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(Received: 08/11/2018 - Accepted: 10/01/2019)

FACTORS RELATED TO SELF-EFFICACY IN CARING FOR YOUNG CHILDREN WITH PNEUMONIA AMONG VIETNAMESE MOTHERS IN CAN THO CHILDREN HOSPITAL

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ABSTRACT

Background: *Pneumonia is a common disease in children, especially young children. For providing a proper care when children get pneumonia, mothers' self-efficacy in caring is an important factor. Objectives:* (1) *examine self-efficacy in caring and (2) determine relationship between perceived severity of illness, maternal stress, social support and self-efficacy in caring for young children with pneumonia among Vietnamese mothers. Methods:* *A descriptive correlational design was used in a convenience sample of 90 mothers of young children with pneumonia in Can Tho Children hospital. Data was collected by using five self-report questionnaires including demographic questionnaire, the Canadian Acute Respiratory Infection and Flu Scale, the Parental Stress Scale, the Multidimensional Scale of Perceived Social Support, and the Perceived Self-Efficacy of Caregivers in Caring for Children with Pneumonia at Home Questionnaire. Their reliability were .93, .81, .89, .87, respectively. The descriptive statistic and Pearson's correlation coefficients were used for data analyses. Results:* *A high mean score of self-efficacy in caring for young children with pneumonia among Vietnamese mothers (M = 75.70, S.D. = 11.91). Besides, there was a negative correlation between maternal stress and self-efficacy in caring for young children with pneumonia among Vietnamese mothers (r = -.65, p < .001). Conclusion:* *Maternal self-efficacy is an important factor of caring for her child, so the suggestion is pediatric nurses should enhance it for bringing a better care for young children with pneumonia.*

Keywords: *self-efficacy, providing care, maternal stress, young children, pneumonia, Can Tho city*

I. INTRODUCTION

Pneumonia is an inflammatory condition of the lung affecting primarily the microscopic air sacs known as alveoli [10]. It is one of the most common health problems

in young children and leading cause of death among young children in low-income countries. There were about 1.9 million children died each year worldwide [11], [12]. The incidence of pneumonia in developing countries was five times higher than those in developed countries. In Viet Nam, pneumonia has been one of the top five causes of deaths in young children. In the year 2010, under-five mortality rate of Viet Nam was 23.8 per 1000 live birth, of which 12% of children died of pneumonia [13].

Pneumonia was associated with lower scores on physical functioning and general health components, and able to lead to decreased quality of life among children. It also created significant burden on the family and the health care system of countries with limited resources [14]. The child with pneumonia needed care for medication administration, diet and fluid intake, controlling environment, and supportive care. However, young children who were under-five years could not perform the healthcare behaviors by themselves and required care from the caregivers. Generally, mother was the child's primary caregiver and responded to child's needs of care. For coping with this difficult situation, mothers had to believe in her ability to provide a proper care. In other words, mothers needed to have high level of self-efficacy in providing care for their children. Self-efficacy was defined as an individual's belief in his or her ability to successfully perform a given task in certain situation [1]. It was a key factor to establish good health care behaviors which affected mothers' performance of care, treatment and care outcomes, and quality of provided care for children [1], [11]. Mother's perception of self-efficacy was determined by a variety of factors including previous experience, social persuasion, physiological and emotional states [1], [11]. Mother's perception of severity of her child's illness viewed as mother's perceived difficult situation was also assumed as a source for assessing mother's self-efficacy [1], [4]. From literature review, strong evidences suggested that factors impinged self-efficacy in caring among mothers included severity of child health problems, maternal stress, and social support [11].

Therefore, this study aimed to identify relationships between potential related factors including perceived severity of illness, maternal stress, and social support, and mother's self-efficacy in caring for young children with pneumonia. Findings of this study would be useful to use as information to develop an intervention or guideline to promote effective self-efficacy in caring among Vietnamese mothers and that could lead to appropriate provided care for children with pneumonia.

II. MATERIALS AND METHODS

2.1. Research design, population, and sample

A descriptive correlational design using convenience sampling was used to examine factors related to self-efficacy in caring among population of Vietnamese mothers of young children with pneumonia.

Sample was recruited from 90 mothers of under-five children with pneumonia and no other co-morbidity, such as diarrhea, genitourinary alterations, or others, who were hospitalized at Internal Medicine Ward of Can Tho Children Hospital from January to

March, 2015.

Inclusion criteria were (1) age least 18 years or older; (2) having a child under five years who is diagnosed as pneumonia; (3) taking care of the child during hospitalization; (4) able to communicate, read, and write in Vietnamese language.

2.2. Research instruments

Demographic Questionnaire. Mothers' and children's demographic data were collected by using a demographic questionnaire which contained information of mothers' characteristics including age, marital status, educational level, occupation, family type, and children's characteristics including gender, age, and birth order.

