FACTORS RELATED TO QUALITY OF LIFE AMONG PATIENTS WITH CHRONIC HEPATITIS B

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ABSTRACT

The Quality of Life (QOL) is an important indicator to measure successful treatment. However, there is a lack of evidence about QOL among patients with chronic hepatitis B (CHB) and its potential associated factors. Transition theory was used as a framework of this study. The objective was to study the association/relationship among anxiety, depression, fatigue, social support and the quality of life among patients with chronic hepatitis B attending clinic at the department of infectious diseases in Bach Mai hospital. This was a descriptive correlational study conducted among 115 CHB patients in the department of infectious diseases in Bach Mai hospital. Data was collected through interviews with Hamilton Depression Rating Scale (HAM-D) and Hamilton Anxiety Rating scale (HAM-A), Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F) and Multidimensional Scale of Perceived Social Support (MSPSS). Spearman's rho was employed to test the relationships between QOL and potential associated factors. Most of the patients suffered from mild to moderate anxiety (42.61%) and mild depression (31.30%). Majority of the participants (85.22%) had low level fatigue. In terms of social support, 54.78% of the patients received high support followed by moderate support at 43.48%. Anxiety, depression and fatigue had correlation with QOL (-0.55,-0.683, -0.541 respectively; $p<0.01$). Additionally, social support from friends was negatively correlated with social functioning. ($r= -.252$, $p=0.01$). From the findings of this study it is suggested that nurses should screen the psychiatric problems, social support and fatigue in order to optimize the effectiveness of care and treatment of CHB patients.

KEY WORDS: CHRONIC HEPATITIS B/ QUALITY OF LIFE/ ANXIETY/
DEPRESSION/ SOCIAL SUPPORT

82 pages

CONTENTS

CONTENTS (cont.)

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CHB	Chronic hepatitis B
HCC	Hepatocellular carcinoma (HCC)
QOL	Quality of life
HRQOL	Health-related quality of life
WHO	World Health Organization
MSPSS	The Multidimensional Scale of Perceived Social Support
FACIT F	Functional Assessment of Chronic Illness Therapy Fatigue Scale
BMI	Body Mass Index

CHAPTER I
INTRODUCTION

1.1. Background and significance of the study

Worldwide, Hepatitis B virus (HBV) infections pose a serious public health threat. The rates of HBV infection vary between countries and regions. In over the world, an estimated 2 billion people have been infected with the HBV, and more than 350 million people worldwide carry chronic HBV infection (Ugwu, Varkey, Bagniewski, & Lesnick, 2008). A recent analysis indicated that 1.4 million persons born in the year 2000would die prematurely because of HBV infection (Ugwu et al., 2008). Chronic HBV infection-related diseases still account for 600,000 deaths per year (Ott, Stevens, Groeger, & Wiersma, 2012). In North America Hepatitis B infection is most common in young adults. In the USA and Canada, serological evidence of previous infection varies depending on age and socioeconomic class. Overall, 5% of the adult USA population has anti-HBc, and 0.5% are HBsAg positive.

According to WHO about viral Hepatitis in the South-East Asia Region, an estimated 100 million hepatitis B carriers live in countries of the WHO-designated South-East Asia Region, where approximately 300,000 deaths are attributed to hepatitis B annually. Southeast Asian countries, such as Thailand and Myanmar, have a high prevalence of chronic hepatitis B infection, with 5% to 7% of the adult population being long-term carriers or CHB patients (Ott et al., 2012).

Vietnam has one of the highest rates of chronic hepatitis B virus infection in the world. Population surveys from the two biggest cities, Hanoi and Ho Chi Minh City, have shown a positive hepatitis B surface antigen (HBsAg) rate of 9% to14% respectively (Tu et al., 2012). Even with the exclusion of high risk groups, it can be estimated that approximately 10 million people are living with CHB. The CHB prevalence is high in rural areas in Vietnam, with an estimated prevalence as high as 18.8 % (Hipgrave et al., 2003) to 19% in some rural areas (Nguyen, McLaws, & Dore, 2007). Without medical monitoring and treatment of CHB, the risk of developing cirrhosis and hepatocellular carcinoma (HCC) with sequelae of liver failure and death is 25–30%. Using age-specific HBV prevalence rates from Vietnamese community-based studies, it has been projected that by the year 2025, CHB could result in 58 650 patients with cirrhosis, 25 000 patients with HCC, and 40.000 deaths (Nguyen, Law, & Dore, 2008)

Not only progression of disease to hepatocellular carcinoma, liver cancer but also chronic hepatitis B affect health of human by many diseases. Although the majority of patients do not develop hepatic complications, it is estimated that during their lifetimes 15–40% may develop serious sequelae of infection (Lok & McMahon, 2009). Unsuppressed, persistent viral replication contributes to a higher incidence of consequent hepatocellular carcinoma and CHB-related deaths (Fattovich, Bortolotti, & Donato, 2008). Chronic hepatitis B not only kills patients by cirrhosis, liver cancer, liver failure and hepato cellular carcinoma (HCC), but represents a huge burden on the health care system with substantial impact on human health as a matter of great concern to society. Furthermore, patients with chronic hepatitis B or with complications of this disease significantly affect to their psychological and mental stress. The stage of disease has great effect to quality of life (QOL) in chronic hepatitis B(Che et al., 2014).

Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (Organization, 1996). The term health-related quality of life (HRQOL) reflects the impact of the disease upon a person’s quality of life (Glise & Wiklund, 2002). Health-related quality of life (HRQOL) is considered to be an important aspect of disease. Progression to more severe complications may profoundly affect their HRQOL (Younossi, Guyatt, Kiwi, Boparai, & King, 1999). Chronic hepatitis B that may be correlated with several psychiatric disorders, such as depression, and decrease quality of life of patients (Arvand, Shafiabadi, Falsafinejad, & Naderi, 2012). As in all chronic diseases, these infections may lead to psychological health problems. There are numerous studies addressing the psychological wellbeing, psychosocial stressors related to the disease, quality of life QOL) in patients with chronic hepatitis (Kunkel et al., 2000; Pojoga et al., 2004).

From literature reviews, many factors related to QOL such as severity of disease, virological response. Quality of life is significantly impaired in patients with chronic hepatitis B, particularly in those with severe disease (Enescu, Mitrut, Balasoiu, Turculeanu, & Enescu, 2014). It mean that increasing severity of CHBV leads to a decline in HRQOL(Modabbernia, Ashrafi, Malekzadeh, & Poustchi, 2013). Although some of antiviral drugs decrease the quality of life during treatment, it significantly improves after stopping it (Enescu et al., 2014). However, this research chooses three factors are independent variable that associating with QOL among patients with chronic hepatitis B including anxiety and depression, fatigue and social support.

Previous research has also shown that depressive disorders are related to poor HRQOL in patients with CLD (Fabregas et al., 2013). Moreover, CLD is linked to job loss, impaired functioning, mood swings, anxiety, low self-esteem, depression, and other emotional problems that severely affect QOL and well-being. It is seem to be that by enhancing coping and self-efficacy skill, HRQOL in CLD patients may be improve (Gutteling, Duivenvoorden, Busschbach, de Man, & Darlington, 2010). Patients should be monitored for depressive symptoms during the course of clinical medical care for CHB so that psychological care may be initiated in a timely manner. There was a higher rate of psychiatric disorders (mostly depression), anxiety at patients diagnosed with chronic hepatitis B within 3 months (Enescu et al., 2014).

Chronic hepatitis B patients with depression have a significant reduction in quality of life when compared with those without (Chan, Yu, & Li, 2012). It may be beneficial in disease management when health care team screen depression in chronic hepatitis B (Mirabdolhagh Hazaveh, Dormohammadi Toosi, Nasiri Toosi, Tavakoli, & Shahbazi, 2015).

Fatigue and impaired psychological functioning is associated with diminished HRQOL in chronic hepatitis virus, independent of the disease etiology. Management of fatigue and depressive symptoms should be considered a priority, in order to improve HRQOL in CVH patients (Younossi et al., 1999). The state of result of other study demonstrate that fatigue was found to be significant associated with health related quality of life of patient with chronic hepatitis virus (Karaivazoglou et al., 2010). Fatigue is one of criteria of monitoring the quality of life in CHB patient (Enescu et al., 2014).

Low social support have a negatively impact above mental health of chronic hepatitis patients (Enescu et al., 2014). Social support seems to be associated with better mental health and HRQOL in chronic hepatitis B and C (Poorkaveh et al., 2012). It is important to strengthen communication between healthcare professionals and patients in order to improve the patient's perception of social support and quality of life (Xiao et al., 2012). Low social support have a negatively impact above mental health of these patients (Enescu et al., 2014). In antiviral therapy, social support plays an important role to improve adherence of antiviral regimen to obtain virologic response. Patients with CHB who have a virologic response to 24 weeks of antiviral therapy also have significant improvements in HRQOL(Kim et al., 2012).

According to literature review, the research on factors correlated with QOL among chronic hepatitis B patient in Vietnam was still rare. Researcher was interested in studying the association between anxiety and depression, fatigue, social support and QOL in chronic hepatitis B patient. The study result can be used as nursing care planning to promote QOL for the patients.

1.2 Research questions

Are anxiety and depression, fatigue and social support correlated with quality of life among chronic hepatitis B?

1.3 Purpose of the study

- To study the quality of life among chronic hepatitis B patient at department of infectious diseases in Bach Mai hospital
- To identify the factors correlating with quality of life among chronic hepatitis B patient.

1.4 Hypothesis

1) Anxiety and depression is negatively correlated with quality of life of patient with chronic hepatitis B

2) Fatigue is negatively correlated with quality of life of patient with chronic hepatitis B

3) Social support is positively correlated with quality of life quality of life of patient with chronic hepatitis B.

1.5 Conceptual framework

The process of becoming CHB infected patients can be clearly explained by transition theory. All patients with chronic hepatitis B experienced transition of their illness at the early progressive of disease and during recurrent of disease. In any stages of disease the patient have signs, symptoms and laboratory test with lever of different individual. When applying the transition theory into this research it can be explained as follow: Type and characteristics of transition refers to health illness continuum as becoming chronic hepatitis B, transition conditions refer to factors that can facilitate or inhibit transition process and outcomes. (Meleis, Sawyer, Im, Hilfinger Messias, & Schumacher, 2000).

Transition theory is utilized as framework. When patients with chronic hepatitis B has many change in their illness, he or she will be suffering from unpleasure symptoms. There are some factors that correlated with quality of life among patients with chronic hepatitis B. Those include anxiety and depression, fatigue and social support. Anxiety and depression may be found in chronic hepatitis B and correlated to quality of life. When patients have anxiety or depression, the quality of life decrease.

Applying transition theory in this study can assist health care professions to understand the factors associated with related QOL. It plays a crucial role to make preparation and plan to manage such factors. There by, the trajectory process would be smoothly and successfully, which resulted in improved QOL of patient with chronic hepatitis B.

The relationship among independent variables and a dependent variable are illustrated in the following conceptual framework.

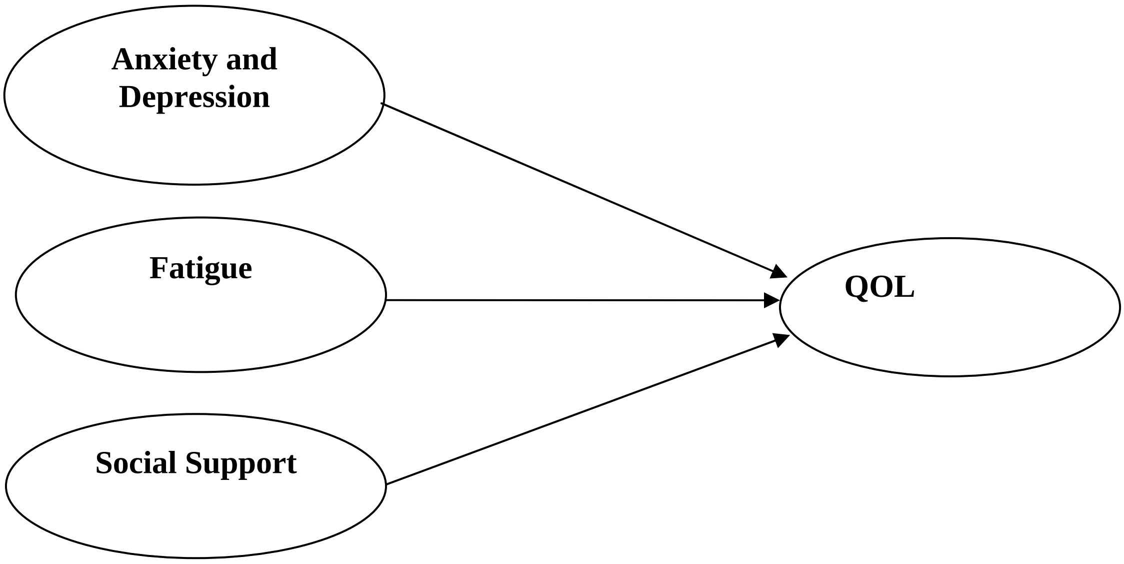


Figure 1.1. The research framework modified from transition theorytheory(Meleis et al., 2000)

1.6 Scope of the study

This research aim to study the identify the correlation between anxiety and depression, fatigue, social support and quality of life among 115 chronic hepatitis B patients receiving oral antiviral therapy. The patients are 18 years old or over being treated at Infectious Diseases Department in Bach Mai hospital.

1.7 Definition of terms

Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (WHO, 1996).In this study quality of life reflect to health-related quality of life (HRQOL) which the impact of the disease upon a per-son’s quality of life (Glise & Wiklund, 2002). According to Church (2004) systemic Review 50 articles and definition about quality of life following:Quality of life is a measurement of an individual's ability to function physically, emotionally and socially within his/her environment at a level consistent with his/her own expectations. When a person is illness, quality of life will also be affected. Quality of life refers to satisfaction of well-being with emphasis on the important dimensions of life including physical and psychological symptoms and function of daily living(Khalil & Abed, 2014; Morsch, Goncalves, & Barros, 2005). Quality of life is significantly impaired in patients with chronic hepatitis B, particularly in those with severe disease (Enescu et al., 2014). It mean that increasing severity of CHB leads to a decline in HRQOL(Modabbernia et al., 2013).

By using questionnaire the researcher will measure the quality of life among patients with chronic Hepatitis B base on SF- 36. It consists of 8 multi-item domains including physical functioning (PF), role limitations due to physical health problems (RP), bodily pain (BP), general health perceptions (GH), vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH). That evaluates various aspects of physical and psychological functioning and well-being, with higher scores indicating better health. In addition, the 8 domains are aggregated into 2 summary measures: physical component summary (PCS) and mental component summary (MCS) scales (Thumboo et al., 2003). Each scale contained 2-10 questions and was graded between 0 and 100 points (Ware et al., 1992; Demiral et al., 2006.

Social support is the provision of caring, empathy, love and trust..It t can be measured as the perception that one has assistance available, the actual received assistance, or the degree to which a person is integrated in a social network. Social support can come from many sources, such as family, friends, pets, neighbors, coworkers, organizations, etc. Social support refers to benefits for both physical and mental health. Outcomes of social support were suggested to be personal competence, health maintenance behavior, perceived control, positive effect, sense of stability, recognition of self-worth, decreased anxiety and depression, and increased psychological well-being (Hinson Langford et al. 1997). For this study, the researcher assesses social support using The Multiple Dimensional Perceived Social Support Scale (MDPSS)(Zimet, Dahlem, Zimet, & Farley, 1988).

MDPSS is a 12-item scale that measures perceived support from family, friends and a significant other. Respondents answer items on a seven-point Likert-type scale ranging from very strongly disagree to very strongly agree. The MDPSS will be translated into Vietnamese then to determine the reliability of Vietnamese version of MDPSS. This instrument has range from 0 to 84. Higher scores refer to better perceived social support.

Anxiety and depression refers to feelings of worry, nervousness, apprehension, or fear commonly experienced by people when faced with something they view as challenging. Chronic hepatitis B patients with depression have a significant reduction in quality of life when compared with those without (Chan et al., 2012). It may be beneficial in disease management when health care team screen depression in chronic hepatitis B (Mirabdolhagh Hazaveh et al., 2015). In this study, anxiety symptom will be measured by The Hamilton Depression Rating Scale (HAM-D) and Hamilton Anxiety Rating Scale (HAM-A).This scale was developed as a screening tool for psychological distress in somatic out-patients (Zigmond et al. 1983). The (HAM-D) and (HAM-A) consists of two subscales measuring anxiety in 7 items (e.g., feeling tense, worrying, and having panic attacks) and depression in 7 items (e.g., taking interest in things as usual, feeling cheerful, and feeling optimistic about the future). The respondents were asked to rate their answers on a 4-point Likert scale ranging from 0 (no distress) to 3 (maximum distress).

Fatigue is a state of awareness describing a range of afflictions, usually associated with physical and/or mental weakness. Physical fatigue is the inability to continue functioning at the level of one's normal abilities. Mental fatigue, on the other hand, rather manifests in sleepiness as a general decrease of attention. Fatigue is a normal result of working, mental stress, depression, and alsolack of sleep. It may also have chemical causes, such as poisoning or mineral or vitamin deficiencies. Massive blood loss frequently results in fatigue. Fatigue is a normal response to physical exertion or stress, but can also be a sign of a physical disorder. The state of result of other study demonstrate that fatigue was found to be significant associated with health related quality of life of patient with chronic hepatitis virus (Karaivazoglou et al., 2010). Fatigue is one of criteria of monitoring the quality of life in CHB patient (Enescu et al., 2014)

1.8 Expected outcomes and benefits

In term of nursing practice, this study has benefits for the patients. First of all, nurses can use this knowledge to improve quality of life in patients’ illness time. Secondly, thank to the result of this research, health care providers can use this knowledge to develop effective clinical nursing practice guidelines about quality of life for the management of the anxiety and depression, fatigue of chronic hepatitis B patients also motivate social support for this patients.

On the other hands, in the research field, this knowledge can be used for the researchers in the other areas of chronic hepatitis studies.

CHAPTER II
LITERATURE REVIEW

This chapter provides a literature review of factors related with quality of life among patients with chronic Hepatitis B. The contents enhance the understanding of phenomena of quality of life among patients with chronic Hepatitis B based on transition theory as following 4 issues including the conclusion part:

2.1 Problems among patients with chronic Hepatitis B

2.1.1 Incidence of chronic hepatitis B

2.1.2 Pathophysiology of chronic hepatitis B

2.1.3 Impact of chronic hepatitis B

2.2 Quality of life among patients with chronic hepatitis B

2.2.1 The concept of quality of life

2.2.2 Quality of life among patients with chronic hepatitis B

2.2.3 Measuring QOL

2.3 Transition theory as a conceptual framework to explain quality of life among patients with chronic hepatitis B

2.3.1 Overview the concept of transition theory

2.3.2 Transition theory and the patients with chronic hepatitis B

2.4 Factors associated with quality of life among patients with chronic hepatitis B

2.4.1 Anxiety/ depression and its association with quality of life among patients with chronic hepatitis B/measuring anxiety

2.4.2 Fatigue level and its association with quality of life among patients with chronic hepatitis B/measuring Fatigue

2.4.3 Social support and its association with quality of life among patients with chronic hepatitis B/measuring social support

2.5 Conclusion

2.1 Problems among patients with chronic Hepatitis B

2.1.1 Incidence of chronic hepatitis B

Worldwide, Hepatitis B virus (HBV) infections pose a serious public health threat (Wang & Chen, 2014). The rates of HBV infection are different between countries and regions. In over the world, over 2 billion people have serological evidence of HBV, and approximately 350 million individuals are chronic hepatitis B

A recent analysis indicated that 1.4 million persons born in 2000 would die prematurely because of HBV infection (Ugwu, Varkey, Bagniewski, & Lesnick, 2008) .Chronic hepatitis B virus infection related diseases is cause of approximately 600 million deaths per year (Ott, Stevens, Groeger, & Wiersma, 2012). In North America Hepatitis B infection is most common in young adults. In the USA and Canada, serological evidence of previous infection varies depending on age and socioeconomic class. Overall, 5% of the adult USA population has anti-HBc, and 0.5% are HBsAg positive. Estimation 1.25 million people in the US diagnosed with chronic HBV infection (Lavanchy, 2004).

