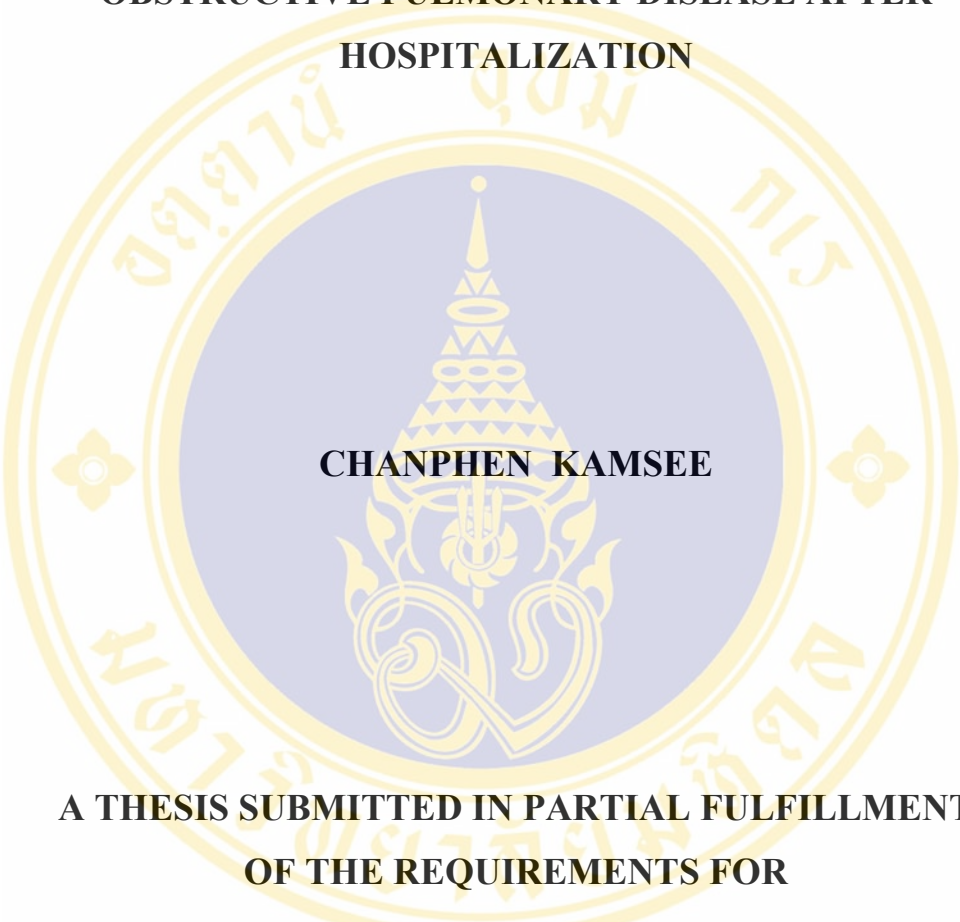


**EFFECTS OF SUPPORTIVE EDUCATIVE PROGRAM ON
SELF-CARE PRACTICE OF PATIENTS WITH CHRONIC
OBSTRUCTIVE PULMONARY DISEASE AFTER
HOSPITALIZATION**

The seal of Mahidol University is a large, circular emblem. It features a central blue circle containing a golden stupa-like structure. This central circle is surrounded by a wider yellow ring. The outermost part of the seal is a white ring containing Thai script. The author's name, CHANPHEN KAMSEE, is printed in black capital letters across the center of the seal.

CHANPHEN KAMSEE

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF NURSING SCIENCE
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EFFECTS OF SUPPORTIVE EDUCATIVE PROGRAM ON SELF-CARE PRACTICE OF PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE AFTER HOSPITALIZATION

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ABSTRACT

This research was a quasi experimental, one-group, before and after study. It aimed at evaluating the effects of the supportive educative program on self-care practice of patients with COPD. The participants were 22 males and 8 females, with ages ranging from 50 to 75 years, who had been admitted into the In-Patient Department of Long Hospital, Phrae Province. The instruments used in the study consisted of demographic and illness questionnaire, the self-care assessment form, the problem record form, the handbook for patients with COPD, and the telephone call record form. The program was given to all participants in the first day of hospitalization and continued at their home after 2 weeks of discharge. For statistical analysis, descriptive statistics and T-test were used.

The study found that after patients had obtained the supportive educative program, the mean score of self-care practice was significantly higher than before attending the program ($p < .05$). Eighty-seven percent of patients used resource by telephone calls for clarification and self-care management after hospitalization. Most of calls were done after office hours and weekend/ holiday in the first week post discharged.

The evidence from the study revealed that the supportive educative program had effects on improvement of self-care practice of patients and facilitated them in self-care management after they had been discharged and while at home. Further studies were recommended to foster this kind of the program and be conducted with other chronically ill patients.

KEY WORDS: PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE/ SUPPORTIVE EDUCATIVE PROGRAM/ SELF-CARE PRACTICE

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ผลการใช้โปรแกรมสนับสนุนและให้ความรู้ต่อการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง
หลังเข้ารับการรักษานในโรงพยาบาล (EFFECTS OF SUPPORTIVE EDUCATIVE PROGRAM
ON SELF-CARE PRACTICE OF PATIENTS WITH CHRONIC OBSTRUCTIVE
PULMONARY DISEASE AFTER HOSPITALIZATION)

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บทคัดย่อ

การศึกษานี้เป็นการวิจัยกึ่งทดลอง ผู้ป่วยกลุ่มเดียว วัดผลก่อนและหลังการทดลอง มีวัตถุประสงค์เพื่อ ศึกษาผลการใช้โปรแกรมสนับสนุนและให้ความรู้ต่อการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง กลุ่มตัวอย่างที่เข้าร่วมในการศึกษาเป็นชาย 22 คน หญิง 8 คน มีอายุ 50 ถึง 75 ปี เป็นผู้ป่วยที่เข้ารับการรักษานในแผนกผู้ป่วยใน โรงพยาบาลทอง จังหวัดแพร่ เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบสัมภาษณ์ข้อมูลประชากรและการเจ็บป่วยของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง แบบประเมินการดูแลตนเอง แบบบันทึกปัญหาการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง กำหนดการดูแลตนเองที่บ้านสำหรับผู้ป่วยโรคปอดอุดกั้นเรื้อรังและแบบบันทึกการติดต่อขอความช่วยเหลือทางโทรศัพท์ ผู้ป่วยได้รับโปรแกรมสนับสนุนและให้ความรู้ ตั้งแต่วันแรกที่เข้ารับการรักษานในโรงพยาบาล ต่อเนื่องจนกระทั่งจำหน่ายไปอยู่ที่บ้าน 2 สัปดาห์ นำข้อมูลมาวิเคราะห์ด้วยการหาค่าเฉลี่ยร้อยละและสถิติ T-Test

ผลการศึกษาพบว่า ผู้ป่วยหลังได้รับโปรแกรมสนับสนุนและให้ความรู้ มีระดับคะแนนการปฏิบัติตัวในการดูแลตนเองสูงกว่าก่อนการทดลอง อย่างมีนัยสำคัญทางสถิติที่ระดับ $P < .05$ ผู้ป่วยร้อยละ 87 มีการใช้โทรศัพท์ติดต่อสอบถาม ปรีกษา ส่วนใหญ่ใช้โทรศัพท์ติดต่อช่วงนอกเวลาราชการและวันหยุด ในสัปดาห์แรกหลังการจำหน่ายออกจากโรงพยาบาล

ผลการศึกษาครั้งนี้บ่งชี้ว่า โปรแกรมสนับสนุนและให้ความรู้ มีผลทำให้การดูแลตนเองของผู้ป่วยดีขึ้น และช่วยส่งเสริมให้ผู้ผู้ป่วยสามารถจัดการดูแลตนเอง หลังจำหน่ายออกจากโรงพยาบาลและขณะอยู่ที่ บ้านได้ อย่างมีประสิทธิภาพ ข้อเสนอแนะผลจากการวิจัยครั้งนี้ คือ พยาบาลควรมีการพัฒนาโปรแกรมสนับสนุนและให้ความรู้ต่อการดูแลตนเองของผู้ป่วยอย่างต่อเนื่องและควรนำไปศึกษากับผู้ป่วยโรคเรื้อรังประเภทอื่นๆ ด้วย

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CHAPTER 1

INTRODUCTION

Background and Significance

Nowadays, the leading causes of health problems in Thailand have been shifting from infectious diseases and acute illnesses to chronic illnesses. Chronic obstructive pulmonary disease (COPD) has been considered as a major health problem of chronic illnesses. In Thailand, it is the fifth leading cause of death (Ministry of Public Health, 2002). In every 100,000 people, the death rate is 33.5 people in which 44.1% are men and 22.99 % are women (Chouprapawan, 2000).

COPD affected the patients to have a chronic cough, shortness of breath, exercise tolerance, evidence of airway obstruction, overinflate lungs, and impaired gas exchange. It is also affected them in psychological, and economical aspects (Burns, 1983). Due to the features and effects of COPD, caring for the patients with COPD both in the hospital and at home has become a major concern for health care provider. The evidence from previous study reveals that the patients with COPD frequently developed illness symptoms which required hospital visit 1.6 time/year, and hospital admission 1 time/year (Chouprapawan, 2000). The cost of care was also relatively high. The study of Pongpan (1999) found that the total cost of health services for the patients with COPD was 26,000 millions bath/year.

“Long Hospital”, a 60-beds, community hospital in Phrae Province, also has problems in caring the chronically ill patients, especially the patients with COPD. The data of In-Patients Department in the year 1999 to 2001 indicated that COPD is the top five causes of morbidity rate. The average cost of care per patient were 15,800, 17,220, and 18,867 bath, respectively. It was higher than the others and was increasing in every year. In addition, length of stay is longer than the others (Medical Record Statistic Office, Long Hospital, 1999, 2000, 2001).

The data of services for the patients with COPD who visited the Emergency Room of Long Hospital in the year 2001 reported that 90 per cent of them need for

assistance to manage their illness. They had questions on self-care practice, physical activity restrictions, exercise, rest, preventing recurrence, medications, and follow up appointment. Furthermore, it found that 10 per cent of them returned to the hospital before 4-weeks follow up appointment (Emergency Room, Long Hospital, 2001), 3 per cent of them readmitted for which they mismanage their illness at home (In-Patient Department, Long Hospital, 2001). It was in agreement with a recent literature in Thailand indicates that a lot of patients with COPD present the lowest of self-care practice and the majority of them did not have the courage to ask physicians or nurses about self-care activities when they had questions. In addition, they could not remember all of suggestions about self-care in a short period of time (Kaslangka, 2000).

Due to the aforementioned problems, patients with COPD had difficulties in self-care. Moreover health care reform and health care policies regarding to 30 bath policy that has an emphasis on containing health care costs, patients may be discharged too early from the hospital. It is necessary for the health care provider to provide active care and comprehensive care. At the same time the patients should be received continuing care and stay at home as long as they can. Thus, the health care provider must improve strategies of care which are suitable for those problems and policies.

The review of literature concerning care for patients with COPD indicates that providing knowledge and supporting the patients' self-care are very important and suitable for the chronically ill patients (Burns, 1983). One of method which includes combination of both providing knowledge and supporting is supportive educative program (Orem, 1995). In Thailand, many studies used supportive educative program for patients because it improves their knowledge and self-care practice (Supee, 1983; Vithayachockitkhun, 1993; Oupaichit, 1994; Chirakool, 1996; Pongsing, 1997; Silprasert, 1998; rawivorakul, 1999; Prasongtunskul, 2000).

Also, "Long Hospital" has to improve strategies in providing care suitable for the limited resources and budget, especially providing care for the chronically ill patients. The researcher with in the definitive status of a community health nurse who works in "Long Hospital", has an attention to study effects of supportive educative program on self-care practice of patients with COPD after hospitalization. Such

provision would assist the patients to be responsible for their health care and increase their capabilities in management their illness at home. The findings would be useful as a guide for further formulation of providing care for the patients with COPD and improvement appropriate strategies for caring both in the hospital and at home.

Conceptual framework

The conceptual framework of this study was based on human's functioning and relationships to environmental factors and conditions. In the health balance status, human beings maintain the dynamic relationships between needs, stressors, strengths and resources (Rorden & Taft, 1990). Needs and stressors are balanced by strengths and resources (Figure 1.) When health was deviated from wellness to illness each element had been changed. The health deviation contributes to increased needs and stressors. The patients need assistance in activities of daily living and management their illness. Therefore, to restore health the patients must develop capabilities in caring themselves for improvement strengths and resources in dealing with their illness.

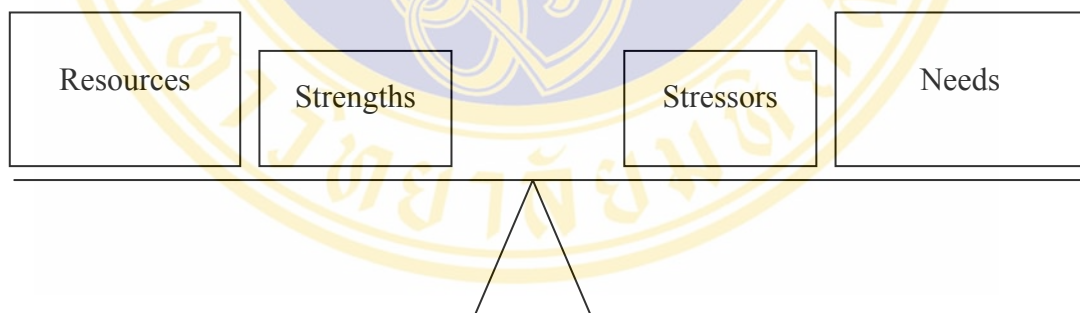


Figure 1. The health balance (Rorden & Taft, 1990)

To enhance capabilities of patients in caring themselves, it is important method of assistance from nurse. Providing knowledge and resource support for the patients in management their illness are the methods that enhance the patients' capabilities (Bostrom, et al., 1994) and extremely important in the continuity of care from the hospital to home (Boyd, 1987). In that way, if the nurse prepares the patients for staying at home by providing self-care knowledge and resource support during they are in the hospital, it should reduce needs and stressors, increase strengths and

resources of the patients in management their illness, and contributes positively to a patient's present health in balance.

Because of the health deviation, the patients need self-care knowledge for manage their illness. They need to know about their illness and health care for health maintenance such as: appropriate diet and restricted diet, rest, exercise, home's physical environment, sources of help in the community, medication's name, purpose, effect, dosage, schedule, precautions to take, side effects that should be reported, the purpose of continuing treatments, correct technique of treatment, preventing recurrence, signs and symptoms that require medical attention, when and where to keep appointments and whom to call for medical help (Loomis, et al., 1981).

The resource support for the patients in management their illness after they discharged to their home is access to health care by telephone calls. The patients can use telephone to communicate their problems to the nurse for reinforcement, clarification information or assistance in their immediate environment (Wang & Kirkham, 1970). Therefore, to provide assistance for the patients with COPD who had been discharged from the hospital but required continuing care by allowing the patients to use the telephone to communicate with the nurse is necessary because telephone call is an important sources of health information and useful support for the patients who stay at home (Bostrom, et al., 1994; Shu, et al., 1996). For some patients, they were discharged too early from hospital and lack of resources to aid in recuperation, manage their health problems that result them need for more home health care. So, resource support by using telephone calls could increase strengths and decrease stressors, and some needs for continuing care should also be fulfilled.

Based on the theoretical framework and literature review, This study designed the supportive educatie program to improve self-care practice and acess to health care. The program consists of assessment for self-care practice, problems and needs in self-care practice, support self-care knowledge in the area in need of each patient while they admitted in the hospital and support resource for manage their health problems and self-care practice while they discharged to home.

