Original Article

Mental Health Status of the Women With Risky Pregnancies in the Hospital and Affecting Factors

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Abstract

Aim: The research was conducted to examine mental health status of the women with risky pregnancies in the hospital and affecting factors.
Methodology: The sample of this descriptive study consisted of 147 risky pregnant women with preterm labour diagnosis. The data was collected by the Personal Information Form and the Brief Symptom Inventory (BSI) on the day the patients were hospitalized. Number, percentage distribution, Mann-Whitney U and Kruskal Wallis tests were used in the evaluation of the data.
Results: From the subscales of BSI, anxiety mean score was 13.82 ± 9.84, depression was 18.04±10.37, negative self perception was 11.87 ± 9.07, somatization was 12.86 ± 6.08 and hostility was 8.11 ± 5.06. It was found that there was a statistically significant difference between the perception of income status, perception of communication with husband, preference of bed rest at home, the number of pregnancies and BSI subscales ($p < 0.05$).
Conclusions: Anxiety, depression, negative self perception, somatization and hostility scores of pregnant women are below average. Mental health status of those who have less income than expense, who perceive their communication with their husbands moderate level, who do not want bed rest at home, and who have two or more pregnancies are affected adversely. In the light of these findings, reducing the risk factors that may adversely affect the mental health status of the women with risky pregnancies diagnosed with preterm labour and providing supportive approaches are recommended.

Key Words: Risky pregnancy, preterm labour, hospitalization, mental health, Turkey

Introduction

Risky pregnancy is a physiological, social, and emotional condition that threatens maternal and fetal health and increases the mortality and morbidity rate (Gumusdas et al. 2014). Preexisting or pregnancy related diseases of women or fetus can make the pregnancy difficult. Risk is defined as the possibility of a negative outcome or a factor that increases this possibility (Erkal Aksoy et al. 2016). Preterm labour, which is one of risky pregnancies, is a major public health problem affecting pregnancies at 5%-10% rates (Dayan et al. 2002; Derbent and Ozturk Turhan 2009; Halbreich 2005). In a study conducted in Turkey, the prevalence of spontaneous preterm labour was 17.3% (Ege et al. 2009). In 184 countries around the world, the prevalence of preterm birth is between 5% and 18%. Every year there are 15 million preterm births and 1.1 million babies die due to preterm birth complications (Baser and Eskiocak 2013).

Pregnancy is a natural event for women, as well as a life crisis in which significant biological, psychological and social changes and mental problems such as anxiety, depression and stress can also occur (Aydin Kartal and Yesiltepe Oskay, 2017; Yesilcicek Calik and Aktas, 2011).

However, the risky pregnancy can increase anxiety, depression and stress, and more mental health problems can be seen when compared with normal pregnancies (Ehsanpour et al. 2012; Maloni et al. 2005; Misund et al. 2013; Thiagayson et al. 2013) In the literatüre, there are studies showing that there is a positive relationship between risky pregnancies and anxiety and depression (Dayan et al. 2002; Dole et al. 2003; Halbreich 2005; Hoffman and Hatch 2000; Maloni et al. 2005; Orr et al. 2002). In Dayan et al.'s study (2006), preterm labour was found to be higher in women with a high depression rate. In Turkey, depression level was found to be 74.1% among women who had complications related to pregnancy in Celik et al.'s study (2013).

Mood disorders in pregnancy, especially depression, are one of the important risk factors for preterm labour as they affect placental hormones and levels of plasticity functions (Li et al. 2009). The risky pregnancy and the fear of losing a baby can lead to the woman not trusting her motherhood ability and to have low self-esteem. In this case, anger, aggression, desperation, hopelessness, guilt and depressive moods can develop.

This depressive mood can lead to a decrease in the self-care of the pregnant woman, resistance to treatment, and prolongation of the treatment duration (Sen and Sirin 2013). On the other hand, hospitalization of a pregnant woman, diagnosis of a pregnancy related illness, and the intensity of treatment may increase woman's anxiety and stress (Halbreich 2005; Sen and Sirin 2013).

