



## Need for Consultation and Training during Bed Rest in Women with High Risk Pregnancy Experience: a Qualitative Study

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### Abstract

**Background:** Pregnancy in a woman's life is a unique experience. But due to high risk pregnancy and the need to rest in bed, the women and her family are faced with different challenges and needs. The inability to manage these needs will result in crisis and understanding the needs of pregnant women during bed rest is essential to provide comprehensive health care for them. So this qualitative study was designed and conducted to examine the needs of women with high-risk pregnancy experience during bed rest to improve health in this group.

**Materials and Methods:** This is a qualitative study conducted in 1393 using inductive qualitative content analysis. 32 individual semi-structured interviews were performed with 21 women with high-risk pregnancy and four members of their family (mother of a participant and husbands of three participants) and seven medical staff involved in their healthcare. Collected information was analyzed concurrently with information collecting.

**Results:** Data analysis led to the emersion of the last category of need that was training and consultation. This main category has sub-categories such as: need for consultation on physical problems, psychological problems, marital problems, fear and the stresses caused by bed rest, common problem in pregnancy and childbirth and the need for help for planning various activities during bed rest.

**Conclusion:** Conducting a comprehensive nursing and education services and counseling to women with high-risk pregnancy during bed rest leads to a reduction in their physical and psychosocial problems.

**Key Words:** Bedrest, High-Risk Pregnancy, Need.

\*Please cite this article as: Janighorban M, Allahdadian M, Mohammadi F, Dadkhah , Eslami A. Need for Consultation and Training during Bed Rest in Women with High Risk Pregnancy Experience: a Qualitative Study. Int J Pediatr 2016; 4(5): 1705-14.

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Received date: Jan 11, 2016 Accepted date: Feb 22, 2016

## 1- INTRODUCTION

Pregnancy in a woman's life is considered unique and natural period. But when the pregnancy is high risk, it is recommended to limit activity which during pregnancy it is called bed rest and disturbs this natural process with several problems (1). Maternal health-threatening diseases, including heart disease, autoimmune disorders, chronic hypertension and complications of the pregnancy itself such as placental abnormalities, premature rupture of membranes, preterm delivery and preeclampsia and short cervical length; the existence of conditions caused by lifestyle, environment or situation of mother, such as the youth pregnancy, poverty, drug abuse make pregnancies high-risk and complicated (2).

In management of high-risk pregnancy complications, bed rest is widely suggested as a treatment by midwifery professionals (3). Almost 20 percent of women in the United States from the week 20 until delivery are recommended to restrict activities and rest in bed while its benefits has not been proven strongly in studies (4). Unfortunately in Iran accurate statistics is not available on the number of women advised to rest in bed during pregnancy.

Prolonged bed rest during pregnancy can have devastating effects for pregnant women and their families. Harmful physical effects such as muscle dysfunction, loss of weight, loss of bone mass, thrombosis, fatigue, sleep disturbances, mood swings and behavioral changes such as anxiety and depression. Such a negative impact mixes this period with fear and anxiety about destiny of herself and the fetus and variety of negative emotions that can affect the baby or fetus (5).

Also hospitalized pregnant women have lower levels of subjective well-being and quality of life to outpatient pregnant

women (6). Even sleep disorders caused by the bed rest during pregnancy can be associated with complications such as diabetes and hypertension in pregnancy (7). It can be said that bed rest of mother harms the whole family. Frequent changes in child care, brings additional responsibilities for the partners and the financial burden of unemployment and loss of income result in family distress and anxiety (8). Hospitalized women's experiences during high-risk pregnancy with bed rest showed that concerns about the family, other children, housekeeping tasks, jobs and financial issues puts additional psychological pressure on these women(9). Currently, in Iran during bed rest, only medical care is provided for women with high risk pregnancies and quality of their life and the demands they face at bed rest are not considered. Since gynecologists, nurses and midwives are direct responsible for the care of these people at obstetrics and gynecology wards identifying and elucidating the experiences, concerns, feelings, experienced needs and stressors by this group and their families not only can affect the medical care and improve pregnancy outcome, but also it can be a guide for comprehensive and high quality care with an emphasis on the important physical, mental, spiritual and social issues which these people and their families are struggling with. Therefore, necessity of studying the needs of high-risk pregnant women in Iran during bed rest to provide a solution for improving healthcare have prompted researcher to conduct a study with aim of assessing the needs of high-risk pregnant women during bed rest.

