

An enquiry into pregnancy anxiety and associated factors among pregnant women in Birjand in 2016

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Abstract

Introduction: While maternity can stand as an enjoyable and evolutionary events in a woman's life, this new period can be associated with worry and anxiety for some women. Anxiety in pregnancy can lead to various and irreversible complications. This study aimed to investigate pregnancy anxiety and related factors among pregnant women referred to Birjand-based healthcare centers.

Methods: This cross-sectional study was performed on 380 pregnant women referred to healthcare centers in Birjand in 2016. The participants were selected by multistage random sampling method. Data were collected by demographics and disease records forms, questionnaire of personal information and records of pregnancy, Pregnancy-Related Anxiety Questionnaire (PRAQ) and Marital Satisfaction Questionnaire (MSQ). The collected data were analyzed in statistical software SPSS (version 15) using independent t-test, one-way ANOVA, Tukey and Pearson correlation coefficient. P values lower than 0.05 were considered significant.

Findings: Pregnancy anxiety mean score was 3.77 ± 1.13 (range: 1-7). Pregnancy anxiety total score and some of its subscales correlated significantly with age, maternal education, spouse's education, parity, income, and mother and spouse's occupation ($P < 0.05$). There was a significant negative correlation between marital satisfaction and anxiety in pregnancy and all its subscales ($P < 0.05$). No significant association was found between pregnancy anxiety and its subscales and the type of pregnancy (planned or unplanned), sex of the fetus, and housing status ($P > 0.05$).

Conclusions: Considering the high prevalence of anxiety in pregnancy and the impact of various factors on it, it is necessary to highlight the importance and emphasis on psychiatric care during pregnancy and inclusion of training on mental health of pregnant women in routine care during pregnancy and, hence, a step towards increased health of the mother and babies, and ultimately, the health of families and communities. Therefore, vulnerable mothers should be identified and cared for both mentally and psychologically so that pregnancy anxiety can be prevented.

Keywords: Anxiety; Pregnancy; Pregnant women

1. Introduction

Pregnancy and childbirth are regarded as natural events and among the most important stages in a woman's life throughout the history of human societies (1). While pregnancy is a natural phenomenon for women, it is at the same time considered an experience accompanied by

anxiety (2) such that some researchers propose pregnancy as a kind of situational crisis, maintaining that whereas pregnancy fills most women with happiness, it leaves some others with anxiety (3-8). Studies report the prevalence of anxiety disorder in pregnancy higher than 30 percent (5, 9-14). It is reportedly of 64 percent prevalence in Iran (9, 15).

Prevalence of anxiety in pregnant women was 54 percent in Lee et al's study (16) and 63.2 percent in Alipur et al's study (17). Mosalanejad et al (18) studied 214 pregnant women to report a prevalence of 90 percent for different degrees of anxiety (18).

Anxiety, as a natural mechanism, is presumably a preparation for the mother to cope with the mental anguish of having a child and the associated changes. However, anxiety can sometimes turn into a pathological disorder and risk the mental and physical health of the mother and fetus (19). According to various studies, anxiety in pregnancy is associated with many adverse complications. It can lead to negative perception of the mother about pregnancy and childbirth, unnecessary fear about childbirth and maternity (9), severe and uncontrollable nausea and vomiting in early pregnancy, maternity poisoning, reduced production and secretion of breast milk, increased risk of maternal postpartum depression and anxiety, and reduced ability of the mother to perform maternal roles (5, 7, 15, 19-22). On the other hand, anxiety symptoms during pregnancy do not simply affect the mother but also have irreversible effects on the fetus. Among the complications are restricted fetal growth, cleft palate, cleft lip, premature delivery, stillbirth and death of the child (1, 5, 7, 9, 12, 13, 15, 19, 25). Among other important effects of anxiety in pregnancy are stimulation of the autonomic nervous system and increased contraction of smooth muscles such as the arterial system, which can lead to reduced oxygen supply to the uterus, increased patterns of abnormal fetal heart rate, and increased risk of emergency cesarean section (5, 20, 23 - 25).

