Maternity Blues. Psychometric Approach

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In this study 61 women who were admitted to hospital for labour were studied for anxiety and depression. The results were compared to a control group of twenty two women admitted for general surgery matched for the age, socioeconomic standard and educational level. There were significant difference between both groups as regards levels of anxiety and depression. Women with normal delivery were compared to those with C. S. and no significant difference was found. We didn't find any significant difference between women with pathological scores and those without pathological scores as regards age marraige, age at labour, sex of the newly born or relation with the husband.

(Egypt.J. Psychiat.,1995,18: 13- 18).

Introduction

One negative outcome of the postpartum period is the occurrence of postpartum depression. While the incidence of "blues" are high in the U.S., the nature of this phenomenon as a disease and as an illness remains unclear (Stern and Kruckman 1983).

Maternity blues, although seldom a serious problem in clinical practice, is potentially important to research on affective disorders in general (Kennerley and Gath 1986).

Maternity blues disorder, illness or syndrome (Brudenell and Wilds, 1984) is a dysphoric mood state occuring between the third and tenth days and up to two weeks after delivery (Harris, 1981). It is characterized by tearfulness and mild depression (Trethowan and Sims, 1983).

Childbirth is a major life event known to be associated with large changes in maternal hormones. The determinants of the "blues" may therefore be psychological and social, biological or both (Kenneroley and Gath 1986).

Previous studies of the maternity blues have failed to identify a consistant factor discriminating between the group of women who experienced the phenomenon and those who did not (Condon, Watson and 1987).

However, Kennerley and Gath (1989) found that "blues" were significantly associated with neuroticism, anxiety and depressed mood during pregnancy; fear of labour, poor social adjustment; and retrospective severity of prementstrual tension. "Blues" were neither associated with obstetric factors not with previous history of psychicatric disorder.

This work aims to study the depressive and anxiety mood changes that occur in women after labour and comparing

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them with control group and to know if it is something specific for puerpurium or to the stresses of procedures of labour or operations.

Subjects and Method

This study was carried out in one of the largest private hospitals in Jeddah, Saudia Arabia. Our subjects were selected randomly by studying all women admitted to "Obstetric and gynaecological ward" for labour within one month interval "April 1987". They were sixty one patients, 45 with normal labour and sixteen with Caesarian section.

The Control group was composed of thirty female patients adimtted to surgical department for operations which are not urgent, 10 patients for cholecystectormy, 7 patients for piles and 13 patients for anal fissures.

Operations which may have an emotional stress or components were excluded e.g. cancer surgery and cosmetic surgery.

Also the control group was matched with our subjects as regards, age socioeconomic level, and educational level. All were married.

The women of both groups were subjected to the following:

(a) Full obstetric sheet.

(b) Full psychiatric sheet.

(c) The following psychometric scales:

1) Beck's Inventory for depression.

2) Tailor's Anxiety Scale.

The tests were applied one week after labour or operation. The results were studied statistically and discussed. We compared the puerpural subjects with the control group. Then we compared women with pathological results with those with non pathological results on psychometric tests.

Results

Table 1

Comparison Between The Results of The Three Groups of Patients on Psychometric Tests

Test	Grade	Normal labour 45 patients		C.S. 16 patients		Comparison		Post-Puerpatients (61 patients)		G.S. patients (30 patients)		Comparison	
		No	%	No	%	Z.	prob.	No	%	No	%	Z.	prob.
Tailor for Anxiety	No	0	0	0	0			0	0	7	23.33	-3.926	4.310E-05**
	Mild	8	17.78	1	6.25	1.117	.1320	9	14.75	13	43.33	-2.994	1.378E-3**
	Maderate	13	28.89	3	18.75	.792	.2142	16	26.23	3	10	1.791	.0367*
	Severe	24	53.33	12	75	-1.514	.0650	36	59	7	23.33	3.204	6.775E-04**
	Mean	34		37.25				34.85		17.3			
	S.D.	+ 12.62		+11.92				+ 12.73		+ 8.51			
	S.E.	1.881		2.98				1.622		1.814			
	t	9822						7.21**					
Beck for Depression	No	18	40	5	31.25	.620	.2675	23	37.71	23	76.67	3.136	8.575 E-04**
	Mild	17	42.22	8	50	-.538	.2952	29	47.54	5	16.67	2.541	5.530E-03**
	Maderate	0	0	0	0			0	0	1	3.33	1.432	.0761
	Severe	8	17.78	3	18.75	-.087	.4655	9	14.75	1	3.33	1.427	.0767
	Mean	38.27		39.56				36.66		25.5			
	S.D.	+12.54		13.1				+13.23		+10.31			
	S.E.	1.86		3.275				1.694		2.198			
	t	.342						4.0216**					

From the above table we can notice that:-

(a) No significant difference between the means of scores on anxiety or depression scales between women after labour whether it was normal labour or C.S.

