CHAPTER 1

INTRODUCTION

Background and significance of research problem

Insomnia is the most frequent complaint of all sleep disturbances (Hajak, 2000; Walsh, Hartman & Kowall, 1994; Weyerer & Dilling, 1991). It is generally defined as a subjective complaint of poor quality of sleep or inadequate sleep as presented by one or more of the following symptoms: difficulty initiating sleep, difficulty maintaining sleep, early morning awakening or nonrefreshing sleep (Hauri, 1998; National Heart, Lung and Blood Institute Working Group on Insomnia, 1999; Zorick, 1993). In addition, the American Psychiatric Association (1994) recommends that the definition of insomnia should include impairments of daytime ability in terms of social, occupational, and other important areas of functioning.

Epidemiological studies of insomnia have been conducted among adults worldwide, particularly in western countries with the prevalence ranging from 6% to 36% (Ancoli-Israel & Roth, 1999; Klink, Quan, Kaltenborn & Lebowitz, 1992; Ohayon, 1996; Ohayon & Roth, 2001; Sutton, Molddfsky & Badley, 2001). Insomnia in Asia is less documented and the prevalence is found between 17% and 22.3% (Doi, Minowa, Okawa & Uchiyama, 2000; Kim, Uchiyama, Okawa, Liu & Ogihara, 2000; Ohayon & Hong, 2002). In Thailand, approximately 30% of the population living in

Bangkok is affected by insomnia (Sukying & Nilchaikovit, 1997). In another study conducted among Thai elderly, the prevalence of insomnia rises to 46.3% (Sukying, Bhokakul & Udomsubpayakul, 2003). Although the prevalence of insomnia varies from country to country, it is indisputably high.

Insomnia can adversely affect a person's life causing significant physical, psychological, social and professional, and economic repercussions. Physically, insomnia sufferers often complain of daytime impairments, such as fatigue, poor cognitive function, an unrefreshed feeling, and daytime sleepiness (Kuppermann et al., 1995; Zammit, Weiner, Damato, Sillup & MacMillan, 1999). Insomniacs are twice as likely than non-insomniacs to develop various coronary artery diseases (Schwaztz et al., 1999). Similarly, insomnia symptoms are associated with increased risk of hypertension (Suka, Yoshida & Sugimori, 2003). Hospitalization and drug use are also high among insomniacs (Leger, Guilleminault, Bader, Levy & Paillard, 2002). Tragically, insomniacs have frequently reported more automobile accidents than those who do not complain of insomnia (Balter & Uhlenhuth, 1992; Roth & Ancoli-Israel, 1999). Industrial accidents are also found to be common among insomniacs (Leger et al.). Overall, insomniacs have reported poorer quality of life in many domains compared with those who do not have insomnia (Chevalier et al., 1999; Hajak, 2001).

Psychologically, insomnia is an early marker of anxiety and alcohol abuse. Furthermore, people with insomnia are about 40 times more likely than good sleepers to develop depression (Ford & Kamerow, 1989). Low self-esteem and depression are also found among adolescents with insomnia (Roberts, Roberts & Chen, 2002). In general, insomnia has been found to cause emotional upset, irritability, and hostility

(Idzikowski, 1996).

Family and professional life are also found to be impacted by insomnia. Insomniacs frequently feel irritated and fatigued when caring for their children. They also dislike assisting their children with their homework (Leger et al., 2002). Insomniacs have difficulty building relationships among family (Roth & Ancoli-Israel, 1999). In their professional life, insomniacs have low satisfaction with work and often make errors that sometimes result in serious consequences (Leger et al.). Insomnia plays a role in performance impairments; consequently, it leads to absenteeism from work and productive decrement (Chilcott & Shapiro, 1996).

Besides the physical, psychological, and family and professional aspects, insomnia has an immense impact economically. It is estimated that in the United States, insomnia's direct cost exceed 13 billion dollars on substances used to promote sleep, outpatient visits, sleep disorder assessment, and treatment. It is interesting to note that the indirect cost, which results from a decreased economic output attributable from morbidity and mortality, is even far greater than the direct cost (Walsh & Engelhardt, 1999).

Clearly, insomnia has abundant negative consequences to individuals and imposes a major socioeconomic burden on society. As such, studies related to insomnia have been carried out worldwide. However, in Thailand, there have been no reported studies related to the impacts of insomnia. Although research information is not available, it can be concluded that if insomnia does occur, it will lead to many negative consequences and this can be hypothesized particularly, among the northern Thais who are especially vulnerable to insomnia.

