

## Experiences of Fathers with Inpatient Premature Neonates: Phenomenological Interpretative Analysis

### Abstract

**Background:** Birth and hospitalization of premature neonates create enormous challenges for the family with serious impacts on parents' mental and emotional health. The present study was designed to explore the experiences of fathers with premature neonates hospitalized in a neonatal intensive care unit (NICU). **Materials and Methods:** In this interpretative phenomenological study, data were collected using in-depth interviews guided with a semi-structured questionnaire and analyzed by interpretative phenomenological analysis. Totally seven interviews were conducted with six participants. **Results:** The mean age of the fathers was 32 (23–42) years, and all of the fathers lived with their wives. Experiences of the fathers were categorized into 13 subordinate and three superordinate themes: “abandonment and helplessness” (lack of financial support, lack of informational support, and indignation and distrust toward the hospital staffs); “anxiety and confusion” (family disruption, shock due to the premature birth of the neonate, uncertainty, the loss of wishes, feeling of guilt and blame, and occupational disruption); and “development and self-actualization” (emotional development, spiritual development, independence and self-efficacy, and responsibility). **Conclusions:** The present study showed that the fathers with premature neonates hospitalized in NICU encounter both positive (development and self-actualization) and negative experiences (lack of financial and informational supports, distrusting toward the hospital staffs, family disruption, and occupational disruption). Planning to manage adverse experiences can help fathers to cope with this situation.

**Keywords:** Fathers, infant, intensive care units, Iran, newborn, parenting, premature, preterm infants, qualitative research

### Introduction

About 9% of neonates are required to receive care in a neonatal intensive care unit (NICU) and most of them are premature.<sup>[1]</sup> The premature neonates with low birth weight experience more physical and mental problems and need special care to survive and have normal growth and development.<sup>[2]</sup>

Although the birth of a child is the God's best gift for parents,<sup>[3]</sup> having a neonate hospitalized in NICU is a painful and stressful experience for various reasons and makes the parents become confused and feel helpless, guilty, and feared about the survival or consequences of the disease for their children.<sup>[4]</sup> Disorder in parental role fulfillment, dysfunctional patterns of communication between health care providers and parents, and other stressful experiences are considered as the obstacles in communication between parents and

their babies. During the stay of the neonate in the NICU, the parents have to spend a lot of time in the hospital or in the way between home and the hospital. Also, being away from family is stressful for them. When they are at home, they are worried about the events occurring in the hospital and vice versa. Simultaneously, they have to manage other aspects of their life such as their jobs, social relationships, and caring for their other children.<sup>[5]</sup>

Also, premature birth of a neonate causes unpleasant thoughts regarding his/her inability and vulnerability against various diseases and injuries resulting in anxiety and depression, which makes parents fail to play their parenting role perfectly. These challenges can affect the baby's growth and development since the feeling of tension is associated with showing less love and responsible behaviors from the parents and impaired parental behaviors.<sup>[6]</sup>

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: [reprints@medknow.com](mailto:reprints@medknow.com)

**How to cite this article:** Dadkhahtehrani T, Eskandari N, Khalajinia Z, Ahmari-Tehran H. Experiences of fathers with inpatient premature neonates: Phenomenological interpretative analysis. *Iranian J Nursing Midwifery Res* 2018;23:71-8.

**Received:** February, 2017. **Accepted:** July, 2017.

Tahmineh Dadkhahtehrani<sup>1</sup>, Narges Eskandari<sup>2</sup>, Zohre Khalajinia<sup>2</sup>, Hoda Ahmari-Tehran<sup>3</sup>

<sup>1</sup>Department of Midwifery and Reproductive Health, Nursing and Midwifery Care Research Center, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran, <sup>2</sup>Department of Midwifery, Faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran, <sup>3</sup>Faculty of Midwifery, Spiritual Health Research Centre, Qom University of Medical Sciences, Qom, PhD Student of Medical Education, Tehran University of Medical Sciences, Tehran, Iran

### Address for correspondence:

Dr. Narges Eskandari, Department of Midwifery, Faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran. E-mail: [narges.eskandari@gmail.com](mailto:narges.eskandari@gmail.com)

