

## CHAPTER 4

### FINDINGS AND DISCUSSION

A descriptive study was conducted to describe dependent-care agent performance of mothers for their children with cancer. This chapter presents: (1) description of the sample, (2) presentation of the findings and (3) discussion of the findings.

#### Description of the Sample

The sample of this study composed of 50 mothers of hospitalized children with any type of cancer during November 1998 to January 1999. The characteristics of the children and their mothers are described in table 1 and table 2.

**Table 2**  
**Frequency and Percentage of Demographic Characteristics of**  
**Children (N=50)**

Characteristics	Frequency	Percentage (%)
Age (year-old)		
1-3	3	6
>3-6	13	26
>6-12	25	50
>12-15	9	18
Sex		
Male	29	58
Female	21	42
Type of cancer		
Leukemia	37	74
Malignant lymphoma	6	12
Brain tumors	4	8
Desmoid tumor	1	2
Malignant histiocytosis	2	4
Medical treatment		
Chemotherapy	46	92
Surgery	6	12
Radiotherapy	2	4
Immunotherapy	10	20
Others (eg. Chinese medicine)	2	4
Duration of illness (months)		
1-5	15	30
6-12	10	20
>12-52	25	50
Times of hospitalization		
<5	16	32
5-10	11	22
>10	23	46

Table 2 shows that the age of the 50 children with cancer ranged from 1 year to 14 years old with the mean was 8 (SD=3.05), and fifty percent of them were school age. Fifty-eight percent of the children were boys and forty-two percent were girls. Among these children, seventy-four percent were diagnosed as having leukemia and ninety-two percent of them received chemotherapy. Fifty percent of them have been ill for more than 12 months and the mean was 16.36 (SD=14.33). Forty-six percent have been hospitalized more than 10 times and the mean was 10.64 (SD=9.55).

Table 3

Frequency and Percentage of Demographic Characteristics of Mothers (N=50)

Characteristics	Frequency	Percentage (%)
Age (year-old)		
26-30	14	28
31-35	20	40
36-40	13	26
41-45	3	6
Marital status		
Married	46	92
Separated	1	2
Divorced	3	6
Educational level		
No formal education	2	4
Primary school	2	4
Junior high school	13	26
Senior high school	17	34
Diploma/associate	12	24
Undergraduate (Bachelor)	3	6
Graduate	1	2
Occupation		
Farmer	9	18
Business person	4	8
House keeper	3	6
Worker	14	28
Teacher	4	8
Government service	12	24
Health personnel	4	8

**Table 3**  
**Frequency and Percentage of Demographic Characteristics of Mothers (N=50) (cont'd)**

Characteristics	Frequency	Percentage (%)
Family type		
Nuclear	35	70
Extended	12	24
Single-parent	3	6
Family income (Yuan/F/M)		
<500	12	24
501-1000	22	44
>1000	16	32

As indicated in table 3, the mothers' age ranged from 26 to 42 years with a mean of 33.52 (SD=3.89) and forty percent of them were aged 31 to 35 years old. Ninety-two percent of the mothers were married, thirty-four percent of them had finished senior high school, and twenty-eight percent of these mothers were workers.

Additionally, family type and income were also indicated in table 3. The majority of families (70%) were nuclear families and forty-four percent of families have a monthly income of 501 to 1000 yuan with a mean of 1001 (SD=765.69).

### Presentation of the Findings

The score and the level of the dependent-care agent performance of mothers for their children with cancer were presented as follows in table 4 to table 7.

**Table 4**

**Score, Range, Mean, Standard deviation and Level of Dependent-care Agent Performance of Mothers**

Dependent care performance	Possible Score	Range	Mean	SD	Level
Total	51-204	117-192	155.06	18.28	High
Universal	21- 84	48- 78	61.92	7.50	Moderate
Developmental	7- 28	10- 27	19.84	3.99	Moderate
Health deviation	23- 92	51- 91	73.30	9.03	High

It is shown in table 4 that the total score of the mothers' dependent-care performance ranged from 117 to 192 with the mean of 155.06 (SD=18.28). The total mean score indicated a high level. In three dimensions, the mean scores were 61.92 (SD=7.50) for universal, 19.84 (SD=3.99) for developmental, and 73.30 (SD=9.03) for health deviation dependent-care performance respectively. The levels of the three dimensions were at moderate levels in universal and developmental and at a high level in health deviation performance.

**Table 5**  
**Frequency and Percentage of the Level of Dependent-care Agent Performance of Mothers (N=50)**

Dependent-care performance	Frequency	Percentage (%)
Total		
Low (51-102)	0	0
Moderate (102.01-153)	22	44
High (153.01-204)	28	56
Universal dimension		
Low (21-42)	0	0
Moderate (42.01-63)	29	58
High (63.01-84)	21	42
Developmental dimension		
Low (7-14)	6	12
Moderate (14.01-21)	29	58
High (21.01-28)	15	30
Health deviation dimension		
Low (23-46)	0	0
Moderate (46.01-69)	18	36
High (69.01-92)	32	64



As indicated in table 5, fifty-six percent of them performed dependent-care actions for their children at a high level in total, and none of them performed at a low level. Considering the three dimensions, fifty-eight percent of mothers performed at a moderate level in universal and developmental dimensions, sixty-four percent of them performed health deviation dependent-care performance at a high level, and only twelve percent of mothers performed at a low level in developmental dimension.

#### **Discussion**

The discussion of the findings related to the research question is presented in this part.

**Research question: what is the level of dependent-care agent performance of mothers for their children?**

Results from this study illustrated that the total mean score of dependent-care performance of the Chinese mothers was at a high level (155.06, Table 4) and more than half of the mothers (56%) had a high level of dependent-care performance (Table 5). There are three possible explanations for this finding.

