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Medical Journal of the Islamic Republic of Iran (MJIRI)
Iran University of Medical Sciences

Parental self-support: A study of parents' confront strategy when giving birth to premature infants

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Received: 15 December 2013 Accepted: 26 January 2014 Published: 27 July 2014

Abstract

Background: This study aimed to understand the confront strategies of parents of premature infants hospitalized in NICU.

Methods: This study was performed using qualitative content analysis approach. Twelve participants including nine parents whose infants were hospitalized in NICU, two nurses and one physician, all selected by purposive sampling method were interviewed by a female expert occupational therapist. Data were gathered by semi-structured interviews. Data were analyzed by inductive content analysis approach.

Results: One category, six subcategories and twenty one themes emerged from data analysis expressed confront strategies of parents of premature infants admitted in NICU. These categories were: taking assurance, stop thinking to bad things, diverting mind, taking supports, emotional expression, complaining from staff.

Conclusion: Premature infant's parents announced that they do not receive adequate formal support to manage their feelings and needs. So, they seek for other informal resources of support and apply some special strategies including self-support.

Keywords: Strategies, Parents, Premature Infants, Content Analysis, Descriptive.

Cite this article as: Aliabadi F, Kamali M, Borimnejad L, Rassafiani M, Rasti M, Shafaroodi N, Rafii F, Askari Kachoosangi R. Parental self-support: A study of parents' confront strategy when giving birth to premature infants. *Med J Islam Repub Iran* 2014 (27 July). Vol. 28:82.

Introduction

Although the birth of a healthy infant is a happy event, it leads to many parental stress including adjusting to caring, coping with physical demands, and living with current financial obligations (1-2). When infant is born premature and requires critical care in a Neonatal Intensive Care Unit (NICU), parents don't have psychological, emotional and physical readiness and might undergo additional stress (2), creating uncertainty for the whole family (3-4).

These parents struggle with the unknown, unfamiliar and potentially threatening environment of NICU. The high-Tech environment in NICU is one of the main stressors for them (3,5). Duration of hospitalization in NICU for a premature infant may range from a few days to several weeks or even months depending on their medical condi-

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tion (6). In this situation, separation from infant can make a lot of parental stress and lead to interruption in acquiring the natural parental skills and psychological readiness (7). These parents usually are faced with so many challenges related to the development of their parenting roles (3,8-10). Many studies show that these parents experience high level of anxiety, depression and psychological reactions such as frustration, guilt feeling, sadness, hostility, irritability, fear, grief, feeling helplessness, feeling of failure and loss of confidence (11).

If parents are not informed about the appearance and behavioral differences between preterm and full-term infants, development of positive and natural parent-infant relationship might inhibit (6).

Ignoring the parental psychological and emotional stress causes some impairment in the parent-infant attachment which leads to increased vulnerability of premature infants and their parents. Furthermore, parents are the essential and important part of family-centered interventions in caring of premature infants. Therefore, understanding their needs and feelings helps the therapy team provide better services for them and also their infants. Currently, limited studies have been done in this area in Iran and further studies are needed. The purpose of this qualitative content analysis was to understand the Confront strategies of parents of premature infants hospitalized in NICU.

Methods

A descriptive qualitative content analysis approach was used to achieve the aim of the study. Analyzing the content of narrative data help identifying prominent themes and patterns among the themes and is a method that is useful for studying phenomena about which little is known (12).

Sample and data collection method

This study was conducted in collaboration with parents, nurses, and a physician at the hospitals affiliated to Iran University of Medical Sciences in Tehran, Iran.

Each participant was interviewed and audio taped using a semi-structured format with open-ended questions. The interviewer was a female occupational therapist who was expert in neonatology and has been involved directly in the care of these infants. She had 16 years experience in the field of pediatric family-centered occupational therapy and 10 years experience of early intervention. Interviews were conducted at a time and place of convenience to the participants. One participant was interviewed in his own home and others in a quiet private room within the hospital. All interviews were conducted by the same researcher. Prior to the beginning of each interview, researcher informed the participants about the purpose of the study and their permission were sought regarding the tape record. The researcher assured all participants that they could withdraw from the study at any time during the study.

