

Psychosocial Study of Depression in Early Pregnancy

El-Maghraby M, Bassiouny M, Swelam E and Fawzy N

Abstract

Objective: The aim of this research is to study the incidence of depression in the early pregnancy and to explore the psychosocial correlates of antenatal depression. **Methods:** One hundred pregnant women were evaluated for depression by ICD-10 research criteria. The pregnant women received a set of questionnaires including sociodemographic scale, Hamilton depression scale and Eysenck personality inventory. The depressed women were compared with non depressed women for the psychosocial correlates. **Results:** This study found that 20% of pregnant women had depression during the first trimester of their pregnancy. The depression during early pregnancy was associated with it being the first delivery, more nausea and vomiting, young age employment, living in family houses, history of abortion or caesarean section and premenstrual irritability and menstrual pain. The antenatal depression wasn't associated with the level of education, high score of neuroticism and high score of extraversion. **Conclusion:** Depression in early pregnancy is determined by psychosocial factors.

Introduction

The psychiatric disorders occurring during pregnancy have attracted the interest of both researchers and clinicians (Cox, 1979, Cox et al., 1982, Kumar, 1982, Martin et al., 1989).

Studies on the incidence of antenatal depression have revealed that it is higher than had been thought (Kitamura, 1996).

Kitamura et al. (1993) reported that more than 15% of pregnant women experienced the onset of depressive illness during pregnancy. These data do not support the notion that pregnancy protects against the development of depression, as has been suggested previously (Zajicek et al., 1981).

Kumar (1982) in the UK reported an incidence of depression or anxiety of 15% among pregnant women. Aderibigbe et al. (1993) found that psychiatric illnesses during pregnancy were associated with recent adverse life events. Kitamura et al. (1993), interviewing pregnant women in a longitudinal design, found that pregnancy-related affective disorders were more frequent if (a) either this was the first

pregnancy or a pregnancy had terminated in the past with no obstetric deliveries; (b) early parental death had occurred; (c) the woman had a high neuroticism or psychoticism score on the Eysenck personality questionnaire (Eysenck & Eysenck, 1975); (d) She lived in a flat and either expected to go there immediately after the birth, rather than returning to her home of origin or expected that the flat would be crowded then, and (e) the husband with low intimacy had shown a negative response to the news of the pregnancy.

The aim of this research is to study:

- 1- The incidence of depression in the early pregnancy (first trimester).
- 2- The association of psychosocial factors and personality dimensions with depression in early pregnancy.

Subjects and Methods

This study was done in the antenatal care unit of gynaecology and obstetric department of Zagazig University Hospital and

included 100 pregnant women during the first trimester of pregnancy, with no age, education, and social class limitation. The pregnancy was diagnosed by clinical examination and pregnancy test (detection of chorionic gonadotrophin in urine). All the pregnant women were subjected to the following:

- 1- Semistructural psychiatric interview using the I.C.D-10 research criteria
- 2- Hamilton depression scale (Hamilton, 1967).
- 3- Eysenck personality inventory (Eysenck and Eysenck, 1975).
- 4- Sociodemographic assessment: including name, age, education level, income, residence, desire for pregnancy, special habits and other sociodemographic variables.
- 5- Obstetric assessment: including obstetric history (number of pregnancies, number of children, previous abortions or still births, type of last labour, history of caesarean section and obstetric examination).

6- Menstrual history included 2 items referring to menstrual pain and premenstrual irritability, these were rated on a scale from never (0), to sometimes (1), often (2) and almost all the time (3).

7- Nausea and vomiting scoring: each being rated from 0 (none) to 3 (severe) the duration of emesis was assessed from 0 (absent), to 1 (less than 2 weeks), 2 (2 to 4 weeks), 3 (1 to 2 months), and 4 (longer than 2 months). The total score of emesis was calculated by the following formula: Total emesis score = (score of nausea and vomiting + score of loss of appetite"100)/24 (Kitumara et al., 1996).

Statistical methods:

The results were analysed by using the Chi square test which has been calculated by short cut formula.

Results

This study found that the incidence of antenatal depression was 20% (20 out of 100). Among the depressed women 10% (2 out of 20) have past history of depression as shown in Figures (1 & 2).