In a study by Shayeghian et al, growth indices in infants of anxious mothers were reported significantly lower than those of non-anxious mothers. Also, natural delivery in non-anxious mothers ($p < 0.01$) and preterm birth in anxious mothers ($p < 0.01$) were significantly higher (26). Furthermore, anxiety is associated with important implications including low birth weight and lower Apgar score of the child (5, 11, 19, 21, 22, 27-29). In addition, high levels of anxiety during pregnancy result in irritability, greater crying, unstable situation, and even decreased mental development of the child at the age of 2 years (7, 15, 20). A high level of anxiety can also affect social, speech and memory skills of the child in the future such that 15 percent of anxiety and delayed cognition in children has been reported to be caused by mother's anxiety during

pregnancy (5). Oates maintained that anxiety in the prenatal period not only impacts the child's mental health in childhood but is also associated with mental health problems in adulthood, highlighting the importance and profound impact of this issue on the whole life of an individual (19, 30).

According to various studies, there are several contributors to pregnancy anxiety. Hormonal, mental and emotional changes, physical/psychological discomfort, fear, indecision and problems related to pregnancy and childbirth such as the mother's perception of pregnancy and labor pains, fear of labor, concerns with the health of the fetus and herself, acceptance of pregnancy, husband-wife relationship, change in body image, nightmare, fear of new experiences, and acceptance of new roles (9, 14, 20, 26, 31-33), strong interest in a particular gender, dominant culture in the family and society towards pregnancy and child's gender (34) are responsible for anxiety in pregnancy.

So far, few studies in Iran have focused on fears and concerns during pregnancy (32). To assess anxiety as the most common mental health problem during pregnancy, researchers have applied measures such as Spielberger's State-Trait Anxiety Inventory (Taylor 1953), while such measures are not designed to assess anxiety during pregnancy. Studies have shown that pregnant women may have several worries about the embryonic period defects and changes in personal life as a result of pregnancy and childbirth (Dunkley-Ashtar, 1990). Shortcomings with the measurement of mental state during pregnancy may underestimate mental confusion of mothers. Therefore, it seems necessary to study fears and concerns specific to pregnancy and to investigate factors associated with anxiety. Therefore, this study enquired into pregnancy anxiety and its related factors among pregnant women in Birjand.

2. Methods

This cross-sectional study was conducted on 380 pregnant women referred to midwifery units of healthcare centers in Birjand. The sample size was determined based on statistical tests and previous studies (31) with $p=0.45$ (prevalence of moderate and severe anxiety), $\alpha=0.05$ and $d=0.05$. Sampling was through randomized multi-stage sampling method such that Birjand was divided into two similar regions in terms of socioeconomic status. In each region, a center was selected randomly. Thereafter,

participants were selected through systematic random sampling from each center proportional to the number of all pregnant women covered by the center and eligible for inclusion in the study. Inclusion criteria consisted of pregnant mothers of Iranian nationality, no history of disease and known mood disorders, non-use of anti-anxiety drugs, lack of high-risk pregnancy (infertility, gestational diabetes, preeclampsia, placenta previa), and minimum literacy to read and write. Data were collected by demographics form, Pregnancy-Related Anxiety Questionnaire (PRAQ), and Marital Satisfaction Questionnaire (MSQ). Upon provision of informed consent, the participants completed the instruments. The demographics form held 15 items on gestational month, age, occupation (mother and spouse), income, duration of marriage, number of children, gender of baby, and planned or unplanned pregnancy.