Initially, participants were asked about their infant's current condition and the parents' demographic information. Then, the main interview started with the question: "Please describe one day of your stay in NICU? The narration was supported by questions such as: "What changes do occur in your life after the infant's birth?" "What do you do to adapt this situation?" Participants were encouraged to speak freely in a narrative form. The interviews took the form of a conversation, and the interviewer used active listening skills in this process. Interviews lasted between 20 and 60 minutes.

The parents' criteria for inclusion were: to be Persian-speaker; having a singleton, low birth weight premature infant with gestational age of 28 to 37 weeks in NICU for at least 7 days; having no genetic disorder, no grade 3 and 4 intraventricular hemorrhage, no Apgar score under 7, no cardiopulmonary arrest in their infants and no history of having another infant in NICU. Two nurses and one physician working in NICU and had an appropriate ability to communicate verbally were chosen to complete data gathering. The mean length of hospitalization in NICU was 34.5 days. Exclusion cri-

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terion was the participant's relinquishment in any step of the study.

Ethical considerations

Written and verbal informed consent was obtained from each participant according to a protocol approved by the Research Ethics Committee of the Iran University of Medical Sciences. They were asked to participate voluntarily and informed that they could refuse to enter or withdraw from the study at any time. To protect their privacy and confidentiality, interviews were conducted with the participation of only the interviewer and the interviewee and participants were identified by an identification code.

Data analysis

The interviews were tape recorded and transcribed. Each transcription was coded by hand, using the qualitative content analysis method (13). Qualitative content analysis is a valuable method of investigating themes and so, was selected for analyzing the study data. A theme or code, a single statement, is a most useful unit of content analysis. For coding the study data, at the first step, each interview was coded line by line by first author who was qualified in qualitative research methods and a research assistant (fifth author) who was trained in this field. These primary codes were meaningful statements, which lengths from a word to one or more complete sentence(s), in participant's own words. In the next step, these primary codes were rephrases into shorter phrases. Then, similar phrases were brought together and subcategories emerged. Finally, the main category was generated through more abstraction of subcategories. This process is shown in Box 1.

Data credibility

Credibility of data was provided through member checking, peer checking, prolonged engagement with participants and data and, maximum variation of sampling. Member checks confirmed whether or not interpretations of participants' statements were accurate. Ten of twelve participants had the opportunity to review their full transcript of their coded interview at the next visit, while two of them (both were parents) did not check their statements due to discharge from hospital and their reluctance with being followed. The use of peer checking process helped decreasing possible biases. For this purpose, sixth and seventh authors of this article independently checked transcripts, codes, subcategories, and categories and reached an acceptable

Box 1. Data analysis process

First phase. Line by line coding
"I try to support myself emotionally and think that there is no problem and nothing would happen to my baby."
" I try to support her emotionally,..., I tell her that it is God's will, and it would happen if it is supposed to, and thanks God our baby is getting better and we can take him home."
"I was worried about my wife…. But… she even takes care of me which helps me think that everything is alright."
"Sometimes talks with my family made an evolution in my thinking."

Second phase. Phrasing shorter codes
To support herself emotionally and think nothing would happen to baby
To support spouse emotionally about baby's getting better
To think everything is alright due to taking care from spouse
To talk with family in order to feel better

Third phase. Developing final codes
Self assurance
Taking assurance from couple
Taking assurance due to appropriate spousal and parental roles
Taking assurance from other family member

Fourth phase. Making and naming
Taking assurance

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agreement on them with main research team. Prolonged engagement with participants and data helped researcher to achieve a better communication with participants and have a deep understanding of context.