The first possible explanation is related to some degree of health education when these children with cancer were hospitalized. The two hospitals are teaching hospitals of Hua Xi Medical University. Usually in these hospitals,

nursing care standards for children with cancer were established by the Nursing Service Department of each hospital. As mentioned previously, during hospitalization, the Chinese children and their parents received information from doctors and nurses regarding diagnosis, treatment, complications of cancer, and side effects of treatment. They also received advice regarding nutrition, infection prevention and how to administer medication at home, follow up regularly and so on. The majority of these parents may follow the directions that the nurses and/or doctors had taught them. Therefore, many of the mothers of children with cancer had a high level of dependent-care performance.

The second explanation of the finding is possibly related to the type of cancer, which may contribute to a high level of dependent-care performance of Chinese mothers in this study. Orem (1995) states that basic conditioning factors may affect the abilities to engage in self-care or affect the kind and amount of self-care. Health states and health care system factors, for example, medical diagnosis and treatment modalities may condition the therapeutic self-care demands. Health state influences children's self-care performance or practices significantly (Moore, 1993). Children who complained of more health symptoms performed fewer self-care activities (Frey & Denyes, 1989).

In this investigation, seventy-four percent of the

children had been diagnosed as having leukemia and the majority (92%) of them received chemotherapy. Leukemia, as we know, is the most common cancer in children under 15 years (Waskerwitz, 1994. In Betz & Hunsberger). Combined chemotherapy is the preferred treatment and the length of treatment is usually 2 to 3 years. Chemotherapy is divided into three phases--remission induction, consolidation, and continuation or maintenance. The prophylactic therapy for CNS leukemia, such as cranial irradiation, intrathecal chemotherapy is an important part of the "total therapy" (Ashwill & Droske, 1997). The severity of the disease and the side effects of treatments, for example, nausea and vomiting, anorexia, body weight loss, leukopenia, and bone marrow suppression, usually makes the children weak, fatigued, feel pain, easilly infected, and intolerant to activity, which can decrease their ability to care for themselves. So mothers have to perform dependent-care for their children. The administration of treatment, such as IV infusion, intrathecal chemotherapy, and surgery, always limits the motion of children. Then the demands of dependent-care might increase. Moreover, the required frequent hospitalizations, treatment, and therapeutic tests might increase and reinforce the mothers or caregivers' information or knowledge about their children's condition. In this study, fifty percent of children had more than a 1

year duration of illness and sixty-eight percent of them had been hospitalized more than 5 times. These facts might provide the children and mothers with more opportunity to be in a health education program. Therefore, their knowledge and capability in caring for children was improved. In addition, the diagnosis of cancer and its treatment might motivate mothers to perform more dependent-care activities for the child, and then increase and continue the health promoting activities (Moore & Mosher, 1997). Consequently, most of mothers had a high level of dependent-care performance for the their children with cancer.

The third possible explanation of the finding is related to the influence of the one child birth control policy in China. Because the family has only one child, the parents gave their love and attention to the child, and there was no other child to share with him/her (Falbo & Poston, 1993). In Chinese culture, parents usually perform many things for the child, even though the child could do these activities by themselves. As a result, the child becomes self-centered and fosters the habit of accepting and does not want to perform self-care to some degree. In addition, when the child was ill, the mother would pay more attention than usual to child.

The findings also indicated that many of the Chinese mothers (64%) performed health deviation dependent-

care at a high level (Table 5). There are several explanations of this finding: Firstly, in this investigation the majority of the children (74%) had been diagnosed as having leukemia and ninety-two percent of them received chemotherapy (Table 2). Due to the effects of cancer and its treatment, the child requires dependent-care from his or her mother. Secondly, fifty percent of the children had more than 1 years duration of illness and sixty-eight percent of them had been hospitalized more than 5 times (Table 2). These facts might provide the children and mothers with more opportunity to be in a health education program and to receive guidance on how to care for the ill child as mentioned previously. Therefore, the mothers become more knowledgeable about the disease and its treatment and more skillful in caring for the ill children. Uhol (1997) found that there was a positive significant correlation between maternal perception of disease and maternal caring behaviors for children. The diagnosis of cancer and its treatment, which are a threat and cause stress to mothers, might motivate mothers to perform more dependent-care activities for the child, and then increase the health promoting activities and continue those activities when the child's therapy is completed (Moore & Mosher, 1997). As the results show the mothers had high levels of health deviation dependent-care performances'

More than half of the Chinese mothers (58%) had moderate levels in universal and developmental dependent-care performance in this study (Table 5). The explanation of the majority of mothers with moderate levels in universal dependent-care might be that: when a child is normal or healthy, the parents may pay more attention to the child's activities of daily living such as food, water, rest, activities and physical exercise, and promoting normalcy which are defined as universal dependent-care by Orem (1995). Conversely, if the child is ill, the attention of mothers (or parents) might have been changed to the disease, treatment, and recovery. Due to the disease process and side effects of treatment of cancer, promoting normalcy such as regular immunization might be interrupted. Therefore, the universal dependent-care performance of mothers for cancer children was at moderate level.

The possible explanation of many of mothers (58%) performing developmental dependent-care performances at moderate levels is that one family can have only one child in China. Each pair of parents hopes their child will be a healthy, intellectual, and skillful person in future life. Therefore, they may pay more attention to the child's growth and development. However, when the child was ill, especially with cancer, the mothers perceived the threat and severity of illness, and their attention might be changed to the

child's health condition and the recovery from disease, but not to the development. They might not encourage the child to be independent as usual, which may in partial result in moderate levels of dependent-care performance, but not high levels.

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