Depressive symptoms in pregnancy increase the risk of obstetric risk and adversely affect mother-infant relationship and fetal development (Maloni et al. 2005). Thus, mental problems can lead to problems such as a small fetus depending on the gestational age, an intrauterine dead fetus, a low birth weight infant, a cesarean birth, a more painful birth and the need for epidural anesthesia (Halbreich 2005; Sen and Sirin 2013). In addition, behavioral problems, sleeping disorders, weakness in sucking, inadequacy of motor skills and decrease in functioning can be seen in the newborn (Ege et al. 2009; Ehsanpour et al. 2012; Yesilcicek Calik and Aktas 2011).

Psychosocial conditions of women with physically risky pregnancies are at risk (Hediye and Kokmaz 2005). For this reason, pregnant women have psychosocial needs to meet. Evaluation of psychosocial health and affecting factors, as well as physical evaluation, is important in terms of holistic approach and early diagnosis when medical evaluation is done during monitorings of pregnant women. Thus, it is thought that it will contribute to early initiation of initiatives that can be applied in risky pregnancies such as preterm labour. In this context, the research was conducted to examine mental health status of the women with risky pregnancies in the hospital and affecting factors.

Hypotheses of the Study:

H_1: Mental health status of women with risky pregnancies in the hospital is negatively affected.

H_2: Some socio-demographic characteristics negatively affect the mental health status of women with risky pregnancies in the hospital.

H_3: Some obstetric characteristics negatively affect the mental health status of women with risky pregnancies in the hospital.

Methodology

A descriptive and cross-sectional design was used in this study. The sample of this study consisted of 147 women with risky pregnancies and at 20-27. gestational weeks hospitalized with the preterm labour diagnosis at the Hospital for Obstetrics and Pediatrics in the Eastern Anatolia region between January-July 2015.

ThePersonal Information Form prepared by the researchers after literature review, there are questions related to socio-demographic characteristics such as age, working status, educational status, family structure, perception of income status and questions related to obstetric characteristics such as gestational week, number of pregnancies and the planning of pregnancy.

The Brief Symptom Inventory (BSI) is a self-assessment scale consisting of 53 questions developed by Derogatis (1992) in order to search various psychological signs. Adaptation of BSI to Turkish was done by Sahin and Durak (1994). The scale can be applied to adolescents, adult individuals and groups. The items are graded between 0-4, corresponding to the expressions

"never," "some", "moderate", "quite", and "a lot". The high scores obtained from the scale indicate the frequency of symptoms. As a result of the validity and reliability studies, the scale consisted of five subscales including anxiety (feelings of self tension and anxiety), depression (feelings of hopelessness about the future), negative self perception (guilt feelings), somatization (fainting, dizziness) and hostility (feeling the urge to destroy things). In the validity and reliability study of the scale, Cronbach's alpha coefficient was found to be 0.87 for anxiety, 0.88 for depression, 0.87 for negative self perception, 0.75 for somatization and 0.76 for hostility (Sahin and Durak, 1994). In our study, cronbach's alpha coefficient was found to be 0.85 for anxiety, 0.86 for depression, 0.85 for negative self perception, 0.63 for somatization and 0.53 for hostility. The Personal Information Form and the BSI face-to-face interview method were applied to those who met the research criteria and agreed to participate in the research by the researcher. Information about the research subject and aim, and an informed consent form were provided to pregnant women. After explaining women that the decision to participate in the study was completely their own, their names were not to be written on the forms, the information obtained could not be used outside the study, consents of women who accepted to participate in the study were taken. The forms were applied on the first day of admission to the hospital. Forms took 20 minutes to fill. The research data were collected during the application phase of the researcher master thesis study and obtained from the data that was not used in the thesis. The data analyzed using the SPSS 22.0 package program. Number and percentage distribution were used in the analysis of the data. Mann-Whitney U test was used for comparison of two groups that did not show normal distribution and Kruskal Wallis test was used for comparison of more than two groups. Significance level was taken as $p < 0.05$.