Maternal anxiety was evaluated using the standard PRAQ questionnaire. Developed by Woudenberg in 1989, the questionnaire assesses mothers' concerns and fears of pregnancy. It contains 58 items that examine five factors: Fear of childbirth (14 items), fear of giving birth to a child with physical or mental problems (5 items), fear of change in marital relationships (13 items), fear of change in mood and its consequences on children (16 items), and self-oriented fears or fear of change in the mother's private life (7 items). Scoring ranged between 0 and 7 depicting the sum of scores for each item whereby the pregnancy anxiety score ranged from 0 to 406. In their psychometric assessment of the questionnaire, Huizink et al reported a satisfactory correlation coefficient between PRAQ and the Spielberger State-Trait Anxiety Inventory. In Huizink et al's study (35), Cronbach's alpha coefficient was reported for all sub-scales throughout pregnancy as 0.76, and in Babanazari and Kafi (32), it was 0.81.

The MSQ was developed and validated by Salah Fedardy. It contains 49 items on the four sub-scales of attraction (12 items), understanding (12 items), attitude (13 items), and investment (12 items). The items are scored on the basis of the 4-point Likert scale from 1=strongly disagree to 4=strongly agree. This scale was administered on 142 married male and female students in Ferdowsi University of Mashhad. After collecting the data, the scale's reliability was confirmed using Cronbach's alpha as an indicator of internal consistency. Cronbach's alpha coefficient for marital satisfaction in total was 0.88, and as for the subscales, it was 0.64 for attraction, 0.64 for understanding, 0.67 for attitude, and 0.65 for investment (36).

The collected data were analyzed in statistical software SPSS (version 15) using descriptive statistical tests (i.e., mean, standard deviation and frequency) and inferential tests (i.e., independent t-test, one-way ANOVA, Tukey and Pearson correlation coefficient). P values lower than 0.05 were considered significant.

3. Findings

The study included 380 pregnant women referred to healthcare centers in Birjand. Their mean age was 28.1 ± 5.6 years with a minimum of 17 and maximum age of 45 years of whom 44.2 percent were in the second trimester of pregnancy. The majority of the mothers (35.5%) was nulliparous and housewife (76.1%), and had an academic degree (43.9%). Most of them ($n=320$; 84.2%) were having planned pregnancy, while 159 mothers (15.5%) had unplanned pregnancy. A total of 160 (42.1%) fathers had academic degrees and 215 (56.6%) were self-employed. Total pregnancy anxiety mean score was 3.77 ± 1.13 (range 1-6.69) indicating that 54 percent of pregnant women had experienced pregnancy anxiety. The mean score of anxiety and its subscales are displayed in Table 1 below.

Table 1: Measures of central tendency, dispersion and subscales of pregnancy anxiety in pregnant women referred to health centers in Birjand

Variable	Mean	Median	Standard deviation	Range of variations
Fear of delivery	3.94	3.93	1.31	1-7
Fear of childbirth with physical or mental disability	3.89	4	1.51	1-7
Fear of change in marital relations	3.61	3.61	1.19	1-7
Fear of change in mood and its consequences on the child	3.58	3.5	1.14	1-7
Self-oriented fears	4.12	4.28	1.30	1-7
Total Anxiety	3.78	3.7	1.29	1-7

Table 2: Comparisons of pregnancy anxiety mean scores and subscales in terms of demographic characteristics