Results

Participants' characteristics

Five mothers, four fathers, two nurses, and one physician participated in the study. Nurses had master's degree in neonatal nursing with 5 to 7 years experience of working in NICU. Physician was a subspecialist in neonatology with 18 years experience. Table 1 presents the remaining demographic information of the parents and medical information of the infants whose parents were interviewed.

Analyzing the data and interviews of present study in order to compiling and identifying the parents' confront strategies toward prematurity of their infant resulted in six subcategories, contain the strategies and methods that these parents utilize to manage the difficult and stressful situations they are encounter with. These six subcategories are explained and illustrated with quotations from the interview texts.

The Confront category and its subcategories and codes are indicated in Table 2.

Taking assurance

Taking assurance includes the strategies that parents use to face their feelings and needs in order to manage partially their stress and crisis they encounter with. They mentioned that they need to be encouraged by themselves or other resources to bear this stressful situation. In this study, sometimes it seemed that parents use some emotion-focused strategies rather than problem-focused strategies to deal with their experience of having a preterm neonate.

This subcategory contains four codes: *"self-assurance", "Taking assurance from spouse", "Taking assurance from other family member", "Taking assurance due to playing appropriate spousal and parental roles".*

Parents try to control and manage the critical situations with giving reliance and assurance to themselves about their baby's life and health. For example, a mother said:

"I try to support myself emotionally and I think that there is no problem and nothing would happen to my baby."

Receiving assurance from spouse is also one of these strategies:

"He tries to support me emotionally,..., He tells me that it is God's will, and it would happen if it is supposed to, and thanks God our baby is getting better and we can take him home."

Feeling reliance due to talking to other family members is also decrease parents' stress and concerns. A mother said:

"Sometimes talking with my family made an evolution in my thoughts."

Taking assurance due to appropriate spousal and parental roles is also a factor

Table1. Participants / infant demographics

gender	role	age	education	Infant Gestational Age at Birth (wk)	length of hospitalization (day)	Birth Rank
female	mother	42	diploma	32	29	Third
female	mother	20	diploma	36	21	first
Male	father	30	Scholastic degree	31	24	first
female	mother	20	Pre university	34	28	first
Male	father	28	diploma	28	36	second
female	mother	25	diploma	31	29	first
Male	father	28	Bachelor	34	30	first
female	mother	29	Associate Degree	34	49	second
Male	father	36	master	33	17	first
female	nurse	-	master	-	-	-
female	nurse	-	master	-	-	-
female	physician	-	subspecialist	-	-	-

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Table 2. Confront strategies of parents of premature infants, hospitalized in NICU

Category	Subcategory	codes
Confront strategies	Taking assurance	-Self assurance -Taking assurance from spouse -Taking assurance from other family member -Taking assurance due to appropriate spousal and parental roles
	Stop thinking to bad things	-Stop thinking to possibility of infant's death -Stop thinking to possibility of infant's disability
	Diverting mind	-Diverting mind from negative thoughts about the infant -Parents' effort to direct conversations toward positive thoughts
	Taking supports	-Good feelings due to infant's body warmth -Good feelings due to infant's body odor -Good feelings due to fondling and looking at infant -Mother's good feelings due to seeing her husband's happiness of infant's birth -Feeling hopefulness due to being assured by spouse -Good feeling due to the infant's getting better -Good feelings due to information gathering and interaction with staff -Relying on religious believes -Taking support from other mothers
	Emotional expression	-Crying -Talking to spouse
	Complaining from staff	-Complaining from physician -Complaining from nurse

that makes parents have better feeling. A father said:

"I was worried about my wife…. but thanks God she was strong and she did not get any infections. She even takes care of me which helps me think that everything is alright."

The other participants said:

"Knowing that my wife is with my baby makes me and her feel good, because we know nothing would happen to her when she is with her. She knows what to do."

Stop thinking

Parents try not to think about the possibility of death and disability in their infant. They believed that thinking to bad things both bother them, and also may decrease their capacity to play their parental rolls, as unresolved parental stress may contribute to maladaptive parenting. This subcategory of confront strategies includes two codes: *"Stop thinking to possibility of infant's death" and "Stop thinking to possibility of infant's disability".*

"Thinking about infant's death or retardation often comes to my mind but I try not to think about it".

