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Parental Viewpoints on Care Priorities for Newborns Admitted to Neonatal Intensive Care Units

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Abstract

Introduction: Care is considered as a multi-dimensional concept in nursing. The experiences of parents whose infants are admitted to the intensive care unit (ICU) is very stressful and one of the responsibilities of nurses is to support and care for parents. Therefore, understanding of care priorities from the views of such parents can be highly important for improving the performance of ICU nurses. This study aimed to determine and compare care priorities from the viewpoints of parents whose infants were admitted to neonatal ICUs. **Methods**: This cross-sectional descriptive study was conducted about nursing care priorities on 133 parents of newborns admitted to neonatal ICUs (NICUs) of selected hospitals (Imam Hossein, Taleghani, Mahdieh and Shahada) affiliated to Shahid Beheshti University of Medical Sciences. Data were collected through a "Caring Behavior Inventory" and analyzed by SPSS 20 software. **Findings**: Results revealed that the highest score was related to the average dimension of "attentiveness to the other's experiences" (3.94), while the dimension of "positive connectedness" attained the lowermost score (3.53). Mothers also assigned the highest and lowest scores to "attentiveness to the other's experiences" (3.89) and "positive connectedness" (3.53) dimensions, respectively. Independent t-test revealed no significant differences between mean scores of fathers and mothers about nurses' caring behaviors and their dimensions ($P < 0.05$). **Conclusion**: Considering that fathers and mothers (both parents) assigned the highest and lowest scores to "attentiveness to the other's experiences" and "positive connectedness", respectively, it seems that nurses should have a good empathy and treatment at first patient encounter while it is also necessary to consider the emotional and communicational aspects of care during hospitalization.

Keywords: Fathers, Mothers, Neonatal ICUs, Caring Behaviors.

Introduction

Care is the fundamental construct for a large number of nursing theories and an underlying component of nursing profession. It is considered as nursing essence intended to improve living conditions of individuals, which should affect nurses' professional behavior and be reflected in nurse-patient interactions. As stated by Jean Watson, a nursing theorist, care maintains human dignity and sobriety in medical-care-based health care systems being considered as an ethical and standard principle for assessing the quality of interventions and treatments (Adams, 2016). The theoretical principles of nursing are generally based on the understanding of care and caring behaviors (Pashaei and et al, 2014). Patistea believes that a deep understanding of the concept of care, and the way of its expression and practice play a considerable role in the quality of services provided by nurses, and more importantly in understanding the nature of "nursing "(Patistea, 1999).

Care Q scale was developed based on Watson's theory (WATSON, J. (2002) in order to determine the importance of caring behaviors from viewpoints of nurses and patients, which allows objective examination of a mental phenomenon, i.e. care. In this scale, caring behaviors are defined objectively based on ten carative factors of human caring theory and grouped into six categories: being accessible, explaining and facilitating care, comforting, anticipating, creating a trusting relationship, and monitoring/following through (WATSON, 2009). In addition, another important tool in this area is Caring Behaviors Index (CBI) scale initially proposed by Wolf (1986) with an emphasis on Watson's theory. The index examines caring behaviors with five subscales (respectful deference to others, assurance of

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human presence, positive connectedness, professional knowledge and skills, and attentiveness to the other's experiences).

A review of related literature suggests that research has so far focused on patients' perceptions of caring behaviors. Danita and Joshua (2013), for instance, presented a review on articles related to caring behaviors of nurses at different care settings, and found that meeting human needs as a desired caring behavior was intended by all patients (DANITA & JOUSHUA, 2013). Hajinejad and et al. (2012) examined views of nurses and patients about nurses' caring behaviors, and detected significant differences between views of nurses and patients toward caring behaviors. According to the patients' remarks, nursing behaviors could not meet the expectations and needs of patients, and the subscale "assurance of human presence" received a relatively lower score (Esmaiel Hajinezhad & Azodi, 2014).). Moreover, care priorities were not the same in all conditions and subjected to changes depending on conditions, type of patients' diseases, and hospitalization site.

