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Review Article

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The relationship between anxiety in the third trimester of pregnancy and obstetric outcomes within Miandoab County in 2013

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ABSTRACT

The present research aims to examine the relationship between anxiety in the third trimester of pregnancy and Obstetric Outcomes within Miandoab County in 2013. the statistical population consists of 540 mothers and their Neonatal who were selected among the pregnant women within Miandoab County. To examine the relationship between mother's anxiety in the third trimester of pregnancy on one hand and type of delivery, etony, dystocia, the perineum, bleeding on the other hand, depression anxiety stress scale (DASS) was used. The data relating to the obstetric outcomes by use of record sheet consist of the self-reporting tool that was collected by the researcher through observation and collection of data as Obstetric Outcomes from patient's medical record. Data were analyzed using Multivariate analysis of variance (MANOVA) and Spearman correlation coefficient. findings indicated that there is not a significant relationship between mother's anxiety in the third trimester of pregnancy and Eton, dystocia, the perineum, bleeding. Yet, there is a significant relationship between mother's anxiety in the third trimester of pregnancy and type of delivery. In this study, 95.37 and 92.49 of the pregnant women with anxiety were under natural labor and cesarean.

Key words: anxiety; the third trimester of pregnancy; Obstetric Outcomes

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INTRODUCTION

Effect of mother's psychological processes on health and development of the fetus is so extensive, because the area inside the womb is continuously under influence of emotions and psychological state. This is the reason for most of developmental and morale differences in Neonatal. Unfortunately there is little existing knowledge about the mechanisms which cause mother's psychological changes affect health and development of the fetus. Yet, understanding such mechanisms is of importance for changing intervention methods with clinical aspect.

Anxiety in pregnancy and labor will be followed by adverse effects, that autonomic nervous system is stimulated in a long-term anxiety , resulting in increase in smooth muscle contraction such as arterial system, reducing oxygen circulation in uterus, increasing abnormal fetal heart rate and premature birth. Development of fetus at the first week of pregnancy slowly comes to realize. Some researchers have considered anxiety as a leading part in mental pressure at pregnancy and a leading agent in proliferation of chemo-biological transformations in body of the mothers who are under pressure .[1]

The researchers found out that there is a significant relationship between mother's mental pressure at pregnancy and some negative outcomes of birth. A study was conducted by Molavi et al.(2003) in one of the hospitals in Isfahan[2], that the results indicated that there is a significant relationship between maternal stress during pregnancy and weight of Neonatal , Apgar scores in the first minute, height of Neonatal, head circumference of Neonatal and pregnancy duration. Yet, there is no significant relationship between maternal stress during pregnancy and Apgar scores in the fifth minute.

According to the research by Mulder et al[3] about prenatal stress and its effects on pregnancy, it can perceive that stress during pregnancy can result in Spontaneous abortion, fetal structural malformations, preterm delivery, preeclampsia, and fetal weight loss.

With regard to the studies by Salari et al.(1998)[4] within city of Mashhad, it can perceive that Childbirth preparation methods resulted in reduction of stress during pregnancy and avoidance of the outcomes from this stress during labor , that the anxiety was measured by the research under the same conditions at three stages. Anxiety during pregnancy and labor has been seen with a significant increase in the observed group as compared to the first stage, and the opposite emerged in experimental group. A significant difference on anxiety during pregnancy and labor has been seen in two groups, and there has been a direct correlation between the early latent anxiety and the score obtained from training.

Talassios[5] in a study reported the extent of anxiety at various stages of pregnancy about 13-15%. This study was conducted aiming at examining the relationship between anxiety in the third trimester of pregnancy and Obstetric Outcomes. The hypothesis of this research included the relationship between anxiety in the third trimester of pregnancy and each of Atony, bleeding , the perineum , dystocia.

EXPERIMENTAL SECTION

The participants of this research include 540 mothers and their Neonatal who had been selected among pregnant women at Miandoab County via sampling. Sampling was in this way that any qualified pregnant woman for the study who used to refer to public health clinics to receive cares during pregnancy at in the third trimester of pregnancy was entered into the study after setting interaction and receiving necessary explanations about the aims of study about research units and receiving the informed consent form. Firstly the questionnaire of demographic characteristics was filled by the researcher. Questionnaire of DASS stress, anxiety and depression was filled by the unit under study under special cares and was filled through the researcher' interview with the samples in the study, if required. 15 minutes took last to fill the questionnaires, and thereafter the women under study referred to the health clinics under routine cares, whereby following-up was fulfilled by the researcher and aid-researcher. The Obstetric Outcomes have been registered by the researcher. The researcher has registered the Obstetric Outcomes. After collecting the questionnaires and calculating the scores of the questionnaires, the data were entered into the table, and then descriptive statistics to prepare frequency distribution table and calculate central indicators and also inferential statistics including chi-square, Spearman correlation coefficient, and regression have been used via software SPSS-16. To conduct this study, the instruments include questionnaire of demographic and pregnancy characteristics, labor procedure checklist, standard depression anxiety stress scale (DASS) . Self-reporting data collection method has been used, mentioned that the first questionnaire consists of sections included of demographic and pregnancy characteristics. The section included of demographic characteristics consists of four questions about age, education level, economic status and employment, and the section included of pregnancy characteristics consists of three questions about gravida, parity and gestational age which have been organized by the researcher.

