

**THE RELATIONSHIP BETWEEN SELF-EFFICACY,
DEPRESSION ANXIETY AND QUALITY OF LIFE IN PATIENTS
WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

The seal of Mahidol University is a large, faint circular emblem in the background. It features a central five-tiered umbrella (parasol) with a flame-like base, surrounded by a circular border containing the university's name in Thai and English.

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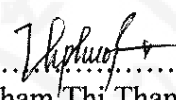
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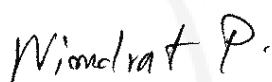
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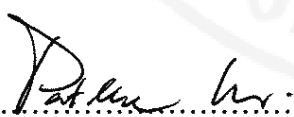
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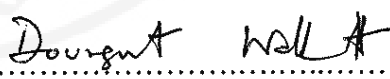
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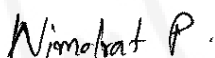

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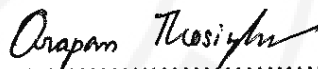
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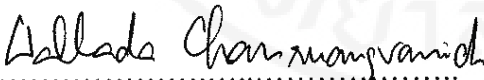
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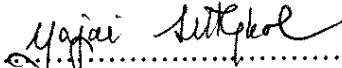

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THE RELATIONSHIP BETWEEN SELF-EFFICACY, DEPRESSION ANXIETY AND QUALITY OF LIFE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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ABSTRACT

Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality worldwide. In Vietnam, COPD is currently the main burden for the healthcare system. There are a little available data about COPD patients in Vietnam and there are factors that effect on the quality of life (QOL) of patients with COPD. This study aimed to examine the relationship between self- efficacy, depression, anxiety and QOL in patients with COPD by using health- related quality of life model. A descriptive correlational study recruited 115 COPD patients (mean age 69.57 ± 10.89 ; 79.13% men), who had COPD diagnosis at Hai Duong General Hospital, Hai Duong, Vietnam. Data was collected by using Demographic data questionnaire, Patient health questionnaire (PHQ-9), General anxiety disorder -7 items (GDA-7) and Clinical COPD questionnaire. The correlation among study variable was analyzed by Spearmans' rho. The self- efficacy and CCQ score was positively correlation at $r = 0.586$. Depression and anxiety was negatively significant correlation with CCQ score at $r = -0.279$ and -0.506 ($p < 0.01$). The result implied that patients with high level of depression and anxiety had poor quality of life. High level of self- efficacy had significant in reducing depression and anxiety. For improving QOL in COPD patients, Nurses should consider in pulmonary rehabilitation by using these variables for making better program.

KEY WORDS: CHRONIC OBSTRUCTIVE PULMONARY DISEASE/ QUALITY OF LIFE/ SELF- EFFICACY/ DEPRESSION/ ANXIETY.

105 pages

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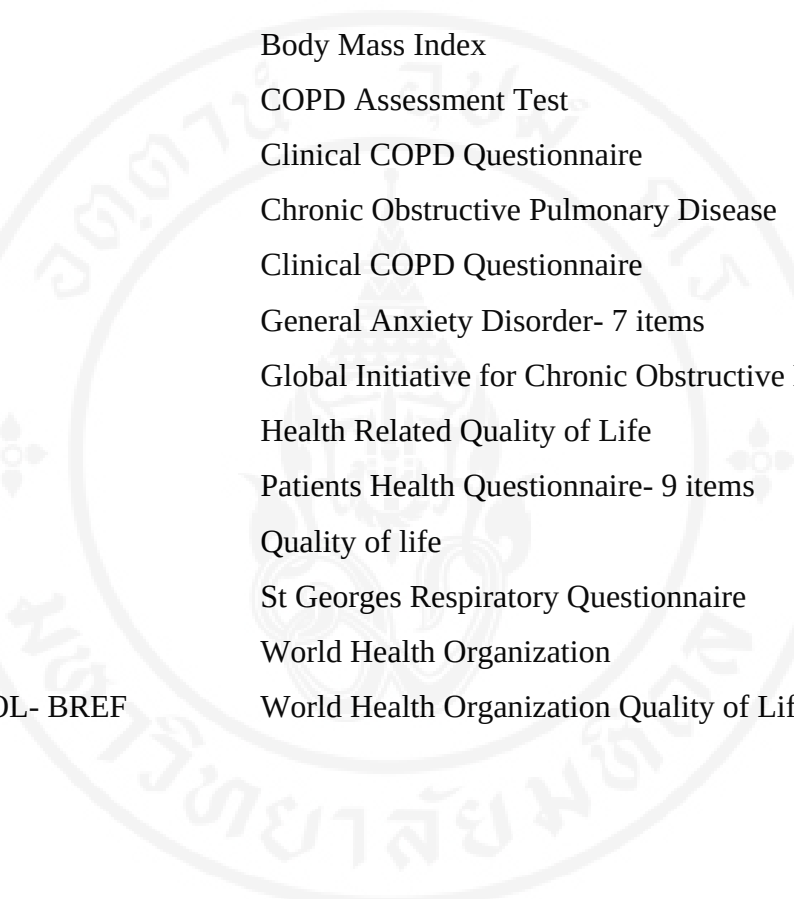
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LIST OF ABBREVIATIONS



BMI	Body Mass Index
CAT	COPD Assessment Test
CCQ	Clinical COPD Questionnaire
COPD	Chronic Obstructive Pulmonary Disease
CSES	Clinical COPD Questionnaire
GAD-7	General Anxiety Disorder- 7 items
GOLD	Global Initiative for Chronic Obstructive Lung Disease
HRQOL	Health Related Quality of Life
PHQ-9	Patients Health Questionnaire- 9 items
QOL	Quality of life
SGRQ	St Georges Respiratory Questionnaire
WHO	World Health Organization
WHOQOL- BREF	World Health Organization Quality of Life-BREF

CHAPTER I

INTRODUCTION

1.1. Background and significance:

Chronic obstructive pulmonary disease (COPD) is common disease. It is important cause of morbidity and mortality in the global. It is also burden of economic and social. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) defined COPD as “a common preventable and treatable disease, characterized by persistent airflow limitation with exacerbations and co-morbidities contributing to the overall severity in individual patients (Vestbo et al., 2013).

Global, 80 million people suffer from moderate to severe COPD. Every year, estimated 100,000 deaths and 550,000 hospitalizations. COPD is the fifth leading cause of death in 2001. It was predicted to be the third leading cause of death in 2020 (WHO, 2013). Vijayan (2013) also indicated that the prevalence of COPD were difference between countries and gender (in Reykjavik of Iceland was 9% and Cape Town of South Africa was 22%; Hannover of Germany was 4% for man and in Cape Town of South Africa was 17% for women). The incidence of COPD in 12 Asian countries was 6.3% of all people over 30 years old suffering from moderate to severe COPD (COPD working group, 2003). From 2000, COPD was 10th leading causes of death in Japan. Nippon COPD epidemiology study of COPD was 8.6% in adult people with age from 40 years old or older (Fukuchi et al., 2004). Other study showed that the incidence of COPD was 3.6%; difference between male (4.5%) and female (1.8%). The prevalence of COPD in non-smoking was 2.3%, in ex- smoker was 4.3% and in current smoker was 4.8% (Takemura et al., 2005).

In China, the incidence of COPD was 8.2% according to GOLD diagnostic criteria. The incidence of COPD was difference between areas areas. In urban area, Incidence of COPD in Chongqing was highest (13.7%) and in Shanghai was lowest (3.9%). In rural areas, incidence of COPD in Guangdong was highest (12.0%) and the incidence of COPD in Liaoning and Shangxi were lowest (6.8% and 6.9%). The

incidence of COPD in rural areas was significantly higher than urban areas (8.8% & 7.8%). Other study showed that prevalence of COPD was 2.9% based on self-report. The incidence of COPD increased with age, in the youngest age group (15-29 years) were 0.8% and in the eldest age group (60-69 years) were 7.5%. Prevalence of COPD in former smokers (9.0%) was significantly higher than current smokers (3.3%) and non-smokers (2.3%). People had higher level of education had low prevalence of COPD (educational level < 9 years was 4.2% and educational level $\geq$ 12 years was 1.6%). Similarly, people had higher income had lower prevalence of COPD, 4.1% for people had low income and 2.2% for people had high income (Yin et al., 2011).

In Viet Nam, COPD was the third leading cause of death. It still is the main burden for the healthcare system (WHO, 2002). The COPD working group showed prevalence of COPD between Asian countries in 2003. They found that prevalence of COPD in Vietnam between people over 30 years was 6.7%. Lam et al. (2011) found that the incidence of COPD was 7.1%.

COPD was characterized by common symptoms including dyspnea, chronic cough, sputum production and respiratory infections. Breathing causes a lot of extra energy which can lead to weight loss. Symptoms of COPD are varies. It may take time that the patient receives the correct diagnosis (WHO, 2013). As the disease goes worse, the patient will experience more fatigue, weight loss and decrease appetite. Some people suffered from COPD feel sad and get depressed. Patients with COPD state that dyspnea is one of the worst symptoms. Many patients state that their symptoms vary from day to day and different parts of the day. Chronic symptoms were caused of limitation of activities daily living (ADLs). It will reduce quality of life (QOL) among COPD patient.

COPD has impact on physical health and QOL. Arne et al. (2009) reported COPD patients have low level of physical activity. The level of physical health in COPD patients was lower than patients with other chronic diseases for example diabetes and cardiovascular diseases. Besides that, many studies have research how causes of COPD influences on the patient's impaired health condition and function. COPD is a main cause of mortality, morbidity and disability and well-being (Jassen et al., 2011; Polatli et al., 2012; Izquierdo, Barcina, Jimenez, Munoz & Leal, 2009). Growing of evidence revealed symptom burden, impairment of physical function,

psychological well-being and social behavior. These will impact on QOL in COPD patients (Blinderman et al., 2009; DiBonaventura et al., 2012; Jones et al., 2011). Tsiligianni et al. (2011) found many factors related to QOL among COPD patients such as: age, gender, depression, anxiety, BMI, FEV₁, self-efficacy, symptoms, exercising capacities, severity of COPD.

Self-efficacy is concerned with people's beliefs in their ability to produce given attainments (Bandura, 1997). Among COPD patients, the ability to manage dyspnea is an event-specific challenge that has a main effect on functional performance and QOL. The study of Kohler and colleagues (2002) showed the psychosocial variables influence on QOL in COPD patients was stronger than biomedical variables. They also found that the association between exercising tolerance and self-efficacy increased, whereas the association between lung function and self-efficacy diminished. This change as the result of intervention that changes level of self-efficacy due to the experience gained (Kohler et al., 2002).

Depression, anxiety are common and important symptoms among patients with COPD (GOLD, 2013). COPD is significantly impact on psychological well-being of people. Anxiety and depressive symptoms have significant impact on functional status and QOL in various chronic diseases (Ormel et al., 1998; Yohannes et al., 2010). Patients have depression, anxiety perceive their health worse than the general population (Wells et al. 1998). Especially with COPD, the impact of functional status and QOL is also evident in many researches, for example: the severity of disease, comorbidities (Omachi et al., 2004; Yohannes et al., 2010; Kim et al., 2000). The Meta analysis revealed that among COPD patients, depression and anxiety were the strongest associations with self-reported health status (Tsiligianni et al., 2011). The symptoms of depression in COPD patients related to increasing symptom burden, poor physical function and social function, difficult to perform ADLs and persistent smoking (Beck et al., 1998). In chronic disease, low self-confidence or self-efficacy is common and it is cause of low ability for coping (Laurin et al., 2012; Yohannes et al., 2010). Depression and anxiety symptoms are related to increase perception of dyspnea (Regvat et al., 2011; Kellner et al., 1992; Doyle et al., 2013). The appearance of psychological symptoms has impact on vital exhaustion, features by lack of energy, fatigue, worsening irritability and feelings of demoralization (Tselebis et al., 2011).

Fatigue and dyspnea are independently negatively related to poor health status (Tsiligianni et al., 2011; Balcells et al., 2010). Depression and anxiety symptoms are not only impact on personal's lung disease but also can influence on making decisions in people with end of life (Janssen et al., 2012) and may have negative impact on partners and their relationships (Meier et al., 2011).

Summary, patients with COPD always have many chronic symptoms that impact on their QOL. COPD patients have low QOL which was impacted by many factors for example age, gender, physical, psychological, BMI, co morbidities, self-efficacy, etc. Vietnam is lack of study to determine QOL among COPD patients and identify relationship between factors and QOL among patients with COPD. So, Researcher wants to study relationship between self- efficacy, depression & anxiety and QOL in COPD patients.

1.2. Research questions:

Does self- efficacy, depression, anxiety related to QOL in patients with COPD?

1.3. Objective of the study:

To examines the relationship between self- efficacy, depression, anxiety and QOL in COPD patients

1.4. Hypothesis:

1. Self- efficacy is positively correlated to QOL in COPD patients.
2. Depression and anxiety are negatively correlated with QOL in COPD patients.

1.5. Theoretical/Conceptual framework

There are many conceptual models to explain the relationships among health variables and QOL (Nagi, 1965; Bergner, 1985; Read, Quinn, & Hoefer, 1987; Patrick & Bergner, 1990; Verbrugge, 1991; Johnson & Wolinsky, 1993; Wilson & Cleary, 1995). The health-related quality of life model was revised by Wilson and Cleary that consist of five concepts including biological variables, symptom status, functional status, general health perceptions and overall QOL and two factors that influence all of conceptual is individual characteristics and environment characteristics. Four concepts (biological variables, functional status, symptom status and general health perceptions) constitute HRQOL are organized along a causal pathway. Each concept is affected by the previous outcome, from left to right, as well as characteristics of individual and characteristics of environmental except biological variables. Level of each concept is extending complex and integration multiple influences. Wilson & Cleary not defined characteristics of individual and environmental but in the model includes two concepts. Model suggest that appraisal of symptom burden or symptom amplification effect on symptom status; motivation and personality effect on functional status; and value preferences effect on general health perceptions and QOL. Environment characteristics consist of psychological supports effect on symptom status, general health perceptions, QOL and social - economic supports effect on functional status.

In this study, QOL is main outcome; symptom status and individual's characteristic are factors that impact on the QOL. Symptom status includes anxiety and depression; individual's characteristic includes self- efficacy of patients. The conceptual framework of this study is presented in Figure 1.1

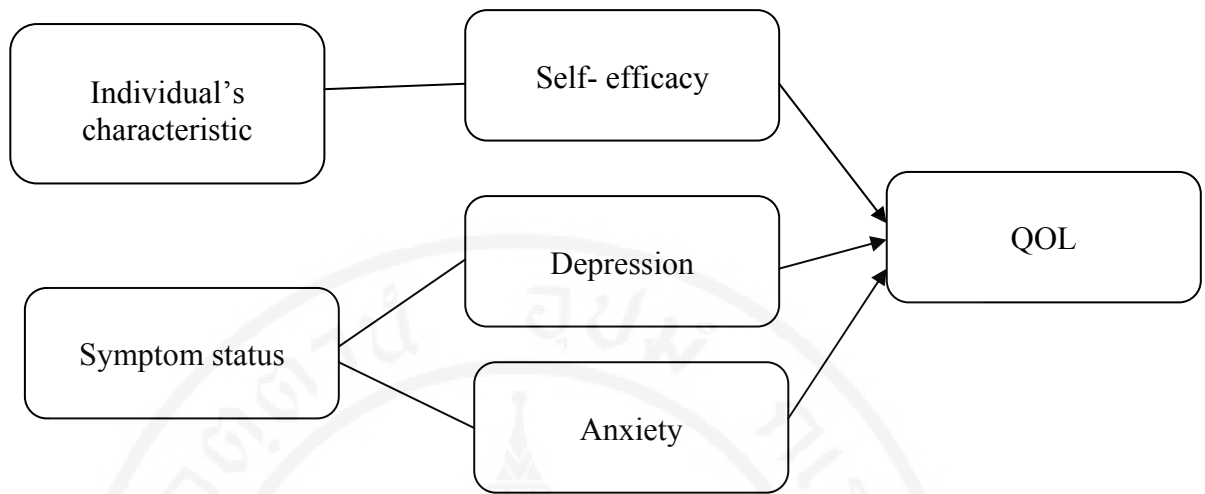


Figure 1.1 The research framework modified from Health- related quality of life theory (Wilson & Cleary, 1995)

1.6. Scope of the study

This study aims to examine the relationship between self- efficacy, depression, anxiety and QOL in COPD patients. The patients were 18 years old or older, have COPD diagnosis, and treated at Hai Duong general hospital. Researcher collected data between Augusts to October in Respiratory Department of Hai Duong general hospital, Hai Duong province, Vietnam.

1.7. Expected outcomes and benefits:

1. Nurses can use knowledge about self- efficacy, depression and anxiety to improve QOL in patients with COPD.
2. This knowledge can use for the other researchers in area of COPD.
3. Health care teams and family member of patients can use effective clinical practice guidelines for the management of dyspnea, depression and anxiety in COPD patients.

1.8. Definition of terms

1.8.1 Self-efficacy is concerned with people's beliefs in their ability to produce given attainments (Bandura, 1997). In this study, researcher use self- efficacy to measure level of confident to manage and control dyspnea in other specific situation. In this study researcher will be used specific measurement to assess self-efficacy which is COPD self- efficacy scale. The CSES is instrument to access the level of confidence of patients with COPD to avoid or to manage dyspnea in certain situations. CSES has 34 items and this scale shown good reliability and internally consistent (Wigal et al., 1991). It is distributed into five factors: 1) negative affect, 2) intense emotional arousal, 3) physical exertion, 4) weather and environment and 5) behavioral risk factor. Each item in the CSES was scored from 1 (not at all confident) to 5 (very confident)

1.8.2 Depression and anxiety are common and important symptoms in COPD patients (GOLD, 2013). Anxiety is a psychological and physiological state featured by somatic, emotional, cognitive, and behavioral components (Seligman, Walker & Rosenhan, 2001). Depression is a popular mental disorder that appearances with depressed mood, loss of interest or pleasure, reduced energy, feelings of guilt or low self-worth, difficult sleeping or decreased quality of sleep and reduced concentration. (Marcus, Yasamy et al., 2012).