The conceptual framework for this study can be illustrated in Figure 2.

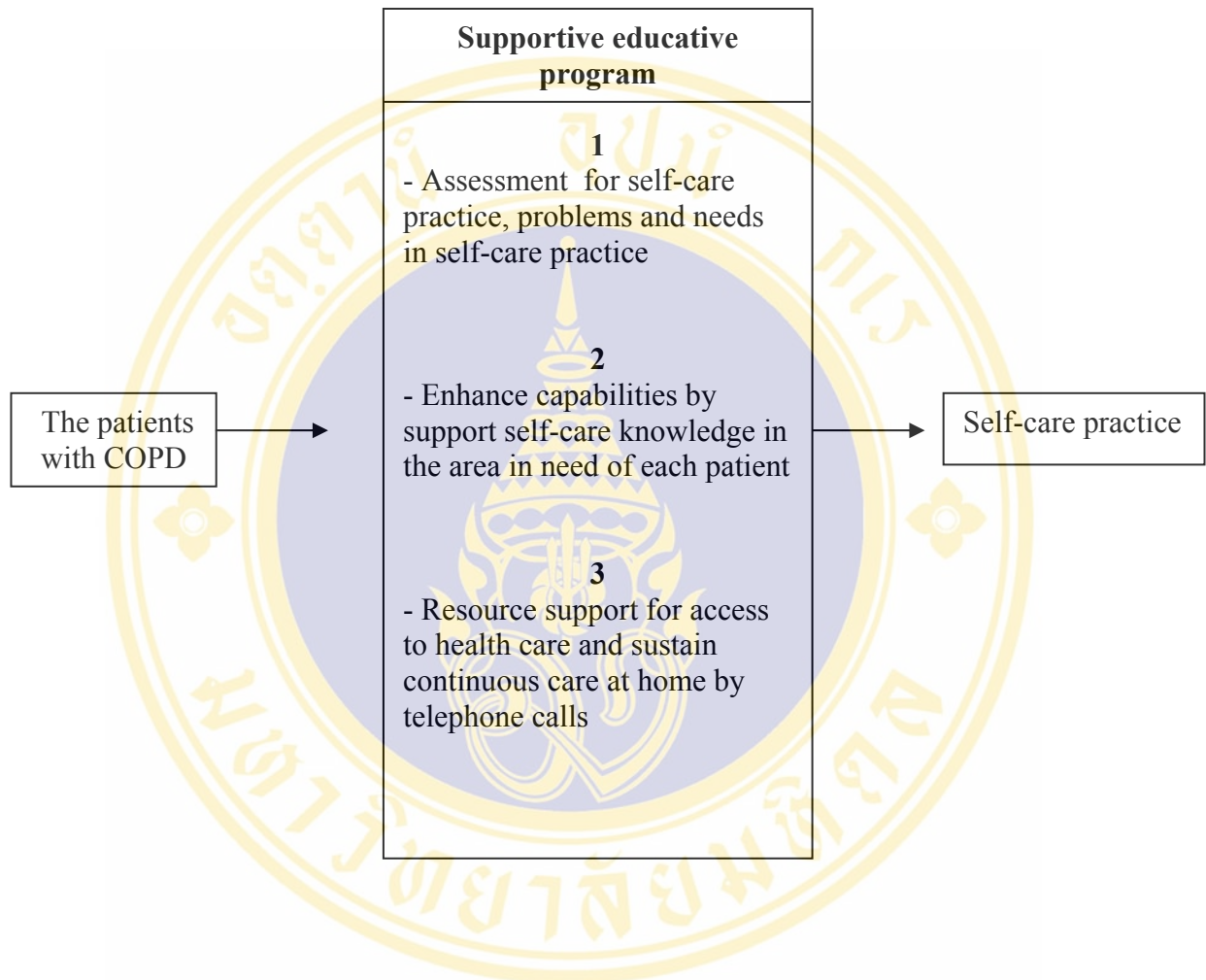


Figure 2. Conceptual framework

Research question

1. Does the supportive educative program effect on self-care practice of the patients with COPD after hospitalization?
2. Do the patients use telephone calls for manage their problems and self-care practice after hospitalization?

Purpose of the study

1. To study effects of the supportive educative program on self-care practice of the patients with COPD after hospitalization.
2. To study the use of telephone calls for manage their problems and self-care practice after hospitalization.

Research Hypothesis

1. After the provision the supportive educative program, the self-care practice of the patients with COPD would be increased.
2. When the patients with COPD had problems, they would use telephone calls for manage their problems and self-care practice.

Scope of the study

This research was a study of the effectiveness of supportive educative program on self-care practice. It was conducted with the patients with COPD who had been admitted at “Long Hospital”, Phrae Province, during November 2001- November 2002.

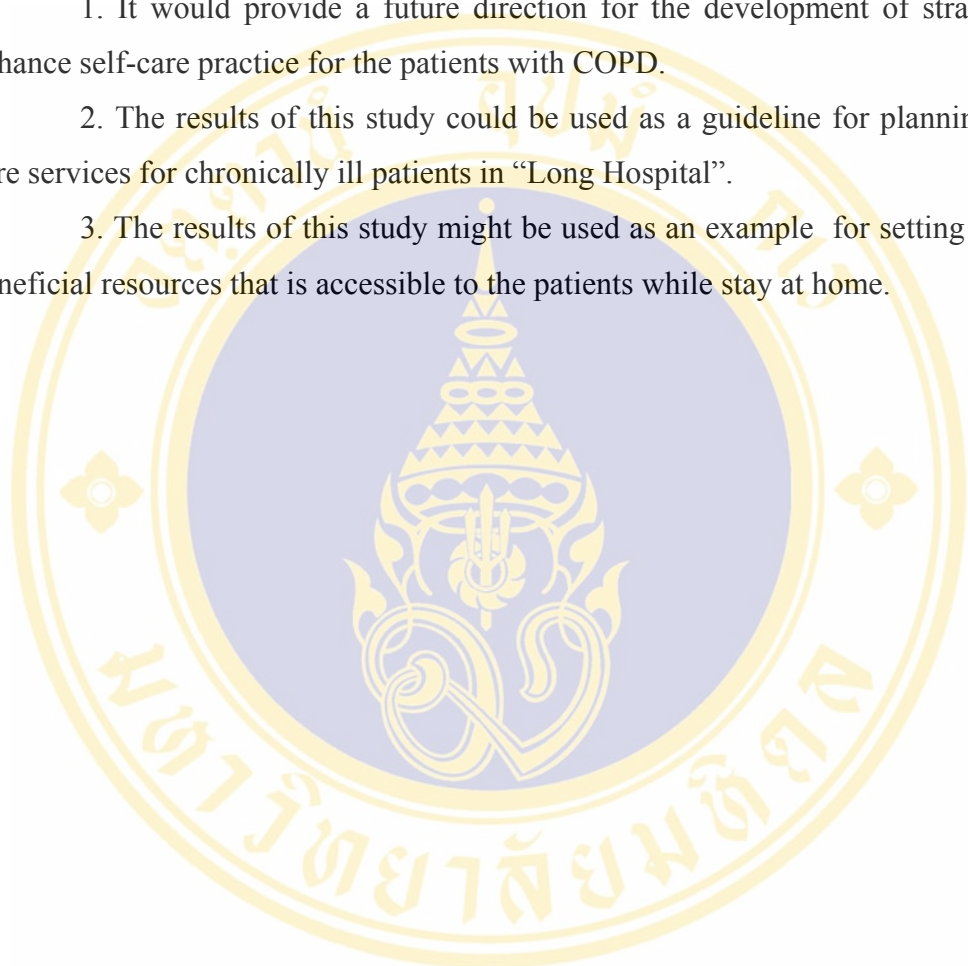
Definition of term

1. **The patients with COPD** refer to the patients who were diagnosed with COPD from the physician by history of illness and chest X-ray, and admitted in In-Patient Department of “Long Hospital”, Phrae province.
2. **Supportive educative program** refers to the intervention which use for providing for the patients both in the hospital and home setting, consist of: assessment for self-care practice, problems and needs in self-care practice, support self-care knowledge in the area in need of each patient, and resource support for the patients in management their health problems and self-care practice after they discharged to their home by telephone calls .
3. **Self-care practice** refers to the action of daily activities of each patients with COPD in the aspect of medication administration and treatment plan, interpersonal relationship and free time, prevention dangers and complications, rest

and relaxation, pulmonary rehabilitation, and dietary. They were measured by using the questionnaires developed by Supee (1983).

Expected Outcomes and Benefits

1. It would provide a future direction for the development of strategies to enhance self-care practice for the patients with COPD.
2. The results of this study could be used as a guideline for planning health care services for chronically ill patients in “Long Hospital”.
3. The results of this study might be used as an example for setting up other beneficial resources that is accessible to the patients while stay at home.



CHAPTER 2

LITERATURE REVIEW

This research aims to study effects of supportive educative program on self-care practice of patients with COPD after hospitalization.

This chapter presented a review of theory and literature describing the concept of interest in relation to the study. These were detailed in the following sequence:

1. Chronic Obstructive Pulmonary Disease (COPD)
 - 1.1 Characteristics of COPD
 - 1.2 Classification of COPD
2. Providing support for the patients with COPD
 - 2.1 Providing care for the patients with COPD of Long Hospital
 - 2.2 Assessment for providing support
 - 2.3 Supportive educative program
3. Self-care practice
 - 3.1 Concept of self-care
 - 3.2 Self-care practice of patients with COPD

1.Chronic Obstructive Pulmonary Disease (COPD)

1.1 Characteristics of COPD

Chronic obstructive pulmonary disease (COPD) is characterized by a slowly progressive obstruction of the airways due to the basic pathophysiology process in COPD consist of increased resistance of airflow, loss of elastic recoil, decreased expiratory flow rate, and over inflation of the lung. (Celli, 2000).

COPD is defined as a disease state characterized by the presence of chronic bronchitis and/or emphysema. Chronic bronchitis is characterized by airway inflammation resulting in excessive mucus production in bronchioles, it is defined as the presence of a production cough that last 3 months a year for 2 consecutive years (Smelter & Bare, 1996 : cited by Kaslungka, 2000) while emphysema is defined as an abnormal distention of the air spaces beyond the terminal bronchioles with destruction of the walls of the alveoli. There are two commonly recognized types of emphysema - centrilobular and panlobular. The centrilobular type affects the bronchioles in the central part of respiratory lobule, with initial preservation of the alveolar ducts and sacs. It is predominantly seen in male smokers. The panlobular type produces initial involvement of the peripheral alveoli and later extends to involve the more central bronchioles. It is the type of emphysema associate with α -1 antitrypsin deficiency. It is characterized physiologically by increased lung compliance, decreased diffusing capacity and increased airway resistance.

Most patients with COPD present with clinical features that suggest a combination of chronic bronchitis and emphysema. Chronic bronchitis patients usually seek medical attention when they are in their 40s. Their chief complaint is usually chronic cough productive of sputum that periodically becomes thick and purulent while emphysema patients usually go to the physician when they are in their 50s, with the chief complaint of progressive shortness of breath. They were often admitted by the little or no cough and sputum production.

It is very important to state that the symptom of COPD is very similar to the symptom of asthma, therefore, it is also important to differentiate COPD from asthma

especially the symptom of dyspnea. In case of COPD, patients usually experience chronic dyspnea which is permanent, and it will probably get worse over time. Even though the patients received various bronchodilators, they present of only small improvement in FEV1 (<15%). In contrast with acute condition, asthma which is the inflammatory reaction airway obstruction which increases the sensitivity of bronchi to stimulating substances when they have contacted to precipitating factors such as infection, weather change, car exhaust, cigarette smoke, drugs, emotional and mental changes. Asthma can be relieved completely the dispense by various bronchodilators, they have no signs or symptoms or abnormal of lung function test (Hodgkin, 1993).

1.2 Classification of COPD

Pulmonary function studies are the best way to assess for the presence of lung impairment. The simple spirogram should be considered for anyone whih signs or symptoms of respiratory disease. The forced expiratory volume in 1 second (FEV1) is often used as a predictor prognosis, knowing that the normal decline in FEV1 caused by the aging process is about 30 mL / year for persons over aged 30, and -60 to -120 m / year for patients with COPD. (Hodgkin, 1993)

American Lung Association used ability in activities to define the degrees of severity appear. The degree of physical impairment accompanying COPD varies greatly, and may be classified into 5 classes (or level) (American Lung Association, 1975 cited by Somchit Hanucharunkul, 1993). Here are the 5 levels.

Class I : Patients with recognized disease with no restriction; is able to do what peers can do; and continues usual life pattern.

Class II : Patients with minimal or moderately restricted activity; is able to do productive work; has some difficulty keeping up with peers and has begun to modify life pattern. And walking on level ground and up stair or slight bill slower than people of the same age.

Class III : Patients with markedly restricted activity; is not homebound; may not be able to do productive work but is able to care for himself; can not walk on level ground as others of same age; dispense is present while walking to one flight of stairs; and step and rest while walking up two fights of stairs.

Class IV : patients with severely restricted activity; is not able to do productive work; is essentially homebound but is able to care for himself; stop for breath after walking about 100 yard or after a few minutes on the level; and stop and rest while walking up one flight of stairs.

Class V : Patients with very severely restricted activity; is homebound or in an institution; is not able to care for himself; too breathless to leave the house; or breathless on dressing or undressing; dyspnea is present after the person walks more than 4 to 5 minutes at own pace on level ground.

American Thoracic Society (American Thoracic Society, 1991 cited by Kaslungka, 2000) staged severity of COPD on the basis of the degree of airflow obstruction. Three levels (classes) of functioning were defined:

Stage I is $FEV_1 > 50\%$ predicted

Stage II is $FEV_1 35 - 49\%$ predicted

Stage III is $FEV_1 < 35\%$ predicted

Patients with $FEV_1 > 50\%$ predicted do not usually have severe hypoxemia, and arterial blood gas measurements are not required. Patients in stage II and III should have arterial blood gas measurements breathing air, and the oxygen and carbon dioxide tensions should be stated.

COPD is a chronic incurable disease and the medications cannot reverse the pathology of airway obstruction in this disease. Nevertheless, the increase of physical efficacy and support them for manage their illness may improve quality of life despite the existence of the disease.

2. Providing support for the patients with COPD

2.1 Providing care for the patients with COPD of Long Hospital

“Long Hospital” is a 60-beds, community hospital in Phrae Province. The healthcare services were developed because of the health care policies regarding to 30 bath policy. The healthcare providers of Long Hospital learned to develop strategies providing for the patients not only those who visited the hospital, but also the patients who stayed at home. Providing care for the patients with COPD of Long Hospital are responsible of three units including Out Patient Department(O.P.D.), Emergency Room(E.R.), and In-Patient Department. The patients with COPD who had an

appointment with the physicians or had no exacerbation were rendered at the Out Patient Department. The patients who had exacerbation were sent to the Emergency Room. If they did not get better the physicians would admit them as in patients. The detail of providing care in each department was as follows:

2.1.1 Out Patient Department

The Out Patient Department(O.P.D.) is available for outpatients from 8.00 a.m. to 4.00 p.m., Monday through Friday. New patients had themselves registered at the hospital's health record room and then submitted their O.P.D.card to the nurse's screening desk, while the patients who had an appointment with the physicians drop their appointment slip at the screening desk before they had their blood pressure and weight measured. After that, the nurses asked and assessed the health problems of each patient, summarized into the history of illness, the physician examined the patients and ordered for medication and treatment. The nurse provided health education and appointed for follow up while the patients waited for receiving medicines from the pharmacist.

2.1.2 The Emergency Room

This department is responsible for the patient with COPD who could not control the exacerbation of their symptom. Owing to its 24-hour services, the patient can go to be treated and care by on-duty physician and nurses at anytime.

