



## The Obstacles against Nurse-Family Communication in Family-Centered Care in Neonatal Intensive Care Unit: a Qualitative Study

Zahra Hadian Shirazi<sup>1</sup>, Farkhondeh Sharif<sup>2\*</sup>, Mahnaz Rakhshan<sup>3</sup>, Narjes Pishva<sup>4</sup>, Faezeh Jahanpour<sup>5</sup>

<sup>1</sup>Department of Nursing, Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>2</sup>Department of Nursing, Community Based Psychiatric Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>3</sup>Department of Nursing, Community Based Psychiatric Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>4</sup>Department of Pediatrics, Neonatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>5</sup>Department of Nursing, Nursing and Midwifery Faculty, Boushehr University of Medical Sciences, Boushehr, Iran

### ARTICLE INFO

#### Article Type:

Original Article

#### Article History:

Received: 17 Dec. 2014

Accepted: 2 Feb. 2015

ePublished: 1 Sep. 2015

#### Keywords:

Nurse  
Family  
Communication  
Neonatal ICU  
Qualitative research

### ABSTRACT

**Introduction:** Communication is one of the key principles in Family-Centered Care (FCC). Studies have shown some drawbacks in communication between families and nurses. Therefore, the present study aimed to recognize the obstacles against nurse-family communication in FCC in Neonatal Intensive Care Unit (NICU).

**Methods:** This qualitative study was conducted on 8 staff nurses in 2 NICUs affiliated to Shiraz University of Medical Sciences selected through purposive sampling. The data were collected using 8 deep semi-structured interviews and 3 observations. Then, they were analyzed through inductive content analysis.

**Results:** Data analysis resulted in identification of 3 main categories and 7 subcategories. The first category was organizational factors with 2 subcategories of educational domain (inadequate education, lack of a system for nursing student selection, and poor professionalization) and clinical domain (difficult working conditions, lack of an efficient system for ongoing education and evaluation, and authoritarian management). The second category was familial factors with socio-cultural, psychological, and economic subcategories. The last category was the factors related to nurses with socio-cultural and psycho-physical subcategories.

**Conclusion:** Identification of the obstacles against nurse-family communication helps managers of healthcare systems to plan and eliminate the challenges of effective communication. Besides, elimination of these factors leads to appropriate strategies in NICUs for effective application of FCC.

### Introduction

Neonatal Intensive Care Unit (NICU) environment is full of severe emotions, crises, and high levels of stress for the families having premature or unhealthy neonates, making them vulnerable to problems.<sup>1-3</sup> Family is the constant in every child's life, so that his or her illness or injuries affect all family members.

Maintaining and promoting families'

health and finding and supporting their internal resources are the main responsibility of all pediatric nurses around the world. Since nursing has a holistic approach in care giving, it is necessary to interact with patients' family members and even take care of them.<sup>4-6</sup>

Today, Family Centered Care (FCC) is known as the best strategy to take care of infants and their families.<sup>7</sup>

\* Corresponding Author: Farkhondeh Sharif (PhD), email: farkhondeh\_sharif@yahoo.com.

This study was approved by the ethics committee of Shiraz University of Medical Sciences (code: EC-92-6901)

American Academy of Pediatrics (AAP) defines FCC as an approach to healthcare directing policies, plans, facilities design, and daily interactions among patients, families, physicians, nurses, and other members of healthcare teams.<sup>8</sup> The core principle of this care includes honest and apparent communications between parents and the members of the healthcare team.<sup>9-10</sup> The purpose of communication in NICU is not limited to informing the parents about their babies' clinical conditions. Healthcare providers should also educate and guide the parents, so that they can actively participate in taking care of their own babies. They are also supposed to be the actual partners of the medical team in decision-making process.<sup>11-12</sup> Hence, if effective communication is not provided, FCC will face serious challenges in NICU.