According to WHO, Viral Hepatitis in the South-East Asia Region, an estimated around 100 million hepatitis B carriers live in countries of the WHO-designated. South-East Asia Region, where approximately 300,000 deaths are attributed to hepatitis B annually. Among all chronically infected carriers worldwide, approximately 75% are found in Asia (Lavanchy, 2004).The countries in this region, such as Thailand and Myanmar, have a high prevalence of chronic hepatitis B (CHB) infection, with 5% to 7% of the adult population being long-term carriers or CHB patients (Ott et al., 2012).

Vietnam is a country having the highest rate of chronic hepatitis B virus infection in the world. Population surveys from the two biggest cities, Hanoi and Ho Chi Minh City, have shown a positive hepatitis B surface antigen (HBsAg) rate of 9% to14% (Tu et al., 2012). Even with the exclusion of high risk groups, it can be estimated that approximately 10 million people are living with CHB. The CHB prevalence is high in rural areas, with an estimated prevalence as high as 18.8 % (Hipgrave et al., 2003) to 19% in some rural areas (Nguyen, McLaws, & Dore, 2007). Without medical monitoring and treatment of CHB, the risk of developing cirrhosis and hepatocellular carcinoma (HCC) with sequelae of liver failure and death is 25–30%. Using age-specific HBV prevalence rates from Vietnamese community-based studies, it has been projected that by the year 2025, CHB could result in 58 650 patients with cirrhosis, 25 000 patients with HCC, and 40.000 deaths (Nguyen, Law, & Dore, 2008).

In conclusion, the consequences of chronic hepatitis B virus infection and progressing of disease impact on patients' quality of life (QOL). Researcher is interested in studying factors(anxiety and depression, fatigue, social support) related with QOL among patients with chronic hepatitis B, which are the health transition outcome. Accordingly, health care team can apply the result of this study to assist Vietnamese people with chronic hepatitis B to enhance their QOL.

According to literature review, the researches on factors related to QOL among chronic hepatitis B patients in Viet Nam were still rare. Researcher was interested in studying the association between anxiety and depression, fatigue, social support and QOL in chronic hepatitis B patient. The study result can be used as nursing care planning to promote QOL for the patients.

2.1.2 Pathophysiology of chronic hepatitis B

The life cycle of HBV is complex but, essentially, it acts as a stealth virus by evading the immune system(Chisari, Isogawa, & Wieland, 2010).

The four stages of CHB: During the chronic phase, we usually distinguish 4 phases:

The lifetime risk of developing cirrhosis with CHB is 15-40%, with a 2-5% risk of HCC in those with cirrhosis (Nebbia, Peppa, & Maini, 2012). Many factors affect the rate of disease progression in CHB. It is understood that CHB has four distinct phases with different durations and outcomes. Stages are linked to the degree of HBV replication and the way in which the immune system responds.

The first phase, Immune-tolerant phase: During the first stage of infection, the HBV virion (virus particle) attaches to a liver cell (hepatocyte) then penetrates the hepatocyte's cytoplasm (Locarnini & Zoulim, 2010). This stage lasts for 10-30 years in perinatally acquired HBV but is absent or has a shorter duration for those infected as children or adults. The hepatitis B viral protein, HBeAg, a marker of active viral replication, is presented with high levels of HBV DNA and a normal level of alanine aminotransferase (ALT), a liver enzyme. There is minimal liver damage as the immune system tolerates the virus.

The second phase, Immune clearance phase (immunoactive): those who acquire HBV in late childhood, adolescence or adulthood often present in this phase. When immune ability is lost, the immune system attacks infected hepatocytes, resulting in elevated ALT levels and fluctuating HBV DNA levels, and causing liver fibrosis. Seroconversion – loss of HBeAg and formation of the antibody to HBeAg (HBeAb) – takes place in 50% of children and adults within five years of entering this phase, and 70% of children and adults by 10 years, resulting in transition to the third phase.

The third phase, Inactive carrier phase (immune control): The third phase is called inactive chronic carriage and is associated with no detectable viral replication this is an inactive phase of HBeAg negative HBV with low or undetectable HBV DNA levels, a normal ALT and no damage to the liver, necro-inflammation (Zarski, 2011). Occasional surface antigen loss occurs. Patients in this phase form the largest group with HBV.

The fourth phase, Reactivation phase: A fourth phase is possible with viral reactivation episodes (Zarski, 2011). This phase can be spontaneous or can be triggered by immune-suppression. Patients can revert to HBeAg positivity but most are HBeAg negative with detectable DNA levels, high ALT and moderate to severe necro-inflammation with variable amounts of fibrosis on liver biopsy (Chen, 2010; Fattovitch et al, 2008; McMahon, 2004).

It can be said that the progress of chronic HBV is gradually deteriorate function of immune, cells and DNA. Detection of this disease in the early stage is therefore very important because it will prevent patients from end stage disease.

Signs and symptoms of chronic HBV

People with CHB often do not have symptoms, so those with the disease may have no way of knowing that they are infected. However, some complain of fatigue, aches and pains, fever, loss of appetite, nausea and abdominal pain. The majority of acute HBV infections are also asymptomatic but around 30% of adults will present with jaundice, fatigue, poor appetite, weight loss, nausea and vomiting, abdominal pain, pyrexia, dark urine and light stools (Aspinall, Hawkins, Fraser, Hutchinson, & Goldberg, 2011).

Progress of disease

Chronic HBV infection is a serious clinical problem worldwide because of the potentially adverse sequelae, such as hepatic decompensation and the development of cirrhosis or hepatocellular carcinoma (HCC) (Liaw, 2013). It is one of the most common persistent viral infections in human**.** Chronic HBV **infection** lasts six months or longer. It has been associated with increased risk of liver failure and hepatocellular carcinoma (HCC), and is a leading cause of liver disease, liver-related death and liver morbidity globally (Shih & Chiaho, 2013).

Many persons infected early in life remain in the replicative stage for several years before stimulating a host immune response that can lead to progressive liver damage and potentially fatal complications including compensated and decompensated cirrhosis (ascites, jaundice, portal hypertension, esophageal and gastric variceal bleeding). Hepatocellular carcinoma is a complication that may develop after a long duration of infection in the replicative and no replicative phases (Custer, Sullivan, & Hazlet, 2004). The 5 years cumulative incidence of compensated cirrhosis among hepatitis B virus (HBV) patients ranges from 8% to 20% and may be even higher.

Not only progressing of disease to hepatocellular carcinoma, liver cancer but also chronic hepatitis B affect health of human by many diseases. Although the majority of patients do not develop hepatic complications, it is estimated that during their lifetimes 15–40% may develop serious sequelae of infection (Lok & McMahon, 2009). The severity of chronic hepatitis B patient was a major cause increased limit of treatment effectiveness by antiviral therapy (ref), so has effect to effectiveness of treatment. Higher level of the severity of hepatitis B leads to the rate of virological response.

2.1.3 Impact of chronic hepatitis B

Chronic hepatitis B not only kills patients by cirrhosis, liver cancer, liver failure and hepatocellular carcinoma (HCC), but represents a huge burden on the health care system with substantial impact on human health as a matter of great concern to society. Furthermore, patients with chronic hepatitis B or with complications of this disease significantly affect to their psychological and mental stress. The stage of disease has great effect to quality of life in chronic hepatitis B (Che et al., 2014).

The consequences of hepatitis B on physical health are significant. Health states related to CHB infection have substantial reductions in HRQOL. HRQOL in CHB patients compared to other diseases. Several studies compared HRQOL between CHBV patients and those with other liver diseases. Most data focused on a comparison between CHBV and HCV patients. Scores from all subscales (other than worry) were higher in CHBV patients compared to those with nonalcoholic fatty liver disease. There was no difference in most subscale scores between CHBV and HCV patients, however scores from the activity and abdominal subscales were sign (Modabbernia, Ashrafi, Malekzadeh, & Poustchi, 2013).

Beside, chronic hepatitis B has impact on psychological health of the patients. Psychiatric disorders and psychological impairment (particularly anxiety and depression) are common among CHBV patients, and identifying accompanying conditions such as high psychological stress and alcoholism may decrease the rate of patients' psychiatric problems. Psychological and behavioral intervention can be potentially helpful in improving both psychological health and treatment adherence of CHBV patients (Modabbernia et al., 2013).

Psychiatric disorders are common in CHB patients in. Depressive disorders and anxiety disorders are the commonest psychiatry disorders, while major depressive disorder is the commonest specific psychiatric disorder. Several factors were identified and shown to have a significant association with current psychiatric, depressive, and anxiety disorders. Identification of these factors can help physicians to recognize and manage psychiatric disorders among CHB patients (Hchan et al, 2012).

Furthermore, this disease also affect to sociological health of patients. First of all, chronic hepatitis B has a socio-economic impact. The estimated total annual cost of chronic HBV infection and its associated complications in Singapore was US$279 million. The total cost paid for chronic hepatitis B patients represents the biggest cost component, followed by decompensated cirrhosis (DC) patients (Ong, Lim, & Li, 2009). Chronic HBV infection poses a significant financial burden for the average patient and that lacking treatment would become a social issue in Vietnam (Tu et al., 2012), which laid a heavy burden on the patients and their families as well as the whole society. In Viet Nam, the total cost attributable to chronic HBV infection and its complications in 2008 was estimated to be approximately US $4.4 billion, with the direct medical cost accounting for about 70% of that estimate. The cost of antiviral was the major cost driver in treating chronic HBV infection. The per-patient total annual direct medical cost increased with the severity of the disease, with the estimated costs for chronic HBV infection and hepatocellular carcinoma as US $450.35 and US $1883.05, respectively. When compared with the 2008 per-capita gross domestic product of US $1024, the financial burden of treating chronic HBV infection is very high in Vietnam (Tu et al., 2012). Secondly, with the role of caregiver of patients with chronic viral hepatitis, family members experience substantial burdens, stress, effect on personal wellbeing and social activities. In most cases, they worry about the money payment, therapeutic effect and time expenditure, and are at risk for emotional and physical health problems (Ren et al., 2014). As family impact this diseases, the financial burden constituted the major effect on the family caregiver. Economic of patient’s family is more difficult because of the cost for treatment and taking care for the patient. Moreover, the most significant effects are caused by hospital burdens such as increased length of hospital stay and bed occupancy, increased workload, increased hospital mortality rates and higher re-admission rates.

2.2 Quality of life among patients with chronic hepatitis B

2.2.1 The concept of quality of life

WHO defines quality of life as a individuals’ perception of their position in life in the context of the culture and value systems in which they live and in their relation to their goal, expectation, standards and concerns. Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (Organization, 1996). Another way to define the quality of life is patient's subjective satisfaction with one's life. The patient's satisfaction and happiness with either their life as a whole, or specific domains of their life (Church, 2004). Similarly, sense of well-being that stems from satisfaction or dissatisfaction with areas of life that are important to patients (Ferrans & Powers, 1992). All of these concepts have impact on overall quality of life which is a person's sense of well-being that stems from satisfaction or dissatisfaction with the areas of life that are important to him/ her (Ferrans et al., 2005)

The term health-related quality of life (HRQOL) reflects the impact of the disease upon a person's quality of life (Glise & Wiklund, 2002). Health-related quality of life (HRQOL) is considered to be an important aspect of disease. Progression to more severe complications may profoundly affect their HRQOL(Younossi, Guyatt, Kiwi, Boparai, & King, 1999).

QOL is a broader concept than HRQL. Wilson and Cleary do not explicitly define QOL, but imply QOL measures capture a stable synthesis of a wide range of experiences and feelings understood to represent wellbeing or QOL. QOL is also influenced by multiple non medical factors (Wilson & Cleary, 1995). The four health outcomes that constitute HRQL are organized along a causal pathway. Wilson and Cleary do not define characteristics of the individual or characteristic of environmental, although both concepts are included in the schematic representation of the model. Characteristics of the individual are categorized as demographic, developmental, psychological, and biological factors that influence health outcomes (Ferrans et al., 2005). The model suggests that symptom amplification or an appraisal of symptom burden influences symptom status; personality and motivation influence functional status; and value preferences influence general health perception and QOL. Characteristics of the environment are either Social and economic supports or Psychological supports (Ferrans et al., 2005). Social and economic supports influence functional status; Social characteristics include marriage partners, the social environment, Psychological supports that influence symptom status, general health perception and QOL. Psychological characteristics include the distinctive attributes of setting which may influence health outcomes, such as neighborhood pollution or workplace exercise facilities.

2.2.2 Quality of life among patients with chronic hepatitis B

From literature reviews, many factors related to QOL such as severity of disease, virological response. Quality of life is significantly impaired in patients with chronic hepatitis B, particularly in those with severe disease (Enescu, Mitrut, Balasoiu, Turculeanu, & Enescu, 2014). It mean that increasing severity of CHB leads to a decline in HRQOL(Modabbernia et al., 2013). Although some of antiviral drugs decrease the quality of life during treatment, it significantly improves after stopping it (Enescu et al., 2014). Quality of life among patients with chronic hepatitis B decreases that may be related to psychiatric disorders, such as depression (Arvand, Shafiabadi, Falsafinejad, & Naderi, 2012).

2.2.3 Measuring QOL of patients with chronic hepatitis B

By using questionnaire the researcher will measure the quality of life among patients with chronic Hepatitis B base on SF- 36. The SF-36® Health Survey was first made available in “developmental” form in 1988 (Ware, 1988) and in the standard form (i.e., SF-36® Health Survey) in 1990 (Ware et al., 1993). It was constructed to satisfy minimum psychometric standards necessary for group comparisons. The eight health domains represented in the SF-36® Health Survey profile were selected from the 40 domains that were included in the MOS (Stewart &Ware, 1992). It consists of 8 multi-item domains including physical functioning(PF), role limitations due to physical health problems(RP), bodily pain (BP), general health perceptions(GH), vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH). That evaluates various aspects of physical and psychological functioning and well-being, with higher scores indicating better health. In addition, the 8 domains are aggregated into 2 summary measures: physical component summary (PCS) and mental component summary (MCS) scales (Thumboo et al., 2003).Each scale contained 2-10 questions and was graded between 0 and 100 points (Ware et al., 1992; Demiral et al., 2006).

2.3 Transition theory as a conceptual framework to explain quality of life among patients with chronic hepatitis B

2.3.1 Transition theory

Transition theory is used as a theoretical framework in this study. Transition is a nature that can be applied and used to describe the process of health, daily living, work, study, everyday life. People cannot avoid transition and are always in a transit process. Major concepts of the middle range theory of transition include 4 main components including: (a) Nature of transitions which refer to type and characteristics of transition. (b) Transition conditions refer to factors that can facilitate or inhibit transition process and outcomes. Transition conditions include personal, community, or societal factors and personal conditions include meanings, cultural beliefs and attitudes, socioeconomic status, preparation, and knowledge.(c) Pattern of response refers to the outcome of transition which reflects the state of a person after transit in his/her health trajectory process. (d) Nursing therapeutics refer to intervention nurses perform to facilitate healthy transition (Meleis et al., 2000).

In this study, patient's QOL can be viewed as transition process in their health and illness. Accordingly Meleis’ transition theory can be employed to clearly explain the changing process of a person undergoing chronic hepatitis B. It explains health and illness transition of personal suffering with chronic hepatitis B illness in particular the progress of HBV disease from the first stage to the fourth stage. It is the change in health and illness of patients that create a transition outcome, enhanced QOL from treatment. Transition outcome depends on personal factors. It means that patient ‘s QOL have relationship with transition conditions, factors which can facilitated or inhibited stigmas, symptoms like fatigue, anxiety and depression. This relationship is clearly explained in transition theory.

2.3.2 Transition theory and the patients with chronic hepatitis B

The process of becoming CHB infected patients can be clearly explained by transition theory. All patients with chronic hepatitis B experienced transition of their illness at the early progressive of disease and during recurrent of disease. In any stages of disease the patient have signs, symptoms and laboratory test with lever of severity of different individual. When applying the transition theory into this research it can be explained as follow: Type and characteristics of transition refers to health illness continuum as becoming chronic hepatitis B, transition conditions refer to factors that can facilitate or inhibit transition process and outcomes. In this study it refers to anxiety and depression, fatigue and social support. Health outcome as the dependent variable is QOL that belong to pattern of response of transition theory. Applying transition theory in this study can assist health care professions to understand the factors associated with related QOL. It plays a crucial role to make preparation and plan to manage such factors. There by, the trajectory process of illness would be smoothly and successfully, which resulted in improved QOL of patients with chronic hepatitis B. It can be said that patients have CHB they can become healthy if they receive appropriate support and care from nursing profession.

2.4 Factors associated with quality of life among patients with chronic hepatitis B

2.4.1 Anxiety/ depression and its association with quality of life among patients with chronic hepatitis B.

The depression was ranked as the third leading cause of the global burden of disease in 2004 (WHO, 2012). Previous research has also shown that depressive disorders are related to poor QOL in patients with chronic liver diseases (CLD) (Fabregas et al., 2013). Moreover, CLD is linked to job loss, impaired functioning, mood swings, anxiety, low self-esteem, depression, and other emotional problems that severely affect QOL and well-being. It is seem to be that by enhancing coping and self-efficacy skill, QOL in CLD patients may be improved (Gutteling, Duivenvoorden, Busschbach, de Man, & Darlington, 2010). Patients should be monitored for depressive symptoms during the course of clinical medical care for CHB so that psychological care may be initiated in a timely manner. There was a higher rate of psychiatric disorders (mostly depression), anxiety at patients diagnosed with chronic hepatitis B within 3 months (Enescu et al., 2014).

Chronic hepatitis B patients with depression have a significant reduction in quality of life when compared with those without (Chan, Yu, & Li, 2012). It may be beneficial in disease management when health care team screen depression in chronic hepatitis B (Mirabdolhagh Hazaveh, Dormohammadi Toosi, Nasiri Toosi, Tavakoli, & Shahbazi, 2015). As in all chronic diseases, these infections may lead to psychological health problems. There are numerous studies addressing the psychological wellbeing, psychosocial stressors related to the disease, quality of life QOL in patients with chronic hepatitis (Kunkel et al., 2000; Pojoga et al., 2004).

Depression and anxiety are common and important co-morbidities in patients with chronic hepatitis B disease. Symptoms of anxiety and depression were measured by 2 scales including the Hamilton Depression Rating Scale (HAM-D) and Hamilton Anxiety Rating scale (HARS).This scale was developed as a screening tool for psychological distress in somatic out-patients (Zigmond et al. 1983).It has construction brief and high validity that is an attractive instrument to measure depressive disorders.

Hamilton Anxiety Rating Scale (HAM- A) is in the public domain and is used to measure the severity of symptoms of anxiety, which includes evaluation of 14 symptoms and signs. Each item is score on 5 - point scale, ranging from 0 (not present) to 4 (severe). 0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe. The total of score is ranged from 0 to 56, under and equal 17 is mild severity, 18 – 24 is mild to moderate severity and 25 – 30 is moderate to severe. The time is administrated about 10-15 minutes. (Hamilton, 1960).Hamilton Depression Rating Scale (HAM-D) is in the public domain and is used to identify severity of depressive symptoms and including 17 items. The range of scores for depression severity are determined as: no depression, score <10; mild depression, score 10–13; moderate depression, score 14–17; severe depression, score >17) It takes about 20 minutes (Hamilton, 1960).

2.4.2 Fatigue level and its association with quality of life among patients with chronic hepatitis B

Fatigue and impaired psychological functioning is associated with diminished HRQOL in chronic hepatitis virus, independent of the disease etiology.

Management of fatigue and depressive symptoms should be considered a priority, in order to improve HRQOL in CVH patients (Younossi et al., 1999). The state of result of other study demonstrate that fatigue was found to be significant associated with health related quality of life of patient with chronic hepatitis virus (Karaivazoglou et al., 2010). Fatigue is one of criteria of monitoring the quality of life in CHB patient (Enescu et al., 2014).

In this study, fatigue will be measured by the Greek standardized version of Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT- F). This instrument was created by Webster since 2003. The new 13 items scale contained four subscales: cognitive, fatigue, energy and productivity. This scale is selected because it is widely accepted among health care profession (community health, inpatient, outpatient, etc), easy to understand and feasible to used in clinical research. The FACIT Fatigue Scale is easy to complete (in 5–10 minutes). It has demonstrated equivalence in mode of administration (interview vs. self-report)

2.4.3 Social support and its association with quality of life among patients with chronic hepatitis B

Low social support have a negatively impact above mental health of chronic hepatitis patients (Enescu et al., 2014). Social support seems to be associated with better mental health and HRQOL in chronic hepatitis B and C (Poorkaveh et al., 2012). It is important to strengthen communication between healthcare professionals and patients in order to improve the patient's perception of social support and quality of life (Xiao et al., 2012). Low social support have a negatively impact above mental health of these patients (Enescu et al., 2014). In antiviral therapy, social support plays an important role to improve adherence of antiviral regimen to obtain virological response. Patients with CHB who have a virological response to 24 weeks of antiviral therapy also have significant improvements in HRQOL(Kim et al., 2012).

