

# Developing the Principles of Parental Mental Health in the Neonatal Intensive Care Unit (NICU)

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## ABSTRACT

**Background:** Hospitalization of infants in the neonatal intensive care unit (NICU) may disrupt the proper interaction with infants and lead to anxiety and depression, while adversely affecting the role of families. Therefore, it is necessary for healthcare teams to be familiar with the principles of parental mental health in the NICU. The present study aimed to codify the principles of parental mental health in the NICU.

**Methods:** This study was conducted with a triangulation methodology in two steps. In the first step, the principles of mental health care for parents in the NICU were compiled and translated. In the second step, the principles were edited using the Delphi method based on the opinion of experts (physicians, faculty members, and health policymakers). Final principles of parental mental health in the NICU were codified.

**Results:** In total, four general principles of holistic care, relationship with parents in the NICU, special care for establishing communication with families in the NICU, and principles of infants and family care were obtained.

**Conclusion:** Since healthcare teams may not be familiar with the principles of parental mental health in the NICU, the results of the present study could lay the groundwork for promoting the knowledge of healthcare team members in interaction with parents.

**Keywords:** Healthcare Team, NICU, Mental Health of Parents

## Introduction

Stress and tension are unpleasant and harmful stimuli, which may lead to severe physiological consequences (1). Giving birth to a child is not only a difficult emotional and physical experience, but it also is a remarkable evolutionary life change. Transition into motherhood might appear to be a natural crisis accompanied by noticeable adaptable problems (2).

Neonatal intensive care unit (NICU) is often occupied by the infants with severely ill conditions. This ward is a technical unit equipped with various medical instruments and devices. Despite the advances in technology and medicine, survival rate of neonates has not increased significantly in recent decades. Unfortunately, technology development has become a dilemma in health care, associated with further incapability (3).

Rate of NICU admission in the infants with the weight of less than 2500 grams is variable between 7.29-10.15% (4). Neonates with low

birth weight and premature infants are considered to be a high-risk population and must receive basic care (5). Families with premature infants are exposed to issues such as divorce, extreme family distress, and financial problems. Therefore, it is necessary to support the parents who have premature neonates (6).

According to the literature, parents of infants with severe conditions suffer from higher tension compared to those with healthy infants. Hospitalization of infants in the NICU is associated with several emotional problems for the families, such as significant anxiety due to the infant's illness and pain and unfamiliar environment of the NICU (7). In addition, these parents should remain updated on the improvement status of their infants, and the healthcare team members are responsible for explaining the conditions of the neonates in the NICU and prepare the parents for the possible changes (8, 9).

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Families are affected by the NICU environment and the subsequent stress and anxiety (10). With the long-term admission of the neonates in the NICU, the family may experience a feeling of loss, and the emotional relationship between the mother and infant might also be disrupted (11). Another major adverse outcome of premature birth is the misconception that the infant is believed to be vulnerable to any disease or damage, which may lead to inappropriate interaction with the infant, as well as depression and anxiety disorders in the family, which hinder them from playing their role effectively (12).

Psychological support is considered to be the responsibility of the healthcare team. Since the admission rate of premature infants to the NICU has increased recently, and considering that healthcare teams may not be familiar with the principles of parental mental health, the present study aimed to codify the principles of mental health for parents in the NICU.

## Methods

This study was conducted with a triangulation methodology to increase the accuracy of the finding by assessing the alignment of various perspectives (13). The study was carried out in two steps; in the first step, the principles of parental mental health in the NICU were compiled and translated from different regions of the world (14-18). In the second step, the principles were revised using the Delphi method based on the opinions of experts (physicians, faculty members, and health policymakers), and the final principles of parental mental health in the NICU were codified.

One of the approaches used to obtain group knowledge is the Delphi method, which is a

process with a predictive structure to contribute to decision-making during survey rounds, data collection, and reaching consensus (14). In the current research, we used the Delphi method with the aim of reaching consensus, followed by the compilation and translation of the international principles of parental mental health in the NICU. Afterwards, the principles were finalized during two eight-hour sessions in Yazd city (Iran) in the presence of experts. At the outset, opinions of the experts were applied to the initial principles during two sessions, and they were informed on the final results.