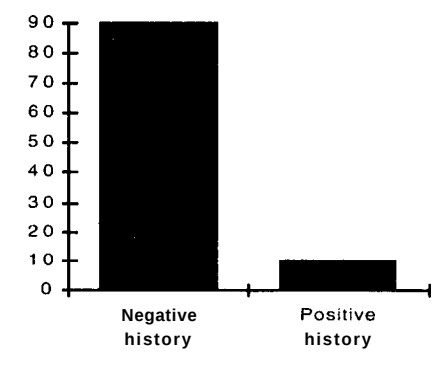
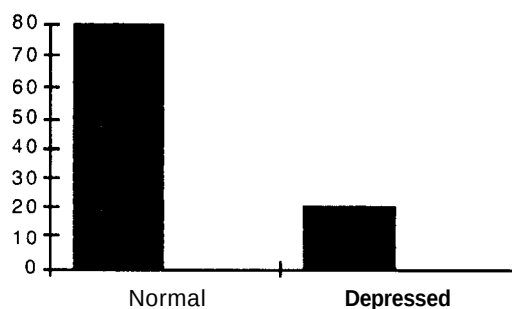


Table (1)
Correlation of depression and age.

Variables	Young age (15-25y)		Late age (26-35y)		Total
	No .	%	No .	%	
Depressed	12	60%	8	40%	20
Non- depressed	20	25%	60	75%	80

$\chi^2=9.01$ $P<0.01$

Table (2)
Correlation of depression and level of education.

Variables	Low		High		Total
	No .	%	No .	%	
Depressed	14	70%	6	30%	20
Non- depressed	62	77.5%	18	22.5%	80

$\chi^2=90.49$ $P>0.05(N.S)$

Variables	Housewife		Employed		Total
	No .	%	No .	%	
Depressed	0	0%	20	100%	20
Non- depressed	44	55%	36	45%	80

$\chi^2=19.64$ $P<0.001$

Variables	Separate house		Family house		Total
	No .	%	No .	%	
Depressed	4	20%	16	80%	20
Non- depressed	54	67.5%	26	32.5%	80

Table (5)
Correlation of depression with attitudes towards pregnancy.

Variables	Low		High		Total
	No .	%	No .	%	
Depressed	6	30%	14	70%	20
Non- depressed	62	77.5%	18	22.5%	80

Table (6)
Correlation of depression with nausea and vomiting.

Variables	Housewife		Employed		Total
	No .	%	No .	%	
Depressed	14	70%	6	30%	20
Non- depressed	8	10%	72	90%	80

$\chi^2=5.32$ $P<0.05$

Table (7)
Correlation of depression with housing arrangements.

Variables	Primipara		Multipara		Total
	No.	%	No.	%	
Depressed	12	60%	8	40%	20
Non- depressed	28	35%	52	65%	80

$\chi^2=4.17$ $P<0.05$

Table (8)
Correlation of depression with positive and negative premenstrual history of pain and irritability.

Variables	Positive history of premenstrual pain and irritability.		Negative history of premenstrual pain and irritability.		Total
	No.	%	No.	%	
Depressed	12	60%	8	40%	20
Non- depressed	12	15%	68	85%	80

$\chi^2=17.76$ $P<0.001$

Table (9)
Correlation of depression with past history of abortion.

Variables	Positive history of abortion		Negative history of abortion		Total
	No.	%	No.	%	
Depressed	6	30%	14	70%	20
Non-depressed	4	5%	76	95%	80

$\chi^2=15.09$ $P<0.001$

Table (10)

Correlation of depression with history of caesarean section.

Variables	Positive history of caesarean section.		Negative history of caesarean section.		Total
	No.	%	No.	%	
Depressed	4	20%	16	80%	20
Non- depressed	0	0%	80	100%	80

Table (11)

Correlation of depression with neuroticism

Variables	High neuriticism		Low neuriticism		Total
	No.	%	No.	%	
Depressed	14	70%	6	40%	20
Non- depressed	56	72.5%	22	27.5%	80

 $\chi^2=0.03$ $P<0.05$ (N.S)

Variables	High extraversion		Low extraversion		Total
	No.	%	No.	%	
Depressed	8	40%	12	60%	20
Non- depressed	26	32.5%	54	67.5%	80

Sociodemographic correlates:

The antenatal depression was associated with young age (60% of the cases were young versus 25% of the control, $X^2 = 9.01$, $P < 0.01$), employment (100% versus 45%, $X^2 = 19.64$, $P < 0.001$) and family housing (80% vs. 32.5%, $X^2 = 14.82$, $P < 0.001$). No correlation was found between the antenatal depression and educational level ($X^2 = 0.49$; $P > 0.05$).

