IJN
Iranian Journal of Neonatology
http://ijn.mums.ac.ir

Open Access
Original Article

Experiences of the Iranian Neonatal Intensive Care Unit Nurses in Implementing Family-Centered Care: Walking on an Insecure Foundation

Fatemeh Ghorbani[1], Jila Mirlashari[2], Elham Navab[3], Wendy Higman[4], Sousan Valizadeh[1*]

1. Department of Pediatric Nursing, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran
2. Department of Pediatric and Neonatal Nursing, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran
3. Department of Critical Care Nursing, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran
4. Clinical Research Fellow, Coventry University, Coventry, England

ABSTRACT

Background: Most of the nurses have accepted family-centered care (FCC) as a standard model of care; however, they meet difficulties using this model. The aim of this study was to explore the perception of Neonatal Intensive Care Unit (NICU) nurses about the implementation of FCC.

Methods: This qualitative study was carried out on 11 in-service NICU nurses with at least three years of work experience using an interpretative phenomenological approach. The study setting was three separate NICUs of three teaching hospitals affiliated with Tabriz University of Medical Sciences, Tabriz, Iran. Data collection was performed through semi-structured interviews and field notes. The data were analyzed using the seven-stage Diekelmann, Allen, and Tanner approach.

***Results*:** One of the important themes emerging in this study was "Walking on an insecure foundation" that included three subthemes of "Inappropriate base", "A pathway with no lines" and "Unequal encounter". The nurses described a lack of facilities, inadequate space, and staff's specific instruction in encouraging parents' engagement, as well as high work pressure due to short staffing as factors that affected their ability to provide an ideal FCC.

Conclusion: As the findings indicated, the lack of essential substructures and absence of a systematic program to engage parents in the care process of their infants have resulted in different operations by the nurses and discontinuous FCC implementation in NICUs. Officials and policy-makers should consider basic requirements, adequate workforce, and explicit guidelines to contextualize and guarantee the continuity of FCC.

Keywords: Family-centered care, Infant, Neonatal intensive care unit, Nurse, Phenomenology

Introduction

Family-centered care (FCC) is one of the most dynamic philosophies in the pediatric field and has become one of the primary principles of pediatrics in the 21st century (1). Based on definitions, FCC is achieved through engaging all family members in caregiving and empowering them by the professional providers. Throughout this communication, both family members and professionals engage in sharing the responsibility for the child's health care (2).

It has been recognized that family is the focal point of the child's life and must be the base of a care given to him/her (3). The advantages and importance of close and early parents-infant relationship have been clearly identified (4). Since the family is considered as the center of developmental care for the infant, normal development cannot take place without it. Therefore, to ensure standard neurodevelopment for infants, the ultimate goal must be zero probability of parents-child separation (5).

The important dimensions of FCC in the Neonatal Intensive Care Unit (NICU) include parents' unlimited presence and their

* *Corresponding author*: Sousan Valizadeh, Department of Pediatric Nursing, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran. Tel: +989143098650; Email: valizadehsousan13@gmail.com

Please cite this paper as:
Ghorbani F, Mirlashari J, Navab E, Higman W, Valizadeh S. Experiences of the Iranian Neonatal Intensive Care Unit Nurses in Implementing Family-Centered Care: Walking on an Insecure Foundation. Iranian Journal of Neonatology 2018 Jun: 9(2). DOI: 10.22038/ijn.2018.25418.1332

participation in care and decision making within the treatment processes (6). Communication between the family and healthcare professionals is a key point in FCC (2). This mutual collaboration can provide the infant with high-quality care, since the parents have unlimited access to their child and are able to better understand his/her behavior. As a result, the empowerment of the parents would result in the creation of a sense of responsibility towards their infant (7).

From the professionals' and parents' point of view, FCC is a high-level abstract concept encompassing a number of underlying concepts; however, little attempt has been made for the operationalization of this concept (2). Support and guidance from nurses lead to an increase in parents' engagement and skillfulness in care. Consequently, the role of nurses shifts from an active care provider to an educator and a facilitator for encouraging the parents' participation in care process (8). Despite the general staff awareness on the philosophy of FCC, the applicability of this model has wrongly understood (9). Although most of the nurses have accepted FCC as a standard model of care, they meet difficulties operationalizing this concept (10).