The registry sheet includes the self-reporting instruments, which has been registered by the researcher through observation and collection of data as the Obstetric Outcomes from the patient's medical record or household's record. The second questionnaire includes depression anxiety stress scale (DASS) , mentioned that stress, anxiety and depression scale is a series of self-reporting scale to evaluate negative emotional states under depression, anxiety and stress. Each of DASS-21 sub-scales consists of 7 questions that the final score for each question is obtained through sum of scores for the questions (table 1). Each question is scored from 0(it does not come true about me) to 3(it totally comes true about me). As DASS-21 is the short version of the original scale (42 items), the last score of each of subscales must be equal to 2. Then, with regard to table 2, it can specify the severity of symptoms.

RESULTS

Results of this study indicated that mean of gestational age at the early inclusion to the study has been 30-30.6(83.33) and mean of mothers' age under study has been 25-34(48.7). Educational level of a majority of units under study has been under diploma (55.6). Concerning employment, a majority of units under study (98.5) used to work as housewives. Concerning pregnancy, a majority of units under study (38.7) have been subjected to the first pregnancy. Concerning parity, a majority of units under study (60.2) have been subjected to the first pregnancy. It should be noted that these variables had no significant relationship with anxiety. Findings indicated that 15.2, 64.8, 12.8 and 1.7 of the participants evaluated the perceived anxiety at moderate, average, severe and so severe levels,

respectively. The results from MANOVA analysis indicated that mothers' anxiety during pregnancy has a negative relationship with obstetric outcomes(r=-0.005).

Table 1. The relationship between anxiety and each of the variables of obstetric outcomes (Dystocia, atony, perineum, bleeding, type of delivery)

Dependent variable	sum of squares	freedom degree	f-value	Sig
anxiety				
Dystocia	49/709	5	1/458	0/211
atony	49/709	6	1/203	0/ 312
bleeding	49/709	4	1/176	0/326
perineum	186/951	9	1/590	0/076
type of delivery	186/951	7	1/497	0/166

Table 2. the relationship between anxiety and each of the variables under study and obstetric outcomes(Dystocia , atony , perineum, bleeding , type of delivery)

Variables under study	f-value	Sig
Education	1.119	0.291
Employment	0.071	0.791
Economic status	7.224	0.007
Gestational age	1.642	0.201
Parity	48.152	0.000
Anxiety	----------	0.29

The results from MANOVA analysis (Table 1) indicate that there is no significant relationship between anxiety and obstetric outcomes. Further, there is no significant relationship between anxiety and type of delivery. In this study, 95.37 and 92.49 of the pregnant women with anxiety were under natural labor and cesarean. According to the table represented with the results, it can perceive that there is no significant relationship between mother's anxiety in in the third trimester of pregnancy and obstetric outcomes. There is a significant relationship between mother's economic status and mother's anxiety in the third trimester of pregnancy(P=0.007). there is a significant relationship between parity and obstetric outcomes in the third trimester of pregnancy(P=0.000).

DISCUSSION

Investigations at this area indicate that a variety of findings have been acquired due to difference in evaluation methods. This study indicated that there no significant relationship between mother's anxiety in the third trimester of pregnancy and obstetric outcomes, and anxiety has not inhibited vaginal birth, and a majority of mothers with anxiety have been subjected to vaginal birth rather caesarean operation. With regard to findings of this study considering the fact that the sampling was fulfilled when the health system reform plan was performed in the country, the low rate of caesarean operation and increasing rate of vaginal birth have been considered as the fundamental plans of this system, and the selected caesarean operations were removed, and the interventions including increase of mothers' information and notion about vaginal birth and caesarean operation by developing training and consulting courses for vaginal birth have been considered. It should be noted that using these intervention programs might result in reducing stress, tension and anxiety in pregnant women, and increasing rate of vaginal birth, whereby no relationship has been seen between anxiety and Eton, uterine bleeding, dystocia, and the perineum. With regard to findings of research by Shayeghian et al(2008)[6], the rate of vaginal birth has been more in mothers without anxiety, that this finding is in contradictory with the findings of this study. Findings of this study are consistent with the findings of research by Khani et al[7], in which there is no significant relationship between anxiety and perineum.

Ryding et al.(1998)[8] in their study concluded that fear from labor results in increasing caesarean section.

Halvorsen et al.(2008) & Nerum et al.(2006)[9] in their study reported that pregnant women with depression and anxiety have more fear from vaginal birth, thereby increasing rate of caesarean section will be more likely in these women. Result of this research were found without any relationship between anxiety and Anxiety and dystocia , atony, bleeding , and perineum. With regard to the results from this study due to prevalence of anxiety in the third trimester of pregnancy as well as limited number of studies at the area of relationship between anxiety in the third trimester of pregnancy and obstetric outcomes, it requires conducting such studies.

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