(b) There was a highly statistically significant differences between women post partum and women after general surgical operations.

(c) Most of the women suffered severe degree of anxiety after labour & it was higher in C.S. with mild significant difference. But the difference between all group after labour and those after general surgery operation was highly statistically significant.

(d) The difference between post-partum patients and post-operative patients was significant statistically on depresive scales especially mild degree.

N.B. C.S. = Caesarean Section G.S.= General Surgery.

* = Statistically significant

** = Highly statistically significant

Table 2

Comparison Between Patients with Pothological Scores and Those with Non-Pathological Scores As Regards Their Mean Age and Their Mean Age of Marraige

	Depressive Scale		Anxiety Scale	
	Pathological scores No = 38	Non Path. Scores No = 23	Mild No = 9	Moderate and Severe No = 52
Mean Age, years	27.26	24.78	23.89	26.5
S. D.	± 12.31	± 11.92	± 10.85	± 11.73
S. E.	1.997	2.485	3.617	1.627
t	0.7779		0.6581	
Mean Age of Marraige years	19.87	20.56	20.8	20
S. D.	± 5.43	± 5.43	± 6.12	± 5.92
S. E.	0.863	1.132	2.04	0.821
t	0.4847		.3638	

From the above table there was no significant difference between the mean age of marraige or at labour between the group of patients scored pathologically and those who scored non-pathologically on psychometric tests after labour.

Table 3

Comparison Between Patients with Pathological Results and Those with Non Pathological Results as Regards Obstetric History

		Beck for Depression						Taylor's for Anxiety					
		Pathdogical No=38		Non Path. No=23		Z	Prob	Moderate & Severe No = 52		Mild No = 9		Z	Prob.
		No	%	No	%			No	%	No	%		
Sex of the	O	24	63.16	15	65.22	-.162	.4355	34	65.38	6	66.67	-.075	.47
Newly born	Q	14	36.84	8	34.78	.155	.4383	18	34.62	3	33.33	0.75	.47
History of Previous	Primi gravida	8	21.05	5	21.74	-.064	.4746	11	21.15	2	22.22	-.075	.4711
Deliveries	Multi gravida	30	78.95	18	78.26	-.064	.4746	41	78.85	7	77.78	.072	.4711
Sex of the	O	13	34.21	4	17.39	1.420	.0778	15	28.85	2	22.22	.410	.3411
previous	Q	6	15.79	2	8.7	.795	.2133	8	7.69	1	11.11	-.345	.3619
children	Mxed	19	50	7	30.43	1.498	.0871	17	32.69	1	11.11	1.311	.0950
Attitude of the mother	Desired	28	73.68	18	78.26	-.403	.3436	39	75	7	77.78	.179	.429
Towards the pregnancy	Rejected	10	26.32	5	21.74	.403	.3436	13	25	2	22.22	-.186	.4285
History of abortion	——	2	5.26	3	13.04	1.07	.1415	3	5.77	1	11.11	-.598	.2751
History of children deaths	——	2	5.26	0	0	1.118	.1317	2	3.85	0	0	.607	.2721
History of C.S.	——	9	23.68	3	13.04	1.013	.1555	11	21.15	1	11.11	.982	.1423
Premenstrual tension	——	9	23.68	5	21.73	.176	.4303	3	5.77	1	11.11	-.598	.2751
Psych. illness	——	3	7.89	0	0	1.381	.836	0	0	0	0	—	—

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Discussion

From the results of this study we can see that there was no significant difference between the mean of anxiety or depression after labour whether the labour is normal or C.S. However, there is a significant difference in the level of anxiety or depression between patients after labour and patients after operations.

All women suffered some degree of anxiety and more than half of them suffered depression after labour. Most of women of the surgical group did not suffer depression and 70% suffered anxiety but mostly of mild degree.

From all the above we can deduce that the changes in the mood that occur after labour is something specific to labour itself and not to the procedure.

The same result were obtained by Kennerly and Gath (1989) who found statistical difference between women after elective gynaecological surgery and post natal women and they deduced that postnatal mood changes are characteristic of the puerperium and not simply non specific reactions to physical and emotional stress.

However, Levy (1987) did not totally agree with us since he found that a period of dysphoria, similar in many respects to the maternity blues was experienced by women post-operatively. The main difference between maternity and post-operative patterns of dysphoria seemed to lie in the timing of the blues.