Social Support will be measured by the MSPSS that measures perception of social support of patients from three sources: Family (Fam) (items 3, 4, 8, and 11), friends (Fri) (items 6, 7, 9, and 12) and significant others (SO) (items 1, 2, 5, and 10). Many scales have been designed to assess social support, including in-person interviews and self-report questionnaires. MSPSS has proven to be psychometrically sound in diverse samples, and to have good internal and test-retest reliability, and robust factorial validity.

2.5 Conclusion

According to literature review, chronic hepatitis B is common chronic diseases and public health threat. This disease causes severe symptoms impact on physical health, emotion and psychology of patients. Furthermore, chronic hepatitis B leads to economic burden because of cost of treatment by antiviral therapy, controlling infection and also regiments for complication of this disease is expensive. There are evidences to support that many factors in particular patients' anxiety/ depression, fatigue and social support related quality of life. The questionnaires used in this study for assessing anxiety, depression, fatigue and social support. In order to obtain smooth transition also delay progress of chronic hepatitis B and enhance effectiveness of treatment to improve quality of life, there should be control factors related QOL among patients with this disease. The study result can be used as nursing care planning to promote QOL for the patients.

CHAPTER III
METHODOLOGY

3.1 Research design

The population of this study included both males and female patients diagnosed with chronic hepatitis B admit to department of infectious diseases in Bach Mai hospital. The age of patients was at 18 years or older at the moment of the study.

3.2 Population and sample of the study

3.2.1. The population of this study

The population of this study included both males and female patients diagnosed with chronic hepatitis admitted to department of infectious diseases in Bach Mai hospital. The age of patients was at 18 years or older at the moment of the study.

3.2.2 The sample of the study

Sample was selected from the population according to the following criteria:

The inclusion criteria are as follow: The sample in this study was recruited from the population according to the following inclusion criteria:

1) Diagnosis was chronic hepatitis B, they were able to verbally communicate with the researcher in Vietnamese language.
2) Voluntarily agreed to participate in the study.

The exclusion criteria are as follow:

1) Patient had liver transplantation, co-infection with human immunodeficiency virus (HIV)
2) The patients have symptoms like ascites, severe pain, dyspnea
3) Incomplete fill out questionnaire

Termination criteria:

Patients who developed any serious symptoms were terminated like respiratory failure: Respiratory rate > 30 times/minute, SpO_2< 80 %, purple on the lip, finger or body, heart rate > 90 times/ minute.

Sample size:

The researcher tested the association among anxiety and depression, fatigue, social support and quality of life among patients with chronic hepatitis B. There were three parameters in this study and 1) the level of significance α= 0.05, 2) the power of the statistical test (Power 1- β= 0.8) and 3) effect size for this study (f^2=.099). The sample size in this study was calculated by using G*power version 3.1.9.2 program to determine the minimum number of participants needed for co-relational design (Faul, Erdfelder, Buchner, & Lang, 2009). Based on G*power, sample size should be at least 115 patients.

3.3 Setting

The research was conducted at the Department of Infectious Diseases in Bach Mai Hospital. Healthcare services are provided by the specialist everyday from 7:30am - 5:00pm at the Department of Infectious Diseases for patients with tropical diseases such as Meningitis, Sepsis shock, Tetanus, HIV/AIDS, Hepatitis.

Health care services are given by 35 nurses, 15 doctors and 2 assistants at the three clinical units. Their services include reception, collecting data of patient in to record, and taking care the patients as to take the vital signs, to deliver medication for patient, education and counseling, monitoring patient, etc. Every day, there are about 20 patients with chronic Hepatitis B come the Infectious Diseases Department to have examination including new and old patients. So, the researcher plans to collect data every day.

3.4 Instruments

The instruments used for data collection included 5 parts as follows:

Part I: Questionnaire demographic

Demographic data of the patients, illness history and previous treatment information were collected. The researcher developed this questionnaire by herself. The demographic data of the patients included age, gender, such as age, gender, marital status, educational level, year of nursing experience, job position and work place, address at present and ways of medical payment, reason for the first time the patient goes to the doctor. The illness history and previous treatment information had 11 items including co- morbidity, exposure risk factors, vaccination information, and history of treatment by traditional and antiviral medicine, history of chronic hepatitis B vaccine and liver cancer in family.

Part II:Hamilton Anxiety Rating scale (HAM-A) and Hamilton Depression Rating Scale (HAM-D)

Hamilton Anxiety Rating Scale (HAM-A) was provided freely and used to measure the severity of symptoms of anxiety, which included the evaluation of 14 symptoms and signs. Each item was scoring in 5 - point scale, ranging from 0 (not present) to 4 (severe). 0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe. The total of score is ranged from 0 to 56, under and equal 17 is mild severity, 18 – 24 is mild to moderate severity and 25 – 30 is moderate to severe. The time for administration is about 10-15 minutes (Hamilton, 1960).

Hamilton Depression Rating Scale (HAM-D) is in the public domain and is used to identify severity of depressive symptoms and including 17 items. The range of scores for depression severity are determined as: no depression, score <10; mild depression, score 10–13; moderate depression, score 14–17; severe depression, score >17) It takes about 10-15 minutes (Hamilton, 1960).

Reliability of test:

Hamilton Anxiety Ratings Scale was tested on 30 CHB patients at Infectious diseases department. Two experts in Infectious Diseases department who had similar degree (Bachelor of Nursing) and 5 years of experience tested on 30CHB patients. Then the scores were taken to find the reliability by Cronbach's alpha coefficient.

The inter rater reliability of Hamilton Depression Rating Scales (HAM-D)was tested by two experts. One expert at the Department of Infectious Diseases and one another expert from psychiatric department in Bach Mai Hospital. After the first expert finished their test and leaves the room, the second expert was performed his or her assessment. Correlation coefficient was used to calculate the agreement between scores of two experts after collecting data.

Part III:Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F)

Fatigue was measured by the Greek standardized version of Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT- F). The 13-item scale contained four subscales: cognitive, fatigue, energy and productivity. The level of fatigue is measured on a four point Likert scale from 4 (Not at all) to 0 (very much) (Webster et al., 2003) Webster, K., Cella, D., & Yost, K. (2003). The functional assessment of chronic illness therapy (FACIT) measurement system: properties, applications and interpretation. FACIT-F scores range from 0 to 52, with the highest values indicating less fatigue. Score in the range of 30 and below are in general suggestive of significant fatigue.

Part IV: Multidimensional Scale of Perceived Social Support (MSPSS)

Social Support was measured by The Multidimensional Scale of Perceived Social Support (MSPSS) that measures perception of social support of patients from three sources: Family (Fam) (items 3, 4, 8, and 11), friends (Fri) (items 6, 7, 9, and 12) and significant others (SO) (items 1, 2, 5, and 10).MSPSS was originally developed by Canty-Mitchell and Zimet in 1990. Zimet *et al, (1988),* have well argued that the MSPSS is a short scale (12 items total), Each item is scored on a likert scale ranging from 1 (Very strongly Disagree) to 7 (Very strongly agree) and MPSS items are easy to understand and despite being a brief instrument it measures support from three sources. According to (Furukawa, Harai, Hirai, Kitamura, & Takahashi, 1999) reported alpha reliability coefficients of 0.85 in CHB patients.

The researcher collected data by sending the questionnaire for participants. Participants completing the MSPSS were asked to indicate their agreement with items on a7-point Likert-type scale, varying from very strongly disagree to very strongly agree. Total and sub scale scores range from 1 to 7. The interpretation are 1) if you very strongly disagree, (2) if you strongly disagree, (3) if you mildly disagree, (4) if you are neutral, (5) if you mildly agree, (6) if you strongly agree, (7) if you very strongly agree. Total scores of social supports vary from 12 to 84 and the higher the score, the more social support.

Part V: The SF-36® Health Survey

By using a questionnaire, the researcher measured the quality of life among patients with chronic Hepatitis B base on SF-36® Health Survey. The SF-36® Health Survey was first made available in "developmental" form in 1988 (Ware, 1988) and in the standard form (i.e., SF-36® Health Survey) in 1990 (Ware et al., 1993). It was constructed to satisfy minimum psychometric standards necessary for group comparisons. The eight health domains represented in the SF-36® Health Survey profile were selected from the 40 domains that were included in the MOS (Stewart &Ware, 1992). It consists of 8 multi-item domains including physical functioning (PF), role limitations due to physical health problems (RP), bodily pain (BP), general health perceptions (GH), vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH). That evaluates various aspects of physical and psychological functioning and well-being, with higher scores indicating better health. In addition, the 8 domains are aggregated into 2 summary measures: physical component summary (PCS) and mental component summary (MCS) scales (Thumboo et al., 2003). Each scale contained 2-10 questions and was graded between 0 and 100 points (Ware et al., 1992; Demiral et al., 2006).

3.5 Instrument Reliability and Validity

3.5.1 Instrument Reliability

Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT - F), MSPSS and the Health Survey (SF-36) was used with CHB patients who had characteristic similar to the studied participants as aforementioned. The Cronbach's alpha coefficient was employed to test each instrument reliability. The inter-rater reliability of Hamilton Depression Rating Scales (HAM-D) was tested by two experts. One expert at the Department of Infectious Diseases and one another expert from psychiatric department in Bach Mai Hospital. After the first expert finish their test and leaves the room, the second expert performed his or her assessment. Correlation coefficient was used to calculate the agreement between scores of two experts after collecting data.

Table 3.1 Reliability of scales (n= 30 and n=115)

Scale	Number of Items	Cronbach's Alpha (n = 30)	Cronbach's Alpha (n = 115)
HAM-A	14	.894	.878
HAM-D	17	.806	.799
FACIT – F	13	.889	.918
MSPSS	12	.882	.880
SF36	36	.948	.926

3.5.2. Instrument Validity

The instrument of this study included: Hamilton Depression Rating Scales (HAM-D), Hamilton Anxiety Rating Scales (HAM-A), Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT-F), Multidimensional Scale of Perceived Social Support (MSPSS) and the SF-36® Health Survey (SF-36). All of scales were translate into Vietnamese by English teacher. They were verified by 5 experts including: The Dean of Infectious diseases department, doctors, head nurse and nurse. After that, they were used to test 30 patients in Infectious diseases department to assure their understanding of the contents.

3.6 Data collection

The data collection was conducted in the following sequence:

1) Preparation research assistant

A Research assistant in this project is two-year experienced nurse in Hepatitis B virus unit. Researcher trained her/him about objective and details of project focusing on her/his role for approach voluntary subject, how to include and exclude by inclusion and exclusion criteria, describing to participant with simple word for understanding also process of signing consent form.

2) After getting the approval from IRB and receiving permission to collect data from IRB of Faculty of Nursing, Mahidol University and Vietnam National University, the researcher and research assistant were asked to have permission from the director of the hospital, the administer of Infectious Disease Department and head nurse of Infectious Disease Department in order to explain the purpose of the study and data collection process.

3) Head nurse or the nurse who was on duty screened the eligible patients according to the inclusion criteria and introduced the research assistant to target patients. Then, the research assistant was self-introduced, made a relationship with the patients and gave information about the objective of the study, data collection procedure and asks for participating in the study. If the patient wanted to participate in the study, the research assistant asked the patient to sign the consent form and introduced the researcher to the patient.

4) The researcher collected some information of the subject from the medical record form. Then the researcher organized a private room for interviewing the subjects or the subjects answer the questionnaires themselves. The questionnaires using in the data collection consist of these contents 1) General information of the patient 17 questions, 2)Hamilton Anxiety Rating Scale (HAM-A) has14 questions and Hamilton Depression Rating Scale (HAM-D) has 17questions, 3) Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F) has 13 questions, 4)Multidimensional Scale of Perceived Social Support social(MSPSS) has 12 questions, and 5) The SF-36® Health Survey (SF36)for quality of life has 36 questions. Total questionnaire has 109 questions and the time is about 30-40 minutes.

5) After the completion of interviewing or answering questionnaires, the researcher informed the subjects that the data collection process had ended with thankful to the subjects

6) During interview or use questionnaire, if patients didn't want to participate in this study they could stop in any conditions. The patients could get the same standard care after withdraw from the study. There were no any effects for caring.

7) If the patients hadunstable conditions for example dyspnea, the researcher could stop to interview. The researcher could immediately contact with doctors who had response to take care the patients. The researcher could take care until patients already stable.

3.7 Protection of human rights

In this research, the researcher concerned on human rights and ethical issues throughout the research process by

3.7.1. Submitting the research proposal, the researcher received approval by the Ethical Committee of faculty of Nursing, Mahidol University, Thailand and IRB of Vietnam National University, Vietnam and started the data collection process after getting approval from director of Bach Mai hospital, head of Department of Infectious Diseases.

3.7.2. The researcher introduced herself to the participants, informed the patients about the research objective and all data collection process. The patients were informed that they had right to refuse to join in the research process. During anytime throughout the research process, a patient had their own right to with draw from the research project at anytime and was not affect their treatment or caring process. If patients agree to join in the research process, they were invited to sign their name in the consent form.

3.7.3 This research was not harmful to the patient's physical health. The data collection process might take time about 30- 40 minutes.

3.7.4 The data of patients in research was useful for other patients who had the same health care problem as the sample instead of benefit for patients who joined the study. Privacy of patients was kept secretly, only the researcher and the IRB team was able to get access to the data. Any content related to data that was presented in the thesis or any publication was anonymous. In case of ones who with drawn themselves from the research, all data was deleted from the database and was not used as any part of the research.

3.7.5 If the participants had further questions or required more explanation in regard to the research, they were informed to feel free to ask the researcher at anytime throughout the research process.

3.7.6 After the participants were clearly understand the research process and agree to join in the research, they were invited to sign their name in the consent form.

3.8 Data analysis

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

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

2. The descriptive statistics in terms of frequency, percentage, mean, standard deviation, and range were used to describe study variables, including anxiety and depression, fatigue, social support and quality of life in patients with chronic hepatitis B.

3. Spearman's rho was employed to test correlation among the variables.

3.9 Assumption for statistic test

Normality was tested. The result showed that it was not normal. So, the researcher used Spearman's rho to examine association between anxiety and depression, fatigue, social support and quality of life.

CHAPTER IV

RESULT

This descriptive correlational study was conducted to examine the relationship between anxiety and depression, fatigue, social support and quality of life among patients with chronic hepatitis B who aged 18– 72 years old in Infectious Diseases Department at Bach Mai hospital from August to October, 2016. The findings were presented in descriptive statistic as follows:

1. The demographic data of patients with chronic hepatitis B.
2. The information related to illness and treatment
3. The correlation between anxiety and depression, fatigue, social support and quality of life among patients with chronic hepatitis B

4.1 Demographic data of patients with chronic hepatitis B

The demographic data are illustrated in table 4.1. Thedata were collected including age, gender, BMI, marital status, educational level, occupation and income. The sample in this study, composed of 75 males (65.22%) and 40 females (34.78%). The age of patients with CHB ranged from 18 to 72 (Mean = 38.84, *SD* = 13.725). The most popular age was less than 40 years old with 65.22% while the age over 41 years old was the least popular with 34.78%. The samples with over-weight were 20.87% and obesity were 9.57%. The patients lived in city account of 57.39%, in rural is 38.26% and only 4.35% lived in the Mountain region. The highest percentage of patients who were married or living as married with 76.52%. Lessthan a half (36.52%) received colledge and university education, while 29 (25.22%) received secondary education. The occupations of patients were common in famer and retired with 27.82 % while only 5.22% were students.

Table 4.1 General characteristic of the sample **(**n = 115**)**

Characteristics		**Number (n=115)**	**Percentage (%)**
Gender	Male	75	65.22
	Female	40	34.78
Age	< 40 years	75	65.22
	41- 50 years	15	13.04
	51 – 60 years	12	10.44
	Over 60	13	11.30
Min = 18, Max = 72, Mean ± SD = 38.84 ± 13.73			
BMI	<18.5	20	17.39
	18.5 - 22.9	60	52.17
	23 - 24.9	24	20.87
	>=25	11	9.57
Min = 16.23, Max = 29.76	, Mean±SD =21.48± 0.26		
Location of resident	Urban	66	57.39
	Rural	44	38.26
	Mountain	5	4.35
Marital status	Single	27	23.48
	Married/ Living as married	88	76.52
Educational Level	Primary	2	1.74
	Secondary	29	25.22
	High/ Vocational training	18	15.65
	Colledge and university	42	36.52
	Other	24	20.87

Table 4.1 General characteristic of the sample **(**n = 115**)** (cont)

Characteristics		**Number (n=115)**	**Percentage (%)**
Occupation			
	Farmer	19	16.52
	White-collar	11	9.57
	Student	6	5.22
	Driver	5	4.35
	Retirement	13	11.30
	Worker	12	10.43
	Other	49	42.61
Payment	Insurance	23	20
	Payment by themselves	92	80

4.2 The information related to illness and health status of patients

Most of patients were infecting HBV diagnosis at the age of more than 16 years old (89.57%) and 6.09% those did not remember when they infected HBV. The majority of patients did not have co-morbidity (62.61%). Stomachache and heart disease were the most popular co-morbidities with 16.52% and 6.09%, respectively. 54.78% had not injected HBV vaccine and 14.78% had vaccination while 30.4% did not know they used vaccination yes or no during their lifetime (table 4.2).

Table 4.2 Characteristic of illness and health status of patients **(**n = 115**)**

Characteristics	**Number (n=115)**	**Percentage (%)**
Time for Diagnosis		
1-12 months	3	2.61
1-6 years	0	0
6-16 years	2	1.74
≥ 16 years	103	89.57
Unknown	7	6.09
Having co-morbidity		
No	72	62.61
Yes (can answer more than one)	43	37.39
Stomachache	19	16.52
Hypertension	5	4.35
Heart disease	7	6.09
Spine disease	6	5.22
Other	18	15.65
Hepatitis B vaccination		
Yes	17	14.78
No	63	54.78
Unknown	35	30.43

4.3 Frequency, percentage of patients with CHB by anxiety and depression, fatigue

Table 4.3 showed that the Mean and SD of HAM-A score were 10.98 ± 8.56 and most of patients suffered from mild to moderate anxiety (42.61%) whereas severe anxiety (13.91%). It is important to note that 31.30% and 18.26% were mild and medium depression while only 4.35% and 1.74% were severe and very severe depression. In regard to fatigue, majority of the sample (85.22%) illustrated less fatigue.

Table 4.3 Frequency, percentage of patients with CHB by anxiety and depression, fatigue

	Number (n = 115)	Percentage (%)
Anxiety (HAM – A)		
No anxiety	50	43.48
Mild to moderate anxiety	49	42.61
Severe anxiety	16	13.91
Min = 0, Max = 43, Mean ± SD = 10.98 ± 8.56		
Depression (HAM – D)		
No depression	51	44.35
Mild depression	36	31.30
Medium depression	21	18.26
Severe depression	5	4.35
Very severe depression	2	1.74
Min = 1, Max = 34, Mean ± SD = 9.76 ± 5.71		
Fatigue (FACIT-F)		
Severe fatigues	17	14.78
Less fatigue	98	85.22
Min = 2, Max = 38, Mean ± SD = 13.43± 7.46		

4.4 Frequency, percentage of patients with CHB by anxiety and depression, fatigue

Mean and SD of MSPSS score were 5.383 ± 0.809. It is interesting to note that 54.78% of patients received the high support following is moderate support at 43.48% and while low support account for 1.74. The social support includes three domains: Family, friend and other. The Mean and SD score for family, friend and other domain were 5.9 ± 0.96, 4.92 ± 1.13 and 5.32 ± 0.98, respectively. (Table 4.4)

Table 4.4 Frequency, percentage of patients with CHB by anxiety and depression, fatigue

Social support (MSPSS)	Number (n = 115)	Percentage (%)
Low support	2	1.74
Moderate support	50	43.48
High support	63	54.78

Min = 1.5, Max = 7, Mean ± SD = 5.38 ± 0.80

Family= Min = 1**,** Max = 7**,** Mean ± SD = 5.9 ± 0.96

Friend= Min = 1**,** Max = 7**,** Mean ± SD = 4.924 ± 1.131

Other= Min = 1, Max = 7**,** Mean ± SD = 5.32 ± 0.98

4.5 Quality of life in patients with HBV

There are 8 domains in the SF 36 scale. They are Physical functioning, role-physical, Bodily pain, general health, vitality, social functioning, role-emotion and mental health. The table 4. 5 showed the mean of each domain in quality of life questionnaire. The statistic indicated the average score and SD of bodily pain were 77.7 ± 22.9 while those of general healthdomain were 22.7 ± 11.3 (table 4.5).