Attitude towards pregnancy:

The cases were significantly more likely to report that the pregnancy had not been desired. The percentage of negative attitude in the cases was 70% vs. 22.5% in the control ($X^2 = 15.59$, $P < 0.001$).

Obstetric correlates:

The antenatal depression was significantly associated with high score of nausea and vomiting during pregnancy (70% vs. 10%, $X^2 = 5.32$, $P < 0.05$), first pregnancy (60% vs 35%, $X^2 = 4.17$, $P < 0.05$), premenstrual irritability and pain (60% vs. 15%, $X^2 = 17.76$, $P < 0.001$), past history of abortion (30% vs. 5%, $X^2 = 15.09$, $P < 0.001$) and past history of caesarean section (20% vs. 0%, $X^2 = 22.72$, $P < 0.001$).

Personality:

There was no significant association between antenatal depression and high score of neuroticism (70% vs. 72.5%, $X^2 = 0.03$, $P > 0.05$) and extraversion (40% vs. 32.5%, $X^2 = 0.40$, $P > 0.05$).

Discussion

Pregnancy has always been a time of psychological adjustment for many women. In recent decades, there have been many additional changes in women's lifestyles and attitudes that have an effect on the psychological aspects of pregnancy (Rosenthal & Ralph, 1991). The percentage of women in our study who experienced depression (20%) is comparable

with the 11% by Holcomb et al. (1996), the 16% found by Kitamura et al. (1994), and the 24.5-27.6% by Hobfoll et al. (1995). Seguin et al. (1995) found that approximately 47% of the low socioeconomic status women and 20% of the higher socioeconomic status women scored 10 or more on the Beck depression inventory indicating a depressive state. But this study was done during the 30th week of pregnancy, used Beck depression scale and subclassified the women according to the socioeconomic state which was not done in our study.

Kitamura et al. (1996) stated that the rate of antenatal depression was significantly higher than that of depression among nonpregnant women and the reported incidence varies between 4 and 29%.

The 20% incidence of clinical depression in our sample also matches the incidence of antenatal depression given by those authors. This suggests that our methods for measuring depression were valid for this population and that we were looking at the same antenatal mood disturbances described by other investigators. Our findings confirm that antenatal depression is common and suggest that all pregnant women should be considered at risk and screened for emotional distress.

The cross-sectional nature of the present research design requires caution when interpreting the results. While our method did not identify those women who developed depression after the first questionnaire survey, we may also have included those who had depression since some time before the present pregnancy began. However, among the subpopulation of the subjects we directly interviewed, about 90% of the antenatal depression cases had their onset in the first trimester, whereas only 2 out of 20 women (10%) were suffering from depression which had started before the present pregnancy.

This study also found that the antenatal depression is significantly associated with young age, employment and living in crowded houses. These factors represent more stresses in addition to pregnancy. Many of the psychological and social correlates of antenatal depression in this study are in line with literature on both antenatal depression and depressive illness in general. These findings may be regarded as supporting the notion that antenatal depression is a type of depressive illness which appears through reaction to stressful situations, in this case pregnancy. It seems that antenatal depression is mostly precipitated by psychosocial factors. Of course, such a point of view does not exclude the possibility of biological vulnerabilities being at play (Aderibig et al., 1993). The depressed women and controls did not differ significantly on the educational level which is in keeping with Kitamura et al. (1996).

Attitude toward pregnancy is also a risk factor for the development of antenatal depression. This study found that antenatal depression was significantly associated with the negative attitude toward pregnancy (unwanted pregnancy) which is in keeping with Martin et al. (1989). Kitamura et al. (1996) who noted that women seemed to be more vulnerable to depression if they had not wanted the pregnancy and showed a negative response to it.