Nursing cares in IUCs are of paramount importance because of the complex and critical conditions of patients (Pashaei et al., 2014). Given the importance of care as the main nursing visage and fulcrum, it has been recommended to study its relationship with satisfaction of patients at different domains ((DANITA & JOUSHUA, 2013;). One of the wards where nursing care becomes comprehensively challenging is the NICU. The birth of a premature newborn and subsequent admission to the hospital are unexpected and agonizing for parents, which can affect their performances and expose them to a high psychological stress (WOLF and et al, 2003).

Continuous stress, which is known to be more experienced in the form of anxiety and distress by infants' parents in NICUs for more than 2 months, disrupts the mother-infant link in the early days of birth (Cathrine, 2013; BASSETT, 2002). It has also been found that fathers and mothers of hospitalized infants experience lots of negative feelings regarding the health status of their infants. Jonu, Klombo and Brazorudo (2016) state that parents, particularly mothers, are often exposed to high levels of anxiety, depression, nervousness, and stress in such conditions, while fathers pay to other things outside of NICUs as they are not controllable (LIU and et al, 2010). Therefore, nurses and their caring behaviors can create calmness and sense of confidence and relieve stressors in parents. On the other hand, perceptions of parents about provided services does not always correspond to those of care team members, and care providers often estimate parental needs and satisfaction lesser than or equal to existing reality, which is in turn an important factor hindering improvements in caring quality (Shahkolahi and et al, 2016). As a whole, it is clear that caring a person with rare diseases and/or special care, especially in the neonatal ward, with a lot of sensitivity from parents' behalf, requires a deep understanding as an important part of nursing activity (Turner and et al, 2015).

However, most studies on care behaviors have focused on patients themselves and compared their perceptions with nurses' viewpoints. Even so, life expectancy is rising in all societies and there is a high birth rate of premature neonates who have special conditions and hospitalized in NICUs. Hence, mothers and fathers are those who perceive caring behaviors of caregiving staff of the hospital and in particular those of nurses. Therefore, identifying and recognizing the needs of both mothers and fathers and comparing their views can provide the executives and authorities with valuable and useful information to improve management plans and qualify staff performance. Nevertheless, no studies could be found to comparatively investigate viewpoints of mothers and fathers about caring behaviors. Thus, considering the importance of caring in this ward as the most important element of nursing practices, different perceptions from caring behaviors (between parents) in various cultures, and the controversy of researchers in explaining this issue, it seems necessary to study care behaviors and prioritize these behaviors from the standpoints of mothers and fathers. Thereby, nurses can provide care for patients, and nursing managers operate intuitively in organizing resources and offering supportive strategies. This study, therefore, aimed to investigate and prioritize caring behaviors from the viewpoints of mothers and fathers of newborns admitted to NICUs of hospitals affiliated to Shahid Beheshti University of Medical Sciences in 2017.

Methods

This cross-sectional descriptive study was conducted about nursing care priorities on 133 parents of newborns admitted to NICUs of selected hospitals affiliated to Shahid Beheshti University of Medical Sciences in autumn 2017. The parents were sampled by both convenience and quota methods. Given the number of beds in the NICU ward at each health center, different numbers of samples were taken weekly by the researcher at each hospital. This is a comparative-descriptive study in which a sample size of 140 mothers and fathers is obtained (alpha = 0.05 and 80%) using previous studies reporting total averages of 4.89 ± 0.97 and 5.6 ± 0.52 for nurses' caring behaviors. Due to the possibility of drop-out or failing to answer for any reason, a total of 133 fathers and 133 mothers (totaling 266 parents) was selected whose newborns had been admitted to NICUs of hospitals affiliated to Shahid Beheshti University of Medical Sciences.

$$n = \frac{(\delta_1^2 + \delta^2{}_2)(z_{1-\frac{\alpha}{2}} + z_{1-\beta})^2}{(\bar{x}_1 - \bar{x}_2)^2}$$

$$n = \frac{(0.97^2+0.52^2)(1.96 + 0.84)^2}{(4.89 - 5.16)^2} = 130$$

Inclusion criteria included the ability and satisfaction to participate in the study, speaking in Persian, self-declaration for general physical and mental health, no prior newborn hospitalization, and being admitted for more than 48 h at the current hospital. Exclusion criterion was incomplete filling of the questionnaire.

