

## CHAPTER 4

### FINDINGS AND DISCUSSION

The descriptive study was conducted to identify the level of self-care practices of Chinese school-age children with NS. This chapter presents description of the subjects, findings relevant to the research question, and discussion of the findings.

#### Description of the Subjects

The subjects of this study were 66 Chinese school-age children with primary NS ranged in age from 6 years and 4 days old to 11 years and 11 months and 20 days old. Their demographic Characteristics are described in Table 1. Nearly a half of the subjects (45.4%) were early school-age children, more than one-fourth (28.8%) were middle school-age children and one-fourth (25.8%) were late school-age children. Most of them (81.8%) were male. In addition, the majority of them (86.3%) were in grade 1 to grade 3 with nearly a half of them (45.5%) were in grade 1, and only 14.7% were in grade 4 to grade 6. The majority of the

subjects' families (72.7%) had two or three children. More than a half of the subjects (58.3%) were the third child and less than one-third (31.3%) were the first child in their families.

The majority of the subjects' fathers (78.8%) completed primary and high schools, 30.3% completed junior high school and 37.9% completed senior high school. Most of the subjects' mothers (90.9%) completed primary and high schools, 43.9% completed junior high school and 27.3% completed primary school. Distributions of occupations of the fathers and mothers were similar. The highest numbers of the fathers and mothers were farmers (36.4% and 45.4%, respectively). The numbers of the fathers and mothers who were factory workers and business persons were quite similar (15.2% and 19.7% for the fathers, and 15.2% and 13.6% for the mothers). Slightly more than half of the subjects' families (54.6%) had monthly income between 2001-3000 yuans, and the numbers of the subjects' families in monthly income between 1000-2000 yuans and between 3000-higher yuans were similar (21.2% and 24.2%, respectively).

Table 1 Demographic Characteristics of the subjects

Variable	Frequency (N)	Percent (%)
Age		
Early school-age (6-8 years)	30	45.4
Middle school-age (>8-10 years)	19	28.8
Late school-age (>10-12 years)	17	25.8
Gender		
Male	54	81.8
Female	12	18.2
Grade		
Grade 1	30	45.4
Grade 2	18	27.3
Grade 3	9	13.6
Grade 4	6	9.1
Grade 5	0	0.0
Grade 6	3	4.6
Number of children in the family		
One	18	27.3
Two	28	42.4
Three	20	30.3
Sequence of the child in the family		
First	15	31.3
Second	5	10.4
Third	28	58.3
Education level of fathers		
Primary school	7	10.6
Junior high school	20	30.3
Senior high school	25	37.9
Technical school	6	9.1
College (Diploma)	6	9.1
University (Bachelor)	2	3.0

Table 1 (Cont.)

Variable	Frequency (N)	Percent (%)
Education level of mothers		
Primary school	18	27.3
Junior high school	29	43.9
Senior high school	13	19.7
Technical school	4	6.1
College (Diploma)	2	3.0
Occupation of fathers		
Farmer	24	36.4
Factory worker	10	15.2
Government administration personnel	5	7.6
Teacher	2	3.0
Business person	13	19.7
Health personnel	3	4.5
Others (driver, fisher, railway worker, veterinarian, insurance staff, bank staff)	9	13.6
Occupation of mothers		
Farmer	30	45.4
Factory worker	10	15.2
Government administration personnel	7	10.6
Business person	9	13.6
Others (housewife, bank staff, railway worker, accountant, fisher)	10	15.2
Monthly income of the family		
1000-2000 yuans	14	21.2
2001-3000 yuans	36	54.6
3001-higher	16	24.2

The medical information of the subjects is presented in Table 2. Slightly less than a half of the subjects (44.0%) had 1-24 months of the illness, approximately one-third of the subjects (36.4%) had 25-48 months of the illness, and the rest (19.6%) had 49-72 months of the illness. Among all subjects, about two-third (68.2%) had rehospitalized. The numbers of the children who were hospitalized once, twice, and three times or more were similar (31.8%, 33.3%, 34.9%, respectively). Edema was the major cause of their hospitalizations (56.5-100%). Respiratory infection was the second cause of the hospitalizations (16.7-26.1%). For the previous medical treatment, most of the subjects (80.3%) were treated by combining Western Medicine and Chinese traditional medicine. For the current treatment, while the numbers of children were similar in the categories of only Western medicine, and the combination of Western and Chinese traditional medicine (24.2% and 27.3%, respectively), 15.2% of the subjects received only Chinese traditional medicine. And one-third of the subjects (33.3%) received none of medical treatment.