Table 4.5 Quality of life in patients with HBV

Domain of QOL	Mean	SD	Max	Min
Physical functioning	64.5	24.3	100	15
Role function/physical	52.2	43.6	100	0
Bodily Pain	77.7	22.9	100	24.5
General health	22.7	11.3	55	0
Vitality (Energy/fatigue)	53.0	13.6	85	0
Social Functioning	74.1	14.3	100	37.5
Role function/ emotional	47.5	44.2	100	0
Mental health	70.6	14.4	100	32

4.6. The correlation between anxiety and depression, fatigue, social support and quality of life among patients with chronic hepatitis B

Table 4.6, Anxiety, depression and fatigue had correlation with QOL (- 0.55, -0.683, -0.541, respectively).

Table 4.6 Correlation between anxiety, depression, fatigue, social support and total QOL (n= 115).

	1	**2**	**3**	**4**	**5**
1. Anxiety	1,00				
2.Depression	0,755**	1,00			
3. Social support	0.054	0.139	1,00		
4.Fatigue	0.598**	0,665**	0,077	1,00	
5.QOL	-0.550**	-0.683**	-0.089	-0.541**	1.00

**p<0.01

4.7 Correlation between anxiety, depression, fatigue, social support and each domain of quality of life

Anxiety, depression and fatigue were low and medium negative correlation with 8 domains of the SF36 scale except social functioning domain. On the other hand, family and other domains of social support scale were not significant correlation with 8 domains of the SF 36 scale. Moreover, social friend was not significant correlation with 8 domains of the SF 36 except social functioning (r= -.252, p=0.01)(table 4.7)

Table 4.7 Correlation between anxiety, depression, fatigue, social support and each domain of quality of life (n= 115).

	Anxiety	**Depression**	**Fatigue**	**SS Family**	**SS Friend**	**SS Other**	**SS Total**
Depression	.754*	1					
Fatigue	.597*	.664*	1				
SS Family	.104	.208*	.092	1			
SS Friend	.028	.058	.075	.355*	1		
SS Other	.044	.141	.045	.504*	.377*	1	
Physical functioning	-.455**	-.557**	-.400 **	-.076	-.011	-.141	-.050
Rolefunction/physical	-.409**	-.543**	-.451**	-.167	-.008	-.064	-.070
Rolefunction/ emotional	-.409**	-.543**	-.451**	-.167	-.008	-.064	-.070
Vitality (Energy/fatigue)	-.392**	-.453**	-.419**	-.061	-.015	-.056	-.010
Mental health	-.504**	-.586**	-.480**	.000	-.027	-.017	-.011
Social Functioning	-.091	-.043	-.175	-.038	-.252**	-.003	-.110
Bodily Pain	-.440**	-.499**	-.501**	-.116	-.108	-.032	-.090
General health	-.250**	-.223*	-.255**	-.040	-.051	.109	-.045

** $p<0.01$.

CHAPTER V
DISCUSSION

This study aimed to investigate the relationships between anxiety, depression, fatigue, social support and quality of life among adult patients with chronic hepatitis B. The discussions are presented as follow:

1. Characteristics of the sample
2. Quality of life among CHB patients
3. Relationships between anxiety, depression, fatigue, social support and quality of life

5.1. Demographic and clinical data

Vietnam is among those countries having the highest prevalence of CHB in the world. It is estimated that the prevalence of HBV+ among populations from 9% to 14% in urban setting (Tu et al., 2012) and 18.8%-19% in rural areas (Hipgrave et al., 2003; Nguyen, McLaws, & Dore, 2007). Without medical monitoring and treatment of CHB, the risk of developing cirrhosis and hepatocellular carcinoma (HCC) with sequelae of liver failure and death is 25–30%. Using age-specific HBV prevalence rates from Vietnamese community-based studies, it has been projected that by the year 2025, CHB could result in 58 650 patients with cirrhosis, 25 000 patients with HCC, and 40.000 deaths (Nguyen, Law, & Dore, 2008).

The sample in this study composed of 65.22% male and 34.78% female. It is consistent with some previous study in other setting (Huy et al., 2014; Huy, Vernavong, & Kinh, 2014). The authors suggested that gender was a risk variable, men having a higher risk of HBV infection than women.

The age of patients with CHB ranged from 18 to 72 (Mean =38. 84, SD = 13. 73) .The most popular age was less than 40 years old with 65.22 % while the age over 41 years old was the least popular with 34.7This result was equal compared to

%.other study (TAŞBAKAN et al., 2010). The patients lived in city account of 57.39 %. In rural is 38. 26 % and only 4.35 % lived in the mountain region. It can be explained by the fact that CHB is a complicated disease that required intensive treatment, which the hospital in rural area could not performed without the instruction from the hospital in higher levels of health care system. Therefore, patients tend to go to hospital at central level to use this service with high quality and ensure their treatment. Bach Mai Hospital is one of the biggest hospitals in Vietnam and located in Hanoi, centre of Northern region. The research was conducted at the Department of Infectious Disease. Every day, there are about 20 patients with chronic Hepatitis B come the Infectious Diseases Department to have examination including new and old patients.

5.2. Quality of life of CHB patients

In this study, we used transition theory (Meleis et al., 2000) to understand the CHB patients' QOL. Accordingly, it explains health and illness transition of personal suffering with chronic hepatitis B illness in particular the progress of HBV disease from the first stage to the fourth stage. Transition outcome depends on personal factors, which means that QOL of patients would depend on transition conditions, especially personal factors such as fatigue, anxiety and depression. Specifically, type and characteristics of transition refers to health illness continuum as becoming chronic hepatitis B, transition conditions refer to factors that can facilitate or inhibit transition process and outcomes. In this study, it refers to anxiety and depression, fatigue and social support. Health outcome as the dependent variable is QOL that belong to pattern of response of transition theory. Applying transition theory in this study can assist health care professions to understand the factors associated with related QOL. It plays a crucial role to make preparation and plan to manage such factors. Thereby, the trajectory process of illness would be smoothly and successfully, which resulted in improved QOL of patients with chronic hepatitis B. It can be said that patients have CHB they can become healthy if they receive appropriate support and care from nursing profession.

SF-36 was used to measure QOL of CHB patients. The Cronbach's alpha was 0.926, meaning that the reliability of this tool was high to be used in the clinical contextThere are 8 domains in the SF 36 scale, including: Physical functioning, role-physical, Bodily pain, General health, Vitality, social functioning, role-emotion and mental health. The resultsshowed that General health and Role-emotion domains had the lowest score compared to other domains. In addition, they were also under the score of social norm (50 point). Results of this study were lower when comparing to other previous studies. For example, a study of Tasbakan et al. (2010) reveals the mean scores for CHB patients were higher in the PF, PH, GH, VT and RP; and were lower in the other domains (TAŞBAKAN et al., 2010). In addition, the authors compared QOL between CHB and HBV and suggested that HBV carriers showed better QOL than the patients with chronic HBV disease in the RP domain of SF-36 (TAŞBAKAN et al., 2010).Quality of life is significantly impaired in patients with chronic hepatitis B, particularly in those with severe disease (Enescu, Mitrut, Balasoiu, Turculeanu, & Enescu, 2014). Thus, the patients' QOL in our study were in emergent status that were needed to have specific attention in order to improve their QOL.

5.3 Correlation between anxiety and depression, fatigue, social support and quality of life

5.3.1 The relationship between Anxiety/Depression and QOL

Depression and anxiety are common and important symptom in patients with chronichepatitis B disease. Anxiety and Depression refers to feelings of worry, nervousness, apprehension, or fear commonly experienced by people when faced with something they view as challenging.In this study, anxiety symptom will be measured by The Hamilton Depression Rating Scale (HAM-D) and Hamilton Anxiety Rating Scale (HAM-A). This scale was developed as a screening tool for psychological distress in somatic out-patients (Zigmond et al. 1983). It has construction brief and high validity that is an attractive instrument to measuredepressive disorders. In this study, the Cronbach's alpha of HAM-A and HAM-D were 0.87 and 0.79, respectively.

It suggested that the reliability of these instruments was high and could be accepted in the clinical setting, in this case, among patients with CHB.

The findings reveal that mean and SD of HAM-A score were 10.98 ± 8.56, and most of patients suffered from mild to moderate anxiety (42.61%) whereas severe anxiety (13.91%). In addition, 31.30% and 18.26% had mild and medium depression while 4.35% and 1.74% were severe and very severe depression, respectively. There was a higher rate of psychiatric disorders (mostly depression), anxiety at patients diagnosed with chronic hepatitis B within 3 months (Enescu et al., 2014). It may be beneficial in disease management when health care team screen depression in chronic hepatitis B (Mirabdolhagh Hazaveh, Dormohammadi Toosi, Nasiri Toosi, Tavakoli, & Shahbazi, 2015).

The finding indicates that Anxiety/Depression had correlations with almost domains of SF-36 expected Social Functioning. It is clearly in literature that quality of life among patients with chronic hepatitis B decreases that may be related to psychiatric disorders, such as depression (Arvand, Shafiabadi, Falsafinejad, & Naderi, 2012). Chronic hepatitis B patients with depression have a significant reduction in quality of life (Chan, Yu, & Li, 2012). As in all chronic diseases, these infections may lead to psychological health problems. There are numerous studies addressing the psychological well-being, psychosocial stressors related to the disease, quality of life QOL in patients with chronic hepatitis (Kunkel et al., 2000; Pojoga et al., 2004).In addition, previous research has also shown that depressive disorders are related to poor QOL in patients with chronic liver diseases (CLD) (Fabregas et al., 2013). Literature show that CLD connected to job loss, impaired functioning, mood swings, anxiety, low self-esteem, depression, and other emotional problems that severely affect QOL and well-being, and improving coping and self-efficacy skill, QOL in CLD patients may be improved (Gutteling, Duivenvoorden, Busschbach, de Man, & Darlington, 2010). Patients should be monitored for depressive symptoms during the course of clinical medical care for CHB so that psychological care may be initiated in a timely manner.

5.3.2 The relationship between social support and QOL

The concept of social support mentions the provision of caring, empathy, love and trust, that can be measured by asking the perception of patients about the availability of assistance and social network. Social support can come from many sources, such as family, friends, pets, neighbors, coworkers, organizations, etc. High social support could result in the high physical and mental health. Outcomes of social support were suggested to be personal competence, health maintenance behavior, perceived control, positive effect, sense of stability, recognition of self-worth, decreased anxiety and depression, and increased psychological well-being (Hinson Langford et al. 1997).

For this study, the Multiple Dimensional Perceived Social Support Scale (MSPSS) was employed to measure the level of social support among patients with CHB (Zimet, Dahlem, Zimet, & Farley, 1988). MSPSS is a 12-item scale that measures perceived support from family, friends and a significant other. Overall alpha coefficient was 0.91 and its sub scale alpha coefficients ranged from 0.90 to 0.95 (Atadokht, Hajloo, Karimi, &Narimani, 2015). In addition, the mean MSPSS score was 5.38 ± 0.80. It is interesting to note that 54.78% of patients received the high support following is moderate support at 43.48% and while low support account for 1.74%. The social support includes three domains: Family, friend and other. The mean score for family, friend and Others domain were 5.9 ± 0.96, 4.92 ± 1.13 and 5.32 ± 0.98, respectively. The result suggests that CHB patients in this study received high social support from people around them.

Family and other domains of social support scale were not significant correlation with 8 domains of the SF 36 scale. This can be explained by the fact that patients in our study received high level of social support, which can influence the relationship when we conduct the data analysis. In literature, low social support have a negatively impact above mental health of chronic hepatitis patients (Enescu et al., 2014). Poorkaveh et al. showed that social support seems to be associated with better mental health and HRQOL in chronic hepatitis B and C (Poorkaveh et al., 2012). It is important to strengthen communication between healthcare professionals and patients in order to improve the patient's perception of social support and quality of life (Xiao et al., 2012). Low social support have a negatively impact above mental health of these patients (Enescu et al., 2014). In antiviral therapy, social support plays an important role to improve adherence of antiviral regimen to obtain virological response, leading to the significant improvements in HRQOL (Kim et al., 2012).

Notably, social friend was significantly negatively correlated with SF domain (r= -.252, p=0.01). Social functioning (SF) domain refers that physical or mental health affects the social activities. Higher score means higher active in social activities. This phenomenon can be explained that CHB patients with high social friend score may depend significantly on these relations, which can diminish the independence of patients and decrease the capacity to do social activities of patients. However, this relation is not clear and should be addressed in a further study.

5.3.3 The relationship between fatigue and QOL

Fatigue is a state of awareness describing a range of afflictions, usually associated with physical and/or mental weakness. Physical fatigue is the inability to continue functioning at the level of one's normal abilities. Mental fatigue, on the other hand, rather manifests in sleepiness as a general decrease of attention. Fatigue is a normal result of working, mental stress, depression, and also lack of sleep. It may also have chemical causes, such as poisoning or mineral or vitamin deficiencies. Massive blood loss frequently results in fatigue. Fatigue is a normal response to physical exertion or stress, but can also be a sign of a physical disorder.

In this study, fatigue will be measured by the Greek standardized version of Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT- F). This scale is selected because it is widely accepted among health care profession (community health, inpatient, outpatient, etc), easy to understand and feasible to used in clinical research. In this study, the Cronbach’s alpha was 0.918, meaning that the reliability of this tool was high to be used in the clinical context. The results show that majority of the sample (85.22%) illustrated less fatigue.

Fatigue and impaired psychological functioning is associated with diminished HRQOL in chronic hepatitis virus, independent of the disease etiology. In this study, when analysing the correlation between fatigue and QOL, the result indicates that Fatigue were negatively correlated with 8 domains of the SF36 scale except social functioning domain (r=-0.255 - -0.501, p<0.01). These results are consistent with previous findings. Karaivazoglou et al. showed that fatigue was found to be significant associated with health related quality of life of patient with chronic hepatitis virus (Karaivazoglou et al., 2010). Fatigue is one of criteria of monitoring the quality of life in CHB patient (Enescu et al., 2014). Therefore, management of fatigue symptoms should be considered a priority, in order to improve HRQOL in CHB patients (Younossi, Guyatt, Kiwi, Boparai, & King, 1999).

CHAPTER VI
CONCLUSION

6.1 Conclusion of the study

This descriptive correlational study aimed to examine the relationship between anxiety, depression, fatigue, social support and quality of life among chronic hepatitis B, Bach Mai hospital who aged 17 –72 years old in Infectious Diseases Department from August to October, 2016 . Transitio theory was utilized as a framework of this study. The sample size in this study was calculated by using G*power version 3.1.9.2 program to determine the minimum number of participants needed for co-relational design. The sample calculation yielded 115 samples. The research setting was the Infectious Diseases ward, a center specializing in Bach Mai hospital, Hanoi, Viet Nam.

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; 1) General information of the patient 17 questions, 2) Hamilton Anxiety Rating Scale (HAM-A) has 14 questions and Hamilton Depression Rating Scale (HAM-D) has 17questions, 3) Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F) has 13 questions, 4) Multidimensional Scale of Perceived Social Support social (MSPSS) has 12 questions, and 5) The SF-36® Health Survey (SF36). All instruments were tested for their validity and reliability as clearly explained in chapter 3.Cronbach’s alpha coefficient of Hamilton Anxiety Rating Scale (HAM-A); Hamilton Depression Rating Scale (HAM-D), Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F), Multidimensional Scale of Perceived Social Support social (MSPSS), and the SF-36® Health Survey (SF36) were .878, .799,.918, .880, and .926 respectively. The 115 samples were selected according to the inclusion criteria. The researcher collected data by herself from 8.00 amto 4.00 pm every day until the sample reached the target of the studied sample size. For each sample the researcher spent 30 to 45 minutes on interviewing and collected some data from their patients’ records.During data collection, there was no adverse event among the sample. All sample recruited in the study remained throughout the study process with no attrition.

Data analysis was conducted by using computer program .The descriptive statistics were used to describe general information and study variables, including anxiety/ depression, fatigue and quality of life.The assumption of Pearson’ Product Moment Correlation was tested and it was found that all variables were not in normal distribution. Accordingly, Spearman’s rho was used to examine correlation between anxiety/ depression, fatigue and quality of life among patients with chronic Hepatitis B.

The findings are summarized as follows :

Within 115 patients, there were 34.78% of female 65.22 %of male with the ages ranged from 18 to 72 years. The average age was 38.84 (SD = 13.73). The most prominent age group was below 40 years old with 65.22%. Most of the patients lived in urban 57.3% , married (76.52%) and had payment by themselves(80%). Most of patients suffered from mild to moderate anxiety (42.6%) and mild depression (31.30%). The majority of the sample (85.22%) had low level of fatigue. In term of social support, 54.78% of patients received the high support following is moderate support at 50%.

Regarding the quality of life, results of this study were lower when comparing to other previous studies.

Anxiety had negative correlations with 8 domains of the SF36 scale except social functioning domain (r= -0.504 - -0.205, p < 0.05)

Depression had negative correlations with 8 domains of the SF36 scale except social functioning domain)r = -0.223 – -0.586, p <0.05)

Fatigue had low and medium negative correlations with 8 domains of the SF36 scale except social functioning domain (r =-0.255 - -0.480, p < 0.01)

Family and other domains of social support scale had not significant correlation with 8 domains of the SF 36 scale. Friend domain was not significantly correlated with 8 domains of the SF 36 except social functioning (r= -0.252, p=0.01).

The results of this study complied with the concept of transition theory in that when patients with CHB perceived service to reduce fatigue, anxiety and depression, their quality of life can become better.In order to obtain smooth transition also delay progress of chronic hepatitis B and enhance effectiveness of treatment to improve quality of life, there should be control fatigue, anxiety and depressionwhich related QOL among patients with this disease.

6.2 Implications of research findings

6.2.1 Implications for nursing practice

In order to enhance patients with CHB to obtain their quality of life following measures have to be performed by nurses;

1. Reduce anxiety/depression for patient by providing them with knowledge about chronic hepatitis B and service care. Information about treatment from doctor and nurses is also necessary to provide these patients.
2. Develop guidelines to decrease and control patients’ fatigue in particular in nursing care.
3. Provide routine assessment on patients’ anxiety and depression by using Hamilton Depression Rating Scale (HDR) and Hamilton Anxiety Rating scale (HARS) during patients’ follow up visit to identify level of anxiety and depression. Patients whose scores show that they experience anxiety or depression have to be referred to the specialist practitioners for proper management.

6.2.2 Implications for further study

6.2.2.1 Clinical practice guidelines to improve quality of life among patients with CHB should be developed and tested for its effectiveness by using quasi experimental research.

6.2.2.2 Conduct larger sample size study in the future to reflect accurately QOL of chronic hepatitis B patients.

REFERENCES

Arvand, J., Shafiabadi, A., Falsafinejad, M. R., & Naderi, N. (2012). Depression in patients with chronic hepatitis B: an experience on individual solution-focused therapy. *Gastroenterol Hepatol Bed Bench, 5*(3), 166-168.

Aspinall, E. J., Hawkins, G., Fraser, A., Hutchinson, S. J., & Goldberg, D. (2011). Hepatitis B prevention, diagnosis, treatment and care: a review. *Occupational Medicine (Lond)*, *61*(8), 531-540. doi: 10.1093/occmed/kqr136

Atadokht, A., Hajloo, N., Karimi, M., & Narimani, M. (2015). The role of family expressed emotion and perceived social support in predicting addiction relapse. *International Journal of High Risk Behaviors and Addiction, 4*(1), e21250. doi: 10.5812/ijhrba.21250

Chan, H., Yu, C. S., & Li, S. Y. (2012). Psychiatric morbidity in Chinese patients with chronic hepatitis B infection in a local infectious disease clinic. *East Asian Arch Psychiatry, 22*(4), 160-168.

Che, Y. H., You, J., Chongsuvivatwong, V., Li, L., Sriplung, H., Yan, Y. Z., . . . Zhang, R. Y. (2014). Dynamics and liver disease specific aspects of quality of life among patients with chronic liver disease in Yunnan, China. *Asian Pacific journal of cancer prevention, 15*(12), 4765-4771.