Ethics

Before starting the research, written permission was taken from institution in which research would be conducted and ethics committee approval was taken. The study was conducted in accordance with the Declaration of Helsinki.

Results

The mean age of pregnant women was 25.52 ± 5.98. It was found that, 76.9% of the pregnant women were between 20–43 years old, 99.3% were not working (housewives), 53.1% were primary school graduates and 55.1% were living in the small family. 51.7% of pregnant women stated that their income was less than the expense, and 76.2% stated that they perceived communication with their husbands at a good level. It was found that 66.7% of pregnant women preferred to stay at home rather than in the hospital (see Table 1).

In the study, 90.5% of the pregnant women were 25-27. gestational weeks, 72.8% had two or more pregnancies (pregnancy number mean 3.30 ± 2.14), 65.3% had planned pregnancy, 77.6% planned to have a normal birth, 63.3% had regular visits to their controls (see Table 2).

From the subscales of BSI, anxiety mean score was 13.82 ± 9.84 (min–max: 0–45), depression was 18.04 ± 10.37 (min–max: 2–44), negative self perception was 11.87 ± 9.07 (min–max: 0–43), somatization was 12.86 ± 6.08 (min–max: 0–30) and the hostility mean score was 8.11 ± 5.06 (min–max: 0–26) (see Table 3).

There was a statistically significant difference among BSI subscales according to the perception of income status and communication with husbands, the desire to make bed rest at home, and the number of pregnancies ($p < 0.05$). Anxiety and depression scores of pregnant women who had less income than expense, anxiety, depression and negative self perception scores of those who stated their communication with their husbands at moderate level were found to be high. The anxiety, depression, negative self perception, somatization and hostility scores of pregnant women who did not want to make bed rest at home and depression scores of those who had two or more pregnancies were high (see Table 4).

It was found that there was no statistically significant difference among subscales of BSI according to age, education, family type, gestational week, planned pregnancy, planned delivery mode, regular use of medication and regular visits to controls ($p > 0.05$).

Table 1. Socio-demographic characteristics of pregnant women

Characteristics	n (%)
Age groups	
16-19	20 (13.6)
20-34	113 (76.9)
35-42	14 (9.5)
Working status	
Working	1 (99.3)
Not working	146 (0.7)
Education status	
Literate	60 (40.8)
Primary school	78 (53.1)
High school and higher	9 (6.1)
Family structure	
Small	81 (55.1)
Extended	66 (44.9)
Perception of income-expense levels	
Income less than expense	76 (51.7)
Income and expense equal	54 (36.7)
Income more than expense	17 (11.6)
Perception of communication with husband*	
Good	112 (76.2)
Moderate	35 (23.1)
Preferring to make bed rest at home	
Yes	98 (66.7)
No	49 (33.3)

** The perception of communication with husband is categorized as "good", "moderate" and "bad", and nobody gave "bad" answer.*

Table 2. Obstetric characteristics of pregnant women

Characteristics	n (%)
Gestational Week	
20-24. week	14 (9.5)
25-27. weeks	133 (90.5)
The Number of Pregnancy	
One	40 (27.2)
Two	24 (16.3)
Three and more	83 (56.5)
If the Pregnancy is Planned	
Yes	96 (65.3)
No	51 (34.7)
Planned Delivery Mode	
Normal birth	114 (77.6)
Cesarean section	33 (22.4)
Going to Controls	
Yes	93(63.3)
No	54 (36.7)

Table 3. BSI mean scores of pregnant women

BSI Sub-Factors	X ± S (min–max)*	min–max**
Anxiety	13.82±9.84 (0-45)*	0-52**
Depression	18.04±10.37 (0-43)*	0-48**
Negative Self Perception	11.87±9.07 (2-44)*	0-48**
Somatization	12.86±6.08 (0-30)*	0-36**
Hostility	8.11±5.06 (0-26)*	0-28**

**Min-max scores of pregnant women; **Min-max scores that can be obtained from the scale.*

Table 4. Mean scores between some characteristics of pregnant women and BSI subscales

