CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

In this chapter, summary of the study, contribution to nursing science, implication of the findings, and limitations of the study are presented. Recommendations for further research are also provided.

Summary of the Study

A cross-sectional correlational study was used to examine the causal relationships among age, family income, family support, peer support, epilepsy knowledge, epilepsy self-efficacy, and self-care behavior in adolescents with epilepsy. The theoretical framework for the study was based on Orem's Self-Care Deficit Nursing Theory and Bandura's Self-Efficacy Theory. The sample consisted of 121 adolescents aged 14-21 years, with no mental retardation, who had epilepsy and had been taking anti-epileptic drugs for at least one year. Six instruments were used including Demographic and Illness-Related Data Form, Epilepsy Self-Care Scale, Epilepsy Knowledge Scale, Epilepsy Self-Efficacy Scale, Family APGAR Questionnaire, and Friend APGAR Questionnaire. Data collection was carried out at the neurology clinics or epilepsy clinics at four public tertiary hospitals in Bangkok. The causal relationships among variables and model fit were tested with the EQS program.

Regarding demographic characteristics of the sample, subjects had a mean age of 17.52 years; there were slightly more female than male subjects; they were predominantly students, who were studying in secondary school; family income ranged from 3,000 to 100,000 baht/month, with a median of 23,000 baht/month; and more than half had one to five seizure attacks per year, whereas nearly one-third were seizure free in the past year. Further, half of the subjects had tonic-clonic seizures. Most of subjects received a single antiepileptic drug regimen. Finally, the majority of the subjects received epilepsy knowledge from physicians, while one-third received epilepsy knowledge from nurses.

As for model testing, the final model of self-care behavior for adolescents with epilepsy fit the data well. This model comprises five predictor variables which affect self-care behavior including family income, family support, peer support, epilepsy knowledge, and epilepsy self-efficacy. The results of the hypothesis testing showed that epilepsy self-efficacy and epilepsy knowledge had a positive direct effect on self-care behavior. Both variables accounted for 26.4% of the variability in self-care behavior. Family income had a positive direct effect on epilepsy knowledge. Epilepsy knowledge had a positive direct effect on epilepsy self-efficacy. Family support and peer support had a positive direct effect on epilepsy self-efficacy. Family income, family support, and peer support did not had an direct effect on self-care behavior. However, all had indirect effect on self-care behavior. Family income had an indirect effect on self-care behavior by enhancing epilepsy knowledge. Family support and peer support had an indirect effect on self-care behavior by increasing epilepsy self-efficacy.. Age did not have any efect on self-care behavior, epilepsy

knowledge, and epilepsy self-efficacy. Among five predictor variables, epilepsy self-efficacy had the largest effect on self-care behavior.

In conclusion Epilepsy self-efficacy and epilepsy knowledge were crucial factors for performing self-care behavior among adolescents with epilepsy. Both worked directly to affect self-care behavior. Epilepsy self-efficacy also worked as a mediator in explaining the indirect effect of family support and peer support on self-care behavior of adolescents with epilepsy.

Contributions to Nursing Science

This study contributes to nursing knowledge development by testing the model derived from Orem's Self-Care Deficit Nursing Theory and Bandura's Self-Efficacy Theory. The results of hypothesis testing partially confirmed Orem's Self-Care Deficit Nursing Theory by demonstrating the effect of family income on epilepsy knowledge, and the effect of epilepsy knowledge on self-care behavior. The results also supported Bandura's Self-Efficacy Theory by showing the effect of epilepsy self-efficacy on self-care behavior. In addition, this study demonstrated the integrating Self-Efficacy Theory and Self-Care Deficit Nursing Theory.

Moreover, this study yielded a model of self-care behavior for adolescents with epilepsy which clarified the effects of family income, family support, peer support, epilepsy knowledge, and epilepsy self-efficacy on self-care behavior of adolescents with epilepsy. As such, it can be used as a guideline in the nursing interventions to promoting self-care behavior of adolescents with epilepsy.

Implications of Findings

Implications for Nursing Research

In this study, epilepsy self-efficacy and epilepsy knowledge were two variables that directly affected self-care behavior, and self-efficacy had the strongest influence on self-care behavior. The finding also showed that increasing epilepsy knowledge and family support as well as increasing peer support raised epilepsy self-efficacy. These findings have significant implication for nursing research in developing an intervention program to increase epilepsy self-efficacy and epilepsy knowledge among adolescents with epilepsy. Nurses can conduct an experimental research both for developing and for testing interventions to increase epilepsy knowledge and epilepsy self-efficacy. Several interventions such as group health education program, individual health education program, and peer group support should be compared and tested for their effectiveness.