In this research, data were collected in two sections including (a) parental and neonatal demographic information (gender, age, and education of parents, number of children, infant gender, cause of neonate admission and duration of hospitalization), and 2) a Persian version of care behavior inventory (CBI) adjusted for infants.

The CBI is a 42-item and 5-dimensional tool designed by Woolf (1986) as the second quantitative caring measurement based on human care theory following Larsson's tool called Care-Q (18). The tool initially contained 42 items and five subscales of respectful deference to others (12 items), assurance of human presence (12 items), positive connectedness (9 items), professional knowledge and skills (5 items), and attentiveness to the other's experiences (4 items). Each item was first scored with a 4-point Likert, which was marked with a new version of 6-point Likert in 1994 from "at all = 1" to "always = 6". To calculate the average of each subscale, the scores for each subscale are summed up and the result is divided by the items of that subscale. Also, scores of all items are summed up and divided by 42 to calculate total average of caring behaviors scale. Minimum and maximum scores of caring behaviors are 42 and 252, respectively. Scores are actually compared between items and between dimensions with one another. Rafiei et al. (2008) translated this tool into Persian and reported its validity and reliability (Shahkolahi and et al, 2014).

Haji Nejad et al. (2011) calculated Cronbach's alpha coefficients of 0.98 and 0.9 for patients and nurses, respectively. The tool designer (1994) determined Cronbach's alpha coefficients for the subscales of respectful deference for others (89%), assurance of human presence (92%), positive connectedness (85%), professional knowledge and skills (0.81), and attentiveness to the other's experiences (0.82). A Cronbach's alpha coefficient of 0.85 was reported for the whole tool. Rafie et al. (2008) reported the internal consistency (0.92) of this scale using Cronbach's alpha coefficient. An alpha coefficient of 0.88 for this tool was reported by Atashzadeh Shourida et al. (2016).

The researcher alternatively referred to the NICUs at selected hospitals, between 1 and 5 pm because not to interference with the work of ward personnel and also ensure the presence of fathers. Permissions were taken from the directors of hospitals and the wards under study. The parents were explained about the goals of study and then received the questionnaires to fill in the presence of the researcher. Parents were not necessarily in pairs. The researcher observed all ethical issues and the rights of participants to voluntarily participation, withdrawal, and confidentiality of their information. He also offered his phone number to them if they wished to know the results of this research. All questionnaires were then numbered and prepared for transfer of data into the software. The collected data were analyzed by SPSS 20 software using descriptive statistical tests and independent t-test to examine differences between views of mothers and fathers, and Pearson and Spearman's tests to verify correlations among variables.

Findings

Table 1 shows that the ages of caregivers ranged from 20 to 50 years with a mean of 33.3 ± 6.7 years. Fathers and mothers of infants each comprised 133 (50%) of the subjects, respectively. Subjects with diploma (34.6%) and housewives (39.9%) included a high percentage, and 81.2% of participants lived in Tehran. The neonates consisted of 51.1% females and 48.9% males.

Table 1- Frequency and percentage of demographic variables

Variable		Frequency	Frequency (%)
Kinship with the newborn	Father	133	50
	Mother	133	50
Education level	Illiterate	9	3·4
	Drop out	32	12
	Diploma	92	34·6
	Associate degree	26	9·8
	Bachelor	69	25·9
	Master	38	14·3
Occupation	Housewife	106	39·9
	Employee	59	22·2
	Self-employed	90	33·8