## 2- MATERIALS AND METHODS

This qualitative study was conducted based on naturalistic paradigm and conventional content analysis method in order to explain the needs of mothers with high-risk pregnancy and bed rest experience. Purposive sampling method

was conducted and after explaining study goals individual semi-structured interviews performed with 21 women with high-risk pregnancy experience and at least one week of bed rest history at their desired place and time. Samples were chosen from patients referred to private midwifery clinic, obstetric care clinics, hospitalized pregnant women and mothers of infants that were admitted to the Neonatal intensive care unit (NICU). Also in order to gather more information semi-structured interviews were conducted with four members of the women's family (husband and mother) and 7 people from their caring staffs. Sampling completed when no new information were found in interviews and data were saturated. Interviews were performed in health centers or any place that participants were choosing. Before interview the purpose of the interview, its confidentiality and recording was explained to them and interviews were conducted with informed consent. The duration of the interviews ranged from 60 to 90 minutes and was performed by two people from the research team who held masters degree in Midwifery and were PhD student of Reproductive Health.

The interview was originally started with a question: "Explain your experience from the time of bed rest"; and their response to this question was leading us to ask rest of questions. Participants' voices were recording with the Voice Recorder and any non-verbal communication such as crying was written. Data analysis was performed using the Graneheim and Lundman method (10).

So that after each interview recorded voice was typed using word software. Then the text of interview was reviewed several times until semantic unit was formed. Then the important phrases and sentences were determined and were named as codes. After several reviewing, similar codes merged and then based on the conceptual similarity we put them next to

each other in categories and sub-categories. Thus primary categories were formed. These categories merged again to form the final categories. OneNote software was used in order to facilitate the code storage, classification and search. To ensure the accuracy and consistency of findings following strategies were used: To increase the acceptability of the study participants were selected with maximum diversity.

Extracted codes by the participants were reviewed to verify the data. Regarding the accuracy of extracted codes, sub-categories and the final categories agreement was achieved between the members of the research team. In order to increase the reliability, the data was evaluated on a continuous basis and examples of code extracting methods the and some selected parts of interviews texts were presented to supervisor professor to investigate his same understanding and search of adverse cases.

For increased transfer capability, researchers have tried to provide sufficient descriptive data in their report so the reader can assess the applicability of the data for other environments. Also results of the study were given to some pregnant women who did not participate in the study to investigate the similarities between their experiences and research results. To achieve verifiability criteria, text of number of interviews, codes and categories were provided to faculty members who were familiar with the analysis of qualitative research and have not participated in the study.

This study with the ID code: 293165 has been approved by the Ethics Committee of Isfahan University of Medical Sciences. Informed consent was obtained from all participants and they reassured that their data will remain confidential.

### 3- RESULTS

Thirty-two interviews performed with 21 women with high-risk pregnancy and bed rest experience, four members of their family (mother of a participant and husbands of three participants) and 7 medical staff (4 midwives, 2 nurses and 1 gynecologist). Mothers aged range were 21 to 39 years old, most of them were housewives and 9 to 36 weeks had elapsed from the beginning of their pregnancy. This group's profile in terms of age, occupation, education, parity, gestational age and the reason of bed rest is presented in (Table.1). 742 primary codes were derived from participants' descriptions 6

main categories were developed after reviewing and integrating the similar codes. The categories included "The need for training in the field of physical problems", "Need for counseling on psychological problems", "The need for education and counseling to resolve marital problems", "Need for counseling on fears and tensions caused by high-risk pregnancy", "Need for training and consulting in the field of pregnancy and childbirth and pregnancy complications" and "Need for planning in order to carry out various activities during bed rest" (Table.2).