### Access this article online

Website: [www.ijnmrjournal.net](http://www.ijnmrjournal.net)

DOI: 10.4103/ijnmr.IJNMR\_21\_17

### Quick Response Code:



Several studies have examined the experiences of parents of premature neonates hospitalized in the NICU that mostly have focused on mothers. For example, the results of a study by Patil (2014) showed that mothers are always in stress because of the baby's admission to the NICU and proposed six major stress sources for mothers: preexisting family factors, prenatal and perinatal experiences, infant's illness, treatment and appearances in the NICU, infant outcome, loss of parental role, and health care providers.<sup>[5]</sup>

The fathers' experiences and needs in the NICU have been ignored and few studies were designed to explore them, whereas the fathers are usually the first ones to go to the NICU to meet the child, and provide information and support to the mothers.<sup>[7]</sup> Hollywood and Hollywood showed that the birth of a premature neonate poses a lot of stress on the fathers, because they had not been physically, emotionally, and psychologically ready for this event, and they encounter different needs. Hollywood reported anxiety, fear of unknown, and feelings of helplessness as the outcomes of hospitalization of a premature infant.<sup>[8]</sup> Candelori<sup>[9]</sup> stressed significant levels of anxiety and depressive symptoms among fathers. Other studies showed that fathers would need to acquire knowledge and awareness about the diagnostic and therapeutic methods, proceedings and medical examination related to the premature neonates as well as acquire skills in caring for and nursing of the newborn. They found out that failure to respond to these needs is a stressful and worrying factor for parents.<sup>[4,10]</sup> Considering that the nurses and midwives working in the NICU, labor or postpartum wards deal with fathers of premature neonates directly, the study of fathers' experiences can provide valuable information for them to establish good communication with these fathers based on profound understanding and empathy. Thus, this study was designed to explore the experiences of fathers with premature neonates hospitalized in the NICU.

## Materials and Methods

The present study is a phenomenological interpretative qualitative study conducted by participating fathers with hospitalized premature neonates in the NICU from December to January 2014. The scientific approach of phenomenology is an attempt to study situations in the world as experienced by human subjects.<sup>[11]</sup> In the present study, this matter involved examining the experiences of the phenomenon of having an inpatient premature neonate in the NICU as it was described by the fathers. The study was conducted in Qom, the eighth largest city in Iran and the capital of Qom Province. Qom is considered as a holy city by the Shi'a population, the second largest denomination of Islam and people from different Iranian ethnicity live in this city. The study population included all the fathers whose premature neonates were hospitalized in Hazrat-e-Zahra hospital. The inclusion criteria were willingness to participate in the study, the ability to

describe the experiences, experiencing hospitalization of a premature neonate in the NICU for the first time, not having any diagnosed illness, speaking Farsi fluently, and lack of anomaly in the neonate. Unwillingness to continue participation in the study was considered as the exclusion criterion.

Participants in this phenomenological study were recruited by available sampling method. The sampling procedure continued until data saturation; meaning that no new code was extracted, and repetition of extracted codes happened.<sup>[12]</sup> Saturation happened after interviewing five fathers, and the sixth interview was fulfilled to ensure the data saturation. All the participants were selected based on a shared experience: having a premature neonate in the NICU.

The researcher visited the NICU and selected the participants when the fathers referred to visit their neonates. Time of the interview was determined by father's opinion. Interviews were conducted in the waiting room of the NICU. Data collection was conducted through in-depth interviews using a semi-structured questionnaire as a guide. The interviews lasted 20–40 minutes and were recorded by an audiotape recorder with permission from all the participants. Interviews were written down and coded on the same day. If necessary, the second interviews were done to verify the data and fill the possible gaps.

Data were collected using demographic and semi-structured questionnaires prepared using literature review and consultation with experts. After a few pilot interviews, the questionnaire was modified and finalized. The following questions were used as a guide, and according to the father's responses, more exploring questions were raised: Explain your experience of the early birth of your neonate and his/her hospitalization, how do you feel as a father of a premature baby, what was the impacts of this event on your life and relationships, and what problems did you encounter. Each interview session ended with two questions: "In your opinion, are there any questions that I should have asked you?" and "Do you have any questions?"