Anxiety was measured by Generalized Anxiety Disorder 7-item (GAD 7) (Spitzer et al., 2006). The GAD-7 questionnaire is designed to assess the symptoms of generalized anxiety disorder; this questionnaire consist of 7 items and each item ranges from 0 (not at all) to 3 (nearly every day). The total score ranges from 0 to 21 and was classified into four levels: 0–4 indicated minimal/no anxiety, 5–9 indicated mild, 10–14 indicated moderate, and 15–21 indicated severe (Spitzer et al., 2006).

Symptom of depression was measured by Patient Health Questionnaire- 9 (PHQ-9). The PHQ-9 includes 9 items, each item scored from 0 (not at all) to 3 (nearly every day). The total score range from 0 to 27 and was classified into five levels: 0–4 indicated minimal/no depression, 5–9 indicated mild, 10–14 indicated moderate, 15–19 indicated moderate severe and 20- 27 indicated severe (Spitzer et al., 2001).

1.8.3 Quality of life (QOL) was defined as “an individual's perception of their position in life in the context of the culture and value systems in which they lived

and in relation to their goals, expectations, standards, and concerns” (WHO, 1996). In this study, researcher use Clinical COPD questionnaire (CCQ). CCQ is short questionnaire but it can cover all problems of COPD patients (van der Molen et al., 2003). The CCQ includes ten questions and is divided into three domains: symptoms, mental status, and functional status. Monitoring symptoms including dyspnea, cough, and product sputum; mental status consist of two questions concerns about feeling depressed and breathing; and functional status describes limitations in different ADLs that was effected by lung disease. The CCQ are applied to the one week before and rating by seven-point Likert scale range from 0 is not limited health status to 6 is severe limited health status

CHAPTER II

LITTERATURE REVIEW

This research aims to examine the relationship between self- efficacy, depression, anxiety and QOL among COPD patients. The researcher conducted the literature review related to the following topics:

2.1 Problems in patients with COPD

2.1.1 Incidence of COPD

2.1.2. Burden of COPD

2.1.3 Pathophysiology of COPD

2.1.4 Classification of COPD

2.1.5 Impact of COPD

2.2 Quality of life in patients with COPD

2.2.1 The concept of quality of life

2.2.2 QOL in patients with COPD

2.2.3 Instrument to measure QOL

2.3 Factors associated with QOL in patients with COPD

2.3.1 Self efficacy and its association with QOL in COPD patients / measurement

2.3.2 Depression, Anxiety and its association with QOL in COPD patients/ measurement

2.4 Conclusion

2.1. Problems in patients with COPD

2.1.1 Incidence of COPD

The incidence of COPD was significantly different in geographic areas (Cabrera et al., 2014). In Europe, the incidence of COPD in the Netherlands was 3.0% (Afonso et al., 2011). The prevalence of COPD in Spain, Cabrera et al.(2014) found 7.3% and 10% was found by Gómez Sáenz et al . (2014). The incidence of COPD in Italian was 2.8% (Cazzola et al., 2011). Danielsson et al. (2012) found that the incidence of COPD among Swedish adult people aged 40 years or older was 16.2%. 29% of COPD people had a previously diagnosed lung disorder (Danielsson et al., 2012). The incidence of COPD in Denmark was 17.4% (Fabricius et al., 2011).

In American, the total COPD prevalence among USA adult people age 40 years old to 79 years old were 10.2% to 20.9% depending on the status of receiving bronchodilator (Tilert et al., 2013). The prevalence of COPD in Latin America and Caribbean was 13.4% (Ciapponi, & colleagues, 2014).

The prevalence of COPD in the Middle East and North Africa was 3.6%. (Tageldin et al., 2012). In Tunisia was 7.8% and only 3.5% participants had been COPD diagnosis (Daldoul et al., 2013).

2.1.2.1 Burden for Hospital

COPD is main cause of morbidity and mortality in the global. COPD is also the main burden for the health care system. It presents exacerbations that are cause of patient go to the Emergency Department and admitted in the hospital, contributing significantly to higher health care costs (Chapman, 2006). High rate of hospitalization and readmission in COPD patients were affected by acute exacerbation. The rate admission of COPD in the United Kingdom from 1991 to 2000 estimated 1% of hospitalizations (Chan et al., 2011). The disease ranks fourth among causes of mortality. It is responsible for 7% of hospitalization. Cost of COPD year 1998 were estimated €1,210 million. Latest studies have shown a significant increase in hospital admissions for COPD in recent years in Spain (García-Sanz et al., 2012).

2.1.2.2 Burden for Family

COPD is a chronic disease. Patients with COPD can be debilitating. They will become a long-term burden of their family members serving as

day-to-day caregivers. It caused high cost in healthcare systems (Wang et al., 2012). The study of Miravittles et al. (2015) found that many informal caregivers had a heavy workload as a result of care giving. They had problems related to health 35.4% and had problems with social/leisure time 82.9% . Among people less than 65 years, 37.3% had problems with occupation. Almost caregivers have problem with health (feeling tired and depressed). They felt tired 78.4% and 51.9% felt depressed. The dependence level of COPD patients was correlated with a higher percentage of health problems in caregivers.

2.1.2.3 Burden for Economic

The COPD impacted on health, social and economic in the United States is high. In 2010, the global cost of COPD in the USA was 50 billion dollars, in which 30 billion of direct cost and 20 billion of indirect cost (American Lung Association, 2012). The percentage of costs correlated with the worsening of disease leading to increase the number of hospitalizations patients (Hilleman, Dewan, Malesker, & Friedman, 2000; Guarascio et al., 2013; Carlone et al., 2014). In the European Union, the direct costs of respiratory disease are estimated 6% of the total health care budget, in which 56% for COPD (53.9 billion USD). In 2002, the direct cost of COPD in the USA was 18 billion USD (Rabe et al., 2007). In Italy was different from USA. The average annual cost for each COPD patient was 2,724€, out of which 92% was direct costs. In particular 19.6% was pharmacological therapy, 59.1% for hospitalizations and 6% for instrumental examinations (Dal Negro et al., 2007)

2.1.3. Pathophysiology of COPD

Pathophysiological changes in COPD are observed in central airways, small peripheral airways and alveolar space (Shapiro & Ingenito, 2005).

2.1.3.1. Airflow limitation and gas trapping: Inflammation and narrowing of peripheral airways leads to reduced FEV1. Parenchyma is damaged due to emphysema and decreased elastic recoil \ contributes to airflow limitation.. Both progress lead to gas trapping during expiration, resulting in hyperinflation (Hogg et al, 2004).

2.1.3.2. Gas exchange abnormalities: Gas exchange abnormalities may result in hypoxemia and hypercapnia, and have several mechanisms in COPD. The main is ventilation–perfusion (VA/Q) abnormalities. Reduced ventilatory may lead to carbon dioxide retention. Especially when combined with reduced ventilation (Rodriguez- Roisin & colleagues, 2009).

2.1.3.3. Mucus hypersecretion: Mucus hypersecretion was resulted from chronic cough. It is a feature of chronic bronchitis and is not necessarily associated with airflow limitation. Conversely, not at all COPD patients have symptomatic mucus hypersecretion. It is due to an increased number of goblet cells and enlarged submucosal glands in response to chronic airway irritation by cigarette smoke and other noxious agents (Burgel & Nadel, 2004).

2.1.3.4. Pulmonary hypertension: Pulmonary hypertension may develop late in COPD. It can be due to hypoxic vasoconstriction of small pulmonary arteries, eventually resulting in structural changes that include intimal hyperplasia and later smooth muscle hypertrophy/hyperplasia, and/or loss of pulmonary capillary bed due to emphysema. In pulmonary vessels, an inflammatory response has been identified. Severe pulmonary hypertension may lead to right ventricular hypertrophy and right-side cardiac failure (Peinado, Pizarro & Barbera, 2008).

2.1.3.5. Exacerbations: Exacerbations occur in COPD patients are triggered by respiratory infection with bacteria or viruses, environmental pollutants, or unknown factors. During exacerbations, there is a flare-up of inflammation, increased hyperinflation and gas trapping, reduce respiratory flow, and increased dyspnea. There is also worsening of VA/Q abnormalities, which can result in hypoxemia and hypercapnia. Other conditions such as pneumonia, thromboembolism and acute cardiac failure may mimic or aggravate an exacerbation of COPD (Parker & colleagues, 2005; Barbera & colleagues, 1997).

2.1.3.6. Comorbidities: nowadays, researchers and medical staffs recognized that many COPD patients have comorbidities. It is a main factor that impact on their QOL and survival. The precise pathophysiology of this association is under investigation but may involve mechanical as well as biological or genetic mechanisms. For instance, airflow limitation and hyperinflation affect cardiac function and gas exchange (Barnes & Celli, 2009; Barr & colleagues, 2010).

2.1.4. Classification of COPD

In COPD patients, severity of disease is classified into four stages by GOLD criteria (Table 2.1).

Table 2.1: Classification stages of COPD (GOLD, 2010)

Stages of COPD	Standards
Stage I: Mild	Mild airflow limitations with chronic cough, mucus production and beginning destroy to lungs. Patients are not perceived of the symptoms. • $FEV_1/FVC < 0.70$ • $FEV_1 \geq 80\%$ predicted • Starting to suffer from chronic symptoms (cough, sputum production)
Stage II: Moderate	Getting worse airflow with noticeable symptoms and dyspnea what happen every day. • $FEV_1/FVC < 0.70$ • $50\% \leq FEV_1 < 80\%$ predicted • Chronic symptoms (cough, sputum production)
Stage III: Severe	Airflow is very limited with dyspnea appearance after minimal exertion to the point, even small tasks, such as leaving the house or going upstairs, are a major issue. • $FEV_1/FVC < 0.70$ • $30\% \leq FEV_1 < 50\%$ predicted • Chronic symptoms including cough and sputum production
Stage IV: Very Severe	Complications for beginning develop respiratory failure and heart failure, the symptoms become life threatening. $FEV_1/FVC < 0.70$ $FEV_1 < 30\%$ predicted or $FEV_1 < 50\%$ predicted plus chronic respiratory failure

2.1.5 Impact of COPD

2.1.5.1 Physical impact

The COPD is significant influence on a patients' physical health. Arne et al. (2009) reported low level physical activity among patients with COPD. Their physical health was lower than patients with other chronic diseases for example diabetes and cardiovascular diseases (Cramm & Nieboer, 2012). Eisner et al. (2008) indicated that COPD was significantly influence on physical function physical activities of the patients. Watz & colleagues (2009) also indicated that patients with COPD had shorter walking and standing time. But they had longer periods of sitting and lying-down than healthy people. In patients with COPD physical health status and QOL was significantly decrease by influencing of severity of COPD (Di Bonaventura et al., 2012; Jones et al., 2011).

2.1.5.2 Psychological impact

The psychological effect in COPD patients may also different from patients' self-concept. It is cause of serious consequences that impact on the patients' self- esteem. Patients will gradually experience themselves and become to the different person. They are often accompanied by feeling of loss and distress. Beside that patients' self- esteem can be declined by feelings of self- blame and feeling themselves being a burden for other people (Nicolson & Anderson, 2003). Another important psychological aspect in COPD is patients' self- efficacy. As a consequence of physical symptoms, patients' confidence to perform desired activities without experiencing breathing problems often decline (Scherer & Schmieder, 1997). Self- efficacy closely related to perceived QOL (McCathie, Spence & Tate, 2002).

2.1.5.3 Social impact

COPD effects on patients and their social system like other chronic diseases. The role of the patients in family may be changed. Their family members and friends may be participated in care. Patients' social interactions were impact by symptoms for example dyspnea, cough, using oxygen therapy. In a survey, more than 60% of COPD patients indicated that social outings and recreational activities of the patients were limited by their disease (Rennard et al., 2002). Scharloo et al. (2000) demonstrated that social functioning in patients age more than 60 years were more limitations than healthy people. A qualitative study demonstrated that

approximate 70% of the male patients with COPD had some type of sexual problem (Ibanez et al., 2001).

2.2 Quality of life in patients with COPD

2.2.1 The concept of quality of life

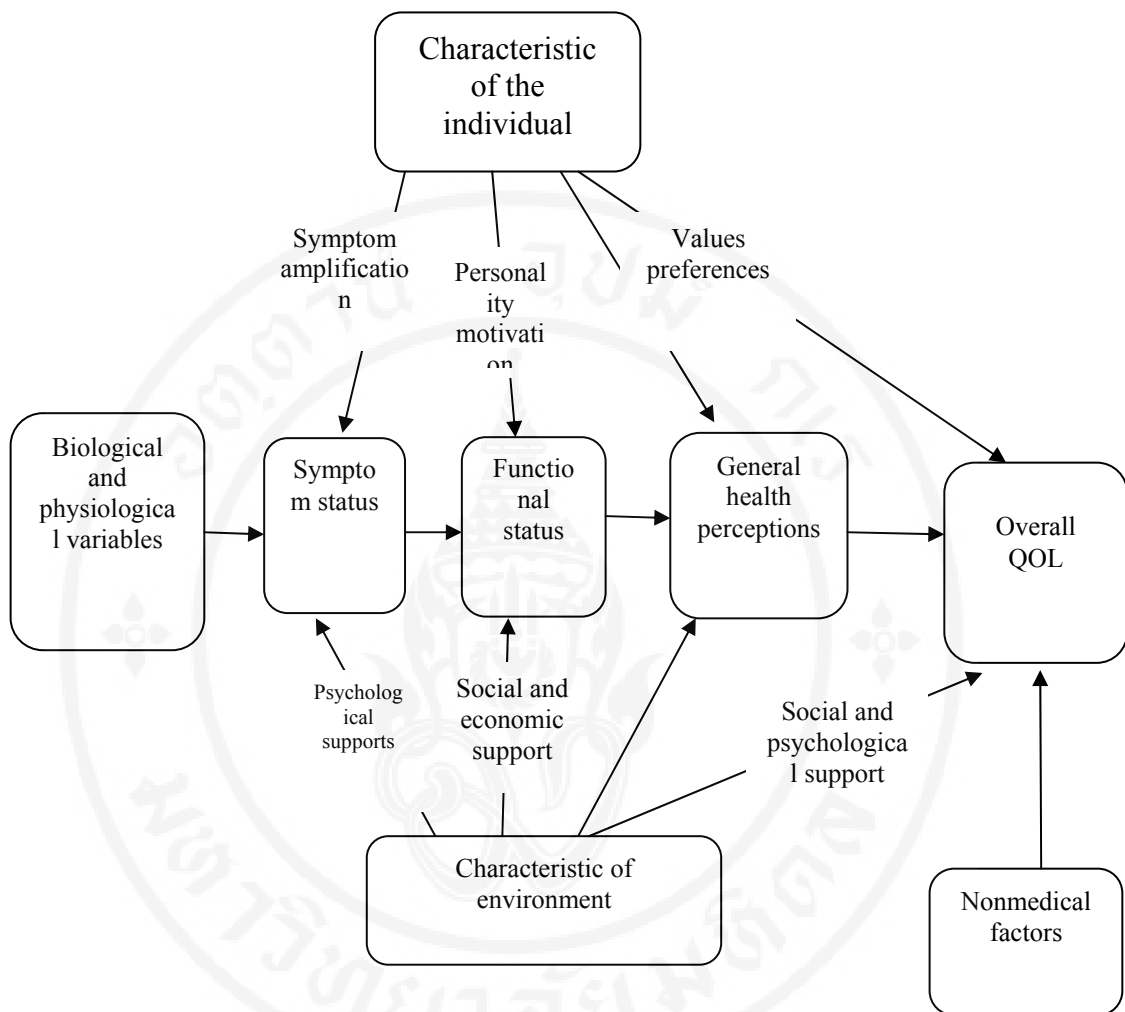
After World War II, the term “quality of life” was entered the American vocabulary. The meaning emphasize the “the good life” more than wealth (Campbell, Converse, & Rodgers, 1976). After that, it became to a main concept for health care providers and social policy makers. Ferrans & Powers (1992) defined QOL as “a sense of individual about well-being that stems from satisfaction or dissatisfaction with the areas of life that are important to him/ her”. This definition included the satisfaction factors, which denotes a more permanent kind of well-being, as well as the belief that different people have different values which impact their perception of QOL.

QOL is a broad multidimensional concept including physical health, psychological health, role functioning, satisfaction with medical treatment, concerns about the future and general well-being, as well as non-medical factors, occupations, marital status, friends and environmental conditions (Ferrans & Powers, 1985; Shumaker & Naughton, 1995; Schipper, Clinch, & Olweny, 1996; Bowling, 1997). All concepts evaluate of both positive and negative aspects of life (Orley, Saxena, & Herrman, 1998). The term “health-related quality of life” (HRQOL) is a health-focused QOL concept that encompasses aspects of health that influence QOL ratings (McHorney, 1999). HRQOL is not only a description of patient’s health status, but also is individual’s characteristic view based on individual patients’ perceptions of their health status as well as other aspects of their lives. It is used as a general label for a variety of physical functioning and psychosocial variables (Smith, Avis, & Assmann, 1999).