	Unemployed	11	4·1
Place of residence	Tehran	216	81·2
	Out of Tehran	50	18·8
Newborn gender	Boy	130	48·9
	Girl	136	51·1
Cause of infant hospitalization	Premature	39	14·7
	Jaundice	31	11·7
	Necrotizing encephalitis	2	0·8
	Encephalopathy	1	0·4
	Cardiac	17	6·4
	Infection	12	4·5
	Vomit	5	1·9
	Hypotonia and whimper	58	21·8
	Respiratory distress	42	15·8
	Fever	11	4·1
	Seizure	3	1·1
	Multiple anomalies	3	1·1
	Reflux	1	0·4
	Consciousness disorder	14	5·3
	Hypoglycemia	6	2·3
	Meningitis	4	1·5
	Cyanosis	5	1·9
	Swelling	2	0·8
	Metabolic	4	1·5
	Skeletal disorder	5	1·9
	Genitalia	1	0·4

Independent t-test revealed no significant differences between fathers and mothers regarding mean scores of the subjects' views about nurses' caring behaviors and their dimensions ($P > 0.05$).

Table 2. Mean total scores on viewpoints of subjects about nurses' caring behaviors and their dimensions in terms of kinship with the infant

Dimension	Father		Mother		Independent t-test	
	Average	SD	Average	SD	t	P
Respectful deference to others	3·59	0·65	3·65	0·72	0·68	0·49
Assurance of human presence	3·75	0·55	3·76	0·59	0·08	0·94
Positive connectedness	3·58	0·72	3·53	0·71	0·55	0·58
Professional knowledge and skill	3·79	0·56	3·78	0·61	0·04	0·97
Attentiveness to the other's experiences	3·94	0·56	3·89	0·62	0·70	0·48
Total score	3·69	0·56	3·68	0·58	0·04	0·97

Pearson correlation coefficient showed that total score of subjects' viewpoints about caring behaviors of nurses and their dimensions was not correlated with subjects' ages and numbers of children ($P > 0.05$). Similarly, duration of hospitalization was not significantly correlated with dimensions of positive connectedness and attentiveness to the other's experiences ($P > 0.05$), however, it presented an inverse correlation with total score of parents' views on nursing care behaviors and their dimensions ($P < 0.05$).

According to Spearman correlation coefficient, education level had an inverse relationship with total score of subjects' views about nursing care behaviors and dimensions of respectful deference to others, assurance of human presence, and positive connectedness ($P < 0.05$), but it showed insignificant relations with scores of the other dimensions ($P > 0.05$).

As revealed by independent t-test, mean score of subjects' views about nurses' caring behaviors on the dimension of assurance of human presence in Tehran residents was significantly lower than that of those not living in Tehran ($P < 0.05$). In the remaining cases, however, the two groups exhibited no significant differences ($P > 0.05$).

Discussion and Conclusion

Based on the findings of this study, mean total caring behaviors was 3.69 ± 0.58, indicating a mediocre level of caring behaviors from viewpoints of infants' parents. Rafiei et al. and Julie et al. reported total values of 4.91 ±1.12 and 5.7 ± 0.63 obtained from internal and surgical wards, and oncology ward, respectively. Both studies examined viewpoints of patients, hence, it seems that one of the main reasons for rather lower scores compared to the above two studies is critical condition of patients in ICUs, the stress and tension of newborns' parents, and also their high expectations of nurses than those of other wards.

Findings of caring behaviors in this study show that patients scored higher the subscale of "attentiveness to the other's experiences". The items of "attentiveness to others' experiences" (Table 5) evaluate behaviors of nurses at their first encounter with the patient and obviation of unpleasant symptoms. Thus, gaining a higher score in this dimension in here could have resulted from transferring senses of empathy and sympathy at first encounter with parents of diseased newborns, listening to their talks and concerns, paying attention to their unpleasant emotions, and ultimately a great experience of nurses in relieving parents of newborns at first visit. An empathic and friendly atmosphere between nurses and parents of the newborns, as well as continuous presence of either parents in the ward resulting in an emotional relationship between the two groups (patient and nurse), which is sometimes inevitable, can also explain such an observation.

