

Psychological Changes During Pregnancy: Relation to Outcome & Postpartum Period

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This study aims to assess the psychological condition during pregnancy and some factors that may be related to it and whether or not it will affect the outcome of pregnancy and postpartum period.

A sample of pregnant women were assessed twice, first, during the last trimester and second, within 4-6 weeks after delivery. Assessment was done clinically and psychometrically using MMPI and BDI. The results showed that pregnant women got higher scores on psychasthenia, hypochondriasis and depression. It was found that some factors like age were related to psychological state during pregnancy where younger women got higher scores on hysteria, hypomania and depression. Also low social class was associated with higher scores on depression, hysteria and psychopathic deviation, whereas no relation was found between psychological state during pregnancy and social class or level of education. Regarding the effect of psychological status on the outcome of pregnancy, it was found that C.S. and fetal asphyxia were correlated with high scores on depression, hypochondriasis and psychopathic deviation subclass of MMPI and BDI. Also, prematurity showed significant correlation with high scores on depression, social introversion and masculinity femininity subclass., whereas low birth weight was correlated with high scores on depression, schizophrenia and masculinity femininity subclass. Finally, no relation was found between psychological changes during pregnancy and postpartum depression.

(Egypt.J.Psychiat., 2000, 23: 71-82).

INTRODUCTION

Although it is generally believed that pregnancy is a time of emotional wellbeing, many women may develop some psychiatric symptomatology that may fulfill the diagnostic criteria for different psychiatric disorders especially depressive disorders (Collins et al. 1993 and Hagoel, 1995).

O'Hara et al. (1990) and Prichard, (1994) reported that childbearing (CB) women experienced significantly higher level of depressive symptomatology,

poor social adjustment and histrionic features than non - child bearing (NCB) women.

Also, Zachariah, (1994) and Weissman and Difson, (1995) discussed the psychological changes in childbearing women. They found that CB women have higher rates of somatic symptoms, depressive symptoms and social introversion than N.C.B. women, they added that these symptoms are marked in late pregnancy and in early puerperium and may be related to age, parity, social class & level of education.

Steer (1992) found that the risk of poor outcome among depressive adult gravidas was about 5-7%. Using a cut off score of 18 for BDI the following risks are reported:

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1- The risk of delivery of a low birth weight infant of < 2500gm was 3.97%.

2- The risk of having preterm delivery at <37 week gestation was 3.29%.

3- The risk of having a small for gestational age infant at <10th percentile for standards was 3.02%

Also, Perkin et al. (1993) have emphasized on the relation between depression during pregnancy and obstetric complications as preterm delivery, non spontaneous vaginal delivery, neonatal asphyxia and low birth weight.

The relation between depression during pregnancy and postnatal depression is not yet clear although some studies reported that the psychiatric disturbance during pregnancy may become submerged in the physiological symptoms that precede childbirth & consequently in most cases it needs no treatment and it has no relation to post partum depression (Cox, 1993).

Aim of the work:

The aim of this work is to study the psychological make up of childbearing women and whether or not the psychological condition during pregnancy will affect the outcome of pregnancy and whether or not the prenatal disturbance is related to postpartum depression.

SUBJECTS AND METHODS

This study was carried out during the period from March, 1996 till March 1997. It included 100 normal pregnant women collected from the outpatient clinic of Gynecology and obstetric department in a general hospital.

Inclusion criteria:

All pregnant women without history of mental or chronic physical illness were included in the study.

Exclusion criteria:

Any woman with a history of mental, neurological or chronic medical illness as well as any woman with any complication as a results of pregnancy were excluded from the study.

The pregnant women were assessed twice: once during the last trimester of pregnancy and another time within 4-6 weeks after delivery.

The assessment included:

1- History taking with special emphasis on age, parity, social class and the level of education.

2- Clinical assessment:

a. Medical assessment: general medical assessment for the pregnant women as well as auscultation of fetal heart was done routinely every 2 weeks in the last trimester. Estimation of fetal maturity, APGAR score and fetal birth weight of each case was done just after delivery.

b. Psychiatric assessment: Assessment of the present mental state and symptomatology that may fulfill the diagnostic criteria of any mental disorder.

