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Women's Needs on Bed Rest during High-risk pregnancy and Postpartum Period: A Qualitative Study

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ABSTRACT

Background & aim: pregnancy is a normal part of life, however, high-risk pregnancy that need bed rest can be stressful and affect woman and her family. Therefore, understanding the needs of women on bed rest seems to be necessary to enhance the quality of care services. The present study was conducted to investigate the women's needs on bed rest during high-risk pregnancy and postpartum period.

Methods*:* This qualitative study was performed among women with high-risk pregnancy using purposeful sampling method. Data were collected by conducting 31 semi-structured interviews with 21 pregnant women, 10 spouses, and 7 medical staff involved in their healthcare. Data analysis was carried out using conventional content analysis developed by Hsieh and Shannon.

Results: According to the results, there were four main categories of needs entailing the need for psychosocial support, support for family and personal affairs, support for looking after children, and the need for economic support. The final category was the need for comprehensive support.

Conclusion: The personal and family life of pregnant women is affected during bed rest. Accordingly, comprehensive support is needed to enable women to cope with these problems. To reach this goal, the provision of family-centered support services based on coordination among health sections, supporting organizations, charities, social workers, and systems providing psychological and consultation services are recommended.

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Introduction

Pregnancy is considered as a unique and natural period of women's life. However, positive past medical history or the incidence of new disorders can make problems (1). Diseases threatening maternal health such as heart disease, autoimmune disorders, and chronic hypertension and pregnancy-related complications such as placental abnormalities, premature rupture of membranes, as well as the presence of adverse environmental conditions, unhealthy lifestyles, and teenage pregnancy lead to high-risk pregnancy.

Eventually, high-risk pregnancy brings a lot of psychosocial stress to pregnant woman and her family (2). According to the literature, high-risk pregnancy negatively affect the psychological health status of mother and neonate (3). In addition, the anxiety related to a high-risk pregnancy impairs the formation of maternal-fetal attachment (4). Moreover, psychological stress in pregnant women increases along with the severity of pregnancy-related problems (5).

Obstetricians use maternal activity

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restriction such as bed rest to manage a variety of high-risk pregnancy problems (6). Regarding the evidence, it is recommended to almost 18% of women to limit their activities during pregnancy (7). Although several studies indicated that a routine prescription of bed rest does not have any proven benefits for many high-risk pregnant women, it still continues to be widely recommended by midwives and obstetricians (8).

Bed rest has serious negleceted short- and long-term adverse effects on the health status of mother and neonate (1). When women become aware of their high-risk pregnancy and find out that they have to rest in bed, they often experience grief (9). Additionally, prolonged bed rest is accompanied by adverse effects on pregnant women and their families. Bed rest has devastating physiological effects including muscular dysfunction, weight loss, bone loss, thrombosis, fatigue, and sleep disorders.

Moreover, negative psychological and emotional changes due to bed rest entail concerns about the fate of herself and her child, anxiety, and depression. According to previous studies, the physical, psychological, and emotional complications of bed rest are accompanied by other secondary consequences. For instance, several maternal psychological and emotional problems affect fetal health as well (10, 11).

The results of a study conducted by Romero and Badr indicated that sleep disorders due to bed rest during pregnancy, themselves, can be accompanied by several complications such as diabetes and hypertension in pregnancy (12). In addition, in a study carried out by Nakamura and Yoshizawa, the decreased levels of compatibility among these women in the acceptance of pregnancy and preparation for childbirth was revealed (13).

The prolonged hospitalization of women in the hospital is another important issue. In addition to the complications of prolonged bed rest and limited activities, these women face with new problems due to being away from home and family. These women experience a wide range of emotions from boredom to anger, and from sadness to hope, and usually have a low level of mental well-being and quality of life (14).

Studies have shown that concerns about older children, additional responsibilities of spouses, and reduced family income imposed double stress and anxiety on family members (7). Indeed, spouses suffer from psychological stress related to the transition to paternal role, fear of incompetence, change of relationship with their wife, changing lifestyle, safety of mother and neonate, and future (15).