Additionally, for the reasons mentioned above, sympathy of nurses working at these wards often facing unpleasant situations (e.g. illness of newborns) and the need of patients' parents to such a calming presence of nurses accompanying them at all stages of the disease and timely attending the patient's bed all can also explain assigning a higher score to this dimension of nurses examined herein. From the perspectives of patients, a factor affecting such a caring behavior is that behaviors of this subscale are more objective and tangible than the other subscales, and are therefore scored higher by patients. This finding is in line with that of Haji Nejad et al., who reported significant differences in the views of patients and nurses about subscales of caring behaviors, including "assurance of human presence" and "attentiveness to the other's experiences". Likewise, our observations are in agreement with Julaie et al. who recorded uppermost points for nurses' caring behaviors in dimensions of professional knowledge and skills followed by attentiveness to the other's experiences, while positive connectedness gained the lowest score.

After the subscale "attentiveness to others' experiences", the second highest score was given to the subscale "professional knowledge and skill" with a slight difference, suggesting that the emphasis of nurses on knowledge and skill-based behaviors is prominent and highly notable from perspectives of patients. This finding is consistent with those of many previous studies, for example, Rafie et al., Julaie et al. Haji Nejad et al., and Wolf and Davis. This outcome can reflect the ability of nurses in implementing their professional activities and, in addition to achievements of education courses, this knowledge and skill can fortunately be enhanced and promoted through continuing training programs.

The dimensions of "attentiveness to the other's experiences", "respectful deference to others", "professional knowledge and skills", and assurance of human presence were ranked in next levels from viewpoints of patients, corroborating that of Rafiei et al, One of the reasons for the low score of this subscale from patients' viewpoints is undoubtedly personnel scarceness at clinical settings. In addition, patients admitted to ICUs require careful and comprehensive nursing care due to the nature of diseases and facing many problems during treatments. Despite efforts made to fill this gap, nurses still face a lack of time to meet all needs of patients, and this could have resulted in a reduced attention to this behavior.

The last dimension of caring behaviors that scored lowest herein is "positive connectedness". Given the items of this dimension, an item such as "the nurse touches the patient to show one's attention" seems to be unfamiliar with our cultural atmosphere. In our country, therefore, nurses do not necessarily use touching to show their attention to the patient, which is due to religious beliefs of both patients and nurses, being especially more obvious in nurses caring for a patient of opposite gender; however, nurses only touch patients when needed at special procedures. As stated by patients, some of items, such as "empathize with the patient by seeing him/her as self", and "helps the growth of patient" were not understandable to many of them despite a comprehensive explanation. Also, since most of subjects were less educated, the dimension is expected to gain a lower score than the other three ones.

Our subjects also observed relatively lower amount of "positive connectedness", which is in line with those of Hajinejad et al. (2012) and Julaie et al. (2014). Studies have shown that lack of time and fatigue lead to negative attitudes and emotional stress in nursing staff, which are reflected as emotional and physical withdrawal from the patient often rendering the staff inconsiderate toward emotional needs of patients. (DONABEDIAN, 1988). On the other hand, nurse-patient relationship is the key of achieving excellence in nursing care.
As another important finding, no significant differences were detected between fathers and mothers about nursing care behaviors, which is different from that reported elsewhere (Cathrine L. (2013). Basset et al. demonstrated that parents of NICU-admitted infants presented significant differences in caring needs regarding the amount and source of stress (Cathrine L. (2013). The discrepant results can be

attributed to cultural differences among different countries because cultural and traditional dissimilarities can bring about different views of individuals at two different societies.

Final Conclusion

Since parents pay more attention to the dimension of "attentiveness to experiences of others" and pay less attention the dimension of "positive connectedness" in nurses' behaviors (from patients' viewpoints), it seems that nurses should pay more attention to emotional and communicational aspects of care during hospitalization while maintaining empathy and appropriate initial encounter with patients at first contact and follow it up later on. In addition, due to the need for paying attention to emotional aspects of care and the needs of NICU-admitted infants' parents, nursing managers in the work settings of ICUs should focus on the fact that absence of sufficient personnel may not only inadvertently lead to inconsideration of nurses to emotional aspects of care, but also they may become unmotivated toward all aspects of patient care.

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