CHAPTER 3

METHODOLOGY

A correlational descriptive study was conducted to describe self-concept, its subconcepts, and selected influencing factors of hospitalized Chinese school-age children with chronic illness. Data were obtained from hospitalized school-age children with nephrotic syndrome, leukemia, and congenital heart disease and their medical records.

Population, Sample and Setting

Population

The population of this study was hospitalized Chinese school-age boys and girls with chronic illness, specifically nephrotic syndrome, leukemia, and congenital heart disease, aged 6-12 years, admitted in three major children's hospitals in Shanghai City.

Sample

The sample of this study was 122 Chinese school-age boys and girls with chronic illness (nephrotic syndrome, leukemia, and congenital heart disease), admitted in the three major children hospitals in Shanghai City. A purposive

sampling was used in this study. Inclusion criteria of the sample were:

1. Boy or girl between 6 to 12 years old, was in a hospital for at least 1 month with the chronic illness as nephrotic syndrome, or leukemia, or congenital heart disease;

2. Each of the subjects had at least one time of previous experience of hospitalization;

3. These children could read and understand items in the questionnaire.

Setting

This study was conducted in three major children's hospitals in Shanghai City of China. Each of the three children hospitals has about 300 beds and has special wards for renal diseases, hematologic diseases, and congenital heart diseases. There were about 20 beds for each ward. They were all teaching hospitals of Shanghai Medical University and Shanghai Second Medical University. Patients admitted in these three children hospitals came from every part of Shanghai area.

Instrumentations

The questionnaire for data collection composed of three instruments (Appendix B): (a) Medical Record, (b) Demographic Form, and (c) Piers-Harris Self-concept Scale

(PHSCS) (Piers & Harries, 1964).

The Medical Record of each subject was reviewed by the researcher to provide information on the children's type of illness, duration of illness, and frequency of hospitalization, which were considered as source of the selected influencing factors.

The Demographic Form measured the characteristics of the children including information about children's date of birth, sex, and academic achievement (GPA), these information were also treated as independent variables or selected influencing factors.

The PHSCS was an 80-item, dichotomous scale designed by Piers and Harris (1964) to assess how children between ages of 6 and 16 years perceive themselves. PHSCS provided a multidimensional measure of self-concept (Wylie, 1974), it yielded a full-scale score as well as six subconcept scores: (1) social behavior, (2) academic competence, (3) physical appearance and attribute, (4) anxiety, (5) popularity, and (6) happiness and satisfaction (Piers & Harries, 1964).

The items on the PHSCS were scored in either a positive or negative direction. The scores of the Piers-Harris scale were considered as an interval level data and ranged from 0-80. Piers ranked the score of 45 to 60 as average level (Piers, 1984). A high score (higher than 60) on the scale suggests a positive self-evaluation whereas a low

score (lower than 45) indicates a negative self-evaluation.

A test-retest coefficient was 0.77 (Piers 1969, cited in Wylies, 1974). Internal consistency coefficiencies evaluated by Kuder-Richardson 21 were between 0.88 (Piers & Harris, 1964). The PHSCS's construct validity was reported with a correlation of 0.68 with Lipsitt's self-concept scale for 98 children (Mayer 1967, cited in Wylies, 1974). Millen (1969) reported a substantial inverse relationship (r=-0.69) between self-concept and Children's Manifest Anxiety Scale (Millen, 1969, cited in Wylies, 1964). This instrument has been widely used by many studies (Kimm, 1991; Kumer, 1976; Miller, 1987; Moffatt, 1987; Molla, 1981; Regan, 1993; Saucier 1984; Stumpf, 1989).

Test for Reliability and Validity of PHSCS

Because it was the first time to use the PHSCS to assess self-concept of Chinese children with chronic illness, a test of reliability and validity of PHSCS was conducted before data collection. The PHSCS was translated into Chinese by the researcher, and its face validity was assessed by a Chinese pediatric nurse expert and a Chinese child psychiatrist who were good in English. The PHSCS was tested for its internal consistency by using Kuder-Richardson 21 formula with the result of .82, which is a acceptable level. This test was conducted in Pediatric wards of other hospitals

of Shanghai City except the three major Pediatric Hospitals of Shanghai with 30 subjects met the inclusion criteria. Most of items in PHSCS can be understanded by those children, a few items, however, were considered to be similar in meanings (for example, item 2 and item 50), and a few items were difficult for those Chinese children to understand (for example, item 61), perhaps there are culture difference between Chinese children and western Children.

Data Collection Procedure

Using the method of self-administered questionnaire, the subjects' personal data were collect and their self-concept were measured. The procedures of data collection were as follows:

1. Asked for permission of data collecting from the hospital administrators, head departments of nursing service.

2. Obtained names and bed numbers of school-age children with nephrotic syndrome, leukemia, and congenital heart disease from Patients List Chart of the hospital admission division or referrals from nurses or doctors of the three hospitals.

3. Reviewed medical records of these children to identify those who met the criteria for admission to the study.

4. Asked for permission to collect the data from the parents and children in the wards began with the investigator's self-intruduction, and followed by explained the purpose of the study and the procedure that the children would be asked to complete the questionnaire independently. After that, the parents and children were asked to sign consent forms if they agree to participate in this study.

5. Distributed questionnaires to a group of subjects who were in the same room of the wards, the investigator stayed in the room without giving any suggestion in order to assure the independently completing of the questionnaire. The questionnaire was returned to investigator right after completing. There were 130 questionnaires distributed, 124 have been returned (returned rate 95.4%).

6. Processed the data to be ready for data analysis. Of the 124 returned questionnaires, 122 of them were completed fully (98%).

Protection of Human Right

Several measures were utilized to protect subjects of the study. The purposes and procedures of the study were explained to children and their parents.. Permissions were obtained on a prepared formal consent for those children and their parents (Appendix A). To encourage honest disclosure of feelings, the children were given privacy while completing the

questionnaire. Subjects were identified only by code numbers to insure confidentiality and privacy. Subjects were free to withdraw at any time they wanted.

Analysis of Data

Statistical Package for Social Sciences(SPSS) was used to analyze data obtained from the medical records, the demographic form, and the PHSCS:

1. Frequencies and percentage were used to analyze data obtained from questionnaires in order to provide demographic information according to subjects' age, sex, GPA, type of illness, duration of illness, and frequency of hospitalization, and to determine subjects' level of self-concept.

2. Mean and standard deviation were used to analyze the distribution of overall self-concept scores.

3. Stepwise multiple regression analyses were used to analyze whether self-concept and its subconcepts can be predicted by the six selected factors. Before running the multiple analysis, dummy variables coding was done to transform qualitative variables, sex and type of illness, into quantitative variables. In addition, the residual analyses were conducted to test the assumptions of multiple regression:

normality, linearity, hemoscedasticity, and independence of residuals. The results indicated that the assumptions were all met. Level of significant of this study was set at 0.05.