Chisari, F. V., Isogawa, M., & Wieland, S. F. (2010). Pathogenesis of hepatitis B virus infection.*Pathologie-biologie NLM Title Abbreviation, 58*(4), 258-266. doi: 10.1016/j.patbio.2009.11.001

Custer, B., Sullivan, S., & Hazlet, T. (2004). Global epidemiology of hepatitis B virus. *Journal of Clinical Gastroenterology, 38*, 158–168.

Enescu, A., Mitrut, P., Balasoiu, M., Turculeanu, A., & Enescu, A. S. (2014). Psychosocial issues in patients with chronic hepatitis B and C.Current *Health Sciences Journal, 40*(2), 93-96. doi: 10.12865/chsj.40.02.02

Fabregas, B. C., de Avila, R. E., Faria, M. N., Moura, A. S., Carmo, R. A., & Teixeira, A. L. (2013). Health related quality of life among patients with chronic hepatitis C: a cross-sectional study of sociodemographic, psychopathological and psychiatric determinants. *Brazilian Journal of Infectious Diseases, 17*(6), 633-639. doi: 10.1016/j.bjid.2013.03.008

Fattovich, G., Bortolotti, F., & Donato, F. (2008). Natural history of chronic hepatitis B: special emphasis on disease progression and prognostic factors. *Journal of Hepatology, 48*(2), 335-352. doi: 10.1016/j.jhep.2007.11.011

Ferrans, C. E., & Powers, M. J. (1992). Psychometric assessment of the Quality of Life Index. *Research in Nursing & Health, 15*(1), 29-38.

Furukawa, T. A., Harai, H., Hirai, T., Kitamura, T., & Takahashi, K. (1999). Social Support Questionnaire among psychiatric patients with various diagnoses and normal controls. *Social Psychiatry Psychiatr Epidemiol, 34*, 216-222.

Glise, H., & Wiklund, I. (2002). Health-related quality of life and gastrointestinal disease. *Journal of Gastroenterology and Hepatology*, *17 Suppl*, S72-84.

Gutteling, J. J., Duivenvoorden, H. J., Busschbach, J. J., de Man, R. A., & Darlington, A. S. (2010). Psychological determinants of health-related quality of life in patients with chronic liver disease. *Psychosomatics, 51*(2), 157-165. doi: 10.1176/appi.psy.51.2.157

Hartz, A., Bentler, S., & Watson, D. (2003). Measuring fatigue severity in primary care patients. *The Journal of Psychosomatic Research, 54*(6), 515-521.

Hipgrave, D. B., Nguyen, T. V., Vu, M. H., Hoang, T. L., Do, T. D., Tran, N. T., . . . Biggs, B. A. (2003). Hepatitis B infection in rural Vietnam and the implications for a national program of infant immunization.*The American Journal of Tropical Medicine and Hygiene , 69*(3), 288-294.

Huy, B., Vernavong, K., & Kinh, N. V. (2014). HBV and HCV Coinfection among HIV/AIDS Patients in the National Hospital of Tropical Diseases, Vietnam. *AIDS Research and Treatment*, *2014*, 5. doi: 10.1155/2014/581021

Hwang, J. P., Roundtree, A. K., & Suarez-Almazor, M. E. (2012). Attitudes toward hepatitis B virus among Vietnamese, Chinese and Korean Americans in the Houston area, Texas. *Journal Community Health, 37*(5), 1091-1100. doi: 10.1007/s10900-012-9543-2

Jeulin, H., Velay, A., Murray, J., & Schvoerer, E. (2013). Clinical impact of hepatitis B and C virus envelope glycoproteins. *World journal of gastroenterology, 19*(5), 654-664. doi: 10.3748/wjg.v19.i5.654

Karaivazoglou, K., Iconomou, G., Triantos, C., Hyphantis, T., Thomopoulos, K., Lagadinou, M., . . . Assimakopoulos, K. (2010). Fatigue and depressive symptoms associated with chronic viral hepatitis patients. health-related quality of life (HRQOL). *Annals of Hepatology, 9*(4), 419-427.

Khalil, A. A., & Abed, M. A. (2014). Perceived social support is a partial mediator of the relationship between depressive symptoms and quality of life in patients receiving hemodialysis. *Archives of psychiatric nursing, 28*(2), 114-118.

Kim, J. H., Kwon, S. Y., Lee, Y. S., Lee, J. H., Lee, Y. S., & Lee, C. H. (2012). Virologic response to therapy increases health-related quality of life for patients with chronic hepatitis B. *Clinical Gastroenterology and Hepatology, 10*(3), 291-296. doi: 10.1016/j.cgh.2011.09.031

Kunkel, E. J., Kim, J. S., Hann, H. W., Oyesanmi, O., Menefee, L. A., Field, H. L., . . . Myers, R. E. (2000). Depression in Korean immigrants with hepatitis B and related liver diseases. *Psychosomatics, 41*(6), 472-480.

Lavanchy, D. (2004). Hepatitis B virus epidemiology, disease burden, treatment, and current and emerging prevention and control measures. *Journal of Viral Hepatitis, 11*(2), 97-107.

Liaw, Y. F. (2013). Impact of therapy on the outcome of chronic hepatitis B. *Liver Interlational, 33 Suppl 1*, 111-115. doi: 10.1111/liv.12057

Locarnini, S., & Zoulim, F. (2010). Molecular genetics of HBV infection. *Antiviral Therapy, 15* (3), 3-14. doi: 10.3851/imp1619

Lok, A. S., & McMahon, B. J. (2009). Chronic hepatitis B: update 2009. *Hepatology, 50*(3), 661-662. doi: 10.1002/hep.23190

Meleis, A. I., Sawyer, L. M., Im, E. O., Hilfinger Messias, D. K., & Schumacher, K. (2000). Experiencing transitions: an emerging middle-range theory. *Advances in nursing science, 23*(1), 12-28.

Mirabdolhagh Hazaveh, M., Dormohammadi Toosi, T., Nasiri Toosi, M., Tavakoli, A., & Shahbazi, F. (2015). Prevalence and severity of depression in chronic viral hepatitis in Iran. *Gastroenterol Report (Oxf), 3*(3), 234-237. doi: 10.1093/gastro/gou091

Modabbernia, A., Ashrafi, M., Malekzadeh, R., & Poustchi, H. (2013). A review of psychosocial issues in patients with chronic hepatitis B.*Archives of Iranian medicine, 16*(2), 114-122. doi: 013162/aim.0013

Morsch, C., Goncalves, L., & Barros, E. (2005). Health-related quality of life among hemodialysis patients-relationship with clinical indicators, morbidity and mortality. *Journal of Clinical Nursing, 15*, 498–504.

Nebbia, G., Peppa, D., & Maini, M. K. (2012). Hepatitis B infection: current concepts and future challenges. *monthly journal of the Association of Physicians, 105*(2), 109-113. doi: 10.1093/qjmed/hcr270

Nguyen, V. T., Law, M. G., & Dore, G. J. (2008). An enormous hepatitis B virus-related liver disease burden projected in Vietnam by 2025. *Liver International, 28*(4), 525-531. doi: 10.1111/j.1478-3231.2007.01646.x

Nguyen, V. T., McLaws, M. L., & Dore, G. J. (2007). Highly endemic hepatitis B infection in rural Vietnam.*Journal of Gastroenterology and Hepatology, 22*(12), 2093-2100. doi: 10.1111/j.1440-1746.2007.05010.x

Ong, S. C., Lim, S. G., & Li, S. C. (2009). How big is the financial burden of hepatitis B to society? A cost-of-illness study of hepatitis B infection in Singapore. *Journal of Viral Hepatitis, 16*(1), 53-63. doi: 10.1111/j.1365-2893.2008.01042.x

Ott, J. J., Stevens, G. A., Groeger, J., & Wiersma, S. T. (2012). Global epidemiology of hepatitis B virus infection: new estimates of age-specific HBsAg seroprevalence and endemicity. *Vaccine, 30*(12), 2212-2219. doi: 10.1016/j.vaccine.2011.12.116

Pojoga, C., Dumitrascu, D. L., Pascu, O., Grigorescu, M., Radu, C., & Damian, D. (2004). Impaired health-related quality of life in Romanian patients with chronic viral hepatitis before antiviral therapy. *The European Journal of Gastroenterology & Hepatology, 16*(1), 27-31.

Poorkaveh, A., Modabbernia, A., Ashrafi, M., Taslimi, S., Karami, M., Dalir, M., . . . Poustchi, H. (2012). Validity, reliability and factor structure of Hepatitis B Quality of Life Questionnaire version 1.0: findings in a large sample of 320 patients. *Archives of Iranian medicine, 15*(5), 290-297. doi: 012155/aim.009

Ren, H., Yu, Y., Hu, J. Y., Shi, Y., Lu, Y. H., & Meng, W. (2014). Caregiver burden and its determinants among family members of patients with chronic viral hepatitis in Shanghai, China: a community-based survey. *BMC Infection Disaese, 14*, 82. doi: 10.1186/1471-2334-14-82

Shih, & Chiaho. (2013). Basic Science to Clinical Applications. *World Scientific.*

TAŞBAKAN, M. I., SERTÖZ, Ö. Ö., PULLUKÇU, H., ÇALIK, Ş. Ö., SİPAHİ, O. R., & YAMAZHAN, T. (2010). Comparison of quality of life in hepatitis B virus carriers versus chronic hepatitis B virus carriers versus the normal population. *Turky of Journal Medicine Science, 40*(4), 575-583.

Tu, H. A. T., Woerdenbag, H. J., Riewpaiboon, A., Kane, S., Le, D. M., Postma, M. J., & Li, S. C. (2012). Cost of Illness of Chronic Hepatitis B Infection in Vietnam. *Value in Health Regional Issues, 1*(1), 23-28. doi: http://dx.doi.org/10.1016/j.vhri.2012.03.008

Ugwu, C., Varkey, P., Bagniewski, S., & Lesnick, T. (2008). Sero-epidemiology of hepatitis B among new refugees to Minnesota. *The Journal of Immigrant and Minority Health, 10*(5), 469-474. doi: 10.1007/s10903-007-9111-5

Valsamakis, A. (2007). Molecular testing in the diagnosis and management of chronic hepatitis B. *Clinical Microbiological Review, 20*(3), 426-439. doi: 10.1128/cmr.00009-07

Viet, L., Lan, N. T. N., Ty, P. X., Björkvoll, B., Hoel, H., Gutteberg, T., . . . Husum, H. (2012). Prevalence of hepatitis B & hepatitis C virus infections in potential blood donors in rural Vietnam. *Indian of Journal Medicine Research, 136*(1), 74-81.

Wang, X. Y., & Chen, H. S. (2014). Emerging antivirals for the treatment of hepatitis B. *The World Journal of Gastroenterology, 20*(24), 7707-7717. doi: 10.3748/wjg.v20.i24.7707

WHO. (1996). The World Health Organization Quality of Life Assessment (WHOQOL): WHOQOL-BREF introduction, administration, scoring and generic version of the assessment. *Geneva: World Health Organization CH-1211 Geneva 27*, Switzerland.

Xiao, J., Chen, P., Li, X. B., Zhuang, X., Lu, Q. Y., & Gao, Y. X. (2012). [Survey of patients with chronic hepatitis B to identify factors that influence quality of life]. *Zhonghua Gan Zang Bing Za Zhi, 20*(9), 649-653. doi: 10.3760/cma.j.issn.1007-3418.2012.09.003

Younossi, Z. M., Guyatt, G., Kiwi, M., Boparai, N., & King, D. (1999). Development of a disease specific questionnaire to measure health related quality of life in patients with chronic liver disease. *GUT, 45*(2), 295-300.

Zarski, J. P. (2011). [Natural history of viral hepatitis]. *LaRevue Praticien, 61*(1), 33-38.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment. 52*, 30-41.

APPENDICES

APPENDIX A
LIST OF THE EXPERTS

1 **Prof .Dr. Truong Viet Dung, MD, PhD**

Chairman of Independent Ethic Committee, Ministry of Health, Vietnam

Dean of School of Medicine and Pharmacy, Vietnam National University, Vietnam.

2. **Dr Nguyen Quang Tuan**

Head of Department of Infectious Diseases, Bach Mai Hospital, Ha Noi, Viet Nam

3. **Dr Do Duy Cuong**

Deputy of Department of Infectious Diseases, Bach Mai Hospital, Ha Noi, Viet Nam

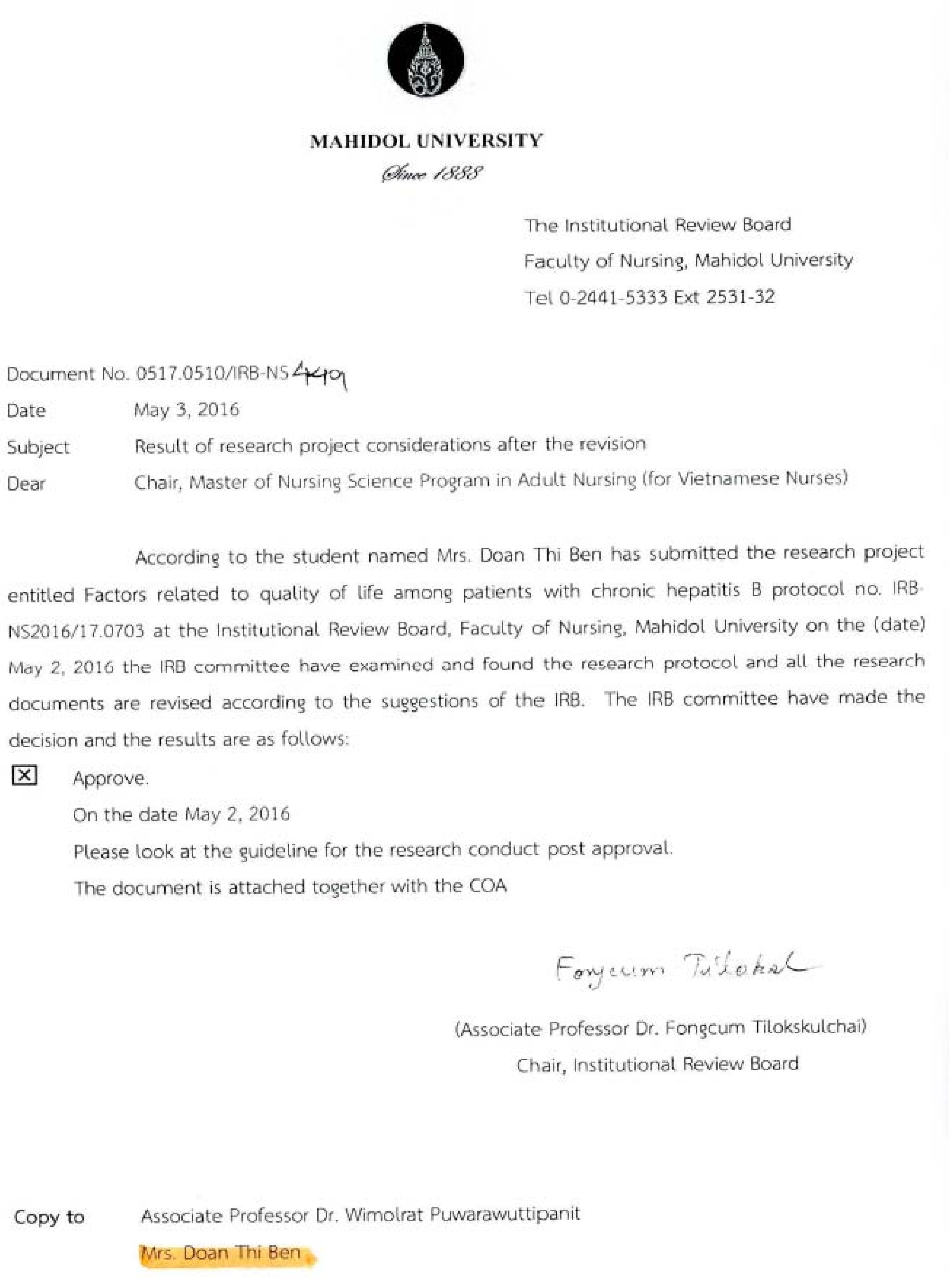
4. **Prof Dr Nguyen Thi Lan Anh**

Nursing Instructor at Hanoi Medical University

5. **Bachelor Do Thu Nga**

Head of nurse of Department of Infectious Diseases, Bach Mai Hospital, Ha Noi, Viet Nam

APPENDIX B



MAHIDOL UNIVERSITY
Since 1888

The Institutional Review Board
Faculty of Nursing, Mahidol University
Tel 0-2441-5333 Ext 2531-32

Document No. 0517.0510/IRB-NS 4409
Date May 3, 2016
Subject Result of research project considerations after the revision
Dear Chair, Master of Nursing Science Program in Adult Nursing (for Vietnamese Nurses)

According to the student named Mrs. Doan Thi Ben has submitted the research project entitled Factors related to quality of life among patients with chronic hepatitis B protocol no. IRB-NS2016/17.0703 at the Institutional Review Board, Faculty of Nursing, Mahidol University on the (date) May 2, 2016 the IRB committee have examined and found the research protocol and all the research documents are revised according to the suggestions of the IRB. The IRB committee have made the decision and the results are as follows:

☒ Approve.

On the date May 2, 2016

Please look at the guideline for the research conduct post approval.

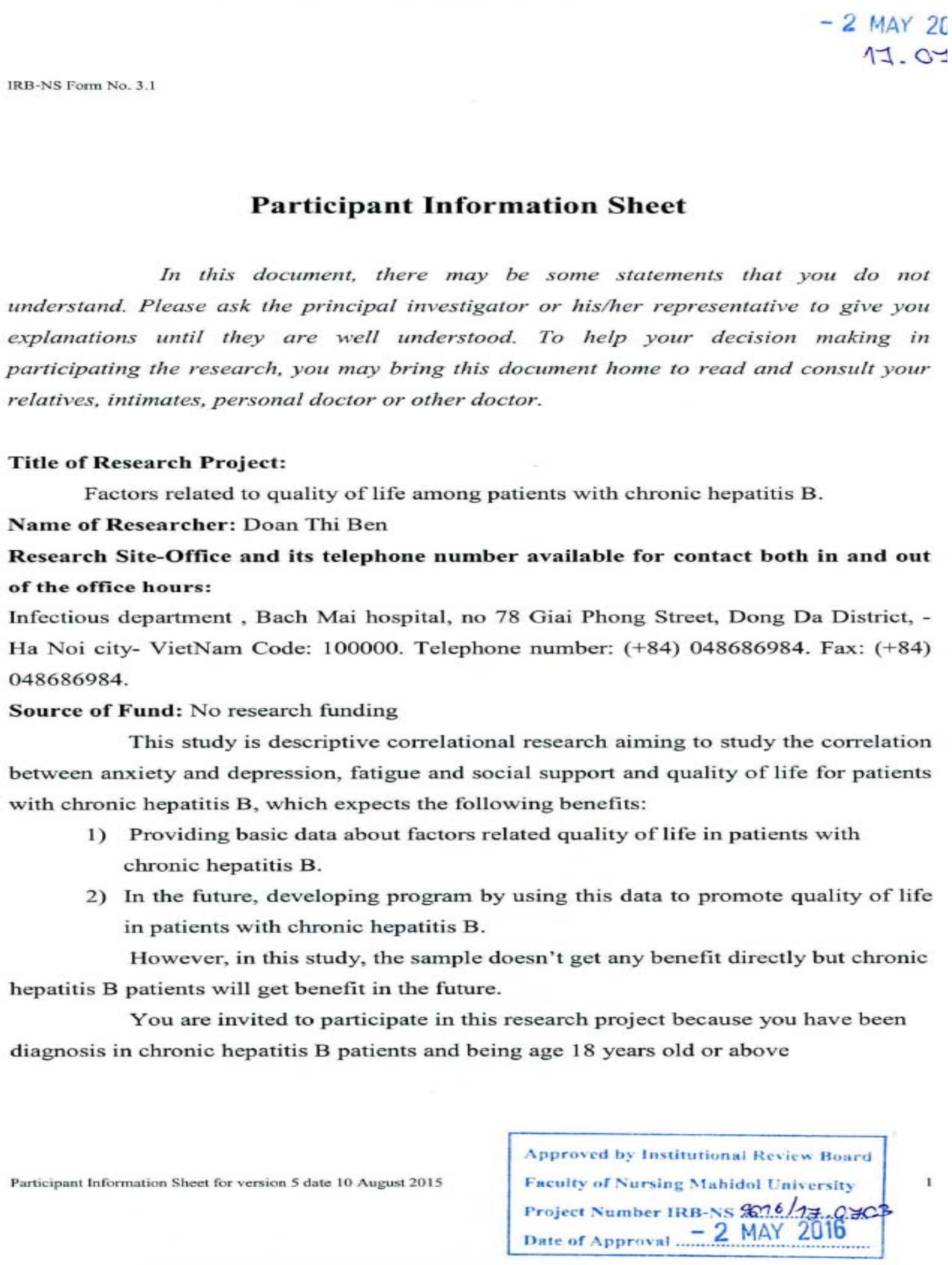
The document is attached together with the COA

Fongcum Tilok

(Associate Professor Dr. Fongcum Tilokskulchai)
Chair, Institutional Review Board

Copy to Associate Professor Dr. Wimolrat Puwarawuttipanit
Mrs. Doan Thi Ben

APPENDIX C



- 2 MAY 20
17.0

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:

Factors related to quality of life among patients with chronic hepatitis B.