**Table 1:** Demographic characteristics of mothers participating in the study

Participant	Age (year)	Career	Education	Gravidity	Gestational age (week)	Bed rest reason
P1	31	housewife	Diploma	2	31	Spotting
P2	31	housewife	Diploma	3	29	Preterm delivery
P3	29	housewife	Diploma	2	9	Spotting
P4	23	housewife	Degree	1	29	Twins
P5	32	housewife	Diploma	2	36	Preeclampsia
P6	22	housewife	Degree	1	31	Preterm delivery
P7	30	housewife	Diploma	2	33	Twins
P8	30	housewife	BA	1	28	Bleeding
P9	34	housewife	Diploma	(Abortion 4) 3	26	Infertility
P10	32	housewife	Diploma	1	27	Lowlying placenta
P11	39	clerk	BA	2	30	Twins with secondary infertility
P12	38	housewife	Diploma	1	33	Preeclampsia
P13	28	clerk	BA	1	36	Preterm delivery
P14	28	housewife	BA	1	13	Spotting
P15	31	housewife	Degree	2	34	Twins resulting from infertility treatment
P16	29	housewife	Diploma	1	27	Spotting due to the Lowlying placenta
P17	25	housewife	Diploma	1	28	Multifetal
P18	27	housewife	Diploma	(Abortion 4) 3	32	Infertility associated with recurrent abortion
P19	24	housewife	Diploma	1	29	Preterm delivery
P20	29	housewife	Diploma	(Abortion 2) 3	27	Preterm delivery with cervical failure and loss of previous pregnancies
P21	27	housewife	BA	1	23	Loss of previous pregnancies

**Table 2:** Training and consulting needs of women with high-risk pregnancy during bed rest

Main category	Sub-category
The need for training in the field of physical problems	-
The need for counseling on psychological problems	-
The need for education and counseling to resolve marital problems	Lack of privacy
	Disorders in sexual relations
Need for counseling on fears and tensions caused by high-risk pregnancy	Psychological fears and tensions about pregnancy conclusion
	Fear of losing marriage
	Fear of losing job
Need for training and consulting about pregnancy and childbirth and pregnancy complications	The need for training in terms of different issues about pregnancy and childbirth
	The need for training and consultation about complications, treatment and required cares
The need for planning in order to carry out various activities during bed rest	-

**3-1. The need for training in the field of physical problems**

Statements made by participants showed that bed rest and its induced inactivity are associated with many physical irritant complications. Focus on the fetus health protection, in some cases, is causing a lack of attention to training in the treatment or prevention of these problems in pregnant women. The development of musculoskeletal pain such as back pain, knee pain and constipation are the most frequent complaints that they cited. A 30-year-old woman said: "My back is killing me due to inactivity. My waist makes sound when I move in my bed. Also my Knees became numb" (Participant 8).

**3-2. The need for counseling on psychological problems**

Data analysis showed that the problem of bed rest is not limited to physical complications and these conditions affect quality and health of women's mental life as well. According to the participants the feeling of lack of control over personal and family life and inability to perform the duties as mother and wife leads to

psychological problems such as: boredom, reduced tolerance threshold, depression, feelings of guilt, feeling of isolation, disorganization of thoughts, emotional instability and dissatisfaction with the quality of life. A 23-year-old woman said, "I was depressed, I was very unhappy. I was alone, just imagine that live alone from morning to night, it was very difficult. I was a little depressed. After childbirth I got severe depression. They gave me pills but I did not take them"(Participant 4).

Insomnia is other issues for these women as well that to reduce the risk of its development counseling and education is required. Pregnant women consider excitement, stress and long rest during the day as a cause of insomnia. Participating mother number 3 said: "It is difficult, my daughter is always anxious, she just thinks that particular problem is going to happen. She has excessive anxiety and so she sleeps very awful at nights, sometimes she is awake until morning".

**3-3. The need for education and counseling to resolve marital problems**

Problem in the marital relationship is other issue that makes counseling and training necessary in high risk pregnant women. These problems are caused for two main reasons that they included in two sub-categories: lack of privacy and sexual dysfunction.

### **3-3-1. Lack of privacy**

Participants expressed that the need for continued protection for personal purposes and inability in doing home keeping tasks made us to move to our parents' houses. Due to the lack of privacy for couples living at parents' homes results in interpersonal and marital disorders. These women stated that they felt powerless to solve this problem and they need help. A 31-year-old woman said: "Now we live at my mother in low's house. When my husband comes home he first talks with his mom and dad about job. The time that we used to talk; now he spends with his family. I am not sad but I have needs too. I need his emotional attention"(Participant 2). However, some pregnant women mentioned lack of association of their husband and living apart from him for a long time as a reason for problems of marital relationship. In this regard a 28-year-old woman said: "I was at my mother's house while my husband was at our own house. Some time he came to visit every third day. We were away from each other"(Participant 13).