Characteristics	BSI Subscales				
	Anxiety Mean (min-max)	**Depression** Mean (min-max)	**Negative self perception** Mean (min-max)	**Somatization** Mean (min-max)	**Hostility** Mean (min-max)
Perception of income-expense					
Income less than expense	13.00 (0-45)	21.00 (2-44)	10.00 (0-43)	14.00 (0-27)	7.00 (0-26)
Income and expense equal	11.00 (1-35)	12.50 (3-40)	8.50 (0-35)	12.50 (3-30)	8.00 (2-20)
Income more than expense	7.00 (0-25)	11.00 (3-37)	6.00 (1-20)	12. 00 (3-27)	5.00 (2-16)
Test	KW=6.840	KW=10.074	KW=3.580	KW=1.016	KW=1.251
	p=0.033*	**p=0.001***	p=0.167	p=0.602	p=0.535
Perception of communication with husband					
Good	11.00 (0-37)	13.50 (2-40)	8.50 (0-35)	13.00 (2-30)	7.00 (0-20)
Moderate	15.00 (2-45)	22.0 (2-44)	14.00 (1-43)	13.00 (0.25)	8.00 (1-26)
Test	KW=6.174	KW=9.276	KW=7.174	KW=1.021	KW=3.434
	p=0.046*	**p=0.010***	**p=0.028***	p=0.600	p=0.180
Preferring to make bed rest at home					
Yes	9.50 (0-45)	12.00 (2-44)	8.00 (0-43)	12.00 (0-30)	6.00 (0-26)
No	13.00 (2-32)	22.00 (6-44)	12.00 (0-35)	15.00 (2-26)	8.00 (2-21)
Test	MU=1896.000	MU=1588.000	MU=1778.000	MU=1670.000	MU=1840.500
	p=0.038*	**p=0.001***	**p=0.010***	**p=0.003***	**p=0.021***
The number of pregnancy					
One	10.50 (0-37)	11.50 (2-37)	9.00 (0-35)	12.00 (0-27)	7.00 (2-20)
Two and more	12.00 (0-45)	17.00 (2-44)	9.00 (1-43)	13.00 (1-30)	7.00 (0-26)
Test	MU=1882.500	MU=1628.000	MU=1827.000	MU=2093.500	MU=1941.500
	p=0.262	**p=0.026***	p=0.172	p=0.839	p=0.386

**p<0.05; MU=Mann -Whitney U test; KW= Kruskall Wallis test*

Discussion

In this study to examine mental health status of pregnant women under risk in the hospital and affecting factors, anxiety, depression, negative self perception, somatization and hostility scores of pregnant women are below average. In the evaluation of BSI, high scores indicate the frequency of symptoms. It can be said that mental conditions of pregnant women with risky pregnancies in our study are not adversely affected. According to this result, our H_1 hypothesis is rejected. The majority of pregnant women in the research area where the study was conducted live in extended families (44.9%). For this reason, they can not rest enough at home and they may have to look after their children at home and fulfill their responsibilities as a woman/wife. That pregnant woman is away from all her responsibilities when she is in the hospital can explain the fact that the result is below average. However, the result may be low because pregnant women who had preterm labour applied to the hospital, their situation was under control, and because they felt safe about themselves and their baby. Some studies in the literature show that there is a significant relationship between preterm birth and anxiety and depression, as opposed to our study findings, and that as anxiety and depression increase the preterm delivery risk increases (Dayan et al. 2006; Ehsanpour et al. 2012; Gumusdas et al. 2014; Li et al. 2009). In Turkey, Sen and Sirin (2013) found that depression scores of pregnant women with preterm labour were at moderate levels and their anxiety levels were high. Aydin Kartal and Yesiltepe Oskay (2017) also found that 33.3% of the pregnant women with preterm labour had low levels of anxiety. Another study by Dole et al. (2003) found that pregnancy related depression was not associated with preterm labour, but anxiety doubled the preterm labour risk. The fact that different findings were obtained in other studies and in our study can be explained by the fact that the sample groups are different.