Name of Researcher: Doan Thi Ben

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

Infectious department , Bach Mai hospital, no 78 Giai Phong Street, Dong Da District, - Ha Noi city- VietNam Code: 100000. Telephone number: (+84) 048686984. Fax: (+84) 048686984.

Source of Fund: No research funding

This study is descriptive correlational research aiming to study the correlation between anxiety and depression, fatigue and social support and quality of life for patients with chronic hepatitis B, which expects the following benefits:

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

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

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

Participant Information Sheet for version 5 date 10 August 2015 1

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NS 2016/17.0703
Date of Approval - 2 MAY 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: Các yếu tố liên quan đến chất lượng cuộc sống của người bệnh viêm gan B mạn.

Người thực hiện nghiên cứu: Đoàn Thị Bến

Địa chỉ và điện thoại liên hệ trong và ngoài giờ hành chính (Đại diện của người nghiên cứu): Bệnh viện Bạch Mai: 78 đường Giải Phóng, Quận Đống Đa, Hà Nội, Việt Nam. Mã bưu chính: 100000, Số điện thoại: (+84) 438683731 Fax: (+84) 048686984.

Nguồn kinh phí: tự túc

Mục đích của nghiên cứu: nhằm đánh giá các yếu tố liên quan đến chất lượng cuộc sống của người bệnh viêm gan B mạn, với các lợi ích được kì vọng, bao gồm:

1) Nghiên cứu này cung cấp dữ liệu cơ bản về các yếu tố liên quan đến phục hồi chức năng của người bệnh đau lưng.
2) Trong tương lai, chương trình này phát triển để cải thiện sự phục hồi chức năng của người bệnh viêm gan B mạn.

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 viêm gan B mạn 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 mắc viêm gan B mạn.

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:

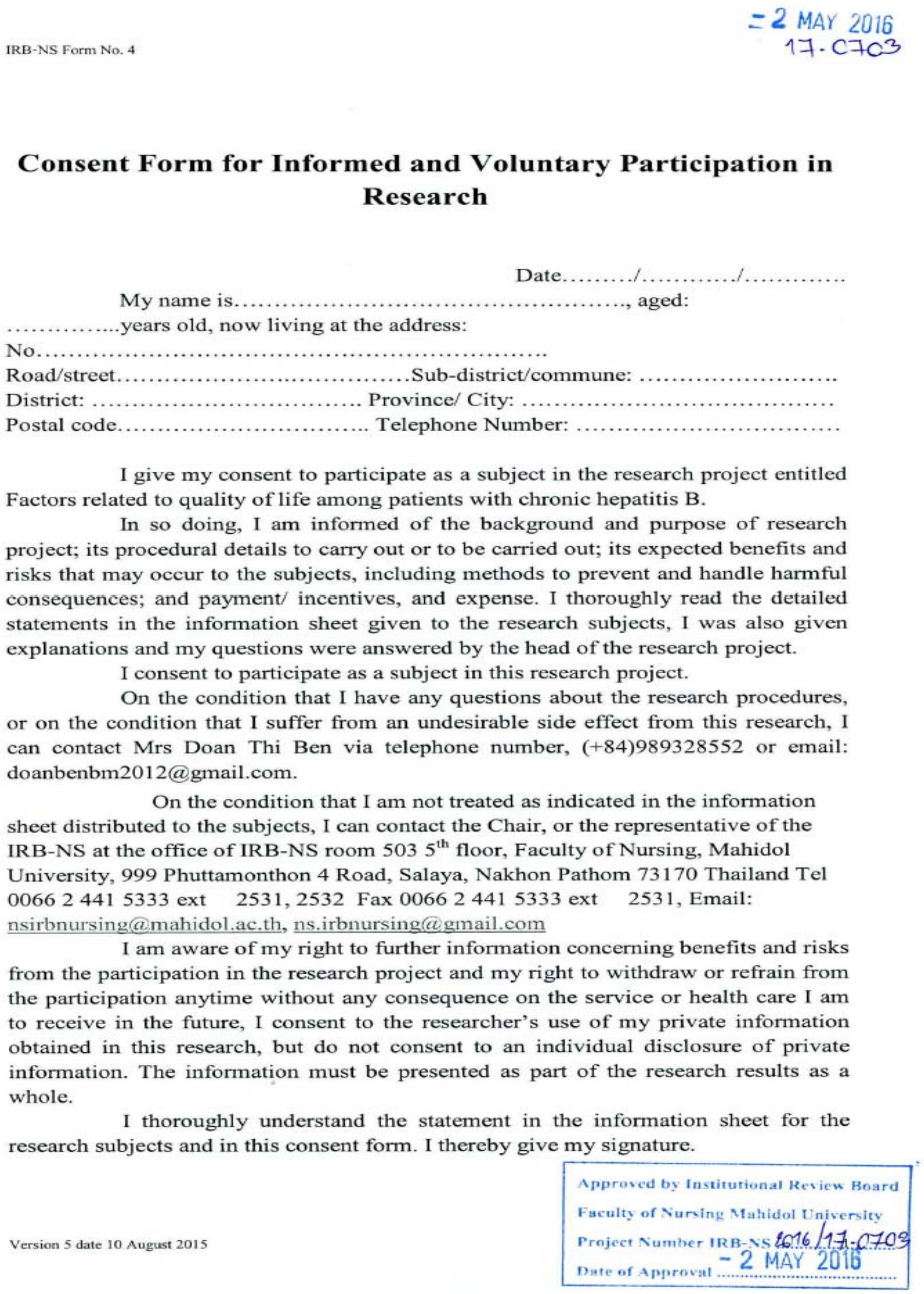
1) Người nghiên cứu sẽ yêu cầu Ông/Bà ký tên vào bản chấp thuận tham gia nghiên cứu

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 bộ câu hỏi bao gồm 5 phần: 1) thông tin chung với 17 câu hỏi. 2) Thang đánh giá sự lo âu của người bệnh theo Hamilton với 14 câu hỏi – Thang đánh giá sự trầm cảm của người bệnh theo Hamilton với 17 câu hỏi. 3) Thang điểm đánh giá mệt mỏi FACIT-F (Version 4) với 13 câu hỏi. 4) Thang đo đa khía cạnh về Nhận thức hỗ trợ xã hội với 12 câu hỏi. 5) Thang đo sức khỏe tổng quát (SF-36) với 36 câu hỏi. Tổng số 97 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.

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

APPENDIX D



IRB-NS Form No. 4

- 2 MAY 2016
17-0703

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 Factors related to quality of life among patients with chronic hepatitis B.

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 Doan Thi Ben via telephone number, (+84)989328552 or email: doanbenbm2012@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.

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NS 2016/17-0703
Date of Approval - 2 MAY 2016

Version 5 date 10 August 2015

PHIỀU CAM KẾT THÔNG TIN TÌNH NGUYỆN THAM GIA NGHIÊN CỨU

Ngày………/…………/…………

Tên tôi là ………………………………………., tuổi……

Địa chỉ: …………………………………………………………………………

Mã vùng: …………………Số điện thoại: ……………………………………….

Trước tiên, tôi xin gửi lời cảm ơn tới những nhà nghiên cứu đề tài: “**Các yếu tố liên quan đến chất lượng cuộc sống của người bệnh viêm gan vius B” .** Trong quá trình trước khi tham gia nghiên cứu, tôi đã được thông báo về nội dung cũng như mục đích của nghiên cứu, chi tiết quá trình được thực hiện, những lợi ích và rủi ro có thể xảy ra với bệnh nhân, bao gồm các phương pháp ngăn ngừa và giải quyết các kết quả có hại và chi phí. Tôi đã đọc kĩ các điều khoản chi tiết trong tờ thông tin được đưa ra bởi các nhà nghiên cứu, bên cạnh đó, các câu hỏi của tôi đã được giải đáp bởi đúng chủ nhiệm đề tài nghiên cứu.

Nếu có bất cứ câu hỏi nào về nghiên cứu hoặc tôi bị ảnh hưởng bởi nghiên cứu tôi có thể liên hệ với chị Doàn Thị Bến số điện thoại : +84 989328552 email: doanbenbm2012@gmail.com(Số điện thoại liên lạc trên được kết nối 24/24 h).

Nếu tôi không được điều trị và chăm sóc như nhà nghiên cứu đưa trong giấy thông tin nghiên cứu tôi có thể liên hệ với hội đồng thẩm định điều dưỡng (IRB-NS) tại văn phòng đại diện IRB-NS , phòng 503, tầng 5, khoa điều dưỡng, đại học Mahidol, 999/4 đường Phuttamonthon, Salaya, Nakhon Pathom 73170 Thailand Tell: 0066 2 441 5333 ext 2531, 2532 Fax: 0066 2 441 5333 ext 2531 , Email: nsirbnursing@mahidol.ac.th, ns.irbnursing@gmail.com

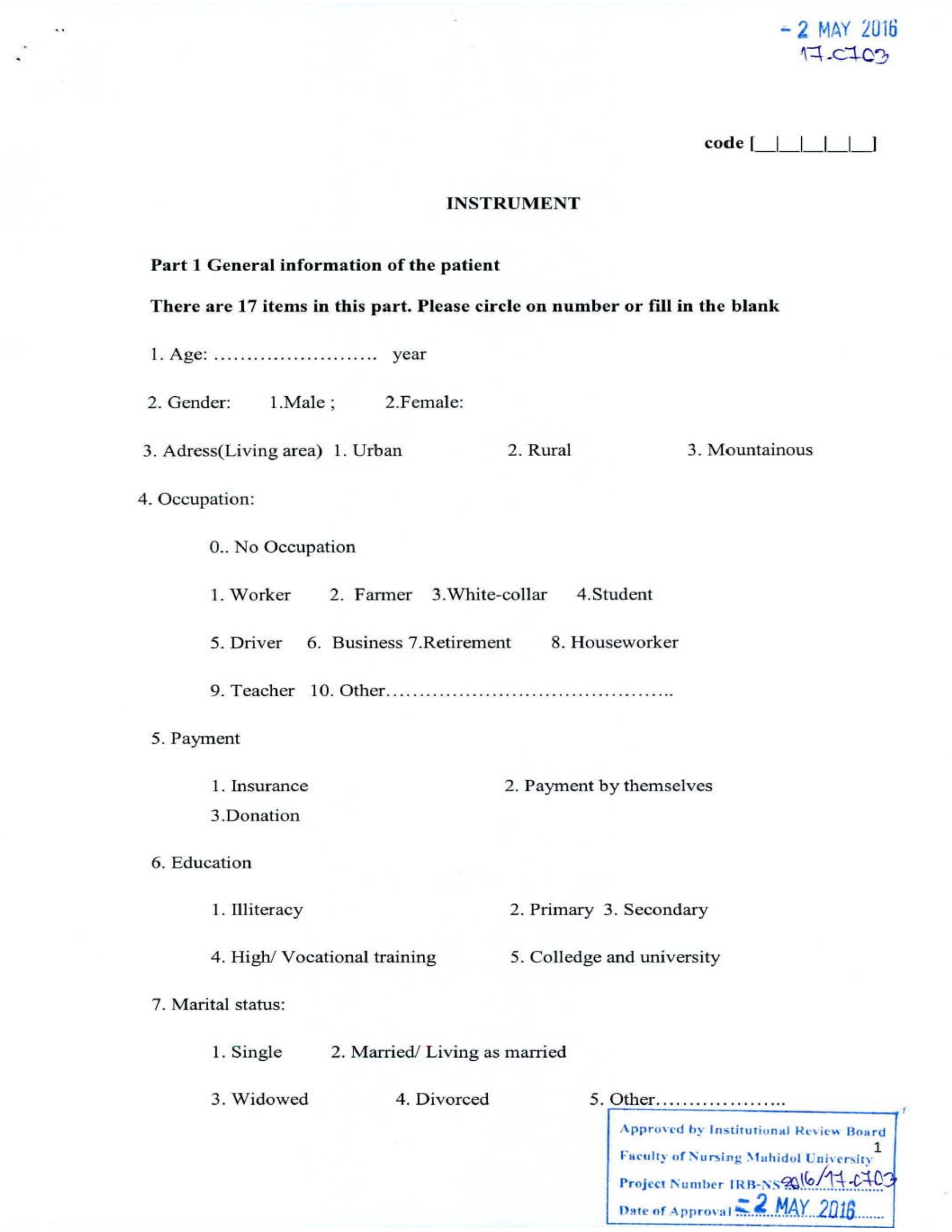
Tôi nhận thức được quyền thông tin liên quan tới lợi ích và rủi ro của người tham gia trong dự án nghiên cứu và quyền được rút khỏi dự án bất cứ lúc nào mà không gặp vấn đề gì về dịch vụ cũng như việc chăm sóc sức khỏe mà tôi sẽ nhận được trong tương lai. Tôi đồng ý cho bên nghiên cứu sử dụng thông tin cá nhân trong việc nghiên cứu, nhưng không đồng ý việc tiết lộ thông tin cá nhân với lý do khác. Thông tin phải được sử dụng như là một phần của kết quả nghiên cứu dự án.

Tôi đồng ý tham gia vào nghiên cứu này .

Ngày…… tháng……. năm…..

Chủ đề tài nghiên cứu Người tham gia nghiên cứu

APPENDIX E



- 2 MAY 2016
17.C703

code [__|__|__|__|__]

INSTRUMENT

Part 1 General information of the patient

There are 17 items in this part. Please circle on number or fill in the blank

1. Age: ……………………. year

2. Gender: 1.Male ; 2.Female:

3. Adress(Living area) 1. Urban 2. Rural 3. Mountainous

4. Occupation:

0.. No Occupation

1. Worker 2. Farmer 3.White-collar 4.Student

5. Driver 6. Business 7.Retirement 8. Houseworker

9. Teacher 10. Other……………………………………..

5. Payment

1. Insurance 2. Payment by themselves
3.Donation

6. Education

1. Illiteracy 2. Primary 3. Secondary

4. High/ Vocational training 5. Colledge and university

7. Marital status:

1. Single 2. Married/ Living as married

3. Widowed 4. Divorced 5. Other………………..

1

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NS2016/17.C703
Date of Approval - 2 MAY 2016

Part 2:

Hamilton Anxiety Rating Scale (HAM-A) and Hamilton Depression Rating Scale (HAM-D)

Hamilton Anxiety Rating Scale (HAM-A)

Below is a list of phrases that describe certain feeling that people have. Rate the patients by finding the answer which best describes the extent to which he/she has these conditions. Select one of the five responses for each of the fourteen questions.

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe

1Anxious mood ☐0 ☐1 ☐2 ☐3 ☐4 Worries, anticipation of the worst, fearful anticipation, irritability	**8. Somatic (sensory)** ☐0 ☐1 ☐2 ☐3 ☐4 Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation
2 Tension ☐0 ☐1 ☐2 ☐3 ☐4 Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax	**9 Cardiovascular symptoms** ☐0 ☐1 ☐2 ☐3 ☐4 Tachycardia, palpitations, pain in chest, throbbing of vessels, fainting feelings, missing beat
3.Fears ☐0 ☐1 ☐2 ☐3 ☐4 Of dark, of strangers, of being left alone, of animals, of traffic, of Crowds	**10 Respiratory symptoms** ☐0 ☐1 ☐2 ☐3 ☐4 Pressure or constriction in chest, choking feelings, sighing, dyspnea
4. Insomnia ☐0 ☐1 ☐2 ☐3 ☐4 Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night terrors	**11 Gastrointestinal symptoms** ☐0 ☐1 ☐2 ☐3 ☐4 Difficulty in swallowing, wind abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss

Hamilton Depression Rating Scale (HAM-D)

PLEASE COMPLETE THE SCALE BASED ON A STRUCTURED INTERVIEW
Instructions: for each item select the one “cue” which best characterizes the patient. Be sure to record the answers in the appropriate spaces(positions 0 through 4).

1.DEPRESSED MOOD

(sadness, hopeless, helpless, worthless)

0 ☐ Absent
1 ☐ These feeling states indicated only on questioning
2 ☐ These feeling states spontaneously reported verbally
3 ☐ Communicates feeling states non-verbally, i.e. through facialexpression,posture,voiceandtendencytoweep.
4 ☐ Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

3.SUICIDE

(sadness, hopeless, helpless, worthless)

0 ☐ Absent
1 ☐ Feels life is not worth living.
2 ☐ Wishes he/she were dead or any thoughts of possible death to self.
3 ☐ Ideas or gestures of suicide
4 ☐ Attempts at suicide (any serious attempt rate 4)

4.INSOMNIA: EARLY IN THE NIGHT

0 ☐ No difficulty falling asleep
1 ☐ Complains of occasional difficulty falling asleep, i.e. more than 1/2 hour.
2 ☐ Complains of nightly difficulty

2. FEELINGS OF GUILT

0 ☐ Absent.
1 ☐ Self reproach, feels he/she has let peopledown.
2 ☐ Ideas of guilt or rumination over past errors or sinful deeds.
3 ☐ Present illness is a punishment. Delusions ofguilt.
4 ☐ Hears accusatory or denunciatory voices and/or experiencesthreateningvisualhallucinations.

11. ANXIETY SOMATIC (physiological concomitants of anxiety) such as:

gastro-intestinal– dry mouth, wind, indigestion, diarrhea,
cramps, belching
cardio-vascular– palpitations, headaches
respiratory– hyperventilation, sighing
urinary frequency
sweating

0 ☐ Absent
1 ☐ Self reproach, feels he/she has let peopledown.
2 ☐ Ideas of guilt or rumination over past errors or sinful deeds.
3 ☐ Present illness is a punishment. Delusions ofguilt.
4 Hears accusatory or denunciatory

Approved by Institutional Review Board
Faculty of Nursing Mahidol University
Project Number IRB-NS 2016/17.0103
Date of Approval - 2 MAY 2016

Part 3: Functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) (FACIT-F)

Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

		Not At All	A Little Bit	Some what	Quite a Bit	Very Much
1	I feel fatigued	0	1	2	3	4
2	I feel weak all over	0	1	2	3	4
3	I feel listless (“washed out”)	0	1	2	3	4
4	I feel tired	0	1	2	3	4
5	I have trouble starting things because I am tired	0	1	2	3	4
6	I have trouble finishing things because I am tired	0	1	2	3	4
7	I have energy	0	1	2	3	4
8	I am able to do my usual activities	0	1	2	3	4
9	I need to sleep during the day	0	1	2	3	4
10	I am too tired to eat	0	1	2	3	4
11	I need help doing my usual activities	0	1	2	3	4
12	I am frustrated by being too tired to do the things I want to do	0	1	2	3	4
13	I have to limit my social activity because I am tired	0	1	2	3	4

Part 4 Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree, Circle the "2" if you Strongly Disagree

Circle the "3" if you Mildly Disagree, Circle the "4" if you Very Neutral

Circle the "5" if you Mildly Agree, Circle the "6" if you Strongly Agree

Circle the "7" if you Very Strongly Agree

Items		**Scale**						
		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Very Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

Part 5:Short Form Health Survey (SF-36):

Please answer the 36 questions of the **Health Survey** completely, honestly, and without interruptions.

GENERAL HEALTH:

1. In general, would you say your health is:

○ Excellent ○ Very Good ○ Good ○ Fair ○ Poor

2. Compared to one year ago, how would you rate your health in general now?

O Much better now than one year ago

O Somewhat better now than one year ago

O About the same

O Somewhat worse now than one year ago

O Much worse than one year ago

LIMITATIONS OF ACTIVITIES:

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.

O Yes, Limited a lot O Yes, Limited a Little O No, Not Limited at allModerate

activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

O Yes, Limited a lot O Yes, Limited a Little O No, Not Limited at all

Lifting or carrying groceries

O Yes, Limited a lot O Yes, Limited a Little O No, Not Limited at all

Climbing several flights of stairs

O Yes, Limited a lot O Yes, Limited a Little O No, Not Limited at all

Climbing one flight of stairs

O Yes, Limited a lot O Yes, Limited a Little O No, Not Limited at all

BỘ CÂU HỎI NGHIÊN CỨU

Phần 1: Thông tin chung của người bệnh

Số thứ tự: ……………………………. Mã bệnh án: ……………………………..