3. Psychometric assessment: Psychometric assessment was done using two scales:

a. Minnesota Multiphasic Personality Inventory (MMPI) which is one of the most widely used instrument for objective assessment of personality.

b. Beck Depression Inventory (BDI): A subjective scale that measures the different levels of depression.

RESULTS

Physiological changes during pregnancy.

Table (1) shows that pregnant women got higher scores on psychasthenia, hypochondriasis, and depression followed

by social introversion, hysteria and paranoia subscales of MMPI compared to control subjects. Also higher score on BDI was reported during pregnancy compared to control subjects.

Effects of age, parity, social class & level of education

Table (2) shows that younger pregnant women got significantly higher scores on hysteria & hypomania subscales of MMPI whereas older pregnant women got higher scores on social introversion subscale. Regarding RDI higher level of depression was reported with younger pregnant women.

Table (3) shows that no significant difference was found between primiparas and multigravidas on almost all subscales of MMPI apart from psychasthenia subscale where primiparas got significantly higher scores than multigravidas. Also, no difference was found between the two groups on BDI.

Table (4) shows the correlation between social class and psychological changes during pregnancy. Low social classes showed higher abnormalities scored on depression, hysteria and psychopathic deviation subscales of MMPI. Also, there was a significant correlation between low social class and level of depression as recorded by BDI.

Table (5) shows no significant correlation between level of education and subscales of MMPI. Also no correlation was found between level of education and level of depression as recorded by BDI.

Effect on outcome:

Table (6) shows the effect of psychological changes on mode of delivery (normal vaginal delivery N.V.D or cesarian section C.S). There was a high significant correlation between depression and hypochondriasis subscales of MMPI and S.C also a significant correlation re-

ported with psychopathic deviation and masculinity femininity subscales. Again higher levels of depression as recorded by BDI was correlated with higher incidence of C.S.

Table (7) shows the correlation between psychological changes during pregnancy and prematurity. High significant correlation was found between depression, social introversion and masculinity - femininity subscales of MMPI and prematurity.

Also a significant correlation was found between the degree of depression as recorded by BDI and prematurity.

Table (8) shows the correlation between psychological changes during pregnancy as detected by MMPI & BPI scales and fetal asphyxia as detected by APGAR score. High significant correlation was found between abnormalities of hypochondriasis, depression, psychopathic deviation and hypomania subscales of MMPI and severe degree of fetal asphyxia. Also a significant correlation was recorded with psychasthenia and paranoid subscales. Again a significant correlation was found between the degree of deep as recorded by BDI and severe degree of asphyxia.

Table(9) shows that low birth weight (<2500g) was correlated with high scores of schizophrenia and masculinity - femininity subscales of MMPI. Also highly significant correlation as found between the level of depression as recorded BDI and low birth weight.

Relation to postpartum period:

Table (10) shows that women got higher scores on most subscales of MMPI during pregnancy than 4-6 weeks after delivery, high significant correlation was recorded with depression, hypochondriasis, hysteria, psychasthenia and schizophrenia subscales. Also, higher level of depression as detected by

Table 1
Correlation of MMPI and BDI Scale During Pregnancy and Control Groups

MMPI	During Pregnancy		Control		T	P
	%of Pathological score	Mean $\pm$ SD	%of Pathological score	Mean $\pm$ SD		
Hypochondriasis	14	58.29 $\pm$ 8.33	-	50.15 $\pm$ 6.58	4.81	<0.001(V.H.S)
Depression	19	57.6 $\pm$ 11.22	5	54.05 $\pm$ 7.08	2.57	<0.05(S)
Hysteria	10	54.71 $\pm$ 9.36	-	50.20 $\pm$ 6.63	2.57	<0.01(S)
Psychopathic Deviation	2	49.68 $\pm$ 7.48	-	50.85 $\pm$ 6.98	0.64	0.52(N.S)*
Masculinity-Femininity	9	50.50 $\pm$ 9.47	5	47.50 $\pm$ 9.24	1.30	0.197(N.S)*
Paranoia	7	52.89 $\pm$ 8.95	-	48.10 $\pm$ 7.15	2.25	<0.05(S)
Psychasthenia	10	60.97 $\pm$ 9.07	-	51.80 $\pm$ 9.07	4.13	<0.001(V.H.S)
Schizophrenia	5	54.54 $\pm$ 9.31	-	49.65 $\pm$ 7.58	2.28	<0.05(S)
Hypomania	-	50.82 $\pm$ 8.50	5	50.05 $\pm$ 7.08	0.37	0.71(N.S)*
Social Introversion	7	65.81 $\pm$ 7.03	-	50.20 $\pm$ 7.51	3.79	<0.001(V.H.S)
BDI	21	22.36 $\pm$ 7.81	5	16.80 $\pm$ 6.12	3.85	<0.01(H.S)