Variable	Frequency (Percentage)	Fear of Delivery (Mean±SD)	Fear of childbirth with physical or mental disability (Mean±SD)	Fear of change in marital relations (Mean±SD)	Fear of change in mood and its consequences on the child (Mean±SD)	Self-oriented fears (Mean±SD)	Total Anxiety (Mean±SD)
Age:							
< 20 y	21 (5.5)	5.04±1.31	4.30±1.72	4.07±1.64	4.16±1.42	4.62±1.28	4.43±1.36
20-30 y	236 (62.1)	4.07±1.25	3.96±1.46	3.72±1.09	3.66±4.05	4.26±1.21	3.88±1.03
30-40 y	116 (30.5)	3.51 ±1.26	3.72±1.54	3.31±1.24	3.32±1.19	3.74±1.38	3.46±1.17
>40 y	7 (1.8)	3.40±1.54	3.02±1.33	3.30±1.30	3.19±1.53	4.14±1.53	3.37±1.35
P-value	-	< 0.001	0.1	0.005	0.004	<0.001	<0.001
Mother's education:							
Elementary school	84 (22.1)	3.78±1.36	3.61±1.56	3.51±1.28	3.52±1.20	4.06±1.33	3.66±1.18
High school	129 (33.9)	4.09±1.26	3.92±1.51	3.72±1.23	3.70±1.19	4.36±1.31	3.91±1.15
University	167 (43.9)	3.90±1.32	4.00±1.46	3.57±1.12	3.51±1.07	3.96±1.24	3.73±1.07
P-value	-	0.1	0.1	0.3	0.3	0.02	0.2
Spouse's education:							
Elementary school	86 (22.6)	4.03±1.33	3.84±1.62	3.66±1.24	3.67±1.18	4.33±1.35	3.85±1.17
High school	134 (35.3)	4.08 ±1.32	3.94±1.53	3.78±1.18	3.78±1.15	4.31±1.30	3.94±1.13
University	167 (43.9)	3.77±1.29	3.87±1.42	3.44±1.16	3.36±1.08	3.85±1.22	3.59±1.08
P-value	-	0.09	0.88	0.04	0.005	0.003	0.02
No. of pregnancies:							
1	135 (35.5)	4.48±1.25	4.04±1.52	3.82±1.19	3.86±1.15	4.25±1.25	4.07±1.12
2	126 (33.2)	3.71±1.21	3.88±1.37	3.59±1.02	3.48±0.94	4.19±1.15	3.69±0.92
≥ 3	119 (31.3)	3.56±1.30	3.72±1.61	3.38±1.32	3.36±1.26	3.90±1.46	3.52±1.25
P-value	-	0.001	0.2	0.01	<0.001	0.07	<0.001
Income:							
Low ¹		4.40±1.43	4.29±1.79	4.07±1.55	4.17±1.50	4.62±1.52	4.28±1.43
Moderate ²	47 (12.4)	4.00±1.25	3.83±1.53	3.61±1.15	3.62±1.06	4.18±1.27	3.80 ±1.08
Good ³	157 (41.3)	3.75±1.31	3.83±1.39	3.49±1.09	3.38±1.04	3.93±1.22	3.61±1.04
P-value	175 (46.1)	0.008	0.1	0.01	0.01	0.003	0.001
Occupation:							
Housewife	289 (76.1)	3.95±1.23	3.93±1.46	3.66±1.12	3.61±1.08	4.20±1.22	3.81±1.04
Student	32 (8.4)	4.15±1.52	3.80±1.66	3.50±1.44	3.49±1.27	4.11±1.51	3.77±1.33
Employed	59 (15.5)	3.77±1.57	3.73±1.61	3.43±1.38	3.49±1.35	3.73±1.50	3.60±1.37
P-value	-	0.39	0.59	<0.36	0.70	0.03	0.42
Spouse's Job:							
Unemployed	17 (4.5)	3.88±1.34	3.46±1.62	3.23±1.39	3.42±1.18	4.26±1.41	3.61±1.21
Employee	148 (38.9)	3.82±1.41	3.82 ±1.41	3.58±1.17	3.46 ±1.09	3.96±1.21	3.67±1.09
Self-employed	215 (56.6)	3.96±1.56	3.96±1.56	3.66±1.19	3.66 ±1.16	4.22±1.33	3.86±1.14
P-value	-	<0.3	<0.3	0.33	0.2	0.1	0.2
Trimester of pregnancy:							
First	97 (25.5)	3.76±1.43	3.68±1.46	3.48±1.18	3.46±1.09	4.03±1.36	3.63±1.15
Second	168 (42.2)	3.93±1.27	3.88±1.45	3.58±1.16	3.55±1.09	4.13±1.25	3.76±1.09
Third	114 (30)	4.13±1.24	4.10±1.60	3.78±1.22	3.74±1.22	4.21±1.28	3.94±1.15
P-value	-	0.1	0.12	0.1	0.1	0.5	0.1
Housing:							
Personal	117 (30.8)	3.71±1.30	3.96±1.52	3.49±1.26	3.44 ±1.21	3.93 ±1.38	3.64 ±1.18
Rented	207 (54.5)	4.09±1.26	3.91±1.46	3.69±1.09	3.65 ±1.06	4.22±1.22	3.87 ±1.04
Organizational	17 (4.5)	3.94±1.29	3.28±1.48	3.76±1.17	4.17 ±1.29	4.17 ±1.29	3.79 ±1.05
Living with relatives	39 (10.3)	3.79±1.55	3.48±1.44	3.48±1.44	4.09±1.43	4.09 ±1.43	3.68 ±1.38
P-value	-	0.08	0.4	0.4	0.3	0.3	0.3
Pregnancy:							
Planned	320 (84.2)	3.95±1.32	3.86±1.53	3.59±1.16	3.54±1.12	4.08±1.28	3.76±1.11
Unplanned	59 (15.5)	3.85±1.30	3.99±1.40	3.69±1.35	3.72±1.25	4.31±1.38	3.85±1.22
P-value	-	0.7	0.1	0.08	0.2	0.7	0.4

