#### **CHAPTER 5**

#### **Conclusion and Recommendation**

This chapter presents conclusions of the study, implications of findings, limitations of the study, and recommendations for further research.

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### Conclusions of the Study

A predictive correlational study based on Mishel's Uncertainty in Illness Theory was conducted to determine the level of uncertainty in illness among leukemic children receiving chemotherapy and identify predictive factors of their uncertainty in illness. The participants were 96 leukemic children aged between 10 and 15 years, receiving chemotherapy in the pediatric oncology unit of four tertiary hospitals in Bangkok and their parents. The research instruments included a Children's Uncertainty in Illness Scale, a Symptom Pattern Scale of Children with Cancer, an Information Support from Health Care Providers Scale, an Information Support from Parents Scale, an Information Support from Peers Scale, an Illness Knowledge Scale, and a Parent Perception of Uncertainty Scale. Their content validity index were .99-1.00 and internal consistency reliability were .80-.94. Data were analyzed using descriptive statistics and multiple regression analysis. The study results showed that (1) most leukemic children receiving chemotherapy (94.8%) reported a moderate level of uncertainty in illness, (2) symptom pattern, information support from health care providers, illness related knowledge, and parental uncertainty were predictive factors of uncertainty in illness among leukemic children receiving chemotherapy and accounted for 34.8% of variance in uncertainty.

#### **Implications of the Study**

The findings of this study provide primary nurses with empirical evidence to understand predictive factors of uncertainty in illness among leukemic children receiving chemotherapy and to expand substantial nursing knowledge, nursing research, nursing administration, nursing practice, and nursing education which are presented as follows:

#### Contribution to Nursing Science

This study provides new nursing knowledge regarding uncertainty in illness among leukemic children receiving chemotherapy and its predictors. The new findings specifically indicate that symptom pattern, information support from health care providers, illness related knowledge, and parental uncertainty influence uncertainty in illness among the children with leukemia. Therefore, this study's findings support the propositions in the Mishel's middle range theory and reveal that this theory fits with the Thai leukemic children population and context.

#### **Implications for Nursing Research**

For nursing research, the findings will be the basic information that nurse researchers can use to plan further studies. A causal model of uncertainty in illness can be tested. An intervention to reduce uncertainty in illness in leukemic children can also be planned and tested for its effectiveness.

## Implications for Nursing Practice

Knowledge of predictive factors of uncertainty in illness among leukemic children receiving chemotherapy is beneficial for the nurses working in pediatric oncology units to integrate a comprehensive assessment of these significant factors into the nursing care for childhood leukemia undergoing chemotherapy. In addition, sufficient knowledge of predictive factors of child's uncertainty help nurses understand the child's problems and be able to effectively manage the uncertainty in illness that might occur. Essentially, all significant predictive factors should be employed to tailor nursing intervention for uncertainty management. Regarding nursing administration, the administrators should consider developing policy and strategies regarding nursing care activities for the leukemic children that include nurses' routinely assessing of uncertainty in illness and related factors and planning the intervention to decrease this problem.

#### **Implications for Nursing Education**

This study's findings should be applied to teaching plan/program for both nursing students and nurses in order to improve their understanding of uncertainty and its predictive factors, so they can create a proper nursing care plan for these children. Additionally, the information of predictive factors of uncertainty in illness among leukemic children receiving chemotherapy should be employed in coaching and teaching nursing students to provide nursing care focusing on uncertainty management among children with leukemia.

#### Limitations of the Study

The limitation of this cross-sectional study is that the numbers of children in each phase of chemotherapy were different and this affected the results of the study. Thus, the research findings cannot represent the circumstances of leukemic children as a whole because of different illness related events in different phases of chemotherapy.

# Recommendations for Further Research

Considering the limitations of this study, recommendations for further research are presented as follows:

1. Further study should be conducted in all phases of chemotherapy with equal proportions of leukemic children in each phase to obtain a better understanding and result in a more general approach to all leukemic children receiving chemotherapy.

2. There are relatively low predictive powers of predictors in this study, which suggests that there are other variables that may represent antecedent factors; one example would be emotional support which influences the uncertainty in illness among leukemic children. Those variables may be examined in order to minimize uncertainty in illness.