WHO defined HRQOL as “an individual’s perception of their position in life in the context of the culture and value systems in which they lived and in relation to their goals, expectations, standards, and concerns” (WHO, 1996). HRQOL is a multi-dimensional concept that includes domains related to physical, mental,

emotional, and social functioning. It goes beyond direct measures of population health, life expectancy, and causes of death. It focuses the impact health status on QOL. A related concept of HRQOL is well-being, which assesses the positive aspects of a person's life, such as positive emotions and life satisfaction (Kobau, Snizek, Zack, Lucas & Burns, 2010).

The aim of this study is examine relationships between health variables and QOL and determine QOL of COPD patients. There are many conceptual models explain the relationships among health variables and QOL (Nagi, 1965; Bergner, 1985; Read, Quinn, & Hoefer, 1987; Patrick & Bergner, 1990; Verbrugge, 1991; Johnson & Wolinsky, 1993; Wilson & Cleary, 1995). One of the most popular, proposed by Wilson and Cleary (1995), integrates biological, psychological and individual's characteristic aspects of health status. It identifies and links five levels of dimensions related to HRQOL: (1) biological and physiological factors, (2) symptom status, (3) functional status, (4) general health perception, (5) overall QOL. So, Health-related quality of life model of Wilson and Cleary's was used as research framework of this study to examines the relationship between QOL, self- efficacy, depression and anxiety (Wilson & Cleary, 1995)



Finger 2.1 Conceptual framework of Health related quality of life theory (Wilson & Cleary, 1995)

Biological variables include the physiological processes that support life (Ferrans et al., 2005) and are fundamental to determine health status (Wilson & Cleary, 1995). Biological variables focus on the performance of cells and organ systems and it was measured by laboratory tests, medical diagnosis and physical assessment. The focus of medical intervention is improved outcomes in this domain.

Symptoms status is defined as a perception of the patients an abnormal physical, emotional, or cognitive state (Wilson & Cleary, 1995). Symptoms are often related to biological function. Sometimes biological changes do not produce symptoms, and sometimes symptoms are perceived in the absence of a biological cause. This characteristic makes symptoms differ among people who had experience with the same disease process. Depression and anxiety were considered as symptom status (Janz et al., 2001). The burden of physical and emotional from symptoms is more important to understanding QOL. Patients with COPD have suffered from many symptoms for example dyspnea, chronic cough, sputum production and respiratory infections (WHO, 2013). Some COPD patients feel sad and get depressed. COPD Patients state that dyspnea is one of the worst symptoms (Barnett, 2005). Hynninen et al. (2005) found the incidence of depression and anxiety among COPD patients higher than the general population and ranged from 10% to 57% (Hynninen et al, 2005; Kunik et al., 2005); the incidence of anxiety among patients with stable COPD range from 7% to 50% in primary care or respiratory clinics (Hynninen et al, 2005; Yohannes et al., 2000). Among patients with COPD, the appearance of anxiety and/or depression is correlated with increasing mortality, a number of exacerbations, length of hospital stay, and decrease QOL and functional status (Pumar et al., 2014). Tsiligianni et al. (2011) found depression and anxiety has strong correlation with QOL among COPD patients.

Functional status is the capacity of personal to perform tasks in four domains including physical, social, role and psychological function (Wilson & Cleary, 1995); Functional status was impacted by symptom and biological function. All health concepts were representing by general health perceptions (Wilson & Cleary, 1995). General health perceptions represent for all previous health concepts, influenced by the individual's values, social and psychological supports, and are an important point of integration.

QOL is larger concept than HRQOL. QOL is affected by multiple non-medical factors (Wilson & Cleary, 1995). The four health outcomes and HRQOL interact together by causal pathway. All concepts impact on overall QOL which is personal feeling of well-being. It ranged from satisfaction or dissatisfaction with all areas of their life (Ferrans et al., 2005).

Individual characteristics or characteristic of environmental are included in the model but were not defined by Wilson and Cleary. Individual characteristics are identified as demographic, psychological and biological factors that impact on health outcomes (Ferrans et al., 2005). The model suggests that symptom status was impact by symptom amplification or an appraisal of symptom burden. Functional status is impacted by personality and motivation. Value preferences impacted on general QOL and health perception. Common demographic characteristic is linked with health including age, gender, value, belief, preference and ethnicity. Holm et al. (2014) found that younger patients had more depression symptoms, poor HRQOL, and single had more dyspnea. In the systematic review showed that found a number of studies indicated that higher age was reported as a negative predicting factor for the health status of COPD patients. Some study showed age is not significantly correlation with health status. Some studies reported that younger patients had worse health status (Tsiligianni et al., 2011). Self-efficacy was identified as important factor for symptoms management in COPD patients. It is highly correlated with overall functions among patients admitted in the hospital and QOL (Bentsen et al., 2010; Bourbeau et al., 2004; Kim & Yong, 2005; Marino et al., 2008). Lee et al. (2014) conducted study among COPD patients in Korea. The result showed that approximately 40% of participants belonged to the low self-efficacy group. Patients with high level of self- efficacy was significant to reduce psychological and improve physical activities, health and QOL (Bentsen et al., 2010)

Environment characteristics are social and economic supports or psychological supports (Ferrans et al., 2005). Social and economic supports impact on functional status. Social characteristics include marriage partners, the social environment, and the specific culture of a respiratory clinic, on health behavior. Psychological supports that impact on symptom status, general health perception and QOL. Psychological characteristics consist of the distinctive attributes. It can impact on health outcomes for example neighborhood pollution or workplace exercise facilities.

2.2.2. Quality of life among COPD patients

COPD is a main cause of mortality, morbidity and disability which impact on ADLs and well-being (Polatli et al., 2012; Izquierdo et al., 2009; Jassen et al., 2011). Evidences show burden, impairment of physical function, psychological well-being and social behavior. They impact on QOL in COPD patients (Blinderman et al., 2009; DiBonaventura et al., 2012; Jones et al., 2011). Shavro et al (2012) found that patients with COPD have moderate QOL. Another study found that 39.0% of the participants were dissatisfied with their health and 25.5% were very satisfied. Three-fourths of the patients evaluated their QOL very low. 47.4% of patients were very dissatisfied and 33.7% of patients were dissatisfied. There were 11.5% of the patients were very satisfied, 4.2% were satisfied and 3.2% were neither satisfied nor dissatisfied (Kurpasa et al., 2013). Nigeria, Obaseki et al., (2013) found that COPD patients have low HRQOL. The QOL of women was lower than men. Smokers had lower score of SGRQ symptom domain than non-smokers.

In China, Lirong and colleagues (2014) found that lower HRQOL was significantly correlation with Medical Research Council (MRC) dyspnea grade, 6-Minute Walk Distance (6MWD) by the number of exacerbations during the one-year follow-up. The number of exacerbations was also significantly correlation with decreased QOL, increased the number of exacerbations and decreased QOL ($p < 0.001$). The women with COPD had poor QOL than men and observed for symptoms, activities and impacts domain (Raheison et al, 2014). They also determine factors related to poor QOL including severity of COPD, level of dyspnea, chronic sputum, time of treatments, respiratory infections, anxiety and depression. The factors associated with poor QOL were different between men and women. Chronic sputum was significantly correlated with poor QOL among women with COPD. But among men with COPD, QOL correlated with the number of treatments (Raheison et al, 2014). The systematic review of Tsiligianni et al. (2011) showed a number of factors related to QOL among COPD patients such as age, gender, FEV₁, symptoms, BMI, exercising capacities, severity of COPD, depression, anxiety and self- efficacy.

2.2.3 Instrument to measure QOL

There are a lot of questionnaires that were designed to evaluate QOL of patients. It can measure by generic questionnaires, such as Short-Form 36 (SF- 36), Short-Form 12 (SF- 12). World Health Organization Quality of Life-BREF (WHOQOL- BREF) measure relatively broad domains and can be used to conduct comparisons across different diseases, ethnicities and cultures. The disease-specific questionnaires, such as the St Georges Respiratory Questionnaire (SGRQ), COPD Assessment Test (CAT), and COPD Clinical Questionnaire (CCQ) measure symptoms of a particular disease impact on various HRQOL domains. Ringbaek, Martinez & Lange (2012) studied three specific instruments of COPD. They found mean FEV₁ 38.7% and poor QOL with mean of SGRQ total score was 51.1. CAT was 1.81 and CCQ was 26.5. There were high associations among the total scores of three instruments. CAT correlated with CCQ at $r = 0.77$. CAT correlated with SGRQ at $r = 0.73$ and CCQ correlated with SGRQ at $r = 0.75$ ($p < 0.001$). The average time to complete SGRQ was 578 seconds. CAT was 107 seconds and CCQ was 134 seconds. SGRQ needs highly assistant of patients answering (86.5%). CAT needs 53.9% assistant for answering. CCQ needs 36.0% (Ringbaek, Martinez & Lange, 2012). It indicated that CAT and CCQ have more advantage than SGRQ. It is easier to used and faster to complete than the SGRQ. In this study, researcher selects CCQ to measure QOL in patients COPD because it is appropriate with COPD patients. In COPD patients, QOL is measured by using CCQ which is recognized and accepted as a reliable QOL measure by the GOLD as of 2013 (Kon, et al., 2014).

2.3 Factors associated with QOL in patients with COPD

2.3.1 Self efficacy and its association with QOL among patients with COPD

Self efficacy is a psychological construct which defines as the belief of individual on the ability to organize and perform action required to produce given attainments (Bandura, 1997). Self-efficacy was identified as essential characteristic for the effective of symptoms management among COPD patients (Kim & Yong, 2005;

Bourbeau et al., 2004). It had high associated with total functioning among patients admit in the hospital and QOL (Bentsen et al., 2010; Marino et al., 2008). Lee et al. (2014) conducted study in COPD patients in Korea. The results showed that nearly 40% of samples belonged to the low self-efficacy group. Jackson et al. (2014) showed average domain-specific self-efficacy scores were 2.39 to 3.01, or “somewhat confident” in managing dyspnea. For all domains, only a minority of patients were categorized as “confident”. Approximately 30% of the sample was considered “confident” in the domains of negative affect, emotional arousal, and behavioral, whereas only 19% were considered “confident” in the physical exertion and weather/environment domains. This study also found that patients with higher confidence had higher HRQOL ($p = 0.05$) and negatively correlations between all domains of the CSES, SF-12 score and CRQ dyspnea. In other study of Andenes et al. (2014) found that general self-efficacy has difference relationship with two dimensions of HRQOL and they indicated that general self-efficacy, physical activity and paid work are important factors to improve HRQOL among COPD patients, and should consider self-efficacy in pulmonary rehabilitation. Pulmonary rehabilitation reduced psychosocial impact of disease. High levels of self-efficacy were significantly increased physical activity, health status and QOL; decreased psychosocial impact of disease ($p < 0.05$). High ability to do exercise predicted significantly decreased psychosocial impact of disease, improved physical activity and QOL ($p < 0.05$) (Bentsen et al., 2010).

Self-efficacy was measured by general instrument or specific instrument for patients with COPD. In this study, researcher used COPD Self-Efficacy Scale (CSES) to measure level of self-efficacy in COPD patients. The CSES is an instrument to access the level of confidence of COPD patients to avoid or to manage dyspnea in certain situations. CSES has 34 items that have well reliable and internally consistent (Wigal et al., 1991) and it was classified into five factors: 1) negative affect, 2) intense emotional arousal, 3) physical exertion, 4) weather and environment and 5) behavioral risk factor.

2.3.2 Depression and its association with QOL among patients with COPD

Depression is common and important co-morbidities among COPD patients (GOLD, 2013). COPD patients have prevalence of depression higher than the general population (Hynninen et al., 2005). Depression among COPD patients was higher prevalence than other chronic disease (Solano et al., 2006). The incidence of depression is high among stable COPD patients in respiratory unit or primary care (Hynninen et al., 2005; Kunik et al., 2005; Yohannes et al., 2000). Pumar et al. (2014) revealed that living alone and gender increased rates of depression. Women have high prevalence of depression than men and depression has strongly correlated with severity of dyspnea; increasing severity of COPD is correlated with higher prevalence of depression (Pumar et al., 2014). They also showed that depressive symptoms have significant impact on QOL and functional status in many chronic diseases. In general, COPD patients have depression perceive their health is poorer than the people without COPD (Pumar et al., 2014). Depression in patients with COPD has a significant detrimental impact on QOL (Clary et al., 2002). Blakemore et al. found that depression, anxiety were significantly associated with lower levels of HRQOL at 1 year follow-up (Blakemore et al., 2014). Tsiligianni et al. in 2011 synthesized that depression, anxiety were the strongest correlations with self-reported health status in COPD patients (Tsiligianni et al., 2011).

Symptom of depression was measured by Patient Health Questionnaire- 9 (PHQ-9) (Spitzer et al., 2001). The PHQ-9 includes 9 items, each item scored from 0 (not at all) to 3 (nearly every day). Total score range from 0 to 27 and was classified into five levels, 0–4 indicated minimal/no depression, 5–9 indicated mild, 10–14 indicated moderate, 15– 19 indicated moderate severe and 20- 27 indicated severe.

2.3.3 Anxiety and its association with QOL among COPD patients

As depression, anxiety also is common and important co-morbidities in patients with COPD (GOLD, 2013). Anxiety associated with COPD and other chronic respiratory diseases. Anxiety often presents before depression, the latter is related to the severity of COPD and to the degree of impaired functioning (Mohammed et al., 2012). The incidence of anxiety among COPD patients is higher than the general

population (Hynninen et al., 2005). In stable COPD patients, the incidence of anxiety ranges from 7% to 50% in primary care or respiratory unit (Hynninen et al, 2005; Yohanneset al., 2000). Female has higher prevalence of anxiety than male (Pumar et al. 2014). They also showed that symptoms of anxiety had significant impact on QOL and functional status in many chronic diseases. Al-Gama found COPD patients and their spouses with high levels of anxiety, depression had poor QOL. The QOL of patients were lower than their spouses (Al-Gama, 2014). In the systematic review, Tsiligianni et al. found a number of study indicated that higher anxiety was reported as a negative predicting factor for the health status of COPD patients (Tsiligianni et al., 2011).

Symptoms of anxiety was measured by Generalized Anxiety Disorder 7-item (GAD 7) (Spitzer et al., 2006). The GAD-7 questionnaire is designed to assess the presence of the symptoms of generalized anxiety disorder. Each item was score from 0 (Not at all) to 3 (Nearly every day). The total score was calculated by sum of the answers for each item and ranges from 0 to 21. The total score was classified into four levels: 0–4 indicated minimal/no anxiety; 5–9 indicated mild, 10–14 indicated moderate and 15–21 indicated severe.

2.4 Conclusion

From literature review, COPD is common disease and it is leading cause of morbidity and mortality in the global. WHO and each country have solution to solve problem but prevalence of COPD still high. In Vietnam, prevalence of COPD is increasing yearly. It becomes burden for their family and society. Evidences from the review supported that there are various factors associated with QOL among patients with COPD namely; self-efficacy, depression, anxiety of the patients. The health related quality of life theory can be well described the relationship among those studied variables. It is expected that the results from this study can be utilized by nurses and other related health care professions to improve the QOL among patients suffering with COPD.

CHAPTER III

RESEARCH METHODOLOGY

In this chapter researcher explained research design, population and sample, instruments, validity and reliability, data collection procedure, human right protection, data analysis and assumption of the statistic.

3.1 Research design

The study was descriptive co-relational research aiming to study the relationship between self- efficacy, depression, anxiety and quality of life in patients with COPD.

3.2 Population and sample of the study

3.2.1 The population of this study

Population of the study included patients who had been diagnosis of COPD, aged from 18 years old or older, males and females, inpatient and outpatient at Respiratory department, Hai Duong general hospital.

3.2.2 The sample of the study: Sample is selected form the population according to the following criteria:

The inclusion criteria are as follow:

- 1) Patients able to communicate with the researcher in Vietnam language.

Exclusion criteria

- 1) Patients with critical illness and respiratory failure: Respiratory rate > 30 times/minute, SpO₂< 90 %, heart rate > 90 times/ minute, purple on the lip, finger or body, and patients with severe pain (Tulaimat and colleagues, 2014).

- 2) Incomplete fill out questionnaire

Criteria to terminate the participation were:

- 1) If patients increase fatigue, dyspnea during the interview process

Sample size: The researcher tested the relationship between self- efficacy, anxiety, depression and quality of life in COPD patients. Four parameters require including 1) the level of significance $\alpha = 0.05$, 2) the power of the statistical test (Power $1 - \beta = 0.8$), 3), There are three independence variables in this study and 4) effect size for this study ($f^2 = .099$). The sample size in this study was calculated by using G*power program to determine the minimum number of participants needed for co-relational design (Faul, Erdfelder, Buchner, & Lang, 2009). Based on G*power, sample size was at least 115 COPD patients.

3.3 Setting

The study was performed at the Respiratory department at Hai Duong general hospital in Hai Duong City, Vietnam.

Hai Duong general hospital was province hospital with 500 beds. This hospital had response to treat and take care of the patients who came from Hai Duong province and nearby province. Respiratory department was unit where treat and care for patients with Lung diseases such as COPD, Pneumonia, Asthma, etc. There were 70 bed with the number of patients from 60- 80. Every day, this department received about 2- 3 new cases of COPD and exam for 5- 10 COPD patients per day. Annually, this department received more than one hundred thousand patients with Lung diseases, in which patients with COPD account for 40% of the total (According to Dr. Nguyen Quang Doi, head of department). Healthcare services were provided everyday from 7:30 a.m. - 4:30 p.m. at the Inpatients Department. So, the researcher collected data from 8:00am- 4:30pm, Monday to Friday, August to October, 2016.