### **3-3-2. Disorders in sexual relations**

Fear of harming the fetus and risking the pregnancy is other cause of couple's marital problems. These women stated that refrain from sexual relations to preserve the pregnancy, caused a sense of discomfort and guilt of not being able to perform their duties as a wife. A 23-year-old woman said: "From that point that I realized I was pregnant I did not have intercourse, doctors said I should not have sex. My husband also said I will not ask for it when he realized that it might be a

danger for the child. When I gave birth my child was under medical care for 38 days and we were there whole time. We were not able to have sex at all and I think we were far apart (Participant 4). In this regard, participated pregnant women were asking for training and consulting about safe and alternative sex methods.

### **3-4. Need for counseling on fears and tensions caused by high-risk pregnancy**

Pregnant women stated that high risk pregnancy and the need for bed rest was associated with tensions and fears about the pregnancy conclusion and possibility of endangering marital life and losing their job. The help for overcoming these tensions one other reason for helping these women.

#### **3-4-1. Psychological fears and tensions about pregnancy conclusion**

Most of participants and their family stated the uncertainty about pregnancy conclusion as a reason for their stresses. These women live with fear of losing pregnancy or endangering fetus from the moment that they realize about their high risk pregnancy. Getting consultation in order to ensuring and promoting of psychological health protection in such a situation that is full of uncertainty was one of the needs expressed by these women.

A 30-year-old woman said: "I was always worried about the child. I was saying to myself that we tried very much and what if God forbid, something bad happens. This period of time was very difficult especially my husband was so worried. When we had guests he would not let me walk. He always prepared a chair for me to sit (Participant 8).

#### **3-4-2. Fear of losing marriage**

Fear of losing marriage due to prolonged sexless life, losing pregnancy and not having children and husband's disappointment was other reason that

caused tension in pregnant women and participants needed guidance and consultation to manage it. A 29-year-old woman said: "My mother in law was stopping by to see me. Because this time, it was a must for me to have a kid. If I do not have a child I am going to be in trouble. In these seven years we have come to Isfahan and spent lots of money to have child. Before this I lost pregnancy for two times and this is third (Participant 20).

### **3-4-3. Fear of losing job**

Prolonged absence from work, lack of flexible employment laws and the possibility of losing job is another cause of stress for participants of the study. A 39-year-old woman said: "Sometime I'm stressed that what will happen to my job, my manager says go to Tehran but I was not in the proper condition. These thoughts about job and home make me nervous" (Participant 11).

### **3-5. Need for training and consulting about pregnancy and childbirth and pregnancy complications**

Data analysis showed that high risk pregnancy will cause focus on diagnosis and treatment of its complications. Pregnant women said that this cause to ignore their need of training in terms of different issues about pregnancy and childbirth.

#### **3-5-1. The need for training in terms of different issues about pregnancy and childbirth**

Participants said that limited activities due to high risk pregnancy prevented them from participating in educational classes of pregnancy and preparation for childbirth. That's why they are deprived from receiving much information about pregnancy and childbirth processes, common complication in pregnancy and danger signs so they spend this time in unawareness.

A 31-year-old woman said: "They do not hold courses or such things to give us information. It would be great if they give us books; books about everything. This will both entertain us and improve our information. When I feel bad many questions come to my mind that I don't know the answers" (Participant 1). Also these women suggest that high-risk pregnancy along with lack of information about the process of childbirth creates additional fears of labor. In this regard, a 27-year-old woman said: "Bad thing about this hospital is they do not let you to choose method of delivery. There are women like me that are afraid of delivery. I think if I'm going to do normal delivery I will die before it. Unfortunately I could not attend classes for childbirth" (Participant 18).

#### **3-5-2. The need for training and consultation about complications, treatment and required cares**

Pregnant women participating in the study stated that in meetings with the medical team (specialist and hospital personnel) they do not receive enough information about the occurred complication, the process of treatment and treatment choices so they need training in this field. A 29-year-old woman said: "I expect the doctor to do whatever he can and medical staff is better to be honest and explain people everything" (Participant 20).

