

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

In this chapter, a summary of research findings, implications for nursing practice, nursing education, and nursing research as well as recommendations for future studies and limitations of the study are presented.

Conclusion

A descriptive, cross-sectional study was conducted in this study. A multi-stage sampling method with probabilities proportionate to the size (PPS) was employed to select the total of 602 study participants aged 18 years and older living in communities in Chiang Mai, Nan, Kamphaeng Phet, and Phitsanulok provinces. Other inclusion criteria for recruitment of the sample were being able to communicate verbally and willing to participate in the study. Data were collected by the researcher and research assistants from June to October 2003.

Based on the findings and the preceding discussion, the following conclusion are listed as follows:

1. The prevalence of insomnia was moderately high, reported by 15.3% of the total sample. Chronic insomnia was found to be more prevalent than acute insomnia

(14.6% VS. 0.7%). The prevalence of insomnia in females was slightly higher than that in males (15.9% VS. 14.6%).

2. Difficulty maintaining sleep (DMS) was the most frequently complained of insomnia in all age groups except in early adulthood. Difficulty initiating sleep (DIS) was ranked second and was frequently reported complaint of insomnia in early and middle adulthood. Early morning awakening (EMA) and non-restorative sleep (NRS) were equally reported. DIS along with DMS were the most frequent complaints for mixed types of insomnia.

3. The risk factors for insomnia in this study were medical illnesses, anxiety, depression, smoking, and noise. Participants with at least one form of medical illnesses, smoking cigarettes and living in noisy sleep environment were about twice as likely to report insomnia than those who reported of no these conditions. Those who had anxiety were four times as likely to have insomnia relative to those without anxiety whereas having depression increased the risk of insomnia by almost three folds.

The model predicting insomnia is as follows:

$$\ln p_x / q_x = -3.44 + 0.64(\text{medical illnesses}) + 0.62(\text{smoking}) \\ + 0.62(\text{noise}) + 1.41(\text{anxiety}) + 1.08(\text{depression})$$

4. Insomniacs in both genders and age groups agreed that insomnia had impacts on working domain and physical and emotional domain whereas economic domain and family and social domain were less perceived to be impacted. Younger insomniacs and male insomniacs agreed that insomnia affected on physical and

emotional domain than did older insomniacs and female insomniacs, respectively. On the other hand, the older age group agreed that insomnia had impacts on working domain and economic domains than did the adult group. Male insomniacs relative to female insomniacs agreed that working domain was impacted by insomnia. A higher number of agreements on perceived impact of economic domain were found in female insomniacs than male insomniacs. Only one third of both genders and age groups equally agreed that insomnia had impacts on family and social domain.

5. Both genders and age groups of insomniacs perceived that fatigue, an unrefreshed feeling, daytime sleepiness, and dizziness were frequent symptoms related to insomnia. They also viewed that insomnia was a chronic and cyclic duration. Psychological, environmental and own behavioral factors were viewed as causes of insomnia whereas substances were less agreement to cause insomnia by both genders and age groups. Older insomniacs relative to younger insomniacs agreed that physiological factor caused insomnia. Both genders and age groups did not have clear-cut pictures on consequences, control and emotional representation of insomnia.

6. Insomniacs used several methods to cope with their insomnia. Physical management, relaxation, and self-forcing to fall asleep were frequently used while consulting health care professionals was less reported. Older insomniacs and women insomniacs had employed coping procedures more than did adult insomniacs. Interestingly, older insomniacs and female insomniacs consulted health care professionals more than younger insomniacs and male insomniacs, respectively.

Implications

The findings of this study have implications for nursing practice, nursing research, and nursing education as follows:

Implications for nursing practice

This study is a comprehensive study identifying the risk factors for insomnia. Knowing and understanding the risk factors for insomnia help nurses to have a clear picture about factors causing insomnia among Thai population. This information also serves as the basic information regarding insomnia that can help nurse especially who work in the community settings to searching and identifying the risk groups for insomnia. The results indicated that some risk factors, particularly smoking, could be modified in that nurses can take action in providing an accurate knowledge and altering misunderstanding about the risk factors for insomnia. The findings on representations and coping procedures of insomnia contribute useful information for nurses to have more understanding the insomniacs from their perspectives. Nurse can help people to recognize their symptoms, guide them to have an appropriate skill and knowledge to cope with their insomnia, and facilitate them to use existing informal sources of assistance appropriately.

Implications for nursing education

The field of sleep is not of much concern in nursing education. Consequently,

knowledge regarding insomnia should be provided to the education for the undergraduate students. For the graduate level, nursing curricula in nursing care of adult and elderly should include information regarding insomnia, risk factors, and management of insomnia. Moreover, the findings from this study can be an example of health behaviors related to sleep among Thai population. Nursing educators should be well prepared for enhancing their ability to conduct research related to other issues of insomnia.

Implications for nursing research

The present study contributes a basic knowledge for the study of insomnia. The prevalence of insomnia in this study raises concern that insomnia affects people in various aspects. Further studies on other issues that relate to insomnia or studies among other specific groups could employ the results from this study as basic data, particularly the study in community-based settings.

Recommendations for further study

Based upon the findings, conclusions, and implication of this study, the recommendations are listed as follows:

1. To obtain a greater representative of Thai people, the larger population in northeastern, central and southern regions of Thailand should be included in the further studies.

2. Combination of self-report and objective evaluations of insomnia will provide more accurate measure of insomnia.

3. The instrument should be revised to obtain more comprehensive information particularly, in regard to sleep habits and where the instrument that is too difficult to understand and answer, it should be modified to make it simpler for the lay population.

4. A comparison study of gender differences and between people residing in urban and rural areas regarding risk factors for insomnia will provide useful and interesting information.

5. Testing the relationship between representations and coping procedures of insomnia has a grate value leading to the implementation for promoting sleep.

6. An in-depth interview should be conducted for the representations and copings of insomnia because it will yield rich and valuable information from individuals perspectives.

7. A longitudinal study will be necessary to establish the direction of a cause-effect relationship between insomnia and its risk factors.

Limitations of the study

The present study had limitations listed below:

1. Some districts are not included in the list for sampling procedure because of their difficulty in access. It is therefore difficult to determine whether or not they are different from those in the list. Therefore, the selection bias may be occurred.

2. The convenience sampling of an individual from each household may lead to selection bias.

3. It is true for all cross-sectional studies, including this one, that they cannot indicate a causal relationship between the risk factors and the disease because the exposures and the diseases are studied at the same time.

4. This study is based on self-reported data only. Therefore, the information might be affected by recall bias.

5. There is a very small number of study participants in the early adulthood, which limits the findings to generalize to this group.