## Results

According to the information in Table 1, all the recommendations regarding parental mental health in the NICU were agreed upon. Of note, corrections were taken into account, and recommendations on religious support were also corrected in accordance with the cultural issues of our country. The final principles of parental mental health were codified based on the information in Table 1.

## Discussion

According to the results of the present study, one of the initial principles of parental mental health is holistic care. In a study by Martin (2013), the findings revealed that nurses must receive the required training for providing holistic care, which is in line with the results of the present study.

Findings of the current research indicated that one of the main principles of parental mental health in the NICU is the relationship of the parents with the neonates in the NICU, which is consistent with the results of the previous studies

**Table 1.** Final Principles of Parents' Mental Care in NICU

Principles of Parents' Mental Care in NICU	Subcategories	Items of Recommendations
1-holistic care		9
	2-1 compassionate care	3
	2-2 Reassurance	5
2-Relationship with parents in NICU	2-3 comforting	1
	2-4 Dignity & respect	9
	2-5 Awareness of parents' needs	10
3-Special actions for establishing relationship with families in NICU	3-1 Before visit	7
	3-2 During visit	11
	3-3 follow up after visit	6
4-Caring principles of infant and family	4-1 Making decision	4
	4-2 Family adaptability	4
	4-3 staff stress in relation to family interaction	2
	4-4 Cultural support of family	4
	4-5 Religious support	4
	4-6 Family visit	2
	4-7 Family presence in medical round	2
	4-8 Family presence in resuscitation	2

in this regard. For instance, Shin & Throat (2007) conducted a study in the United States and stated that nurses should attempt to promote the cooperation of mothers at the time of admitting the infants to the NICU. In this regard, kangaroo care is considered to be an effective strategy to promote maternal cooperation. Furthermore, nurses should provide proper opportunities for the contact between parents and infants, aiming to enhance maternal cooperation (15). Findings of Black et al. (2009) in the United States revealed that increased maternal tension is usually due to the NICU environment and infant's disease, and maternal cooperation in the care of the neonate could effectively reduce the tension (16).

According to the results of the present study, one of the principles of parental mental health in the NICU is the principles of family and infant care, including decision-making, cultural support, religious support of the family, family visits, and presence of the family at the medical rounds; this is in congruence with the previous studies in this regard.

According to the research by Kohen et al. (2012), mothers of premature infants need to be adequately informed on the conditions of their neonates in the NICU (17). Moreover, findings of Rasti (2015) indicated that knowledge and awareness regarding the premature infant's condition and acquiring the necessary skills for the care of the infant are the most important educational needs of the parents whose infants are hospitalized in the NICU (18). On the same note, the results obtained by Bastani (2012) suggested that maternal cooperation in infant care in the NICU plays a pivotal role in their empowerment (19).

In another study conducted in the United Kingdom, Alderson et al. (2005) stated that parents should acquire implicit and explicit information on the regulation of the ward (i.e., what they are allowed/not allowed to do). However, knowing all the regulations of the NICU ward might not be possible for parents. Attending medical rounds and increasing the time of visits are likely to alleviate tension in parents. In the mentioned study, it was suggested that providing accessible and clear regulations could increase parental confidence remarkably (20).

In a study in the United States, Schlittenhart (2011) claimed that planning and preparing parents for clearance requires extensive training. Although the process of clearance is time-consuming for both parents and nurses, parents will not be prepared for the home care of infants if

they do not attend clearance classes. The purpose of the clearance process is to decrease the number of the parents who are not prepared for the care of neonates at home and minimize the possible health risks in infants in the future. Expanding preparation activities of clearance for parents by using various technologies (e.g., videos) is a creative approach to reduce neonatal health risks and promote the process of clearance in order to help parents in safe home care (21).

In the research by Black (2009), it was stated that initially, the mothers had a sense of motherhood, and afterwards, they became accustomed to their role as a mother of an infant with special needs. Some of the main challenges faced by these mothers are the experience of becoming a mother, playing the role of a mother, and obtaining the required care skills for their infant (22).

## Conclusion

Since healthcare teams may not have the required familiarity with the principles of parental mental health in the NICU, findings of the present study could lay the groundwork for promoting their knowledge and improve their interaction with parents. Furthermore, it is recommended that healthcare authorities provide training on these principles for healthcare teams in the form of educational workshops.

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## Conflicts of interests

None declared.

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