Implications for Nursing Practice

The findings from this study indicated that self-care behavior is affected by several variables. Nurses need to recognize the importance of those variables and facilitate them as a part of holistic nursing care. Nurses should assess adolescents with epilepsy not only for their antiepileptic medication-taking behavior, but also for their epilepsy knowledge and epilepsy self-efficacy. The assessment form can be modified from Epilepsy Knowledge Scale, Seizure Self-Efficacy Scale. Such an assessment form should be incorporated into regular nursing assessment.

Nurses can increase epileptic adolescents' knowledge and bolster their confidence through a health education program. This health education program should include general knowledge of epilepsy, antiepileptic drugs and its side-effects, precipitating factors, and knowledge related to safety. In addition, the health education program should be developed with the cooperation among nurses, physicians, patients, and family members. Finally, nurses can encourage adolescents with epilepsy to gain self-efficacy to perform self-care behavior through verbal persuasion.

Since family support and peer support directly affect epilepsy self-efficacy, nurses should find strategies to increase family support and peer support. This can be done by encouraging the family to provide emotional support, helping adolescents when trouble arises, discussing items of common interest, sharing problem solving, accepting adolescents, responding to their feelings (e.g., anger, sorrow, and love) and spending time with adolescents. Nurses should allocate and facilitate peer support groups for adolescents with epilepsy. Peer support groups can strengthen self-efficacy as they offer adolescents with epilepsy an opportunity to share their experiences and learn how others care for themselves. Through a peer support group, adolescents can discuss and learn ways to solve their problems in an appropriate manner.

In addition, nurses need to be concerned about adolescents that come from a low income family as they are at risks for knowledge deficit, which often leads to poor self-care behavior.

In this study, the demographic data showed that 70% of the adolescents received knowledge about epilepsy from pamphlets distributed at an epilepsy clinic.

Pamphlets should be available and placed where they can be easily seen in an epilepsy clinic and those pamphlets should be gave to all adolescents who are a newly diagnosed with epilepsy.

Since 60% of adolescents with epilepsy received epilepsy knowledge from their parents, parents' epilepsy knowledge should be assessed to determine whether parents understand the disease and know proper self-care behavior for adolescents with epilepsy.

Implications for Nursing Education

When nursing students are taught about nursing care for persons with epilepsy, they should be shown more about the relationships between self-efficacy, knowledge, parent support, peer support, and self-care behavior in adolescents with epilepsy so as to more appropriately devise a nursing care plan to improve self-care behavior among adolescents with epilepsy.

Limitations of the Study

1. The design of this study was a cross-sectional design, in which all variables were measured at the same point of time. It limited the ability to make causal inferences. Therefore, the study findings should be considered as tentative until further data from longitudinal or experimental studies are available.

2. The sample in this study consisted of adolescents with epilepsy aged 14-21 years who met the study eligible criteria and who attended outpatient clinic at four hospitals in Bangkok, which were tertiary care centers with specialist in epilepsy

management. Therefore, generalization of the findings in other group of patients with epilepsy and in other setting should be made cautiously.

Recommendations for Further Research

Based on the findings and the limitations of the study, the following recommendations for further research are made:

1. Longitudinal cohort studies should be carried out to determine any relationships of variables across time. Longitudinal cohort studies may reveal the temporal sequence of events, changes of variables (e.g., increase of decrease), and provide a better explanation of cause-effect relationship (Pedhazur & Schmelkin, 1991). Further, the data collection should begin when the patient is newly diagnosed with epilepsy.

2. Experimental studies to test the effect of epilepsy self-efficacy and epilepsy knowledge on self-care behavior in adolescents with epilepsy should be conducted as the findings are expected to help confirm the cause-effect relationships of these variables.

3. This study should be replicated with random sampling from several settings in Thailand so that the findings can be better generalized to all Thai adolescents with epilepsy. Moreover, replication of this study in various age groups should be carried out as the findings will shed more light on epilepsy in all age groups. A larger sample size with at least ten subjects per free parameter is recommended in order to obtain more trustworthy Z-test on the significance of parameter and better model fit evaluation (Bentler, 1995). In addition, since general

support from parents and friends cannot directly affect epilepsy knowledge, and self-care behavior, replication of this study to examine the influence of regimen specific support from parents, friends on self-care behavior should be done

4. Since epilepsy self-efficacy and epilepsy knowledge could explain only 26.4% of change in self-care behavior of adolescents with epilepsy, further work should identify potential variables affecting self-care behavior (e.g., parent's education, parent's epilepsy knowledge; brain lesion, seizure type) and add more predictors into the model in order to increase the power of prediction.