyday nursing activities often interferes with its utilization. Many factors found to be barriers to consistent utilization of discharge planning include the complexity of care in each setting, inability to coordinate necessary resources effectively, lack of skill in practice, lack of knowledge, and ineffective patient recording (Anthony & Hudson-Barr, 1998; Lowenstien & Hoff, 1994; Waters, 1987). These problems reflected lack of the service standards and inefficiency of health care delivery and mostly due to lack of a legal imperative to strengthen policy into action. In addition, there are no regulations of conduct that enforce any health care professional to conduct discharge planning in the real practice. Thus, these constraints result in less participation in nursing practice.

At Maharaj Nakorn Chiang Mai Hospital, the University Hospital, cardiovascular patients who require intensive care will be admitted to CCU and sub CCU since they need intensive care and closed monitoring of heart function. The patient will be admitted to CCU first and may be transferred to sub CCU when their condition is stable. Similarly, sub CCU will admit patients being transferred from CCU or patients with less severe conditions or patients requiring closed observation after some invasive investigations and tests. Like other medical wards, both settings aim to provide care with a high standard based on patients' needs and rights while considering cost containment. Even though as mentioned earlier, discharge planning is well accepted as a standardized practice which can assure quality of care, it is found to be underdeveloped and underutilized in the CCU and sub CCU of Maharaj Nakorn Chiang Mai Hospital. From observation, the researcher found that discharge planning was not explicitly performed. No protocol exists. On interviewing CCU nurses, the

researcher found that factors contributing to the underutilization of discharge planning in CCU were the complexity of the medical regimen in CCU, less mutual understanding of this concept among practitioners, ineffective use of necessary resources, less mutually agreed upon decisions, and tight nursing work schedules. Even though a written standard for practice of discharge planning has been developed by CCU nurses, it has not been put into action. CCU nurses mentioned that they need tools or guidelines for practice to facilitate their practice (Boonchuang, Pothiban, & Panya, 1999). Moreover, there were no existing practice guidelines, such as a critical pathway to provide process of care for each type of CCU patients available.

Maharaj Nakorn Chiang Mai Hospital has their own traditional development and forms their own cultural practice. While the hospital needed to improve quality care, the nurses were expected to employ the quality practice strategy. Many practice guidelines were mostly developed by the Nursing Section, then sent to the wards. The nurses were familiar with this top-down kind of practice without any participation in decision making. They usually do day to day practice without sharing their own creative idea or concern, even though they have been well prepared academically. This situation reveals the need for empowerment among nurses.

According to the critical social theory worldview, problem regarding to discharge planning practicing is the problem related to practicing knowledge that considered as a power and a production of knowledge as socially and historically determined (Tierney, 1991). Derived from this view is an epistemology that upholds pluralism or in which coming to know about phenomena occurs in multiple ways. Furthermore, knowing from this view is dynamic, changing, and influenced by the sociopolitical context of the times.

To be consistent with critical social theory, nurses must not only attempt to predict and control, but also to understand, examine, illuminate and facilitate power for a person to cooperate with the health care system. Nurses must create and discover knowledge for the improvement of human conditions. Critical inquiry can enable one to look not only for answers but also for searching for communication that can make constraints to solving problems transparent. The theory, therefore, emphasizes empowering people to solve their own problem.

In addition, the suggestion from critical social theory that should be included here is that discharge planning should be done within a culturally component framework and in a communication style consistent with the consumers' values. The plan should allow for transfer to less restrictive levels of care as well as to termination of treatment based on accomplishment of mutually agreed terms of the treatment contract.

According to the study of the situation related to discharge planning in CCU (Boonchuang, Pothiban, & Panya, 1999), there were several factors needed for making discharge planning practice possible in this setting. These factors are the written standard guidelines for practice, documentation of the discharge process, communication among health care providers and consumers, and interdisciplinary collaboration during implementation of the plan. Implementing the discharge planning specifically regarding a particular health care setting is also essential.

Since the situation regarding discharge planning in CCU and sub CCU is too ambiguous to frame a precise research question and other circumstances require flexibility and involvement of the local people and developing and implementing the

discharge planning in CCU and sub CCU, action research is considered a more appropriate research methodology for this study and will be used to guide the study.

In this study, the researcher has been a clinical instructor in Faculty of Nursing Chiang Mai University teaching clinical practice for nursing students and working collaboratively in knowledge development with clinical nurse practitioners for quite some time. Thus, it is highly possible for the researcher to work with the clinical practitioners in developing discharge planning for CCU. The contribution of the researcher in discharge planning development in the unit is the introduction and promotion of a method of implementing this care process. Meanwhile, as an outsider, the researcher tried to be very sensitive to her position as a staff developer and her authority in the clinical practice.

In an action researcher role, the researcher was responsible for empowering clinical practitioners to develop skills that this organization required for practice and had a mandate for assisting with the development of the quality practicing skills which the organization now required. Hence, the researcher used participatory action research as a method of assisting clinical practitioners and through the institution and the clients in our changing environment.

Research objectives

The objectives of this study were as follow:

1. To develop a discharge planning protocol for use in the coronary care unit, Maharaj Nakorn Chiang Mai Hospital.
2. To investigate the process and outcomes of discharge planning used in the coronary care unit.

Research questions

The research question of this study was ' How can the research team develop discharge planning which is suitable for the coronary care unit ?' and the specific questions included:

1. What was the suitable discharge planning protocol for the coronary care unit?
2. How did the discharge planning process in the coronary care unit change and what are the outcomes?

Definition of terms

Discharge planning refers to the interactive dynamic process of comprehensive patient care, using an interdisciplinary collaborative approach, whose goals are helping patients through transition from one level of care to another, providing patient care needs and insuring a continuation of the quality of care. The steps of the discharge planning are assessment, planning, implementation and evaluation.

Outcomes refer to products derived from discharge planning implementation including patients' and families' satisfaction, and the process change in discharge planning practice.

Coronary Care Unit refers to a selected care unit at Maharaj Nakorn Chiang Mai Hospital including sub CCU where cardiac patients who need intensive care and close observation, monitoring of heart function and special treatments/procedures are admitted.

Significance of the study

The results of this study provided usefulness in various aspects, practice, research and education as it aimed to develop a practice theory in the context specific of Coronary Care Unit.

This practice strategy allowed health care profession to consider each health care setting in order to develop and implement the practice knowledge. During discharge planning development, the practitioner gained more understanding of both the concept of discharge planning and the strategies of implementing it in real situations.

In addition, the outcomes of this study used the research method in practitioners' owns setting. Since it provided a strategy to bridge the gap between theory and practice, it guided to nursing service to improve both the quality of care and efficiency of service to Coronary Care Unit, Maharaj Nakorn Chiang Mai Hospital.