

Original Paper

Educational Interventions Strategy to Promote the Health of Women Experienced Stillbirth



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ABSTRACT

Introduction: Stillbirth is one of the saddest experiences in a woman's life, which can have a wide range of cognitive, psychological, spiritual and physical consequences. The health system should consider appropriate educational interventions for mothers in critical situations.

Objective: The purpose of this study was to determine the educational needs of Iranian women who experienced stillbirth and help them adapt to this event and improve their health as well as their families' health.

Materials and Methods: This study was conducted using qualitative content analysis. The participants were 15 women with stillbirth experience who were selected through purposive sampling method among the volunteers referring to health centers in Isfahan Province, Iran. The relevant data were collected and by individual interview recording method. The extraction codes were categorized and three main categories extracted in this regard.

Results: The analysis of the participants' opinions in describing the required education in the case of stillbirth led to the emergence of three main themes; "management of postpartum changes", "education for the next pregnancy", and "teaching how to communicate with children". Based on the findings, many mothers complained of their lack of necessary education in this matter. They believed that if they received their educational needs, they would easier adapt to this experience.

Conclusion: According to the results, review and modification of the care program (to provide women's required education) is necessary to promote the health of women experienced stillbirth. Midwives and health care providers should work on the development of educational and counseling programs for women with stillbirth experience and provide better care for these women.

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Introduction

Stillbirth is one of the saddest events in a woman's life, which can have a wide range of psychological, spiritual and physical consequences [1]. In the aftermath of infant's death, most mothers seek to find an answer to explain this death [2]. The term "stillbirth" or "fetal death" is used to describe infant's death after 22 weeks of gestation [3]. Worldwide estimates report that 3.2 million stillbirth occur annually around the world, which is close to the infant mortality rate (3.8 million) [4]. In Iran, there are no precise statistics on the incidence of stillbirth, but in some studies, this incident has been investigated. The statistical reports of Firouz Abad Health Center in Shiraz (1998-2003) estimated the rate of stillbirths as 22 per 1000 births [5].

In Ahwaz, the stillbirth rate is estimated as 40 per 1000 births [6]. However, many variables can affect successful pregnancy and delivery or intrauterine death. In 25% to 60% of cases, the cause of intrauterine death is unknown. However, known causes can be divided into three categories of maternal causes (such as diabetes, preeclampsia), fetal causes (congenital and genetic abnormalities), and placenta causes (abruption placenta and umbilical cord events) [6]. Stillbirth, regardless of its cause, has a long and devastating effect on parents. For many parents, the delivery of a dead child is not sadder than the death of their other live children.

These families often suffer from severe sorrow and psychological damage and social problems for many years [7]. However, the effects of this incident are wider than the mental effects on the mother, but goes beyond and involves father and sisters or brothers who were waiting for the newborn baby and even the health care providers [8]. In other words, stillbirth occurs in the family context, in which besides parents, older siblings, and other family members are also affected.

The anxiety and distress of the mother may affect the rest of the children and create stressful conditions for them. Often, the siblings are psychologically prepared to devote little space of their room to their little sister or younger brother [9]. Even the parent-child relationship may be harmed, especially in cases where parents hardly accept the death issue. In other words, with mother's mental problem, the whole family system and their relationships face a serious problem that affects all family members, who strenuously try to adapt to the situation. The children of the women who experience

mental problems can develop emotional, behavioral, and cognitive impairments in the long run [10].

Children less than 2 years of age are unaware of the changes in their routine care and may only observe distress in their parents. Preschool children understand the stress in the family, but unable to control their own emotions and may show changes in their behaviors such as developing bad temper. Adolescents may exhibit both emotional reactions and somatic responses or may even be isolated from the family and seek refuge and relief and get close to their friends [11]. In addition to the psychological effects, physical complaints after fetal death is also common. Often, these women may have problems with breast-milk production [12]. On the other hand, proper and timely intervention and care will reduce the risk of recurrent stillbirths and improve the outcome of the next pregnancy [13].