Table 2 Medical information of the subjects

Variable	Frequency (N)	Percent (%)
Duration of Illness		
1-24 months	29	44.0
25-48 months	24	36.4
49-72 months	13	19.6
Number of Hospitalization		
One	21	31.8
Two	22	33.3
Three	11	16.7
Four	8	12.1
Five	4	6.1
Cause of Re-hospitalizations		
Cause of the Second Hospitalizations (N=45)		
Respiratory infection	9	20.0
Edema	27	60.0
Respiratory infection and Edema	6	13.3
Proteinuria	3	6.7
Cause of the Third Hospitalization (N=23)		
Respiratory infection	6	26.1
Edema	13	56.5
Respiratory infection and Edema	2	8.7
Proteinuria	2	8.7
Cause of the Fourth Hospitalization (N=12)		
Respiratory infection	2	16.7
Edema	8	66.7
Respiratory infection and Edema	1	8.3
Proteinuria	1	8.3
Cause of the fifth Hospitalization (N=4)		
Edema	4	100.0

Table 2 (Cont.)

Variable	Frequency (N)	Percent (%)
Previous Medical Treatment		
Only Western medicine	12	18.2
Only Chinese traditional medicine	1	1.5
Combination	53	80.3
Current Medical Treatment		
Only Western medicine	16	24.2
Only Chinese traditional medicine	10	15.2
Combination	18	27.3
None	22	33.3

### Presentation of the Findings

**Research question: What is the level of self-care practices of Chinese school-age children with NS?**

The self-care practices scores of all Chinese school-age children with primary NS are presented in Table 3. The total scores ranged from 60 to 93 with a mean of 76.0 and a standard deviation of 6.71. In three dimensions of self-care practices, the scores of universal self-care practices ranged from 24 to 45 with a mean of 36.4 and a standard deviation of 4.06. The scores of developmental self-care practices ranged from 7 to 18 with a mean of 14.7 and a standard deviation of 2.35, and the

scores of health deviation self-care practices ranged from 18 to 32 with a mean of 24.6 and a standard deviation of 3.07.

**Table 3** Self-care practices scores of the subjects

Variable	Range	mean	Standard Deviation
Total	60-93	76.0	6.71
Universal	24-45	36.4	4.06
Developmental	7-18	14.7	2.35
Health deviation	18-32	24.6	3.07

The converted self-care practices scores of each dimension are presented in Table 4. In universal dimension, the converted scores ranged from 1.00 to 1.88 with the mean of 1.52 and standard deviation of 0.14. The converted scores of developmental dimension ranged from 0.70 to 1.80 with the mean of 1.47 and the standard deviation of 0.14. The converted scores of health deviation self-care practices ranged from 1.13 to 2.00 with the mean of 1.53 and standard deviation of 0.19. These data showed that the subjects' self-care practices scores in the three dimensions were quite similar.

**Table 4** Converted self-care practices scores in each dimension

Variable	Range	Mean	Standard Deviation
Universal	1.00-1.88	1.52	0.14
Developmental	0.70-1.80	1.47	0.23
Health deviation	1.13-2.00	1.53	0.19

The levels of the self-care practices of these children in total scale and in the three dimensions are presented Table 5. The majority of the Chinese school-age children (90.9%) had high level of self-care practices in total scale and none of them had low level of self-care practices. The majority of the subjects had high level of self-care practices in universal, developmental, and health deviation dimensions (83.3%, 69.7%, 84.8%, respectively) and none of them had low level of self-care practices in each dimension.

