ORIGINAL ARTICLE

ALEXITHYMIA IN PREGNANT WOMEN: ITS RELATIONSHIP WITH DEPRESSION

Monavar Gilanifar, Mouloud Agajani Delavar***

***Islamic Azad University Sari Branch, Sari, Iran, Ayatollah Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran; **Infertility and Reproductive Health Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, Iran.**

Abstract

Objective: A*lexithymia is a personality construct characterized by the sub-clinical inability to identify and describe emotions in the self. The aim of this study was to determine the prevalence of alexithymia, among pregnant women and to assess the relationship between depression and alexithymia, as well as its sub scales with depression in the respondents. *Methods:* This is a cross-sectional study using the Toronto Alexithymia Scale (TAS-20) to determine respondents with alexithymia. Depression scores among respondents were measured using Beck Depression Inventory (BDI)-short version 13 items. *Results:* A total of 390 pregnant women completed the self-report questionnaires. The prevalence of alexithymia was found to be 27.9%. Two hundred-one of the total 390 pregnant women were diagnosed with depression; 23.3% were classified as mild, 24.6% as moderate, and 3.6% as severe depression respectively. The alexithymia was found to have correlation with depression (r=0.148, P=0.032). A correlation was also found between depression and sub scales' scores, difficulty in identifying feelings, DIF (r= 0.374, P= 0.0001) and difficulty in describing feelings, DDF (r= 0.204, P= 0.0001). There was no significant correlation in an externally oriented thinking (EOT) and depression in pregnant female participants. After adjusting for possible confounding variables, women with alexithymia had a 2.67 increased risk of suffering from depression compared to women who did not have alexithymia. *Conclusions*: This study shows a high prevalence of alexithymia in pregnant women in a community in Babol, Iran. The alexithymic women had more accentuated signs of depression than non-alexithymic women during the prenatal period. Therefore, it is important to screen pregnant women for an alexithymia, and include the mentioned education in pregnancy counseling classes in the private and public institutions. *ASEAN Journal of Psychiatry, Vol. 17 (1): January – June 2016: XX XX.

Keywords: Alexithymia, Depression, Pregnancy

Introduction

Alexithymia is a personality trait that includes difficulty in identifying feelings, difficulty to express feelings with words, and externally oriented cognitive thinking [1] with the prevalence of alexithymia was reported ranged 2-10% of the general population. In research from Iran, the prevalence of alexithymia was 5.2% in the women [2]. The children's parents with high levels of alexithymia have more difficulty attending to and interpreting their children's emotions, thus they have difficulty to teach their children how to regulate their own emotions [2, 3]. In more specific, the mothers' alexithymia score is likely to have a negative impact on the quality of the mother-infant relationship [4].

The cause of alexithymia is unknown, though several theories have been proposed. There are several factors from biological to psychological, which may cause individual to develop alexithymia [3–5]. Some studies have shown that depression has a strong link with development of alexithymia [5, 6]. Depression during pregnancy is a risk factor for adverse outcomes for mothers and children [7]. In addition, there is an increased risk of depression during pregnancy [8-12]. In a population study from Iran, the total depression prevalence was 16% [13]. Thus alexithymia and depression have been the target for intervention in pregnant women. It is important to determine the prevalence of alexithymia and depression among pregnant women and to assess the relationship between depressive and alexithymia, as well as its subscales; difficulty in identifying feelings (DIF), difficulty in describing feelings (DDF) and externally oriented thinking (EOT), by taking into account demographic criteria.

Methods

The study design was a cross-sectional involving a total of 425 pregnant women with gestational age of 12-36 weeks receiving prenatal services from obstetrics clinics in Babol University of Medical Sciences. Exclusion criteria include individuals with a history of psychotic problems and use of psychoactive drugs during pregnancy, high-risk pregnancy, and mental retardation. Furthermore, excluded were those who had mental retardation or who were illiterate. A total of 405 were randomly selected for this study, and only remaining 390 (96.2 %) respondents agreed to participate in the study. Informed consent was obtained from all women who enrolled in this study. Iranian version of the twenty Toronto scale (TAS-20), which originally developed by Bagby et al. [14, 15] was used in the study. The Iranian version of TAS-20 is twenty questions self-reported instrument that has been demonstrated good internal consistency (Cronbach'-α) of 0.77; with internal consistency of 0.75, 0.71, and 0.66, for the difficulty in describing and identifying feelings (DIF), the difficulty in describing feelings (DDF), and focusing on external experiences (EOT), respectively.