Table 2
Correlation Between Age, MMPI and BDI Scale

MMPI Scale Mean $\pm$ SD	Age		T	P
	G _I <35y	G _{II} $\geq$ 35y		
Hypochondriasis	58.50 $\pm$ 8.11	56.75 $\pm$ 10.13	0.68	0.49(N.S)
Depression	57.97 $\pm$ 11.23	56.83 $\pm$ 11.26	0.91	0.36(N.S)
Hysteria	55.63 $\pm$ 9.48	47.31 $\pm$ 4.54	4.66	<0.001(V.H.S)
Psychopathic Deviation	49.68 $\pm$ 7.48	48.08 $\pm$ 8.71	0.79	0.43(N.S)
Masculinity-Femininity	50.00 $\pm$ 9.26	51.16 $\pm$ 10.59	1.44	0.43(N.S)
Paranoia	52.99 $\pm$ 9.18	52.91 $\pm$ 10.59	1.44	0.43(N.S)
Psychasthenia	61.11 $\pm$ 8.96	59.91 $\pm$ 10.18	0.43	0.67(N.S)
Schizophrenia	54.42 $\pm$ 8.90	55.41 $\pm$ 12.37	0.35	0.73(N.S)
Hypomania	51.45 $\pm$ 8.15	46.16 $\pm$ 9.90	2.05	<0.05(S)
Social Introversion	50.82 $\pm$ 7.17	56.66 $\pm$ 6.12	2.07	<0.05(S)
BDI Scale	20.62 $\pm$ 5.98	15.50 $\pm$ 6.76	2.16	<0.01(H.S)

Table 3
Correlation Between Parity, MMPI and BDI Scale

MMPI Scale Mean $\pm$ SD	Prim	Multi	T	P
Hypochondriasis	58.50 $\pm$ 7.84	58.08 $\pm$ 8.87	0.25	0.40(N.S)
Depression	56.76 $\pm$ 11.62	58.44 $\pm$ 10.86	0.74	0.22(N.S)
Hysteria	55.02 $\pm$ 9.77	54.40 $\pm$ 9.03	0.32	0.37(N.S)
Psychopathic Deviation	49.10 $\pm$ 7.35	59.26 $\pm$ 7.65	0.77	0.22(N.S)
Masculinity- Femininity	51.06 $\pm$ 9.69	49.94 $\pm$ 9.30	0.58	0.27(N.S)
Paranoia	52.94 $\pm$ 8.36	52.84 $\pm$ 9.59	0.05	0.47(N.S)
Psychasthenia	62.78 $\pm$ 9.11	59.16 $\pm$ 8.74	0.02	<0.05(S)
Schizophrenia	55.18 $\pm$ 9.08	53.90 $\pm$ 9.58	0.68	0.24(N.S)
Hypomania	51.48 $\pm$ 8.41	50.16 $\pm$ 8.62	0.77	0.22(N.S)
Social Introversion	57.02 $\pm$ 6.89	56.00 $\pm$ 7.22	0.29	0.38(N.S)
BDI Scale	16.02 $\pm$ 6.12	16.40 $\pm$ 6.35	0.30	0.76(N.S)