Evaluation of credibility, transferability, and dependability was used to increase the rigor and trustworthiness of the data.<sup>[13]</sup> Credibility was assessed by the analysis of the results submitted to other members of the research team, and their comments and criticism were applied to modify the analysis. Also, the handwritten texts of interviews and the extracted themes were submitted to one interviewee to check whether the text has reflected his experiences or not. Interviews were conducted by a midwife that was experienced in interviewing and worked in the NICU as an educator. The other member of the research team had a Ph.D. in reproductive health and had experiences in interviewing, phenomenology study, and worked in the NICU as an educator. Transferability was increased by selecting appropriate samples, which were men who had experienced fatherhood. The participants and the

study phases were well described, and the possibility for auditing documentations was provided. In a contribution to ensure the dependability, data were submitted to two external specialists with no connection to the study to determine whether they would achieve the same results or not. It was important for the researcher to avoid personal subjectivity for achieving reflexivity throughout the research process by reflecting and becoming aware of preconceived notions and managing them throughout the research process to avoid research bias.<sup>[13]</sup>

Data of this qualitative study were analyzed by interpretative phenomenological analysis methodology.<sup>[14]</sup> The researcher spent a considerable amount of time in the NICU during the period of the study to have a deeper understanding of fathers' experiences and gain their trust. Thus, after the full implementation of the interviews, each recorded interview was written down and reviewed by the researcher line-by-line several times to realize and extract the main concepts. The themes characterizing each of the main concepts were determined and labeled. The themes were classified into different clusters based on their relation to each other, and a name was assigned to each cluster. Hence, the subordinate themes emerged. Finally, the researcher sought to explore common patterns among the extracted themes and formed the clusters from different interviews to form the superordinate themes.<sup>[14]</sup> The MAXQDA software, version 10 was used for data management.

### Ethical considerations

The objectives of the study were explained to the participants, written consent form was obtained from them, and they were assured of the privacy of their information. Also, participant's dignity and freedom were respected throughout the interviews. The present study was approved under the license SBMUZ.Rec. 1394.76 by the Ethics Committee of nursing and midwifery faculty of Shahid Beheshti University of Medical Sciences.

### Results

Seven interviews were conducted with six participants. The mean ages of the fathers and their wives were 32 (23–42) and 26.8 (19–35) years, respectively. All of the fathers lived with their wives. They had various jobs and educational levels. The demographic characteristics of the participants are shown in Table 1.

Following data analysis, 31 themes, 13 subordinate themes, and 3 superordinate themes were extracted, including “abandonment and helplessness,” “anxiety and confusion,” and “development and self-actualization” [Table 2].

### Abandonment and helplessness

Lack of financial support, lack of informational support, and indignation and distrust toward the hospital staffs made the fathers feel abandoned and helpless without any effective and adequate support from reliable sources.

*Lack of financial support:* High cost of hospitalization and treatment of neonates was the most important issue that all the fathers mentioned. Most of them were young and experiencing fatherhood for the very first time. Thus, they did not have enough savings. Not only the fathers were not able to afford their children's treatment costs but also they could not count on financial support from their relatives and the government. Most fathers accepted and mentioned the fact that other people have their financial problems and cannot be counted on for help. Although the fathers stated the importance of health insurances and “the Health Development Plan” of IRI in solving a great deal of their financial burden, they still insisted on the need for a special financial support from the government in such situations.

A 23-year-old participant said: “Really, I have nothing. Nothing! I spent whatever I had, and now I am out for her discharge... We could not ask anyone. I am not even thirty or forty years old. I did not have enough income to give 10 million ... that, I cannot afford ... I went to the chief of the hospital to get some support, something, but I got no answer... They did not even answer me! Swear to God; I do not know what to do (pause)” (Participant 6).

*Lack of informational support:* Lack of knowledge about the reasons for preterm birth and premature neonatal outcome in the future is distressing and worrying. The fathers did not know how to help their children and how they should take care of the babies after coming home. The fathers insisted on this fact that the hospital staffs would not provide them with adequate information in this regard.