The incidence of depression during the early phase of pregnancy was significantly associated with some obstetric factors: It being the first delivery, previous termination of pregnancy and past history of caesarean section which is consistent with Kitamura et al. (1993 & 1996). Also Kumar & Robson (1984) found a significant association between previous induced abortion and depression in early pregnancy. The previous history of caesarean section is also represent a risk obstetric

factor to the antenatal depression which is in keeping with Edward et al. (1994) who found that a significantly higher incidence of depression was found among subjects who had undergone caesarean section than in those who had a vaginal delivery.

Risk factors that were also significantly correlated with antenatal depression were more nausea and vomiting during pregnancy and more menstrual pain and premenstrual irritability which is consistent with Kitamura et al. (1996).

O'Hara (1986) stated that physical distress (i.e. somatic discomfort) may have contributed more to depression occurring during pregnancy, that is, some of these women may have been significantly bothered by somatic disturbance during pregnancy. Though these data do suggest that it may be worthwhile to monitor carefully the extent to which physical discomfort affects mood during pregnancy to determine if there is a link between somatic disturbance and depression during this time.

This study found that antenatal depression was not correlated with high neuroticism & extraversion score on the Eysenck personality questionnaire.

Kitamura et al. (1993) found that pregnancy - related affective disorders were more frequent if the women had a high neuroticism or psychoticism score. In another study Kitamura et al. (1994) found that antenatal depression was associated with high neuroticism score only.

At the end of this study we can conclude that antenatal depression is common and is determined mainly by psychosocial factors and we recommended to do more research about antenatal depression using more subjects, following the women during their whole pregnancy and postnatally and studying the biological correlates in addition to the psychosocial factors. Also

we recommend to follow up pregnant women psychologically to detect and treat depression early.

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Authors:

Maher EL Maghraby: Professor of Psychiatry, Faculty of Medicine, Zagazig University, Egypt.

Medhat Bassiouny: Lecturer of psychiatry, Faculty of Medicine, Zagazig University, Egypt.

El-Shabrawy Swelam: Lecturer of Gynecology and Obstetric, Faculty of Medicine, Zagazig University, Egypt.

Nagi Fawzi: Resident of Psychiatry, Faculty of Medicine, Zagazig University, Egypt.

Address of Correspondence:

Maher EL Maghraby

Professor of Psychiatry, Faculty of Medicine, Zagazig University, Egypt.

دراسة نفسية اجتماعية للاكتئاب فى الحمل المبكر

تمت هذه الدراسة على مائة سيدة حامل (اثناء الثلاثة شهور الاولى) بقسم النساء و التوليد بمستشفيات الزقازيق الجامعى و قد تم عمل مقابلة نفسية استخدم معايير التصنيف العالمى العاشر للأمراض النفسية (ICD-10) بالإضافة لتطبيق مقياس هاميلتون للاكتئاب و مقياس ايزنك للشخصية.

كما تم استبيان عن المعلومات السكانية و الاجتماعية و اخذ التاريخ الولادى و الكشف الاكلينيكي و اختبار الحمل.

و قد وجدت هذه الدراسة ان نسبة حدوث الاكتئاب بين السيدات الحوامل اثناء الثلاثة شهور الاولى كانت ٢٠٪ وان هناك ارتباط ذو دلالة احصائية بين الاكتئاب والعوامل التالية: الولادة الاولى و كثرة القىء والغثيان اثناء الحمل، الام واضطراب ما قبل الطمث، الحمل غير المرغوب فيه تاريخ سابق للاجهاض او عملية قيصرية، السكن فى بيت العائلة، السن المبكر، العمل. فى حين لم يكن هناك ارتباط دلالة احصائية بين الاكتئاب ومستوى التعليم والدرجة الاعلى للعصابية والانبساطية على مقياس ايزنك للشخصية.

وتخلص الدراسة الى ان وجود الاكتئاب فى شهور الحمل الاولى هو امر شائع ويرتبط ارتباطا وثيقا بالعوامل النفسية والاجتماعية. وتوصي هذه الدراسة الى اجراء بحوث اخرى فى هذا الموضوع مع زيادة العدد المفحوص ومتابعة الحالات طوال فترة الحمل وبعد الولادة مع دراسة الاسباب البيولوجية بالإضافة للاسباب النفسية والاجتماعية كما توصي بمتابعة حالات الحمل نفسيا حتي يتم اكتشاف وعلاج حالات الاكتئاب مبكرا