The Canadian Acute Respiratory Infection and Flu Scale - CARIFS [6]. The 15-items CARIFS was used to measure severity of acute respiratory infection in children. The responses for each items were 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem. The total score was calculated by sum of each items score. It ranged from 0 to 45 scores. The higher scores indicated the more severity of illness.

The Parental Stress Scale (PSS). The PSS included 18 items and measured level of maternal stress. The PSS described mother's feelings and her perception as a parent both positive and negative aspects. Each items score ranged from 1 to 5, with 1 = strongly disagree until 5 = strongly agree. For getting the parental stress score, items of positive aspects must be reverse scored. Total score ranged from 18 to 90. Higher scores indicated higher level of stress. It was also categorized as low (score 18 - 42), moderate (score > 42 - 66), and high (score > 66 - 90) level of maternal stress.

The Multidimensional Scale of Perceived Social Support - MSPSS [15]. The MSPSS was a self-report for measuring subjectively assessed social support and involved three subscales based on different sources of social support including family, friends, and significant others. Responses for each items ranged from 1 to 7, with 1 = very strongly disagree until 7 = very strongly agree. Total score ranged from 12 to 84. Higher score indicated higher level of social support. Besides, total score could be categorized as low (score 12 - < 36), moderate support (score 36 - 60), and high support (score > 60 - 84).

The Perceived Self-Efficacy of Caregivers in Caring for Children with Pneumonia at Home Questionnaire. This questionnaire was developed by Khoomkrathoke, 2008 for measuring mothers' confidence in providing care to children with pneumonia at home [8]. It consisted of 15 items which was divided into six dimensions: confidence in medication (three items), in environment (three items), in treatment (three items), in health (three items), in outpatient referral (one item), and in diet (two items). The response for each item was in percentage from 0 percent (not confident at all to do) to 100 percents (definitely confident to be able to do).

All of original research instruments were in English. They were translated into Vietnamese by using the back-translation method [3]. The Vietnamese version questionnaires were tested for their internal consistency reliability with 20 mothers of young children who have the similar characteristics to the sample of this study. Their

reliability were .93, .81, .89, .87 respectively.

2.3. Data analyses

Data were analyzed by using a statistical software program. Descriptive statistics in terms of frequency, percent, mean, standard deviation, and range were used to examine demographic characteristics, maternal self-efficacy in caring young children with pneumonia, perceived severity of illness, maternal stress, and social support. Pearson's correlation coefficients were used to determine relationships between maternal self-efficacy in caring for young children with pneumonia among Vietnamese mothers and its associated factors including perceived severity of illness, maternal stress, and social support. Statistical significant was considered at $< .05$.

2.4. Ethical considerations

The Institutional Review Board for graduate study of Faculty of Nursing, Burapha University approved this study.

III. RESULTS

3.1. Demographic characteristics

Mothers' characteristics

Mean age of the mothers was 28.68 years (S.D. = 5.47, range = 18-40). Almost all of mothers were married (95.6%), more than a half of them completed high school (55.6%) and 22.2% had college/university level of education, or higher as master or doctoral degree. In term of occupation, housewife was the most common career among subjects (44.4%). Most of them have been living in nuclear family (72.2%).

Children's characteristics

Age of young children with pneumonia ranged from 1 month to 59 months with an average of 20.64 months (S.D. = 16.38). There were more boys (53.3%) than girls (46.7%). In term of birth order, 55.6% of the children were the first born, 34.4% were the second, and 10% were the third born children or later of family.

3.2. Self-efficacy of Vietnamese mothers in caring for young children with pneumonia

The mothers had a high mean score of overall self-efficacy in caring for their young children with pneumonia ($M = 75.70$, $S.D. = 11.91$, range = 46-98). For level of maternal self-efficacy in providing care, 55,56% of sample had high self-efficacy, 42,22% had moderate, and only 2,22% had low level of self-efficacy in caring for under-five children with pneumonia (Table 1).

Table 1. Level of self-efficacy among Vietnamese mothers in caring for young children with pneumonia (n=90)

Self-efficacy	n	%
Low (< 50/100 scores)	2	2,22
Moderates (50-75/100 scores)	38	42,22
High (> 75/100 scores)	50	55,56

When considering each subscale of self-efficacy, the highest mean subscale score was confidence in environment ($M = 79.44$, $S.D. = 11.95$, range = 50-100), followed by confidence in treatment ($M = 79.37$, $S.D. = 12.11$, range = 46.67-100), outpatient referral ($M = 77.22$, $S.D. = 20.50$, range = 30-100), diet ($M = 76.94$, $S.D. = 14.39$, range = 15-100), and health ($M = 76.44$, $S.D. = 14.62$, range = 33.33-100) respectively. The lowest was confidence in medication with a mean of score 66.19 ($S.D. = 18.13$, range = 16.67-96.67).