“I'd like to have one or two counseling sessions with the treatment staff and other parents whose babies are premature” (Participant 3).

*Indignation and distrust toward the hospital staffs:* Most fathers were dissatisfied with the way the hospital staffs

**Table 1: Demographic characteristics of the participants**

Participant number	Age (years)	Job	Education	Wife age	Wife education	Wife job
1	37	Farmer	Elementary school	30	Elementary school	Housewife
2	25	Employee	Associate's degree	24	Diploma	Housewife
3	35	Employee	Master's degree	32	Bachelor's degree	Housewife
4	42	Employee	Bachelor's degree	35	Diploma	Housewife
5	30	Self-employed	Elementary school	21	Elementary school	Housewife
6	23	Mechanic	Diploma	19	Diploma	Housewife

**Table 2: A summary of the findings**

Superordinate themes	Subordinate themes	Themes	
Abandonment and helplessness	Lack of financial support	Limited financial resources Inability to receive financial support	
	Lack of informational support	Lack of knowledge and skill Lack of appropriate education for patients	
	Indignation and distrust toward the treatment staffs	Inappropriate personnel's behavior Lack of information about the existing conditions Failure to address the patient's complaints The unreliability of the skills of the medical staffs	
Anxiety and confusion	Family disruption	Lack of medical facilities Loss of order in the family Worry in the family environment The absence of the wife	
	Shock	Doctor's diagnosis Lack of previous experiences	
	Uncertainty	Unexpected nature of the occurred situation Fear of the child's future Uncertainty in the diagnosis and treatment of the premature neonate	
	Loss of wishes	Premature birth of the child after infertility treatment	
	Feeling of guilt and blame	Negligence in taking care of pregnant wife Neglecting religious orders	
	Occupational disruption	Disruption in attending the workplace Lack of focus on the job	
Development and self-actualization	Emotional development	Creating an anchor for wife	
	Spiritual development	Sympathy Trust in God	
	Independence and self-efficiency	Hope for the future Self-reliance in solving problems	
	Responsibility		Ability to manage various duties simultaneously Acceptance of the responsibility of caring for the wife
			Acceptance of the responsibility of caring for other children Acceptance of the responsibility for housework

behaved toward them and their neonates. They stated that the staffs were inconsiderate and indiscreet to the sentences, and words used in the presence of the parents were unwitting and insensate toward the babies' crying. The fathers also believed that the staffs were not knowledgeable and skillful enough.

"When the baby is crying his lung out, they don't even take a look at him! They just think about eating sweets and fruits and talking together... They are hardhearted and unmerciful. They often answer us in a bad manner" (Participant 6).

Some fathers were dissatisfied with the long waiting time for having an appointment with their children's physician and the physicians' explicit words while talking about the

babies' condition and their outcomes. The fathers stated that doctors were mostly emphasizing on the probability of nonrecovery or the negative consequences of prematurity, which induces further disappointment and fear. The fathers also mentioned that the doctors did not give an absolute opinion and their ambiguous answers would cause them more uncertainty, suspense, and stress.

"We come and stand here from 11 o'clock. Finally, we visit him. I asked him that these babies would want to stand up, run, exercise,... will they have any problems? He replies me in a wishy-washy way...this bothers me" (Participant 5).

### Anxiety and confusion

Factors such as family disruption, the shock caused by the early birth of the baby, uncertainty, loss of wishes, feeling

of guilt and blame, and occupational disruption caused anxiety and confusion in the fathers.

*Family disruption:* Since most mothers were in the hospital to breastfeed their neonates, their absence at home, as well as the presence of the newborn as a family member in the hospital, would influence all the family members and cause disruption and irregularity in the families. Other children of the family should have been taken care of by the relatives.

“A lot of problems! My daughter is at my mother’s house due to her school; my wife is at her mother’s house because she can’t come to our house to take care of a cesarean patient; one child is here (the hospital). It is very difficult; the family is disrupted these days” (Participant 1).

*Shock:* The sudden onset of preterm labor and the news that the neonate was premature and should be hospitalized and kept in an incubator due to lung problems were shocking for the fathers.