2.1.3 In-Patient Department

After the patients admitted into In-Patient Department of Long Hospital, the nurse provided nursing care and information about their illness. On Friday, in the morning the healthcare team that consisted of nurse, physician, pharmacist, physical therapist, and laboratory technician had a meeting and discussed about illness, medication, treatment and home care of each patient. At the hospital discharged day, before being discharged, the patient and their relatives received home health education and appointment for follow up. The patients who were referred by Primary Care Unit would be recommended to get further treatment at which is near their home. The patients whose residence is in the hospital's responsible area would be considered by the nurse to deserve occasional home visit from the hospital's home healthcare team.

Due to the aforementioned process, the patients did not have support for management their illness or health counseling while they stayed at home. Thus,

improved providing for the patients especially the chronically ill patients was the major concern of healthcare providers in Long Hospital.

2.2 Assessment for providing support

Providing for support the patients with COPD is important. The health balance model is one of strategies suitable for the patients with COPD while they were admitted in the hospital and discharged to their home. Rorden (1990) has identified the health balance model, a concept for assessment needs of patient, which using the concept of a child's seesaw. Strengths and resources balance needs and demand, just as children might balance on a seesaw. As long as there is a balance between factors (or children), there can be movement within a dynamic range; a person whose health is in balance can adjust to a range of changes and challenges. The factors that influence the health balance are:

- Needs or deficits: This factor includes basic human needs that all people share, as well as those individual and personal needs perceived by the person as deficits.
- Demands or stressors: This factor is made up of the demands placed on a person from a variety of sources and stressors in the environment.
- Strengths: A person's strengths include physical, intellectual, motor, and affective or emotional abilities. The knowledge, attitudes, and skill gained through previous experience make a major contribution to a person's present strengths.
- Resources: This factor is the external resource to which a person has access. This may include material resources, access to health care, and the emotional support of other people.

Each of the component parts of these four factors contributes positively or negatively to a person's present health balance.

2.2.1 Assessment for needs

Before providing care for the patients needs should be assessed and identified because needs are negative factors that influence health balance of each. Also, nursing theory guide that, nursing care should be based on clearly identified patient needs (Rorden & Taft, 1990) and Mouchel (1970) stated that hospital services should be

organized in terms of patient needs. According to the importance of identified patient needs, need for self-care should be explained.

2.2.1.1 Specific needs of the patients with COPD

The patients with COPD that have chronic conditions often result in functional limitations that adversely affect and individual's ability to perform one or more major life activities, such as self-care, socialization, education, transportation, employment, communication, ambulation, vocational. Clinical care needs include assistance in obtaining proper medical diagnoses and clinical treatment and supervision. (Burns, 1983).

Hay and Anderson (1963) categorized needs of patients as: knowledge about their condition and/or treatment, learning and carrying out skills associated with daily living, financial assistance, ability to contribute to society and to self-supporting, acceptance of their illness or disability and belonging to a group, medical and nursing care, suitable environmental conditions and equipment to help compensate for their disability, achievement, or attainment of personal goals, spiritual comfort, relief of fear and anxiety, encouragement and understanding, acceptance of their dependency needs.

Orem (1995) viewed individual needs as universal and developmental self-care requisites which need to be met in order to maintain functional of life.

Universal self-care requisites are common to all human beings during all stages of the life cycle, and are adjusted to age, developmental stage, and environmental and other maintenance of the integrity of the human structure and functioning, and general well-being. Self-care requisites are the maintenance of a sufficient intake of air, the maintenance of a sufficient intake of water, the maintenance of a sufficient intake of food, the provision of care associated with elimination process and excrements, the maintenance of a balance between activity and rest, the maintenance of a balance between solitude and social interaction, the prevention of hazards to human life, a balance between human functioning, and human well-being, and the promotion of human functioning and development within social group in accordance with human potential, known human limitations and the human desire to be normal.

Developmental self-care requisites, these are associated with meeting the developmental task in each particular human developmental process, adjusting to the

conditions and events occurring at various developmental stages in life, two types of developmental self-care requisites are

1. The bringing about and maintenance of living conditions that support life process, and promote the process of development, that is, human progress toward higher level of organization of human structures and toward maturation.
2. Provision of care either to prevent the occurrence of deleterious effects of conditions that can affect human development or so as to mitigate or overcome these effects from various conditions.

When the person have health deviation from normal they will have needs for maintain their health and well being. Orem(1995) viewed that needs as health-deviation self-care requisites, there are seeking and securing appropriate medical assistance in the event of exposure to specific physical or biologic agents or environmental conditions associated with human pathologic events and states, or when there is evidence of genetic, physiologic, or psychological conditions known to produce or be associated with human pathology, being aware of and attending to the effects and results of pathologic conditions and states, including effects on development, effectively carrying out medically prescribed diagnostic, therapeutic, and rehabilitation measures directed to preventing specific types of pathology, to the pathology itself, to the regulation of human integrated functioning, to the correction of deformities or abnormalities, or to compensate for disabilities, being aware of and attending or regulating the discomforting or deleterious effects of medical care measures performed or prescribed by the physician, including effects on development, modifying the self-concept in accepting oneself as being in a particular state of health and in need of specific forms of health care, learning to live with the effects of pathologic conditions and states and the effects of medical diagnostic and treatment measures in a life-style that promotes continued personal development.

2.2.1.2 Needs of patients with COPD after hospitalization

After hospitalization, the transition from hospital to home is a critical period of health risk, because of patients have to change in health status, in role relations, in expectation in abilities, in setting. At that time patients are expected to perform more self-care, including highly technical procedures. Patients needs healthcare provider conveying a positive attitude about going home, addressing emotional and family

issue, assuring consistency of teaching by using the written plan, providing appropriate praise and reassurance, having the home health nurse meet the patient and family and assist with the technical care prior to discharge, being certain that the proper physician orders were written clearly at the time of discharge, providing specific information on follow-up physician visits, home health nurse visits (Boyd, 1987). The study of Bubela et al. (1990) revealed that patients' needs information for management of their health care at home about their diagnosis, medication, treatment, complication, managing activities of daily living and plan of care. Furthermore the study of Boonyatarpa (1993) revealed that patients need help with disease prevention such as instruction about recurrent disease and preventing complications. Health promotion needs such as teaching and advising about assessing symptoms, using continuity services, counseling about using medications, measuring their blood pressure, using appliance and supply services, and giving advice about services related to patients' activities daily living.

The needs of patients are significant for providers to assess. Because a key component of care for them is support needs of them to maintain optimal of health and independence in ability of daily living as much as possible.

In summary, assessment of needs is a valid concern for nursing. The patients have problems about self-care when they stay at home and need assistance from the other because the lack of skill, confidence, the knowledge. Factors related to the inability of the patient to maintain their illness include; inadequate support systems, inadequate financial resources, impaired cognitive or emotional functioning, disorganized or dysfunctional living environment, disease or injury, lack of role modeling, unfamiliarity with resources available. Once the needs of patients are defined, then the services that nurses and other health care providers institute can be delineated. These evaluations of client needs play a major role in the provision of quality care. The needs identification focuses on realistic anticipation of what can and should be done to help patient and family decide on and arrange the appropriate level of care.

2.2.2 Assessment Stressors

Stressors may be positive or negative motivating or disabling, stimulating or overwhelming. Patients are especially vulnerable to the negative consequences of

stress as a result of their experience with unusual environment, unfamiliar procedures, physical changes, and the uncertainties that accompany change from one state to another. Rorden and Taft (1990) stated that stress is the physiologic response that an individual has to a change in his or her internal or external environment. A stressor is any change that requires energy for adaptation or readjustment. Information about what is happening and what to expect, recognition of individual needs, reassurance about the quality of care, and encouraging family members to show their concern and support all serve to reduce stress levels and allow the patient to focus energy on the medical problem. To reduce stress are important to the acceptance of treatment, confidence in caregivers, and compliance with medical. The lack or deliberate withholding of information during hospitalization is one of the most prevalent stressors, and can be modified most effectively by caregivers.

2.2.3 Assessment strengths

Rorden and Taft (1990) stated that the physical, ability to think and to understand ideas and information, motor and emotional abilities that the person have are a powerful influence on response to treatment and plan for providing care. The effects of disease process and medical intervention may leave patients without great physical strengths but the knowledge they have gained about themselves, positive attitudes they have been helped, and skills they have acquired through previous experience effect the person present strengths. These strengths make positive on health balance.

2.2.4 Assessment resources

Resources refers to various kind of support that the persons received and/ or perceived from the others in terms of instrument supports, information, advice, supply, services, or even moral. Rorden and Taft (1990) indicated that the resources influence health of persons is the external resources include material resources, access to health care and the emotion support of other people. Resources are important for the person, that if a problem happens, they can approach for help or support. Also, resources can reduce a person's anxiety or concerns. Moreover, resources support from the others can help the person gain more knowledge and ability to manage and lead them to self-management in their illness. The resources in the community should be involved in a person's continuing care. After hospitalization, to return the patients to family and

community, providing for care must make optimum use of community health resources as well as patients, own care and support systems, and give appropriate help without undermining the patients' physical and emotional independence.

In summary, assessment those factors is important process in providing care for the patients. Each factor contributes positively or negatively to a person's present health balance.

2.3 Supportive educative program

2.3.1 The benefit of supportive educative program

According to Orem (1995) supportive educative is the helping techniques include combinations of support, guidance, provision of a developmental environment, and teaching. It is a strategy aimed to reduce morbidity and mortality and enhance wellness. Beckie (1989) used supportive educative telephone program for improving self-care knowledge in the patient after coronary artery bypass graft surgery. It was found that after they received supportive educative telephone program, they had high self-care knowledge.

In Thailand, there are many studies concerning supportive educative program. The finding from the studies following supported the beneficial of supportive educative program.

Vithayachockitkhun (1993) used supportive educative program to test the practice in breast feeding by providing knowledge for the mothers. It was found that the mothers who received supportive educative program had breast feeding practice than the mothers who did not receive supportive educative program.

Chirakool (1996) used supportive educative program to test anxiety of postpartal mothers who had joundice babies by providing knowledge for caring the joundice babies. It was found that the mothers who received supportive educative program had mean score of anxiety lower than the mothers who did not receive supportive educative program.

Pongsing (1997) used supportive educative program to test self-care deficit of school age children with thalassemia by providing knowledge about the illness and self-care practice. It was found that the school age children with thalassemia who

received supportive educative program had mean score of self-care deficit lower than the school age children who did not receive supportive educative program.

Silprasert (1998) used supportive educative program to test parents' coping and anxiety in neonatal intensive care units by providing knowledge about the illness, treatment and plan. It was found that the parents who received supportive educative program had mean score of the total coping higher than the parents who did not receive supportive educative program.

Rawivorrakul (1999) used supportive educative program to test the knowledge of the osteoarthritis patients by providing knowledge about the illness and self-care practice. It was found that the patients who received supportive educative program had more knowledge than the patients who did not receive supportive educative program.

Prasongtunskul (2000) used supportive educative program to test self-care deficit of school age children with rhumatic heart disease by providing knowledge about the illness and self-care practice. It was found that the school age children with rhumatic heart disease who received supportive educative program had mean score of self-care deficit lower than the school age children who did not receive supportive educative program.

2.3.2 Strategies of supportive educative program

2.3.2.1 Providing knowledge in the supportive educative program

To support the patients by providing knowledge is important method of assistance from nurse and extremely important in the continuity of care from the hospital to home (Boyd, 1987) that the patients feel confident and enhance their capabilities in manage their illness at home (Bostrom, et al., 1994).

The patients need self-care knowledge about their illness, health care, treatment and plan such as; medication's name, purpose, effect, dosage, schedule, precautions to take, side effects that should be reported, the purpose of continuing treatments, correct technique of treatments, preventing recurrence, signs and symptoms that require medical attention, when and where to keep appointments and whom to call for medical help, appropriate diet and restricted diet, health care for health maintenance, rest, exercise, home's physical environment, source of health in the community (Loomis, et al., 1981).

The study of Bostrom et al. (1994) found that the knowledge that the patients received during the hospitalization is important for them when they stay at home. So, to prepare the patients for home by providing knowledge should be done during in the hospital. Before providing, it is important for the provider to assess needs for knowledge of each patient because the short time. Thus, the knowledge that the patients receive be appropriate to their illness and in needs of them (Berns, 1983).

A key element of any providing knowledge is the involvement of the learner, whether that be patient, family, or friends. Active involvement is better than passive; that is doing is better than listening such involvement includes creating opportunities for direct involvement: discussion groups, strategies that call for thinking and responding, hands-on practice with real objects (better than with models), asking the patient to explain procedures in his or her own words. According to Loomis, et al. (1981) have suggested concerning the effectiveness of providing knowledge; specific instructions about a simple short-term regimen are usually sufficient for compliance, multiple strategies are required for long-term regimens, but no combination of interventions has demonstrated lasting effects, cueing is effective strategy to increase compliance with medication taking and appointment attendance of persons who have chronic conditions, rewards help to sustain behavior change, but when the reward are removed, the behavior tapers off and eventually becomes extinguished, counseling, group discussions, social support, and self-monitoring have effectively increased compliance.

The purpose of providing knowledge is to change self-perception, promote self-efficacy, give the knowledge about the disease and promote the self-care for the patients. Most patients have powerlessness, caused by wrong self-perception, and knowledge deficiency. The study of Bostrom, et al. (1994) found that there are three different response to the individual's attitude. The first is acceptance ; the patient accept the disease and learn to control the disease and adjust the life follow the disease. The second is determination which was conceptualized as a fighting spirit a seemingly more proactive response than acceptance. The third is impatience, this was viewed as a need to get on with things, intolerance with delay or planning.

Although providing knowledge is important for the patients, all of patients do not need for similar information and knowledge. Some patients received knowledge by

their personal experience. Therefore, information and knowledge that give to the patients should be serve their needs. Assessment needs is extremely important to assure providing care and giving information for the patients and should be done before. The patients with COPD have anxiety with chronic respiratory disorders. Disproportionately severe dyspnea is one manifestation of anxiety in some patients. The usual patient experiences a cluster of symptoms including difficulty in inspiration, rather than expiration, poor exercise tolerance, aggravation of breathing discomfort during social stress. To support by providing knowledge not only the disease but also relaxation exercises, biofeedback or listening to soothing music for relaxation can help the patient reduce dyspnea and anxiety in patients with COPD. However, even if the patients receives the appropriate amount of information during hospitalization, it is impossible for them to recall everything that was explained. Not all problems can be anticipated before especially when they stayed at home the needs arised. The health care providers and other should be provide care for them and encourage them to manage their own care.

Although the health goals of chronic condition are not to cure the disease but the patients must be full participants, even managers of their own care. To be able to maintain an ability to perform life goal, control symptoms and/or disability, prevent full blown exacerbation of symptoms, prevent the disease from engulfing their entire identify, and engage in activities which provide a sense of fulfillment (live life fully). Thus, it is neccessery to facilitate them stay at home by support resource for manage their own care.

2.3.2.2 Resource support by using telephone

The resource support for the patients that they can quickly access when they stay at home is using telephone. Telephone is one of resources that provides enormous benefits which are best for communication both health care providers and patients. It is the important sources of health information, that increase their knowledge (Barnes, 1995). Moreover, the study of Shu, et al.(1996) found that the utilization of telephone were efficiently prevent health and social problems, reduced transportation costs, and avoid unneccessery emergency room visits. The study of Wang and Kirkham (1971) found that the chronic patients used telephone call for health maintenance and communicate their needs to the nurse, they used for requesting clarification on tests,

scheduled appointments and therapeutic regimen. The study of Nicklin (1986) found that the cardiac patients and family called for advice in the first week post discharged to home. Most of calls concerned the symptomatic problems that had arise most frequently after discharge. Therefore, providing support for the chronic patients when they return at home by setting telephone contact between patients and healthcare providers could be helpful and reduce healthcare cost.