3.4 Instruments

In this study, researcher used five questionnaires to collect data, including: Demographic data questionnaire, COPD Self-Efficacy Scale, Generalized Anxiety

Disorder 7-item (GAD 7), Patient Health Questionnaire- 9 (PHQ-9) and Clinical COPD Questionnaire score (CCQ).

Part I: Demographic data questionnaire: It consists of 14 questions to collect personal data of patients such as age, weight, height, marital status, education level and also collected illness' data and behavior of patients.

Part II: COPD Self-Efficacy Scale (CSES).

Self- efficacy was measured by COPD Self-Efficacy Scale (CSES). The CSES was instrument to access the level of confidence of patients with COPD to avoid or to manage breathing difficulty in certain situations. CSES had 34 items that have been shown to be both reliable and internally consistent (Wigal et al., 1991) and it is divided into five factors: negative affect, intense emotional arousal, physical exertion, weather and environment, behavioral risk factor. Participants were asked to identify how confident they are that they could manage their breathing difficulties in a number of situations. The CSES consists of Likert scale with 5 responses from “very confident” to “not at all confident” scoring 5 to 1 with 5 representing higher self-efficacy. The score could calculated in two ways, a raw score with a maximum of 170, or a rating score which takes account of items that may not be applicable to the patient by reporting the average score based on the number of items answered. Since, in some cases, items were considered non applicable, we only report on the rating score data in this analysis. Higher scores indicated higher confidence in managing and controlling dyspnea. The CSES had excellent internal consistency (Cronbach's $\alpha = 0.95$) as well as good test–retest reliability (0.77).

Part III: Symptoms of anxiety was measured by Generalized Anxiety Disorder 7-item (GAD 7) (Spitzer, Kroenke, Williams & Lowe, 2006). The Generalized Anxiety Disorder Scale was developed for screening generalized anxiety disorder, according to DSM-IV diagnosis, but also functions in screening any anxiety disorder (Spitzer et al., 2006). It was self-administered and the total score was calculated by simple addition of the answers for each item. The scores of all 7 items ranged from 0 (Not at all) to 3 (Nearly every day). Therefore, the total score ranged from 0 to 21. According to the original authors (Spitzer et al., 2006), the total score may be categorized into four severity groups: minimal/no anxiety (0–4), mild (5–9), moderate (10–14), or severe (15–21). When screening for anxiety disorders, a

recommended cutpoint for further evaluation was a score of 10 or greater. The reliability of the GAD-7 was 0.94 (Homans, 2012).

Part IV: Symptom of depression was measured by Patient Health Questionnaire- 9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001). The Patient Health Questionnaire was a self-administered version of the Primary Care Evaluation of Mental Disorders (PRIME-MD). The PHQ-9 was a subscale of the PHQ and had proven to be a reliable and valid instrument for screening depression compared with other brief, validated and freely available instruments for screening major depressive disorder according to DSM-IV diagnosis in primary care (Kroenke, Spitzer & Williams, 2001). The PHQ-9 included 9 items, each item scored from 0 (not at all) to 3 (nearly every day) and total score range from 0 to 27. The total score may be categorized into five groups: minimal/no depression (0–4), mild (5–9), moderate (10–14), or moderate severe (15–19) and severe (20–27). The internal reliability of PHQ-9 was excellent with Cronbach's Alpha was 0.89. Test-retest reliability of PHQ-9 was also excellent (Kroenke et al., 2001). In the study of Zhang et al. 2013 found that the internal consistency reliability (Cronbach's) of the PHQ-9 in our sample was 0.854 and the test-retest reliability values of PHQ-9 was 0.873.

Part V: Clinical COPD Questionnaire score (CCQ)

Quality of life was measured by Clinical COPD Questionnaire score (CCQ) (van der Molen et al., 2003). The CCQ included ten questions and was divided in to three domains: symptoms, mental state, and functional state. Observed symptoms was dyspnea, cough, and phlegm; mental state included questions about feeling depressed and concerns about breathing; and functional state described limitations in different activities of daily life due to the lung disease. The questions were applied to the previous week and used a seven-point Likert scale range from 0 (indicating very good health status) to 6 (indicating extremely poor health status). The CCQ total score and the CCQ domain scores were derived from dividing the sum of graded points for each related question by the number of questions; with a higher score indicating lower health status. In study of Sundh et al. (2012), CCQ score was expressed both as the CCQ total score and as mean scores of the domains. To assess health status, the CCQ score was divided into four groups

- 1) <1 was considered acceptable
- 2) ≥ 1 but <2 was acceptable only in patients with COPD stage 3 or 4
- 3) ≥ 2 but <3 was considered unstable
- 4) ≥ 3 was indicative of very unstable health status.

3.5 Validity and Reliability of instruments

3.5.1 Instrument Validity

In this study, Generalized Anxiety Disorder 7-item (GAD 7), Patient Health Questionnaire- 9 (PHQ-9), COPD Self-Efficacy Scale (CSES) and Clinical COPD Questionnaire (CCQ) were verified by 5 experts. Their content validity was inspected and suggestions were made. Linguistic changes were made to them before being tested on 30 samples to assure their understanding of the contents.

3.5.2 Instrument Reliability

Vietnamese versions of GAD 7, PHQ-9, CSES, CCQ tested for internal consistency reliability before conducting the actual data collection. These questions were pilot test on 30 patients who had the qualifications like the samples, and then the scores were taken to find the reliability of each questionnaire. After pilot test, researcher found that all questionnaire showed good reliability with Cronback's Alpha was .849; .835; .816; .814 for COPD self- efficacy scale, PHQ-9, General Anxiety Disorder Scale, Clinical COPD questionnaire, respectively (table 3.1).

Table 3.1 Reliability of scales (n= 30 patients)

Scale	N of items	Cronbach's Alpha
COPD self- efficacy scale	34	.849
PHQ-9	9	.835
General Anxiety Disorder Scale	7	.816
Clinical COPD questionnaire	10	.814

3.6 Data collection

1) Preparation research assistant

A research assistant in this project was two year experienced nurse in the respiratory department of Hai Duong general hospital. Researcher gave them two-hour training program about objectives and detailed of project focusing on their role for approach voluntary subject, how to include and exclude by inclusion, and how to describe participant with simple word for understanding also process of signing consent form, collecting data from medical record.

2) After that research assistants introduced researcher to voluntary subjects. To collect data, researcher met the patient at his/her bed, introduced herself, and established a relationship with the patient also verbally explain the objective of study, data collection procedure, participant's role and rights

3) The researcher organized private room to interview the patients or do questionnaire by themselves. Then, researcher used five questionnaires for data collection. Questionnaires are 1) Demographic data questionnaire had 12 questions, 2) COPD self- efficacy scale had 34 questions, 3) Generalized Anxiety Disorder 7-item (GAD 7) had 7 questions, 4) Patient Health Questionnaire- 9 (PHQ-9) had 9 questions and 5) Clinical COPD questionnaire for quality of life had 10 questions. Total questionnaire had 72 questions and the time completed five questionnaires about 30-45 minutes.

3.7 Protection of human rights

This study was conducted base on the protection human rights. The participants were asked to participate in this study by volunteer. T researcher explained the purpose of the study, the research procedure, benefit, risks, types of questionnaire, length of time for completing questionnaires, and right to refuse participation in study anytime. The participants who agreed to participate were informed and assured that the data would be kept confidentially and would be reported only as a group data. Informed consent was signed by all participants. During interview or use questionnaire, if patients don't want to participate in this study, they can stop in any conditions. The patients were get the same standard care after

withdraw from the study. There were no any effects for caring. If the patients had unstable conditions for example dyspnea, the researcher will stop to interview. The researcher will immediately contact with doctors who have response to take care the patients. The researcher will take care until patients already stable. The data from withdraw or termination will be exclude. The participants data will be keep in confidentially by using code. If relevant information arises about benefits and risks of the research project, the researcher will inform the participant immediately and without concealment

3.8 Data analysis

The data was analyzed by using computer program. The significant level of statistic test was set up at $\alpha \leq .05$.

Frequency, percentage, mean and standard deviation were used to describe the general characteristics and medical data of the samples.

The descriptive statistics in terms of frequency, percentage, mean and standard deviation were used to describe study variables, including self- efficacy, anxiety and depression and quality of life in patients with COPD.

Before analysis the correlation between variables, assumption tested and result showed that only self- efficacy had normal distribution ($p = 0.2$); score three variables (depression, anxiety and quality of life) didn't have normal distribution ($p = 0.00$). So that, the relationship between self- efficacy, depression, anxiety and quality of life was tested by Spearman's rank correlation..

CHAPTER IV

RESULTS

The purpose of this research is studying the relationship between self-efficacy, depression, anxiety and quality of life in patients with COPD. Results are presented as following, Demographic characteristics of the participants, participants' characteristic of the illness, self- efficacy of the samples, depression of the samples, anxiety of the samples, quality of life and correlate between self- efficacy, depression, anxiety and quality of life.

4.1 Demographic characteristics of the participants

This study included a total of 115 participants have diagnosed COPD with age from 33 to 92 years old in which ages from 60 to 80 were the highest percentage; the mean (SD) of age 69.57 ± 10.89 years old. The majority of samples were male (79.13%). All of them were married, 93.91% participants lived together with their spouse and 6.09 % widowed. Almost of the participants graduated secondary school and high school had high percentage (31.30% and 44.35%), only 9.57% graduated bachelor. 72.17% participants were retired. Income range was from 22.7 to 454.5 USD, mean of income was 144.27 (SD: ± 74.42); more than 50 % of the participants had income from 101- 200 USD and only 3.48 % of the samples had income more than 300 USD; 100% participants used health insurance; more than 60% participants had smoking but now they have stopped smoking.

Table 4.1: Demographic characteristics of participants (n= 115)

Characteristics	Number	Percentage
Gender		
Male	91	79.13
Female	24	20.87
Age (years)		
30- 40	1	0.87
41- 59	18	15.65
60- 70	42	36.52
71- 80	35	30.44
Over 80	19	16.52
Min: 33		
Max: 92		
Mean $\pm$ SD: 69.57 $\pm$ 10.89		
Material status		
Married	108	93.91
Widowed	7	6.09
Education level		
Elementary school	14	12.17
Secondary school	36	31.30
High school	51	44.35
Two years certificate	2	1.74
Bachelor	11	9.57
Post graduate	1	0.87
Occupation		
Famer	26	22.61
House wife	1	0.87
Retired	83	72.17
Government staff	1	0.87
Other (Carpenter)	4	3.48

Table 4.1: Demographic characteristics of participants (n= 115) (cont.)

Characteristics	Number	Percentage
Income (USD)		
Under 100	34	29.57
101- 200	65	56.52
201- 300	12	10.43
Over 300	4	3.48
Min: 22.7		
Max: 454.5		
Mean $\pm$ SD: 144.27 $\pm$ 74.42		
Payment method		
Insurance	115	100
Smoking status		
No	38	33.04
Stopped smoking	77	66.96

4.2 Participants' characteristic of illness

BMI of the participants showed that more than a half of the samples were underweight (54.78%), 41.74 % participants were normal and only 3.48% participants were overweight; BMI ranged from 11.7 to 27.1 and mean score of BMI was 18.56 (SD: ± 3.05) (Table 4.2)

Table 4.2: Participants' Characteristic of illness (n= 115)

Characteristic	Number	Percentage
BMI (kg/m²)		
Overweight (25- 29.9)	4	3.48
Normal (18.5- 24.9)	48	41.74
Mild underweight (17- 18.4)	23	20
Moderate underweight (16- 16.9)	16	13.91
Severe underweight (under 16)	24	20.87
Min: 11.7		
Max: 27.1		
Mean $\pm$ SD: 18.56 $\pm$ 3.05		

More than a half of the samples had comorbidities with common diseases were hypertension, heart diseases, and gastric disease (20%, 12.17% and 14.78%). Cause of participants go to the hospital were cough and dyspnea (73.04%), respiratory infection (26.96%). Almost of the samples had duration of illness from 1- 5 year (71.30%), ranged of duration of illness from 1 to 30 years and mean score was 5.55 (SD: ± 5.26).

Table 4.2: Participants' Characteristic of illness (n= 115) (cont)

Characteristic	Number	Percentage
Cormobidities		
No	57	49.57
Yes	58	50.43
Hypertension	23	20
Diabetes	6	5.22
Heart diseases	14	12.17
Osteoarthritis	6	5.22
Gastric	17	14.78
Kidney failure	3	2.61
Cirrhosis	1	0.87
1 comorbidity	46	40
2comorbidities	12	10.43
Cause of go to the hospital		
Respiratory infection	31	26.96
Cough and dyspnea	84	73.04
Duration of illness (years)		
1-5	82	71.30
6-10	23	20
Over 10	10	8.70
Min: 1		
Max: 30		
Mean $\pm$ SD: 5.55 $\pm$ 5.26		

4.3 Self- efficacy, Depression, Anxiety and QOL

The mean of COPD self- efficacy scale was 102.39 (SD: $\pm$ 7.12) with range from 86 to 117. It indicated that the level of self- efficacy among patients with COPD in Hai Duong general hospital was moderate (table 4.3).

The mean score of GAD-7 was 9.94 (SD: $\pm$ 1.74) and score ranged from 7 to 16. In the table 4.3 showed that all of the samples had anxiety and was classified

into three levels. 50.43 % of the participants had mild anxiety. 47.83 % of the participants had moderate anxiety, and only 1.74 % had severe anxiety

The mean score of PHQ-9 was 11.29 (SD: ± 2.0), and score range from 6 to 20. table 4.3 showed that all the participants had depression and was classified into four levels. Percentage of the samples with moderate depression are the highest (79.13%), 14.78 % were mild depression, 5.22 % were moderate severe depression and only 0.87 % were severe depression.

Table 4.3: Score of CSES, GAD- 7 and PHQ- 9

Scale	Number	Percentage
COPD self- efficacy scale		
Min: 86		
Max: 117		
Mean (SD): 102.39 $\pm$ 7.12		
GAD-7		
Mild anxiety (5-9)	58	50.43
Moderate anxiety (10- 14)	55	47.83
Severe anxiety (15- 21)	2	1.74
Min: 7		
Max: 16		
Mean (SD): 9.94 $\pm$ 1.74		
PHQ- 9		
None minimal (≤ 4)	0	0
Mild depression (5-9)	17	14.78
Moderate depression (10- 14)	91	79.13
Moderate severe depression (15- 19)	6	5.22
Severe depression (20- 27)	1	0.87
Min: 6		
Max: 20		
Mean (SD): 11.29 $\pm$ 2.0		

4.4 Clinical COPD Questionnaire score (CCQ).

The mean score of CCQ was 32.36 (SD: ± 3.58) and ranged from 20 to 39; mean score of CCQ symptom domain was 11.56 (SD: ± 1.61) and ranged from 7- 16; mean score of CCQ mental domain was 7.45 (SD: ± 0.94) and ranged from 3- 8; mean score of CCQ functional domain was 13.36 (SD: ± 1.83) and ranged from 8- 17. In the table 4.4 showed the CCQ score was classified in two levels; 20% of participants had score ≥ 2 -< 3, it means that health status was unstable and the samples had low QOL; 80% of participants had score ≥ 3 , it mean that health status was very unstable and samples had very low QOL.

Table 4.4: Score of CCQ

CCQ score	Mean $\pm$ SD	Min	Max	Number	Percentage
CCQ total score	32.36 $\pm$ 3.58	20	39		
CCQ symptom	11.56 $\pm$ 1.61	7	16		
CCQ mental	7.45 $\pm$ 0.94	3	8		
CCQ functional	13.36 $\pm$ 1.83	8	17		
Level of CCQ score					
≥ 2 -< 3				23	20
≥ 3				92	80

4.5 Correlate between self- efficacy, depression, anxiety and quality of life

In the table 4.5 showed the correlation coefficient between self- efficacy score, depression score and anxiety score and CCQ score. The positive correlation coefficient for self- efficacy and CCQ was 0.586 ($p < 0.01$). Depression had significant negative correlation with CCQ score at $r = -0.279$ ($p < 0.01$). Anxiety had significant negative correlation with CCQ score $r = -0.506$ ($p < 0.01$).

Table 4.5: Correlate between self- efficacy, depression, anxiety and quality of life.

	1	2	3	4
1.CCQ total	1.00			
2.GAD-7	-.506**	1.00		
3.PHQ-9	-.279**	.377**	1.00	
4.CSES	.586**	-.375**	-.298**	1.00

** . Correlation is significant at the 0.01 level

CHAPTER V

DISCUSSION

This chapter is discussion of research finding. The findings are discussed according to the research objectives and hypotheses.

5.1 Characteristic of the participants

This study included 115 patients with COPD treatment and follow –up at Respiratory Department of Hai Duong general hospital. During data collection, there were no adverse events so that all of them participated throughout the study with no attrition.

Majority of participants were male (79.13%) ranging age from 33 to 92 years. The mean age and standard deviation were 69.57 and 10.89 respectively. Similar with evidence in India, the 124 patients with COPD showed that the mean age was 61 years old and 69.4% were males. In the study of Lam, et al. (2014) found that prevalence of COPD was 7.1%, in men was higher than women (10.9% vs 3.9%) at $p < 0.002$. The incidence of COPD was increased with age. Prevalence of COPD was 2.3% among people under 50 years and 14.6% among people older than 50 years ($p < 0.001$). The prevalence of COPD among people were older than 50 years old was difference between men (23.5%) and women (6.8%) ($p < 0.001$).