According to the results of a review study performed by Foster's in 2010, regardless of culture and country, FCC has negative impact on needs as well as financial, social, and personal resources for some parents and healthcare professionals (11). In Iran, based on the current statistics, the number of NICU beds was 1,349 in 2012, denoting 1.79 beds for every 100,000 individuals that is far less than the standards regarding the population of the country (12).

In addition to the shortage in basic resources, such as space and hospital beds, the lack of knowledge and education in terms of FCC and a dominance of biomedical view in the Iranian healthcare system are the factors, which have interfered with implementing FCC approach (13). The FCC is a complicated concept with widespread dimensions (7), the perceptions of which may vary based on the culture (10). Therefore, the use of a qualitative approach, such as phenomenology, can reveal the unknown strands of this model.

Spielberg believes that essential truth about reality originates from individuals' lived experiences, and it is the lived experience that interprets the people's perception of a specific event and reveals what is considered as a truth or reality in their life (14). Hermeneutics is a systematic approach to study and interpret a phenomenon, which facilitates the investigation of a given event with an interpretative view, and therefore achieving deeper understanding of lived experiences (15). Interpretative phenomenology examines and clarifies presuppositions instead of suspending them. Therefore, the researchers' previous experiences can be considered as a knowledge source and help them to achieve the meanings of participants' expressions (16).

The NICU nurses play an important role in implementing FCC due to their extensive contact with the family and infant. The recognition and conceptualization of these experiences can provide the healthcare team with invaluable information on the best ways of implementing FCC in the challenging environments of NICUs. Our research question was: "What are the Iranian NICU nurses' experiences in implementing FCC?" Due to the nature of the question and the fact that the researcher herself has lengthy experience in NICU, an interpretative phenomenological approach was chosen as an appropriate method for finding the answer to this question.

Methods

This qualitative study was based on Heidegger's philosophy and hermeneutic phenomenology approach. The purpose was to achieve a deeper understanding of NICU nurses' experiences on implementing FCC. A purposive sampling method was used to select the participants. The inclusion criteria included: 1) bachelor's or master's degree in nursing, 2) employment in NICU, and 3) at least three years of working experience in NICU.

The time frame of three years' experience was based on the theory of Patricia Benner (17) saying that nurses engage with the patients and their family at the proficient level, and a new nurse needs 2-3 years to reach this level. Eleven employed NICU nurses participated in the study. The settings of the study were three separate NICUs in three teaching hospitals affiliated to Tabriz University of Medical Sciences, Tabriz, Iran, which are the main referral centers for preterm neonates in North-West Iran.

The division of these NICUs is similar to the American Academy of Pediatrics (APA) guidelines and consists of three levels of 1, 2, and 3. Neonates with critical condition are hospitalized in level 3. Furthermore, almost stable and stable newborn are hospitalized in levels 2 and 1, respectively. Mothers were free to visit their neonates at any time during 24 hours and stay with them for their desired time.

The facilities for encouraging them to stay with their neonates included armchairs next to the warmers or incubators, access to food, public rooms for relaxing, and a public bathroom in each NICU. Fathers' presence on the ward was limited and a specific time in the afternoon was considered for them to visit their newborn. Siblings and grandparents were not allowed to visit the neonates, except on special occasions.

Ethical consideration

The Ethics Committee of Tabriz University of Medical Sciences approved the study (Code: 1394.387). Prior to the initiation of the interviews, the participants were provided with comprehensive information regarding the study, data collection method, and voice recording through telephone calls, face-to-face meetings, and information sheets. The participants decided freely about their participation in the study.

The researcher set the time and places of the interview based on the participants' desire. In the interview meeting, the oral and written consents were achieved from the participants, and they were informed that recorded files or their transcripts were not labeled with their names and all their personal information would remain anonymous. Moreover, the participants were free to leave the study at any stage.