Table 4
Correlation Between Social Class, MMPI and BDI Scale

Social Class					
MMPI Scale	G _I (n=16)	G _{II} (n=71)	G _{III} (n=13)	F ratio	P
Hypochondriasis	58.56	58.04	59.30	0.1	0.84(N.S)
Depression	51.31	56.23	60.46	3.20	<0.05(S)
Hysteria	50.62	54.54	56.23	2.90	<0.05(S)
Psychopathic Deviation	52.87	58.95	59.69	3.12	<0.05(S)
Masculinity- Femininity	49.37	50.52	51.76	0.6	0.50(N.S)
Paranoia	56.81	51.71	54.46	0.8	0.38(N.S)
Psychasthenia	60.37	60.53	64.07	0.10	0.30(N.S)
Schizophrenia	58.06	53.60	55.30	0.09	0.35(N.S)
Hypomania	53.68	49.77	53	0.3	0.70(N.S)
Social Introversion	56.68	57.31	54.23	0.08	0.40(N.S)
BDI Scale	13.62	16.16	19.61	3.45	<0.05(S)

Table 5
Correlation Between Level Education, MMPI and BDI Scale

MMPI Scale	Educational Level		T	P
	G _I (n=41)	G _{II} (n=59)		
Hypochondriasis	58.31±9.02	58.34±7.95	0.02	0.98(N.S)
Depression	56.34±12.5	58.36±10.26	0.88	0.38(N.S)
Hysteria	54.19±9.02	55.25±9.62	0.56	0.58(N.S)
Psychopathic Deviation	49.31±6.49	50.06±8.15	0.49	0.62(N.S)
Masculinity-Femininity	51.51±9.60	49.96±9.38	0.75	0.45(N.S)
Paranoia	52.31±7.37	53.27±16.03	0.52	0.60(N.S)
Psychasthenia	62.53±8.63	59.81±9.34	1.48	0.14(N.S)
Schizophrenia	55.43±8.67	54.08±9.75	0.71	0.47(N.S)
Hypomania	51.56±7.95	50.13±8.87	0.82	0.41(N.S)
Social Introversion	57.48±7.11	56.37±7.05	0.77	0.44(N.S)
BDI Scale	17.24±6.50	15.22±5.71	1.63	0.10(S)

Table 6
Correlation Between the Psychological State (Using MMPI and BDI Scale) During Pregnancy and the Mode of Delivery

MMPI Scale	G _I (n=41)	G _{II} (n=59)	T	P
Hypochondriasis	56.98±8.19	60.93±8.12	3.27	<0.01(HS)
Depression	54.11±10.485	64.66±9.28	4.90	<0.01(H.S)
Hysteria	54.56±9.80	55.00±8.51	0.21	0.41(NS)
Psychopathic Deviation	48.70±7.82	51.66±6.41	2.88	<0.05(S)
Masculinity-Femininity	49.28±8.93	52.96±10.17	2.85	<0.05(S)
Paranoia	52.89±9.50	52.87±7.85	0.0087	0.49(N.S)
Psychasthenia	60.67±9.06	61.57±9.18	0.46	0.32(N.S)
Schizophrenia	53.58±8.73	56.48±10.26	1.47	0.07(N.S)
Hypomania	50.34±8.43	51.78±8.67	0.79	0.21(N.S)
Social Introversion	56.80±6.91	56.81±7.37	0.0081	<0.49(N.S)
BDI Scale	21.35±7.67	24.39±7.81	2.84	<0.05(S)

