

Depression in Menopausal and Nonmenopausal Women

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Abstract

Background: This cross-sectional investigation compared the depressive condition between menopausal and nonmenopausal women in the age of 45-55 in Yazd city in Yazd Province in center of Iran.

Methods: The samples were divided into two groups (70 menopausal women and 70 nonmenopausal women), and were selected by cluster sampling from the city of Yazd. The depressive tendency of participants was examined with the Beck depression inventory.

Results: About 72% of women were free of any depressive tendency, or very minor depression. Thirty women (21.4%) suffered from intermediate depression and 9 women (6.4%) suffered from severe depression. More than 27% of subjects were suffered from some forms of depression. There was no significant difference between the depression and condition of menopause of women.

Conclusion: It is a need to know the women's condition of depression and counseling as well as guiding them on basis of their needs to prevent any disorders.

Keywords: *Menopause, Depression, Iran*

Introduction

Menopause is the time in a woman's life when her period stops. It is a normal change in her body. This change happens between the ages of 45 and 55 yr. A woman has reached to menopause period when she has not had a period for 12 months in a row (and there are no other causes as pregnancy or illness, for this change) (1).

It is unclear whether psychologic symptoms increases during the menopause transition or during the post menopause transition. Misconception and limited knowledge about relationship between alteration in menstrual bleeding patterns and reproductive hormone levels with mood symptoms have hampered our ability to prevent the development of effectively treat mood disturbance in women during midwife.

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The pattern of menstrual cycles, including duration, frequency, and amount of bleeding, become less predictable before the cessation of menses (2, 3).

Premenstrual dysphoria and perimenopausal depression are mood disorders that are characterized by appearance of symptoms during distinct periods of reproductive hormone change. Both direct and indirect data suggests that changes in gonadal steroids triggers these disorders. Therefore, they represent different manifestations of the same underlying diathesis. Additionally, the results of longitudinal studies have suggested that perimenopausal changes in reproductive function are associated with an increased risk of depression compared to both the premenopausal and postmenopausal years (4-8).

Taken together, epidemiologic and clinical studies do not support an estrogen deficiency model. Instead, they suggest an association between changing patterns of mood and hormone production for which altered bleeding patterns

have served as a marker. Given the dynamic nature of the menopause transition and the epidemiologic data suggesting greater psychological symptoms during this stage, there is expect that woman will be more likely to report psychological distress during perimenopause than during premenopause or postmenopause. Several community and clinic-based studies have documented that perimenopausal women report more depressive symptoms than either pre- or postmenopausal woman (9-13), therefore, suggesting that the perimenopause may be a time of increased susceptibility to depression. In estimating the influence of menstrual changes on mood, it is important to control the covariation with mood of psychosocial and health factors such as education, quality of perceived health, financial stress, employment status, and perceived social support in multivariate analyses. A few studies suggests that midwife stresses influence mood more than those menopausal status (14-16).

This cross-sectional investigation examined the depressive condition between menopausal and nonmenopausal women.

Materials and Methods

One hundred and forty females, aged 45 to 55 yr were included in this cross-sectional study. The samples were divided in two groups (70 menopausal women and 70 nonmenopausal women), and were selected by cluster sampling from the city of Yazd. For selecting the samples, every health center was as a cluster. From 24 health centers in Yazd city, 7 were selected by simple sampling method. From every health center 10 menopausal woman and 10 nonmenopausal woman in age of 45 to 55 yr old completed the questionnaires.

The depressive tendency of participants was examined with the Beck depression inventory. The instrument of research was a questionnaire, containing demographic information with six questions and twenty one questions about the test of the Beck depression inven-

tory (BDI). The BDI is a 21-item self report rating scale designed to measure the severity of depression (17). The reliability and validity of the BDI, including the Chinese version, have been established in previous studies (18, 19). The questionnaires were completed in home visit by interview.

Total scores of using test was 63, and the range of scores about status of depression was as follows: no depression and low depression was indicated by scores 0-19, mild depression was indicated by scores from 20-29 and severe depression indicated by scores more than 30.

All data were transferred directly into SPSS (statistical package for social sciences). For data analysis, chi-square and descriptive statistics was used. Level of confidence interval was 95%.

We obtained informed consent from all participants, in addition the participants were assured that their responses were confidential.

Results

Majority of participants were in low literature, in which about 74% of them were illiterate and only educated in primary school. The age of menopause in those women was: 7(10%) less than 40 that were surgical menopause, 38(54%) in age 40-49 yr old and 25(34%) more than 55 yr old.

About 72% of women were free of any depressive tendency, or very minor depression. Thirty of them (21.4%) suffered from an intermediate depression and 9 women (6.4%) suffered from major depression. More than 27% of subjects suffered from some forms of depression.