1. unable to afford living costs

2. lower than sufficient to afford living costs

3. able to afford living costs

The five domains (Table 1) were standardized based on the number of items in each domain. Thus, the score for any domain was divided by the number of items in that domain. The scores ranged from 1 to 7 in each domain. Accordingly, self-oriented fears showed the highest score, while concern with change in mood and its consequences on the child had the lowest score.

The relationship between total score of pregnancy anxiety, its components, and variables such as age, mother's education, parity, income, mother's occupation, spouse's occupation, and the trimester in Table 2.

One-way ANOVA was used to study and compare the mean scores of anxiety in pregnancy and its subscales in terms of demographic characteristics. Assumptions of one-way ANOVA (normality of the dependent variable and homogeneity of variance) were investigated by Kolmogorov-Smirnov and Lion tests. As the assumptions were confirmed, analysis of variance was used.

The results of different scopes of pregnancy anxiety and associated factors are displayed in Table 2.

Results of one-way ANOVA showed that the mean scores of pregnancy anxiety and its subscales were significant in terms of age except for fear of childbirth with physical or mental disability. Along with age, the mean scores of pregnancy anxiety and its subscales declined ($P<0.05$). Tukey post hoc test showed that the highest score for pregnancy anxiety and its subscales belonged to the age group under 20 years ($P<0.001$).

Also, the mean score for pregnancy anxiety and its subscales in terms of maternal education was significant only in the case of self-oriented fears ($P<0.02$). According to Tukey post hoc test, only mothers who had college education reported lower levels of self-oriented fears compared to mothers with high school diploma.

Based on the results of this study, the mean score of pregnancy anxiety and the subscales of fear of change in marital relations, fear of change in mood and its consequences on the child, and self-oriented fears were

significant in terms of the spouse's education ($P<0.05$), such that mothers whose husbands had academic education had lower levels of fear and concern than mothers whose husbands had high school diploma degrees. There was no significant difference in terms of fear of childbirth and fear from childbirth with physical or mental disability ($P>0.05$).

The results showed that the mean scores of pregnancy anxiety and the subscales of fear of childbirth, fear of change in marital relations, and fear of change in mood varied in terms of parities. Tukey post-hoc test showed that respondents who experienced their first pregnancy obtained higher scores in total anxiety and all its subscales ($P<0.001$).

Mean scores of pregnancy anxiety and all its subscales, except for the fear of childbirth with physical or mental disability, were significant in terms of income ($P<0.05$), and in all variables mothers who had lower household incomes gained higher scores.