Mã ID:…………………………………….

Dưới đây là 17 câu hỏi liên quan đến thông tin cá nhân của người bệnh. Vui lòng khoanh tròn vào số hoặc điền vào chỗ trống.

1. Tuổi:

2. Giới: 1.Nam ; 2.Nữ

3. Nơi sinh sống (Sống vùng) 1.Nông thôn 2.Thành phố 3.Miền núi

4. Nghề nghiệp:

0. Thất nghiệp
1. Công nhân 2. Nông dân 3. White-collar 4.Sinh viên
5. Lái xe 6. Buôn bán 7.Nghỉ hưu 8. Nội trợ
9. Giáo viên 10. Khác……………………………………..

5. Chi trả viện phí

1. Bảo hiểm y tế 2.Tự chi trả 3. Tài trợ

6. Trình độ văn hóa:

1. Mù chữ 2. Tiểu học 3. Trung học cơ sở
4. Trung học chuyên nghiệp 5. Đại học, cao đẳng

7.Tình trạng hôn nhân:

1. Độc thân 2. Lập gia đình và sống cùng nhau
3. Góa 4. Ly dị 5. Khác

8. Thu nhập/ tháng (USD) ……………………………….2.☐ Không biết/Không trả lời

9. BMI: …………Chiều cao: ………… Cân nặng :…… kg

Giai đoạn bệnh: ....

10. Các bệnh kèm theo:………………………………………………….

11. Lý do lần đầu tiên người bệnh đến khám bệnh

1. Mệt mỏi2. Buồn nôn 3. Vàng da và vàng mắt
4. Nước tiểu sẫm màu; 5. Khám sức khỏe định kỳ 6. Điều trị bệnh khác;
7. Tình cờ phát hiện; 8. Theo hẹn;
9. Khác: Cụ thể……………………………….

12.Bạn được chẩn đoán viêm gan B từ khi nào?

1. < 1 tháng tuổi 2. 1-12 tháng tuổi3. 1-6 tuôit
4, 6-16 tuổi 5. ≥ 16 tuổi6. Không biết

13. Ngày bắt đầu điều trị (xin ghi cụ thể)………………………………….

14 .Bạn đã tiêm vacxin phòng viêm gan virus B chưa?

1. Có: 2. Không: 3. Không biết

15. Nếu có thì tiêm khi nào?

1. < 1 tháng tuổi 2. 1-12 tháng tuổi
3. 1-6 tuổi 4. 6-16 tuổi
5. ≥ 16 tuổi 6. Không biết

16. Tiền sử phơi nhiễm các yếu tố nguy cơ
1. Tiêm chích ma túy 2.Truyền máu
3. Chạy thận nhân tạo 4.Xăm mình
5. Ghép tạng 6.Bệnh về máu
7. Tình dục không an toàn 8.Phẫu thuật

17. Tiền sử uống rượu
1. Không uống từ thời gian trước đây vàhiện tại
2. Không uống từ trước đây, nhưng hiện tại thì uống rượu
(Bao lâu: ………… năm, Số lượng/Ngày: ……………ml.)
3.Uống từ thời gian trước đến nay
(Bao lâu: ………… năm, Số lượng/Ngày: ……………ml.)

Phần 2: Thang điểm đánh giá lo lắng và trầm cảm của người bệnh. Thang điểm đánh giá lo lắng (HAM A)

Xếp hạng các bệnh nhân bằng cách tìm các câu trả lời phù hợp nhất với mô tả mức độ mà anh/cô ấy có những điều sau. Chọn một trong năm trả lời cho 14 câu hỏi sau: *(0 = Không có mặt, 1 = nhẹ, 2 = trung bình, 3 = nặng, 4 = Rất nghiêm trọng)*

1.Tâm trạng lo lắng [0] [1] [2] [3] [4]
Lo lắng, tiên đoán những biểu hiện xấu nhất, sợ hãi, bứt rứt)

2.Căng thẳng [0] [1] [2] [3] [4]
Cảm giác căng thẳng, mệt mỏi, hốt hoảng, cảm xúc dễ khóc, run rẩy, cảm giác bồn chồn, không có khả năng thư giãn

3. Sợ hãi [0] [1] [2] [3] [4]
Trong bóng tối, người lạ, bị bỏ lại một mình, thú vật, xe cộ, đám đông

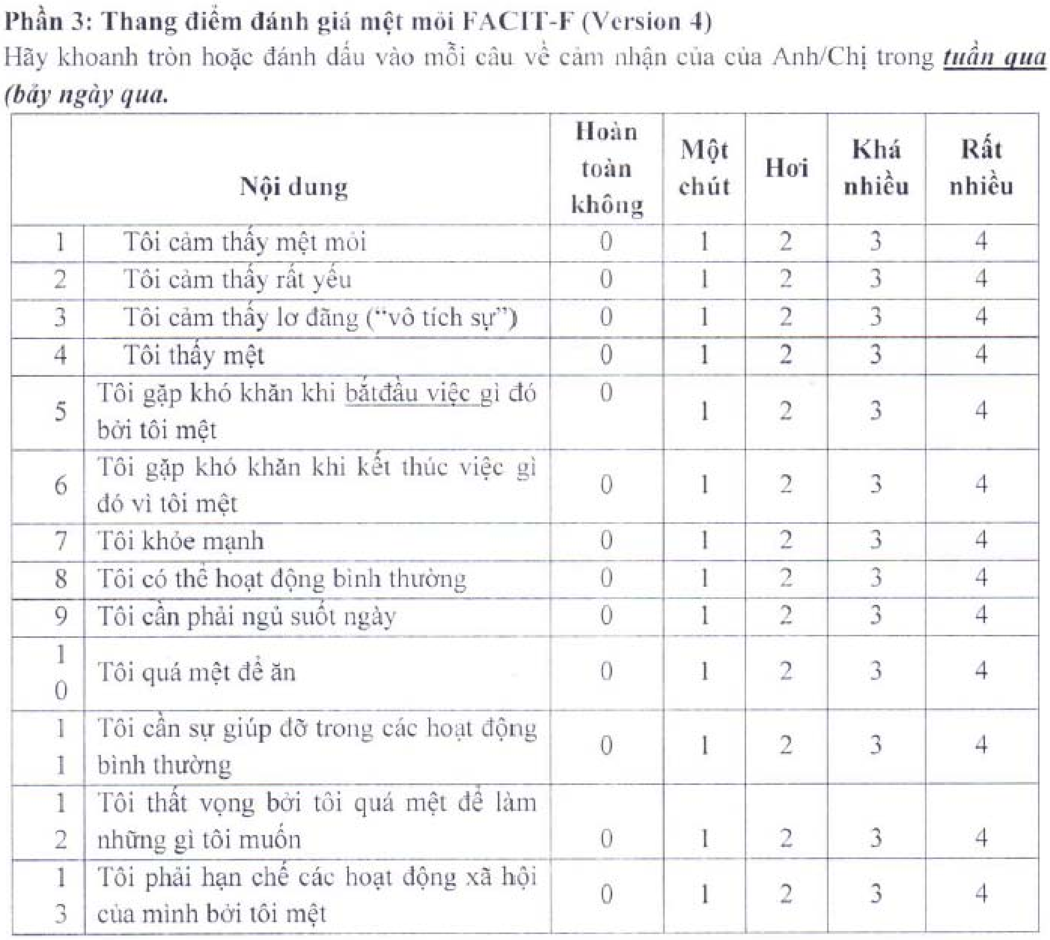
4. Mất ngủ [0] [1] [2] [3] [4]
Khó ngủ, ngủ không ngon giấc hay bị thức giấc, giấc ngủ không được thỏa mãn, mệt mỏi khi thức dậy, chiêm bao, ác mộng, kinh hãi bóng đêm đêm.

8. Triệu chứng thực thể về giác quan [0] [1] [2] [3] [4]
Ù tai, mờ thị lực, cơ mặt bừng nóng và lạnh, cảm giác yếu mệt, đau nhói

9. Triệu chứng tim mạch [0] [1] [2] [3] [4]
Nhịp tim nhanh, đánh trống ngực, đau ngực, mạch đập mạnh, cảm giác ngất xỉu, mất nhịp

10. Triệu chứng hô hấp [0] [1] [2] [3] [4]
Nặng ngực hoặc thắt ngực, cảm giác nghẹt thở, thở dài, khó thở

11.Triệu chứng tiêu hóa [0] [1] [2] [3] [4]
Khó nuốt, đau bụng, cảm giác nóng rát trong dạ dày, đầy bụng, buồn nôn, nôn, sôi bụng, hay đi phân lỏng, sụt cân, táo bón



Phần 3: Thang điểm đánh giá mệt mỏi FACIT-F (Version 4)

Hãy khoanh tròn hoặc đánh dấu vào mỗi câu về cảm nhận của của Anh/Chị trong ***<u>tuần qua</u>*** ***(bảy ngày qua.***

	Nội dung	**Hoàn toàn không**	**Một chút**	**Hơi**	**Khá nhiều**	**Rất nhiều**
1	Tôi cảm thấy mệt mỏi	0	1	2	3	4
2	Tôi cảm thấy rất yếu	0	1	2	3	4
3	Tôi cảm thấy lơ đãng ("vô tích sự")	0	1	2	3	4
4	Tôi thấy mệt	0	1	2	3	4
5	Tôi gặp khó khăn khi bắtđầu việc gì đó bởi tôi mệt	0	1	2	3	4
6	Tôi gặp khó khăn khi kết thúc việc gì đó vì tôi mệt	0	1	2	3	4
7	Tôi khỏe mạnh	0	1	2	3	4
8	Tôi có thể hoạt động bình thường	0	1	2	3	4
9	Tôi cần phải ngủ suốt ngày	0	1	2	3	4
10	Tôi quá mệt để ăn	0	1	2	3	4
11	Tôi cần sự giúp đỡ trong các hoạt động bình thường	0	1	2	3	4
12	Tôi thất vọng bởi tôi quá mệt để làm những gì tôi muốn	0	1	2	3	4
13	Tôi phải hạn chế các hoạt động xã hội của mình bởi tôi mệt	0	1	2	3	4

Phần 4: Thang đo đa khía cạnh về Nhận thức hỗ trợ xã hội

Chúng tôi quan tâm đến việc bạn cảm nhận như thế nào về các câu sau. Đọc các câu sau cẩn thận. Đưa ra nhận định về suy nghĩ của Anh/Chị với mỗi câu sau.

Khoanh tròn "1" nếu bạn hoàn toàn không đồng ý
Khoanh tròn "2" nếu bạn rất không đồng ý
Khoanh tròn "3" nếu bạn không đồng ý
Khoanh tròn "4" nếu bạn không có ý kiến
Khoanh tròn "5" nếu bạn đồng ý
Khoanh tròn "6" nếu bạn rất đồng ý
Khoanh tròn "7" nếu bạn hoàn toàn đồng ý

Nội dung		Hoàn toàn không đồng ý	Rất không đồng ý	Không đồng ý	Không có ý kiến	Đồng ý	Rất đồng ý	Hoàn toàn đồng ý
1.	Luôn có một người đặc biệt ở bên cạnh tôi mỗi khi tôi cần	1	2	3	4	5	6	7
2.	Luôn có một người đặc biệt ở bên cạnh tôi, người tôi có thể chia sẻ buồn vui.	1	2	3	4	5	6	7
3.	Gia đình tôi luôn cố gắng giúp tôi	1	2	3	4	5	6	7
4.	Tôi nhận được sự giúp đỡ và hỗ trợ về mặt tình cảm từ gia đình tôi mỗi khi tôi cần.	1	2	3	4	5	6	7
5.	Luôn có một người đặc biệt làm cho tôi thấy thoải mái.	1	2	3	4	5	6	7
6.	Những người bạn của tôi luôn cố gắng giúp tôi.	1	2	3	4	5	6	7
7.	Tôi có thể tin tưởng vào những người bạn của tôi khi tôi có những hướng đi sai lầm	1	2	3	4	5	6	7
8.	Tôi có thể nói chuyện với gia đình về các vấn đề của tôi.	1	2	3	4	5	6	7
9.	Luôn có những người bạn ở bên cạnh tôi, người tôi có thể chia sẻ buồn vui.	1	2	3	4	5	6	7
10.	Luôn có một người đặc biệt trong cuộc đời tôi, luôn quan tâm đến cảm xúc của tôi.	1	2	3	4	5	6	7
11.	Gia đình tôi luôn sẵn sàng giúp tôi đưa ra quyết định.	1	2	3	4	5	6	7
12.	Tôi có thể nói chuyện với những người bạn về các vấn đề của tôi.	1	2	3	4	5	6	7

Phần 5: Sức khỏe tổng quát (SF-36)

Nói chung, sức khỏe là

○ Tuyệt vời ○ Rất tốt ○ Tốt ○ Bình thường ○ Kém

So với một năm trước đây, làm thế nào bạn sẽ đánh giá sức khỏe của bạn nói chung bây giờ?

O Tốt hơn nhiều so với một năm trước
O Khá tốt hơn so với một năm trước
O Bình thương
O Hơi kém hơn so với một năm trước
O Tệ hơn nhiều so với một năm trước

GIỚI HẠN CÁC HOẠT ĐỘNG:

Các mục sau đây là về các hoạt động bạn có thể làm trong một ngày điển hình.Có sức khỏe của bạn bây giờ giới hạn bạn trong các hoạt động này?Nếu có, bao nhiêu?

Hoạt động mạnh mẽ, chẳng hạn như chạy, nâng vật nặng, chơi thể thao quá sức
O Giới hạn nhiều O Một chút O Không giới hạn
Hoạt động vừa phải, chẳng hạn như di chuyển gần, đẩy máy hút bụi, chơi bowling, chơi gôn
O Giới hạn nhiều O Một chút O Không giới hạn
Nâng hoặc mang túi đi chợ
O Giới hạn nhiều O Một chút O Không giới hạn
Leo cầu thang nhiều tầng
O Giới hạn nhiều O Một chút O Không giới hạn
Leo cầu thang
O Giới hạn nhiều O Một chút O Không giới hạn
Uốn, quỳ, khom lưng
O Giới hạn nhiều O Một chút O Không giới hạn
Đi bộ 2 km
O Giới hạn nhiều O Một chút O Không giới hạn
Đi bộ nhiều
O Giới hạn nhiều O Một chút O Không giới hạn
Đi bộ quanh 1 tòa nhà
O Giới hạn nhiều O Một chút O Không giới hạn
Tự tắm hoặc mặc quần áo
O Giới hạn nhiều O Một chút O Không giới hạn

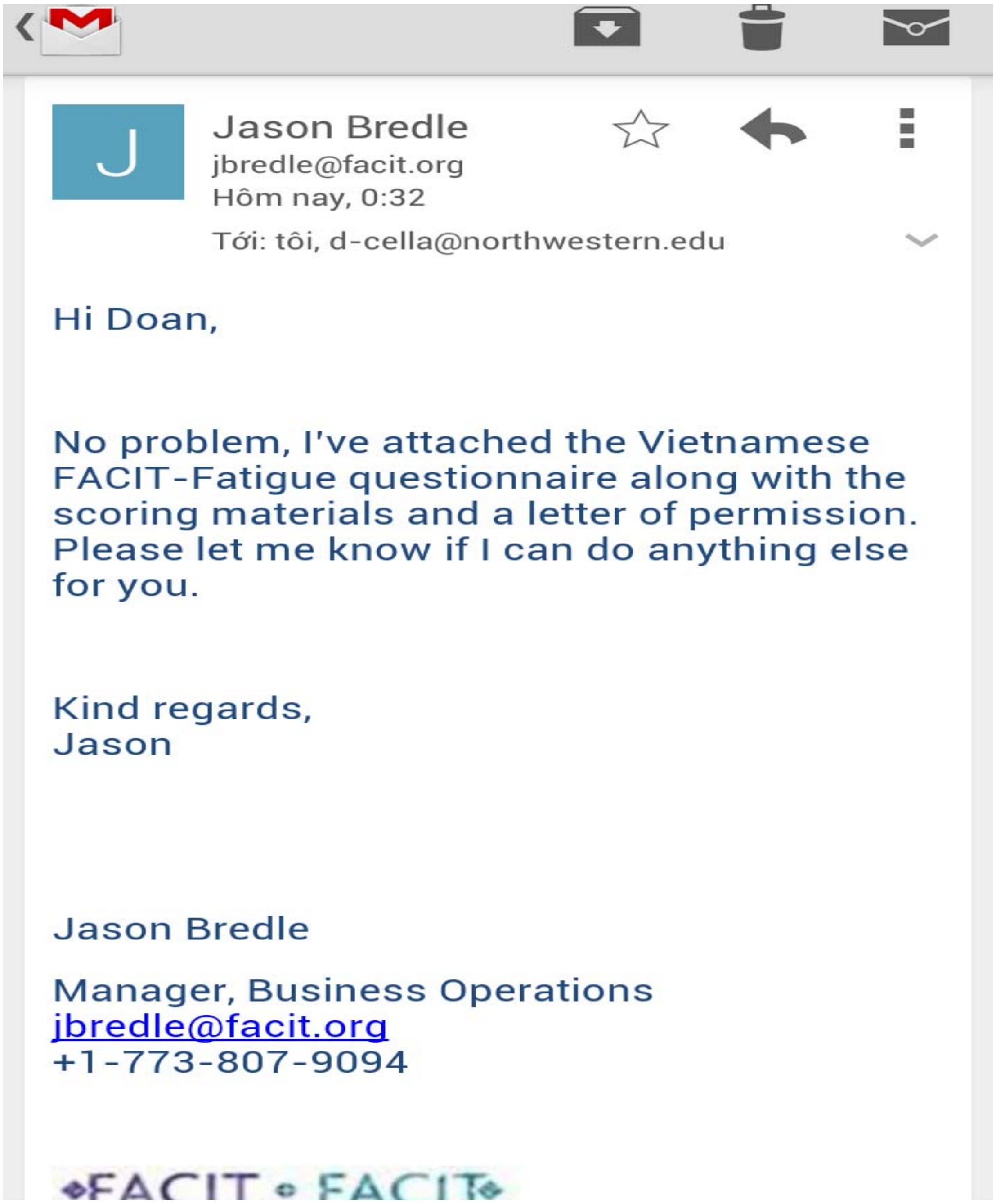
VẤN ĐỀ SỨC KHỎE THỂ CHẤT:

Trong suốt 4 tuần qua, quý vị có bất kỳ vấn đề sau đây với công việc của bạn hoặc các hoạt động hàng ngày thường xuyên khác như là kết quả của sức khỏe thể chất của bạn?