3. Self-care practice

3.1 Concept of self-care

Pender (1987) has defined self-care as the performance of activities that individuals initiate and conduct to maintain their existence and to promote their health and well being. Self-care should have pattern, goals, steps and continuity; and its efficacy increases when it is appropriately and completely conducted.

Levine (cited by Joseph, 1980) stated that self-care is a process in which individual perform their tasks for the benefits concerning health promotion, prevention of illness and self-diagnosis, as well as treatment.

According to Orem (1995), self-care is the action that persons initiate and conduct to maintain their life, health and well-being. Self-care is deliberate action and when it is effectively performed, the person's functional and developmental structures would progress to the highest level. Self-care is an action that mature persons perform for the contribution to their survival, healthiness and well-being.

In summary, self-care refers to any action that persons initiate with the objective to maintain their survival, healthiness well-being. Self-care is a structured action consisting of steps and continuity. When it is effectively performed, self-care will maximize the functional and developmental process of that individual.

3.2 Self-care practice of patients with COPD

As previously mentioned, COPD is an incurable disease; hence self-care in patients with COPD is not aimed to cure the disease. Instead, it is aimed to gain control of the symptoms, delay the disease progression and rehabilitate the patient's condition to the level that they can live with no or least symptom despite the presence of the disease.

Patients with COPD have various needs and their needs increase as the disease progresses. Therefore, they require self-care activities (or self-care practice, as used in this study). The self-care practice of patients with COPD involve six aspects of individual needs as discussed in details below.

3.2.1 Self-care in aspect of dietary

COPD, which is chronic and progressive disease, causes problems in body food storage as well as insufficient energy for body requirement. Most patients with COPD, especially those with emphysema, are inclined to have protein deficiency and insufficiency and insufficient energy (Sexton, 1981). The nutrient deficiency may be due to progression of the disease, which leads to reduction in abilities to perform daily activities because of fatigue and dyspnea.

Patients with severe COPD may be breathless even when they are eating; hence they do not consume sufficient amount of food. Moreover, the increase in pulmonary secretion causes frequent cough and the release of secretion lessens appetite. Some patients have financial problems and are not able to buy nourishing diet, as well as not receiving information about appropriate diet for their disease. Malnutrition leads to atrophy of diaphragm muscle (Sexton, 1981), respiratory muscle weakness, reduced ventilatory drive and decreased immunology (Arora & Rochester, 1980 cited in Hatapornsawan, et al., 2001). Consequently, the patients have to increase respiratory effort and subsequently become fatigued and susceptibility to infection. Hence patients with COPD should have dietary self-care by having nourishing and appropriate foods. They should consume food containing essential nutrients and avoid air-induce food such as nut, raw vegetables or soft drink. The diet for patients with COPD should contain high protein such as meat, egg or milk. The patients should avoid food containing total sugar or starch such as sweets because it may increase carbon dioxide retention after the meal and, as a result, may induce dyspnea. If the patients feel tired, the total daily diet can be divided into six meals and the patients can have small amount in each meal. In addition, having a large amount of food in a meal may restrict diaphragm movement, resulting in breathlessness. The patients should also drink at least 8-10 glasses of water everyday unless there is a contraindication because the water will decrease the thickness of pulmonary secretion.

3.2.2 Self-care in aspect of rest and relaxation

Patients with COPD usually have sleep problems because their respiration changes and pulmonary ventilation decreases during their sleep, resulting in carbon dioxide retention and hypoxemia. Some patients may be worried about financial problems or family problems, adding to medication side effects and hypersecretion, hence they may wake up at night. Moreover, most patients with COPD are in fear, they are afraid of having dyspnea in their sleep or afraid of not waking up from their sleep. This feeling induces muscle spasm and increases heart rate, blood pressure and respiratory rate; consequently, the body uses more oxygen and produces more carbon dioxide (Sexton, 1981). It is found that muscle relaxation technique can reduce anxiety and dyspnea in patients with COPD (Watanakitkrilert, 1998). Therefore, patients with COPD should conduct self-care in aspect of rest and relaxation by creating a relaxing atmosphere and learning how to get a good sleep such as listening to light music, reading religious books or having warm drink before bedtime. The patients should prepare themselves before going to sleep by finishing their activities at least one hour before bedtime. They should add periodical rest in their daily schedule and should learn techniques for energy reserve and prevention of tiredness. For example, all personal gears should be placed within reach and all activities should be performed in sitting position as much as possible. The patients may sit on a chair while having a shower, and should not hurriedly have a shower. Other activities should be modified so that they are easier to perform, and the tasks that require high energy should be assigned to other people in the family. Lying in head-raised position and setting up a quiet, well-ventilated environment can ease the sleep. Patients with COPD should sleep for six to eight hours every night.

3.2.3 Self-care in aspect of pulmonary rehabilitation

Patients with COPD are usually afraid of having an activity or exercise as they are worried that the activity may induce dyspnea (Kotchagrit, 2001). The reduction in activities results in lowered efficiency of body function. Thus patients with COPD require self-care in having activities for pulmonary rehabilitation comprising abdominal muscle and diaphragm exercises in combination with deep breathing through the mouth to slow down the respiration and to improve respiratory efficiency. The patients need to practice effective cough for airway patency and they should learn

to drink appropriate amount of water. In addition, they should also have exercises of chest muscles, arms and legs, including general exercise to improve body efficiency and adjust themselves for the performance of daily activities.

3.2.4 Self-care in aspect of medication administration and treatment

Patients with COPD have persistent airway obstruction; hence they need bronchodilators. The bronchodilators commonly prescribed to patients with COPD are 1) Beta₂-agonist agents, 2) anticholinergic agents, and 3) methylxanthines. Beta₂-agonists and anticholinergics are available in both inhaled and oral form. The efficacy of these medications largely depends on the patients' technique of administration. The side effects of these medications include palpitation, hand-shaking and dry lips. Currently, there is a combination of beta₂-agonist and anticholinergic, which is found to be more convenient and more effective than the use of single medication in patients with COPD. Methylxanthines are available in both oral form and intravenous injection. The medications in this class have less bronchodilation effect than beta₂-agonists and anticholinergics but they have preventive effect and can reduce muscle weakness. However, methylxanthines have narrow-therapeutic range and dose-related toxicity. The side effects include nausea, abdominal pain, palpitation, hand shaking and insomnia. In addition to bronchodilators, some patients may receive corticosteroids to reduce airway inflammation. Corticosteroids are available in both inhaled and oral forms. However, the use of corticosteroids is still controversial regarding the benefits and necessities for COPD treatment (Boonsawat, 1996). Patients with COPD usually receive long-treatment with the medications previously mentioned; therefore, they should know the medications regarding name, dose, properties, side effects and administration techniques. They should also know how to monitor abnormal symptoms resulting from medications and should take the medication at the right time and the right dose for the highest efficacy in controlling the disease. In addition, the patients should avoid taking other medications that are not prescribed by their doctors as the additional medications may inhibit or enhance effects of or may have mechanism interaction with the prescribed medications.

3.2.5 Self-care in aspect of prevention of dangers and complications

Patients with COPD may not have knowledge about the progression and pathology of the disease, the treatment plan and the prevention of complications such

as respiratory infection. Thus the patients need to know about their symptoms, symptoms changes and possible complications. They should learn to prevent complications by avoiding airway irritants and factors that can worsen the symptoms. For example, the patients need to stop smoking because smoke cessation can delay lung function impairment (Crowley, et al., 1991). Moreover, the patients need to avoid factors that trigger exacerbation such as dusts, pollens, cigarette smoke, extremely cold or hot temperature, dampness and pets. They should also avoid being close to a person with respiratory tract infection or going to a crowded place. The patients need to take good care of their oral hygiene and observe any abnormal symptoms such as nausea, vomiting, dyspnea, or palpitation. They should see a doctor when they notice any abnormal symptoms and should have follow-up visits regularly. Apart from learning how to act, the patients also need to learn how to seek help when the disease becomes more severe and learn to adjust their life to the pathology of the disease. Self-care performance should be taken as part of their daily life.

3.2.6 Self-care in aspect of interpersonal relationship and free-time

The impacts of COPD on interpersonal relationship are usually present in two ways: other people avoid the patients due to the presence of symptoms such as cough, having secretion and dyspnea, and the patients avoid other people and social life as they are afraid of having dyspnea while going out or interacting with other people (Theeranutr, 1999). In many cases, the patients need to cough and release pulmonary secretion very often hence they may feel embarrassed to cough and spit out the secretion in public (Sexton, 1981). Moreover, as the disease progresses, the patients have more restriction in doing activities hence they would rather stay at home than going out and may preoccupy with their illness. Therefore, patients with COPD should take care that they have regular interaction with other people and spend their free time by participating in social activities. They should have a conversation, exchange opinions and share experience with people who have similar problems. Additionally, appropriate support from close relatives is important for patients with COPD to maintain their social life.

COPD is an incurable disease and the patients need to perform long-term and continuous self-care in several aspects. When the pathology of the disease progress, the patients tend to have self-care limited as the illness severity increases. The increase

in illness severity thus affects the patients' self-care capacity, and the patients' capacity needs to be developed to meet increased self-care requirements. The development of patients' capacity could be done during their stay in the hospital.



CHAPTER 3

MATERIALS AND METHODS

Research Design

The design of this study was a quasi-experimental, one group before-after study.

Population and Sample

Population

The population of this study were the patients with COPD who were admitted in “Long Hospital”, Phrae Province and were discharged to their home.

Sample

According to Polit and Hungler (1999), the sample size calculated should be 20 to 40 people, for this study was set at 30 patients.

Sampling

The sample were enrolled into the study purposively. The criteria for eligibility for inclusion in the study included the following:

1. The patients who were diagnosed with COPD, and admitted in Long Hospital for 3 days. (The average admission days of the patients with COPD in Long Hospital was 3 days.)
2. Both male or female
3. Be able to communicate verbally
4. Be able to access by the telephone call
5. Willing to participate in the study

The exclusion criteria for the subjects in this study were the patients who had been admitted below 3 days, the patients who were referred to another hospital, and the patients who died.

Research Setting

The subjects in this study were recruited from Long Hospital, a 60-beds, community hospital in Phrae Province, Thailand. The process of this study were continued to their homes.

Instrument

The research instruments were composed of 2 parts: and the instruments for intervention. Details of each instrument is presented as follows :

1. The instruments for collecting data

1.1 The demographic and illness questionnaire, which contains the characteristic of the sample in the aspects demographic, socioeconomic, and their illness.

1.2 The self-care assessment form, that developed from the self-care behavior questionnaire designed by Supee(1983), which composed of 37 question items, divided into six aspects self-care practice; medication administration and treatment plan, interpersonal relationship and free time, prevention of dangers and complication, rest and relaxation, pulmonary rehabilitation, and dietary. The coefficient alpha of reliability was 0.81. Using for assess self-care practice and problems for self-care of each patients before they were admitted and after discharged to their home. The score for measure each activity is

The score = 2 mean activities that patients always practice connectly for self-care

The score = 1 mean activities that patients practice connectly sometimes for self-care

The score = 0 mean the patients do not practice self-care connectly

A high score indicated high level of self-care practice.

1.3 The problem record form, which used for record problems needs for self-care practice before providing self-care knowledge.

1.4 The telephone calls record form, using for record the patients problems and times that they called after they discharged and while at their home.

2. The instruments for intervention

2.1 An intervention instrument was the process in supportive educative program that consists of assessment for self-care practice, problems and needs in self-care practice, enhance capabilities by support self-care knowledge in the area in need of each patient, and resource support for access to health care and sustain continuous care at home by telephone call.

2.2 The handbook for the patients with COPD that guide to self-care in the area: dietary, pulmonary rehabilitation, rest and relaxation, prevention of dangers and complication, management of home environment, medication and treatment.

Data collection and Intervention Procedures

The process for data collection was as follow:

1. A letter of permission obtained from the faculty of graduate studies, Mahidol University was sent to the director of Long Hospital.
2. After receiving permission, the researcher met the director and nursing director and head ward of Long Hospital explained the objective of the study and asked for cooperation to collect data.
3. The researcher selected samples from the patients who diagnosed with COPD and admitted for the first day in In-Patient Department of Long Hospital.
4. Asked for participation in the study and explained procedure to the patients.
5. During the hospitalization the researcher conducted the study until the patients discharged to their home.

Procedures in data collection

The procedures in data collection was divided for 2 period; during the hospitalization and post discharge, at their home. The steps in conducting the study are presented as follow:

1. During the hospitalization

The researcher visited the patients who were diagnosed with COPD and the physician ordered for admission in In-patient Department of Long Hospital. After

being enrolled into the study, the researcher has relationship with the subjects. The researcher visited the patients in the afternoon, after they had lunch because this time period released the family members and caregivers to see the patients.

The process of intervention during the hospitalization divided into 5 stages: collecting general data, assessment of self-care practice, assessment problems and needs, providing knowledge for self-care that each patient was deficit, and providing knowledge about home medication and treatment that physician was order, describe the way for managing care when they had problems by using telephone contacts and made appointment for home visit.

1.1 The process of the collecting general data

The researcher used the demographic and illness questionnaire in this process. It was the first day of admission. All of the patients had a good conscious but they needed oxygen supplementation. They were on oxygen nasal conular for low flow concentration 6 liter/minute. Thus, their care givers took part for giving general data except information about their illness and activities that the care givers did not know. If their care givers were absent, the researcher was spent time on waiting until they were present. Because of the assessment, the care givers reflect resources, Family suport, stressors of the patient. Also, for planning intervention, the caregiver is important factor to be considered. The time that the researcher used for this process ranged from 15 to 30 mimutes with a mean of 24 minutes.

1.2 The process of the assessment self-care practice

This process the researcher used the self-care assessment form for assess self-care practice that each patient was done.

The researcher used time for this process ranged from 25-45 minutes with a mean 36 minutes. It was longer than that used for the collecting general data because some items the patients and their caregivers described for their self-care activities, problems and needs.

1.3 The process of the assessment problems and needs

After the self-care practice assessment had finished, the researcher asked the patients about their problems and needs for self-care practice in 4 aspects : needs,

stressors, strengthes and resources, recorded in the problem record form. Based on the self-care assessment of each patients, the researcher made plan for giving information.

1.4 The process of providing knowledge for self-care

This process the researcher provided knowledge for self-care that each patient was deficit in the area: dietary, pulmonary rehabilitation, rest and relaxation, prevention of dangers and complication, management of home environment. Also, the researcher given the handbook to the patients. This process was given at the second day of hospitalization because they had on exacerbation.

Before visited the patients, the researcher collected data about their illness and procedure of each patients from their chart. In addition to the data from the patients, chart is important source of data. The information for self-care that each patients were deficit. Then, asked the patients about their illness and their treatment that the received from the physician.

From the procedure of treatment that the physician planed for each patients, the resercher used for arrangement to see each patients for the third visit.

1.5 The process of providing knowledge about home medication and treatment

The resercher provided knowledge about home medication and treatment that physician was order, describe the way for managing care when they had problems by using telephone contacts and made appointment for home visit.

At the hospital discharge day, the researcher obtained a progress note, physician's order and home medication of each patients from their chart, then visited the patients for openly sharing thoughts and information about their illness, used the problems record form for assessment problems and needs, giving knowledge about home medication and treatment that physician was ordered, described the way for managing care when they had problems by using telephone contacts and made appointment for home visit.

This process was done in the morning at 10.00-11.00 a.m. because it was regularly time period of In-patient Department to discharge the patients.