Due to the rapid socioeconomic growth of the northern region, many people work in the industrial section. A recent study among workers in this region found that the workers slept less and complained more of fatigue and daytime sleepiness (Kingkarnjanathorn, 2001). It is likely that these conditions are a result of insomnia, which again can cause occupational accidents. Second, Thailand's northern region has the highest proportion of aging people (Social Statistic Division, 1999). It is known that insomnia increases with advancing age. Moreover, it is certain that if insomnia occurs in this population, it can lead to greater negative impacts because their physical health also declines. Third, a higher proportion of out-patients with chronic diseases is found in this region (Department of Health, 1999). Chronic illnesses are known to contribute to insomnia and in light manner, insomnia intensifies the severity of diseases. Considering the significance of its negative impacts on individuals and society as a whole, it is therefore necessary to study insomnia and related factors among northern Thais who are vulnerable to have greater negative impacts of insomnia.

Insomnia is seen as the end result of predisposing, precipitating and perpetuating factors (Spielman, 1986; Spielman & Glovinsky, 1997). Research has shown that gender, age, and marital status are found to be predisposing factors of insomnia. It was reported that women (Leger, Guilleminault, Dreyfus, Delahaye & Paillard, 2000), aging people (Kim et al., 2000), and people who are widowed, separated or divorced (Kageyama et al., 1997) complain of insomnia more than others. Stressful life events (Healey et al., 1981), chronic illness (Klink et al., 1992), depression and anxiety (Weyerer & Dilling, 1991) are important precipitating factors of acute insomnia. Environmental factors such as noise, light, temperature, and sleep

surfaces can also cause acute insomnia (Morin, 1993). Factors that contribute to chronic insomnia are considered perpetuating factors. Maladaptive sleep habits (Spielman & Glovinsky, 1997) and dysfunctional beliefs and attitudes about sleep (Morin, 1993) are included.

Prevalence and risk factors of insomnia have been studied worldwide; however, most of these have been conducted in western countries. It is known that cultural, psychological and behavioral factors may influence the self-reporting of insomnia (Maggie et al., 1998). Moreover, social and cultural characteristics also affect the risk factors of insomnia (Kim et al., 2000). Consequently, studies among Thais are more likely to yield varying results. Since searching and identifying risk factors for insomnia are exceedingly beneficial in preventing its progression and negative consequences among risk groups, it is imperative to conduct such study among the Thai population.

It is found that insomniacs use several methods to cope with their insomnia. These methods vary from person to person because they may have different perceptions of insomnia. The perception and the meaning that they give to insomnia is their own commonsense ideas or representations, which may or may not be relevant to the medical knowledge or expectation of health care providers. The construct of representation comes from direct experience of illness of an individual and the information available in social communication such as media, health campaigns, and direct information obtained from communicating with family members, friends including health care professionals (Diefenbach & Leventhal, 1996).

It is, therefore, important to note that the representations that people have for health threats strongly influence their coping (H. Leventhal, Diefenbach & E. A.

Leventhal, 1992). Representations are found to be an important factor influencing coping procedures among various types of patients. Representations predict an attendance at rehabilitation program, recovery of social and domestic functioning, and speed of return to work in patients with post myocardial infarction (Petrie, Weinman, Sharpe & Buckley, 1996), care-seeking behaviors in menopause (Thomson & Gick, 2000), and functional activity in patients with arthritis (Orbell, Johnston, Rowley, Espley & Davey, 1998).

In case of insomniacs, it is their thoughts of the negative consequences of insomnia that finally lead them to seek help (Mahendran, 2001). On the other hand, the idea that insomnia is not an important problem lends insomniacs to not tell the physician about their symptoms (Ohayon & Roth, 2001). Therefore, many years may pass before they seek professional help (Morin, 1993). This becomes critical as the longer the symptoms are disregarded, the more likely serious problems arise, which thereafter become more difficult to treat. Thus, representations of insomnia are needed to be explored. Because nurses seek to understand how individuals respond to their illnesses, knowing and understanding what insomniacs think about their symptoms are invaluable. This information helps nurses to provide accurate knowledge, develop interventions to promote sleep hygiene practices, enhance appropriate methods for coping with insomnia, and alter its inappropriate management.

In summary, insomnia is an important health problem, causing significant negative consequences such as physical and mental impairments, accidents, social and professional life repercussion, and economic loss whereas little is known about the prevalence, risk factors, representations, perceived impact, and coping of insomnia

among Thais. Therefore, it is important to study insomnia in northern region where people are more vulnerable to insomnia. Without the availability of this research, it becomes difficult in establishing policies and nursing practices for insomniacs. Moreover, the difference between the scientific knowledge of insomnia held by health care professionals and the subjective views of insomnia held by insomniacs themselves may lead to difficulty in promoting appropriate methods to manage insomnia symptoms and the study of this difference is valuable. The study of representations and coping methods of insomnia will contributes valuable knowledge to nurses in their understanding and developing of effective interventions to promote sleep and prevent the progression and negative consequences of insomnia, which leads to better quality of life.