These conditions become more complicated in case of insufficient support from family and organizations providing services in different societies (16). All the aspects of family life and function are affected by the occurrence of high-risk pregnancy. Considering the mentioned issues, in order to reduce the anxiety of couples and enhance their quality of life, it is necessary to identify the needs of these couples and plan a program to meet them (17).

Globally, numerous studies are conducted to investigate the experiences of bed rest during pregnancy in women and their partners and their needs. Most of these studies were done before 2000 America and Canada (16, 18, 19). Certainly, cultural and socioeconomic differences between countries lead to diversities in lifestyle and family interactions (20). In other words, Iranian families may have different experiences and needs.

To the best of our knowledge, there was a lack of local studies in this area. Qualitative studies allow the researcher to achieve a close understanding of the participants' experiences by removing the issues in following the preset procedures. In addition, this method provides a better basis for understanding the examined phenomena. Consequently, qualitative study is a suitable method for investigating less studied topics (21). Therefore, this qualitative study was carried out to evaluate the women's needs on bed rest during high-risk pregnancy and postpartum period.

Materials and Methods

This qualitative study was conducted using conventional content analysis. A qualitative content analysis was used to reveal individuals' understanding and experiences, as well as everything that existed in their lives. We aimed to provide the knowledge of the phenomenon

under investigation (22). The current study was performed among 21 women aged between 21 and 39 years old with high-risk pregnancy.

The reasons for bed rest included spotting and bleeding (six subjects), symptoms of preterm labor (five subjects), twin pregnancy (five subjects), preeclampsia (two subjects), history of infertility and recurrent abortion (three subjects), and at least one week of bed rest in their history. The samples were selected through purposeful sampling from the patients referred to private midwifery offices and obstetric care clinics, as well as pregnant women hospitalized in hospitals and mothers of newborns hospitalized in neonatal intensive care units (Table 1).

Additionally, 10 interviews were performed with the spouses of these women, who had willing to participate in the study. Moreover, seven interviews were executed with seven medical staff involved in their care; and all of the subjects were interviewed. After explaining the objectives of the study and obtaining informed consents, semi-structured individual interviews were carried out in their preferred time and places entailing public healthcare centers or hospitals.

Conducting interviews continued until data saturation was achieved. The duration of the interviews varied from 10 to 40 minutes, and they were conducted by one of the research team members, who was a PhD candidate in reproductive health. The interviews initially started with an open-ended question, which was "How did you spend your bed rest time?" Then, they were continued with other questions such as "How bed rest during pregnancy affected different aspects of your life?" and "What needs did you have during the bed rest?"

The interviews were recorded and transcribed word by word at the first opportunity. Data analysis was done using conventional content analysis proposed by Hsieh and Shannon with the help of Microsoft Word and OneNote software 2016 (22). After the transcription, the texts of the interviews were reviewed several times. After obtaining an overview, the data were read line-by-line, important sentences and phrases were determined, and the codes were extracted from them.

After identifying initial codes and purifying them, similar codes were assigned in a

Table 1. Demographic characteristics of women participated in the study

	Age (year)	Gestational age (week)	Gravidity	Education	Career	Bed rest reason
P1	31	31	2	Diploma	Housewife	Spotting
P2	31	29	3	Diploma	Housewife	Preterm labor symptoms
P3	29	9	2	Diploma	Housewife	Spotting
P4	23	29	1	Bachelor's	Housewife	Twin pregnancy
P5	32	36	2	Diploma	Housewife	Preeclampsia
P6	21	31	1	Bachelor's	Housewife	Preterm labor symptoms
P7	30	33	2	Diploma	Housewife	Twin pregnancy
P8	30	28	1	Bachelor's	Housewife	Bleeding
P9	34	26	3	Diploma	Housewife	Infertility
P10	32	27	1	Diploma	Housewife	Spotting
P11	39	30	2	Bachelor's	Clerk	Twin pregnancy
P12	38	33	1	Diploma	Housewife	Preeclampsia
P13	28	36	1	Bachelor's	Clerk	Preterm labor symptoms
P14	28	13	1	Bachelor's	Housewife	Spotting
P15	31	34	2	Bachelor's	Housewife	Twin pregnancy
P16	29	27	1	Diploma	Housewife	Spotting
P17	25	28	1	Diploma	Housewife	Twin pregnancy
P18	27	32	3	Diploma	Housewife	Infertility associated with recurrent abortion
P19	24	29	1	Diploma	Housewife	Preterm labor symptoms
P20	29	27	3	Diploma	Housewife	Preterm labor symptoms
P21	27	23	1	Bachelor's	Housewife	Recurrent abortion