Results showed that the relationship between self-oriented fears and the mother's job was significant ($P=0.03$) so that working mothers had lower levels of self-oriented fear than housewives.

The mean score of pregnancy anxiety in terms of trimester of pregnancy was not significant in any of the subscales ($P>0.05$). Although the mean scores of pregnancy anxiety and its subscales increased on average as the time of delivery approached, this increase was not statistically significant.

Pearson correlation coefficient showed a significant negative relationship between mean scores of pregnancy anxiety and all its sub-scales in terms of marital satisfaction so that mothers with lower levels of marital satisfaction had higher levels of pregnancy anxiety ($P<0.05$)(Table 3).

The findings of this study did not show a significant relationship between anxiety and its subscales in terms of housing and type of pregnancy (planned or unplanned) ($P>0.05$).

Table 3: Correlation coefficient between marital satisfaction and pregnancy and its subscales in the pregnant women

Variable	Fear of Delivery	Fear of childbirth with physical or mental disability	Fear of change in marital relations	Fear of change in mood and its consequences on the child	Self-oriented fears	Total Anxiety
Marital satisfaction	$r=-0.144$ $p=0.005$	$r=-0.124$ $p=0.01$	$r=-0.304$ $p=0.001$	$r=-0.289$ $p=0.001$	$r=-0.136$ $p=0.008$	$r=-0.239$ $p=0.001$

4. Discussion

This study was conducted with the aim of examining pregnancy vis-à-vis some demographic variables and pregnancy and marital satisfaction.

The results showed that 54 percent of the studied pregnant women suffered from pregnancy anxiety. This finding indicates the high prevalence of anxiety among the participants, and corresponds with studies that show a high prevalence of anxiety in Iranian pregnant women (18, 31, 37). Likewise, the studies performed in other parts of the world have reported the prevalence of pregnancy anxiety disorders to be high; for example, prevalence of anxiety in Sweden has been reported to be 22% (31), in Bangladesh 29% (38) and in Brazil 59.5% (state anxiety) and 45.3% (trait anxiety) (31). Also, Lee et al. reported the prevalence of pregnancy anxiety to be 54% (16). According to the World Health Organization, the prevalence of psychiatric disorders in pregnant women from countries with low and middle income is significantly high and about 12.5 to 42 percent.

In this study there was a significant and negative relationship between marital satisfaction and pregnancy anxiety such that women with higher marital satisfaction experienced lower pregnancy anxiety. This relationship represents the effective role of spouse in the mitigation or aggravation of pregnancy anxiety. This finding is consistent with the findings from Babanazari (32) and Golzyr's (39) studies. Singh Veneer also asserts that during pregnancy, couples need more intimacy, and disruption in marital satisfaction could aggravate the stressful period of pregnancy for the mother (18). Therefore, one of the most important factors in a woman's coping with mental pressures during this time is the emotional support of the spouse and the security of marriage environment. Having no attachment to the family environment and, in general, disruption in marital relations can increase anxiety, aversion to pregnancy, and subsequently reduction of the mental health of pregnant women (40).

In this study, the mean scores of anxiety pregnancy and its subscales were meaningful in all domains in terms of mother's age except for the fear of childbirth with physical or mental disability, so that the mothers with a younger age had a higher pregnancy anxiety, showing that pregnancy at early ages can be one of the factors threatening the mental health of the mother. It is because a woman who is herself

still dependent on relatives to meet her needs will no doubt be faced with problems in handling the needs of her baby. This is consistent with the findings of Glazier et al (39), Niaz (41), and is inconsistent with the research by Sadeghi et al (31). Inconsistency of this finding with the study by Sadeghi et al can be due to the difference in the tool for assessing anxiety, because Spielberger's Anxiety Inventory used by Sadeghi et al. assesses anxiety in a general manner, while Woudenberg's PRAQ is specific on fears and concerns of pregnancy time.