“I came here after the twins were born; when they told me baby’s lungs were immature, it seemed that someone pushed me down the roof” (Participant 6).

*Uncertainty:* Doubt about viability and health status of the premature neonate now and in the future was the main cause of concern and a feeling of uncertainty in the fathers.

“I became upset due to his birth at the seventh month; he may survive or may not. I am even stressed now; I am sad and afraid for his future. Any parent worries about his baby. They pray to God that their child would not be defective or premature become problematic in the future; suffer in the future” (Participant 1).

*Loss of wishes:* The fathers had decided to have a child with the hope of having a healthy baby and were preparing themselves and their family environment for the presence of this new member in the final months of their wives’ pregnancy to celebrate the birthday. But suddenly, they were faced with preterm birth and their hopes for child’s survival and health in the future was faded. In this situation, fathers felt that all their dreams have been ruined and gone, especially in fathers with a history of infertility and great difficulty and effort for having a child. For example, a father that had infertility for several years said:

“I spent over 3–4 million Tomans so that my twins were born healthy. We used injections, medications, etc., We had so much difficulty for having children. Thus, I’m very nervous” (Participant 6).

*Feeling of guilt and blame:* Some fathers were looking for the cause and someone to hold responsible for the early birth of the neonate and were trying to link the occurred problems to them and their mistakes and failures. They reviewed their memories and related their baby’s early birth to problems such as noncompliance with religious rituals, deficiencies in medical care, or failure in taking care of the pregnant woman.

“I blame my wife due to her inconsiderateness. Frequently, I saw her doing heavy works” (Participant 1).

“In Islam, there are many recommendations on religious rituals of life even for marital relations. Thank God, I had done my best in the case of my first baby... but on my second child, detestable things happened that I did not comply... it is my fault” (Participant 2).

*Occupational disruption:* Following the hospitalization of the neonate in the NICU, in addition to fulfilling the issues related to the hospitalized baby, supporting their wives, and taking care of their other children, the fathers had to handle their occupational duties too. The excessive workload and responsibilities, as well as the shortage in time, interfered with performing their occupational duties perfectly that increased their stress and worry.

I had to go to work at 4 o’clock, but fathers could visit their babies from 3 to 4 o’clock; so I left my work and came here to see how my baby was” (Participant 5).

### **Development and self-actualization**

Despite all the experienced challenges and stresses associated with the birth of a premature infant, the fathers also had experienced development in some aspects such as emotional, spiritual, independence and self-efficacy, and responsibility.

*Emotional development:* Compared to the past, the fathers were more empathetic with their wives and family members, and tried to better understand their feelings and discomfort. Some fathers pointed out that after the birth of their premature neonate, the intimacy in their marital relationships was increased. The fathers also had empathy for other similar babies/fathers and even the hospital staffs such as doctors and nurses.

“I feel that my wife needs me now. I think my affection for the family is increased and I understand them fully” (Participant 3).

“The doctor didn’t treat me well; I assume that, maybe others have bothered him, made him nervous. A doctor is a man like us. He can’t support 100 patients and their families. His patience is limited” (Participant 2).

*Spiritual development:* Following the experience of frustration and uncertainty caused by the conditions of the premature neonates, the fathers hoped for God’s mercy and help. The fathers made all their efforts to pave the way for the treatment of their premature neonates trusting in God.

“Whatever God wants would happen. We made our efforts. We make our move but the result is in the hands of God, and it is not up to us. We just pray. I say to my God; I put my baby in your hands. Make him normal and healthy, a perfect flower, so when he grows up, he would not suffer, no pain” (Participant 1).

*Independence and self-efficacy:* The fathers were trying to rely primarily on their abilities to solve the problems and not looking forward to receive any help and support from others. Meanwhile, they averred that they have performed various duties in the roles of both the father and the mother, simultaneously. This led to higher self-esteem and self-satisfaction in the fathers.

“We have a staggering chaos in our home. We have two school-age children. I have to go to work in the morning and come back at noon or go to work at noon and come back at night. The house is a mess; the kids are upset! Anxious! Worried! I frequently have to come to the hospital for the baby” (Participant 3).