The anxiety and depression scores of the pregnant women who perceived their income less than expense are high. This finding supports our H_2 hypothesis. The majority of the pregnant women in our study (99.3%) do not work. This may have an effect on the anxiety and depression scores of the pregnant women. Individuals must have income to be able to meet basic physiological needs. Therefore, as the newborn participate in the family will cause new needs to ocur, this situation can cause anxiety and depression scores to increase and that the risky pregnancy can also affect this finding. In Leigh and Milgrom's (2008) study on pregnant women at 26-32. gestational weeks, they found that depression scores of pregnant women who had low income level were significantly high. In some studies, anxiety and depression scores of those who did not work and had low socioeconomic status were found to be significantly high and related (Bödecs et al. 2009; Bödecs et al. 2013; Dayan et al. 2006; Hoffman and Hatch 2000). In Turkey, Celik et al. (2013) also found that low socio-economic level was associated with the development of depression in pregnancy. These findings are consistent with our study results. However, in another study, that the income and working status of pregnant women in preterm labour were not significant with their anxiety and depression levels differ from our study findings (Aydin Kartal and Yesiltepe Oskay 2017). The reason for this difference can be explained by the fact that the sample groups live in different geographical regions.

The anxiety, depression and negative self perception scores of pregnant women who stated their communication with their husbands as moderate level are higher than those who stated as good. According to this result, our H_2 hypothesis is accepted. Adequate social support in pregnancy leads to emotional and cognitive relief of the pregnant women and helps them deal with mental problems more easily (Sen and Sirin 2013). The finding obtained from our study can be explained by the inadequate support system of the pregnant woman, the risky pregnancy, the more difficult adjustment to pregnancy and pregnant woman's difficulty in coping with both physical and mental problems. In the literature, there are studies showing that there is an increase in depression and anxiety levels of pregnant women who have inadequacy in their social support systems (Altinay 1999; Elsenbruch et al. 2007; Westdahl et al. 2007). These findings are in parallel with our study results.

The anxiety, depression, negative self perception, somatization and hostility mean scores of the pregnant women who do not want to make bed rest at home are high. This finding we obtained from the study supports our H_2 hypothesis. The fact that the pregnant woman is in a home environment where she does not know what to do and she can not get emergency help if she needs can explain this finding. In the literature, it is stated that the pregnant woman's being in bed resting in the hospital is preferred because she can be intervened without losing time when there is a negative change in her health status (Sercekus and Okumus 2004).

It is believed that this is the primary reason for choosing the hospital of patients in our study. It was determined that 53.8% of pregnant women in the study of Hediye and Korkmaz (2005), and 24.6% in the study of Pamuk and Arslan (2009) preferred to be in bed rest in the hospital. The reason for preferring the hospital is that the hospital environment is more reassuring for woman's and for baby's health status (Pamuk and Arslan 2009). These findings support our study findings.

In our study, depression mean scores of pregnant women with two or more pregnancies are high. According to this result, our H_3 hypothesis is accepted. In Celik et al.'s study (2013), the fact that as the number of living children of pregnant women increases, mean scores of depression increase is compatible with our study resultss.

However, in Dayan et al.'s study (2006) on 20-28. week pregnant women who have spontaneous preterm labour, it was found that the number of pregnancies was not associated with depression. That Aydin Kartal and Yesiltepe Oskay (2017) found that preterm pregnant women who had never delivered before had a significantly higher depression scores differ from our study results.

Conclusion

Anxiety, depression, negative self perception, somatization and hostility scores of pregnant women are below average. Anxiety and depression scores of pregnant women who perceive their income less than expense, anxiety, depression and negative self perception scores of pregnant women who perceive their communication with their husbands at moderate level, anxiety, depression, negative self perception, somatization and hostility scores of pregnant women who do not want to make bed rest at home and depression scores of pregnant women who have had two or more pregnancies are high. In the light of these findings, reducing the risk factors that may adversely affect the mental health status of the women with risky pregnancies diagnosed with preterm labour and providing supportive approaches are recommended.

Study Limitations

The data obtained from this study only covers the sample group in which the study was conducted, can not be generalized to all pregnant women.

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