The time used for visited the patients who admitted for the second and third times were less than the first time. It was range from 15 to 30 minutes with a mean of 21 minutes.

2. Post discharge-at their home

The researcher visited the patients at their home post discharged 2 weeks. This process used the self-care assessment form for assessment for self-care practice after the intervention, asked them for problems in self-care practice, resources that they used for manage their illness, and used of telephone contacts and feedback the procedure.

Data Analysis

The data analysis included

1. Descriptive statistics used for describing the demographic data, telephone contact for help.
2. T-test statistics used for measuring the self-care practice score before and after providing program.

Validity and reliabilty of the instruments

These instruments were tested for validity by agroup of five experts. After they validated the instruments, they were revised before testing for reliability. The instruments were tested for internal consistency with 20 patients with COPD. Thereafter, reliability was tested. The Cronbach's alpha coefficient was 0.81.

Protection of Human Subjects

Before collecting data, the researcher provided the consents form to the subjects for protection of human subjects. All subjects informed about the purpose of the study by reading to each subjects. Subjects signed consents form and they could obtain a copy the consent form if desired. They were informed of their rights to withdraw from the project of anytime and that the participation was voluntary.

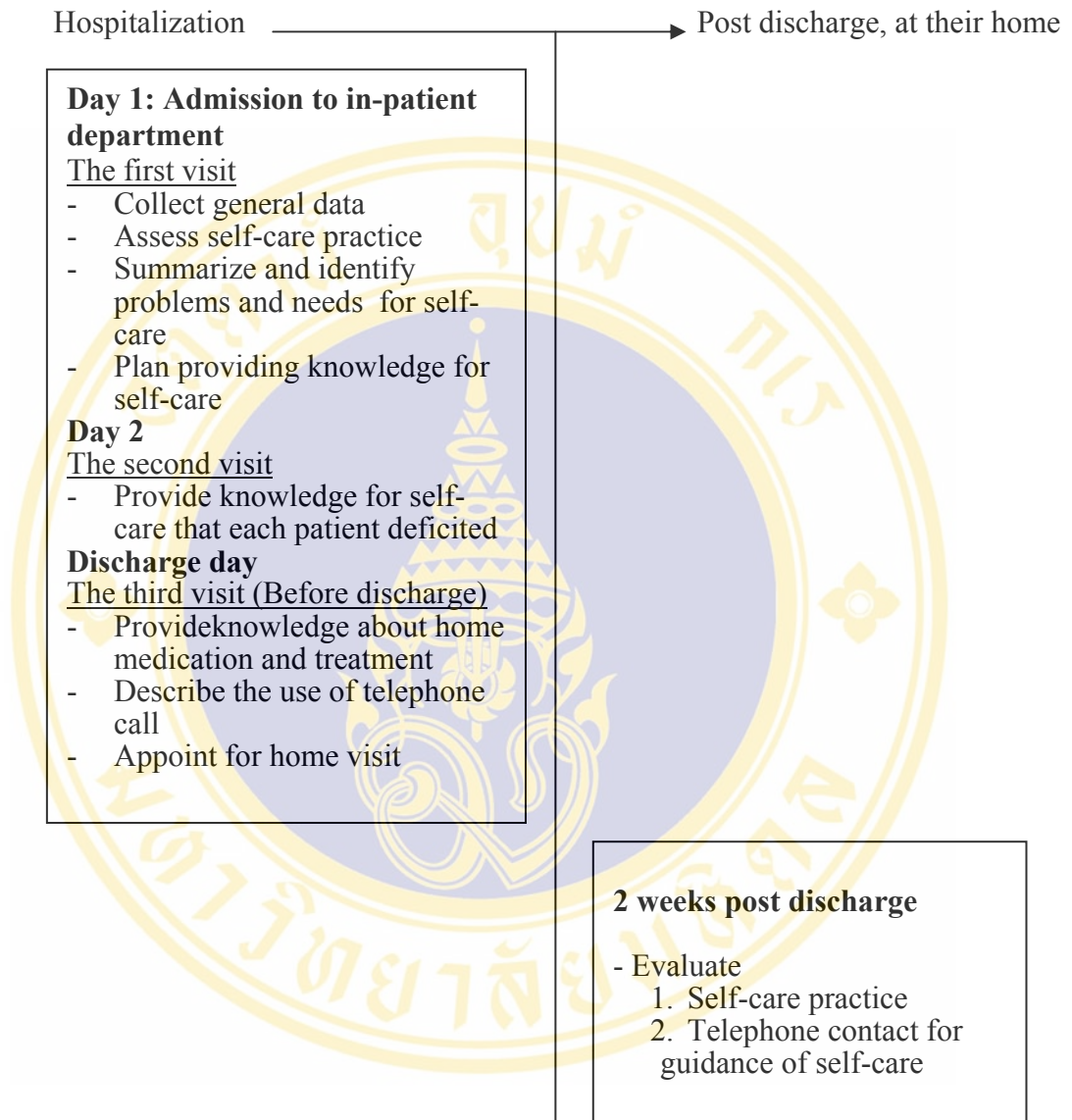


Figure 3. Diagram of intervention

CHAPTER 4

RESULTS

This research aims to study effects of supportive educative program on self-care practice of patients with chronic obstructive pulmonary disease after hospitalization. The sample size in this research were 30 patients. The results of the research findings were presented in three parts in the following order :

- Part I Characteristics of the subjects
- Part II The self-care practice and problems of the subjects
- Part III The telephone call utilization of the subjects

Part I Characteristics of the subjects**1.1 Demographic characteristics****Table 1** Demographic characteristics

Demographic characteristics	Frequency(N=30)	Percentage
Gender		
Male	22	73.33
Female	8	26.67
Age (years)		
50-60	9	30.00
60-70	14	46.67
70 and higher	7	23.33
Religion		
Buddhism	29	96.67
Christian	1	3.33
Marital Status		
Married	23	76.67
Widowed/Divorced/Separated	7	23.33
Education level		
Primary school	13	43.33
Secondary school	9	30.00
Certificate/Diploma	6	20.00
Bachelor	2	6.67

Table1 showed that the majority of the patients with COPD in this study were males (73.33 %) while only26.67% were females. The age of the patients ranged from 50 to 75 years with the mean age of 67 years. Most of the sample (76.67%) were married while 23.33% were divorced. In addition, 43.33% of them had primary school education whereas 57.67% graduated at a higher education level.

1.2 Socioeconomic characteristics

The distribution of socioeconomic characteristics is presented in table 2.

Table 2 Socioeconomic characteristics

Socioeconomic characteristics	Frequency(N=30)	Percentage
Occupation		
Agricultural worker	12	40.00
Household worker	6	20.00
Private employer	5	16.67
Retire Government officer	4	13.33
Government worker	3	10.00
Family Income (baht / Month)		
Below 3,000	2	6.67
3,000 – 5,000	5	16.67
5,000 – 7,000	16	53.33
Over 7,000	7	23.33
Adequacy of income		
Adequate	27	90.00
Inadequate	3	10.00
Source of financial assistance		
Non	3	10.00
Their child	16	53.33
Family members	9	30.00
Others	2	6.67
Status in the Family		
Leader	11	36.67
Member	19	63.33
Number of family Members(Person)		
1 – 3	8	26.67
4 – 6	16	53.33
Over 6	6	20.00

Table 2 Socioeconomic characteristics (Continued)

Socioeconomic characteristics	Frequency(N=30)	Percentage
The person that they lived with		
Couple	4	13.33
Child	7	23.33
Couple and child	18	60.00
Others (Nephew)	1	3.33
The primary caregiver's characteristic		
Couple	11	36.37
Child	18	60.00
Others	1	3.33

As shown in table 2, it was found that 40.00% of the subjects were agricultural workers, 20.00% were household workers, 10.00% government workers, 16.67% were private employers and only 13.33% were retire government officers.

Family income : The family income ranged from 1,800 – 16,000 baht/month with an average of 6,562.61 baht/month. The members of subjects with income ranging over 7,000 baht/month were 23.33%, 53.33% had a family income of 5,000 – 7,000 baht/month. 16.67% had a family income of 3,000 – 5,000 baht/month, and only 6.67% had a family income below 3,000 baht/month.

Adequacy of income : It was found that 90.00% of the subjects had adequate income for their household expenses; the remainder 10.00% , said their family income was inadequate.

Source of financial assistance: It was found that 53.33 % of the subjects received financial assistance from their child, 30.00% received from family members, 6.67 % received from the others, and also 10.00 % not received financial assistance from the family members but received from the other.

Status in the Family : It was found that 63.33% of the subjects were the member in their family, the rest, 36.67% were the leader.

Number of family members : It was found that 53.33% of the subjects had 4-6 members in their family, 26.67% had 1-3 members, 20.00% had over 6 members.

The person that they lived with : It was found that 60.00 % the subjects lived with their couple and child, 23.33% lived with their child, 13.33% live with their couple and only 3.33% lived with their nephew. Most of them(96.67%) were still receiving help from family members including physical care, meal preparation, house keeping tasks, transportation and emotion care.

The primary caregiver's characteristic : It was found that 60.00% of the primary caregiver were their child, 36.67% were their couple, and only 5.00% were the others (their nephews).

1.3 The History of Illness

Table 3 Characteristic related to the illness

Characteristic	Frequency (N=30)	Percentage
The time were diagnosed with COPD		
During 1 year	7	23.33
During 2 – 5 year	17	56.67
During 5 – 10 year	5	16.67
Over 10 year	1	3.33
The times for this admission		
First time	8	26.67
Second time	11	36.67
Third time	8	26.67
Over third time	1	3.33
The first symptom for illness		
Chronic cough	14	46.67
Dyspnea	12	40.00
Fever	2	6.67
Weakness	2	6.67

Table 3 Characteristic related to the illness (Continued)

Characteristic	Frequency (N=30)	Percentage
Classification of the disease		
Class I	7	23.33
Class II	9	30.00
Class III	9	30.00
Class IV	3	10.00
Class V	2	6.67

Table 3 showed that most patients had been diagnosed with COPD for 2-5 years (56.67%), 23.33% were diagnosed during 1 years, 16.67% were diagnosed during 5-10 years. Only 3.33% were diagnosed over 10 years

Most of the patients (36.67 %) had been admitted in the hospital for the second time, 26.67 % had been admitted for the first time and also the third time, 10.00 % had been admitted for the several time (over three time).

For the beginning of illness, 46.67% of the subjects described chronic cough was the first symptom of COPD, 40.00% described dyspnea was the first symptom of COPD, 6.67% described fever was the first symptom of COPD and the remainder 6.67% described weakness was the first symptom of COPD.

For the Classification of the disease, 60.00% of the subjects had function class II to III.

Table 4 The health insurance security

Type of health insurance	Frequency(N=30)	Percentage
Universal coverage security	21	70.00
Government support	7	23.33
Veteran affairs	2	6.67

As shown in table 4, it was found that 70.00% of the subjects were covered by universal coverage security social security, 23.33% covered by government support, and 6.67% covered by veteran affairs.

Part II The self-care practice and problems of the subject

Table 5 The self-care practice before admission

Categories	Frequency(N=30)	Percentage
The person who always support for self-care		
Their couple	13	43.33
Their child	9	30.00
Their neighbor	7	23.33
Their nephew	1	3.33
The method of self-care before this admission*		
Oxygen inhalation	8	26.67
Take Paracetamol for fever	2	6.67
Drug inhalation	11	36.67
Drinking water	13	43.33
Take medicine for expectorant	10	3.33
The source of knowledge about COPD that they usually received		
Health care provider	17	56.67
Radio / Television / Newspaper	5	16.67
Family members	2	6.67
Other (Pamphlet, Neighbor)	2	6.67
Not received	4	13.33

*Multiple answers of the first choices

As shown in table 5, the self-care practice before admission, the subjects was supported by their couple 43.33%, their child 30.00%, their neighbor 23.33% and their nephew 3.33%.

The method that the subjects used for self-care before they admitted was oxygen inhalation 26.67%, take Paracetamol for fever 6.67%, drug inhalation 36.67%, drinking water 40.00% and take medicine for expectorant 3.33%

For the knowledge about their illness and self-care, 87.67% of the subjects were usually received, only 13.33 % did not receive.

The sources of knowledge for self-care that the subjects received from, 66.67% received from health care provider, 10.00% received from radio / television / newspaper, 6.67 %received from their family members, and the remainder 6.67% received from the other (pamphlet, neighbor).

Table 6 Problems and needs of patients with COPD before intervention

Aspect	Frequency (N=30)	Percentage
Needs		
Need for physical and medical care	11	42.31
Need for mental support	8	26.67
Need for acceptance by the others	7	23.33
Need for suitable equipment to help relief for their dyspnea	4	13.33
Stressors		
Worried about their condition and belief	10	33.33
Worried about restrict diet	6	20.00
Worried about stop smoking	4	13.33
Worried about inadequate income	3	10.00
Role in family	2	6.67
Worried about treatment and procedure	2	6.67
Worried about the family relationship	2	6.67
Had the problems about their job	1	3.33

Table 6 Problems and needs of patients with COPD before intervention(Continued)

Aspect	Frequency (N=30)	Percentage
Strengths		
Lack of self-care knowledge	26	86.66
The family had pure relationship	3	10.00
Did not receive support from the other	1	3.33
Resources		
Lack of resources for consult their illness	18	60.00
Lack of resources for mental support	8	26.67
Lack of resources for financial support	3	10.00
Resources for household support	1	3.33

Table 6 showed that, the problems in aspect needs, stressors, strengths and resource.

Finding in regard to hypothesis 1 After the provision the supportive educative program, the self-care practice of the patients with COPD would be increased.

The mean score of self-care practice of patients before the intervention was 43.00 (SD=7.64), after the intervention was 68.60 (SD=2.11) as presented in Table 7. It was found that the mean score of self-care practice was significant increased after intervention.

Table 7 The comparison of mean score of self-care practice of patients between before and after intervention

Self-care practice	Mean	SD	df	t-value
Before	43.00	7.64	29	-21.19*
After	68.60	2.11		

*p< .05

Part III The telephone calls utilization of the subjects

Finding in regard to hypothesis 2 When the patients with COPD had problems, they would use telephone calls for manage their problems and self-care practice.

The subjects used telephone contacts to the nurse as presented in table 8

Table 8 Characteristics of telephone contacts

Characteristics	Number	Percentage
Used telephone	26	86.67
No used	4	13.33
The person who used telephone		
Patients	14	53.85
Family members	11	42.31
Others	1	3.85
Time period that patients decided to make telephone contact post discharge		
1 – 7 days	14	53.85
7 – 14 days	12	46.15
Time of telephone contact		
Office hours	7	26.92
After office hours and weekend/holiday	19	73.08
Consult of time per contact		
1 –5 minutes	17	65.38
5-10 minutes	8	30.77
Over 10 minutes	1	3.85

Table 8 shown that, 86.67% of the patients used telephone calls for communicating with the reseacher. These were calls from the patients 53.85%, from family members 42.31%, and from the others 3.85%

The telephone calls were made in the first week after discharged 53.85%, the remainder were made in the second week. Most of incoming calls (73.08%) that

patients or relatives were made after office hours and weekend/holiday. The remainder were made during office hours.

Most of telephone calls (65.38%) spent time on each contact 1-5 minutes, 30.77% spent for 5-10 minutes, and 3.85% spent over 10 minutes.