This research was consistent with data of Kumar, Matreja, Gupta, Singh & Garg (2012). They found that the mean age was 55.67 (± 12.45). Almost of the sample was male (73.9%). Most of the patients were married (93.9%) and finished secondary school (31.3%) and high school education (44.3%). Additionally, Balcells, et al. in 2010 revealed that almost of participants were retired (72.1%). Participants' income from 101- 200 USD was 56.6%. All of the participants had health insurance, when patients had high level of education they can aware the benefits of health insurance in examine and treatment. On the other hand, MOH had program that encourage people

used health insurance belong to their family. More than 60% of the participants had stopped smoking from 1 to 30 years.

The finding in this study showed that more than a half of the samples were underweight (54.78%), normal weight 41.74% and overweight 3.48%. This finding was consistent with the study of Hallin, et al. (2007) in 261 patients (126 women and 135 men). They found underweight 19%, normal weight 41%, e overweight 26% and obese 14%. Battaglia, et al. studied 460 stable condition with COPD in outpatients. They found that there were 14 (3.0%) underweight, 157 (34.1%) normal weight, 168 (36.5%) overweight and 121 (26.3%) obese (BMI was classified follow WHO). In COPD patients, Comorbidities were commonly such as heart disease, diabetes mellitus, hypertension, osteoporosis, and psychological disorders (Chatila, Thomashow, Minai, et al., 2008).

This study found that more than a half of patients had 1 to 2 comorbidities with common diseases such as hypertension, diabetes, heart diseases, Osteoarthritis, Gastric, Kidney failure and Cirrhosis with 20%, 5.22%, 12.17%, 5.22%, 14.78%, 2.61% and 0.87 % respectively. 40% patients had 1 comorbidity and 10.43% patients had 2 comorbidities. This study was consistent with the study of van Manen & colleagues, they study on 1,145 COPD patients and reported that more than 50% patients with 1 to 2 comorbidities, 15.8% with 3 to 4 comorbidities, and 6.8% with 5 or more than 5 comorbidities (van Manen, et al., 2001). In this study, researcher collected data from inpatient and outpatient so that the causes of patients go to the hospital was respiratory infection (27%) and cough and dyspnea (73%). Almost of the patients had duration of illness from 1-5 years (71.3%)

5.2 Quality of life among COPD patients

QOL among patients in this study was in the mean (SD) of total score of 32.36 ($\pm$ 3.58). It indicated that patients very limited health status which referred to very poor level of QOL. The majority of the patients (80%) had very poor level of QOL. It can explain that majority of them had been on the COPD treatment for 1- 5 years. Patients had long time suffered from COPD. They had more experience, more training from medical staff and more understanding of the illness. These were directly

related to higher self-efficacy among people with COPD (Bonsaksen, Lerdal, & Fagermoen, 2012). Self- efficacy was positive correlation with QOL so that patients had low level of self- efficacy had poor level of QOL. The study of Sundh et al in (2012) they found that the CCQ total score was 2.05 among alive participants and 2.90 among participants who died during the study period. Similar with the study of Kardos, Bethke, Vogelmeier, They found that the mean score of CCQ ($\pm$ SD) was 3.7 ($\pm$ 1.0) at baseline; in study of Van Dam van Isselt et al., 2014 also found the mean score of CCQ was 3.5 ($\pm$ 0.9), indicating severely limited health status and they indicated that Pulmonary rehabilitation program was improvement score of CCQ. The mean CCQ was 3.5 ($\pm$ 0.9, range 1.3–5.8) and was 2.2 ($\pm$ 1.0, range 0.6–4.4) at discharge (Van Dam van Isselt, et al., 2014).

5.3 The correlation between self- efficacy and QOL

The self- efficacy score (SD) was 102.39 ($\pm$ 7.12), it mean that the level of self- efficacy among patients with COPD in Hai Duong general hospital was moderate. There was positively significant correlation between self- efficacy and CCQ at $r = 0.586$ ($p < .01$). It indicated that patients had high level of self- efficacy had high HRQOL. Self- efficacy is personal's confidence in his or her capacity to control dyspnea that led to the specific QOL. Self-efficacy for coping with COPD has been shown to affect self-reported HRQOL more so than measures of objective lung function (Kaplan, Atkins & Reinsch, 1984; Kohler, Fish & Greene, 2002). High self-efficacy predicts reduced psychosocial impact of disease, improved physical activity levels, and increased QOL (Bentsen, Rokne, Wentzel-Larsen, Henriksen & Wahl, 2010). Conversely, low self-efficacy has been shown to predict poor HRQOL. In the study of Jackson, Coultas, Ashmore, et al. (2014) found that patients with higher self-efficacy has higher QOL with significant ($p < 0.05$). This finding was consistent with the study of Andenæs, et al. (2006). They study in 97 COPD patients found that better HRQOL was directly related to higher self-efficacy ($p < 0.001$). In addition, Bentsen, Larsen, Henriksen, Rokne & Wahl (2010) study in 100 patients with COPD and they also found that self- efficacy had positive correlate with health status and QOL ($p < 0.05$). Cathie, Spence & Tate indicated patients with low levels of self-efficacy to

avoid or manage dyspnea predicted high levels of depression, anxiety and a more impaired QOL (Cathie, Spence & Tate, 2002).

5.4 The correlation between depression and QOL

The mean score (SD) of anxiety was 9.94 (± 1.74), 50.4 % of the participants had mild anxiety, 47.8 % of the participants had moderate anxiety, and only 1.7 % had severe anxiety.

There was negatively correlation between depression and CCQ $r = -.279$ ($p < .01$). This concluded that patients with high level of depression had poor QOL. Depression was well-recognized major comorbidities in COPD (GOLD, 2013). The prevalence of depression in COPD was impact by smoking, inflammation and hypoxia. The strongest predictors of depression among COPD patients were severity of symptoms and QOL (Hanania, Mullerova, Locantore, et al., 2011). Limitations of functional correlate with mediate depression in other disorders for example heart failure and arthritis (Dunlop, Lyons, Manheim, et al., 2004). Symptoms of depression and anxiety were significantly influenced on QOL and functional status in a lot of chronic diseases (Yohannes, et al., 2010; Ormel, et al., 1998). The patients with anxiety and depressive symptoms perceived that their health were poorer than general population (Wells, Golding, & Burnam, 1988). A Meta-analysis showed that depression, anxiety had significant correlation with self-reported health status in COPD patients (Tsiligianni, Kocks, Tzanakis, et al., 2011). This finding was consistent with the study of Andenaes, et al. in 2006. They studied 51 COPD patients who were admitted in the hospital and found depression had significant correlation with HRQOL at baseline and after 6 and 9 months follow-up. This study also found that depression was significantly associated with SGRQ Impact subscale ($r = 0.28$, $p < 0.05$), the physical domain ($r = -0.64$, $p < 0.01$), psychological domain ($r = -0.62$, $p < 0.01$), environmental domain ($r = -0.41$, $p < 0.01$). It was not correlated with the social domain ($r = -0.23$) of the WHOQOL-BREF (Andenaes, Moum, Kalfoss, & Wahl, 2006). Coventry et al., (2011) found depression at baseline was significantly associated with HRQOL at 3 months ($r = 0.52$, $p < 0.001$) and 1-year follow-up ($r = 0.64$, $p < 0.001$) in patients discharged from hospital. In study of Channareddy, Ravula &

Kumar (2016), they evaluated the effect of severity of COPD on severity of depression and QOL. They found that HAM-D scores among patients with severe COPD were lower than patients with very severe COPD. QOL among individuals had very severe COPD was much lower than individuals with severe COPD in all domains. They also found QOL is significantly low in people suffering from depression. And patients with severe depression were poor QOL than patients with moderate and mild depression (Channareddy, Ravula & Kumar, 2016).

5.5 The correlation between anxiety and QOL

The mean score (SD) of PHQ-9 was 11.2 (± 2.03). There were 79.1% with moderate depression, 17 % with mild depression, 5.2 % with moderate severe depression and only 0.9 % with severe depression.

There was negatively correlation between anxiety and CCQ at $r = -.506$ ($p < .01$). It means that patients with high level of anxiety had poor QOL. Anxiety among COPD patients was correlated with decrease functional status and QOL. Among COPD patients who had anxiety may get more health services. Because they had increased risk of exacerbations and hospitalization (Chan, Chan-Yeung, Ooi, Lam, Cheung, et al., 2002). Despite negative impact of anxiety on QOL and healthcare usage, there were a few researches exploring the impact of anxiety in COPD patients (Gardner & Hankinson, 1988). This finding was consistent with study of Gado, Basiony, Ibrahim, Shady & Affara (2015) found respiratory symptoms, physical, social functional status and impairment of QOL (assessed by SGRQ) were significantly correlated with the HAD score ($p < .01$). In other study indicated that anxiety was associated with HRQOL at 1-year ($r = 0.41$, $p < 0.001$) and 5-year follow-up ($r = 0.51$, $p < 0.001$) (Oga & colleagues, 2007). Al-Gamal studied on 67 COPD patients and their spouses in Jordanian to explore the relationships between anxiety, depression and QOL among patients and their spouses. The result indicated that patients and spouses with high levels of depression, anxiety had poor QOL. QOL of patients were lower than their spouses (Al-Gamal, 2014).

From the above discussion, this findings show that HRQOL framework can be use to explain the correlation between independent variables and dependent variable.

It can be stated from the results of this study that self- efficacy, depression and anxiety moderately influenced COPD patients' QOL. Accordingly, to improve their QOL, nurses should take into consideration the influential determinants to enhance patients' health status either self- efficacy, physically or emotionally so as to help the patients step by step gain more independence and confidence to deal with and to manage dyspnea. Above all, nurses need to improve their knowledge of the impact of influential factors as well as available treatments on patient QOL to perform their support patients with COPD.

CHAPTER VI

CONCLUSION

This descriptive study base on the Health related quality of life theory. The study aimed to examine the relationship between self-efficacy, depression, anxiety and QOL in COPD patients who age from 33 to 92 years old, treated at inpatient center and outpatient center of Respiratory Department, Hai Duong general hospital, Hai Duong province, Vietnam.

After obtained approval from Institutional Review Board of Nursing faculty, Mahidol University and Institutional of Review Board of SMP, Vietnam National University, Hanoi, Vietnam, the researcher used 5 instruments: the demographic data questionnaire, COPD Self- efficacy Scale, Patient Health Questionnaire- 9 (PHQ-9), Generalized Anxiety Disorder 7-item (GAD 7) and Clinical COPD Questionnaire score (CCQ) for collecting data. All instruments were tested validity and reliability. They showed high reliability with Cronbach's alpha coefficient of COPD CSES, PHQ-9, GAD- 7 and CCQ were 0.849, 0.835, 0.816 and 0.814 respectively. Sample size was 115 COPD patients. They were selected by using inclusion criteria. Data collection was performed from 8.00 am to 4.30 pm every day from August to October, 2016. During data collection, there were no adverse events among the participants. All sample recruited in the study remained throughout the study process with no attrition.

Data was analyzed by SPSS computer program .The descriptive statistics were used to describe general information and study variables, including self- efficacy, depression, anxiety and QOL. The assumption of Pearson' Product Moment Correlation was tested and it was found that three variables were not in normal distribution, so that Spearman's rho was used to examine correlation between self-efficacy, depression, anxiety and QOL among COPD patients.

The finding of this study

The majority of samples were male (79.13%), with age from 33 to 92 years old in which ages from 60 to 80 were the highest percentage, the mean (SD) of age 69.57 ± 10.89 years old. All of them were married, 93.91% participants lived together with their spouse and 6.09 % were widowed. Almost of the participants graduated secondary school and high school had high percentage (31.30% and 44.35%), only 9.57% graduated bachelor. 72.17% participants were retired. Income range was from 22.7 to 454.5 USD, mean of income was 144.27 (SD: ± 74.42); more than 50 % of the participants had income from 101- 200 USD and only 3.48 % of the samples had income more than 300 USD; 100% participants used health insurance; more than 60% participants had smoking but now they have stopped smoking

BMI of the participants showed that more than a half of the samples were underweight (54.78%), 41.74 % participants were normal and only 3.48% participants were overweight; BMI ranged from 11.7 to 27.1 kg/m^2 and mean score of BMI was 18.56 (SD: ± 3.05) More than a half of the samples had comorbidities with common diseases were hypertension, heart diseases, and gastric disease (20%, 12.17% and 14.78%). Cause of participants go to the hospital were cough and dyspnea (73.04%), respiratory infection (26.96%). Almost of the samples had duration of illness from 1- 5 year (71.30%), ranged of duration of illness from 1 to 30 years and mean score was 5.55 (SD: ± 5.26) years.

The mean of COPD self- efficacy scale was 102.39 (± 7.12). All of the patients had anxiety in which 50.43 % of the participants had mild anxiety, 47.83 % of the participants had moderate anxiety, and only 1.74 % had severe anxiety.

Depression in the samples were common with moderate depression are the highest percentage (79.1%), 17 % were mild depression, 5.2 % were moderate severe depression and only 0.9 % were severe depression. In term of QOL, the mean score of CCQ was 32.36 (± 3.58), 20% of participants had mean score ≥ 2 and < 3 and 80% of participants had mean score ≥ 3 .

Self- efficacy was positively moderate correlation with QOL at $r = 0.586$, $p < 0.01$; Depression was negatively correlation with QOL at $r = -0.279$, $p < 0.01$; Anxiety had negatively correlation with QOL at $r = -0.506$, $p < 0.01$.

Implication and recommendation of this study

1. Nurse should provide routine assessment of patients' anxiety and depression by using GAD- 7 and PHQ- 9 during patients' follow up visit to identify level of anxiety and depression. Patients, who have anxiety or depression, have to be referring to the specialist practitioners for proper management.
2. Assessment patients' health status by using CCQ and self-efficacy during patients' follow up is important to set education program to improve health status and self-efficacy.
3. Improvement of patients' self-efficacy by providing them education program to avoid dyspnea. Encouragement and giving feedback during follow up is necessary.

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APPENDIX A

LIST OF EXPERTS

1. Prof Dr. Truong Viet Dung, MD, Ph.D

Chairman of Independent Ethic Committee, Ministry of Health, Vietnam
Dean of School of Medicine and Pharmacy, Vietnam National University, Vietnam.

2. Prof Dr. Nguyen Van Luu, MD, Ph.D

Vice director of Hai Duong Tuberculosis and Lung disease hospital,
Vietnam

3. Dr. Nguyen Quang Doi

Head of Respiratory Department in Hai Duong general hospital, Vietnam

4. Mrs. Nguyen Thi Lien, RN

Head nurse of Respiratory Department in Hai Duong general hospital,
Vietnam

5. Mrs. Bui Minh Thu, RN

The head nurse of Bach Mai hospital, Vietnam

APPENDIX B

CERTIFICATE OF APPROVAL

 CERTIFICATE OF APPROVAL From Institutional Review Board Faculty of Nursing Mahidol University COA No. IRB-NS2016/356.0205	
Title of Project:	THE RELATIONSHIP BETWEEN SELF-EFFICACY, DEPRESSION, ANXIETY AND QUALITY OF LIFE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE
Project Number:	IRB-NS2016/32.0703
Principle Investigator:	Mrs. Pham Thi Thanh Phuong
Name of Institution:	Faculty of Nursing Mahidol University
Approval includes	1) IRB-NS Submission form version received date 2 May 2016 2) Participant Information sheet version date 2 May 2016 3) Consent form version date 2 May 2016 4) Questionnaire version received date 2 May 2016
Institutional Review Board Faculty of Nursing Mahidol University is in full compliance with International Guidelines for Human Research Protection such as Declaration of Helsinki, The Belmont Report, CIOMS Guidelines and the International Conference on Harmonization in Good Clinical Practice (ICH-GCP)	
Date of Approval:	02 May 2016
Date of Expiration:	01 May 2017
Signature of Chair:	 (Associate Professor Dr. Fongcum Tilokkulchai) Chair
Signature of Dean, Faculty of Nursing	 (Associate Professor Dr. Yajai Sitthimongkol) Dean, Faculty of Nursing
Copyright by Mahidol University	
Office of Institutional Review Board Faculty of Nursing Mahidol University Room 503 Faculty of Nursing, Mahidol University 999 Phuttamonthon 4 Road, Salaya, Nakhon Pathom 73170, THAILAND Tel: (662)-441-5333 Ext. 2531, 2532	

Guideline for the research conduct post approval

The Institutional Review Board, Faculty of Nursing, Mahidol University

1. Use only documents with the stamp from the Institutional Review Board, Faculty of Nursing, Mahidol University (IRB-NS) for conducting the research (e.g., Instruments/ Questionnaires, Informational letter, Informed consent form)
2. If the investigator wishes to make any changes on the research protocol, the "Protocol Amendment Form" and all amended documents are required to submit to the IRB-NS for considerations before continuing the research.
3. If the serious adverse events or the suspected unexpected serious adverse events occur to the research participants, the "Adverse Event Report Form" is required to submit to the IRB-NS for considerations before continuing the research.
4. If the research project is completed within 1 (one) year, the "Study Closure Form" is required to submit to the IRB-NS. If the project is needed to extend, the "Progress Report Form" is required to submit to the IRB-NS 1 (one) month in advance of the expiry date.
5. If the report for data collection is required, report as follows:
 - ☒ Normal (Report at the renewal of the COA or at the project closure)
 - ☐ Report at 25% of the data collection
 - ☐ Report at 50% of the data collection

Date May 2, 2016

APPENDIX C

PARTICIPANT INFORMATION SHEET

(English version)

- 2 MAY 2016

32-0703

IRB-NS Form No.3.1

Participant Information Sheet

In this document, there may be some statements that you do not understand. Please ask the principal investigator or his/her representative to give you explanations until they are well understood. To help your decision making in participating the research, you may bring this document home to read and consult your relatives, intimates, personal doctor or other doctor.