Diverting mind

Parents announced that diverting their minds from negative aspects of current situation toward good and positive features is an attempt to confront the stressful condition, moreover, enables them to feel better and can give them an opportunity to think they are experiencing a normal parenting. This subcategory includes two codes: *"Diverting mind from negative thoughts about the infant", and "Parents' effort to direct conversations toward positive thoughts."*

"I try to control myself when bad things come to my mind. Something like death, retardation, or other things that might happen to him in future come to my mind but I try to change my thoughts by making myself busy with something else."

"We try to direct our talks toward positive things."

Taking support

Taking supports from various sources leaded parents to reaffirm their sense of self-worth and helped them to cope with such a stressful event. Most parents sought support from their infant, spouse, medical staff, mothers of other infants in the NICU, and religious believes. This subcategory

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includes nine codes which mostly are emotion-focused strategies, as shows coping strategies that parents use without applying specific action to deal with their problem. These effects all contribute to reducing highly negative emotions to a manageable level. On the other hand, a few of these strategies are problem solving-focused, since show parents' effort to address the problem of their infants' NICU admission.

Nine codes of this subcategory are:

Good feelings due to infant's body warmth

Feeling baby's body warmth through touching or hugging the infant can reduce parents' stress and worry and give them a sense of parenting:

"His body temperature makes me feel good. It calms me down. At that moment, I can't think of anything else and it reduces my stress."

Good feelings due to infant's body odor

Parents will be relaxed when hugged their infant and felt infant odor.

"She has a special smell which calms me down."

Good feelings due to fondling and looking at infant

Parents feel to be more confident and worthy when coax or pat their infant while they are looking her/him up:

"Despite all difficulties, but I forget it when I see he starts laughing. It makes me feel good."

Mother's good feelings due to seeing her husband's happiness of infant's birth

It was very important for these mothers to feel their husband likes this infant and is not unhappy or frustrated of having a premature baby:

"When my husband says that he likes him, when he shows his feeling, it makes me happy too. It is very exciting to see that he has such feeling. It feels great."

Feeling hopefulness due to being assured by spouse

It seemed that spouses are good resources of support for each other:

"My husband asks me to calm down, be patient, for our kid, he is goanna be better, these are giving me hope, calms me down, these talks make me take care of my child more."

Good feeling due to the infant's getting better

Parents' feelings are very dependant to infant's medical situation specially weight gaining and breathing:

"I felt much better when my daughter gained weight, and I could take care of her more."

Good feelings due to information gathering and interaction with staff

In the early stages, most parents are too emotionally aroused to be able to think clearly due to anxiety or sense of powerlessness. So, problem-focused coping that drives the parents to seek information could be very effective and useful. They provided information from professional staff, publications, other families with the same situation, and elder family members. Gathering information gives them a sense of having control:

"When I talk to doctors and nurses and they let me know what is going on, it calms me down. When I am upset and start a chat with doctors or nurses, this also makes me feel good."

Relying on religious believes

Relying on beliefs emanating from their-religious faith was very common:

"To calm down myself, I think maybe God wanted to test me, its God's will."

Taking support from other mothers

Mothers told that because of inadequate professional support, they have to help each other in hospital and other mothers with the same situation are the most accessible source of support for them:

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"Here we talk in mother's room and take care of each other, we help each other, if anything happens I talk to them and we help each other and support each other."

Emotional expressiopn

Emotional discharge is another subcategory of confront strategies which parents apply to reduce their anxiety and bewilderment. This subcategory consists of 2 codes: *"Crying"* and *"Talking to spouse"*:

"I sat down and cried. I think crying is a good solution to keep me calm down."

"I was talking to my husband when they come to visit me and started a chat and I calmed down."