Mothers with a history of stillbirths are at increased risk of stillbirths in the next pregnancy. According to Sharma study, poor pregnancy outcomes in mothers with a history of stillbirths are twice than the normal women [14]. Women's empowerment in controlling various aspects of their health is one of the important issues in today's world. In this regard, women's awareness of their needs encourages them to satisfy those needs [15]. Maintaining and improving the health of the community is one of the important duties of the health system. With regard to reproductive health, the health of women and children are of particular importance, because they are the vulnerable groups of society and determine the health of the whole community. Thus, it is absolutely necessary to improve the quality of services to women and families who experienced stillbirths in order to achieve reproductive health goals in Iran.

Based on what was discussed, stillbirth experience can significantly impact father, mother and other members of the family even for many years after the incident. These complications can be minimized by proper and standard care based on the culture and structure of the community. As a result, it is necessary to look more closely at this specific topic, which is possible by conducting a qualitative research that thoroughly explores this phenomenon [16].

Materials and Methods

This research was conducted using a qualitative content analysis method. This method was known as Graneheim and Lundman method introduced in 2016. It operates through classification and reduction of the

qualitative data [17]. According to entry criteria, 38 people were invited and after discussing the research method, 15 women agreed to participate in this study. The participants included 15 married women who had a lifelong experience of stillbirth. They participated in 15 semi-skilled interviews for 7 months. Initially, the sampling was done purposefully among volunteers, and continued to have a sample with maximum diversity.

The criteria for entering the participants were willingness to participate in the study, confirmation of at least one stillbirth experience preferably in the last 3 months by a gynecologist in their medical file, no history of mental illness based on health records, being an Iranian citizen and able to understand and speak Persian language. In addition, people with known and unknown causes of stillbirth were recruited in the study. The reluctance to continue cooperation at each stage of the study was considered as an exclusion criterion.

Mothers were identified in health centers based on their health records, and they were invited to participate in the study by phone calls, after introducing the researcher (who was a midwifery PhD. student) with a brief description of the study objectives. The place and time of the interviews were determined according to the participants' wishes. At the beginning of the interview, the study objectives were explained and then the written informed consents were obtained from the participants.

Interview was started with the question of "please talk about your stillbirth experience" and in the following and based on the interview process, the questions were asked about what kind of support they needed. The duration of the interviews was between 30 and 70 minutes, which was recorded with the tape recorder. The obtained data were analyzed by qualitative content analysis. The researcher immediately listened to interviews after recording them, and then the text of the interview was fed word-by-word into Word software, and thus the analysis unit was formed. Then the data were read line by line, important sentences and phrases were underlined and their main theme was extracted. Next, the same codes were merged and the initial classification was performed. The process of collecting data in all interviews continued until data saturation.

With the help of the following method, the researcher tried to find out what his findings were about. Validating data was provided by reviewing the interviews by the participants as well as professors in the methodology and content study. The research reliability was also provided by the complete and continuous recording of the

activities of the researcher on how to collect, analyze, and provide excerpts from the text of the interviews for each category. In addition, the texts of a number of interviews, codes and categories were extracted and delivered to other researchers familiar with the method of analyzing qualitative research who did not participate in the research, in order to review their opinions on the extracted meanings.

Results

Subjects included 15 women with stillbirth experience, who were selected through purposive sampling method, with the maximum diversity on causes of stillbirth, age range, stages of pregnancy, delivery types, and previous pregnancies (Table 1). Based on the analysis of participants' statements, the main category of the educational needs was extracted, which consists of three subcategories. At first, the main category is introduced, and then the subcategories are discussed according to the participants' opinions (Table 2).

Educational needs

The health and medical system should consider appropriate educational interventions in the event of critical conditions such as stillbirth, and provide these educations from the moment the mother becomes aware of the situation until her discharge and even until the next pregnancy. In the present study, many mothers also believed that they needed education regarding their situation that if they received proper information, accepting this loss would be easier for them. These educations were classified in three subcategories: Postpartum change management, education for the next pregnancy, and how to communicate with other children in the family.