Title of Research Project: The relationship between Self- efficacy, Depression, Anxiety and Quality of life in patients with chronic obstructive pulmonary disease.

Name of Researcher: Pham Thi Thanh Phuong

Research Site-Office and its telephone number available for contact both in and out of the office hours:

Respiratory department, Hai Duong general hospital, no 225 Nguyen Luong Bang Street, Thanh Binh Ward, Hai Duong City, Hai Duong Province, Vietnam. Code: 170000, Telephone number: (+84) 3203.890.205.

Source of Fund: No research funding

This research project aims to examine the correlation between self- efficacy, depression, anxiety and quality of life in patients with COPD, which expects the following benefits:

- 1) Providing basic data about factors related to quality of life in COPD patients
- 2) In the future, developing program by using this data to promote quality of life in COPD patients.

However, in this study, the sample doesn't get any benefit directly but COPD patients will get benefit in the future.

You are invited to participate in this research project because you have been diagnosis in COPD patients and being age 18 years old or above

There will be 115 participants, and the research will last for 30- 45 minutes for answer questionnaires.

*To participate in this research is completely VOLUNTARY.

If you decide to participation the research project, you will go through the following procedure.

IRB-NS Form No.3.1

1) The research assistants asks you to sign consent form and help researcher to collect demographic data from medical record form.

2) The researcher will organize private room to interview you or do questionnaire by yourself. Then, researcher uses five questionnaires for data collection. Questionnaires are 1) Demographic data questionnaire have 12 questions, 2) COPD self- efficacy scale have 34 questions, 3) Generalized Anxiety Disorder 7-item (GAD 7) has 7 questions, 4) Patient Health Questionnaire- 9 (PHQ-9) has 9 questions and 5) Clinical COPD questionnaire for quality of life has 10 questions. Total questionnaire has 72 questions and time is about 30-45 minutes. During you answer questionnaires, if there are any questions that are unpleasant or discomfort you have rights not reply the question.

During interviewing or doing questionnaire, you may feel discomfort. You can stop and rest for a while until you feel comfort to continue. If you want to stop participation to this study, you can withdraw from the study at any time.

During data collection, you may have unexpected conditions from stage of disease for example dyspnea, or unstable vital signs. The researcher will stop interviewing or doing questionnaire and will immediately contact with doctors who have responsibility to take care of you. The researcher will take care until you already stable.

If you do not participate in this research project, you will receive a standard assessment and treatment.

If you have any questions about this research project please feel free to contact the researcher, Mrs Pham Thi Thanh Phuong via telephone: (+84) 987489832.

You don't get any money or payment for participating in this research.

If relevant information arises about benefits and risks of the research project, the researcher will inform the participant immediately and without concealment.

Your information will be kept confidential, it will not be subject to an individual disclosure, but will be included in the research report as part of the overall results. Individual information may be examined by a researcher, the ethics committee, etc.

You have the right to withdraw from the project at anytime without prior notice. And the refusal to participate or the withdrawal from the research project will not at all affect the proper service or treatment that you will receive.

Participant Information Sheet for version 5 date 10 August 2015

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NS <u>2016/32.0743</u>
Date of Approval <u>2 MAY 2016</u>

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IRB-NS Form No.3.1

This research project is approved by The Institutional Reviews Boards, Faculty of Nursing (IRB-NS) at the office of IRB-NS room 503 5th floor, Faculty of Nursing, Mahidol University, 999 Phuttamonthon 4 Road, Salaya, Nakhon Pathom 73170 Thailand Tel 0066 2 441 5333 ext 2531, 2532 Fax 0066 2 441 5333 ext 2531, Email: nsirbnursing@mahidol.ac.th, ns.irbnursing@gmail.com

Then submit document and the result to SMP- IRB institutional review board of Vietnam National University. The IRB Chair – SMP is Associate Professor Le Thi Luyen, MD, PhD. Address: Y1 Building, No.144 Xuan Thuy street, Cau Giay district, Hanoi, Vietnam. Code: 100000, Telephone number: (+84)437450118, Fax: +84-4-37450146
Mobile Phone number of IRB: (+84)983297654 (Contact Mr. Nguyen Hoang Long)

On the condition that I am not treated as indicated in the information sheet distributed to the subjects, I can contact the Chair, or the representative of the IRB-NS at the contact address presenting above.

I thoroughly read the details in this document.

Signature..... Participant

(.....)

Date.....

Participant Information Sheet for version 5 date 10 August 2015

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NSMAY 2016
Date of Approval

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(Vietnamese version)

Thông tin dành cho đối tượng nghiên cứu

Phiên bản 02 /ngày 08 tháng 08 năm 2016

THÔNG TIN DÀNH CHO ĐỐI TƯỢNG THAM GIA NGHIÊN CỨU

Tài liệu này sẽ có một số vấn đề Ông/bà có thể không hiểu. Hãy hỏi người nghiên cứu hoặc người đại diện của cô ấy để đưa cho Ông/Bà lời giải thích cho đến khi Ông/Bà hiểu rõ ràng vấn đề. Để giúp cho việc quyết định có tham gia vào chương trình nghiên cứu hay không, Ông/Bà có thể mang tài liệu này về nhà để đọc hoặc hỏi ý kiến người thân và các bác sĩ.

Tên đề tài nghiên cứu: Mối liên quan giữa tự chăm sóc, trầm cảm, lo lắng và chất lượng cuộc sống ở bệnh nhân mắc bệnh phổi tắc nghẽn mạn tính.

Người thực hiện nghiên cứu: Phạm Thị Thanh Phương

Địa chỉ và điện thoại liên hệ trong và ngoài giờ hành chính (Đại diện của người nghiên cứu): Khoa Nội Hô hấp, Bệnh viện đa khoa tỉnh Hải Dương, số 225 đường Nguyễn Lương Bằng, Phường Thanh Bình, Thành phố Hải Dương, Tỉnh Hải Dương, Việt Nam. Mã bưu chính: 170000, Số điện thoại: (+84) 3203.890.205.

Nguồn kinh phí: tự túc

Mục đích của nghiên cứu: nhằm đánh giá mối liên quan giữa sự tự chăm sóc, trầm cảm, lo lắng và chất lượng cuộc sống ở bệnh nhân mắc bệnh phổi tắc nghẽn mạn tính, với các lợi ích được kì vọng, bao gồm:

- 1) Cung cấp dữ liệu cơ bản về các yếu tố liên quan đến chất lượng cuộc sống của bệnh nhân mắc bệnh phổi tắc nghẽn mạn tính.
- 2) Phát triển các can thiệp giúp cải thiện tình trạng chất lượng cuộc sống của người bệnh mắc bệnh phổi tắc nghẽn mạn tính thông qua sử dụng dữ liệu nghiên cứu này trong tương lai.

Tuy nhiên, trong nghiên cứu này, người tham gia nghiên cứu có thể không thu được các lợi ích trực tiếp, nhưng những người bệnh mắc bệnh phổi tắc nghẽn mạn tính sẽ thu được các lợi ích trong tương lai.

Ông/Bà được mời tham gia chương trình nghiên cứu này bởi vì Ông/Bà đã trên 18 tuổi và được chẩn đoán là bệnh phổi tắc nghẽn mạn tính

Sẽ có 115 người tham gia và cuộc phỏng vấn sẽ kéo dài trong khoảng từ 30 đến 45 phút nhằm trả lời các câu hỏi nghiên cứu.

Việc tham gia nghiên cứu này của Ông/Bà là hoàn toàn TỰ NGUYỆN.

Nếu Ông/Bà quyết định tham gia nghiên cứu này, Ông/Bà sẽ trải qua các bước sau:

- 1) Người nghiên cứu sẽ yêu cầu Ông/Bà ký tên vào bản chấp thuận tham gia nghiên cứu
- 2) Người nghiên cứu sẽ thu thập một số thông tin của Ông/Bà từ hồ sơ bệnh án.
- 3) Nghiên cứu viên sẽ chuẩn bị phòng riêng để phỏng vấn Ông/bà hoặc Ông/bà có thể tự trả lời các câu hỏi. Sau đó nghiên cứu viên sẽ sử dụng 5 bộ câu hỏi để thu thập số liệu. 1) Bộ câu hỏi về nhân khẩu học gồm 12 câu hỏi, 2) Bộ câu hỏi đánh giá mức độ chăm sóc để tránh khó thở gồm 34 câu, 3) Bộ câu hỏi đánh giá về rối loạn lo âu tổng quát gồm 7 câu, 4) Bộ câu hỏi đánh giá sức khỏe tâm thần gồm 7 câu, 5) Bộ câu hỏi đánh giá chất lượng cuộc sống của bệnh nhân bệnh phổi tắc nghẽn mạn tính gồm 10 câu. Tổng số gồm 72 câu hỏi được hoàn thành trong khoảng 30- 45 phút. Trong suốt quá trình trả lời câu hỏi, nếu có câu hỏi nào Ông/ Bà không hài lòng hoặc khó trả lời Ông/ Bà có thể không trả lời.

*Thông tin dành cho đối tượng nghiên cứu**Phiên bản 02 / ngày 08 tháng 08 năm 2016*

Trong quá trình phỏng vấn, nếu Ông/bà cảm thấy khó chịu, Ông/bà có thể yêu cầu dừng lại và nghỉ ngơi cho đến khi Ông/bà cảm thấy dễ chịu trở lại và có thể tiếp tục phỏng vấn. Nếu Ông/bà không muốn tham gia nghiên cứu nữa, Ông/bà có thể rút khỏi nghiên cứu bất kỳ lúc nào.

Trong quá trình phỏng vấn, Ông/ Bà có thể gặp phải những tình huống không mong đợi do giai đoạn bệnh của bệnh như khó thở, dấu hiệu sinh tồn không ổn định. Nghiên cứu viên sẽ dừng cuộc phỏng vấn và liên lạc với Bác sỹ điều trị cho Ông/ Bà ngay lập tức để chăm sóc Ông/ Bà. Nghiên cứu viên sẽ chăm sóc Ông/bà cho đến khi Ông/bà ổn định.

Nếu Ông/Bà không muốn tham gia vào nghiên cứu này, Ông/Bà vẫn được điều trị và chăm sóc theo đúng quy trình chuẩn của bệnh viện mà không có bất cứ trở ngại nào sau khi rút khỏi nghiên cứu.

Nếu Ông/Bà có bất cứ thắc mắc nào, vui lòng liên hệ người thực hiện nghiên cứu này là Bà Phạm Thị Thanh Phương thông qua số điện thoại (+84) 987489832.

Ông/Bà không được nhận và cũng không phải trả bất cứ một khoản chi phí nào khi tham gia nghiên cứu này.

Nếu có thêm thông tin gì về các lợi ích và rủi ro của nghiên cứu, nghiên cứu viên sẽ thông báo cho Ông/Bà ngay lập tức.

Thông tin của Ông/Bà sẽ được bảo mật tuyệt đối và không được tiết lộ dưới dạng thông tin cá nhân, tuy nhiên nó sẽ được thể hiện trong báo cáo tổng thể như là kết quả của một đề tài nghiên cứu khoa học. Thông tin cá nhân của Ông/Bà sẽ được kiểm tra bởi người nghiên cứu và Hội đồng đạo đức trong nghiên cứu y sinh học.

Ông/Bà có quyền rút khỏi nghiên cứu bất cứ khi nào mà không cần thông báo trước. Việc Ông/Bà rút khỏi chương trình nghiên cứu sẽ không ảnh hưởng đến chất lượng dịch vụ y tế mà Ông/Bà thụ hưởng.

Đề tài nghiên cứu này được chấp thuận bởi Hội đồng Đạo đức trong nghiên cứu Y sinh học, Khoa Điều Dưỡng, Đại học Mahidol, tầng 5 phòng 504, số 999/4 đường Phuttamonthon 4, Salaya, Nakhon Pathom 73170 Thái Lan. Điện thoại 0066 2 441 5333 số máy lẻ 2531, 2532. Fax 0066 2 441 5333 số máy lẻ 2531, Email: nsirbnursing@mahidol.ac.th, ns.irbnursing@gmail.com.

Đề tài nghiên cứu này cũng được chấp thuận bởi Hội đồng Đạo đức trong nghiên cứu Y sinh học, Đại học Quốc gia Hà Nội, tòa nhà Y1, 144 đường Xuân Thủy, quận Cầu Giấy, thành phố Hà Nội, Việt Nam. Mã bưu chính: 100000, số điện thoại liên lạc: +84437450118, Fax: +84-4-37450146. Email: smp@vnu.edu.vn.

Nếu tôi không được hưởng sự điều trị như trong bản thông tin đưa ra, tôi có thể liên lạc với Hội đồng đạo đức, Khoa Điều dưỡng, Đại học Mahidol hoặc Hội đồng đạo đức trong nghiên cứu Y sinh học, Khoa Y dược, Đại học Quốc Gia Hà Nội với các thông tin liên lạc như đã nêu trên.

Tôi đã đọc kỹ và hiểu toàn bộ chi tiết nêu trong bản thông tin này.

Ngày.....

Họ tên, chữ ký người tham gia nghiên cứu

APPENDIX D

INFORMED CONSENT

(English version)

IRB-NS Form No. 4

- 2 MAY 2016
32.0103

Consent Form for Informed and Voluntary Participation in Research

Date...../...../.....

My name is....., aged: years
old, now living at the address: No.....
Road/street..... Sub-district/commune:
District: Province/ City:
Postal code..... Telephone Number:

I give my consent to participate as a subject in the research project entitled The relationship between Self- efficacy, Depression, Anxiety and Quality of life in patients with chronic obstructive pulmonary disease.

In so doing, I am informed of the background and purpose of research project; its procedural details to carry out or to be carried out; its expected benefits and risks that may occur to the subjects, including methods to prevent and handle harmful consequences; and payment/ incentives, and expense. I thoroughly read the detailed statements in the information sheet given to the research subjects, I was also given explanations and my questions were answered by the head of the research project.

I consent to participate as a subject in this research project.

On the condition that I have any questions about the research procedures, or on the condition that I suffer from an undesirable side effect from this research, I can contact Mrs. Pham Thi Thanh Phuong via (+84) 987489832 or email: Phuonghmtu@gmail.com.

On the condition that I am not treated as indicated in the information sheet distributed to the subjects, I can contact the Chair, or the representative of the IRB-NS at the office of IRB-NS room 503 5th floor, Faculty of Nursing, Mahidol University, 999 Phuttamonthon 4 Road, Salaya, Nakhon Pathom 73170 Thailand Tel 0066 2 441 5333 ext 2531, 2532 Fax 0066 2 441 5333 ext 2531, Email: nsirbnursing@mahidol.ac.th, ns.irbnursing@gmail.com

I am aware of my right to further information concerning benefits and risks from the participation in the research project and my right to withdraw or refrain from the participation anytime without any consequence on the service or health care I am to receive in the future, I consent to the researcher's use of my private information obtained in this research, but do not consent to an individual disclosure of private information. The information must be presented as part of the research results as a whole.

I thoroughly understand the statement in the information sheet for the research subjects and in this consent form. I thereby give my signature.

IRB-NS Form No. 4

Signature.....Participants/Proxy/
(.....) Date.....
Signature.....Person in Charge of Informing and
Requesting a Consent/Head of (Mrs. Pham Thi Thanh Phuong)
Research Project/Date

In case that the participant is not literate, the reader of all the statements for the
participant is (Mr./Mrs./Ms.....), who gives his/her signature as a
witness.

Signature.....Witness
(.....) Date.....

Version 5 date 10 August 2015

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(Vietnamese version)

Bản chấp thuận tham gia nghiên cứu

Phiên bản 02 / ngày 08 tháng 08 năm 2016

**BẢN CHẤP THUẬN THAM GIA NGHIÊN CỨU**

Ngày...../...../.....

Tên tôi là....., Tuổi:

Mã ID (Người nghiên cứu ghi):.....

Địa chỉ:

Mã vùng: Số điện thoại:

Trước tiên tôi xin bày tỏ sự đồng ý tham gia vào đề tài có tên nghiên cứu là: **Mối liên quan giữa tự chăm sóc, trầm cảm, lo lắng và chất lượng cuộc sống của bệnh nhân mắc bệnh phổi tắc nghẽn mạn tính.**

Trước khi tham gia nghiên cứu tôi đã được thông báo về mục đích của nghiên cứu này, chi tiết quá trình thực hiện nghiên cứu, các lợi ích và rủi ro có thể xảy ra đối với người tham gia nghiên cứu, các biện pháp ngăn ngừa và giải quyết các tác dụng không mong muốn có thể xảy ra đối với người tham gia nghiên cứu, cả về chi phí tham gia nghiên cứu. Tôi đã đọc kỹ toàn bộ thông tin trong bản thông tin dành cho đối tượng nghiên cứu. Bên cạnh đó, các câu hỏi của tôi cũng được giải đáp bởi người thực hiện nghiên cứu.

Tôi đồng ý tham gia vào nghiên cứu này như một đối tượng nghiên cứu.

Trong trường hợp có bất cứ câu hỏi nào hoặc có vấn đề mới phát sinh trong quá trình nghiên cứu, tôi có thể liên hệ với chị Phạm Thị Thanh Phương số điện thoại: 0987489832. Email: phuonghmtu@gmail.com. (Số điện thoại liên lạc trên được kết nối 24/24 h).

