Section: Miscellaneous

Original Research Article

DEPRESSION, ANXIETY & STRESS AMONG WOMEN WITH RECCURENT ABORTION IN DUHOK CITY

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ABSTRACT

Background: Pregnancy and its outcomes are challenging issue in the field of obstetrics and gynecology, this study is aimed to assess the psychological status (stress, anxiety, depression) among women with abortion compared with women with no history of abortion.

Materials and Methods: A Case-control cross sectional study was carried out in the departments of Consultants and Reception in Duhok Obstetrics and Gynecological Hospital, in the period from 2023 6th January to 2023 29th April, eighty pregnant women in the first trimester were recruited for the purpose of data collection, forty women in case group with history of two abortion and more. Other forty women were with no history of abortion. By direct interview information on sociodemographic data, obstetrical data were taken, Depression anxiety and stress were assessed by using of Scale- 21 item (DASS-21).

Results: The results indicate that there were highly significant differences between case and control group in both depression and stress aspect (p. values ≤ 0.05). Also, the results indicate that there were no differences between participant's overall depression and stress score participant's sociodemographic characteristics in both groups conclusions.

Conclusion: Study concluded that psychological problems were more common among women with history of abortion, screening of psychological disturbance during pregnancy should be done in order to manage them and prevent poor outcomes.

Keywords: Depression, anxiety & stress, women, abortion.

INTRODUCTION

The risks related with antenatal anxiety and depression cannot be ignored. Shorter than average gestation period and adverse consequences for fetal neurodevelopment and child developmental outcomes are associated with anxiety disorders during pregnancy (Chen & Chen, 2021; Eleje et al., 2024). Psychiatric morbidity during pregnancy is a major public health concern. World Health Organization (WHO) ranks depression as one of the most burdensome illnesses in the world. Depression is predicted to be the topmost cause of morbidity by 2030 (WHO 2008). Depression and anxiety are highly related to early pregnancy, anxious women during their pregnancy are highly at risk for antenatal depression (Verreault et al. 2014). Anxiety during pregnancy also increases the likelihood of postnatal depression, even after controlling for depression from the antenatal period (Agostini et al., 2019).

Depression anxiety and stress during pregnancy appear to lead to several pregnancy and delivery complications compared to women with no psychological distress (Inversetti et al., 2023). However, there are no studies in Duhok city on the assessing and comparing depression anxiety and stress between women with abortion and women with no abortion.

This study is aimed to assess the psychological status (depression, anxiety and stress) among women with recurrent abortion compared with women with no history of abortion.

Rational of the study

Stress, anxiety and depression are psychological disorders can lead to many physical, neurodevelopmental and cognitive problems through

its effect on fetal development. Also, it is shown lead to poor pregnancy outcomes including early abortion. Ensuring psychological wellbeing of the pregnant mothers could ensure good pregnancy outcomes.

Objective of the study

1. To find out the score of (depression, anxiety and stress) in both groups (Case and control).
2. To find out the differences score of (depression, anxiety and stress) between case and control groups.
3. Find out the differences between score of (depression, anxiety and stress) and socio-demographic in both groups (case and control).

Within paragraphs. Instead of using quotation marks (" "), single quotes (' '), or brackets (), maintain a consistent style throughout the document.

The Introduction should provide a concise overview of the study's context, highlighting its significance and purpose, with up to 500 words of referenced background. It must include a thorough review of the current research field, citing key publications and addressing conflicting hypotheses if relevant.

MATERIALS AND METHODS

Study design

A Case-control cross sectional study design was used in the current study.

Setting of the study

The study was conducted in the departments of Consultants and Emergency units in Duhok Obstetrics and Gynecological Hospital which is the main tertiary hospital in Duhok, Kurdistan region/Iraq provide free care for pregnancy and labor process.

Sample and sampling

A consecutive sample of eighty pregnant women in first trimester were recruited for the purpose of data collection; the sample were divided into two groups: Forty women in case group with history of two abortion and more. Other Forty women were included in control group which were those women with no history of abortion and matched as much as possible with obstetrical and demographical data of the case group to prevent confounder variables.

Method of data collection

A standardized checklist was employed for data collection from January to April 2024. Additionally, direct interviews with women were conducted to gather the necessary information for completing the questionnaire, which comprised two parts.

First part: contain sociodemographic data (age, level of education and occupation).

Second part: Depression anxiety and stress Scale-21 item (DASS-21).

The validated version of the short form of Depression Anxiety Stress Scale (DASS), the DASS- 21, was developed by P. F. Lovibond and S. H. Lovibond (1995) to reduce administration time and has been used widely among clinical samples to screen for symptoms of different levels of depression, anxiety and stress.