The data in Table 1 showed that there was an increased likelihood of moderate depression after menopause, so about 27% of menopausal women and 15.7% of nonmenopausal women were moderate depressive. There was a decreased major depression in menopausal women, so 4.3% of menopausal women and

8.6% of nonmenopausal women were major depressive. There was no significant difference between the condition of depression in menopause and nonmenopause women. ($P= 0.18$). Regarding to relation between condition of menopause, depression and education, the highest major depression was in nonmenopausal women with education in primary school and guidance school (12.9%) and the lowest depression was so in nonmenopausal women with education in primary school and guidance school (35.7%) (Table 2). There was no significant difference between condition of depression and education of women. The data in Table 3 reveals that there is a significant difference between condition of depression, condition of menopause and job of women ($P= 0.01$) so, the mean grade scores of de-

pression in housekeeper women was 16.05 while the mean grade scores of employed women was 10.54.

There was no significant difference between condition of menopause, depression and number of children of participants, but the minor depression in non menopausal women was more than menopausal women (74.3% and 63.8%) respectively (Table4).

The pearson correlation did not show a significant difference between age of participants and their depression ($P= 0.17$), but there was a significant difference between the death of husband of women and their depression ($P< 0.0001$). The mean grade scores of depression in women who have husband was (13.5 ± 7.21), while the mean grade scores of women without husband was (24.4 ± 10.14).

Table 1: The distribution of condition of menopause of women and their depression

Condition of menopause Depression	Menopausal		Nonmenopausal		Total		P
	N	%	N	%	N	%	
No and low depression	48	68.6	53	75.7	101	72.2	0.18
Mild and indicated depression	19	27.1	11	15.7	30	21.4	
Sever depression	3	4.3	6	8.6	9	6.4	
total	70	100	70	100	140	100	

Table 2: Distribution of women's depression and their menopausal condition, based on education:

Condition of menopause Condition of depression education	Menopausal				Nonmenopausal				P
	Minor depression		Moderate & major		Minor depression		Moderate & major		
	N	%	N	%	N	%	N	%	
Illiterate	20	28.6	13	18.6	16	22.8	7	10	0.3
Primary school and Guidance school	20	28.6	7	10	25	35.7	9	12.9	
Diploma and more	8	11.4	2	2.8	11	15.7	2	2.8	
Total	48	68.6	22	31.4	52	74.3	140	25.7	

Table 3: Distribution of mean grades' depression of women and their job

Condition of menopause Job	Menopausal		Nonmenopausal		Total		P
	n	Mean±SD	n	Mean±SD	n	Mean±SD	
Housekeeper	62	16.18±8.81	56	15.92±8.6	118	16.05±8.7	0.01
Employed	8	10.72±6.63	14	10.36±6.41	22	10.54±6.52	
Total	70	15.5±8.04	70	14.8±7.92	140	15.18±8.78	

Table 4: Distribution of women's depression and their menopausal condition, based on number of children:

Condition of menopause Condition of depression No of children	Menopausal				Nonmenopausal				P
	Minor depression		Moderate&major		Minor depression		Moderate&major		
	n	%	n	%	n	%	n	%	
0-3	15	21.4	7	10	20	28.6	6	8.6	0.5
4-5	18	25.8	9	12.8	24	34.3	7	10	
6&more	15	21.4	6	8.6	8	11.4	5	7.1	
Total	48	68.6	22	31.4	52	74.3	18	25.8	

Discussion

Within the two groups of women, we did not find a significant difference according the rate of depression. In relation to age , about 72% of women were free of any depressive tendency, 21.4% were suffered from an intermediate depression and 6.4% were suffered from major depressive tendency. In total less than 30% of participants were suffered from some form of depression. These results are not consistent with the findings of Kiyoshi Takamatsu (20), that 28.9% of subjects were suffered from an intermediate or higher depressive tendency, 33.9% had a mild depression and 42.2% were free of any depressive tendency. It was concluded that more than one half of the subjects suffered from some form of depression.

Our results showed an increased likelihood of moderate depression after menopausal, and there was a decreased major depression in menopausal women. These results are consistent with results of Joyce et al (21), who described that, for all groups of women, the

probability of distress was greater at the start of the transition of menopause than before and was likely to decrease over time. O'connor et al (22) reported higher mean psychologic symptom scores during primenopause among Australian women aged 45 to 54 yr. Our results are consistent with Freeman et al's who showed a depression increase in women during early to late menopause, but decrease after menopause (23). Finally our data are consistent with those from several studies that have identified the primenopause but not postmenopause as a time of increased risk for developing depression symptoms (23- 26).

The highest major depression was in illiterate 'menopausal women, which was the same as the results of Hayden et al (27).

We saw significant difference between condition of depression, condition of menopause and job of participants ($P= 0.01$), seem to support the finding of Hayden et al, who revealed women with increased depressive symptoms were less likely to work for pay (27).

One variables in this study was numbers of children of women. There was no significant difference between the condition of depression, condition of menopause and numbers of children, but moderate and major depression in menopausal women with 4-5 children was more than women with six children and women with 0-3 children. These results are same as the results of Bernard L et al. that those women with 1 or 2 children had a 30% lower risk of historic mood disorder, and those who had 3 or more children had an even greater reduction (28).

In conclusion, educating women to have lower children, that it is one of risk factors for depression in menopause period, is of highly importance.

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