*Responsibility:* The critical condition caused by the early birth made the fathers feel that the family members were vulnerable and needed their support more than ever. Therefore, a sense of responsibility has been strengthened in them and they applied all of their power to support their family and meet their needs. They took care of their wives and other children and did the household chores in the absence of their wives or during their illness.

“Tiredness from work and fatigue and peripheral issues has a series of consequences. But, I try not to reveal them at all. I try not to make my wife notice them” (Participant 3).

“All the responsibilities are on my shoulders, even the responsibility of my daughter that goes to school; it weighs heavily on my shoulders” (Participant 1).

## Discussion

This study was aimed to explore the experiences of fathers with premature neonates hospitalized in the NICU. Three superordinate themes were extracted: “abandonment and helplessness,” “anxiety and confusion,” and “development and self-actualization.”

The first superordinate theme, “abandonment and helplessness,” includes three subordinate themes: lack of financial support, lack of informational support, and indignation and distrusting toward the hospital system. Fathers in the present study expressed that they did not have enough money to pay for their child’s treatment costs and could not count on financial support from their relatives and the government. In no other similar study, the parents pointed lack of financial support, probably due to having full coverage insurance. In this study, one of the most important concerns of fathers was lack of knowledge and awareness about the treatment process and the outcomes of the premature neonate, and they pointed the need for getting information about the probable outcomes of preterm delivery. Results of other studies showed that parents would need to acquire knowledge and awareness about the diagnostic and therapeutic methods, proceedings and medical examinations related to the premature neonates, as well as acquiring skills in caring

for and nursing of newborns. They found out that failure to respond to this need is a stressful and worrying factor for parents.<sup>[4,10]</sup> These findings stress the importance of informational preparation and education for parents. In this regard nurses can play a vital role in reducing the stress and anxiety of the parents.<sup>[5]</sup>

In the present study, fathers distrusted the quality of medical services provided by the hospital staffs in the NICU and believed that the staff, especially nurses, are not knowledgeable and skillful enough. Most fathers were dissatisfied with the way the hospital staffs behaved toward them and their neonates. They believed that the staffs are inconsiderate and indiscreet to the sentences and words that they are using in the presence of the parents and are unwitting and insensate toward the baby’s crying. We did not find any national studies about the experiences of premature neonates’ fathers in this area, but Kohan *et al.* found out that the mothers of inpatient premature neonates did not receive the expected support from the hospital staffs. They believed that the staffs did not listen to them carefully and showed negative reactions and perversity.<sup>[15]</sup> Unlike these findings, in a study by Jackson *et al.*, all the fathers expressed confidence in the competence of the staff. Jackson *et al.*<sup>[16]</sup> found that factors such as the amount of information and knowledge, as well as the technical competence of nurses in the neonatal unit, were the most significant concerns among mothers. These findings refer to the effect of staffs’ knowledge, proficiency, and communication on the satisfaction of the parents of premature neonates in all the society and the importance of increasing the knowledge, proficiency, and communication skills among medical professionals.

The second superordinate theme was “anxiety and confusion.” The fathers felt that their families disrupted, they lost their wishes and immersed in shock, uncertainty, guilt and blame, and occupational disruption. The study of Hollywood and Hollywood (2011) showed that fathers were worried about the prognosis, physical condition, and growth of the baby in the future; also they experienced anxiety, fear of unknown subjects, and feeling of helplessness.<sup>[8]</sup> Another study showed that lack of preparation for parenting, hospitalization, grief, and isolation would all lead to a difficult emotional condition for parents.<sup>[17]</sup> According to the present study, the absence of mother and presence of the newborn and mother at the hospital would influence all the family members and cause disruption and irregularity in the family. Lindberg believed that families could not spend time together due to mothers’ absence.<sup>[18]</sup> Couples’ separation in all the studies is one of the important difficulties that parents of inpatient neonate will encounter. Suitable supports such as relatives’ participation in the care of the neonate can be useful to decrease this anxiety.