Moreover, healthcare staff must use communication skills to find out and control the parents' anxiety and emotions and support them in critical situations.<sup>11</sup> Promotion of communication is considered as one of the alternatives to decrease neonatal caregiving obstacles in developing countries.<sup>13</sup> Without effective communication on the part of care providers, parents will be prone to maladjustment and their babies may face abuse, neglect, growth deficits, and vulnerable social adaptation.<sup>9</sup> Besides, inefficient interactions between the medical staff and families affect the care provision process and result in distress for parents. It is also considered as the main factor causing legal conflicts and increasing job burnout in nurses.<sup>11</sup>

Communication with patients and their families is a challenging and significant issue in nursing field and is considered as the basis of all nursing activities. Evidence has shown that interaction among nurses, infants, and parents is not acceptable with respect to care, and that the problems related to communication are complicated and have multiple causes in NICU.<sup>11,14-17</sup>

Wigert *et al.*, assessed the experience of NICU healthcare workers about parents' presence and participation in neonatal care. The results of that study showed that healthcare workers had problems in establishing relationships with worried parents, especially in critical conditions, and sometimes avoided relationships with parents. The researchers thus stated that environmental settings had effects on healthcare workers' endeavors in establishing relationships with parents.<sup>16</sup> Furthermore, Petersen *et al.*, reported that pediatric and NICU nurses considered all the FCC elements including communication to be necessary, but they did not apply them in their daily practice completely. The nurses in that study stated that the reason for this conflict was organizational obstacles in system designing and lack of emotional support for them. In addition, NICU nurses declared not spending enough time for communication to be a major challenge.<sup>18</sup> Recognition of the obstacles which hinder to make efficient communication is the first step to solve the problems connected with communication process.<sup>19</sup> These obstacles are different in various settings and, consequently, they should be recognized in the context.<sup>18</sup> The experience of the present study researchers has confirmed communication problems in their context. However, review of the literature showed that no studies have been performed regarding recognition of the obstacles against nurses' and families' communication in NICUs of Iran. Therefore, the present study aims to detect the obstacles against communication between nurses and families in NICU according to FCC approach.

## Materials and methods

The present qualitative study was conducted by inductive content analysis approach. Inductive qualitative analysis is used in cases where there are no previous

studies dealing with the phenomenon or when the previous studies are fragmented.<sup>20</sup> Thus, this approach seems suitable to access our purpose. This study was done in 2 NICUs affiliated to Shiraz University of Medical Sciences. The participants were the nurses who had worked in NICU and were selected through purposive sampling. First, one of the researchers referred to the NICUs and verbally explained the study objectives to the participants. Then, they filled written informed consents for doing interviews, recording them, and non-participatory observation. In addition, the families declared their verbal consent for observation. Semi-structured interviews were performed at the wards where the participants felt comfortable and lasted for 30-45 minutes. We followed 2 main questions including: a) explain your experiences about having communication with families in FCC and b) what are the obstacles against effective communication between you and families. In addition, probing questions were asked for obtaining rich information. One of the data collection methods in this study was observation that was done in 3 morning or evening shifts when communications occurred between nurses and families. After each observation, field note was immediately written in one private room of the ward.

Inductive content analysis was done simultaneously with data collection. Interviews and field notes were performed until reaching data saturation and codes repetition when no new data were obtained. Then, sampling was discontinued. The gathered data were related to 8 female nurses who had worked for at least 7 and at most 24 years in NICU. All the interviews were recorded and transcribed verbatim after being heard by the interviewees. Field notes were transcribed, as well. The writings were then transferred to MAXQDA software (VERBI GmbH, Marburg, Germany), version 7 for analysis. Inductive content analysis was performed

in 3 main phases including preparation, organizing, and reporting.<sup>20</sup> In the preparation phase, one interview or filed note was selected as the unit of analysis. It should be noted that both manifest and latent contents were analyzed. The latent content analysis aims at noticing silence, sigh, laughter, etc.<sup>21</sup> Afterwards, the researchers read each unit of analysis for a couple of times to grasp a general sense. Organizing phase includes open coding, creating categories, and abstraction.<sup>21</sup> In open coding, each unit of analysis was read again and all the aspects of the contents were coded as far as possible.