Data collection

The data were collected through face-to-face semi-structured interviews and written field notes from April 2015 to February 2016. The duration of interviews was 30-58 min with the mean of 42.3 min. In total, 11 interviews were performed by the researcher. The time and place of the interviews were set with the participants based on their desire. Eight interviews were undertaken in the nurses' break room next to the NICUs.

For participants' comfort, the interviews were coordinated at a time other than nurses' mealtime. Postgraduate students' room in the Nursing College- a quiet environment- was the place to undertake three other interviews. At the beginning of the interviews, a general question was asked (What is your experience of implementing FCC?) Based on the participants' responses, the interviews were continued while asking semi-structured questions.

During the interviews, the participants were encouraged to freely express their feelings. In addition, field notes were written by the researcher in order to record the interviewees' gesture and behavior as the sign of their emotions. Moreover, probing questions, such as "Can you explain it more?" or "What were your feelings at that moment?", were used to achieve clearer and richer information.

Sampling was stopped when no other theme was emerged following the interview with 11 nurses (data saturation), and the data were considered rich enough to illuminate the phenomenon by research team members. All interviews were recorded using a digital voice recorder after getting permission from the participants. The recorded data were transcribed verbatim immediately after the end of each interview.

Data analysis

Data analysis was initiated immediately after the first interview and simultaneously with the data collection using the seven stages of Diekelman, Allen, and Tanner approach. This approach is a team work in which all team members involve in the analysis of the data. Therefore, collective opinions assure the accuracy and richness of the interpretations. Since the main researcher was inexperienced in qualitative studies, the Diekelman, Allen, and Tanner approach was used to ensure the reliable analysis of the data.

After the researcher (i.e., first author) transcribed the interviews according to the first stage of Diekkelman analysis, the interviews were read several times to obtain the overall understanding of the participants' statements. For each interview, an interpretive summary was written during the second stage in order to understand the implicit meanings. Then meaning units were extracted by thinking about each and every sentence of the participants' statements.

At the third stage, subthemes and themes were constructed through using the meanings and a suitable metaphor was chosen for each of them. At the fourth stage, the members of the research team consisting of the researcher herself, who was a PhD candidate, and her three supervisors discussed transcribed interviews and removed any disagreement about interpretations between themselves.

During the fifth stage and through compare and contrast of the texts, the common meanings were distinguished and explained. After comparing the themes in the sixth stage, the relationship between them was identified. At the final stage, emerging themes were drafted by team members, and suggestions were included in the final draft (18). To achieve trustworthiness in the

data, the criteria proposed by Lincoln and Guba, including credibility, dependability, confor-mability, and transferability, (19) were considered by the research team.

Therefore, in this study, the focus was on selecting qualified data sources, using various methods of data collection (i.e., interview and field notes), close interaction with the participants, prolonged and continuous engagement with the data, implementation of a team approach, and use of the collective opinions of the research team. Furthermore, to improve the credibility of the data, the interviews were transcribed by the researcher instantly after the end of each interview. The analysis of the data was carried out in a stepwise manner, in accordance with the hermeneutic circle. Considering that the researcher had 10 years of experience in NICU, it helped her to interpret implicit meanings in the participants' remarks.

Reflexivity is a form of researchers' self-monitoring in relation to the research that is under execution (20). In this study, in order to prevent insider bias and ensure not directing the findings and interpretations, the researcher utilized reflexivity thorough writing her personal reflections, feelings, and experiences in a diary. The advantage of using these notes was to interpret the participants' experiences without engaging her presuppositions and experiences. Furthermore, to ensure against bias the opinions of the research team members were considered in all stages of data analysis.

Results

A total of 11 qualified female nurses with the mean age of 35.6 years participated in the study. Eight nurses (72.7%) were married, and three nurses (27.3%) were single. They had the mean NICU work experience of 10 years. Interviews with the participants showed that nurses encountered some basic and infrastructural problems in terms of parents' involvement in care and these problems impeded their identical, coherent, and systematic operation. The analysis of these experiences led to the emergence of a theme, "walking on an insecure foundation", composed of three subthemes, namely "inappropriate base", "a pathway with no lines", and "unequal encounter" (Table 1).

