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Anticipatory Grief Reactions in Fathers of Preterm Infants Hospitalized in Neonatal Intensive Care Unit

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ABSTRACT

Introduction: Entering the state of fatherhood combined with the birth of a preterm neonate puts fathers' mental health at risk. Paying attention to fathers as a major supporter for mothers is essential. Therefore, the present study was conducted to evaluate anticipatory grief reactions among fathers with premature infants hospitalized in neonatal intensive care unit. ***Methods:*** The current descriptive, cross-sectional study was conducted on 120 fathers with premature infants hospitalized in neonatal intensive care unit in hospitals of Tabriz (Iran) during 2011. Fathers were selected using convenience sampling method. Data was collected using a valid and reliable anticipatory grief scale which rated items as 0-3. ***Results:*** All fathers reported anticipatory grief reactions. The mean score of items was 1.47. The most common reactions were unremitting mental engagement with the infant and feeling of sadness. Irritability and feeling of anger were reported to be less severe. The least important reactions were related physical reactions such as disorders of sleep and appetite and feeling of guilt. ***Conclusion:*** Fathers experience anticipatory grief after the birth of premature infants and their hospitalization in neonatal intensive care unit. Therefore, it is essential for the health care providers to pay more attention to cognitive and emotional reactions of fathers.

Introduction

Families with a premature infant experience a difficult situation.[1] When an infant is born weak and premature according to medical standards, parents will have difficulties in taking parental roles and adapt with the new condition.[2] They experience problems such as understanding the infant's medical problems, decision-making about how to care, watching the infants as they suffer invasive treatments, and being unable to fulfill their parental duties.[3] Entering the state of fatherhood is a very important[4] and stressful[5] stage in a man's life. By the birth of a premature infant, that transfer time becomes shorter and the father confronts with an urgent crisis.[4] Lindberg et al. believed that fathers try to psychologically prepare themselves for the childbirth and upcoming issues.[5] Following the birth of a premature infant, the parents feel loss of control over their duties.[6] Although fathers are not hospitalized or in physical contact with the infant, they may experience the same level of grief as mothers do.[7]

Anticipatory grief is a type of grief that happens before the actual loss.[8-11] It, according to Benfield, makes the parents ready for the probable loss of their infant

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while they are also hopeful for the infant to survive.[12] This type of grief is attributed to a mixture of experienced feelings which are expressed as mental, cognitive, physical, and behavioral manifestations. Examples of physical reactions reported by fathers are sleep disorders, tiredness, hypertension, arm pain, and appetite disorders. On the other hand, mental disorders can include feelings of anger, sadness, despair, helplessness, and guilt. Mental engagement with the beloved person is one of the cognitive reactions of grief.[13-15]

Fathers have difficulties in expressing their feelings of grief. Most fathers do not express their sense of loss[16] or suppress it[17] since they see themselves to be responsible for supporting[18,19] and protecting the mother.[20] In fact, they want the mother not to be affected.[21] On the other hand, men are expected to be strong[22] and not to express their grief.[1] In fact people who sympathize with the mother's expression of grief disapprove the father's if they do the same.[1] However, Bracht et al. stated that the sense of loss and unhappiness among men is so great that makes it difficult for them to deal with an premature infant.[23]

Nurses, as important members of health care team, can promote family-centered care and support to families in crisis[24] if they have a good understanding of the experiences and feelings of fathers.[25] It should be considered that even if the infant's status gets good, the anticipatory grief can lead to problems in dependencies and relations between the parent and the infant.[8] In addition, unidentified anticipatory grief and lack of appropriate support can lead to symptoms such as anxiety disorders and depression.[15]

The majority of studies have evaluated the experiences of mothers, [26-29] fathers, [2,5,6,29] or parents[30-33] of premature infants hospitalized in neonatal intensive care units (NICU). Most studies on grief have examined the grief of perinatal loss.[17,34,35] The only study to compare anticipatory grief of mothers and fathers with an premature infant was performed by Benfield.[12] Unfortunately, we could not find any studies on the anticipatory grief reactions among Asian and Euro-American parents with premature infants.

Considering the impact of beliefs and cultural norms on grief reactions of fathers and limited studies in our country (Iran), it is critical to evaluate the anticipatory grief reactions of Iranian fathers to help health care providers to improve the quality of care received by fathers. Therefore, the present study described the anticipatory grief reactions of fathers with premature infants hospitalized in NICU.