Then, similar codes were put in one category. The aim of creation of categories is reducing the number of categories by collapsing those that are similar to broader, higher-order categories.<sup>21</sup> This process was done by constant comparison. Finally, abstraction refers to formulation of a general description of the research topic through generating categories. In doing so, each category is named using content-characteristic words. Then, the subcategories with similar events and incidents are grouped as categories and the categories are grouped as main categories.<sup>21</sup>

In qualitative researches, the criteria proposed by Lincoln and Guba are used to assess the study's quality and trustworthiness. These criteria include credibility, dependability, confirmability, and transferability.

Credibility depends on accuracy of the findings and their meaningfulness for participants as well as the individuals who read the study.<sup>22-23</sup> The results obtained in the present study were submitted to and confirmed by the participants. They were also assessed and confirmed by an external supervisor. Besides, triangulation of the methods helped credibility in this study. Dependability represents data stability in a specific time and condition.<sup>22</sup>

Assessment and confirmation of the obtained results proved the dependability

of this study. Confirmability which shows the objectivity and neutrality of the study represents the spectrum of the results that are related to study participants and context rather than the bias of the researcher.<sup>22</sup> Precise observation of the data by the external supervisor confirmed this criterion. Finally, transferability shows the potential by which the data could be transferred to and applied by other settings or groups.

In fact, the researcher should provide thick description, so that the readers can assess application of the findings in their own settings.<sup>22</sup>

The current study was approved by the Ethics Committee of Shiraz University of Medical Sciences (code: EC-92-6901, date: 2014.02.19) and justifications to conduct interviews and observations in NICUs of the studied hospitals were provided. In addition, verbal and written explanations were provided to let the participants take part in the study without any concerns. The interviews were also performed at an appropriate location for the participants after receiving written informed consents. It should be noted that the participants were free to leave the study process at any time. Besides, confidentiality of the participants was observed by using a numerical coding system.

## Results

According to the study results, 147 primary codes were found and divided into 3 categories and 7 subcategories (Table 1).

### 1- Organizational factors

The participants of the current study believed that most of the obstacles against family-nurse communication included organizational factors and their related educational and clinical factors. The educational obstacles mentioned by the participants included inadequate education (deficits in specialized knowledge, communication knowledge, and interprofessional education), lack of a

system for nursing student selection, and poor professionalization.

Participant number 3 talked about deficit in specialized knowledge as follows: *"When I was a student, we passed few practical courses in NICU and during that limited time, we had few chances to take care of neonates. When I began my work, I was so anxious, we didn't have sufficient access to training. Through the first days, I didn't get in touch with the parents so much. They asked me something that I couldn't answer, even I hid (she laughs). It took a long time that I could communicate with them easily and teach them how to look after the neonates..."*.

Another participant talked about the deficit in communication knowledge as follows: *"When a family is anxious, stressful, and fearful, we can't communicate with them well, because we haven't learnt what to do in this situation ..."* (Participant number 3).

Another participant talked about lack of a system for nursing student selection as follows: *"If when they want to screen nursing students, they psychologically assessed how much s/he was interested in the community, if the guy was interested in this profession, and if s/he had appropriate characteristics, most of the communication problems would not be seen at all"* (Participant number 1).

Another participant talked about poor professionalization as follows: *"Some of the parents are addicted. Despite the nurse has been told that s/he should give even-handed treatment to all people, you know, s/he hates addiction innately and hasn't been taught how to confront this feeling. So, s/he can't communicate well ..."* (Participant number 8).

The items considered in the clinical domain included difficult working conditions (lack of enough time and nurses, heavy workload and office affairs, imbalance between input and output, and the impacts caused by specialized wards), lack of an efficient system for ongoing education and evaluation, authoritarian management, and weakness in inter/intra professional communication.

Participant number 2 talked about lack of enough time and nurses as well as heavy workload and office affairs as follows: *"heavy workload, a lot of shifts, a lot of nursing work, you know, you can't take time for families. I mean when you talk to a family, another family comes in a flash... We have few nurses especially on holidays. Sometime you have 4 or 5 poor condition patients, you have to talk to them well as far as they want, teach them. If you talk to them incompletely and talk to another one, they won't trust you any more... or you find that you should write 4 or 5 nurses' notes. You know it takes one quarter at least for every neonate in NICU and you must write about all the neonates' systems in details; so, these times you have to put the communication aside for doing your chores or you may fall into legal problems."*

Another participant talked about the imbalance between input and output as follows: *"We are not paid as much as we work and our income is not high... so we have no interest in working, we have no motivation to work..."* (Participant number 2).