#### **3-6. The need for planning in order to carry out various activities during bed rest**

Data indicate that prolonged bed rest and limited activity is associated with decreasing women's life quality. Pregnant women stated that they have been unable to plan to conduct various activities in this period and needed help to fill their spare time. In other words in a comprehensive look at the needs of these women, educating and helping them in this regard

should also be considered. A 31-year-old woman said: "They should give us a programmed rest. We cannot always sleep, at most 8 to 11 at morning someone can lay down. They should give us program about things we can do. We cannot make plans on our own. For those around it has been appointed that when they say a pregnant woman should have absolute rest it means that she should just eat and sleep. This is not good, I'm not comfortable this way" (Participant 2).

#### 4- DISCUSSION

This study was conducted for the first time in Iran to investigate the needs of women with high-risk pregnancy and bed rest experience. The needs of these women were divided to 6 categories: Training and consulting in the field of physical problems, mental problems, marital problems, fear and stress caused by bed rest, common problem in pregnancy and childbirth and the need for help for planning various activities during bed rest. Thurman and Maclean's study in 2006 showed that consulting and training during bed rest about recreational activities, training and education in relation to access to various informational-supportive sources should be the main components of intervention programs to decrease the side effects of prolonged bed rest and maintain physical and mental health of these women (11). O'Brien in 2010 suggested that performing a comprehensive nursing program and using educational and consultation services during bed rest in women with high risk pregnancy will result in decreasing physical and social-psychological problems and promoting their health. The findings of this study showed that bed rest and following inactivity is associated with many irritating physical complications and often there is no training about the treatment or prevention of these problems in pregnant women. Jolly and his colleagues in 2013 found that in order to prevent

complications in women's health during bed rest there should be basic trainings about prevention of deep vein thrombosis, moving on the bed and the bed positions, pelvic exercises, exercises to reduce or prevent edema, breathing and relaxation techniques and for their husbands training some methods of pain management in neuromuscular problems caused by prolonged bed rest and massage should be considered (13).

Statements made by participants in this study revealed that bed rest can also affect the quality and safety of women's mental life. According to the participants' statements psychological problems such as boredom, reduced tolerance threshold, depression, feelings of guilt, feelings of isolation, disorganization of thoughts, emotional instability and dissatisfaction threatens them. Brown and his colleagues in 2011 stated that when a woman due to pregnancy complications is forced to bed rest often it's the same as traveling through steps of grief. Despite a high-risk pregnancy women are seeking individual coping strategies to keep their pregnancy (14). Iron and colleagues in 2012 believed that women with high-risk pregnancy during hospitalization often experience depression and anxiety while it has been neglected and left without treatment (15). Music therapy in women with high-risk pregnancy reduces their anxiety at rest in bed and significantly improves their physiological responses (16).

This study showed that insomnia is another issue that women need consulting and education to reduce its risk. Sechrist and his colleagues study in 2015 showed using proper exercise program at the time of bed rest, can lead to more daily energy discharge and better sleep at night. On the other hand proper exercise interventions during bed rest can have a positive impact on pregnancy outcomes and can help to reduce physiological effects of limited activity (17).



Women in the study said fear of losing marriage due to lack of long-term sexual relationship with their husbands, loss of pregnancy and disappointment of husband are other reasons for being concerned and stressed and they need consulting and training to overcome these problems. The results of Maloney and parks study also showed because of influence of pregnancy on family interaction and communication between spouses, effective cares at this time should be family-centered so in case of high risk pregnancy and complications, updated medical information should be available for fathers as well and the parents both should be under counseling (18).

## 5- CONCLUSION

Bed rest due to high risk pregnancy the woman and her family are faced with different needs and knowing them is essential to provide comprehensive care and thus improving the health of mothers. Training and consulting in various fields is one of the essential needs of these women which not only reduces their physical and mental problems but also can help them in solving marital problems during this period and controlling concerns and fears induced by bed rest problems and thus prevent collapsing of life. But currently in our country pregnant women with high risk pregnancies are treated like other pregnant women and only providing specific medical cares to these special groups are concerned. Identifying and explaining the experiences, concerns, feelings and needs experienced by this group and their families can not only affect their medical treatment and improve outcomes of pregnancy but also can be a guide for comprehensive and high quality care with an emphasis on their important issues such as physical, mental and psychosocial problems.

**6- CONFLICT OF INTEREST:** None.

## 7- ACKNOWLEDGMENT

This article is result of research project with ID code: 293 165 approved by the Nursing and Midwifery Faculty, Isfahan University of Medical Sciences.

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