In the present study, preterm labor and the news of neonate’s hospitalization and stay in an incubator due to

lung problems were shocking for the fathers. Similarly, the researchers in another research concluded that the birth of a premature neonate posed a lot of stress on the fathers because they had not been physically, emotionally, and psychologically ready for the birth of a premature baby and they had encountered different needs.<sup>[8]</sup> Candelori<sup>[9]</sup> suggested that preterm birth and the subsequent hospitalization in the NICU may produce an emotional impact on fathers regardless of the degree of risk. Doubt about viability and health status of the premature neonate, now and in the future, was the main cause of concern and feeling of uncertainty in the fathers. In Lindberg's study, all the mothers feared that their infant might be ill or injured, or that it would not survive.<sup>[18]</sup> In a study by Kohan *et al.* the mothers were worried about the dangers threatening their premature neonate, and his/her survival and future. Also, they felt they had no control over the condition and had no effective role in the destiny of their babies.<sup>[15]</sup> In the present study, after the birth of the premature infant, fathers felt that all their dreams have been ruined and gone, especially in the case of fathers with a history of infertility and great difficulty and effort for having a child. In a study by Valizade *et al.*<sup>[10]</sup> the mothers of premature neonates stated that they lost all of their wishes about the birth of their babies due to the preterm birth. These findings suggested that fathers and mothers have the same emotions and concerns about the premature infant and psychological supports are necessary for them to cope with this situation.

In the present study, some fathers were after the cause and someone to hold responsible for the early birth of the neonate and were trying to link the occurred problems to themselves and their mistakes and failures. Other similar studies did not report this finding. These differences are likely to be related to the spiritual and cultural diversity or the depth of the studies.

In addition to fulfilling the issues related to the hospitalized baby, supporting their wives, and taking care of their other children, fathers had to handle their occupational duties too. These new additional responsibilities interfered with fathers' occupational duties and increased their stress and worrisome. In the study by Hollywood, fathers said that on the one hand, they could not spend enough time with their newborns because of their job requirements; on the other hand, they were not mentally relaxed and happy at work due to being worry about their neonates.<sup>[8]</sup>

In the present study, the third superordinate theme was "development and self-actualization," including emotional and spiritual development, independence and self-efficacy, and responsibility. In Lindberg's study, the fathers described how the experience of fatherhood led to their development as a person and a change in their values.<sup>[18]</sup> In the present study, compared to their past, fathers were more empathetic with their wives and family members

and tried to understand their feelings and concerns better. In line with the present study, in Lindberg's study, fathers stated that having a good relationship with their wife was an important method for managing a family with a preterm born infant.<sup>[18]</sup> These findings stressed that parental development is a common experience in fathers of inpatient premature neonates.

In the present study, along with experiencing frustration and uncertainty, the fathers hoped for God's mercy and help. In consistency with these findings, Arzani *et al.* (2014) reported that the mothers considered the birth of their premature neonate as a divine goodwill and a sign of God's mercy. These beliefs pave the way for mothers to accept the difficulties and problems more easily. The mothers' spiritual growth were emerged with closeness and connection to God, thanksgiving and constant contact with God, boosting faith in God and a change in mothers' attitude. The mothers spoke of this incident as a sign to find out the power and glory of God.<sup>[19]</sup> We did not find this theme in other studies. These differences may be related to the spiritual and cultural diversities or the depth of the studies.

In the present study, fathers were trying to rely primarily on their abilities to solve the problems and not looking forward to receive any help and support from others. The sense of responsibility has been strengthened in fathers, and they applied all of their power to support their family and meet their needs. Arzani *et al.* (2014) also indicated that the mothers with premature neonates would achieve greater understanding and self-belief, which made it easier for them to fight against the problems and difficulties.<sup>[19]</sup> Other studies did not report this finding.

The unwillingness of some fathers to participate in the study may be considered as a limitation of this study as they might have different experiences from paternal adaptation that may affect the results of this study.

## Conclusion

The present study showed that the fathers with premature neonates hospitalized in the NICU might have both positive (development and self-actualization) and negative experiences (lack of financial and informational supports, distrusting toward the hospital staffs, family disruption, and occupational disruption) that some of them are solvable somehow. Modifying fathers' adverse experiences could help them to cope better with their critical situation. Some measures are suggested to decline fathers' negative experiences including paying a governmental loan to them, applying knowledgeable and skillful staffs in the NICU, training staffs in about empathic and communicational skills, and holding educational and counseling sessions for the fathers of premature neonates.