One other participant talked about the impacts caused by specialized wards as follows: *"If a neonate is in poor conditions, even if his/her family is present and asks for explanation, we may not have time to do so, to communicate with them..."* (Participant number 3).

Another participant talked about lack of an efficient system for ongoing education and evaluation of communication as follows: *"There is a checklist according to which the nurses have to be taught... communication items and clients respect program are included, as well. But it isn't done completely as it is stated in the checklist... even if it is done, suitable feedback is not provided to identify and correct the incomplete parts..."* (Participant number 5).

One of the participants also mentioned authoritarian management as follows: *"When nurses are not supported by the system and only receive order from top managers and even they don't ask their ideas about the problems and challenges of their ward, or when*

*they are forced to work in neonates' ward where they don't like to work and have no motivation to work, because they don't have this motivation, their communication with the family is not suitable..."* (Participant number 3).

Another participant talked about the weakness in inter-professional communication: *"I was training a mother how to feed her baby by NG, suddenly the ward physician came in without paying any attention that we were talking and said: "Mrs.... why didn't you ask for the baby's CXR? Don't you know that I should change the machine setting?" I had a very awful feeling, I looked down, I thought the neonate's mother must have thought that someone else had to tell me what to do..."* (Participant number 8).

The participants also talked about disturbances in intra-professional communication, conflicts among nurses, and their negative impacts on communication with families.

## 2- Familial factors

The study participants considered the factors related to family as one of the obstacles against communication between nurses and families. These factors included psychological (families' different reactions towards the ward and not accepting the neonate's condition), socio-cultural, and economic aspects.

Participant number 2 talked about the psychological dimension as follows: *"Those reactions which families show in difficult situations cause the nurse not to be able to handle them. The family that is nervous and aggressive finds the nurse guilty. Well, the nurse doesn't know how to communicate with them"*.

Another participant talked about the socio-cultural dimension as follows: *"The families have different cultural levels, unknown cultures... The nurse may not be able to communicate with them well, especially those families who are from lower classes of the society. Sometimes they don't understand what we describe, and this causes the nurse to get tired and not to be able to get in touch with them well..."* (Participant number 5).

One participant also mentioned economic problems: *“A family that has financial problems and their neonate is in poor conditions may misunderstand that we don’t take care of their neonate because they have financial problems... When they have this attitude and even say it to us, neither can they trust us nor can we communicate with them well...”* (Participant number 5).

**3- Factors related to nurses**

These factors included psycho-physical and socio-cultural domains. For instance, one participant talked about psycho-physical factors as follows: *“The nurse is tired, has a lot of work shifts, has family problems, different*

*problems that every one may have... This is important in communication... She will not have the calmness she needs and this affects her communication with the family, she can’t train well...”* (Participant number 4).

Another participant stated socio-cultural factors: *“You know, as a female nurse, when a neonate’s father comes..., I can’t communicate with him well especially if he uses a different language that needs for example to spend more time for getting in touch with him and giving him information. I prefer not to communicate with such guys and ask them to bring the neonate’s mother... to talk to her”* (Participant number 6).

**Table 1.** The obstacles against family-nurse communication in FCC in NICU

Category	Sub Subcategory
<b>Organizational factors</b>	
Educational factors	<ul style="list-style-type: none"> <li>a. Inadequate education</li> <li>b. Lack of a system for nursing student selection</li> <li>c. Poor professionalization</li> </ul>
Clinical factors	<ul style="list-style-type: none"> <li>a. Difficult working conditions</li> <li>b. Lack of an efficient system for ongoing education and evaluation</li> <li>c. Authoritarian management</li> <li>d. Weakness in inter/intra professional communication</li> </ul>
<b>Familial factors</b>	
Psychological aspects	a. Families’ different reactions to the ward
Socio-cultural aspects	b. Not accepting the neonate’s condition
Economic aspects	
<b>Factors related to nurses</b>	
Psycho-physical domains	
Socio-cultural domains	