Nếu tôi không được điều trị và chăm sóc như những điều khoản được đề cập trong bản thông tin dành cho đối tượng nghiên cứu, tôi có thể liên lạc với Hội đồng Đạo đức, Khoa Điều dưỡng, Đại học Mahidol, đặt văn phòng tại tầng 5 phòng 503 Đại học Mahidol, 999 Phuttamonthon 4 Road, Salaya, Nakhon Pathom 73.170 Thái Lan. Tel 00662441 5333 ext 2531, 2532 0066 Fax 24.415.333 ext 2531, Email: nsirbnursing@mahidol.ac.th, ns.irbnursing@gmail.com

Tôi cũng có thể liên lạc với Hội đồng đạo đức trong nghiên cứu Y sinh học, Khoa Y Dược, Đại học Quốc Gia Hà Nội. Địa chỉ: tòa nhà Y1, số 144 phố Xuân Thủy, quận Cầu Giấy, Hà Nội, Việt Nam; điện thoại: 04-37450188; fax: +84437450146; email: smp@vnu.edu.vn.

Tôi nhận thức được quyền của mình để tiếp tục nhận thông tin liên quan đến lợi ích và rủi ro từ việc tham gia vào các dự án nghiên cứu và tôi có quyền rút khỏi nghiên cứu hoặc từ chối không tiếp tục tham gia nghiên cứu bất cứ lúc nào mà không cần lý do, tôi bằng lòng để nghiên cứu viên sử dụng thông tin cá nhân cho việc nghiên cứu, nhưng không đồng ý việc tiết lộ thông tin cá nhân. Các thông tin phải được trình bày như là một phần của kết quả nghiên cứu.

Tôi hoàn toàn hiểu được tuyên bố trong bản thông tin dành cho đối tượng nghiên cứu và trong phiếu chấp thuận tham gia nghiên cứu này. Sau đây là chữ ký của tôi.

Chủ nhiệm đề tài
(Ký và ghi rõ họ tên)

Người tham gia nghiên cứu
(Ký và ghi rõ họ tên)

APPENDIX E

INSTRUMENTS

(English version)

- 2 MAY 2016
32.0703

Code number:

INSTRUMENTS

English version

1. Patient general information

There are 12 questions related to patients' personal information and Information related to patients' illness. Please tick (✓) or fill in blanks in the following questions:

1. Gender

☐ Male

Female ☐

2. Age: Month

Year:

3. Weight: Height: BMI:

4. Material status

☐ Married

☐ Devoted

☐ Separated

☐ Single

☐ Widowed

5. Education level

☐ Elementary school

☐ Secondary school

☐ High school

☐ two years certificate

☐ Bachelor

☐ Post graduated

6. Occupation

☐ Farmer

☐ House wife

☐ Retired

☐ Staff government

Other (specify)

7. Income personal/ family:

8. Payment method

☐ Government

☐ Insurance

☐ Self-pay

☐ Organization

9. Length of stay in the hospital:

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10. Co-morbidities

- | | |
|--|--|
| ☐ Hypertension | ☐ Diabetes Mellitus |
| ☐ Heart disease | ☐ Peripheral artery disease |
| ☐ Osteoporosis | ☐ Other: |

11. Risk factors (to make patient have to admit in the hospital)

- | | |
|--|---------------------------------------|
| ☐ Respiratory infection | ☐ Smoke |
| ☐ Hot weather | ☐ Cold weather |
| ☐ Flu | ☐ Smoking |
| ☐ Other: | |

12. Smoking ☐ Yes ☐ No ☐ Stopped smoking

How much cigarette per day:

How much years you smoking:

How long you stopped smoking:

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2. THE COPD SELF- EFFICACY SCALE

This questionnaire is designed to access the level of confidence of patients with COPD to avoid or to manage breathing difficulty in certain situations. There are 34 items and divided into five factors: negative affect, intense emotional arousal, physical exertion, weather and environment, behavioral risk factor.

Read each numbered item below, and determine how confident you are that you could manage breathing difficulty or avoid breathing difficulty in that situation.

Use the following scale as a basis for your answers:

(5) = Very confident

(4) = Pretty confident

(3) = somewhat confident

(2) = Not very confident

(1) = Not at all confident

Number	Content	5	4	3	2	1
1	When I become too tire					
2	When there is humidity in the air					
3	When I go into cold weather from a warm place					
4	When I experience emotional stress or become upset					
5	When I go up stairs too fast					
6	When I try to deny that I have respiratory difficulties					
7	When I am around cigarette smoke.					
8	When I become angry.					
9	When I exercise or physically exert myself					
10	When I feel distressed about my life					
11	When I feel sexually inadequate or impotent					
12	When I am frustrated.					

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13	When I lift heavy objects.						
14	When I begin to feel that someone is out to get me						
15	When I yell or scream						
16	When I am lying in bed						
17	During very hot or very cold weather						
18	When I laugh a lot						
19	When I do not follow a proper diet						
20	When I feel helpless.						
21	When I drink alcoholic beverages.						
22	When I get an infection (throat, sinus, colds, the flu, etc)						
23	When I feel detached from everyone and everything.						
24	When I experience anxiety.						
25	When I am around pollution.						
26	When I overeat.						
27	When I feel down or depressed.						
28	When I breathe improperly						
29	When I exercise in a room that is poorly ventilated						
30	When I am afraid.						
31	When I experience the loss of a valued object or a loved one						
32	When there are problems in the home.						
33	When I feel incompetent						
34	When I hurry or rush around.						

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3. GENERAL ANXIETY DISORDER (GAD-7)

The Generalized Anxiety Disorder Scale includes 7 items for screening generalized anxiety disorder but also functions in screening any anxiety disorder.

Over the last 2 weeks, how often have you been bothered by the following problems? (Use “√” to indicate your answer).

No	Content	Not at all	Several days	More than a half of days	Nearly every days
1	Feeling nervous, anxious or on edge	0	1	2	3
2	Not being able to stop or control worrying	0	1	2	3
3	Worrying too much about different things	0	1	2	3
4	Trouble relaxing	0	1	2	3
5	Being so restless that it is hard to sit still	0	1	2	3
6	Becoming easily annoyed or irritable	0	1	2	3
7	Feeling afraid as if something awful might happen	0	1	2	3
TOTAL SCORE: + ... + ... + ... =					

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4. PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

The PHQ-9 includes nine items for screening major depressive disorder in primary care.

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use "✓" to indicate your answer)

No	Content	Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
Add column					
(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).		TOTAL:			
10	If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all:	Somewhat difficult	Very difficult	Extremely difficult

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5. Clinical COPD Questionnaire

This questionnaire is specific instrument to measure quality of life in COPD. The CCQ consists of ten questions distributed in three domains: symptoms, mental state, and functional state. Please circle the number of the response that best describes how you have been feeling during the past week. (Only one response for each question).

No	On average, during the past week, how often did you feel:	never	hardly ever	a few times	several times	Many Times	a great many times	almost all the time
1	Short of breath at rest?	0	1	2	3	4	5	6
2	Short of breath doing physical Activities?	0	1	2	3	4	5	6
3	Concerned about getting a cold or your breathing getting worse?	0	1	2	3	4	5	6
4	Depressed (down) because of your breathing problems?	0	1	2	3	4	5	6
	In general, during the past week, how much of the time:	0	1	2	3	4	5	6
5	Did you cough?	0	1	2	3	4	5	6
6	Did you produce phlegm?	0	1	2	3	4	5	6
	On average, during the past week, how limited were you in these activities because of your breathing problems:	not limited at all	very slightly limited	slightly limited	moderately limited	very limited	extremely limited	totally limited /or unable to do
7	Strenuous physical activities (such as climbing stairs, hurrying, doing sports)?	0	1	2	3	4	5	6
8	Moderate physical activities (such as walking, housework, carrying things)?	0	1	2	3	4	5	6
9	Daily activities at home (such as dressing, washing yourself)?	0	1	2	3	4	5	6
10	Social activities (such as talking, being with children, visiting friends/ relatives)?	0	1	2	3	4	5	6

Thank for talking part in this study

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(Vietnamese version)**BỘ CÂU HỎI NGHIÊN CỨU****1. Thông tin chung của người bệnh**

Số thứ tự: Mã bệnh án:

Mã ID:

Dưới đây là 12 câu hỏi liên quan đến thông tin cá nhân của người bệnh và thông tin liên quan đến bệnh tật của người bệnh. Làm ơn hãy sử dụng ☒ để điền vào ô trống.

1. Giới tính
☐ Nam ☐ Nữ
2. Tuổi: Ngày Tháng Năm sinh:

3. Cân nặng: Chiều cao: BMI:

4. Tình trạng hôn nhân
☐ Đã lập gia đình ☐ Ly hôn ☐ Ly thân
☐ Độc thân ☐ Góa (chồng hoặc vợ)
5. Trình độ học vấn
☐ Tiểu học ☐ Trung học cơ sở
☐ Trung học phổ thông ☐ Trung cấp/ chuyên nghiệp
☐ Cao đẳng, Đại học ☐ Sau đại học
6. Nghề nghiệp
☐ Nông dân ☐ Nội trợ
☐ Nghỉ hưu ☐ Tri thức

Khác:

7. Tổng thu nhập của bản thân/ gia đình:

8. Phương pháp chi trả viện phí
☐ Chính phủ ☐ Bảo hiểm
☐ Tự chi trả ☐ Tổ chức chi trả

9. Thời gian nằm viện được bao lâu:

10. Thời gian mắc bệnh (bao nhiêu năm):

11. FEV₁:**12. Bệnh phối hợp**
☐ Tăng huyết áp ☐ Đái tháo đường
☐ Bệnh động mạch ngoại biên ☐ Bệnh Tim mạch
☐ Loãng xương ☐ Khác:

13. Yếu tố nguy cơ bệnh nhân phải nhập viện lần này

☐ Nhiễm khuẩn hô hấp

☐ Khói, bụi

☐ Thời tiết nóng

☐ Thời tiết lạnh

☐ Cúm

☐ Hút thuốc

☐ Khác:

14. Hút thuốc

☐ Có

☐ Không

☐ Đã bỏ

Hút bao nhiêu điếu một ngày:

Hút thuốc bao nhiêu năm:

Đã bỏ thuốc chưa:

Bỏ được bao nhiêu lâu:

2. BỘ CÂU HỎI ĐÁNH GIÁ MỨC ĐỘ TỰ TIN ĐỂ KIỂM SOÁT KHÓ THỞ CỦA BỆNH NHÂN COPD

Đây là bộ câu hỏi được thiết kế để đánh giá mức độ tự tin của người bệnh mắc bệnh phổi tắc nghẽn mạn tính để tránh hoặc là quản lý khó thở trong một số tình huống. Bộ câu hỏi gồm 34 câu, được phân chia vào năm nhóm yếu tố: ảnh hưởng tiêu cực, kích thích mạnh về tinh cảm, hoạt động gắng sức, thời tiết và môi trường, yếu tố nguy cơ về hành vi. Làm ơn hãy đọc kỹ những câu hỏi dưới đây và xác định mức độ tự tin của Ông/Bà để kiểm soát khó thở hoặc tránh gây khó thở trong một số tình huống

(5) = Rất tự tin

(4) = Khá tự tin

(3) = Một chút tự tin

(2) = Không mấy tự tin

(1) = Không tự tin

STT	Nội dung	Rất tự tin	Khá tự tin	Một chút tự tin	Không mấy tự tin	Không tự tin
1	Khi quá mệt mỏi					
2	Khi độ ẩm trong không khí tăng cao (thời tiết ẩm ướt).					
3	Khi đi từ nơi có thời tiết nóng sang nơi có thời tiết lạnh.					
4	Khi bị căng thẳng hoặc khi buồn chán.					
5	Khi leo cầu thang quá nhanh					
6	Khi cố gắng phủ nhận rằng mình đang khó thở.					
7	Khi hít khói thuốc lá.					
8	Khi tức giận (giận giữ).					
9	Khi tập những bài tập thể dục hoặc tập thể chất gắng sức (vượt quá giới hạn của bản thân).					
10	Khi gặp áp lực trong cuộc sống					
11	Khi thiếu tình dục hoặc cảm thấy bất lực.					
12	Khi thất vọng (bất ổn tâm lý).					
13	Khi nhắc/ nâng vật nặng.					
14	Khi cảm thấy một ai đó đang định hại hoặc trả thù tôi.					
15	Khi hét to/ kêu to.					
16	Khi nằm trên giường.					
17	Trong suốt trời rất nóng hoặc rất lạnh.					
18	Khi cười nhiều.					
19	Khi không tuân theo một chế độ ăn hợp lý.					

20	Khi cảm thấy cô đơn(không nơi nương tựa).					
21	Khi uống đồ uống có cồn (rượu, bia).					
22	Khi bị nhiễm khuẩn đường hô hấp (viêm họng, xoang, cảm lạnh, cúm, vv.)					
23	Khi cảm thấy mình bị mọi người xa lánh					
24	Khi cảm thấy lo lắng.					
25	Khi môi trường xung quanh bị ô nhiễm (khói, bụi).					
26	Khi ăn quá nhiều (quá no).					
27	Khi cảm thấy chán nản					
28	Khi thờ không đúng cách.					
29	Khi tập thể dục trong phòng kín, thiếu không khí.					
30	Khi cảm thấy sợ hãi.					
31	Khi bị mất một thứ có giá trị (rất quan trọng) hoặc mất một người thân.					
32	Khi gia đình gặp vấn đề khó khăn.					
33	Khi cảm thấy không đủ năng lực để làm việc hoặc giải quyết vấn đề.					
34	Khi chạy hoặc làm gì đó vội vàng					

3. BỘ CÂU HỎI KHẢO SÁT VỀ RỐI LOẠN LO ÂU TỔNG QUÁT (GAD-7)

Bộ câu hỏi gồm có 7 mục không chỉ sàng lọc rối loạn lo âu tổng quát mà còn có chức năng kiểm tra các vấn đề rối loạn lo âu. Trong hai tuần qua, những vấn đề sau đây gây phiền phức cho Ông/ Bà thường xuyên đến mức độ nào? Sử dụng dấu ✓ để chỉ ra câu trả lời của Ông/ Bà.

STT	Nội dung	Không ngày nào	Vài ngày	Hơn một nửa số ngày	Gần như mọi ngày
1	Cảm giác lo lắng, bồn chồn, dễ cáu giận	0	1	2	3
2	Không thể dừng hoặc kiểm chế lo lắng	0	1	2	3
3	Lo lắng quá nhiều về nhiều việc.	0	1	2	3
4	Khó khăn để thư giãn, khó cảm thấy thoải mái tinh thần.	0	1	2	3
5	Bồn chồn không thể ngồi yên được.	0	1	2	3
6	Dễ bị bực bội hoặc bực mình.	0	1	2	3
7	Cảm thấy lo sợ như thể có điều gì tồi tệ sẽ xảy ra.	0	1	2	3
Tổng số điểm: + ... + ... + ...					

4. BỘ CÂU HỎI KHẢO SÁT VỀ SỨC KHỎE TÂM THẦN (PHQ-9)

Bộ câu hỏi này gồm có 9 mục để sàng lọc rối loạn sức khỏe tâm thần trong chăm sóc sức khỏe ban đầu. Trong hai tuần qua, những vấn đề sau đây gây phiền phức cho Ông/ Bà thường xuyên đến mức độ nào? Sử dụng dấu ✓ để chỉ ra câu trả lời của Ông/ Bà

STT	Nội dung	Không ngày nào	Vài ngày	Hơn một ngày	Gần như mọi ngày
1	Ít muốn làm điều gì hoặc ít có cảm giác thích thú khi làm bất cứ điều gì	0	1	2	3
2	Cảm thấy nản chí, trầm buồn hoặc cảm giác tuyệt vọng	0	1	2	3
3	Khó đi vào giấc ngủ hoặc khó để duy trì giấc ngủ (ngủ thẳng giấc) hoặc ngủ quá nhiều	0	1	2	3
4	Cảm thấy mệt mỏi hoặc có ít sinh lực	0	1	2	3
5	Chán ăn hoặc ăn quá nhiều	0	1	2	3
6	Có suy nghĩ tiêu cực về bản thân mình - cảm thấy mình là người thất bại hoặc cảm thấy mình đã làm cho gia đình và chính bản thân thất vọng	0	1	2	3
7	Khó tập trung vào công việc, như đọc báo hoặc xem tivi	0	1	2	3
8	Vận động hoặc nói quá chậm đến mức người khác có thể nhận thấy được. Hoặc quá bồn chồn hoặc đứng ngồi không yên đến mức đi đi lại lại nhiều hơn thông thường	0	1	2	3
9	Có các suy nghĩ cho rằng cái chết là điều tốt hơn cho bản thân hoặc có các suy nghĩ tự gây tổn thương cho bản thân	0	1	2	3
Tổng điểm theo cột					
Tổng số điểm:					
10	Nếu Ông/ Bà có bất cứ vấn đề nào ở trên, việc đó gây khó khăn cho Ông/ Bà như thế nào khi làm việc, chăm nom nhà cửa, hay giao tiếp với người khác?	Không khó khăn	Một chút khó khăn	Rất khó khăn	Cực kỳ khó khăn

5. Bộ câu hỏi lâm sàng cho người bệnh COPD

Đây là bộ câu hỏi đánh giá chất lượng cuộc sống ở người bệnh COPD gồm có 10 câu hỏi được phân chia vào 3 lĩnh vực: triệu chứng, tình trạng tâm thần, tình trạng chức năng. Làm ơn hãy khoanh vào chỉ số mô tả đúng nhất cảm nhận của Ông/Bà trong vòng 1 tuần qua. Chỉ khoanh 1 chỉ số cho mỗi câu hỏi.

