• *Egypt. J. Psychiat. (1987),* 10: *161-174*

The Post Partum Psychiatric Disorders: A Descriptive and Epidemiological Study

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ABSTRACT

A total of 62 parturient women were examined between 1984 and 1985. These came from a University Hospital, the Abbassia Mental Hospital and a Private Hospital. The incidence of post partum psychiatric disorders was 4.3%. Using the DSM III criteria, we found the following distribution: maternal blues 8%, schizophreniform disorders 24%, mania 21%, depression 11%, organic disorders 5%. The family history for mental illness was 33% and the past history of mental illness 57%. The cognitive functions were slightly impaired during the first and second days of delivery in the group suffering from the blues. Depressed women had a negative attitude towards their babies and their husbands held a negative attitude towards them.

The role of social, cultural and psychological factors is discussed in relation to the character of our findings.

INTRODUCTION

The post partum psychiatric disorders are not a new phenomenon. They were described by the ancient physicians. Thus, Hippocrates in 460 B.C. described attacks of mania, agitation and delirium in relation to the puerpurium *(Kerfoat and Buckwalter, 1981)* and he speculated that they might be caused by milk diverted from the breasts to the brain. The first reliable clinical observation of these disorders was made by the French psychiatrist *Marcé whoin 1858* found that illnesses occurring during the puerpurium differed from illnesses occurring at other times and were related to changes in the pelvic organs *(Cox, 1983)*. Later psychiatrists such as Bleuler and Kraeplin regarded them as nó different from other forms of medical

illness *(Gelder et al., 1983)*. Most psychiatrists nowadays would deny the specificity of the post partum disorders although some authors, such as *Kadrams et al. (1979)* uphold that view.

The current international nosological systems tend to ascribe a tenuous position to the post partum disorders. In the *American DSM III (1980)* they are included among atypical psychosis and described as "disorders not meeting the criteria for an organic mental disorder, schizophrenic disorder, paranoid disorder or an affective disorder". In the ICD-9 they are described as conditions occurring during the puerpurium and giving rise to psychiatric symptoms requiring contact with a psychiatric service. The *Egyptian DMP-1 (1974)* includes them among the psychosis associated with generalized systemic disorders *(Shaheen, 1985)*.

The post partum psychiatric disorders are divided into: psychosis and neurosis with the blues syndrome forming part of the latter *(Kaij and Nilsson, 1972)* or into puerpural psychoses, puerpural neurosis and transitory mood disturbances *(Cox, 1983)*. The psychosis may either be organic, schizophrenic or affective of which the latter constitutes 80% of these disorders with an unusually high proportion of manic cases amounting to 12% *(Dean and Kendell, 1981)*.

The maternity blues are episodes of mood lability, irritability and crying spells which reach their peak on the 3-4th post partum day. They were formerly believed to be an exclusive post partum phenomenon resulting from changes in the sex hormones blood levels *(Pitt, 1973)*. However, in a recent study by *Levy (1987)* it was found that they occur with an equal frequency in females after operations but with a peak incidence on the first post operative day and that they were probably related to an increased output of cortisol.

The incidence of post partum psychiatric disorders varies according to the different workers. The incidence given by *Tod (1964)* is 2.9%, by *Pelicier (1974)* 0.1-0.5% and 47% by *Lee (1982)* referring to post partum emotional disturbances with the exclusion of the blues. These figures, if anything, convey the lack of agreement of the different workers on an exact definition of these disorders. Taking depression as an example, *Cox (1983a)* mentions some of the factors which complicate the assessment of post partum depression.

These include discharge from hospital when the depressive illness starts, insufficient teaching of psychiatry to mental health personnel and the assumption that any depression occurring in the puerpurium is simply a variant of the blues.

The psycho-social factors associated with the post partum psychiatric disorders include: previous history of psychiatric disorder, younger age, poor marital relationship and absence of social support *(Paykel et al., 1980),* psychological symptoms during pregnancy such as anxiety or depression *(Dean and Kendell, 1981)* and difficulties in breast feeding in relation to the blues *(Pitt, 1973).*

The present study is an attempt at describing the different syndromes of the puerpurium; detecting their overall incidence; searching for psycho-social and cultural risk factors; and evaluating their specificity as distinct disorders or otherwise.