category; accordingly, subcategories were formed. The main categories emerged by putting similar subcategories together. To ensure the accuracy and consistency of the findings, the following solutions were employed (23). To increase the acceptability of the study, maximum variation sampling was done in terms of age, gravidity, educational status, socioeconomic level, pregnancy complication, and bed rest duration.

The extracted codes were reviewed by the participants in order to confirm the accuracy of data. The members of research team agreed on the accuracy of the extracted codes of subcategories and final categories. To increase the reliability, the data were constantly evaluated, and the ways of the extraction of codes and excerpts from the interview transcripts were presented to a foreign supervisor professor to evaluate their similar understanding and search for inconsistencies. To enhance transferability, the researchers tried to provide sufficient descriptive data in their report, so that the reader can evaluate the possibility of using the data in other environments.

In addition, the results were presented to a number of pregnant women who had not participated in this study to judge about the existence of similarities between the study results and their experiences. To meet the verifiability criterion, the transcript of a number of interviews and the extracted codes and categories were put at the disposal of faculty members, who were familiar with the analysis of qualitative studies, but had not participated in the research.

This study was approved by the Ethics Committee of Isfahan University of Medical Sciences, Isfahan, Iran, with the code No.293165. All the ethical issues of qualitative studies were considered. Prior to conducting the interview, the aim of the study, confidentiality of the information, and recording the interview were explained to the participants. In addition, the subjects had the right of withdraw at any time they want and a written informed consent was taken from them.

Results

In this study, 21 pregnant women with high-risk pregnancy aged between 21 and 39 years old were participated, most of whom had high school degree and were housewives. Their gestational ages varied from 9 to 36 weeks, and most of them were primigravida. Additionally, 10 spouses were enrolled in the study with the age range of 26-45 years old. Most of the spouses had high school degree and were self-employed.

Moreover, seven medical staff (four midwives, two nurses, and one gynecologist) were participated in this study. Analyzing the data led to the emergence of the final category of the need for comprehensive support. The category of the need for comprehensive support was formed by four main categories of the need for psychosocial support, the need for support in doing their personal affairs and house tasks, the need for support in looking after children, and the need for economic support.

1. The need for psychosocial support

According to the results, a high-risk pregnancy and the subsequent need for complete bed rest are stressful conditions in the normal course of family life. Therefore, pregnant woman and her husband need psychosocial support from their friends and relatives. This category consists of two subcategories including the pregnant woman's need for psychosocial support and her husband's need for psychosocial support.

1-1 the pregnant woman's need for psychosocial support:

It was very hard for women, in psychological and emotional terms, to experience complete bed rest for handling a high-risk pregnancy. Accordingly, they require the greatest psychological and emotional support from their spouses. Women need their husbands to sympathize with them by showing their understanding of existing conditions and accompany them at different stages. This companionship could be in the form of ongoing psychological support and constant presence at the time of performing care services and therapeutic measures.

“I expected my husband more, but he is very busy. He expresses very little sympathy. I can never say my words directly to him. Near the birth, I told him that I wanted him to come after

me whenever I went to the doctor, but he did not." (P2)

Regarding the results, in the existing social context, a high-risk pregnant woman also expects her family a constant communication, psychosocial support, and sympathy.

"There was no one around me except for my husband. My mother and other family members were so filled with spite, they did not come to my house. I became old during this period. I was demoralized and cried day and night. Because nobody else came to meet me at all." (P10)

These women stated that psychosocial support of their families and their families-in-law made it easier for them to endure the bed rest. The understanding of families-in-law of the current along with setting their expectations of pregnant women can reduce their psychological pain.