Educating management of postpartum changes

Many mothers experience problems because of their lack of knowledge of postpartum changes and how to deal with these changes. Most women who had a stillbirth experience, especially in their first pregnancy, said that they did not have any information about the physical and psychological changes of the postpartum after leaving the hospital. They did not receive any training at the hospital and this lack of information worsened their grievance. In this regard, a 27-year-old female housewife said: "Even I had no experience, I saw milk dripping from my breasts, which was very painful. In the hospital they did not tell me that it might be milk drips from your breast. When I saw that I got very scared, because I

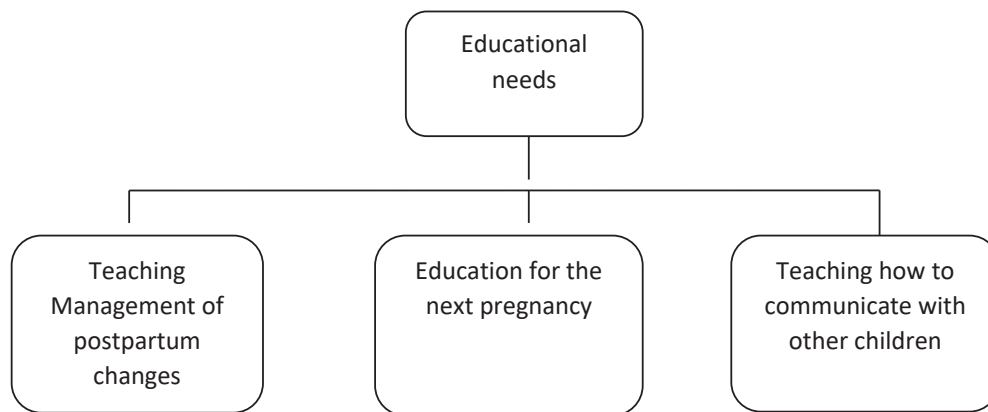


Figure 1. The main category “Educational needs” and its three subcategories

did not expect it. Nurses do not say what to do next, just when I gave birth, they said, ‘Mrs. ... leave the hospital.’ ” (Participant No. 1).

Education for the next pregnancy

Most mothers did not know what should be done to be prepared for the next pregnancy so that they could prevent it from happening again, and this lack of knowledge caused them to worry about repeating the event

that added to their stress. A 35-year-old working woman said: “I am now very afraid of my next baby, I have a lot of stress to get pregnant again. I do not know what I do before the next pregnancy, if there is a special test or doing the same kind of caring that we’ve been doing before. After discharge from the hospital, no one said what to do to prevent from this happening again.” (Participant No. 9).

Table 1. Characteristics of mothers who experienced stillbirth and participated in this study

Characteristics	Subgroups	N
Gestational age at the time of infant death, week	22-28	11
	29-33	5
	≥34	2
Education level	Elementary and guidance school	4
	Diploma	10
	Bachelor’s degree or higher	4
Occupation	Housekeeping	11
	Employed	7
Age (y)	≤20	2
	21-30	12
	31-40	4
Birth order of dead infant	First child	10
	Second child	6
	Third child or above	2
Dead infant gender	Male	10
	Female	8
Twins or multiple pregnancy	Single	13
	Twins or more	3

Table 2. Educational needs of mothers with a stillbirth experience

Theme	Categories	Subcategories
Educational needs	Management of postpartum changes	Control the secretion of milk
		Signs of postpartum risk
Educational needs	Education for the next pregnancy	Back to the state before pregnancy
		How to take care of yourself
Educational needs	Teaching how to communicate with other children	Psychological readiness for the next pregnancy
		Pre-pregnancy care
		Mother's attention to the issues of other children
		Mourning with other children

Teaching how to communicate with other children

In Iranian culture, mother plays an important role in providing a relaxed state at home and her anxiety and distress affect the children and may create stressful conditions for them. In this study, women with other children felt sorry for their children who were expecting to see a new sister or brother after their mother's returning home, and now how they will be able to say to their children that their dreams have vanished.

A 34-year-old working mother said: "Poor my son. How much he cared me at this time, how much he helped me. He was counting the days for receiving his brother. It was because of his insistence that we let have another children. Now, how I can say that it's dead, it's very difficult ..." (Participant No. 12). On the other hand, mother's mental problems prevented her attention to other children, and mother's involvement with psychological complications prevented her from meeting psychological and physical needs of other children. "After this, I was so upset and depressed that I did not really care about my little girl, now that I remember, how sad I was. I wish that the adviser told me how to deal with these frustrating days with my daughter so that she did not hurt." (Participant No. 7). [Figure 1](#) illustrates the educational needs construct.