Cắt giảm số lượng giành cho hoạt động khác
O Có O Không
Thực hiện ít hơn bạn mong muốn
O Có O Không
Được giới hạn trong các loại công việc hoặc hoạt động khác
O Có O Không

APPENDIX F

Permission for using instruments



Jason Bredle
jbredle@facit.org
Hôm nay, 0:32
Tới: tôi, d-cella@northwestern.edu

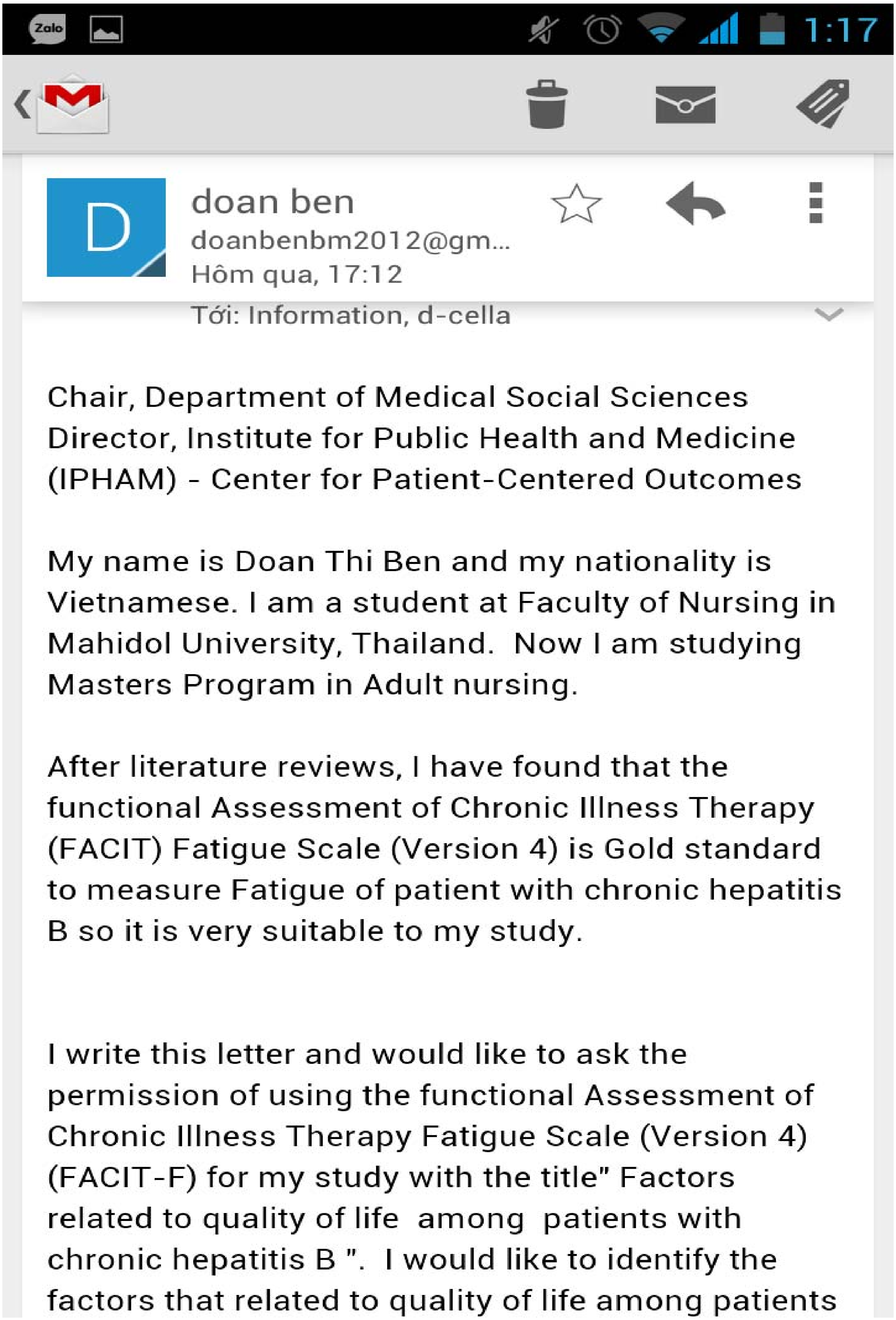
Hi Doan,

No problem, I've attached the Vietnamese FACIT-Fatigue questionnaire along with the scoring materials and a letter of permission. Please let me know if I can do anything else for you.

Kind regards,
Jason

Jason Bredle

Manager, Business Operations
jbredle@facit.org
+1-773-807-9094



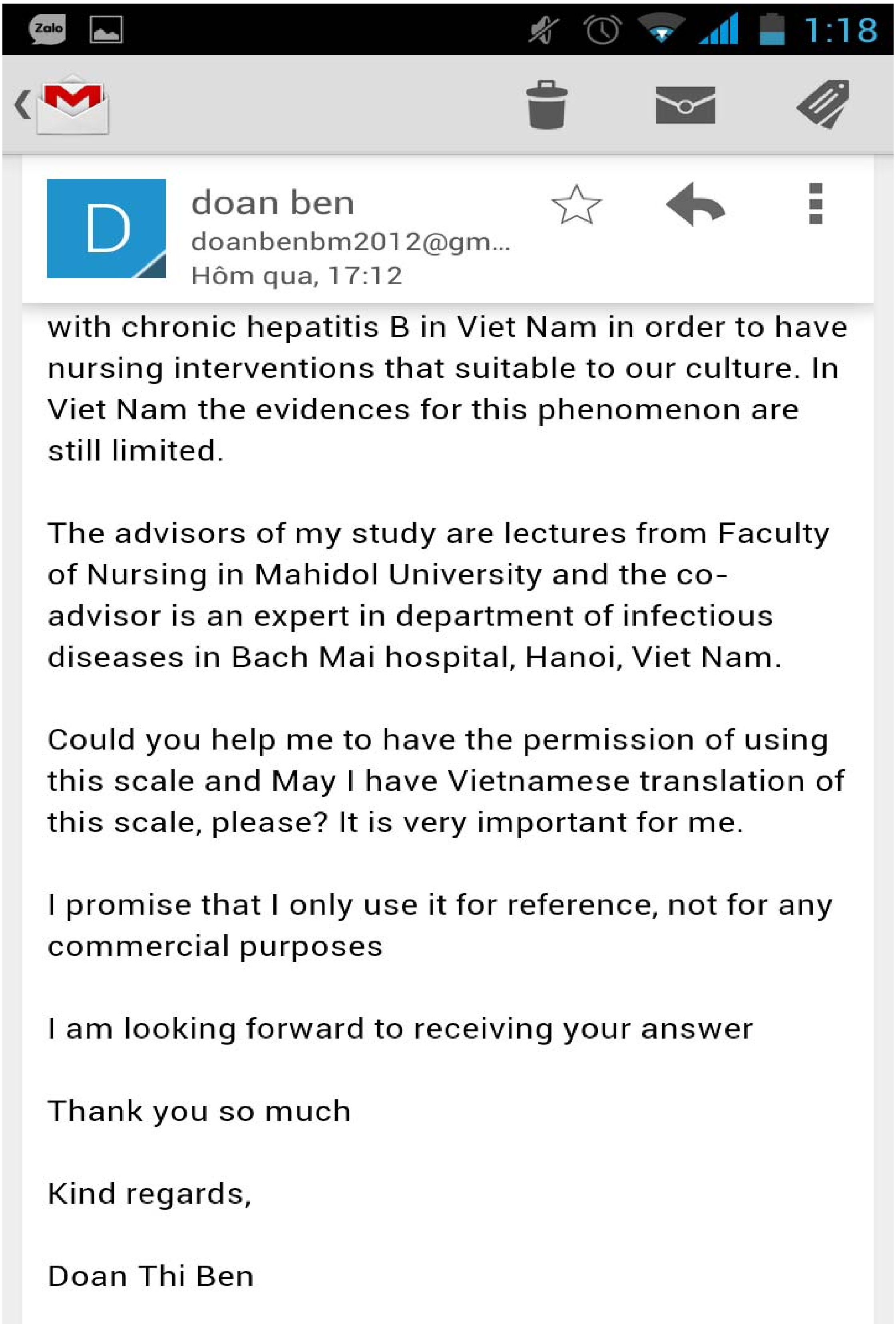
doan ben
doanbenbm2012@gm...
Hôm qua, 17:12
Tới: Information, d-cella

Chair, Department of Medical Social Sciences
Director, Institute for Public Health and Medicine
(IPHAM) - Center for Patient-Centered Outcomes

My name is Doan Thi Ben and my nationality is Vietnamese. I am a student at Faculty of Nursing in Mahidol University, Thailand. Now I am studying Masters Program in Adult nursing.

After literature reviews, I have found that the functional Assessment of Chronic Illness Therapy (FACIT) Fatigue Scale (Version 4) is Gold standard to measure Fatigue of patient with chronic hepatitis B so it is very suitable to my study.

I write this letter and would like to ask the permission of using the functional Assessment of Chronic Illness Therapy Fatigue Scale (Version 4) (FACIT-F) for my study with the title" Factors related to quality of life among patients with chronic hepatitis B ". I would like to identify the factors that related to quality of life among patients



doan ben
doanbenbm2012@gm...
Hôm qua, 17:12

with chronic hepatitis B in Viet Nam in order to have nursing interventions that suitable to our culture. In Viet Nam the evidences for this phenomenon are still limited.

The advisors of my study are lectures from Faculty of Nursing in Mahidol University and the co-advisor is an expert in department of infectious diseases in Bach Mai hospital, Hanoi, Viet Nam.

Could you help me to have the permission of using this scale and May I have Vietnamese translation of this scale, please? It is very important for me.

I promise that I only use it for reference, not for any commercial purposes

I am looking forward to receiving your answer

Thank you so much

Kind regards,

Doan Thi Ben

Hamilton Depression Rating Scale (HDRS)

***Reference:* Hamilton M. A rating scale for depression. J Neurol Neurosurg Psychiatry 1960; 23:56–62**

Rating Clinician-rated

Administration time 20–30 minutes

Main purpose To assess severity of, and change in, depressive symptoms

Population Adults

Commentary

The HDRS (also known as the Ham-D) is the most widely used clinician-administered depression assessment scale. The original version contains 17 items (HDRS_{17}) pertaining to symptoms of depression experienced over the past week. Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available. The HDRS was originally developed for hospital inpatients, thus the emphasis on melancholic and physical symptoms of depression. A later 21-item version (HDRS_{21}) included 4 items intended to subtype the depression, but which are sometimes, incorrectly, used to rate severity. A limitation of the HDRS is that atypical symptoms of depression (e.g., hypersomnia, hyperphagia) are not assessed (see SIGH-SAD, page 55).

Scoring

Method for scoring varies by version. For the HDRS_{17}, a score of 0–7 is generally accepted to be within the normal range (or in clinical remission), while a score of 20 or higher (indicating at least moderate severity) is usually required for entry into a clinical trial.

Versions

The scale has been translated into a number of languages including French, German, Italian, Thai, and Turkish. As well, there is an Interactive Voice Response version (IVR), a Seasonal Affective Disorder version (SIGH-SAD, see page 55), and a Structured Interview Version (HDS-SIV). Numerous versions with varying lengths include the HDRS17, HDRS21, HDRS29, HDRS8, HDRS6, HDRS24, and HDRS7 (see page 30).

Additional references

Hamilton M. Development of a rating scale for primary depressive illness. Br J Soc Clin Psychol 1967; 6(4):278–96.

Williams JB. A structured interview guide for the Hamilton Depression Rating Scale. Arch Gen Psychiatry 1988; 45(8):742–7.

Address for correspondence

The HDRS is in the public domain.

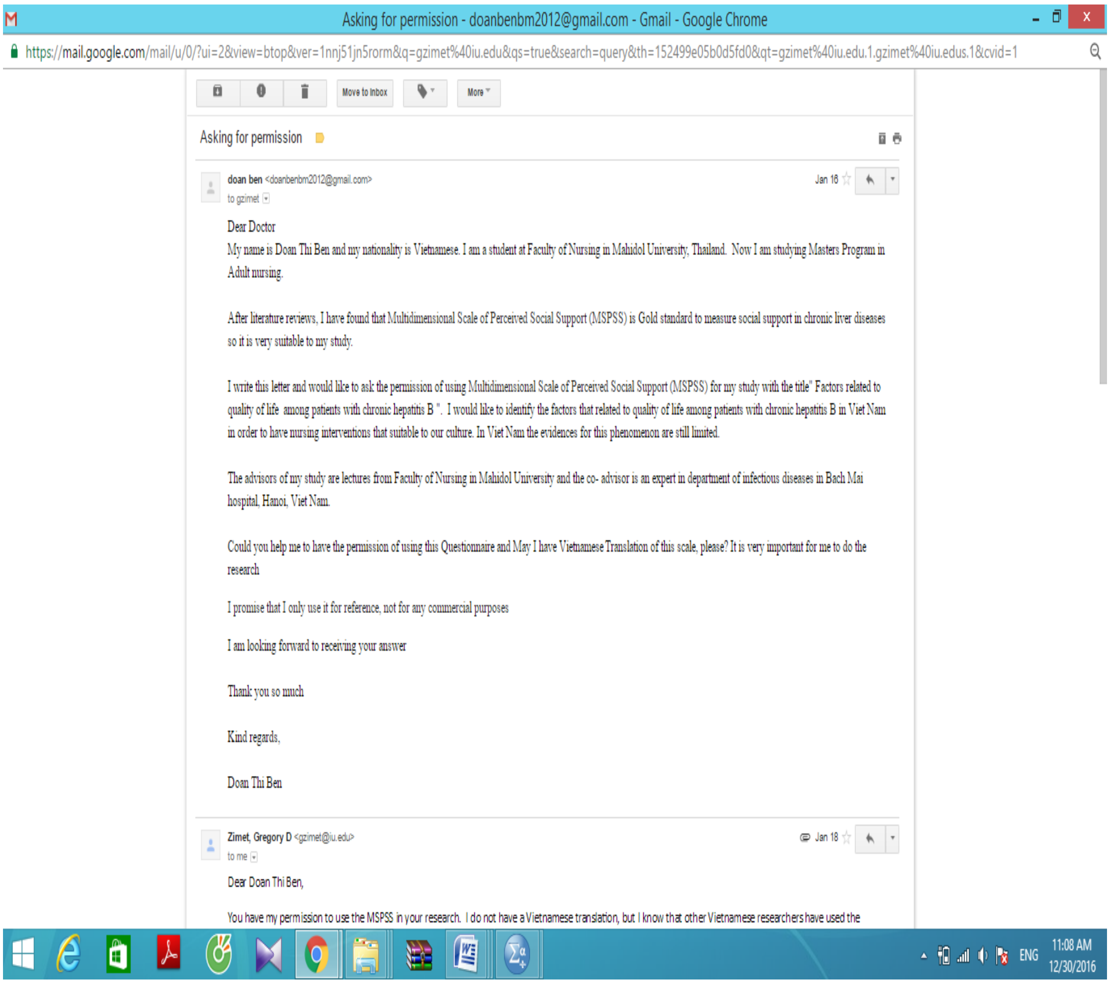
Hamilton Depression Rating Scale (HDRS)

PLEASE COMPLETE THE SCALE BASED ON A STRUCTURED INTERVIEW

Instructions: for each item select the one "cue" which best characterizes the patient. Be sure to record the answers in the appropriate spaces (positions 0 through 4).

1 **DEPRESSED MOOD** *(sadness, hopeless, helpless, worthless)*
- 0 ☐ Absent.
- 1 ☐ These feeling states indicated only on questioning.
- 2 ☐ These feeling states spontaneously reported verbally.
- 3 ☐ Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
- 4 ☐ Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

2 **FEELINGS OF GUILT**
- 0 ☐ Absent.
- 1 ☐ Self reproach, feels he/she has let people down.
- 2 ☐ Ideas of guilt or rumination over past errors or sinful deeds.
- 3 ☐ Present illness is a punishment. Delusions of guilt.
- 4 ☐ Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.



Asking for permission

doan ben <doanbenbm2012@gmail.com>
to gzimet
Jan 16

Dear Doctor

My name is Doan Thi Ben and my nationality is Vietnamese. I am a student at Faculty of Nursing in Mahidol University, Thailand. Now I am studying Masters Program in Adult nursing.

After literature reviews, I have found that Multidimensional Scale of Perceived Social Support (MSPSS) is Gold standard to measure social support in chronic liver diseases so it is very suitable to my study.

I write this letter and would like to ask the permission of using Multidimensional Scale of Perceived Social Support (MSPSS) for my study with the title" Factors related to quality of life among patients with chronic hepatitis B ". I would like to identify the factors that related to quality of life among patients with chronic hepatitis B in Viet Nam in order to have nursing interventions that suitable to our culture. In Viet Nam the evidences for this phenomenon are still limited.

The advisors of my study are lectures from Faculty of Nursing in Mahidol University and the co- advisor is an expert in department of infectious diseases in Bach Mai hospital, Hanoi, Viet Nam.

Could you help me to have the permission of using this Questionnaire and May I have Vietnamese Translation of this scale, please? It is very important for me to do the research

I promise that I only use it for reference, not for any commercial purposes

I am looking forward to receiving your answer

Thank you so much

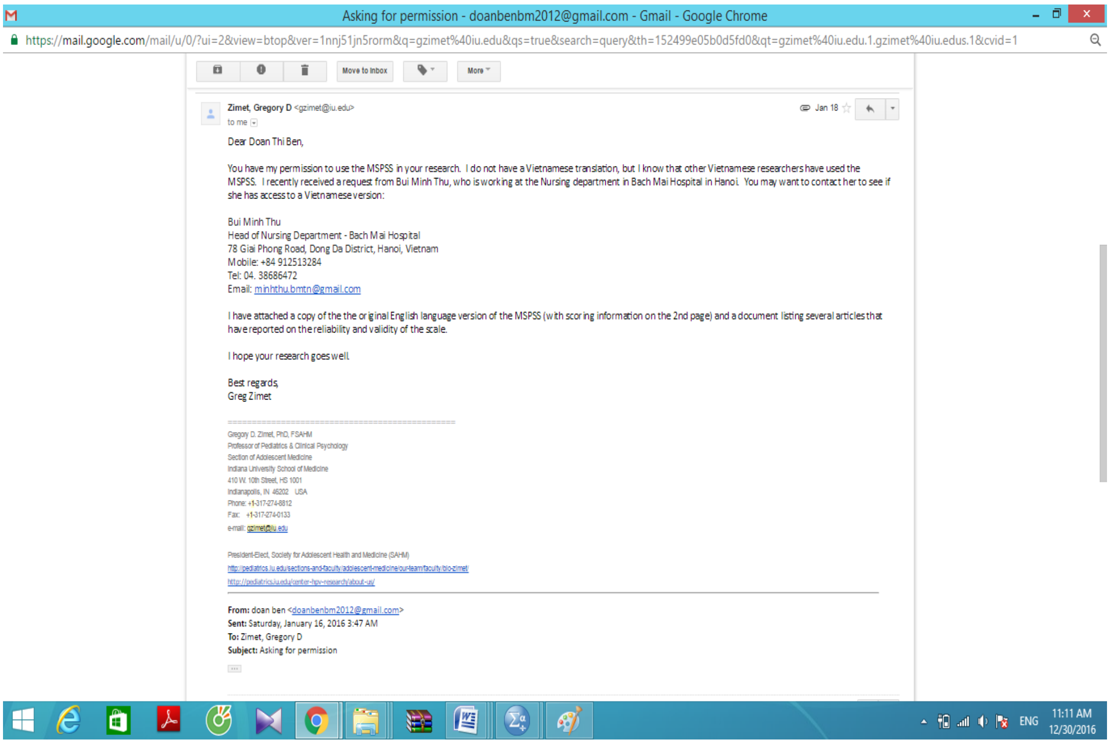
Kind regards,

Doan Thi Ben

Zimet, Gregory D <gzimet@iu.edu>
to me
Jan 18

Dear Doan Thi Ben,

You have my permission to use the MSPSS in your research. I do not have a Vietnamese translation, but I know that other Vietnamese researchers have used the



Zimet, Gregory D <gzimet@iu.edu>
to me

Dear Doan Thi Ben,

You have my permission to use the MSPSS in your research. I do not have a Vietnamese translation, but I know that other Vietnamese researchers have used the MSPSS. I recently received a request from Bui Minh Thu, who is working at the Nursing department in Bach Mai Hospital in Hanoi. You may want to contact her to see if she has access to a Vietnamese version:

Bui Minh Thu
Head of Nursing Department - Bach Mai Hospital
78 Giai Phong Road, Dong Da District, Hanoi, Vietnam
Mobile: +84 912513284
Tel: 04. 38686472
Email: minhthu.bmtn@gmail.com

I have attached a copy of the the original English language version of the MSPSS (with scoring information on the 2nd page) and a document listing several articles that have reported on the reliability and validity of the scale.

I hope your research goes well.

Best regards,
Greg Zimet

==

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http://pediatrics.iu.edu/sections-and-faculty/adolescent-medicine/our-team/faculty/bio-zimet/
http://pediatrics.iu.edu/center-hpv-research/about-us/

From: doan ben <doanbenbm2012@gmail.com>
Sent: Saturday, January 16, 2016 3:47 AM
To: Zimet, Gregory D
Subject: Asking for permission

APPENDIX G

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
sumham_a	.148	115	.000	.887	115	.000
sumham_d	.129	115	.000	.920	115	.000
p3_sum	.156	115	.000	.870	115	.000
sumss	.101	115	.006	.903	115	.000
SumQOL	.095	115	.012	.953	115	.000

a. Lilliefors Significance Correction

BIOGRAPHY

NAME	Doan Thi Ben
DATE OF BIRTH	28/12/1982
PLACE OF BIRTH	Hanoi capital, Vietnam
INSTITUTIONS ATTENDED	Hanoi Medical University, 2008 - 2012 Bachelor of Nursing Bach Mai Medical school, 2000 – 2003 School of Nursing, Diploma of General Nursing Hanoi Medical University, 2008 – 2012 Bachelor of Nursing, Diploma of Nursing Mahidol University, 2015-2016 Master of Nursing Science (Adult Nursing)
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