Table 7
Correlation Between MMPI Scale, BDI Scale and Gestational Age in Weeks

MMPI Scale	Premature ($<37W$) Mean $\pm$ SD	Full term ($<37W$) Mean $\pm$ SD	T	P
Hypochondriasis	60.39 $\pm$ 7.79	57.66 $\pm$ 8.44	1.38	0.17(N.S)
Depression	62.43 $\pm$ 9.84	56.15 $\pm$ 11.26	3.41	<0.01 (H.S)
Hysteria	52.60 $\pm$ 5.62	55.15 $\pm$ 14.16	1.66	0.10(N.S)
Psychopathic Deviation	51.47 $\pm$ 7.02	49.14 $\pm$ 7.58	1.32	0.19(N.S)
Masculinity- Femininity	55.78 $\pm$ 10.16	48.92 $\pm$ 8.71	3.19	<0.01 (H.S)
Paranoia	54.00 $\pm$ 5.62	52.55 $\pm$ 9.73	0.68	0.50(N.S)
Psychasthenia	61.26 $\pm$ 8.76	60.88 $\pm$ 9.21	0.17	0.86(N.S)
Schizophrenia	56.52 $\pm$ 10.95	53.94 $\pm$ 8.76	1.03	0.31(N.S)
Hypomania	48.39 $\pm$ 6.97	51.54 $\pm$ 8.81	1.57	0.11(N.S)
Social Introversion	53.26 $\pm$ 7.09	57.87 $\pm$ 6.69	2.86	<0.01 (H.S)
BDI Scale	18.26 $\pm$ 6.25	15.15 $\pm$ 6.08	2.80	<0.05 (S)

Table 8
Correlation Between MMPI Scale, BDI Scale and Fetal APGAR Score

MMPI Scale	0-2 mean	3-4 mean	5-7 mean	8-10 mean	F ration	P
Hypochondriasis	64.05	62.50	56.94	55.90	4.97	<0.01 (H.S)
Depression	69.75	62.89	56.09	54.59	4.20	<0.01 (H.S)
Hysteria	49.15	49.52	50.11	56.13	0.67	0.56(N.S)
Psychopathic Deviation	69.75	62.89	56.09	54.59	4.20	<0.01 (H.S)
Masculinity- Femininity	60.1	59.25	59.55	58.95	1.83	0.14(N.S)
Paranoia	56.25	54.52	54.09	47.86	3.24	<0.50 (S)
Psychasthenia	66	62.31	62.05	56.18	3.03	<0.05 (S)
Schizophrenia	62.75	56.42	54.41	51.72	2.07	0.11(N.S)
Hypomania	60	35.52	50.81	46.81	4.19	<0.01 (H.S)
Social Introversion	63.01	52.58	60.11	61.23	1.24	0.29(N.S)
BDI Scale	22.25	19.47	17.07	15.9	3.47	<0.05 (S)

Table 9
Correlation Between MMPI, BDI Scale and FBW

MMPI Scale	L.B.W. Mean $\pm$ SD	L.B.W. Mean $\pm$ SD	T	P
Hypochondriasis	58.73 $\pm$ 9.83	58.21 $\pm$ 8.11	0.22	0.82(N.S)
Depression	59.33 $\pm$ 11.18	57.29 $\pm$ 11.26	0.65	0.51(N.S)
Hysteria	54.46 $\pm$ 8.89	54.75 $\pm$ 9.49	0.11	0.91(N.S)
Psychopathic Deviation	50.60 $\pm$ 10.19	49.51 $\pm$ 6.97	0.51	0.60(N.S)
Masculinity-Femininity	56.06 $\pm$ 10.22	49.28 $\pm$ 9.04	2.54	<0.01(H.S)
Paranoia	51.86 $\pm$ 7.87	53.07 $\pm$ 9.16	0.48	0.63(N.S)
Psychasthenia	60.33 $\pm$ 11.37	61.08 $\pm$ 8.68	0.29	0.77(N.S)
Schizophrenia	60.33 $\pm$ 9.97	53.51 $\pm$ 8.86	2.69	<0.01(H.S)
Hypomania	49.93 $\pm$ 7.05	50.97 $\pm$ 8.75	0.44	0.66(N.S)
Social Introversion	56.80 $\pm$ 5.63	56.81 $\pm$ 7.27	0.35	0.99(N.S)
BDI Scale	20.26 $\pm$ 7.26	15.49 $\pm$ 5.72	2.82	<0.01(H.S)