1. Inappropriate base

The experiences of most of the nurses showed that in the Iranian NICUs, the conditions are not conducive to FCC implementation. Furthermore, the lack of enough space, facilities, and equipment were stated as a major obstacle for the parents' presence and involvement in care. The following quotations illustrate how the nurses encountered primary deficits to perform FCC in NICU:

"The space is little in here. Sometimes, there's not a chair for the mother let alone other family members. If there were some rooms to monitor the baby in there, and the family could stay there with their infant at least for one day, it would be very nice; then, the family could find out whether they could deal with their preterm infant or not." (P6)

"When a father stays longer in the ward, other resident mothers can't breastfeed their infants or perform kangaroo care. They usually complain

Table 1. Extraction of the main theme and subthemes from meaning units

Meaning units	Sub themes	Main theme
• Lack of private space for the family • Lack of facilities; an obstacle for both parents' simultaneous presence • Shortage in ward equipment; a hurdle for parents' empowerment • Not meeting parents' basic needs for being involved	Inappropriate base	Walking on an insecure foundation
• Parents' absence from their entering moment to the ward • Mothers' delay and creation of a distance between mother and baby • Lack of an instruction to invite the families • Family's accidental and informed follow-ups • No obligation for nurses to contact the families • Lack of educational program for all family members' participation	A pathway with no lines	
• Improper ratio of nurses to the hospitalized infants • A gap between workforce and standards • Nurses' engagement; an obstacle against educating the family • Undesired attendance to the family because of high number of the infants • Postponing parents' participation due to heavy work load	Unequal encounter	

about it. If there were some special screens between the beds or for example infants' beds were in separate units, parents could be there comfortably by their own baby, and other mothers weren't annoyed." (P3)

"Most of the mothers, who have another little child at home, can't stay with their preterm infant. They only come with their husband at visit hours, then leave. If there were facilities for the mothers to have that child with themselves in the hospital, they could stay with their infant, but in here, there's only one public room for all mothers." (P7)

2. A pathway with no lines

The interviews revealed that the lack of an identified plan and instruction for parents' follow-up, educational strategies, and involvement in care leads to the nurses' distinct action that caused discontinuous and unsystematic implementation of FCC. In the following quotations, nurses described the lack of a clear policy to invite and educate the families.

"There are some infants that were born some days ago, but neither their mothers nor their fathers have come to visit them. Now, if anyone of their family members calls us to ask the infant's condition, we will ask them to come and visit their baby, or we may ask the secretary to call the infants' family. Actually, the secretary is here only in the morning shifts. In the evening and night shifts, if the nurse herself wants, she calls the infants' family, if not, she doesn't have to. In general, there is not any specific policy for it." (P8).

"There is no specific program in the hospital for family involvement. For example, for a father who likes to stay in the ward and get involved in the care, there's no plan to educate him." (P2).

3. Unequal encounter

The unstandardized ratio of the nurses to the patients and high work pressure in NICU were introduced as major challenges for the nurses in terms of educating parents, their attendance, and involvement in care. The nurses explained their problems about heavy workload that impeded implementing FCC as follows:

"Now in our ward, every nurse cares for six infants on average. When the number of patients is high, the work pressure is high too. I believe that the infant is prior to others, if I have extra time, I will attend to the parents. But if there are few infants, I could not only care for the infant, but also attend to the parents and educate them and encourage them to participate in care." (P3)

"Unfortunately in NICU, we don't have much time to attend to both the infants and their families. The work load is high, especially with the written tasks. For example, if I want to educate the mothers how to massage, I may only have 5 minutes, but if the number of the patients is few, and I have more time, I can attend to the families more. This way, the families have better view towards nursing too." (P6)

Discussion

The aim of the present study was to explore the Iranian NICU nurses' perception of implementing FCC. The findings revealed that there is no substructure for parents' participation in our country. The lack of space, poor facilities, and an understaffed workforce are the most noticeable challenges for the nurses. Unsystematic infrastructure, along with the lack of fixed and explicit guidance for educating and involving parents in care, have led the nurses to create a view of FCC in current situation as walking on a fragile and insecure foundation.