STT	Trung bình, trong suốt 1 tuần qua bao nhiêu lần Ông/Bà cảm thấy:	Không có lần nào	Hầu như không có	Một vài lần	Vài lần	Nhiều lần	Rất nhiều lần	Hầu như tất cả thời gian
1	Ông/Bà có khó thở khi nghỉ ngơi?	0	1	2	3	4	5	6
2	Ông/Bà có khó thở khi có những hoạt động thể chất?	0	1	2	3	4	5	6
3	Lo ngại vì lạnh hoặc hơi thở của Ông/Bà trở lên khó khăn?	0	1	2	3	4	5	6
4	Chán nản bởi vì Ông/Bà có vấn đề về hô hấp?	0	1	2	3	4	5	6
	Nói chung, trong vòng 1 tuần qua, có bao nhiêu lần:	0	1	2	3	4	5	6
5	Ông/Bà có ho không?	0	1	2	3	4	5	6
6	Ông/Bà có khạc đờm không?	0	1	2	3	4	5	6
	Trung bình, trong vòng 1 tuần qua, các hoạt động thể chất của Ông/Bà bị hạn chế như thế nào do vấn đề về hô hấp	không bị hạn chế	hạn chế rất nhẹ	hạn chế nhẹ	hạn chế ở mức trung bình	rất hạn chế	cực kì hạn chế	hạn chế hoàn toàn/ không thể làm gì
7	Các hoạt động thể chất nặng ví dụ như leo cầu thang, vội vã, chơi thể thao.	0	1	2	3	4	5	6
8	Các hoạt động thể chất trung bình ví dụ như đi lại, làm việc nhà, mang vác	0	1	2	3	4	5	6
9	Các hoạt động hàng ngày ví dụ như mặc quần áo, tắm, gội	0	1	2	3	4	5	6
10	Các hoạt động xã hội ví dụ như nói chuyện, chơi với trẻ, tham bạn bè, người thân.	0	1	2	3	4	5	6

Cảm ơn Ông/Bà đã tham gia trả lời câu hỏi

APPENDIX F

PERMISSION FOR USING INSTRUMENTS

16/1/2016

Gmail - Letter ask permission.



phương phạm <phuonghmtu@gmail.com>

Letter ask permission.

4 thư

phương phạm <phuonghmtu@gmail.com>
 Từ: t.van.der.molen@med.umcg.nl

15:57 Ngày 12 tháng 12 năm 2015

Dear Professor T.van der Molen! My full name is Pham Thi Thanh Phuong. I am Vietnamese student of Mahidol University, Thailand. At present I am studying in an international masters program of Adult nursing at faculty of Nursing in Mahidol University. My title of thesis has name " The relationships between Self- efficacy, Depression, Anxiety and Quality of life in patients with Chronic Obstructive Pulmonary Disease". I has done thesis under guiding my major advisor is Assoc.Prof.Dr. Wimolrat Puwarawuttipanit. After I read your article, I think your intruments "Clinical COPD Questionnaire (CCQ)" be used the teacher be very suitable for my thesis.

So I want to use your questionnaires in my thesis. I would like to ask you that:

- Would you please agree to accept me to use your questionnaires in my thesis?
- Would you please agree to accept me to translate your questionnaires from English to Vietnamese and contrary?

I am looking forward to your answer.

Thank you very much

Best regards!

Mrs. Pham Thi Thanh Phuong.

--

Lecturer: Pham Thi Thanh Phuong

Work place: Faculty of Nursing in Hai duong Medical Technical University

Address: No 1- Vu Huu Street- Thanh Binh Ward- Hai Duong city- Hai Duong Province- Viet Nam Country

Phonenumber: 0987489832

Email: phuonghmtu@gmail.com

Molen, T van der (med) <t.van.der.molen@umcg.nl>
 Từ: phương phạm <phuonghmtu@gmail.com>

23:24 Ngày 13 tháng 12 năm 2015

DearMrs. Pham Thi Thanh Phuong,

I hereby grant you permission to use the CCQ in your thesis. I also attach the Vietnamese version of the CCQ.

Best regrtads,

Thys van der Molen

T. van der Molen MD, PhD

Professor of Primary Care Respiratory Medicine

University Medical Centre Groningen

Hanzeplein 1 PO box 30.001

16/1/2016

Gmail - Letter ask permission.

9700RB Groningen The Netherlands

email: t.van.der.molen@umcg.nl

Van: phương phạm [phuonghmtu@gmail.com]

Verzonden: zaterdag 12 december 2015 9:57

Aan: Molen, T van der (med)

Onderwerp: Letter ask permission.

[Ấn văn bản trích dẫn]

De inhoud van dit bericht is vertrouwelijk en alleen bestemd voor de geadresseerde(n). Anderen dan de geadresseerde(n) mogen geen gebruik maken van dit bericht, het niet openbaar maken of op enige wijze verspreiden of vermenigvuldigen. Het UMCG kan niet aansprakelijk gesteld worden voor een incomplete aankomst of vertraging van dit verzonden bericht.

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 **final VN version CCQ.doc**
45K

phương phạm <phuonghmtu@gmail.com>

08:43 Ngày 14 tháng 12 năm 2015

Tới: "Molen, T van der (med)" <t.van.der.molen@umcg.nl>

Dear Prof. T. van der Molen.

Thank you very much when you send email me very fast. I am very happy when I receive your email to agree to me used your questionnaires. And I also feel great if I get the permission documents with your signature.

Thank you for helping me again.

I am looking forward to your answer.

Have a nice day.

Best regards.

[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>

08:50 Ngày 14 tháng 12 năm 2015

Tới: Wimolrat Puwarawuttipanich <wimolrat.puw@mahidol.ac.th>

[Ấn văn bản trích dẫn]

 **final VN version CCQ.doc**
45K

16/1/2016

Gmail - Ask letter



phương phạm <phuonghmtu@gmail.com>

Ask letter

15 thư

phương phạm <phuonghmtu@gmail.com>

09:36 Ngày 18 tháng 12 năm 2015

Tới: france@ohio.edu

Dear Professor Christopher France

My name is Pham Thi Thanh Phuong. I am Vietnamese student of Mahidol University, Thailand. At present I am studying in an international masters program of Adult nursing at faculty of Nursing in Mahidol University. My title of thesis has name " The relationships between Self- efficacy, Depression, Anxiety and Quality of life in patients with Chronic Obstructive Pulmonary Disease". I has done thesis under guiding my major advisor is Assoc.Prof.Dr.Wimolrat Puwarawuttipanich. After I read "The COPD Self-efficacy Scale" article of Thomas L. Creer, Joan K. Wigal, Harry Kotses in 1991, I think this intruments "COPD Self-efficacy Scale" be used the teacher be very suitable for my thesis. So I want to use your questionnaires in my thesis.

I know that i have to ask permission from authors, but i cannot find email of authors. Can you help me to send authors' email for me.

I am looking forward to your answer.

Thank you very much

Best regards!

Mrs. Pham Thi Thanh Phuong

—

Lecturer: Pham Thi Thanh Phuong

Work place: Faculty of Nursing in Hai duong Medical Technical University

Address: No 1- Vu Huu Street- Thanh Binh Ward- Hai Duong city- Hai Dương Province- Viet Nam Country

Phonenumber: 0987489832

Email: phuonghmtu@gmail.com

France, Christopher <france@ohio.edu>

04:41 Ngày 19 tháng 12 năm 2015

Tới: phương phạm <phuonghmtu@gmail.com>

Hello,

The COPD Self-Efficacy Scale is printed in full in the attached article, hence you can use it.

Sincerely,

Chris

Christopher R. France, Ph.D.

<https://mail.google.com/mail/u/0/?ui=2&ik=aa512c9e31&view=pt&q=wigal%40ohio.edu&qs=true&search=query&th=151b2f1f3670a72a&siml=151b2f1f3670a72...> 1/5

16/1/2016

Gmail - Ask letter

Distinguished Professor of Psychology

251 Porter Hall

Ohio University

Athens, Ohio 45701-2979

Phone: 740-593-1079

Fax: 740-593-0579

Email: france@ohio.edu

From: phương phạm [mailto:phuonghmtu@gmail.com]

Sent: Thursday, December 17, 2015 9:36 PM

To: France, Christopher <france@ohio.edu>

Subject: Ask letter

[Ấn văn bản trích dẫn]

 **Wigal et al (1991).pdf**
582K

phương phạm <phuonghmtu@gmail.com>

07:38 Ngày 19 tháng 12 năm 2015

Tới: Wimolrat Puwarawuttipanich <wimolrat.puw@mahidol.ac.th>

Ajam help me. This letter mean i can use instrument or article?

----- Tin nhắn đã chuyển tiếp -----

Từ: "France, Christopher" <france@ohio.edu>

Ngày: 19-12-2015 04:41

Chủ đề: RE: Ask letter

Tới: "phương phạm" <phuonghmtu@gmail.com>

Cc:

[Ấn văn bản trích dẫn]

 **Wigal et al (1991).pdf**
582K

phương phạm <phuonghmtu@gmail.com>

07:48 Ngày 19 tháng 12 năm 2015

Tới: "France, Christopher" <france@ohio.edu>

Dear Professor France, Kristopher.

I very happy when i received your email.

Thank you so much.

Best regards!

Phuong

16/1/2016

Gmail - Ask letter

Vào 19-12-2015 04:41, "France, Christopher" <france@ohio.edu> đã viết:
[Ấn văn bản trích dẫn]

Wimolrat Puwarawuttiapanich <wimolrat.puw@mahidol.ac.th>
Tới: phương phạm <phuonghmtu@gmail.com>

10:37 Ngày 19 tháng 12 năm 2015

Phoung ajarn not sure. Bec He is not the author. So please ask France again that you will need to ask permission from author ornot

wimolrat

From: phương phạm [phuonghmtu@gmail.com]
Sent: Saturday, December 19, 2015 7:38 AM
To: Wimolrat Puwarawuttiapanich
Subject: Fwd: RE: Ask letter

[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>
Tới: "France, Christopher" <france@ohio.edu>

13:14 Ngày 19 tháng 12 năm 2015

Dear Professor France, Kristopher.
When I received you email, i know that i can use " The COPD self- efficacy scale" article.
But i have one question, i think you can help me.
Do i ask authors of COPD self- efficacy scale questionnaire before I use this instrument to assess self- efficacy of patients?
I am looking forward to your answer.
Thank you very much
Best regards!
Mrs. Pham Thi Thanh Phuong

[Ấn văn bản trích dẫn]

France, Christopher <france@ohio.edu>
Tới: phương phạm <phuonghmtu@gmail.com>

23:17 Ngày 19 tháng 12 năm 2015

The scale is publicly available and therefore you can use it.
[Ấn văn bản trích dẫn]

Wigal, Joan <wigal@ohio.edu>
Tới: "phuonghmtu@gmail.com" <phuonghmtu@gmail.com>

08:47 Ngày 20 tháng 12 năm 2015

Dear Mrs. Pham Thi Thanh Phuong,

Hello! Professor Christopher France forwarded your email to me in which you request permission to use the COPD Self-Efficacy Scale in the assessment of self-efficacy in patients. I am one of the authors of the COPD Self-Efficacy Scale, and you have my permission to use the Scale.

Thank you very much. Sincerely,

Joan K. Wigal, Ph.D.

<https://mail.google.com/mail/u/0/?ui=2&ik=aa512c9e31&view=pt&q=wigal%40ohio.edu&qs=true&search=query&th=151b2f1f3670a72a&siml=151b2f1f3670a72...> 3/5

16/1/2016

Gmail - Ask letter

From: phương phạm <phuonghmtu@gmail.com>
Date: December 19, 2015 at 1:14:45 AM EST
To: "France, Christopher" <france@ohio.edu>
Subject: Re: Ask letter

[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>
Tới: "France, Christopher" <france@ohio.edu>

12:52 Ngày 20 tháng 12 năm 2015

Thank you so much.
Best regards.

Vào 19-12-2015 23:17, "France, Christopher" <france@ohio.edu> đã viết:
[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>
Tới: "Wigal, Joan" <wigal@ohio.edu>

12:53 Ngày 20 tháng 12 năm 2015

Im very happy to hear that. Thank you so much.
Best regards!
Mrs. Phuong.

Vào 20-12-2015 08:47, "Wigal, Joan" <wigal@ohio.edu> đã viết:
[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>
Tới: Wimolrat Puwarawuttipanich <wimolrat.puw@mahidol.ac.th>

12:53 Ngày 20 tháng 12 năm 2015

Ajam. This is permission from author.

----- Tin nhắn đã chuyển tiếp -----
Từ: "Wigal, Joan" <wigal@ohio.edu>
Ngày: 20-12-2015 08:47
Chủ đề: RE: Ask letter
Tới: "phuonghmtu@gmail.com" <phuonghmtu@gmail.com>
Cc:
[Ấn văn bản trích dẫn]

Wimolrat Puwarawuttipanich <wimolrat.puw@mahidol.ac.th>
Tới: phương phạm <phuonghmtu@gmail.com>

14:50 Ngày 20 tháng 12 năm 2015

very good phoung

From: phương phạm [phuonghmtu@gmail.com]
Sent: Sunday, December 20, 2015 12:53 PM
To: Wimolrat Puwarawuttipanich

<https://mail.google.com/mail/u/0/?ui=2&ik=aa512c9e31&view=pt&q=wigal%40ohio.edu&qs=true&search=query&th=151b2f1f3670a72a&siml=151b2f1f3670a72a...> 4/5

16/1/2016

Gmail - Ask letter

Subject: Fwd: RE: Ask letter

[Ấn văn bản trích dẫn]

Wigal, Joan <wigal@ohio.edu>
Tới: phương phạm <phuonghmtu@gmail.com>

20:28 Ngày 20 tháng 12 năm 2015

You are very welcome! All my best,

Joan

Sent from my iPhone

[Ấn văn bản trích dẫn]

France, Christopher <france@ohio.edu>
Tới: phương phạm <phuonghmtu@gmail.com>

22:29 Ngày 20 tháng 12 năm 2015

I have also asked the first author, Joan Wigal, to contact you.

[Ấn văn bản trích dẫn]

phương phạm <phuonghmtu@gmail.com>
Tới: "France, Christopher" <france@ohio.edu>

06:58 Ngày 21 tháng 12 năm 2015

Yes. Ms. Joan Wigal sent email for me already. Thank you so much.

Best regards!

Mrs. Phuong

Vào 20-12-2015 22:29, "France, Christopher" <france@ohio.edu> đã viết:

[Ấn văn bản trích dẫn]

12/4/2016

Gmail - [Mahidol] Fwd: Ask your permission about using HPQ - 9 that measures depression



phương phạm <phuonghmtu@gmail.com>

[Mahidol] Fwd: Ask your permission about using HPQ - 9 that measures depression

2 thu

Xuyen Tran <ngocxuyen80@gmail.com>

08:15 Ngày 19 tháng 12 năm 2015

Trả lời-Tới: k1mahidol@googlegroups.com

Tới: "k1mahidol@googlegroups.com" <k1mahidol@googlegroups.com>

----- Forwarded message -----

From: **Burgett, Donna F** <dfburget@regenstrief.org>

Date: Sat, Dec 19, 2015 at 12:51 AM

Subject: RE: Ask your permission about using HPQ - 9 that measures depression

To: "ngocxuyen80@gmail.com" <ngocxuyen80@gmail.com>

Hello,

The PHQ is now in public domain and freely available for use. Copies of the PHQ family of measures, including the GAD-7 are available at the website: www.phqscreeners.com. Also, translations, a bibliography, an instruction manual (with scoring information) and other information are also provided on the website. Attached please find a Vietnamese translation shared with us by another researcher.

Kind regards,

Donna

From: Kroenke, Kurt

Sent: Friday, December 18, 2015 12:12 PM

To: Burgett, Donna F <dfburget@regenstrief.org>

Subject: FW: Ask your permission about using HPQ - 9 that measures depression

Donna,

If we have Vietnamese translation, also send to this person

Kurt Kroenke, MD

Professor of Medicine, Indiana University

<https://mail.google.com/mail/u/0/?ui=2&ik=aa512c9e31&view=pt&q=ngocxuyen80%40gmail.com&qs=true&search=query&th=151b7ce3d37db42f&siml=151b7c...> 1/4

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APPENDIX G

ADDITIONAL STATISTICAL ANALYSIS

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
sumCCQ	.113	115	.001	.972	115	.015
sumCES	.061	115	.200*	.987	115	.327
sumGAD	.108	115	.002	.971	115	.013
sumPHQ	.107	115	.002	.975	115	.027

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

BIOGRAPHY

NAME	Pham Thi Thanh Phuong
DATE OF BIRTH	October 21, 1986
PLACE OF BIRTH	Hung Yen province, Vietnam
INSTITUTION ATTENDED	Nam Dinh University of Nursing, Nam Dinh, Vietnam, 2004- 2010 Bachelor of Nursing VNU University of Languages and International Studies, Hanoi, Vietnam, 2011- 2014 Bachelor of Languages (English) Mahidol University, 2015-2016 Master of Nursing Science (Adult Nursing)
POSSITION AND OFFICE	Lecturer Faculty of Nursing, Hai Duong Medical Technical University
EMPLOYMENT ADDRESS	No. 01 Vu Huu stress, Thanh Binh ward, Hai Duong city, Hai Duong province, Vietnam Workplace telephone number: + 84-320-3891799 E-mail: hmtu@vnn.vn, Website: http://www.hmtu.edu.vn
HOME ADDRESS	34 Alley - Phan Chu Trinh Street, Nhi Chau ward, Hai Duong city, Hai Duong province, Vietnam. Email: phuonghmtu@gmail.com Mobile phone number: +84 987489832