"I was on complete bed rest at home, but whenever I went to my mother-in-law's house, I had to work. They said: As if nobody has ever been pregnant, we have given birth to children, too." (P4)

Women's need for psychosocial support expands to include relations with friends, too. Prolonged bed rest causes the families not to be able to meet these needs. In such situation, friends can play a complementary role of psychosocial support.

"I was afraid of abortion. My friends came to meet me, and I felt better. During bed rest, as time goes further, you get more bored. You may like people to be around you, to go and come a lot, and to visit you." (P9)

The women with high-risk pregnancy need to receive psychological support, sympathy, and hope from the caregivers. In other words, the physician, midwife, and nurses are an important source of support for them because the unpredictability of the high-risk pregnancy makes the women psychologically and emotionally vulnerable.

"Doctors and nurses should know that the people with this problem are very stressful and anxious. It's not clear to myself that my child should remain or not ... Some of them gave us stress, and well some of them gave us morale and hope." (P29)

The peer group was one of the other sources of support needed by these women. Meeting other high-risk pregnant women, who are on complete bed rest, was associated with a very good sense of mutual understanding. Talking to peers about the existing problems would resolve their concerns and dissatisfaction with the abnormal conditions of pregnancy. Furthermore, getting sympathy from the peer group made the problems of this period more acceptable for them.

"Now, I mostly need a good companion, I mean someone to talk to. It would be very good, if there was a pregnant woman beside me. Now there is a pregnant woman among our relatives, when we sit to talk, we understand each other. When we tell our problems to each other, we boost our morale." (P3)

1-2 Spouses' need for psychosocial support:

In addition to pregnant woman, the spouse experiences tension due to the conditions associated with bed rest, too. Prolonged bed rest affects all the aspects of family life and lowers the tolerance threshold of the spouses.

"I could not deal with problems; when something happened, I could not calm my wife and I cried with her." (P30)

The family's problems during a high-risk pregnancy and maternal bed rest put the husband in the need of getting support from the relatives and friends. In some cases, the husband remains outside the circle of their support and had to endure the conditions of lonely.

"During the first trimester, I did not move at all. My husband took me to the bathroom and dressed me. When I had hemorrhage, we cried a lot. I was worried more for my husband than for myself. My husband and I needed more support, especially in the first trimester, because I had pregnancy craving. Both my husband and I got annoyed. My husband could not even eat and nobody paid attention to his needs". (P9)

2. The need for support for family and personal affairs

Due to the activity restriction during the complete bed rest, pregnant women are not able to do their daily routines. Therefore, they need others to help them with handling their house

tasks and doing their personal affairs.

2-1 The need for support in doing their house tasks

The first problem during the complete bed rest is the need for a person to handle the house tasks. If a pregnant woman stays at her home during this period, in some cases, the husband will accept to do this responsibility and will support the woman in doing her house tasks.

"My husband made a great effort to compensate the shortcomings and deficits and did his best to support me. He said to me all the time, “Never mind, I'll do it myself”. He, himself, took care of all the house tasks. He really looked after me." (P8)

Many participants have stated that their husbands were not able to handle the house tasks alone due to being busy. In such cases, the pregnant women will need support of the members of their families and families-in-law for doing their house tasks.

2-2 The need for support for doing personal affairs

Limitations in doing their personal affairs is one of the other consequences of bed rest, which causes pregnant women to become dependent. These women stated that they needed help and support for eating, taking a bath, and even moving.

“I was lying all the time. I mean, whatever I wanted, I had to wait until my husband comes and gives me something to eat, and again puts me to sleep” (P26)

3. The need for support for taking care of children

The need for support in taking care of older children and preterm neonate were among the other needs of women with high-risk pregnancy, who were on complete bed rest.

3-1 The need for support in taking care of the other children

One of the other issues of bed rest during pregnancy is that the pregnant woman cannot take care of older children due to psychological and emotional or physical causes. The psychological and emotional causes entailed boredom, depression, and low tolerance threshold, while the physical causes included the impossibility of companionship with other children in doing their personal affairs, homework, and planning for leisure time. In this case, older children may fell dissatisfied with their mother's limitations. Accordingly, there is a need for support for taking care of older children.