By and large, the physical environment of NICU is the main mechanism for supporting the family and FCC. Accordingly, it is necessary to pay attention to NICU design standards in order to consider infants, families, and personnel's developmental, as well as emotional, social, and educational needs (6). In other words, it is possible to provide the condition for parents-neonates physical and emotional nearness through the establishment of a proper design and architecture, provision of private space, and its equipment with seats, beds, etc. regardless of cultural, political, and social differences (4).

The plan of the private room for the families, which was established in 1970-1980, was a suitable choice for designing NICU since it could control both infection and noise. Furthermore, it facilitated family involvement through providing comfort and privacy, which resulted in shorter period of infants' hospitalization with lower frequency (21). It has been shown that such designs provide facilities for the parents' presence from admission to discharge, which in turn increases parental self-confidence before the neonatal hospital discharge (22).

In this study, NICU nurses expressed their experiences of lack of private space and primary facilities in wards for the presence and involvement of the families in care. They believed

that the implementation of FCC is dependent on structuring and providing facilities. Similarly, in a study conducted by Mirlashari et al in 2015 in Tehran, the doctors and nurses reported the lack of equipment in NICUs as the major obstacle to implement FCC (23). In another study carried out in Iran, nurses introduced having more time as a necessity for creating an effective relationship with the parents, which is the first step in implementing FCC (24).

The results of a study carried out in Brazil was consistent with our findings as they showed that a shortage in organizational resources, such as enough facilities, environmental conditions, and lack of time to create a relationship, has made nurses meet problems when implementing FCC (25).

The researcher herself in her experiences revealed that facilities considered for the parents in NICU included one comfortable chair only for the mother (not for both parents) next to the neonate's warmer or incubator. During the visiting hours, when both parents were present by their newborn, the lack of enough space and the visiting crowd interfered with nursing duties; therefore, the nurses tried to perform direct cares before the visiting hours.

On the other hand, as the nurses mentioned in the interviews, the lack of screens to separate the neonates from each other when their fathers were in the ward, sometimes lead to a complain, especially from the other resident mothers. In these cases, nurses made an attempt to apply some limitations for the fathers' presence in order to keep the ward stable.

Other important subtheme that emerged from the interviews was the lack of a documented and proved guideline for the nurses to educate and involve the parents. In a study performed by Mirlashari (2015) in Tehran, the lack of a specific strategy and rule to involve the parents in care and lack of educations on FCC were considered as the major obstacles for FCC from the viewpoints of doctors and nurses, respectively. The difference in doctors' and nurses' points of view reveals that there is no specific and explicit approach on FCC implementation (23).

The findings of studies conducted in other countries also indicated that despite the fact that nurses value the philosophy of FCC, its implementation is challenging and difficult as accepting and implementing this type of care necessitates having hospital guidelines (3), educational and supportive strategies (10, 26), and continuous organizational and directional support (27). The current emphasis on applying family-centered developmental supportive care requires staff education on the principles; consequently, explicit procedures to increase parents' involvement are felt more than before (28).

The similarity between the findings of our study and other studies show that regardless of cultural and background differences, all of the nurses need to be supported by the organization, be educated, and have distinct duties and instructions in order to precisely implement FCC. The researcher's experiences also indicated that the lack of specific guidelines to involve the families in FCC resulted in discontinuous and static parent education, which affected their empowerment, and consequently in a specific period of time, some of the parents meet some problems even in basic cares while others may become skillful.

Shortage in nursing workforce and heavy work pressure were other important factors that emerged from interviews as the main challenges for the nurses. The high ratio of neonates to the nurses impeded educating the families and supervising their involvement in care because the nurses prioritized the direct care and postponed observing and attending to the parents. In a study performed by Dashti et al. in Tehran, the ratio of the newborns to the nurses was more than one to four cases (29). This unbalanced ratio results in the nurses' inability to give some cares on time and miss some issues, such as developmental care and parents' education.