Complaining from the staff

Complaining from staff is the last subcategory of confront strategies which includes two codes: *"Complaining from physician"* and *"Complaining from nurse"*.

"I complained to his doctor, and asked him that this situation should not bother me anymore."

Discussion

The results of this study showed that mentioned strategies are solutions which parents use to manage their stress and negative feelings and using them may cause some changes in their feelings, attitudes and behaviors. These strategies are methods of morale booster in facing and adapting with the crisis of premature infant's birth. Valizadeh et al pointed out the importance of spiritual and religious issues, also verification, support and hope giving by a nurse, husband, family, physician, and other members of health care team as a morale booster in confront to premature birth (14). These results are in consistent with present study.

The family of a preterm infant needs much support. Naturally, spouses are the emotional support resource for each other (14). This support is helpful in acceptance of difficult situations and management of stressful conditions. Also, receiving help from other family members in caring of infant in home after discharge is useful in creating opportunities for parents to restore and maintain the family relationship (14). Therefore, providing special social and individual supports helps parents to adapt with this difficult condition.

Smith et al (2012) showed that parents used the coping strategies in infant caring, participating with other staff, and family's and friends' involvement in caring. Also in the present study, parents used strategies like receiving help and trying to learn caring skills in order to decrease their stress (15).

This study showed that parents believe on importance of communicating and talking to spouse as a main factor in achieving tranquility and peace of mind. Also, when they talk to other parents with the same situation, they feel better because they understand each other. In the study of Lindberg et al, fathers expressed some points about importance of relationship with his wife and other parents in acquiring a good feeling (16). Some studies show that fathers often cope with this situation through communicating with others and seeking social supports while mothers mainly adapt through talking to her husband and receiving emotional and psychological support from him (16, 17). Parents in present study stated that although they do not receive enough support from staff in some cases, it may be provided to them in other ways. Since attaining support is one of their fundamental needs, parents seek for alternatives to meet it. They look for it in all available resources in their context to feel protected. It seems that most available resources of support for Iranian parents are: their spouse, other mothers who are in the same situation, therapeutic staff, family members, and also God.

Parents said that whenever they have an encouraging and loving conversation with their spouse, they feel better. In addition, when they see that their mate, especially husband, is happy and have a good relationship with their infant, they feel supported. Moreover, talking with other mothers in

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NICU or receiving help from them make them more powerful to face problems. They announced the same experience with their family member.

For the first time in this study, it is reported that because of lacking adequate formal resources of support, these parents use another substitution including receiving support from spouse or even other mothers with similar situation which probably are not reliable methods to meet their needs. If parents receive incorrect or incomplete information about their infant, they will feel stress and anxiety (18). Since traditional resources of support including family and other nonprofessional persons may present incomplete or even wrong information to parents, medical team role in this area seems to be very important.

Reliance to religion has an important role in Iranians' culture. In present study, parents stated that relying on God make them strong. They believe that God protect them and their infant from all bad events. So, they feel supported. All parents believed that they need to be supported by various resources, albeit they need to feel God looking them on each second.

Results of this study suggest considering the sharing information with parents of premature infant as an important and valuable part of doing interventions on premature infant. It is also recommended to do some research on comparing the results of family-centered therapy with common (non-family-centered) methods of therapy.

Limitations

There was some difficulty in performing this study such as limited accessing to fathers because of NICU rules in Iran or busy staff that didn't have enough time to be interviewed, but all of them resolved by frequently going to NICU.

Conclusion

Participants in this study emphasized the importance of sharing information with premature infants' parents and considering their needs and feelings so that they feel less stress and can play their parental roles.

Acknowledgements

This article is based on a thesis written by the first Author in partial fulfillment of the requirements for the PhD Degree in Occupational Therapy from School of Rehabilitation sciences, Iran University of Medical sciences with grant number 260/2026 /ə/ 91 .We are indebted to the parents of the infants for their patience and cooperation in this study and also the staff of hospitals for all the support.

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