“She used to be very dependent on me, but now I am very upset, and she, herself, goes and does her homework. However, she does not pay much attention because she does not have much time. She fears to come and ask me her questions, because I have become very quarrelsome. I know these things, but I cannot do anything.” (P2)

"My son became very irritable and nervous. Well, it has been four months he has not gone out, not a park or even not a walk.” (P11)

3-2 The need for support for taking care of preterm neonate

In some cases, a high-risk pregnancy is associated with preterm labor. Thus, the support for taking care of preterm neonate is another need of women. Taking care of preterm newborns requires full-time attention, and the parents are not able to take care of them alone.

In addition, the neonate’s need for full-time care causes women not to pay adequate attention to their own health during the postpartum period. These women need the help and support of their families and their families-in-law to solve this problem.

"When the newborn was discharged, he was feeding by gavage. We must have hugged him all the time. I could not even eat anything, and even my milk has dried up.” (P4)

4. The need for economic support

Economic issues were among the most frequent problems, which usually influenced the normal course of couples’ life with high-risk pregnancies.

4-1 support for economic problems caused by high-risk pregnancies

One of the causes of economic problems is the need for multiple paraclinical and therapeutic measures and hospitalization, which cost a lot for families. Some of these women are facing with many problems for paying the cash and need economic support.

“In this situation that I am in the hospital all

the time, the costs are high." (P17)

These economic problems have diverse effects on family life, and in some cases, even impair couples relationships.

"I had a very good relationship with my husband. However, everything was ruined after pregnancy. Because we were badly hurt, we really had financial problems. It is a very bad situation." (P10)

4-2 Support for economic problems due to husband's absence from work

The husband's absence from work to satisfy the needs of his wife during bed rest, including care and treatment, is a common problem among these couples. It could be associated with decreased family income, economic problems, and impaired livelihood opportunities, which may continue even during the postpartum period.

"Now, we are really short of cash and unable to pay our rent or bills because I could not work during my wife's pregnancy, and I have to take care of her." (P25)

4-3 Support for economic problems due to omitting women's income

The omission of women's income is one of the other causes of the economic problems caused by high-risk pregnancies. It make the family to shoulder a double burden by disrupting their economic plans. In addition, it intensifies their need for economic support.

"I stayed two months at home during pregnancy. The company did not pay me, and we have financial problems and installments in our life." (P13)

4-4 Support for economic problems due to prematurity

When a high-risk pregnancy leads to preterm birth, the economic problems continue and even become hard to solve. This problem is caused by the high costs of hospitalization and treatment of a preterm newborn, as well as the post-discharge costs of requirements for looking after preterm neonate. Therefore, another serious need is supporting families in confrontation with the economic problems caused by preterm birth.

"We presented the hospital two cheques to hospitalize our infant but they were bounced. Sometimes, I cannot buy the specific formula for preterm infant, and I have to feed him by the ordinary types of infant formula. I have no other choice because we are really short of cash." (P4)

Discussion

According to the results, in Iran, the need for comprehensive support is one of the most important needs of women with high-risk pregnancy during the bed rest and postpartum period. Comprehensive support consists of four main categories of the need for psychosocial support, the need for support for doing personal affairs and house tasks, the need for support for looking after older children, and the need for economic support.

Regarding the results of the present study, bed rest period was a very hard time for women with high-risk pregnancy and their families, and it was accompanied by special needs. The need for psychosocial support was one of the major needs of these families. It is expected that families, their friends and acquaintances, caregivers, and peers to meet these women's needs.

Similar studies reported the needs of pregnant women with high-risk pregnancies as the need for psychosocial support, improved environment, help for mental compatibility, and acceptance of resting or long term hospitalization (24). The experiences of the women participated in a study conducted by Höglund showed that they experienced high-risk pregnancy as a period full of doubts and worries about preterm labor and miscarriage.