Materials and methods

In a descriptive, cross-sectional study, fathers of premature infants hospitalized in NICUs of hospitals in Tabriz (Iran) were assessed during 2011. Based on a pilot study on 10 fathers with premature infants in NICU and $\alpha = 0.05$, $p = 0.47$ (major problem), and $d = 0.09$, the sample size was determined as 119 fathers. Finally, 120 eligible fathers were included using convenience sampling method. The inclusion criteria were having infants without congenital malformation who had been in NICU for 1-20 days and aging over 18 years old. Individuals with history of mental illnesses or receiving psychotropic medications, history of prenatal counseling and previous view of the NICU, history of hospitalization of infants in the NICU, and history of infant or child death were not included. Fathers whose wife had a history of miscarriages or stillbirths were also excluded.

An anticipatory grief scale including seven items of feeling of sadness, feeling of anger, difficulty sleeping, appetite loss, mental preoccupation about the baby, irritability, and guilt was used. Based on a 4-point Likert scale, the items were scored as 0 (no problem), 1 (minor problem), 2 (moderate problem), and 3 (major problem). Therefore, the mean of total scores also ranged from zero to three. The reliability and validity of this scale have been previously confirmed.[12] In order to examine the accuracy of Farsi

version of the scale, it was given to two English experts and two individuals with PhD in nursing. Their suggestions on translation were then applied. The scientific validity of the scale was investigated by face and content validity by two psychiatrists and six experts in the field of pediatric nursing and psychology. We used all original items except one item on appetite which was changed into decreased or increased appetite according to the opinion of experts. The reliability of the scale after ten eligible fathers filled it out (Cronbach's alpha = 0.83).

After acquiring approval from the Ethics Committee of Tabriz University of Medical Sciences and health authorities of teaching hospitals and NICU, the participants were ensured about the confidentiality of information and their right to withdraw at any time. Informed consents were then obtained from fathers who had met their infants. Afterward, data was collected through individual interviews using the AGS questionnaire. The interviews lasted for about one hour and were performed by the researcher and well-trained research assistant. Finally, data was analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) in SPSS for Windows 13.0 (SPSS Inc., Chicago, IL, USA).

Results

Demographic information of the 120 participating parents is shown in table 1. The mean (SD) age of fathers was 6.25 (31.80) years (range: 21 to 47 years). The maximum level of education for 44.2% of participants was less than high school diploma.

Table 2 shows health status of 120 infants. As it is seen, 70% of premature infants were the first child of families. Among the infants, 55 (45.8%) were male, 56 (46.7%) were female, and 9 (7.5%) were twins. The mean (SD) gestational age at childbirth was 3.4 (30.7) weeks (range: 44-36 weeks). The mean birth weight was 3.00 ± 0.68 kg. The weight of 70% of the infants was 1000-1900 grams. The mean (SD) duration of hospitalization of infants in the NICU at the time of study was 6.09 (9.96) days. The mean (SD) duration of using medical equipment for the infants was 5.13 (5.75) days.

Table 1. Demographic characteristics of fathers with premature infants hospitalized in neonatal intensive care unit

Variable	N (%)
Location*	
Native	74 (62.2)
Nonnative	45 (37.8)
Level of education	
Primary or secondary school	53 (44.2)
High school diploma	32(26.7)
University	35(29.1)
Type of job*	
Employee	33 (28.0)
Worker	26 (22.0)
Self-employed	59 (50.0)
Monthly income (Rials)	
Less than 3000000	42 (35.0)
Between 3000000-5000000	39 (32.5)
More than 5000000	39 (32.5)

* In these cases, the frequency is less than 120

Table 2. Frequency distribution of characteristics of infants

Variable	N (%)
Pregnancy age at birth (weeks)*	
24-28	41 (35.2)
29-32	42 (35.8)
33-36	34 (29.0)
Birth weight (g)	
< 500	5 (4.2)
500-1000	10 (8.3)
1001-2000	84 (70.0)
> 2000	21 (17.5)
Medical problems*	
Respiratory	100 (90.1)
Cardiac	3 (2.7)
Jaundice	6 (5.4)
Abnormalities	1 (0.9)
Digestive	1 (0.9)
Need for ventilation	
Yes	54 (45.0)
No	66 (55.0)

* In these cases, the frequency is less than 120.

More than half of the fathers scores "preoccupation or dreaming about the infant" and "feeling of sadness" as major problems. On the other hand, "disorders with sleep and appetite", and "feeling guilty" were scored the west. The mean (SD) score of anticipatory grief of fathers was 0.78 (1.47) (Table 3).