## Acknowledgments

The authors would like to appreciate all fathers that participated in this study (project number: 5934).

## Financial support and sponsorship

Our article has not been derived from a thesis research project and has not been supported financially.

## Conflicts of interest

The authors declared no potential conflicts of interests on the research, authorship, and publication of this article.

## References

1. Murray SS, McKinney ES. Foundations of maternal-newborn and women's health nursing: Missouri: Elsevier Health Sciences; 2014.
2. Aliabadi T, Bastani F, Haghani H. Effect of mothers' participation in preterm infants' care in NICU on readmission rates. *HAYAT* 2011;17:71-7.
3. Eskandari N, Simbar M, Vedadhir A, Baghestani A. Paternal experiences in Iranian men: A phenomenological study. *Iran J Nurs Res* 2016;10:105-16.
4. Rasti M, Aliabadi FF, Shafarodi N, Rafiee F, Kalani M. Specification of the educational needs of parents with premature infants admitted to neonatal intensive care unit. *MRJ* 2014;8:21-9.
5. Patil S. Level of stress and coping strategies seen among parents of neonates. *J Fam Psychol* 2014;3:579-85.
6. Mianaei SJ, Karahroudy FA, Rassouli M, Zayeri F. Effectiveness of "Parent Empowerment" program on anxiety and stress in mothers who have preterm infants hospitalized in NICUs. *Payesh* 2012;11:253-8.
7. Soares RL, Christoffel MM, Rodrigues Ed, Machado ME, Cunha AL. Being a father of a premature newborn at neonatal intensive care unit: From parenthood to fatherhood. *Escola Anna Nery* 2015;19:409-16.
8. Hollywood M, Hollywood E. The lived experiences of fathers of a premature baby on a neonatal intensive care unit. *J Neonat Nurs* 2011;17:32-40.
9. Candelori C, Trumello C, Bobore A, Keren M, Romanelli R. The experience of premature birth for fathers: The application of the Clinical Interview for Parents of High-Risk Infants (CLIP) to an Italian sample. *Front Psychol* 2015;6:1444.
10. Valizadeh L, Akbarbeglou M, Asadollahi M. Stressors affecting mothers with hospitalized premature newborn in NICUs of three teaching hospitals in Tabriz. *Medical J Tabriz Univ Med Sci Health Serv* 2009;31:85-90.
11. Giorgi A. Concerning the application of phenomenology to caring research. *Scand J Caring Sci* 2000;14:11-5.
12. Streubert H, Carpenter D. Qualitative research in nursing: Advancing the humanistic imperative. Lippincott: Williams & Wilkins; 2007.
13. Polit-O'Hara D, Beck CT. Essentials of nursing research: Methods, appraisal, and utilization. Lippincott: Williams & Wilkins; 2006.
14. Smith JA, Flowers P, Larkin M. Interpretative phenomenological analysis: Theory, method and research. London: Sage; 2009.
15. Kohan M, Borhani F, Abbaszadeh A, Sultan Ahmadi J, Khajehpoor M. Experience of mothers with premature infants in neonatal. *J Qual Res Health Sci* 2012;1:41-51.
16. Jackson K, Ternstedt BM, Magnuson A, Schollin J. Quality of care of the preterm infant—the parent and nurse perspective. *Acta Paediatr* 2006;95:29-37.
17. Whittingham K, Boyd RN, Sanders MR, Colditz P. Parenting and prematurity: Understanding parent experience and preferences for support. *J Child Fam Stud* 2014;23:1050-61.
18. Lindberg B, Axelsson K, Öhring K. The birth of premature infants: Experiences from the fathers' perspective. *J Neonat Nurs* 2007;13:142-9.
19. Arzani A, Valizadeh L, Mohammadi E. Mothers' experiences of caring for prematurely born infants: Growth sparks in the face of caregiver burden. *J Qual Res Health Sci* 2014;3:217-29.