**Discussion**

Based on the findings of the present study, the obstacles against nurse-family communication were classified into 3 main categories, namely organizational, familial, and nurse factors in FCC in NICU. In general, various factors lead to communication problems in NICU. These may include neonate’s clinical conditions,

staff’s emotional and occupational conditions, parents’ emotional situation, ward circumstances, and interactions between different professions and parents. In the qualitative study by Rasouli et al., the barriers to patient-centered communication were classified into 3 main categories; i.e., organizational, psychological, and socio-cultural domains.<sup>19</sup>

It should be noted that patient-nurse

communication is replaced by family-nurse communication in special units. However, supporting and having interaction with family members are difficult in these situations.<sup>19,24</sup> One of these family-nurse communication obstacles is organizational factors which reduce patient-nurse communication qualitatively and quantitatively.

Although the organizations providing healthcare affect communication consciously and unconsciously, unfortunately their roles and impacts have been neglected.<sup>14</sup> The current study showed that the impacts of organizations on communication could be found in educational and clinical fields. Brazilian nurses also demonstrated that most of the factors affecting care provision for neonates were associated with organizations and included inappropriate neonate or nurse ratio, shortage of facilities, heavy practical work, sound stimulators in the ward, problems related to team work, and lack of educational courses.<sup>15</sup> Other studies have also reported some factors, such as heavy workload, time pressure, insufficient number of nurses, and their fluctuated shifts, as the barriers to efficient communication. They also emphasized education of NICU nurses and physicians regarding the communication skills.<sup>14,16,25</sup> Bach and Grant believed that although nursing students were trained to apply the interpersonal communication skills, their training in clinical atmosphere was necessary, as well.<sup>14</sup> King also recommended that pediatric nursing educators must focus on nursing curriculum and consider communication skills, negotiation, and empowerment as the key factors of FCC's success in nursing education programs.<sup>26</sup> In addition, the skill standards of Nursing and Midwifery Council (NMC) emphasize lifelong learning for nurses to work efficiently and safely. According to these standards, nurses need

to develop their interpersonal skills effectively by teaching and learning.<sup>14</sup>

Another obstacle in this study was related to familial factors which had psychological, socio-cultural, and economic dimensions. The role of common language and culture is important in making effective communication between nurses and families. Goldstein believed that this point was of utmost importance; such a way that if the parents' and care providers' languages were different, translation services had to be used.<sup>27</sup>

Moreover, Loghmani et al., found in their study that some misunderstandings about treatments needs resulted from the nurses' and families' different beliefs towards health and perception of unfair treatment and conflicts with patients' family members. They also came to the conclusion that payment requirements and processes and patients' problems were some barriers against communication between Iranian nurses and family members in ICUs.<sup>28</sup> Martinez et al., believed that economic and non-economic factors caused the parents not to be able to take care of their babies.

They found few supports for providing families' needs in Vietnam. This might have resulted from religious beliefs and families' suspiciousness to outcomes.<sup>13</sup>

Another obstacle against effective communication between nurses and families in NICU was related to physical-psychological and socio-cultural dimensions. Studies have shown that some nurses regard medical affairs as a priority and ask their nurse-assistants to communicate with families.

They also mentioned that they needed a specific place and more time to make this communication. Furthermore, some investigations have found a series of barriers, including occupational and individual problems and disregarding professional discipline by nurses, which hinder to communicate with families.<sup>16,24,28</sup>

A nurse who is professionally required to provide holistic care should consider all the necessary elements, including communication.