The women (respondent) were divided into two groups according to the TAS-20 using the cutoff scores of ≤ 51 as non-alexithymia and ≥ 52 as alexithymia [15], with scores of 52-60 as mild alexithymic (52-60), or severe alexithymic (≥ 61). Meanwhile, their depression was measured using the Beck Standard Depression Inventory (BDI)-short version 13 items. The respondent was given TAS-20 and was informed to respond to the given questionnaire by indicating the statement which states best of her feelings over the past week. We calculated the reliability, internal consistency and validity of this self-administered instrument and obtained the following results of 0.78, 0.86 and 0.73, respectively. Scoring of is on a 4-point Likert scale from 0 to 3. The minimum and maximum score is between 0 and 39.

The respondents were categorized into two groups according to the BDI cut-off scoring; scores of equal to or less than 4 as having no depression, and greater than 4 as suffering from depression. The respondents were determined to suffer from depression, based on the BDI scores with the following severity: mildly (5-7), moderately (8-15), severely depressed (≥16) [16]. A questionnaire on the socio-demographic and obstetric data was used, and the data contains information regarding age, education level, marital age, occupation, income, and gestational age, parity. The subjects were divided into three groups according to level of education: ≤12 years and >12 years. The women were divided into 3 economic groups by household income for the previous year: Less than 600.000, 600.000 to 1 million, 1 to 2 million, 2 million Tomans and more per month (Tomans = 0.03 USD).

This study was approved by the ethics committee of Islamic Azad University Sari Branch ، Sari ,Iran and Babol University of Medical Sciences for ethics in medical research. All analysis was performed using SPSS software (Statistical Package for the Social Sciences, version 16.0, SPSS Inc., Chicago, IL, USA). Descriptive statistics were used to report baseline demographic data. For analysis, we used Pearson's correlation to assess relationships between scales of the depression questionnaire and the TAS-20 variables. An independent t-test and chip-

square test was used accordingly to analyze the data. For the correlation of socio-demographic parameter and alexithymia, a logistic regression was performed to determine the potential confounders . A *p*-value of 0.05 or less was considered statistically significant.

Results

The mean age of the women was 26.7±5.2 years. The mean score of alexithymia was 52.6 ±11.5 in the pregnant women based on the TAS-20 standards. The prevalence of alexithymia is 50.8% among the respondents.

Two hundred-one of the total 390 pregnant women were diagnosed with depression (51.5%) and 23.3% were classified as mild, 24.6% as moderate and 3.6% as severe depression. Two hundred respondents with alexithymia was then compared with a total of 180 women with no alexithymia (Table 1).

Table 1. Characteristics of subjects according to occurrence of alexithymia in pregnant female participants (n =390)

	No Alexithymia (N =180) Mean ± SD	**Alexithymia (N = 210) Mea n± SD**	**P-value**
Depression (score)	4.3±4.1	6.8±4.8	0.0001
Age (years)	27.2±4.9	26.4±5.5	0.133
Age at marriage (years)	20.9±4.0	19.9±4.8	0.018
Current gestational age (weeks)	25.9±7.4	26.9±7.3	0.159
Residence status, n (%)			
Urban	97(53.9)	97 (46.2)	0.130
Rural	83(46.1)	113(53.8)	
Education level			
≤12	117(65.0)	171(81.4)	0.0001
>12	63(61.8)	39(38.2)	
Occupation			
House wife	158(87.8)	196(93.3)	0.059
Worker	22(12.2)	14(6.7)	
Income (Toman / month)			
< 600.000	41(22.8)	58(27.6)	0.043
600.000 -1,000,000	80(44.4)	109(51.9)	
1,000,000- 2,000,000	49(27.2)	38(18.1)	
>2000,000	10(5.6)	5(2.4)	
Pregnancy			
First	72(40.0)	97(46.2)	0.219
.> 2	108(60.0)	113(53.8)	

A correlation between alexithymia and depression was observed and are displayed in Table 2. As shown, the non-alexithymic and alexithymic group of respondents were positively correlated with depression scores. A correlation of a TAS total score and depression score was also observed. Furthermore, positive correlation was found between depression and its sub scales scoring; DIF and DDF. There was no statistical significant correlation in EOT and depression scores for the respondents (Table 2).