Table 2. Mean, standard deviation and range of mothers' self-efficacy (n = 90).

Self-efficacy	<i>M</i>	<i>S.D.</i>	range
Total score	75.70	11.91	46-98
Subscale			
Environment	79.44	11.95	50-100
Treatment	79.37	12.11	46.67-100
Outpatient referral	77.22	20.50	30-100
Diet	76.94	14.39	15-100
Health	76.44	14.62	33.33-100
Medication	66.19	18.13	16.67-96.67

3.3. Relationship between perceived severity of illness, maternal stress, and social support and mothers' self-efficacy in caring for young children with pneumonia

Table3. Relationships between perceived severity of illness, maternal stress, and social support and self-efficacy of mothers (n = 90).

Variable	Self-efficacy of mothers (<i>r</i>)
Perceived severity of illness	-.44***
Maternal stress	-.65***
Social support	.62***

*** $p < .001$

There were negatively significant correlations between self-efficacy of mothers and perceived severity of illness ($r = -.44$, $p < .001$), and maternal stress ($r = -.65$, $p < .001$). There was a positive relationship between social support and self-efficacy of mothers ($r = .62$, $p < .001$), as shown in Table 3.

IV. DISCUSSION

The Vietnamese mothers had a high mean score of self-efficacy in providing care for their young children who were diagnosed as pneumonia. It could be explained that most of research sample (77.8%) graduated high school and higher level. In general, when individual gets older, the self-efficacy increases, starting from early until the beginning of late adulthood [1]. Besides, education also assists people in learning and understanding things, such as the illness, and how to provide care for their children, or searching information more easily. These reasons might help the mothers in having high feeling of efficacy to provide an effective care for children with a sickness as pneumonia [5].

In addition, when looking each subscale of self-efficacy in caring for children with pneumonia among Vietnamese mothers, most of subscales had high mean score and the

subscale as confidence in environment got the highest mean score ($M = 79.44$). The subscale got the lowest mean score was confidence in medication ($M = 66.19$). These results were consistent with the study of Khoomkrathoke [8]. The reason is that the controlling environment is a common task of maternal role in caring their children with pneumonia such as cleaning, cooling, good ventilation, without dust, smoking, etc. Therefore, the mothers might adapt those as normal maternal roles. On the other hand, caring for medication during children's hospitalization is more difficult. Mothers need to have a lot of further knowledge, skills, and experience, especially about aims of using drugs and medication administration [8]. Therefore, most of them felt unconfident in providing their child care for medication.

Mothers' self-efficacy in providing care for young children with pneumonia was found to have a negative relationship with mothers' perceived severity of their child illness. This finding was consistent with previous studies. Sanders and Woolley reported that different child health status would lead to different maternal feeling of efficacy in caring [11]. An increase in level of severity of children's illness decrease intensity of self-efficacy among mothers. Besides, other researchers revealed that mothers who perceived higher level of their children's illness had lower level of self-efficacy in providing care [7].

There was a negatively significant correlation between mothers' self-efficacy in caring for under-five children with pneumonia and maternal stress. Bandura assumed that individual's level of self-efficacy was affected by a lot of factors and one of them was personal physiological and emotional states as stress [1]. In fact, this finding was similar to finding by Leahy-Warren, McCarthy, and Corcoran [9]. They indicated that mothers who reported higher level of stress experienced had lower level of self-efficacy.

Finally, social support was positively related to self-efficacy among Vietnamese mothers in providing care for their young children who diagnosed as pneumonia. In fact, when an individual receives an adequacy social support, she will believe that she is loved, cared for, esteemed, safe, and valued. It makes she feel more confident in her capability and able to cope with her difficult situation as taking care of a sick child. Furthermore, in culture context of Viet Nam, relationships and connection with others, especially family members, are very important. Vietnamese people are often affected by interaction with social network. Therefore, social support from family, friends, and significant other could influence individual's feeling of self-efficacy, including self-efficacy in caring, a lot. This current finding was supported by other previous researches. They showed that social support was one of important factors which affected mothers' feeling of efficacy and had a positive correlation with self-efficacy among mothers in caring their children [9].

VI. CONCLUSIONS

The mothers had a high mean score of overall self-efficacy in caring for their young children with pneumonia. Perceived severity of illness and maternal stress were negatively

related to self-efficacy in caring while a positive correlation between social support and mothers' self-efficacy in caring for young children with pneumonia was reported.

Acknowledgements: First and foremost, the authors would like to thank all mothers who participated in the study. Our thanks also go to the Faculty of Nursing, Burapha University, Thailand and Can Tho Children Hospital, Can Tho city, Viet Nam for their support and contribution.

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(Received: 06/11/2018 - Accepted: 10/01/2019)