The present study indicated the obstacles to effective communication between nurses and families in FCC. Using the results of this study leads to identification of some alternatives to effectively get in touch with families in NICU, so that FCC could be implemented efficiently. In order to improve the communication between families and nurses in NICU, it is recommended to establish screening systems for selecting nursing students, provide inter-professional education, provide specific education for communication, provide the care based on culture, standardize the neonate or nurse ratio in NICU, solve the ward's physical problems, incorporate communication training program in continuous education, and evaluate nurse- family communication in clinical environments. Yet, another study is suggested to be conducted on family members to determine more comprehensive causes of communication problems between nurses and families. Evidence has revealed that despite nurses thought that their communication skills were qualified, the patients had a different idea.<sup>14</sup> It is also recommended that managers employ interested nurses for working in NICU and use participating management.

One of the limitations of our study was that it was conducted in two NICUs with a limited number of nurses; thus, its results may not be generalized to other wards. Moreover, since communication between families and other professions is also important in NICU,<sup>9</sup> their perspectives should also be assessed to detect the obstacles against making communication with families in FCC.

## Conclusion

In conclusion, this study revealed the obstacles against communication between

nurses and families in NICUs. Recognition of these obstacles is the main step to start planning and implementing actions that guarantee effective communication between nurses and families in FCC.

## Acknowledgments

This study was extracted from the PhD thesis written by Zahra Hadian Shirazi (Grant No. 92-6901) and financially supported by the Research Vice-chancellor of Shiraz University of Medical Sciences. Hereby, the authors would like to thank Ms. A. Keivanshekouh at the Research Improvement Center of Shiraz University of Medical Sciences for improving the use of English in the manuscript. They are also grateful for Hazrat-e-Zeynab (P.B.U.H) hospital authorities and Center for Development of Clinical Research, Namazee hospital, Shiraz, Iran for their cooperation. Thanks also go to the nurses and families for their kind cooperation in the study.

## Ethical issues

None to be declared.

## Conflict of interest

The authors declare no conflict of interest in this study.

## References

1. Heidari H, Hasanpour M, Fooladi M. The Iranian parents of premature infants in NICU experience stigma of shame. *Med Arch* 2012; 66 (1): 35-40.
2. Saunders RP, Abraham MR, Crosby MJ, Thomas K, Edwards WH. Evaluation and Development of Potentially Better Practices for Improving Family- Centered Care in Neonatal Intensive Care Units. *Pediatrics* 2003; 111 (4): e437-49.