Table 2. Correlations between alexithymia and its subscales with depression in pregnant female participants (n =390)

Alexithymic patients	**Depression scores**	
	r	**p**
Alexithymia (≥52)	0.148	0.032
Difficulty in identifying feelings (DIF)	0.374	0.0001
Difficulty in describing feelings (DDF)	0.204	0.0001
Thinking with external orientation (EOT)	0.039	0.448
Total Score of alexithymia	0.315	0.0001

Correlations by Pearson's r correlation coefficient

After adjusting for possible confounding variables, respondent with alexithymia was found to be depressed (Odds Ratio, OR = 2.67, 95% Confidence Interval, 95% CI = 1.74, 4.10), with a lower education level (OR = 0.43, 95% CI = 0.25, 0.76) compared to women who did not alexithymia (Table 3).

Table 3. Adjusted Odds Ratio (OR) for logistic regression for the association of alexithymia with depression and socio-demographic parameter (n =390)

	Adjusted OR[1]	**95% CI**	***p*-value**
Depression, (score)			
Yes	2.67	1.74-4.10	0.0001
No	1.00		
Age (years)			
≤ 25	0.86	0.51-1.46	0.576
> 25	1.00		
Age at marriage, (years)			
≤ 20	0.88	0.52-1.47	0.62
> 20	1.00		
Period of gestation			
Second trimester	1.41	0.92-0.2.17	0.115
Third trimester	1.00		
Residence Status			
Urban	1.14	0.73-1.78	0.555
Rural	1.00		
Education level			
≤12	0.439	0.25-0.76	0.003
>12	1.00		
Occupation			
House wife	0.71	0.33-1.53	0.387
Worker	1.00		

Income (Toman[2] / month)			
< 600.000	0.50	0.15-1.75	0.278
600.000 -1,000,000	0.43	0.13-1.43	0.166
1,000,000- 2,000,000	0.63	0.18-2.22	0.471
>2000,000	1.00		
Pregnancy			
First	1.14	0.73-1.78	0.555
> 2	1.00		

[1.] Potential confounders used in each characteristic were other characteristics
[2.] Toman; 10 Rials = 1 Tomans = 0.0003

Discussion

Based on our study, it is suggested that women with alexithymia had difficulties in the ability to use words to adjust their emotions, and unfortunately this was reported in the society. Several studies have shown a relationship between alexithymia and various psychological disorders [17-19]. Our findings are consistent with the previous research, indicating a positive relationship between alexithymia and depression [1, 20-23]. Thus, it can be concluded when women have higher scores of difficulty in identifying a feeling (DIF), difficulty in describing a feeling (DDF) and externally oriented thinking (EOT), they are more at risk of suffering from depression. However, in contrast the other studies, our study showed there is no significant correlation between EOT and depression in pregnant women. It is worth mentioning that these results could most probably depend on cultural, social, and economic variables. That is so because expressing excitement in any language could, to a great extent, be affected by the predominant cultural perspectives as well as the salient linguistic limitations. The high frequency of Alexithymia among pregnant women could be attributed to their high scores in EOT, DIF, or DDF. This issue could also emanate from their lack of understanding of the questions in TAS, or their random responding to the questions there (24). Therefore, further study is proposed to elucidate an association between its subscales' scores of alexithymia, especially EOT and depression using other tool's measurement of alexithymia in the pregnant women.

There are several limitations to our study. This study used a cross-sectional to study the relation between alexithymia and depression. It cannot establish a question of whether alexithymia leads depressive symptoms, or vice-versa. In addition, the participants were recruited from obstetrics clinics in Babol University of Medical Sciences and may not be representative of all pregnant women in Iran. Given the importance of mental health of expectant women in the baby's physical and mental health, as well as the family, it is a paramount attempt in trying to raise awareness of alexithymia among our population. This includes communication skills, on how during prenatal a woman should be given freedom in expressing their emotion in a distressing state. Early education in schools and universities on this influential issue is also important and should be given a priority by the authority. Therefore, it is necessary to emphasize the benefits of making alexithymia screening in pregnant women in the trainings of prenatal classes both in the private and public institutions, in order to reduce the mental negative consequences during pregnancy by continuous training and appropriate use of specialists and experts.

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Conflict of interest

The authors declared that there are no conflicts of interest.

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Corresponding author: ***Mouloud Agajani, Associate Professor, Infertility and Reproductive Health Research Center, Department of Midwifery, Babol University of Medical Sciences, Babol, Iran.***

Email: moloodaghajani@yahoo.com

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