Bed rest for these women was a big change in their daily lives, and the lack of control over life accompanied by feelings of fatigue, stress, loss of energy, and uselessness. Additionally, the inability to do house tasks, take care of older children, and entrusting these tasks to husbands were very stressful. Given the results of this study, getting support from husbands, midwives and physicians, employers, and colleagues was an effective factor in building the capacity to cope with the problems during pregnancy and to achieve physical and mental balance (25). Moreover, the results of a study performed by Bawadi et al. demonstrated that husbands by partaking in responsibilities, sympathy,

attention, and protecting their wives play their supportive role during a pregnancy (26). A weak support from a husband was associated with the pregnant woman's anxiety and concern (27).

Performing supportive and educational programs can reduce stress and fatigue in these women. In addition, the maternal satisfaction and the pregnancy outcome were improved by maintaining the integrity of the family and increasing the sense of participation and control (9). Maloni and Kutil suggested that forming support groups for women with high-risk pregnancy during bed rest was an important step toward accommodating thems to the situation (28).

Based on these results, the bed rest condition affects all the family members; therefore, an important issue that should be considered in supporting women with high-risk pregnancy was planning for family-centered interventions (29). Women are often witnessing that the entire family are crushed, and their husbands are among the most vulnerable members. In a study carried out by Hsieh et al., these men stated that they experienced a range of emotions from happiness and peace to shock and anxiety during the high-risk pregnancy (30). While the health system staff ignores husbands, they are expected to accept responsibilities related to home and taking care of their wives in addition to their main tasks. Furthermore, these multiple roles bring them stress and fatigue. In fact, these fathers have to bear multiple extra pressures alone (17). According to the results of these studies, the pregnant women's husbands need to draw support from family, friends, coworkers, and the healthcare staff. By supporting these men and preparing them to cope with the high-risk pregnancy events, the treatment staff can pave the way for them to better support their wives (28).

According to the results, the economic support was one of the needs of high-risk pregnant women and their families. Further, consistent with our results, Irion et al. recommended the referral of these families to support groups and organizations, as well as implementing programs in order to identify and resolve their financial problems (31).

One study limitation was relatively small sample size that limited the general applicability of the results. Further studies are recommended with different context and larger sample size to investigat and compare the experiences of other women.

Conclusion

Generally, it seems that a treatment-centered view with the aim of reducing mortality and perinatal medical complications are no longer adequate, and the care services should achieve a comprehensive view by passing beyond the treatment scope. According to the results, the impact of a high-risk pregnancy should be considered on the lives of all the family members. Considering the pivotal role of women in families, we should plan comprehensive support to enhance the quality of life for all the intervening members of a family.

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Conflicts of interest

Authors declared no conflicts of interest.

References

1. James DK, Steer PJ, Weiner CP, Gonik B. High risk pregnancy: management options-expert consult. New York: Elsevier Health Sciences; 2010.
2. Susan S. Maternity, newborn, and women's health nursing. Philadelphia: Lippincott Williams & Wilkins; 2009.
3. Zadeh MA, Khajehei M, Sharif F, Hadzic M. High-risk pregnancy: effects on postpartum depression and anxiety. British Journal of Midwifery. 2012; 20(2):104-113.
4. Hee LS, Young LE. Factors influencing maternal-fetal attachment in high-risk pregnancy. Proceedings of the international workshop Healthcare and Nursing, Singapore; 2015.
5. Black KD. Stress, symptoms, self-monitoring confidence, well-being, and social support in the progression of preeclampsia/gestational hypertension. Journal of Obstetric, Gynecologic, & Neonatal Nursing. 2007; 36(5):419-429.
6. Bigelow C, Stone J. Bed rest in pregnancy. Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine. 2011; 78(2):291-302.
7. Sciscione AC. Maternal activity restriction and the prevention of preterm birth. American Journal of Obstetrics and Gynecology. 2010; 202(3):232.e1-e5.