Hapgood et al (1988) in their study found that dysphoric mood was temporally related to childbirth. Emotional lability was important affective component of the puerperium. A significant correlation was found between the blues and subsquent postnatal depression. Maternity blues ratings were not accounted for by labour variables.

As regards obstetric history, attitude to pregnancy or to the baby, the relation with hushand and the age of the patients at delivery and at marraige, there was no statistical difference between women with pathological scores on psychometric tests and those with non-pathological scores.

This agreed with the results of Rakhawy et al (1987) who found no significant relation between maternity blues and desired sex of the newly born, the pregnancy was wanted or not, the mother was primigravida or multigravida, if there is problems with the husband or not and lastly whether it was normal labour or C.S.

. Condon and Watson (1987) said that previous studies of the maternity blues have failed to identify a consistent factor discriminating between the group of women who experienced the phenomenon and those who did not. This was consistent with our result. But they added that the triad of premenstrual tension, unplanned pregnancy and consideration given to elective termination in early pregnancy was associated with increased incidence of the "blues". This last comment was against our results which proved that non of the above factors showed significant difference between women with mood changes and those without.

Kennerley and Gath (1989) said that blues were significantly associated with neuroticism; anxiety and depressed mood during pregnancy; fear of labour; poor social adjustment; and retrospective severity of premenstrual tension. "Blues" scores were not associated with obstetric factors, or with previous history of psychiatric disorders.

Many other researches stressed the biological factors as a cause of "maternity blues".

Best et al (1988) found that women who developed "maternity blues" had

significantly more platelet alpha 2-adrenoceptors than those who did not at both ten and twenty days post partum. They suggested that women who develop "maternity blues" may have a relatively enduring abnormality in alpha 2-adrenoceptor sensitivity which is associated with psychological symptoms when concentrations of circulating sex steroids suddenly change.

The same result obtained by Meiz et al. (1983), who concluded that platelet alpha 2-adrenoceptors may be affected by the circulating levels of endogenous oestrogen and progestrone and that a delayed or diminished fall in platelet alpha 2-adrenoceptor capacity after child birth may be associated with the development of "maternity blues".

Feski, A. et al (1984) found that concentrations of progestrone and oestradial were significantly higher in women with "maternity blues" than the control group, but the mean cortisol concentrations did not differ between the two groups. The hormones were measured in specimens of saliva.

Ehlert et al (1990) said that symptoms of post partum blues occured more frequently in women who reported high levels of trait anxiety, passive coping strategies, marital dissatisfaction, or acceptance of their role as a mother. These women had elevated morning levels of cortisol on those days on which the symptoms appeared in contrast to those days without symptoms as well as in contrast to those women who did not experience "post partum blues".

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Les dépressions du post partum: Une étude psychométrique

Dans cette étude, 61 femmes admises à l'hôpital pour accoucher, ont fait l'objet d'une évaluation de l'anxiété et la dépression. Nous avons trouvé des différences significatives, concernant la dépression et l'anxiété, entre le groupe étudié et un autre groupe de femmes comparable, admises dans un service de chirurgie générale. Nous n'avons pas trouvé des différences significatives entre des femmes ayant accouchée normalement et ceux ayant accouchée par césarienne. L'âge lors du mariage, l'âge à l'accouchement, le sexe du nouveau-né et la nature de la relation avec le mari n'ont pas influencé les résultats.

دراسة قياسية نفسية لاكتئاب الأمهات بعد الولادة

تمت دراسة ٦١ سيدة أدخلن إلى قسم الولادة للوضع واختيرت عينه من نفس المستوى الاجتماعى والتعليمى تتكون من ٢٢ سيدة أدخلن إلى قسم الجراحة لإجراء جراحة. وقد قورن مستوى القلق والإكتئاب فى المجموعتين بعد الولادة أو العملية. وقد وجد أن الإكتئاب والقلق أعلى بفارق إحصائى فى السيدات عقب الولادة عنه فى السيدات عقب العمليات الجراحية. كما إتضح أنه لا يوجد فارق إحصائى بين السيدات اللاتى وضعن بطريقة طبيعية واللاتى وضعن عن طريق عمليه قيصريه. وكذلك تناقش الدراسة الدلالات والنتائج ولم يوجد فارق إحصائى بين السيدات اللاتى يعانين من قلق وإكتئاب واللاتى لم يعانين بالنسبة للعمر عند الزواج والسن عند الولادة ونوع الجنين والولادات السابقة ووجود مشاكل مع الزوج.