Table 9 Categories of telephone calls

Categories	Number (N=26)	Percentage
Asked about physical symptoms	7	26.92
Asked about treatment regimen	6	23.08
Confirming appointment	3	11.54
Appointment Changed	2	7.69
Fear of disability	2	7.69
Facilitate problem solving about self-care regimen	2	7.69
Clarification of teaching breathing exercise	2	7.69
Caregiver role strain	1	3.85
Stress related to inadequacies	1	3.85

Table 9 give a summary of the categories of concerns as presented. Most of telephone calls (26.92%) asked about physical symptoms, 23.08% asked about treatment, 11.54% confirmed appointment. The remainder were concerned about appointment changed, fear disability, asked for facilitate problem solving about self-care regimen, asked for clarification of teaching breathing exercise. It should be noted that 2 of them called for advice and mental support.

Table 10 The hospital visit post discharged 2 weeks

Categories	Number (N=30)	Percentage
Visited the hospital	1	3.33
No visited the hospital	29	96.67

Table 10 showed the hospital visit after each patients discharged 2 weeks, there was only one patient (3.33%) visited the hospital.

CHAPTER 5

DISCUSSION

The purpose of this study to study effects of the supportive educative program on self-care practice of the patients with COPD after hospitalization. The discussion presented in four following topics as follows:

1. The profile of the patients with COPD
2. The problems for self-care of the patients with COPD before intervention
3. The effects of the supportive educative program on self-care practice of the patients with COPD after intervention
4. The telephone calls utilization of the patients with COPD

1. The profile of the patients with COPD

The data illustrated that about 73% of patients were male and aged over 60 years old. This characteristics were similar to several previous studies (Supee, 1983, Kotchagrit, 2001). 90% of the patients had adequate income and received financial assistance from family members. Only 10% had inadequate income and did not receive financial assistance from family members. The financial assistance is the support from external resource that influenced needs. It was found that patients who had inadequate income, financial needs was present. It was similar to the study of Braham, et al (1975). These patients needed for financial assistance. They received support from the older association of Long district, the financial resource in the community that given them short-term borrowing. Financial needs of them were met by formal community resources.

It was found that all of the patients did not live alone. The living situation of them was lived with child, couple, nephew. The mean numbers of family numbers was 5. Most of patients received care and household help from their family member. Only 1 patient, were consider in need for assistance because he lived with his nephew, who usually did not assist him. He needed assistance in physical care, meal preparation, housekeeping tasks, and transportation.

Child and couple were likely to assume the primary caregivers of these patients with COPD (60.00% and 36.67% respectively). The caregivers were important persons for them. They provided help and support such as physical care, meal preparation, housekeeping tasks, transportation, financial support and emotional support. Consonant with study discussed previously (Linderberg & Coulton, 1980) family members that provided personal support and emotional care was the resources of the patients had access.

All of the patients had health insurance security. They had resources for health care. Nearly two-quarter of the patients (63.33%) had access to health care by 30 baht policy, that provides equitable access to health care. The patients 60 years old or over were eligible for social welfare, they did not pay 30 baht per

visit. But the patients who were below 60 years old were eligible for universal coverage security they paid 30 baht for each visit.

Most patients (60 %) had function class II to III with slight to marked limitations of physical activity (American Lung Association, 1975 cited by Hanucharunkul, 1996).

Nearly one-quarter of them (23.33%) were diagnosed with COPD for 1 year. The three-quarter of the patients admitted in Long Hospital for the second time, only 1 patient admitted for the third time because he had no confidence in their abilities for self-care management.

The important problem of this group of patients was chronic cough and uncontrollable dyspnea. It was consistent with the study of Kotchagrit, 2001. The patients did not know the cause of symptom and how to manage it. They come to the hospital and readmitted with these problems. The patients not only missmanaged their problems, but also they had the exacerbation symptom. At the first day of hospitalization, most patients had limitations in activities because of the severity of illness and they were on oxygen nasal canular.

2. The problems for self-care of the patients with COPD before intervention

In this study, the researcher assessed self-care practice in six aspects; medication administration and treatment, interpersonal relationship and free time, prevention dangers and complications, rest and relaxation, exercise and pulmonary rehabilitation, and dietary. The finding revealed that most of patients with COPD had problems for self-care. They had misused inhaled bronchodilators and believed that it was not effective for them, so they used it incorrect. The most patients cannot inhale the spray together with their breath, and cannot hold their breath for a long time. Additionally, many patients did not shake the inhaler well before used, and some patients used for over doses. Most of patients did not exercise and had pulmonary rehabilitation, they believed that exercise and pulmonary rehabilitation would precipitate their dyspnea. Some patients had problems for self-care in the aspect of dietary. This finding corresponds with a study of Warahut (1999), which found that

some patients had eating a big meal, eating inappropriate food, and did not eat at meal time. The patients with COPD had dietary problems because of loneliness, apathy about food, or few food preparation skills, so these patients needed assistance to prepare food. Ten percent of the patients had limited income, they did not have enough money. Therefore, they could not purchase some healthy food such as fruits.

In the aspects of rest and relaxation, this finding corresponds with a study of Jarusombut (2003), which found that some patients woke up at night because of the dyspnea and hypersecretion. For prevention of danger and complications, some patients could not manage the complications such as constipation, fever, and progressive of dyspnea.

The patients and their care givers had anxiety and needed for information about medication, treatment and complications. In concurs with the study of Bostrom, et al (1994) some needs met by provision of information for self-care that they were deficit. It is the method for enhance the patients capabilities and make the patients' strengths. The three-quarter of the patients were diagnosed with COPD for 2 years and over, they usually received knowledge about COPD from health care provider and other patients with COPD in their villages. They did not need for information about medication, treatment but they needed for information about dietary and exercise because they did not have previous experience about these aspects.

About one-quarter of the patients (23.33%) worried about the medical management, managing their illness once they go home. It was stressors of self-care. 2 patients asked about use of oxygen tank and the place where they could buy. They would get it at home. Furthermore, one patient worried about financial responsibility it was stressors and general financial needs. Needs of general financial needs were met by the older association of Long district. According to needs and stressors of these patients the nurse must take a more active role in assisting patients adjustment to care at home.

3. The effects of the supportive educative program

The supportive educative program in this study did not only provide knowledge for self-care when the patients with COPD were admitted in the hospital but also support after they were discharged to their home. Based on the theory and change in healthcare policy that has an emphasis on the patients mobilized appropriate resources for self-care, the telephone was the resource for support the patients in this program. The discussion of this program was presented in two topics: self-care practice of the patients with COPD and the use of telephone calls for manage their problems and self-care practice after hospitalization.

From the finding, After the intervention, the mean score of self-care practice were significantly higher than before the intervention. This finding was consistent with previous studies (Supee, 1983, Oupaichit, 1994).

The program fostered the patients and their families independence, participated in the care, encouraging them to take an active part in all aspects of care when and wherever possible. The patients developed the capabilities to take care of themselves when they discharged to home

The program success depended on patients and family involvement. In this study, there is one family that the patient lived with his nephew. The relationship between two persons was poor because the patients was elder but the nephew was young. It is a difference in attitude and behaviour between two persons. The patients required assistance from his nephew, but he did not receive. His nephew, who was a boy and always spent time on playing with his friends. In this situation, the family members influenced self-care practice of the patients in some items such as doing household activities, meal preparation, and decreasing stressors. The score of self-care practice of these items were the same because he did not receive the help from family members. In the other families did not have the problem like this. The family members encouraged the patients to develop the capabilities in caring themselves. Furthermore, The family member were the major providers of care. This finding were supported by the study of Mc Auley & Arling(1984). They presented that the elderly people used for in-

home care because the did not receive help with family members and other sources of care.

Although assessment self-care practice and providing knowledge for self-care did not involve mechanism to assist the patients in modifying their behavior, it presented a structured plan for providing the necessary self-managed knowledge to the patients and family. It was a way that decrease unnecessary visiting the health care providers in the office or emergency room for the patients with COPD and other chronically ill patients. In this study the number of visiting the hospital prior the follow up appointment was one patient (3.33%) . The caused of visit the hospital was food poisoning, that was not the symptom of COPD. He had diarrhea for 5 times, nausea and vomiting for 3 times, He felt weak and had a fever. His wife cured him with herbs, but he did not get better. In addition, she used telephone call for asked about physical symptom and drugs. The patient was advised to visit the medical clinic with a condition warranting attention. Therefore, the patient was taken to the hospital.

During the hospitalization, needs and stressors of the patients admitted for the first time always concerned about the hospital regimen, treatment and procedure. Bycontrast, the patients who were admitted for several times always had knowledge and experience about their illness, disease process and treatment. They needed the health care provider and their relatives to sympathize with their feelings. In this study 1 of patients who admitted in the hospital for over 3 times said “I know the cause of my illness and how to prevent the exacerbation, in sometimes I could not take action in order to prevent it because I was depressed. I needed my wife to sympathize with my feelings”. This finding corresponds with a study of Miller (1982), which found that the patients needed and were helped to feel positively about themselves in term of self-care management.

From the study, most of patients used resources for managing their illness. In this study, family members, neighbors, The older association of Long District provided support for them. The patients did not use only material resources but also intangible resources. The family support was the intangible resource for the patient

and helped them decrease anxiety about doing household activities. This finding corresponds with a study of Miller (1982), which found that patients who had personal strengths and had family support could help them to balance. They needed help from others without the feeling of being a burden. Not only family members but also friends, neighbors are the major providers of care for noninstitutionalized patients. It is important external resources and social support for the patients in the home. The family members were not only the major caregivers but also the financial assistant. Some of patients had inadequate income, they always supported by their family members. Thus, it was important for encouragement the patients to have self-care practice as much as they can.

4. The telephone calls utilization of the patients with COPD

According to the literature review, it was found that the most of patients with COPD were old age and some had chronic hypoxia that affected for their remember. Moreover, the limitation of time period, place, environment in the hospital that affected them for remembered all information. Thus, the researcher set up telephone into the program for support them in management their problems and self-care practice.

The telephone call was set to address the ongoing needs of patients after discharge to their home because the patients had needs for varying amounts of information, even if the patients received the appropriate amount of information before discharged, it is impossible for the patients to recall everything that was explained (Niclin, 1986). Furthermore, telephone has played and important tool in the use of information and communications technology to deliver health care. It involves the use of information and communications to improve access, support and enhance the efficiency and effectiveness of many dimensions of health care, health education and health information. Therefore, the supportive educative program consists of self-care assessment, support information for self-care and resource support for access to health care by telephone call.

In this study, 26 patients used telephone contacts to the researcher, but 4 did not. The reasons which explained why they did not use telephone calls were 2 patients lived near Long Hospital. It was 5 meters far away from Long Hospital. When they had problems, they visited the researcher for consultation. The remainder (2 patients) attempted to call but they did not succeed in calling because of busy signals or being placed on hold.

Telephone calls from 26 patients disclosed a pattern of how patients used the telephone to communicate their need to the researcher. The patients and relatives, in particular, expressed the opinion that access of the researcher through a single, dependable telephone number proved convenient and comforting. Besides, it provided a feeling that health care services would be available in time of critical need.

Total number of telephone calls from patients and relatives was 26. All of them made one call each to the researcher during 2 weeks after discharge. Three patients used it for decreasing their anxiety. Nineteen patients used telephone to gain knowledge and improve decision-making. The telephone helped them to reinforce cognitive and affective information that patients received during hospitalization and to supplement information about specific concerns accompanying the home convalescent period that the content of self-care management in the handbook and providing information for self-care did not cover. This finding were supported by the study of Beckie (1989). Six patients explained they used telephone for confirming appointment because during hospitalization they had poor concentration and memory deficits. In addition, 2 patients explained in the hospital they had limited time and limited place for attention. It hampered information retention. They used telephone for clarification of teaching breathing exercise in 1 day and 2 day after discharged to their home. Moreover, the telephone facilitated them the practice of self-care, similarly with the study of Beckie (1989) demonstrated that the patients needed for self-care information provided via the telephone, after hospital discharge.

It found that after the intervention, there was one patient that visited the hospital before follow up appointment. The most patients used telephone for management their illness, asked questions regarding therapeutic regimens, and clarification the information. In addition, they used telephone calls for improved decision-making and decreased unnecessary hospital visit that was similar with the study of Shu, et al. (1996).

In summary, this study and other studies demonstrated that the support for the patients was important. The patients required for support not only in the hospital, but also while at home. After discharge, alternatives ways for the patients and family to obtain advice and knowledge are essential. The telephone in this program may be one important way to provide patients and family, to identify patients and family learning needs, and to reinforce predischage education.

CHAPTER 6

CONCLUSION

Summary of the Study

This research was a quasi-experimental, one group before-after study. It aimed to evaluate effects of the supportive educative program on self-care practice of the patients with COPD after hospitalization.

The study was conducted at In-patient Department of Long Hospital, Phrae Province and continued to patient's homes. A total of 38 patients with COPD were approached to participate in the study, but 8 patients were not able to participate throughout the whole two weeks program because 6 patients were not improved, the physician was referred them to Phrae Hospital, the General Hospital of Phrae Province and 2 patients did not live in Long District. Therefore, 8 patients excluded from the study. The participants, comprised of 22 males and 8 females, aged ranged from 50 to 75 years. All of patients were hospitalized at In-patient Department of Long Hospital, Phrae Province.

The results found that the majority of participants educated at primary school level, were agricultural workers and lived in Tambol Banpin and nearby place. Most patients were the elderly (over 60 years), and had been diagnosed with COPD for 3 years. The majority of patients were in class I and II. The average length of hospital stay was 3 days.

All participants were enrolled into the study after they were informed by the staff nurse of In-patient Department about the routine instruction. The supportive educative program was started within the first day of hospitalization and continued through two weeks after discharge to their home. The evaluation of this implementation found that all patients had better self-care practices. Most of patients (86.67%) used telephone contacts to the nurse, call was done by the patients 53.85%, by family members 42.31%, and by the other 3.85%. The majority

of calls was done in the first week after discharged and after office hours and weekdays/holiday. They used its for help in clarifying the information that they received during the hospitalization.

Use of program for intervention , the process was started in the first day of hospitalization for collecting general data, assess self-care practice and problems, summarize and identify the problems, plan providing knowledge for self-care. The second day when the patients got better, the knowledge for self-care was given. on discharge day, the knowledge about home medication and use of telephone calls were given and appointment for home visit after discharge 2 weeks had been made. The evaluation of program was done in the home visit.

Implications and recommendations

Implications for nursing care during the hospitalization

From the findings, after patients obtained supportive educatives program, they had a significant increase in self-care practices. The implication for nursing care during the hospitalization were as follows:

1. Development of the program for the patients with COPD

The supportive educative program which comprises of knowledge for self-care and telephone call for contact nurse would be suitable for the patients with COPD and other patients with chronic disease. The nurse could use it to improve their assessment of the problems for self-care of each patient, and provision of knowledge for patients' management of their illness as needed of them. Therefore, this program could be started at both Out Patient Department and In-Patient Department.

1.1 Out Patient Department

Nurse should assess and provide knowledge for self-care practice for all patients with COPD in each time of the hospital visits. According to the concept of self-care practice, the patients could exchange their illness experiences and manage their illness with the other patients and could make them feel confident in managing their illness by themselves or the family members.

The Out Patient Department should provide telephone number for patients to call for the nurse. When they stay at home they can use it in management their

illness, or clarification information that they received. And did not limited the time for contacts because the problems for self-care had taken any time. Therefore, providing this care should be collaborative with the staff nurses who work in Emergency department for providing this care.

The nurse who had responsibility in this clinic should collaborate with physicians, other personals for giving information to the patients.

The process for giving information about breathing technique and exercise should be presented by the video compact disk and re-demonstrated by the nurse when the patients did not understand, and then, allow them to have exercise with the other patients. When they had problems about these aspects they may use video compact disk for reiteration.

The family members should be participate in the care, the family members is the major providers of the patients when they stay at home.

The patients should have individual report about their illness and follow up. It will indicate the treatment and information that they received in each time.