Objectives of the study

1. To estimate the prevalence of acute and chronic insomnia among Thai people in the northern region.

2. To determine the characteristics of insomnia among Thai people in the northern region.

3. To determine the risk factors for insomnia among Thai people in the northern region.

4. To explore the perceived impacts of insomnia among Thai insomniacs in the northern region.

5. To explore the insomnia representations of Thai insomniacs in the northern region.

6. To explore coping procedures of insomnia among Thai insomniacs in the northern region.

Research questions

1. What is the prevalence of acute and chronic insomnia among Thai people in the northern region?

2. What are the characteristics of insomnia among Thai people in the northern region?

3. What are the risk factors for insomnia among Thai people in the northern region?

4. What are the perceived impacts of insomnia among Thai insomniacs in the northern region?

5. What are the insomnia representations of Thai insomniacs in the northern region?

6. How do Thai insomniacs in the northern region cope with their insomnia?

Scope of the study

The study was conducted among northern Thais aged 18 years and older, living in Chiang Mai, Nan, Kamphaeng Phet, and Phitsanulok provinces. Insomnia was diagnosed from participants' self-report. Other data were gathered by self-reported questionnaires. The time of data collection was from June to October 2003.

Definition of terms

Insomnia is a subjective complaint of one or more of the following symptoms: difficulty initiating sleep, difficulty maintaining sleep, early morning awakening and non-restorative sleep. These disturbances must occur at least three nights per week in the last month and are sufficiently severe to result in at least one daytime impairment such as mood change, daytime fatigue, daytime sleepiness, and difficulty concentrating or accomplishing work or academic performance. Acute insomnia is defined as insomnia occurring within one month. Chronic insomnia is defined as insomnia occurring more than one month. This variable is measured by a self-reported questionnaire developed by the researcher.

Risk factors for insomnia are any condition that may increase the chance of developing insomnia composing predisposing, precipitating, and perpetuating factors.

*Predisposing factor*s are conditions preceding the onset of insomnia that lower the threshold needed for triggering insomnia. They include age, gender, marital status, educational level, monthly household income, perception of income adequacy, and occupation.

Precipitating factors are conditions causing the onset of insomnia. They include medical illnesses, psychological health problems, particularly anxiety and depression, stressful life events, and sleep environments.

Medical illnesses are diseases or illnesses that an individual currently have. These variables are measured by a self-reported questionnaire.

Psychological health problems are problems related to psychological status, particularly anxiety and depression. Anxiety is the state of vague apprehension and relates to the feeling of uncertainty. Depression is an abnormal extension or over elaboration of sadness and grief. They are measured by the Hospital Anxiety and Depression Scale originally developed by Zigmond and Snait (1983) and translated into Thai language by Nilchaikovit, Lortrakul and Phisansuthideth (1996).

Stressful life events are events both negative and positive situations that require individuals to make an adjustment or adaptation to one's usual way of living. These variables are measured by the Stressful Life Event Checklists modified from the Life Experiences Survey, which was developed by Sarason, Johnson and Siegel (1987).

Sleep environments are the environments during sleeping in the bedroom and surroundings. They include noise, light, ventilation, bed partners, bed surfaces, odor and insect. These variables are measured by a questionnaire developed by the researcher.

Perpetuating factors are conditions sustaining or maintaining symptoms of insomnia. They consist of maladaptive sleep habits and dysfunctional beliefs and attitudes about sleep.

Maladaptive sleep habits are inappropriate sleep habits that may interfere with sleep including irregular sleep schedule, excessive time in bed, waking activities in bed, excessive time in bed, daytime napping, smoking, caffeine and alcohol consumption. They are measured by a questionnaire developed by the researcher based on literature review.

Dysfunctional beliefs and attitudes about sleep are defined as misconceptions or amplifications of the immediate negative consequences, long term consequences, and control of sleep problems. They are measured by the Dysfunctional Beliefs and Attitudes about Sleep Scale-10 version. The full version of the DBAS is originally developed by Morin (1993) and the short version is developed by Espie, Inglis, Harvey and Tessier (2000).

Perceived impacts of insomnia are the perception of negative consequences of having insomnia that affect on physical and emotional, working, economic and family and social domains perceived by insomniacs. They are measured by a self-reported questionnaire developed by the researcher.

Insomnia representations are the set of thoughts or ideas that people have for their insomnia and the emotional response to insomnia. The attributes of cognitive representations are identity (label or symptoms related to insomnia), timeline (time frame of insomnia), cause (the etiology of insomnia), consequences (the impacts of insomnia), and controllability (whether insomnia can be cured or controlled). It is measured by the Insomnia Representations Questionnaire modified from the Revised Illness Perception Questionnaire developed by Moss-Morris, Weinman, Petrie, Horne, Cameron and Buick (2002).

Coping procedures of insomnia are the set of procedures or executions that insomniacs perform to alleviate their symptoms of insomnia. They are measured by the Coping Procedures of Insomnia Questionnaire developed by the researcher based on review of literature.

Northern Thai people are Thais aged 18 years and older living in communities in Chiang Mai, Nan, Kampheng Phet, and Phisanulok provinces.