Table 10
Correlation of MMPI and BDI Scale During Pregnancy and After Delivery

MMPI	During Pregnancy		After delivery		T	P
	% of Pathological Score	Mean $\pm$ SD	% of Pathological Score	Mean $\pm$ SD		
Hypochondriasis	14	58.29 $\pm$ 8.33	-	52.94 $\pm$ 7.30	5.062	<0.001(V.H.S)
Depression	19	57.6 $\pm$ 11.22	7	51.50 $\pm$ 6.97	5.21	<0.001(V.H.S)
Hysteria	10	54.71 $\pm$ 9.36	-	50.42 $\pm$ 6.51	4.16	<0.001(V.H.S)
Psychopathic Deviation	2	49.68 $\pm$ 7.48	1	51.19 $\pm$ 7.27	1.49	0.07(N.S)
Masculinity-Femininity	9	50.50 $\pm$ 9.47	6	47.50 $\pm$ 10.68	2.20	<0.05(S)
Paranoia	7	52.89 $\pm$ 8.95	2	50.50 $\pm$ 6.83	2.32	<0.05(S)
Psychasthenia	10	60.97 $\pm$ 9.07	1	51.57 $\pm$ 7.62	9.13	<0.001(V.H.S)
Schizophrenia	5	54.54 $\pm$ 9.31	1	49.81 $\pm$ 7.36	3.94	<0.001(V.H.S)
Hypomania	-	50.82 $\pm$ 8.50	5	52.32 $\pm$ 8.32	1.53	0.06(N.S)
Social Introversion	7	65.81 $\pm$ 7.03	2	54.09 $\pm$ 8.52	2.99	<0.05(S)
BDI	21	22.36 $\pm$ 7.81	8	16.21 $\pm$ 6.25	9.74	<0.001(V.H.S)

BDI was associated with pregnancy than 4-6 weeks after delivery.

DISCUSSION

Physiological changes during pregnancy:

The present study showed that the studied Egyptian pregnant women are suffering from some psychological changes during pregnancy. These changes included mainly depression 19%, hypochondriasis 14% hysteria 10% and psychasthenia 10%. This agrees with Kumar and Robson, (1984), who reported that 20% of married mothers attending an antenatal clinic in London were regarded as having a psychiatric disorder of some kind. Zuckerman et al. (1990) who reported high incidence of depressive athenic, somatic and sexual symptoms. Again, also Zimmermann et al. (1994), described the following symptoms during pregnancy: sense of despair and hopelessness, conversion symptoms, emotional lability, inability to concentrate and gastrointestinal symptoms. Finally, Harold et al. (1995) stated that 25% of pregnant women suffered from fatigue, depression, insomnia and emotional lability.

When depressive mood was assessed using MMPI scale 19% of third trimester pregnant women were classified as pathologically depressed whereas 21% diagnosed as pathologically depressed using BDI. This figure is nearly double that found by O'Hera et al. (1991) who diagnosed pathological depression in 11% of pregnant women in the second trimester. The difference might be explained by the difference in the timing of assessment of mental state, duration of pregnancy as well as difference in social strata and stressors in the two studies. This explanation is partly supported by Cox,

(1993) who reported that the frequency of psychiatric disturbance is highest during the last trimester of pregnancy which is the time chosen for psychological assessment in the current study. These disorders may be in part due to stress itself, the fear of experience of labor, its pain, as well as the fear of having an abnormal or malformed baby. The hormonal changes that take place during pregnancy could also have a role in the development of such disorders (Garry et al. 1993)

Effect of age, parity, level of education and social class:

On studying the effect of some factors as age, parity, education and social class on psychological state of pregnant women, it was found that higher degree of depression, hysteria and hypomania were prevalent in younger women (<35y) where as social introversion were more prevalent in older women. This agrees with Paykel et al. (1991) who concluded that younger women are more prone to depression and hysteria during pregnancy.

Regarding the effect of parity using MMPI scale, apart from psychasthenia which was commoner in primipara no significant effect of parity was found on psychological status of pregnant women. Also no significant effect of parity of the degree of depression as assessed by BDI. This agree with the finding of Clement (1995). Also the level of education could not be proved to have any significant effect of the psychological status of pregnant women and this agree with Seguin et al. (1995) who added that this finding may reflect the effect of exposure to chronic stressors as financial and housing problems and lack of social support.