1.2 In-Patient Department

There should be a process of self-care practice and problems assessment. Nurse can use these for planning intervention to patients and requested the family members for participation in caring for them. Self-care practice should be set goals mutually among patients, family members and health care providers and also about how to achieve the goals.

The process of giving information should be done in the afternoon or in the evening after the patients had meal, because this time period it free for the patients and family members may participate in an activity.

The process for discharge preparation, the nurses who had responsibility in discharging patient should coordinate with the other nurses, who work in primary care unit for home visits. The information about their illness and treatment that the received home should be record in the referral record form.

2. Implications for nursing care at home

Although continuing home care is important and indispensable for the patients with COPD, the success in this care depends upon the participation of

patient and their relatives. In order to developing this service, the nurse should be encourage them to use resources and strengths that they had to manage their illness and support for assistance when they stay at home as much as they can.

In order to improve the effectiveness of home care services, first, the health care team including health care providers in the hospital, primary care unit and health care center should be coordinate for referral system. Second, the problems of self-care practice should be disscussed for plan. To resolve the problems of self-care not only by the health care team but also by the patients and their family. Third, the telephone sholud be the important tool in communication between the patients and the nurse when had problem for manage their own care.

The limitations of this study

1. This study used a quasi-experimental design, one group before and after. There was no control group to refer the group against which outcomes in the treatment group were evaluated.
2. This study had a small size of sample which were not randomized to the intervention group, thus limited the generalization of the findings.
3. This study did not control some external variables that might have affected on use of telephone call. Consequently, there were some external factors such as the location of home living that could influence the use of telephone.

Implications for further studies

There were some limitations to this study as disscussed earlier and therefore it was recommended that further research should be undertaken as follows:

1. As this study is one group before and after, further study should have a control group to increase the vigour of the study.
2. There should be future research focusing on the cost-effectiveness of this care program.

3. Further research should be conducted on a broader approach of supportive educative program such as in other groups of patients, especially the chronically patients.



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APPENDIX A

List of Experts

There were five experts who validated the instrument in this study are as follows:

1. Mr.Chalermchai Khunchompu, M.D.,
The director of Long Hospital, Phrae Province
2. Asst. Prof. Chomchuen Somprasert, Ph. D.,
Department of Psychiatric Mental Health Nursing
Faculty of Nursing, Mahidol University
3. Asst. Prof. Nittaya Sinsooksai, Ph.D.,
Department of Obstetrics and Gynecologic Nursing,
Faculty of Nursing, Mahidol University
4. Asst. Prof. Supavadee Limpanatorn, M.S.,
Department of Public Health Nursing,
Faculty of Nursing, Mahidol University
5. Mrs. Sakitna Chareonlai, B.N.,
Head Nurse of In- Patients Department, Long Hospital, Phrae Province

APPENDIX B**CONSENT FORM FOR PARTICIPANTS**

My name is Champhen Kamsee, I am a nurse, and I also a master student at the Faculty of Nursing, Mahidol University. I am conducting a study on “Effects of supportive educatives program on self-care practice of patients with chronic obstructive pulmonary disease after hospitalization.

You are a person who I believe that are able to participate in this study, you will be asked to make appointment with the investigator for participating in the study which will be started today and continue until you discharged to home and allow me to visit you in your residence for once time at the second week after discharge. I will evaluate the self-care practice and use of telephone call of yours.

From this study, I am expected that the result of the study will contribute to the quality care and benefit to the patients with COPD. During your participation, you may decline to answer any questions that make you feel uneasy and may withdraw from the study at any time

You will be neither charged nor compensated in monetary form. In addition, participant in this study is voluntary and will have no influence on your present or future status as patient at this hospital.

.....

For the participant:

I voluntarily agree to give my consent to participate in this study

.....
(Signature of the patient)

THAI TRANSLATION FORM
CONSENT FORM FOR PARTICIPANTS

คำชี้แจงสำหรับผู้ป่วยและการคุ้มครองสิทธิของผู้ป่วย

ดิฉันชื่อ นางสาวจันทร์เพ็ญ คำสี เป็นนักศึกษาปริญญาโท ทางพยาบาลของคณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล ขณะนี้กำลังศึกษาวิจัยเรื่อง “ผลการใช้โปรแกรมสนับสนุนและให้ความรู้ต่อการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรังหลังเข้ารับการรักษาในโรงพยาบาล”

ท่านเป็นผู้หนึ่งที่ดิฉันคิดว่าจะสามารถให้ข้อคิดที่เป็นประโยชน์ต่อการศึกษาวิจัยครั้งนี้ได้ และถ้าท่านยินดีที่จะเข้าร่วมการศึกษา ครั้งแรกดิฉันจะขออนุญาตสัมภาษณ์แบบสอบถาม จากนั้นดิฉันจะติดตามให้ความรู้ในระหว่างที่อยู่โรงพยาบาล และจะติดตามไปเยี่ยมที่บ้าน 1 ครั้ง ในสัปดาห์ที่ 2 หลังจากออกจากโรงพยาบาล เพื่อสอบถามการดูแลตนเองและการใช้โทรศัพท์ ในการจัดการปัญหาและการดูแลตนเอง

ดิฉันคาดว่าผลการศึกษาวิจัยครั้งนี้จะเป็นประโยชน์โดยตรงแก่ตัวท่าน และจะเกิดประโยชน์ต่อวิธีการให้การพยาบาลและเป็นประโยชน์ต่อผู้ป่วยโรคปอดอุดกั้นเรื้อรังอื่น ๆ

หากท่านมีข้อสงสัยใด ๆ ที่เกี่ยวข้องกับการศึกษาครั้งนี้ ดิฉันยินดีที่จะตอบให้เข้าใจและไม่ว่าท่านจะเข้าร่วมในการศึกษานี้หรือไม่ก็ตาม ท่านจะยังคงได้รับการรักษาพยาบาลจากเจ้าหน้าที่ของโรงพยาบาลตามปกติ ท่านมีสิทธิในการตอบรับการศึกษายังคงมีสิทธิยกเลิกการเข้าร่วมการศึกษาหรือยุติการศึกษาตามที่ท่านต้องการโดยไม่มีผลกระทบใด ๆ

.....
สำหรับผู้เข้าร่วมวิจัย

ข้าพเจ้าได้อ่านหรือได้รับการอธิบายตามรายละเอียดข้างต้นแล้ว ข้าพเจ้ามีความเข้าใจและยินดีที่จะเข้าร่วมการวิจัยในครั้งนี้

ลงชื่อ.....

(ผู้เข้าร่วมวิจัย)

APPENDIX C

THE INSTRUMENTS

แบบบันทึกลำดับที่.....

แบบสัมภาษณ์ข้อมูลผู้ป่วยโรคปอดอุดกั้นเรื้อรัง

คำชี้แจง แบบสัมภาษณ์ข้อมูลส่วนนี้ ใช้บันทึกข้อมูล ตั้งแต่วันที่ผู้ป่วยเริ่มเข้ารับการรักษาในโรงพยาบาล จนกระทั่ง ได้รับการจำหน่ายออกจากโรงพยาบาล มีวัตถุประสงค์เพื่อทราบข้อมูลส่วนบุคคลของผู้ป่วยเรื้อรัง ประกอบด้วย ข้อมูลด้านประชากร ด้านสังคมและเศรษฐกิจ และด้านการเจ็บป่วย ผู้วิจัยทำการบันทึกโดย เติมข้อความลงในช่องว่าง หรือทำเครื่องหมาย / ลงใน ☐

1. ข้อมูลส่วนบุคคล

เพศ ☐ ชาย ☐ หญิง อายุ.....ปี

สถานภาพสมรส ☐ โสด ☐ คู่ ☐ ม่าย ☐ หย่าหรือแยกกันอยู่

ที่อยู่.....

โทรศัพท์ที่ติดต่ได้ที่.....สถานพยาบาลที่ใกล้เคียง.....

วันที่เข้ารับการรักษาในโรงพยาบาล.....วันที่จำหน่าย.....

2. ข้อมูลด้านสังคมและเศรษฐกิจ

ศาสนา ☐ พุทธ ☐ คริสต์ ☐ อิสลาม ☐ อื่นๆ.....

ระดับการศึกษา ☐ ประถมศึกษา ☐ มัธยมศึกษา ☐

อนุสัญญาหรือเทียบเท่า

☐ ปริญญาตรีหรือสูงกว่า

อาชีพ ☐ ไม่ได้ประกอบอาชีพ ☐ ค้าขาย/ธุรกิจส่วนตัว ☐ เกษตรกรรม

☐ รับจ้างทั่วไป/กรรมกร ☐ รับราชการ/รัฐวิสาหกิจ ☐ อื่นๆ.....

รายได้เฉลี่ยต่อเดือน.....บาท ☐ เพียงพอ ☐ ไม่เพียงพอ

ผู้ให้การช่วยเหลือด้านการเงิน ☐ ไม่มี ☐ มี ระบุ.....

สถานภาพในครอบครัว ☐ หัวหน้าครอบครัว ☐ คู่สมรส ☐ บุตร

☐ ญาติพี่น้อง ☐ อื่น ๆ.....

จำนวนสมาชิกในครอบครัวที่อยู่ด้วยในปัจจุบัน.....คน

สถานภาพความเป็นอยู่ ☐ อาศัยอยู่กับสามี/ภรรยา ☐ อาศัยอยู่กับบุตร

☐ อาศัยอยู่กับสามี/ภรรยา และบุตร ☐ อาศัยอยู่ตามลำพัง

☐ อื่นๆ

ผู้ดูแลหลักเมื่อเจ็บป่วย

สิทธิการรักษาพยาบาล ☐ เบิกค่ารักษาพยาบาลได้จาก

☐ ประกันสังคม ☐ ประกันชีวิต

☐ บัตรประกันสุขภาพ เสียค่าธรรมเนียม

☐ บัตรประกันสุขภาพ ไม่เสียค่าธรรมเนียม

☐ อื่นๆ

3. ข้อมูลด้านการเจ็บป่วย

3.1 ระยะเวลาที่ได้รับการวินิจฉัยจากแพทย์ว่าเป็นโรคปอดอุดกั้นเรื้อรัง

3.2 อาการสำคัญและปัญหาการเจ็บป่วยที่ต้องเข้ารับการรักษายาบาลในครั้งนี้

.....

.....

3.3 ปัญหาการเจ็บป่วยครั้งนี้ได้มีการดูแลตนเองก่อนเข้ารับการรักษาในโรงพยาบาลหรือไม่

☐ ไม่มี ☐ มี โดย ☐ ตนเอง ☐ สมาชิกในครอบครัว ☐ อื่นๆ

วิธีการที่ดูแล

3.4 ท่านเคยได้รับความรู้หรือคำแนะนำในการดูแลตนเองเกี่ยวกับโรคปอดอุดกั้นเรื้อรังหรือไม่

☐ ไม่เคย

☐ เคย จาก(ตอบได้มากกว่า 1 ข้อ) ☐ สมาชิกในครอบครัว ☐ บุคลากรด้านสุขภาพ

☐ วิทยุ โทรทัศน์ หรือหนังสือพิมพ์ ☐ อื่นๆ

3.5 ระดับความรุนแรงของโรค ก่อนเข้ารับการรักษายาบาล (สมาคมโรคปอดแห่งสหรัฐอเมริกา, อ้างใน สมจิต หนูเจริญกุล, 2536)

☐ ระดับที่1 ท่านสามารถปฏิบัติกิจกรรมต่างๆ ในชีวิตประจำวันได้ตามปกติ โดยไม่มีอาการเหนื่อยหอบ

☐ ระดับที่2 ท่านสามารถเดินทางราบได้ แต่ไม่กระฉับกระเฉงเท่าคนปกติ ไม่สามารถเดินขึ้นที่สูงหรือบันไดได้เท่าคนในวัยเดียวกัน แต่สามารถขึ้นตึกสูงชั้นได้โดยไม่หอบเหนื่อย

☐ ระดับที่3 ท่านไม่สามารถทำงานได้ตามปกติ แต่สามารถช่วยตัวเองหรือดูแลตนเองได้ ไม่สามารถเดินทางราบได้เท่าคนวัยเดียวกัน เหนื่อยหอบเมื่อเดินขึ้นตึกสูง 1 ชั้น

☐ ระดับที่4 ท่านไม่สามารถทำงานได้และ เคลื่อนไหวได้ในขอบเขตจำกัดและต้องหยุดพักเมื่อเดินขึ้นตึกสูง 1 ชั้น

☐ ระดับที่5 ท่านเดินเพียง 2-3 ก้าว หรือลูกนั่งก็จะรู้สึกเหนื่อย ไม่สามารถช่วยเหลือตนเองในการปฏิบัติกิจวัตรประจำวันได้ มีอาการเหนื่อยหอบแม้ขณะที่พูดหรือแต่งตัว

3.6 การรักษา ตามคำสั่งแพทย์ วันที่ได้รับการจำหน่ายออกจากโรงพยาบาล

1.
2.
3.
4.
5.
6.

3.7 การนัดตรวจครั้งต่อไป

.....



แบบบันทึกลำดับที่.....

แบบประเมินการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง

คำชี้แจง แบบประเมินนี้ใช้สัมภาษณ์ผู้ป่วยโรคปอดอุดกั้นเรื้อรังมีวัตถุประสงค์เพื่อใช้ประเมินการดูแลตนเองของผู้ป่วย โดยถามคำถามที่ละข้อให้ผู้ผู้ป่วยตอบคำถามตรงตามความเป็นจริงมากที่สุด และนำผลที่ได้ไปใช้พิจารณาตัดสินใจจัดบริการที่เหมาะสมและปรับปรุงการให้คำแนะนำแก่ผู้ป่วยแต่ละราย ประกอบด้วยข้อคำถามทั้งหมด 37 ข้อดังนี้

การปฏิบัติเกี่ยวกับการรับประทานยาและการรักษา

1. ยาทุกชนิดที่ได้รับในการรักษาครั้งนี้ ท่านใช้ได้อย่างถูกต้องตามวิธีที่แนะนำ

- () บ่อยครั้งที่ไม่ต้อง
- () ถูกต้อง เกือบทั้งหมด
- () ใช้ถูกต้องทั้งหมด

2. ยาแต่ละชนิดที่ได้รับในการรักษาในครั้งนี้ ท่านใช้ถูกต้องตามวัตถุประสงค์ที่กำหนด

- () บ่อยครั้งที่ไม่ต้อง
- () ถูกต้อง เกือบทั้งหมด
- () ใช้ถูกต้องทั้งหมด

3. ยาแต่ละชนิดที่ได้รับในการรักษาในครั้งนี้ ท่านใช้ถูกต้องตามเวลาที่กำหนด

- () บ่อยครั้งที่ไม่ต้อง
- () ถูกต้อง เกือบทั้งหมด
- () ใช้ถูกต้องทั้งหมด

4. ยาแต่ละชนิดที่ได้รับในการรักษาในครั้งนี้ ท่านใช้ถูกต้องตามขนาดที่กำหนด

- () บ่อยครั้งที่ไม่ต้อง
- () ถูกต้อง เกือบทั้งหมด
- () ใช้ถูกต้องทั้งหมด

5. อาการข้างเคียงของยาแต่ละชนิดที่ได้รับในการรักษาในครั้งนี้ ท่านสามารถบอกได้

- () ไม่ทราบ
- () ได้เกือบทุกชนิด
- () ได้ครบทุกชนิด

6. ท่านเคยลืมกินยา บ่อยเพียงใด

- () ไม่เคยลืม
- () ลืมกินบ้าง (1-2 ครั้ง / สัปดาห์)
- () ลืมกินมากกว่า 1 ครั้ง / สัปดาห์

7. ถ้าท่านมีอาการผิดปกติจากการใช้ยา เช่น ผื่นคัน ใจสั่น วิงเวียนศีรษะ คลื่นไส้ อาเจียนท่านจะปฏิบัติอย่างไร