The present study also investigated the relationship between parity and pregnancy anxiety and its subscales, showing that women with the first pregnancy experienced higher anxiety in areas of fear of childbirth, fear of change in mood and its consequences on the child, fear of change in marital relationship, and the overall anxiety in comparison to mothers with several cases of childbirth. To explain this finding, one can say that the high anxiety of the first-time pregnant mothers is due to their lack of familiarity with the physiology of pregnancy, childbirth and postpartum issues such as caring for the baby. Of course, this finding did not match the findings of the studies by Taserin et al. (38)(2011) and Baba-nazari et al (32), which is probably due to the lack of similarity in the percentage of first-time pregnant mothers in the above-mentioned studies and in the present study as well as the difference in the tool for assessing anxiety.

In this study, there was no significant relationship between the level of the mother's education and the mean score of pregnancy anxiety except in the area of self-oriented fear, and only mothers with a college education reported less egotistic fears. These findings were consistent with those of Niaz et al. who showed that there was no significant relationship between pregnancy anxiety and education, but they were not consistent with the results from the studies by Babanazari et al. who asserted that the higher the education was, the lesser the anxiety would be, and the study by Hashima et al (2011)(38) who showed that there was a strong connection between anxiety and level of literacy.

In relation to the trimester of pregnancy (first, second, and third), anxiety pregnancy and its subscales increased on average as the time approached childbirth, but this increase was not statistically significant. This finding is consistent with the studies by Babanazari et al. and Sadeghi et al. This finding indicates that different periods of pregnancy do not

affect pregnancy anxiety directly. Some researchers believe that pregnancy anxiety follows a u-shaped pattern so that the amount of anxiety in pregnant women, which is high in the first trimester, reduces in the second trimester, whereas in the third trimester of pregnancy and up to the time of delivery, it goes back to the initial level again (4).

Family income level had a significant correlation with the mean scores of pregnancy anxiety and all the subscales except for the fear of childbirth to a physically/mentally disabled child. Mothers with a low income level received a higher score. Husband's job and housing status also had a meaningful relationship with the fear of the birth of a disabled child and the fear of change in marital relations so that the mothers whose husbands were employees and had houses of their own were less anxious than other mothers. Commenting on these findings, one can say that job security and economic stability of the family can affect the mother's anxiety level concerning the childbirth and the increasing expenses of life. Especially, in case of a disabled child, the costs increase significantly. The results of this study did not match the results of the studies by Babanazari et al. (32) and Sadeghi et al. (31). Differences in culture and lifestyle of the studied groups stand as the reason why this finding is inconsistent with the findings of other related research.

The means scores of pregnancy anxiety and its subscales in the domain of self-oriented fears also had a significant relationship with the mother's job so that working mothers experienced less self-oriented fears than housekeeping respondents. The fact that the working mothers have higher financial independence and self-confidence reduces anxiety of mothers in the domain of self-centered fear, which was consistent with the finding of from Nasiri Amiri et al.'s study (42) and inconsistent with the findings of the studies by Sadeghi et al (31) and Babanazari (32).

The mean score of anxiety and all its subscales had a significant relationship with desirability of the fetal gender so that mothers with desirable fetal sex had less anxiety. This finding was inconsistent with the studies by Sadeghi et al (31) and Babanazari (32). This finding is fully justified with respect to the specific cultures governing a particular society and the tendency of families towards a certain gender (boy or girl). Therefore, certain bias on certain sex can cause high anxiety in pregnant women, especially in pregnant women with second or further parities.

5. Conclusion

Given the high prevalence of pregnancy anxiety and the impact of various factors on it, it is necessary to emphasize the mental care during pregnancy as well as physical care and to include some education related to the mental health of pregnant women in the routine pregnancy-time care and to take steps to improve the health of mothers and babies, and hence, the health of family and community. Therefore, it is necessary to identify the vulnerable mothers and protect them physically and psychologically in order to prevent this disorder from emersion.

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