8. McCall CA, Grimes DA, Lyerly AD. "Therapeutic" bed rest in pregnancy: unethical and unsupported by data. Obstetrics & Gynecology. 2013; 121(6):1305-1308.
9. Johns L. Supporting and educating the family experiencing bedrest during pregnancy. International Journal of Childbirth Education. 2006; 21(1):28.
10. Vanderspank D, Bernier SM, Sopper MM, Watson P, Mottola MF. Activity restriction increases deoxypyridinoline excretion in hospitalized high-risk pregnant women. Biological Research for Nursing. 2012; 16(1):7-15.
11. Maloni JA. Lack of evidence for prescription of antepartum bed rest. Expert Review of Obstetrics & Gynecology. 2011; 6(4):385-393.
12. Romero R, Badr MS. A role for sleep disorders in pregnancy complications: challenges and opportunities. American Journal of Obstetrics & Gynecology. 2015; 210(1):3-11.
13. Nakamura Y, Yoshizawa T, Atogami F. Assessments of maternal psychosocial adaptation for pre-labor hospitalized pregnant women in Japan. Nursing Reports. 2011; 1(1):9.
14. Rubarth LB, Schoening AM, Cosimano A, Sandhurst H. Women's experience of hospitalized bed rest during high-risk pregnancy. Journal of Obstetric, Gynecologic, & Neonatal Nursing. 2012; 41(3):398-407.
15. Chin R, Hall P, Daiches A. Fathers' experiences of their transition to fatherhood: a metasynthesis. Journal of Reproductive and Infant Psychology. 2011; 29(1):4-18.
16. Yirenkyi AS. The lived experience of high-risk expectant partners. Michigan: University Microfilms; 2006.
17. O'Brien ET, Quenby S, Lavender T. Women's views of high risk pregnancy under threat of preterm birth. Sexual & Reproductive Healthcare. 2010; 1(3):79-84.
18. McCAIN GC, Deatrick JA. The experience of high-risk pregnancy. Journal of Obstetric, Gynecologic, & Neonatal Nursing. 1994; 23(5):421-427.
19. Schroeder CA. Women's experience of bed rest in high-risk pregnancy. Journal of Nursing Scholarship. 1996; 28(3):253-258.
20. Renzaho A, Green J, Mellor D, Swinburn B. Parenting, family functioning and lifestyle in a new culture: the case of African migrants in Melbourne, Victoria, Australia. Child & Family Social Work. 2011; 16(2):228-240.
21. Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: advancing the humanistic imperative. Philadelphia: Lippincott Williams & Wilkins; 2011.
22. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qualitative Health Research. 2005; 15(9):1277-1288.
23. Polit DF, Beck CT. Nursing research: generating and assessing evidence for nursing practice. Philadelphia: Lippincott Williams & Wilkins; 2008.
24. Kent RA, Yazbek M, Heyns T, Coetzee I. The support needs of high-risk antenatal patients in prolonged hospitalisation. Midwifery. 2015; 31(1):164-169.
25. Höglund E, Dykes AK. Living with uncertainty: a Swedish qualitative interview study of women at home on sick leave due to premature labour. Midwifery. 2013; 29(5):468-473.
26. Bawadi HA, Qandil AM, Al-Hamdan ZM, Mahallawi HH. The role of fathers during pregnancy: A qualitative exploration of Arabic fathers' beliefs. Midwifery. 2016; 32:75-80.
27. Gourounti K, Anagnostopoulos F, Sandall J. Poor marital support associate with anxiety and worries during pregnancy in Greek pregnant women. Midwifery. 2014; 30(6):628-635.
28. Maloni JA, Kutil RM. Antepartum support group for women hospitalized on bed rest. MCN: The American Journal of Maternal/Child Nursing. 2000; 25(4):204-210.
29. Thorman KE, McLean A. While you are waiting: a family-focused antepartum support program. The Journal of Perinatal & Neonatal Nursing. 2006; 20(3):220-226.
30. Hsieh YH, Kao CH, Gau ML. The lived experience of first-time expectant fathers whose spouses are tocolyzed in hospital. Journal of Nursing Research. 2006; 14(1):65-74.
31. Irion JM, Irion GL, Lewis K, Giglio M. Current trends of physical therapy interventions for high-risk pregnancies. Journal of Women's Health Physical Therapy. 2012; 36(3):143-157.