**Table 5** Levels of Self-care Practices of all Subjects in total scale and in three dimensions

Self-care Practices Scores	Frequency (N)	Percent (%)
<b>Total</b>		
Low (0-33)	0	0.0
Moderate (34-66)	6	9.1
High (67-100)	60	90.9
<b>Universal dimension</b>		
Low (0-16)	0	0.0
Moderate (17-32)	11	16.7
High (33-48)	55	83.3
<b>Developmental dimension</b>		
Low (0-6)	0	0.0
Moderate (7-13)	20	30.3
High (14-20)	46	69.7
<b>Health deviation dimension</b>		
Low (0-10)	0	0.0
Moderate (11-21)	10	15.2
High (22-32)	56	84.8

Considering self-care practices related to sub-age groups of the subjects (early, middle, and late school-age groups), their self-care practices scores and levels were as followed (Tables 6 and 7) Self-care practices scores of the early school-age group ranged from 60 to 86 with a mean of 73.1 and a standard deviation of 6.46, and those of the middle school-age group ranged from 66 to 93 with a mean of 78.0 and a standard deviation of 6.54. For the late school-age group, their self-care practices scores ranged from 67 to 87 with a mean of 78.5 and a standard deviation of 5.68.

**Table 6** Scores of self-care practices in each sub-age group

Variable	Range	Mean	Standard Deviation
Early school-age	60-86	73.1	6.46
Middle school-age	66-93	78.0	6.54
Late school-age	67-87	78.5	5.68

The levels of self-care practices of these Chinese school-age children with primary NS in different sub-age groups are presented in Table 7. The majority of the early, middle, and late school-age children had high level of self-care practices (83.3%, 94.7%, 100%, respectively) and none of them has low level of self-care practices.

**Table 7** Levels of self-care practices of the subjects in Different sub-age groups

Self-care Practices Scores	Frequency	Percent (%)
Early school-age group (N=30)		
Low (0-33)	0	0.0
Moderate (34-66)	5	16.7
High (67-100)	25	83.3
Middle school-age group (N=19)		
Low (0-33)	0	0.0
Moderate (34-66)	1	5.3
High (67-100)	18	94.7
Late school-age group (N=17)		
Low (0-33)	0	0.0
Moderate (34-66)	0	0.0
High (67-100)	17	100.0

## Discussion

The discussion of the findings related to the research question is presented in this part. For all Chinese school-age children with NS, most of them (90.9%) had high level of self-care practices (Table 5). This finding is congruent with the study findings of Jiang (1997) which reported the majority (92.4%) of Chinese school-age children had high level of self-care practices. The finding indicates that these school-age children are able to actively participate in self-care practices.

There are four possible explanations for this finding. The first possible explanation is related to some degree of health education when these children were hospitalized and were in out-patient departments of the First, Second and Third Teaching Hospitals of Sun Yat-sen University of Medical Sciences. In these hospitals, nursing care standards for children with NS were developed by the nursing division of each hospital, and the focus of the standards were similar (Nursing care Manuals of the First, Second, Third Teaching Hospital of Sun Yat-sun University of Medical Science, 1997). As previously mentioned, during hospitalization, the nurses provided the children with NS and parents health education about how to take care themselves or

how parents perform home care for the children to control the disease and prevent relapses and complications. The majority of these children might follow what the nurses had taught them. Consequently, most of these Chinese school-age children with NS had high level of self-care practices.

In addition, it may contribute to the children's compliance to physicians' advices in out-patient departments of the three hospitals. Most of the subjects' parents claimed they took their children to see physicians as scheduled. When they came to see their physicians, they also received information about administering medication, having an appropriate diet, preventing infection, and other home care strategies. Therefore, the majority of these children engaged more appropriate self-care practices.

The second explanation of the finding is related to family support, which may contribute to self-care practices of Chinese children with NS. According to Orem (1995), the family support as one of basic conditioning factors, can improve self-care practices of the child with NS. In Chinese culture, generally, almost all families in China are tied by blood relation, and the family relationships are tight. An issue that a child suffers from a chronic condition as NS is serious for Chinese families. All the family members always concern about the child's health and respond to the issue. The family responses include providing physical support (such

as changing diet regimens and seeking active treatment for the child) and emotional support. The family might provide emotional support to enhance the child's motivation to perform self-care practices, and provide information and feedback to promote the child's self-care practices. Therefore, the majority of these children engaged more appropriate self-care practices.

The third explanation of the finding is that related to primary health care for children. Children primary health care is valued gradually in China. Currently, the government can provide illness prevention and health promotion services to 81% of the children in the country (Chen, 1998). According to Chen (1998), the Administer of Public Health of People's Republic of China, even though in rural areas, more than 96% of primary schools and high schools develop a course of health education which includes teaching the students how to prevent illness. In Yuexiu District of Guangzhou City, all primary schools developed the health education course (Qiu, Fang, guo, Liang, 1996). In addition, the community health care in Guangzhou is advancing. It includes providing public health care services and performing health education for children and their families.