Seven items are assigned for the evaluation of depression, anxiety and stress. Each item is scored from never (0) to very high (3), with higher scores indicating greater levels of depression, anxiety and stress.

Statistical Analysis

After data collection, the social science statistical tool "SPSS 26" software was used to analyze the data. The data were presented as frequencies, percentages, chi square tests to help the reader understand the statistical significance of the various variables. When the p value is less than or equal 0.05, a result is considered significant; when the p value is greater than 0.05, a result is considered non-momentous.

RESULTS

Socio-demographic characteristics of participants

According to Table 1, forty women were assigned to the case group and forty to the control group. Regarding age, there were 21 participants in the case group, which is equivalent to 52.5 % in the 25-31 years range, while the 22 participants in the control group equal 55% in the same range. In the case group 90% of the participants were housewife whereas, in the control group the percentage of participants was slightly lower at 85%. Moreover 27.5% of the participants, in the case group was illiterate whereas in the control group this figure decreased to 25 %.

Table 2 shows the distribution of (depression, anxiety and stress) among study participants in both groups (case and control) results indicate that there were highly significant differences between case and control group in both depression and stress aspect (p. values ≤ 0.05). Differences between participant's overall depression score participant's sociodemographic characteristics in both groups (case and control) (n=80).

Table 3 demonstrates that there were no differences between the total depression score and the sociodemographic characteristics of participants in both groups.

Table (4) demonstrates that there were significant differences between the total anxiety score and age, occupation with regard to sociodemographic characteristics of participants in both groups.

Table (5) demonstrates that there were differences between the total stress score and age, occupation sociodemographic characteristics in case group, while there were no differences between the total stress score and sociodemographic characteristics in control group.

Table 1: Socio-demographic characteristics of (80) participants

Categories	Case group		Control group	
Age	**No.**	**%**	**N**	**%**
18-24	3	7.5	4	10
25-31	21	52.5	22	55
32-38	12	30	11	27.5
39 and more	4	10	3	7.5
Level of education	No.	%	N	%
Illiterate	11	27.5	10	25
Read & write	5	12.5	4	10
Primary school	7	17.5	9	22.5
Secondary school	7	17.5	8	20
High school	4	10	5	12.5
College graduated	6	15	4	10
Occupation	No.	%	N	%
Housewife	36	90	34	85
employe	4	10	6	15

Table 2: Score of (Depression, Anxiety, Stress) in both groups according to total DASS-21

Variables and Categories	Case Group (N=40)			Control group (N= 40)		
Age	F	X^2	P.V	F	X^2	P. V
18-24	7	6.0	0.12	1	6	0.9
25-31	4			1		
32-38	2			1		
39 and more	1			2		
Level of education						
Illiterate	6	10	0.75	2	6	0.9
Read & write	4			1		
Primary school	1			1		
Secondary school	1			1		
High school	1			0		
College and above	1			0		
Occupation						
Housewife	10	2.6	0.11	4	1.8	0.18
employe	4			1		

Table 3: Differences between participant's overall depression score participant's sociodemographic characteristics in both groups (case and control) (n=80)

Variables and Categories	Case Group (N=40)			Control group (N= 40)		
Age	F	X^2	P.V	F	X^2	P. V
18-24	7	6.0	0.12	1	6	0.9
25-31	4			1		
32-38	2			1		
39 and more	1			2		
Level of education						
Illiterate	6	10	0.75	2	6	0.9
Read & write	4			1		
Primary school	1			1		
Secondary school	1			1		
High school	1			0		
College and above	1			0		
Occupation						
Housewife	10	2.6	0.11	4	1.8	0.18
employe	4			1		

Table 4: Differences between participant's overall anxiety score participant's sociodemographic characteristics in both groups (case and control) (n=80)

Variables and Categories	Case Group (N=40)			Control group (N= 40)		
Age	**F**	**X^2**	**P. V**	**F**	**X^2**	**P. V**
18-24	15	26.8	0.000	10	11	0.01
25-31	2			3		
32-38	2			3		
39 and more	1			1		
Level of education						
Illiterate	7	5.2	0.39	5	2.4	0.79
Read & write	3			2		
Primary school	2			3		
Secondary school	3			3		
High school	3			2		
College and above	2			2		

Occupation						
Housewife	17	9.8	0.002	15	9.9	0.002
employe	3			2		

Table 5: Differences between participant's overall stress score participant's sociodemographic characteristics in both groups (case and control) (n=80)