Effect on outcome of pregnancy:

In the present study it was found that

the psychological status during pregnancy could affect the pregnancy outcome (preterm, fetal birth weight and neonatal asphyxia) as well as the mode of deliver (C.S. or vaginal) higher scores of depression on BDI was the single factor correlated with all previously mentioned outcomes. Higher scores of depression on BDI were correlated with higher incidence of C.S. premature labour, neonatal asphyxia and L.B.W. Other factors that was correlated with one or more of these outcomes were high scores on hypochondriasis, depression, psychopathic deviation, masculinity, femininity and schizophrenic subscales of MMPI.

Our findings are supported by the findings of Balcazar et al. (1992) Steer, (1992) and Vartiainen, (1994).

Psychological state of pregnancy & postpartum period:

In the present study it was found that pregnant women scored significantly higher on most MMPI subscale than 4-6 weeks after delivery. This finding agree with many studies in literature that reported higher rates of psychiatric symptoms during pregnancy (Cutrona, 1983, Jadersic et al. 1993 and Seguin et al. 1995).

Cox (1993), reported that although that although psychiatric disorders is mostly seen in the puerperium they actually occur commonly during pregnancy but they are underestimated for many reasons. Also higher scores of depression on BDI was found during pregnancy than in early postpartum. These findings agree with the suggestion of Cox, (1993) that many psychiatric symptoms during pregnancy are transient and the policy of wait and see are more commonly implemented, so that the psychiatric disturbance may become submerged in the physiological symptoms that precede childbirth. He added that

there is no useful antenatal predictors for postnatal depression other than a hereditary predisposition or a previous psychiatric history. This is also supported by Cooper et al. (1997). Thus we may conclude that psychological changes during pregnancy can not predict postnatal depression.

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التغيرات النفسية خلال الحمل والعلاقة بين المال وفتره ما بعد الولاده

يهدف هذا البحث إلى دراسة الحالة النفسية خلال فترة الحمل وبعض العوامل المرتبطة بها وتأثيرها على الولادة وعلى الجنين وكذلك علاقتها بالتغيرات النفسية المصاحبة لفترة ما بعد الولادة.

وقد شملت هذه الدراسة عينة من الحوامل تم فحصهن مرتين، الأولى خلال الأشهر الثلاثة الأخيرة من الحمل والثانية خلال ٤-٦ أسابيع بعد الولادة، وقد تم الفحص إكلينيكيًا وباستخدام القياسات النفسية (مقياس منيسوتا للشخصية ومقياس بك للإكتئاب) وقد أظهر البحث أن النساء الحوامل حصلن على درجات أعلى على مقياس الوهن النفسي وتوهم المرض والإكتئاب كما وجد أن هناك ارتباطاً بين الحالة النفسية أثناء الحمل وبعض العوامل مثل السن والمستوى الاجتماعي حيث حققت الحوامل الأقل عمراً درجات أعلى على الهستيريا وتحت الهوس و الاكتئاب كما وجد ارتباط بين انخفاض المستوى الاجتماعي وارتفاع الدرجة على قياسات الهستيريا والاكتئاب والانحراف السيكيوباتي، في حين لم توجد علاقة واضحة بين الحالة النفسية أثناء الحمل وعدد مرات الولادة أو مستوى التعليم، أما بالنسبة لتأثير الحالة النفسية أثناء الحمل على الولادة والجنين فقد وجد أن هناك ارتباطاً بين الحالة النفسية وطريقة الولادة (عادية - قيصرية) حيث إرتبطت الولادة القيصرية بارتفاع الدرجة على قياسات الإكتئاب و الإنطواء الاجتماعي كما إرتبطت حالات إختناق الجنين بارتفاع الدرجة على قياسات الإكتئاب وتوهم المرض والانحراف السيكيوباتي وأخيراً وجد هناك ارتباط بين نقص وزن الجنين عند الولادة وارتفاع الدرجة على قياسات الإكتئاب والفصام وفي النهاية وجد أن معظم القياسات تعود إلى معدلها الطبيعي خلال ٤-٦ أسابيع بعد الولادة ولم توجد هناك علاقة واضحة بين ارتفاع الدرجة على قياسات الإكتئاب أثناء الحمل وإكتئاب ما بعد الولادة.