Another explanation is that the majority of the subjects' families (72.7%) had two or three children

(Table 2). In the family with more than one child, even the parents have to pay attention on all their children, they can not do many things for every child. The children have to perform some self-care activities. As a result, the children fostered the habit to help themselves in various activities. For this reason, the majority of the children engaged in more appropriate self-care practices.

The findings also indicated that the majority of the subjects had high level of self-care practices in universal, developmental, and health deviation dimensions (83.3%, 69.7%, 84.8%, respectively) (Table 5). The explanation for majority of the subjects had high level of self-care practices in universal dimension is related to self-care agency of school-age children. With growth of muscle and maturation of neural system, school-age children are able to actively perform self-care activities such as eating, taking a bath, brushing teeth, and going to bed on time (Havighurst, 1972).

The explanation for many of the subjects (69.7%) had high level of self-care practices in developmental dimension is related to social contact of the children. Chinese modern society provides the children with NS opportunities to contact with their peers easily. Even though these children were sick at home or in hospital, they could contact with their friends by telephone. Also, the children's schools usually organized other students to help the sick children

doing homework when they were sick at home or in hospital. Therefore, these Chinese school-age children with NS could perform developmental self-care practices well even though they were sick at home or in hospital. However, there were about one-third of the subjects (30.3%) (Table 5) had moderate level of self-care practices. This it may be contribute to a half of the subjects (45.4%) (Table 1) were early school-age children whose developmental level were lower than the two other sub-age groups in some degree. It will be discussed in detail later.

The explanation for the majority of the subjects (84.4%) had high level of self-care practices in health deviation dimension is that these children with NS received health education provided by nurses and physicians when they were hospitalized or in out-patient departments of the three hospitals as previously mentioned. The health education included medication, activities and diet. The children and their parents were taught about administering medication, observing the common side effects of steroid therapy and signs of relapse such as edema, having salt-restricted diet, going to see physician as scheduled, and preventing infection such as avoiding contact with infected playmates. In addition, primary schools in Guangzhou permit children with chronic illness such as nephrotic syndrome not to attend excited physical exercise and labor activities. Also, the

community health care provided health education for children with chronic illness such as NS and their families.

The findings that the majority of the subjects who were early, middle, and late school-age children had high level of self-care practices with some degree of different in percentages (83.3%, 94.7%, 100%, respectively) (Table 5). These findings suggested that the older the child, the higher percentage of the children who had light level of self-care practices. These might be because of some degree of differences in self-care agency of the early, middle, and late school-age children. As age and development progress, a child's self-care agency increases (Facteau, 1980). The major task of the school-age child is to acquire the knowledge, attitudes, and skills that potentiate self-direction and responsibility (Pridham, 1971, cited in Scaucier, 1984). Whaly and Wong (1994) summarize development tasks of school-age children that demonstrate their self-care agency as follows. The development tasks include physical, psychosocial, social, and cognitive development tasks. Physically, school-age children have increased their muscle strength and coordination. Furthermore, they have developed the ability to perform two or more tasks simultaneously. For an example, for 6 years child can undress but may need help with dressing. For 8 years child, can dress completely. A child who is younger than 10 year, needs to be remained to

brush teeth, and a child who is younger than 11 year, can not be bothered with personal hygiene and needs constant reminding. Psychosocial development during school-age includes learning how to cope with failure, learning endurance and balancing feelings of inferiority with a sense of achievements (Neff & Spray, 1996). The older the child, the lesser the child requires assistance, and the more the child performs and takes responsibility for self-care (Orem, 1995). According to Whaley and Wong (1994), by the age of 9, children can perceive the concept of time. This temporal awareness widen age school-age children's range of responsibilities and enables them to perform tasks requiring time schedules and punctually. Therefore, a 9 years child can take medication on time as prescribed. A 7 years child begins to understand cause and effect, and middle school-age child is able to understand other's points of view (Neff & Spray, 1996). Thus, a middle school-age child can follow most of his/her friends' ideas and nurses' advises in selection play activities, but an early school-age child may be not able to do that. In summary, the developmental tasks of the school-age children gradually improved by age which resulting in gradually increase in self-care agency and self-care practices.