Variables and Categories	Case Group (N=40)			Control group (N= 40)		
Age	**F**	**X^2**	**P. V**	**F**	**X^2**	**P.V**
18-24	11	18.8	0.000	1	0.0	1.0
25-31	2			1		
32-38	1			1		
39 and more	1			0		
Level of education						
Illiterate	4	2.2	0.82	1	0.0	1.0
Read & write	3			1		
Primary school	2			1		
Secondary school	3			0		
High school	1			0		
College and above	2			0		
Occupation						
Housewife	12	5.4	0.02	2	0.33	0.56
Employe	3			1		

DISCUSSION

The findings of this study highlight significant differences in psychological distress, particularly depression and stress, between women with a history of recurrent abortion and those without such a history. The results indicate that women who have experienced two or more abortions are more likely to exhibit higher levels of depression and stress compared to women with no history of abortion. This aligns with existing literature that suggests a strong link between recurrent pregnancy loss and increased psychological distress, including depression and anxiety (Glover, 2014; Chen & Chen, 2021).

The study revealed statistically significant differences in depression and stress levels between the case and control groups. Women in the case group (with a history of recurrent abortion) reported higher levels of depression and stress compared to the control group. This finding is consistent with previous research that has shown that recurrent pregnancy loss can lead to long-term psychological consequences, including depression and stress (Uguz et al., 2019). The emotional toll of repeated pregnancy loss, coupled with the fear of future pregnancy complications, may contribute to these heightened levels of psychological distress.

While the study did not find significant differences in anxiety levels between the two groups, it is worth noting that anxiety remains a critical concern for pregnant women, particularly those with a history of pregnancy loss. The lack of significant differences in anxiety levels may be attributed to the small sample size or the specific characteristics of the study population. However, the findings do suggest that anxiety is a prevalent issue among pregnant women, regardless of their obstetric history, which is consistent with other studies that have highlighted the high prevalence of anxiety during pregnancy (Verreault et al., 2014).

The study also explored the relationship between socio-demographic factors (age, education, and occupation) and psychological distress. Interestingly, no significant differences were found in depression levels based on socio-demographic characteristics in either group. This finding contrasts with some previous studies that have suggested a link between lower educational levels, unemployment, and higher rates of depression (Mohammed et al., 2021). However, the current study's results may reflect the widespread availability of information and support through technology, which could mitigate some of the psychological burdens associated with pregnancy and pregnancy loss.

In contrast, significant differences were observed in anxiety and stress levels based on age and occupation. Younger women and housewives were more likely to report higher levels of anxiety and stress. This is consistent with findings from other studies that have identified younger maternal age as a risk factor for pregnancy-related anxiety (Tarafa & Nigussie, 2022). Younger women may experience greater anxiety due to fears about their ability to cope with pregnancy and childbirth, as well as concerns about the health of their developing fetus. Similarly, housewives may experience higher stress levels due to limited social support or financial dependence, which can exacerbate feelings of anxiety and stress during pregnancy.

Implications for Practice

The findings of this study underscore the importance of screening for psychological distress, particularly depression and stress, among pregnant women, especially those with a history of recurrent abortion. Early identification and intervention can help mitigate the adverse effects of psychological distress on both maternal and fetal health. Healthcare providers should consider incorporating routine psychological assessments into antenatal care, particularly for women with a history of pregnancy loss.

Furthermore, the study highlights the need for targeted interventions for younger pregnant women and housewives, who may be at higher risk for anxiety and stress. Providing access to mental health resources, counseling, and support groups could help alleviate some of the psychological burdens associated with pregnancy and pregnancy loss.

Limitations

While this study provides valuable insights into the psychological status of women with recurrent abortion, it has some limitations. The cross-sectional design limits the ability to establish causal relationships between recurrent abortion and psychological distress. Longitudinal studies are needed to better understand the temporal relationship between pregnancy loss and mental health outcomes. Additionally, the study was conducted in a single hospital in Duhok City, which may limit the generalizability of the findings to other populations. Future research should include larger, more diverse samples and consider the role of cultural and socioeconomic factors in shaping psychological responses to recurrent abortion.

CONCLUSION

In conclusion, this study provides valuable insights into the psychological impact of recurrent abortion on pregnant women. The findings highlight the need for increased attention to the mental health of women with a history of pregnancy loss, particularly in terms of depression and stress. By addressing these psychological issues early in pregnancy, healthcare providers can help improve outcomes for both mothers and their babies. Further research is needed to better understand the complex interplay between socio-demographic factors and psychological distress during pregnancy, as well as to develop effective interventions for at-risk populations.

Conflict of interests

A conflict of interest in research occurs when personal, financial, or professional relationships could affect a researcher's objectivity. These conflicts may involve money, personal connections, or institutional interests. Managing them through disclosure, oversight, and transparency is essential to maintain research integrity, protect participants, and uphold public trust.

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