- () ไม่ทราบหรือไม่ทำอะไร กินยาต่อ ตามปกติ หรือหยุดกิน
- () พบแพทย์ทันทีที่มีอาการ
- () ลดขนาดยาลง สังเกตอาการ ถ้าอาการไม่ดีขึ้น ไปพบแพทย์

การปฏิบัติเกี่ยวกับการมีปฏิสัมพันธ์กับบุคคลอื่นและการใช้เวลาว่างเป็นส่วนตัว

8. ท่านได้เคยพบปะพูดคุยกับเพื่อนบ้านข้างหรือไม

- () แทบจะไม่เคยเลย
- () เคยบ้าง บางครั้ง
- () เคย เป็นประจำ

9. ในรอบเดือนที่ผ่านมา ท่านได้เข้าร่วมกิจกรรมที่จัดขึ้นในชุมชนเช่น ฟังเทศน์ งานบวช แต่งงานหรือไม่ บ่อยเพียงใด

- () ไม่เคยเลย
- () เข้าร่วมบ้าง เป็นบางครั้ง
- () เข้าร่วมบ่อย เกือบทุกครั้ง

10. ในแต่ละวัน ท่านมีเวลาว่างส่วนตัวที่จะทำอะไรก็ได้ บ่อยเพียงใด

- () นาน ๆ ครั้ง
- () มีบ้างเป็นบางวัน
- () มีบ่อยเกือบทุกวัน

การปฏิบัติเกี่ยวกับการป้องกันภาวะแทรกซ้อนของโรค

11. ท่านบอกสาเหตุของการเกิดโรคได้

- () ไม่ทราบ
- () ตอบได้ 1-2 สาเหตุ
- () ตอบได้ทั้งหมด

12. ท่านหลีกเลี่ยงไม่ให้มีอาการระคายเคืองต่อหลอดลมและการติดเชื้อในระบบทางเดินหายใจ โดย

- () ไม่ทราบ
- () ตอบได้ถูก 1-2 ข้อ
- () ตอบได้ถูกมากกว่า 2 ข้อ

13.ปัจจุบัน ท่านสูบบุหรี่หรือไม่ บ่อยเพียงใด

- () ไม่สูบ
- () สูบบ้าง ไม่เกิน 4 มวน / สัปดาห์
- () สูบมากกว่า 4 มวน / สัปดาห์

14.ถ้ามีความจำเป็นต้องอยู่ในที่ที่มีฝุ่นละออง ควันบุรี หรืออากาศถ่ายเทไม่สะดวก ท่านปฏิบัติโดย

- () ไม่ทำอะไร
- () ใช้ผ้าปิดปากและจมูก เป็นบางครั้ง
- () ใช้ผ้าปิดปากและจมูก ทุกครั้ง และพยายามหลีกเลี่ยงหรือใช้เวลาอยู่ในสถานที่นั้นน้อยที่สุด

15.เมื่อท่านมีอาการไข้หวัด เจ็บคอ ท่านปฏิบัติอย่างไร

- () ไม่ได้ทำอะไรเลย ปล่อยให้หายเอง
- () ซื้อยากินเอง หรือสังเกตอาการ
- () รับประทานยาตามอาการก่อน ถ้าไม่ดีขึ้นจึงรับการตรวจรักษาจากบุคลากรด้านสุขภาพ

16.เมื่อมีเสมหะเหนียวข้น ท่านปฏิบัติอย่างไร (ให้ผู้ป่วยระบุเอง)

- () ไม่ได้ทำอะไรเลย
- () บางครั้งจะดื่มน้ำอุ่นหรือสูดละอองไอน้ำ หรือรับประทานยาละลายเสมหะเป็น
- () ส่วนมากหรือทุกครั้งจะดื่มน้ำอุ่น สูดละอองไอน้ำ และรับประทานยาละลายเสมหะ

17.ถ้ามีอาการท้องผูกท่านปฏิบัติโดย

- () ไม่ได้ทำอะไรเลย
- () รับประทานผัก ผลไม้ ที่เป็นประโยชน์ และออกกำลังกายเป็นบางครั้ง
- () รับประทานผัก ผลไม้ ที่เป็นประโยชน์ และออกกำลังกายสม่ำเสมอตลอด

18.ท่านฝึกกลัมนื้อหน้าท้องและกระบังลมช่วยหายใจหรือไม่

- () ไม่ฝึกเลย
- () ฝึก 1-3 วัน / สัปดาห์
- () ฝึกมากกว่า 3 วัน / สัปดาห์

19.ท่านฝึกการไอเพื่อเอาเสมหะออกหรือไม่

- () ไม่ฝึกเลย
- () ฝึก 1-3 วัน / สัปดาห์
- () ฝึกมากกว่า 3 วัน / สัปดาห์

20. ในบางวันที่รู้สึกเหนื่อยมากกว่าปกติ ท่านปฏิบัติอย่างไรเกี่ยวกับงานประจำวันเช่น กวาดดูบ้าน รดน้ำต้นไม้

- () ทำเหมือนเดิม ทุกวัน
- () บางวันก็ลดกิจกรรมลง บางวันก็ทำเหมือนเดิม
- () คงหรือลดกิจกรรมลงเมื่อรู้สึกเหนื่อยทุกครั้ง

21. บางวันที่รู้สึกเหนื่อยมากกว่าปกติ ท่านได้ขอร้องให้บุคคลใกล้เคียงช่วยทำงานแทนท่านหรือไม่

- () ไม่เคยเลย
- () ขอร้องเป็นบางวัน
- () ขอร้องบ่อยครั้ง

22. เมื่อเกิดการเหนื่อยหอบทันที ท่านปฏิบัติอย่างไรเพื่อให้อาการทุเลา (ให้ผู้ป่วยระบุเอง)

- () ไม่ได้ทำอะไร ปล่อยให้หายเอง
- () หยุดกิจกรรมชั่วคราว
- () ทำการบริหารการหายใจ (หายใจลึกโดยการเป่าปาก)

การปฏิบัติเกี่ยวกับการนอนหลับและพักผ่อน

23. ในแต่ละวัน ท่านได้จัดเวลาสำหรับการนั่งหรือนอนพักผ่อน บ่อยเพียงใด

- () นาน ๆ ครั้ง
- () มีบ้างเป็นบางวัน
- () มีบ่อยเกือบทุกวัน

24. ท่านทำกิจกรรมที่ช่วยให้เกิดความเพลิดเพลิน บ่อยเพียงใด

- () นาน ๆ ครั้ง
- () ทำ 1-3 วัน / สัปดาห์
- () ทำมากกว่า 3 วัน / สัปดาห์

25. ถ้ามีอาการนอนไม่หลับ ท่านจะปฏิบัติอย่างไร

- () ไม่ทราบหรือไม่ได้ทำอะไร
- () ไปพบแพทย์เพื่อขอยานอนหลับ
- () ดื่มน้ำหรือเครื่องดื่มอุ่น ๆ ยกเว้น ชา กาแฟ หรือสร้างบรรยากาศที่ผ่อนคลายเช่น ฟังเพลงเบา ๆ หรืออ่านหนังสือธรรมะ

26. ถ้ามีความรู้สึกไม่สบายใจ ท่านปฏิบัติอย่างไร

- () ไม่ทราบหรือไม่ได้ทำอะไร
- () ส่วนมากจะนำปัญหามาคิดหาวิธีแก้ไขด้วยตนเอง
- () ส่วนมากจะพูดคุยปรึกษาปัญหากับบุคคลใกล้ชิด หรือทำกิจกรรมอื่น ๆ ที่ช่วยให้เกิดความเพลิดเพลิน

การปฏิบัติตนเกี่ยวกับการออกกำลังกาย

27. ท่านออกกำลังกาย ให้พอเหงื่อออกหรือไม่ บ่อยเพียงใด

- () ไม่ทำเลย
- () ทำ 1-3 วัน / สัปดาห์
- () ทำ มากกว่า 3 วัน / สัปดาห์

28. ท่านทำงานบ้านให้พอเหงื่อออกหรือไม่

- () ไม่ทำเลย
- () ทำ 1-3 วัน / สัปดาห์
- () ทำมากกว่า 3 วัน / สัปดาห์

29. ท่านสูดละอองไอน้ำเพื่อให้เสมหะอ่อนตัวหรือไม่

- () ไม่ทำเลย
- () ทำ 1-3 วัน / สัปดาห์
- () ทำมากกว่า 3 วัน / สัปดาห์

30. ท่านฝึกบริหารการหายใจหรือไม่

- () ไม่ฝึกเลย
- () ฝึก 1-3 วัน / สัปดาห์
- () ฝึกมากกว่า 3 วัน / สัปดาห์

การปฏิบัติเกี่ยวกับการรับประทานอาหาร

31. ในแต่ละวันท่านรับประทานอาหารอย่างไร

- () ก่อนข้างบ่อยที่ไม่แน่นอน เกือบทุกมื้อ
- () บางครั้งที่ไม่แน่นอน เกือบทุกวัน
- () ส่วนมากเป็นเวลาเกือบทุกมื้อ ในแต่ละวัน

32. ท่านรับประทานอาหารประเภทเนื้อสัตว์ ไข่ นม บ่อยเพียงใด

- () น้อยกว่า 2 วัน / สัปดาห์
- () รับประทาน 2-4 วัน / สัปดาห์
- () รับประทาน มากกว่า 4 วัน / สัปดาห์

33.ท่านรับประทานอาหารประเภทของหวานเช่น ทองหยิบ หรือขนมหวานอื่น ๆ บ่อยเพียงใด

- () ไม่รับประทานเลย
- () รับประทาน 1-3 ครั้ง / สัปดาห์
- () รับประทานมากกว่า 3 ครั้ง / สัปดาห์

34.ท่านเติมน้ำปลาหรือซอสปรุงรสขณะรับประทานอาหารบ่อยเพียงใด

- () ไม่เติมเลย
- () เติบบ้างบางมื้อ
- () เติมน้ำปลาบ่อยเกือบทุกมื้อ

35.ท่านรับประทานอาหารประเภทที่ทำให้เกิดลมเช่น กะหล่ำปลี แตงโม แอปเปิล ฝรั่ง หรือไม

- () ไม่รับประทานเลย
- () รับประทานบ้าง 1-3 ครั้ง / สัปดาห์
- () รับประทานมากกว่า 3 ครั้ง / สัปดาห์

36.ถ้าท่านมีอาการเหนื่อยหอบ ขณะรับประทานอาหาร ท่านจะปฏิบัติอย่างไร

- () ไม่ทราบหรือกินต่อไปจนกระทั่งอิ่ม
- () หยุดกินเลย
- () หยุดกินชั่วคราว แล้วกินให้ช้าลงหลังจากอาการทุเลาแล้ว

37.ถ้าท่านมีอาการอึดอัดแน่นท้อง ภายหลังจากรับประทานอาหารเสร็จแล้ว ท่านจะปฏิบัติอย่างไร (ให้ผู้ปวยระบุเอง)

- () ไม่ทราบหรือไม่ทำอะไร ปล่อยให้หายเอง
- () กินยาแก้ท้องอืด หรือ มื้อต่อไปกินน้อยลง แล้วเพิ่มจำนวนมื้อ
- () เดินเล่นช้า ๆ หรือทำการบริหารการหายใจ

แบบบันทึกลำดับที่.....

แบบบันทึกปัญหาการดูแลตนเองของผู้ป่วยโรคปอดอุดกั้นเรื้อรัง

1. สิ่ง que ผู้ป่วยต้องการเพื่อช่วยในการดูแลตนเอง(Needs) คือ

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2. สิ่ง que ทำให้ผู้ป่วยดูแลตนเองไม่ได้(Stressors) คือ

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3. สิ่ง que ทำให้ผู้ป่วยดูแลตนเองได้ดี (Strengths) คือ

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4. สิ่งที่ยช่วยสนับสนุนในการดูแลตนเองของผู้ป่วย (Resources) คือ

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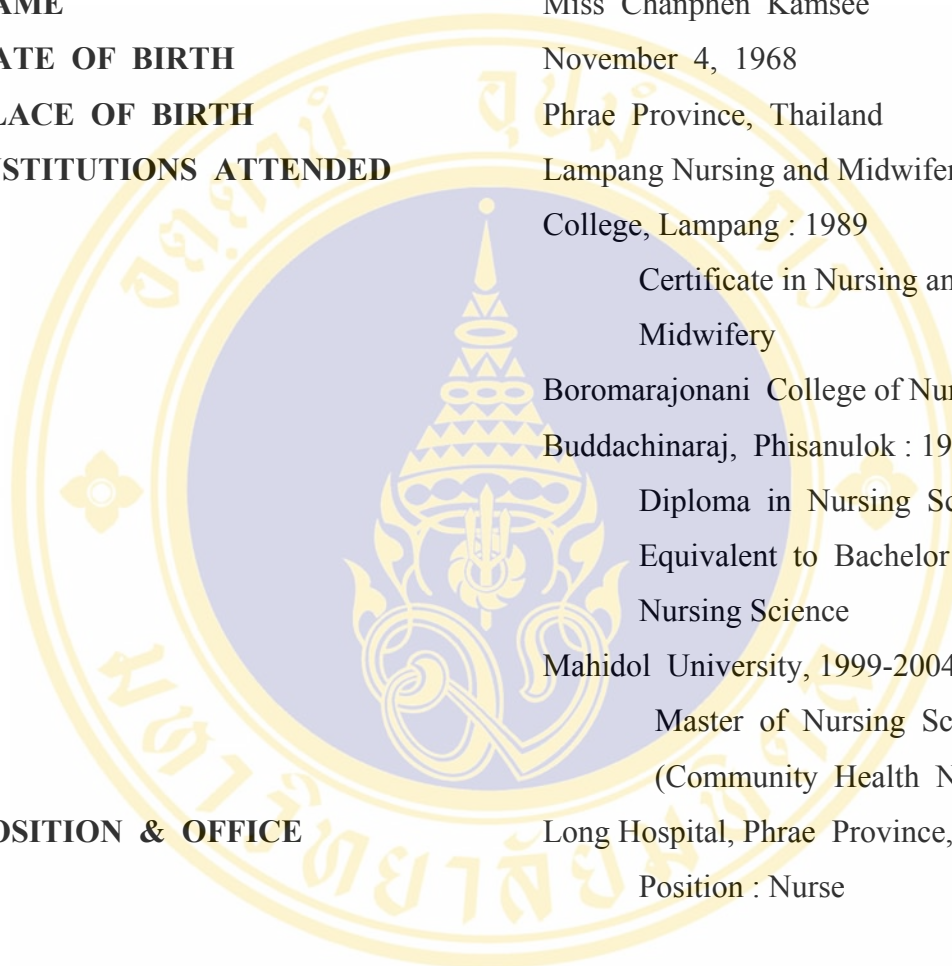
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แบบบันทึกการใช้โทรศัพท์

วันที่จำหน่ายออกจากโรงพยาบาล.....

วัน/เวลา	ผู้ใช้โทรศัพท์	เรื่องที่ติดต่อ	ข้อมูลหรือคำแนะนำที่ให้	ระยะเวลาที่ใช้

BIOGRAPHY

NAME	Miss Chanphen Kamsee
DATE OF BIRTH	November 4, 1968
PLACE OF BIRTH	Phrae Province, Thailand
INSTITUTIONS ATTENDED	Lampang Nursing and Midwifery College, Lampang : 1989 Certificate in Nursing and Midwifery Boromarajonani College of Nursing Buddachinaraj, Phisanulok : 1996 Diploma in Nursing Science Equivalent to Bachelor of Nursing Science Mahidol University, 1999-2004 Master of Nursing Science (Community Health Nursing)
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