Table 3. Frequency distribution, mean (SD) scores, and confidence interval (CI) of different problems in predicting grief of fathers with premature infants hospitalized in neonatal intensive care unit

Item	No problem	Minor problem	Moderate problem	Major problem	Score	95% CI for Mean
	N (%)	N (%)	N (%)	N (%)	Mean (SD)	
Feeling of sadness	10 (8.3)	20 (16.7)	26 (21.7)	64 (53.3)	2.20 (1.00)	2.01-2.38
Feeling of anger	42 (35.0)	23 (19.2)	34 (28.3)	21 (17.5)	1.28 (1.12)	1.08-1.48
Difficulty in sleeping	49 (40.8)	28 (23.3)	26 (21.7)	17 (14.2)	1.09 (1.09)	0.89-1.28
Decreased or increased appetite	51 (42.5)	32 (26.7)	19 (15.8)	18 (15.0)	1.03 (1.09)	0.83-1.23
Preoccupation or dreaming about the baby Irritability	51 (12.5)	13 (10.8)	16 (13.3)	76 (63.3)	2.27 (1.08)	2.07-2.47
Thinking about activities that caused problems for the baby (guilt)	24 (20.0)	40 (33.3)	32 (26.7)	24 (20.0)	2.27(1.08)	2.07-2.47
Total	306 (34.9)	171 (19.5)	168 (19.2)	231 (26.4)	1.47 (0.78)	1.33-1.61

Discussion

According to our results, fathers experience anticipatory grief reactions due to the birth of premature infants. Fathers reported cognitive problems (preoccupation or dreaming about the baby) and psychological distress (feeling of sadness) as the most serious cases. Increased irritability and feeling angry were also mentioned as moderate problems. While physical issues including sleep disorders and changes in appetite had less importance, the least scores were given feeling guilty. Due to insufficient number of related studies, these findings cannot be compared to other similar studies. However, Murphy assessed the feelings of fathers after early abortion. They reported shock, lack of trust, discomfort, and helplessness as early feelings and anger, fear, loneliness, and guilt as late feelings. They also expressed their anger as a dominant feeling.[17] Stinson et al. evaluated parental grief following pregnancy loss and suggested feeling angry as a more severe reaction than sadness.[3] In contrast; our participants felt higher levels of sadness than anger. Murphy[17] and McCreight[35] indicated that fathers blame themselves because of abortion. On the contrary, the fathers in the present study did not feel much guilty. Symptoms of grief reactions to death and premature birth of infants and birth of a malformed infant are similar.[8] However, inconsistencies between this study and previous research in feelings of anger and guilt might have been caused by death of infants in the latter case, i.e. infants in the present study were still alive and fathers hoped they could survive despite the risk of probable death. As a result, feeling sad was more common.

Men usually try to hide their psychological reactions such as feeling upset or nervous to protect their wives and pretend to be strong against social expectations.[18,19,22] Generally, in the present study the most important grief reaction of fathers was persistent mental occupation. The problems of fathers are associated with their changing role, diagnostic struggles and uncertainty of outcome, changed expectations, changes in the interaction with infant, learning skills to take care of the infant, and their professional duty.[36] According to family-centered care that focuses on all family members (mother, father, siblings) and their needs, fathers are often neglected.[25] Therefore, paying more attention to the fathers by the treatment team, especially nurses, seems to be necessary.

The majority of available studies are related to perinatal grief. The anticipatory grief reactions of parents, especially fathers, who have hospitalized infants should not be ignored. It is necessary for the healthcare team to be aware of the grief process and to recognize the normal behavior of grieving parents to offer appropriate interventions.[8]

Since grief is influenced by psychological conditions and cultural beliefs, recognition of treatment team about the grief reactions of fathers can be more useful in practical and emotional services and in prevention of complicated grief. It can also facilitate the process of adaptation in parents.

Conclusion

Fathers in the present study experienced anticipatory grief reactions after the birth and hospitalization of a premature infant. Therefore, it is necessary to pay more attention to psychological and cognitive reactions of fathers. Recognition of the grief reactions of fathers can provide better services and practical support and help fathers to adapt themselves with the new situation.

Since this study was conducted for the first time in Iran, it might have some limitations such as being limited to one geographical area of the country and using convenience sampling which makes generalization impossible. In addition, anomalies not related to the appearance of infants may be influential on fathers' grief. Personal factors, social support, and racial characteristics are other uncontrollable variables. Considering the impact of cultural factors on grief, further studies in other cities of Iran and other countries with larger sample size and the use of various sampling methods are recommended. Moreover, it is suggested to evaluate health problems of infants and different sources of support. Studies on grief reactions of mothers of premature infants hospitalized in NICU are also beneficial in comparing the grief of mothers and fathers. The present study had a cross-sectional design. Therefore, attention to grief reactions of fathers needs to be paid in longitudinal studies in Iran.

Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

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