3. Martins A, da Silva L, Azevedo Aguiar D S, Cedraz Morais Aisiane A C D S. Insertion of the family in the neonatal intensive care unit: a systematic review. *Journal of Nursing UFPE on line* 2012; 6 (4):876-883. doi: 10.5205/01012007.
4. Frost M, Green A, Gance-Cleveland B, Kersten R, Irby C. Improving family-centered care through research. *Journal of Pediatric Nursing* 2010; 25 (2): 144-7. doi: 10.1016/j.pedn.2009.09.001.
5. McKiernan M, McCarthy G. Family members' lived experience in the intensive care unit: a phenomenological study. *Intensive & Critical Care Nurses* 2010; 26 (5): 254-61. doi: 10.1016/j.iccn.2010.06.004.
6. MacKean GL, Thurston WE, Scott CM. Bridging the divide between families and health professionals' perspectives on family-centred care. *Health expectations* 2005; 8 (1): 74-85. doi: 10.1111/j.1369-7625.2005.00319.x.
7. Trajkovski S, Schmied V, Vickers M, Jackson D. Neonatal nurses' perspectives of family-centred care: a qualitative study. *Journal of Clinical Nursing* 2012; 21 (17-18): 2477-87. doi: 10.1111/j.1365-2702.2012.04138.x.
8. Hockenberry MJ, Wilson D. *Wong's Nursing Care of Infants and Children*. 9<sup>th</sup> ed. Elsevier: Mosby. 2011.
9. Kowalski WJ, Leef KH, Mackley A, Spear ML, Paul DA. Communicating with parents of premature infants: who is the informant? *Journal of perinatology* 2006; 26 (1): 44-8. doi: 10.1016/j.pedn.2009.01.006.
10. Harrison T. Family-centered pediatric nursing care: state of the science. *Journal of Pediatric Nursing* 2010; 25 (5): 335-43. doi:10.1016/j.pedn.2009.01.006.
11. Orzalesi M, Aite L. Communication with parents in neonatal intensive care. *J Matern Fetal Neonatal Medt* 2011;24 (Suppl 1):135-7. doi: 10.3109/14767058.2011.607682.
12. Weis J, Zoffmann V, Egerod I. Improved nurse-parent communication in neonatal intensive care unit: evaluation and adjustment of an implementation strategy. *Journal of Clinical Nursing* 2014; 23 (23-24): 3478-89. doi 10.1111/jocn.12599.
13. Martinez AM, Khu DT, Boo NY, Neou L, Saysanasongkham B, Partridge JC. Barriers to neonatal care in developing countries: parents' and providers' perceptions. *J Paediatr Child Health* 2012; 48 (9): 852-8. doi: 10.1111/j.1440-1754.2012.02544.x.
14. Bach S, Grant A. *Communication and Interpersonal Skills for Nurses (Transforming Nursing Practice)*. 1<sup>st</sup> ed. UK: Learning Matters Ltd; 2009.
15. Montanholi LL, Merighi MAB, Jesus MCP. The role of the nurse in the neonatal intensive care unit: between the ideal, the real and the possible. *Rev Latino-Am Enfermagem* 2011; 19 (2): 301-8. doi.org/10.1590/S0104-11692011000200011
16. Wigert H, Berg M, Hellstrom A. Health care professionals' experiences of parental presence and participation in neonatal intensive care unit. *Int J Qual Stud Health Well-being* 2007; 2 (1): 45-54. doi: 10.1080/17482620600979195.
17. Aein F, Alhani F, Mohammadi A, Kazemnezad A. Explanation of nurse-family interactional care process in pediatric wards and designing and evaluation of clinical care model. [Dissertation]. Tehran: Tarbiat Modares University; 2009.
18. Petersen MF, Cohen J, Parsons V. Family-centered care: do we practice what we preach? *J Obstet Gynecol Neonatal Nurs* 2004; 33 (4): 421-7. doi: 10.1177/0884217504266772.
19. Rasouli M, Zamanzadeh V, Abbaszadeh A, Nikanfar AR, Alavi-Majd H, Mirza Ahmadi F, et al. Patient-centered communication barriers: experiences of

- patients with cancer, their family members and nurses. *Journal of Urmia Nursing and Midwifery Faculty* 2014; 11 (10): 753-64.
20. Elo S, Kyngas H. The qualitative content analysis process. *Journal of Advanced Nursing* 2007; 62 (1): 107-15. doi: 10.1111/j.1365-2648.2007.04569.x.
21. Angelo M, Moreira PL, Rodrigues LMA. Uncertainties in the childhood cancer: understanding the mother's needs. *Escola Anna Nery* 2010;14 (2): 301-8. doi:10.1590/S1414-81452010000200013.
22. Polit DF, Beck CT. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 9<sup>th</sup> ed. Philadelphia: Wolters Kluwer Health/ Lippincott Williams& Wilkins; 2012.
23. Waltz CF, Strickland OL, Lenz ER. *Measurement in Nursing and Health Research*. 4<sup>th</sup> ed. New York: Springer Publishing Company; 2010.
24. Söderström I-M, Benzein E, Saveman B-I. Nurses' experiences of interactions with family members in intensive care units. *Scand J Caring Sci* 2003; 17 (2): 185-92.
25. Wigert H, Dellenmark MB, Bry K. Strengths and weaknesses of parent-staff communication in the NICU: a survey assessment. *BMC pediatrics* 2013; 13: 71. doi: 10.1186/1471-2431-13-71.
26. King L. Family- centred care: a review of current literature. *The Plymoth Student Journal of Health& Social Work* 2009; 1: 9-17.
27. Goldestein LA. Family Support and Education. *Phys Occup Ther Pediatr* 2013; 33 (1): 139-61. doi: 10.3109/01942638.2012.754393.
28. Loghmani L, Borhani F, Abbaszadeh A. Factors affecting the nurse-patients' family communication in intensive care unit of kerman: a qualitative study. *J Caring Sci* 2014; 3 (1): 67-82. doi: 10.5681/jcs.2014.008.