In addition, in other studies carried out in Iran, the heavy workload and lack of enough time were reported to prevent the nurses from establishing a proper relationship with the parents by creating stress and exhaustion in them (30). Likewise, in the foreign studies, shortage in the number of nurses and time limitations, as well as increase in nurses' workload, affected their capability to create a therapeutic relationship with the parents and attending to them (25). This results in giving priority to other nursing issues and postponing psychosocial activities, such as communicating with parents (31).

As the findings of the present study and those of the literature indicated, in spite of having positive point of view towards family involvement in care, nurses prioritize direct

cares based on their commitment and legal responsibility towards delicate preterm neonates. Therefore, they postpone other duties, such as consultation and education needed for family involvement to more stable conditions in the ward.

Based on the researcher's experiences, the high number of neonates and lack of enough time sometimes resulted in postponing family education and observing their involvement to some other time or even to next work shifts. Consequently, parents' participation in care was delayed since the nurses felt more responsibility and commitment for giving direct care to the hospitalized newborns.

Conclusion

Shortages in necessary facilities for FCC implementation and lack of unified instructions for the staff to follow-up the families, involve them in care, and observe the implementation of this program have resulted in various and arbitrary operations by the nurses and discontinuous FCC implementation in NICUs. Regarding the accepted philosophy of FCC and emphasis on family-centered developmental care by infants' associations in the world, the officials and policy makers are required to establish precise, scientific, and systematic planning and explicit guidelines in order to contextualize and guarantee the continuity of this approach.

Limitations of the study

A limitation of this study was an insider bias about the researcher's work experience in NICU that may affect the interpretation of the data. To limit this, the researcher used reflexivity via diary writing to prevent her presuppositions influencing her interpret-tations. Considering that implementing FCC requires a team approach, which involves other healthcare members, such as physicians and assistant nurses, it is suggested that other professional individuals be included in further studies in order to achieve a comprehensive perception in this regard.

Acknowledgments

The authors are grateful to the participant nurses for sharing their experiences with us and to Melinda Colleen Brand for revising the text linguistically.

Conflicts of interests

There has been no conflict of interest.

References

1. Girgin BA, Sivri BB. The importance of family centered care and assessment. Global J Adv Pure Appl Sci. 2015; 7:29-33.
2. Mikkelsen G, Frederiksen K. Family-centred care of children in hospital–a concept analysis. J Adv Nurs. 2011; 67(5):1152-62.
3. Asai H. Predictors of nurses' family-centered care practises in the neonatal intensive care unit. Jpn J Nurs Sci. 2011; 8(1):57-65.
4. Flacking R, Lehtonen L, Thomson G, Axelin A, Ahlqvist S, Moran VH, et al. Closeness and separation in neonatal intensive care. Acta Paediatr. 2012; 101(10):1032-7.
5. Altimier L, Phillips R. The neonatal integrative developmental care model: advanced clinical applications of the seven core measures for neuroprotective family-centered developmental care. Newborn Infant Nurs Rev. 2016; 16(4):230-44.
6. Gooding JS, Cooper LG, Blaine AI, Franck LS, Howse JL, Berns SD. Family support and family-centered care in the neonatal intensive care unit: origins, advances, impact. Semin Perinatol. 2011; 35(1): 20-8.
7. Ramezani T, Hadian Shirazi Z, Sabet Sarvestani R, Moattari M. Family-centered care in neonatal intensive care unit: a concept analysis. Int J Community Based Nurs Midwifery. 2014; 2(4): 268-78.
8. Axelin A, Ahlqvist-Björkroth S, Kauppila W, Boukydis Z, Lehtonen L. Nurses' perspectives on the close collaboration with parents training program in the NICU. MCN Am J Matern Child Nurs. 2014; 39(4):260-8.
9. Corrêa AR, Andrade AC, Manzo BF, Couto DL, Duarte ED. The family-centered care practices in newborn unit nursing perspective. Escola Anna Nery. 2015; 19(4):629-34.
10. Feeg VD, Paraszczuk AM, Çavuşoğlu H, Shields L, Pars H, Al Mamun A. How is family centered care perceived by healthcare providers from different countries? An international comparison study. J Pediatr Nurs. 2016; 31(3):267-76.
11. Foster MJ, Whitehead L, Maybee P, Cullens V. The parents', hospitalized child's, and health care providers' perceptions and experiences of family centered care within a pediatric critical care setting: A metasynthesis of qualitative research. J Fam Nurs. 2013; 19(4):431-68.
12. Meskarpour-Amiri M, Mehdizadeh P, Barouni M, Dopeykar N, Ramezanian M. Assessment the trend of inequality in the distribution of intensive care beds in Iran: using GINI index. Global J Health Sci. 2014; 6(6):28-36.
13. Dalvand H, Rassafiani M, Bagheri H. Family centered approach: a literature the review. J Modern Rehabil. 2014; 8(1):1-9.

14. Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: advancing the humanistic imperative. Philadelphia: Lippincott Williams & Wilkins; 2011.
15. Van Manen M. Researching lived experience: human science for an action sensitive pedagogy. Abingdon, UK: Routledge; 2016.
16. Holloway I, Galvin K. Qualitative research in nursing and healthcare. New Jersey: John Wiley & Sons; 2016.
17. Alligood MR. Nursing theorists and their work. New York: Elsevier Health Sciences; 2014.
18. Diekelmann N, Allen D, Tanner CA. The NLN criteria for appraisal of baccalaureate programs: a critical hermeneutic analysis. New York: National League for Nursing; 1989.
19. Polit DF, Beck CT. Nursing research: principles and methods. Philadelphia: Lippincott Williams & Wilkins; 2004.
20. Holloway I, Wheeler S. Qualitative research in nursing and healthcare. New Jersey: John Wiley & Sons; 2013.
21. Shahheidari M, Homer C. Impact of the design of neonatal intensive care units on neonates, staff, and families: a systematic literature review. J Perinat Neonatal Nurs. 2012; 26(3):260-6.
22. Örtenstrand A. The role of single-patient neonatal intensive care unit rooms for preterm infants. Acta Paediatr. 2014; 103(5):462-3.
23. Mirlashari J, Sadeghi T, Sagheb S, Khanmoham-madzadeh T. Nurses' and physicians' perspective about barriers to implement family centered care in neonatal intensive care units. Iran J Nurs. 2015; 28(93):140-50.
24. Hadian SZ, Sharif F, Rakhshan M, Pishva N, Jahanpour F. The obstacles against nurse-family communication in family-centered care in neonatal intensive care unit: a qualitative study. J Caring Sci. 2015; 4(3):207-16.
25. Gomes da Silva TR, Figueiredo Manzo B, Custodia de Faria Fioreti FC, Morais Silva P. Family-centered care from the perspective of nurses in the Neonatal Intensive Care Unit. Rev Rede Enferm Nord. 2016; 17(5):643-50.
26. Griffin T. A family-centered "visitation" policy in the neonatal intensive care unit that welcomes parents as partners. J Perinat Neonatal Nurs. 2013; 27(2):160-5.
27. Trajkovski S, Schmied V, Vickers M, Jackson D. Neonatal nurses' perspectives of family-centred care: a qualitative study. J Clin Nurs. 2012; 21(17-18):2477-87.
28. Craig J, Glick C, Phillips R, Hall S, Smith J, Browne J. Recommendations for involving the family in developmental care of the NICU baby. J Perinatol. 2015; 35(Suppl 1):S5-8.
29. Dashti E, Rassouli M, Khanali Mojen L, Puorhoseingholi A, Shirinabady Farahani A. Patient-to-nurse staffing ratios and its outcomes on nurses and premature infants in NICUs. Quart J Nurs Manag. 2015; 4(2):39-48.
30. Vasli P, Salsali M, Tatarpoor P. Perspectives of nurses on barriers of parental participation in pediatric care: A qualitative study. J Hayat. 2012; 18(3):22-32.
31. Hall EO, Kronborg H, Aagaard H, Ammentorp J. Walking the line between the possible and the ideal: Lived experiences of neonatal nurses. Intensive Crit Care Nurs. 2010; 26(6):307-13.