Discussion

The findings of this study indicate that if these mothers' educational needs were answered, their adaptation to this experience would be facilitated. In other words, having the appropriate information would reduce their stress and facilitate compliance with the event. Glanz and his colleagues also emphasized the importance of

providing the appropriate information to these mothers and suggest that social support includes four types of activities. Providing emotional support (feeling of belonging), supporting the device (convenient place to speak), providing information support (for practical help), and evaluating (returning to normal condition and adapting to the community). In fact, he and his colleagues considered providing the education and information as a practical way for support and assistance of these mothers [18].

Most mothers with a stillbirth experience, especially in their first pregnancy said that inadequate information about the physical and emotional changes of postpartum period and how to deal with them were the source of their problems. Fink also pointed out in his study the need for postpartum period education such as pain, lactation, and bleeding, and suggests that care should be provided before, during, and after the childbirth [19]. Cacciatore also reported that the risk of adverse psychological complications increased after a traumatic event with limited psychological support, lack of proper information on the problem and its stages, and treatment plan, which increased the duration and severity of traumatic stress in the affected person [2].

Having the proper information and receiving the necessary educations for the next pregnancy to prevent the reoccurrence of stillbirth was a concern for many mothers in the study. According to Facchinetti, determining the cause of stillbirth is very important. From the viewpoint of the couples present in his study, lack of explanation by health care providers disrupts the process of mourning and increases the likelihood of recurrent stillbirth in the next pregnancy. In fact, he argued that by informing parents about the cause of stillbirth and educat-

ing on risk factors, the next pregnancy would be better managed and health care providers would change their routine care to prevent the recurrence of stillbirth [20].

Gathahun discussed the relationship between stillbirth in the first pregnancy and increased complications in later pregnancies, and believed that if the first pregnancy was associated with stillbirth, the probability of chorioamnionitis, fetal distress and premature neonatal death in the next pregnancy would increase [13]. Sharma also reported the possibility of up to five-fold increase in recurrence of stillbirth in the next pregnancy, and mentioned that mother education would create an opportunity for her to observe the time interval until the next pregnancy, to improve her nutritional status and reduce maternal stress in the event of recurrent stillbirth [14]. Reddy also pointed out in her study that mother's education about her need for pre-pregnancy care to avoid risk factors such as obesity and overweight, to control existing diseases, such as diabetes or hypertension is an essential part of the interventions for the prevention of recurrent stillbirth. He also mentioned that education and warning of the parents about the risk factors is an important factor in preventing stillbirth [21].

The mothers in our study did not know how to deal with their children after the stillbirth, and said that they were so mentally disturbed and occupied that they could not pay enough attention to other children and ignored their needs. In this regard, Avelin pointed that the siblings of dead infant may be afraid and anxious and can hardly solve the situation for themselves. They shared with their parents in anticipation of the arrival of the baby and the death of the fetus is shocking for them, and turns them into mournful siblings before they actually have the chance of having a sister or brother [8]. Whitaker reported that the parents of dead infant often seek to find a way to balance themselves with other children, because these parents believe that other children should not be involved in parents' saddens, so they are actually trying to create a sense of security for other children [22].

With the occurrence of stillbirth, a woman and her family face a variety of needs that their recognition is essential for providing comprehensive care and thus improving the health of these mothers. Education in different fields is one of the essential needs of these women, which not only reduces their physical and mental problems, but also helps them to solve marital problems during this period, thereby preventing the collapse of their lives. In our country, we are currently dealing with mothers with a history of stillbirth like other pregnant

women and only limited special medical care is provided to this particular group. Identifying their needs and explaining their problems not only can affect their medical treatment and ultimately improve pregnancy, but also can guide them through a comprehensive and quality care with an emphasis on their important physical, psychological and social needs. This study has some limitations such as studying only a group of women in Isfahan City, but has some strong points such as introducing and investigating this topic for the first time in Iran.

Ethical Considerations

Compliance with ethical guidelines

The study was approved in the Ethics Committee of Isfahan University of Medical Sciences (Code No: 392472).

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Authors contributions

All authors have read and approved the manuscript.

Conflict of interest

The authors declare no conflict of interest.

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