SUBJECTS AND METHODS

The sample consisted of the following 3 groups:

- Group I: 53 normally delivered women from the Obstetrics Department of El Hussein University Hospital who were randomly selected and examined during the 50 days following delivery between *March 1984 and September 1985.*

- Group II: 21 women admitted to Abbassia Mental Hospital and who were known to have delivered within the 6 months preceding admission were studied between January and December 1984.

- Group III: the hospital files of 28 women admitted to a private psychiatric hospital with a history of delivery in the 6 months before admission between 1984 and 1985 were studied.

The following items were applied:

- A-a semi-structured psychiatric sheet.
- B-the mini-mental scale for assessment of cognitive functions *(Folstein et al., 1975).*
- C-*Hildreth Scale (1946)* for the assessment of mood.

The different items were applied in the following way:

1. group I was assessed using the 3 tools on the day of delivery then one and three weeks thereafter then during home visits after their discharge from hospital.
2. group II was assessed with (A).
3. only item A was applied to group III.
4. the diagnostic criteria of the DSM III were applied to all subjects.

Table 1: Diagnostic classification of the sample DSM III

1.	Post traumatic stress disorder	-	-	1(3.6%)
2.	Schizophreniform disorder	-	8(30.1%)	7(25%)
3.	Brief reactive psychosis	-	1(4.8%)	1(3.6%)
4.	Major affective disorder major depression	-	-	1(3.6%)
5.	Major depression, recurrent	-	3(14.3%)	3(11%)
6.	Bipolar disorder, mania	-	2(9.5%)	6(22%)
7.	Bipolar disorder, mixed	-	-	2(7%)
8.	Manic with psychotic features	-	5(23.8%)	-
9.	Atypical bipolar	2(4%)	-	-
10.	Schizoaffective	-	2(9.5%)	3(11%)
11.	Organic delusion disorder	-	-	1(3.6%)
12.	Organic brain syndrome delirium	-	-	2(7.1%)
13.	Adjustment disorder with depressed mood	7(13%)	-	-
14.	Maternity blues	4(8%)		
15.	Anorexia nervosa	-	-	1(3.6%)
	N	13	21	28

RESULTS

1. *Incidence*: In group I, 13 subjects or 25% had a psychiatric disorder; in group II, 21 out of 1018 or 1.4% were disturbed while the figure for group III was 28 out of 367 or 4.3%. The cumulative incidence for the total sample was 4.3%.
2. Past history of psychiatric hospitalization: no such history was obtained in group I. In group II, 15 or 71% had such a history with 47% stating that they had more than one admission and 13%

with a history of previous admission during the puerpurium. In group III, 16 or 57% had such a history, 43% had more than one admission; 25% had previous admissions during the puerpurium and a single case with a history of admission following every delivery. The total positive history admission was 63%.

3. Mean hospital stay and age in puerpural subjects: In group II the mean hospital stay of patients with post partum disorders was 193.5 days while that of other female patients was 453.8 days. The mean age of the first group was 28.9 years and that of the other patients was 34.1 years. In other words, post partum patients were younger and stayed for shorter periods of time.
4. Family history of mental illness: this finding was obtained after comparing group I and group II with a control group consisting of the 40 patients from the obstetrics department who were found to be psychiatrically free. We found that 2 patients or 15% in group I and 7 patients or 33% in group II had a positive family history of mental illness; while the incidence in the control subjects was 3%. The difference was significant at the 0.99 confidence limit.
5. Attitudes of the environmental key figures: In studying these attitudes, we pooled the three groups then, using depression as a criterion, divided them into two groups: A = depressed mothers and B = non-depressed mothers. We also carried out a comparison between the three original groups. The results are outlined in tables (2) and (3).

Table 2: Attitude of/to key figures in the whole sample

	Group I		Group II		Group III	
Attitude of husband to patient						
Positive	10	50%	8	62%	36	90%
Negative	10	50%	5	38%	4	10%
N	21		31		40	
P			S**			

Table 3: Attitude of/to key figures in the groups A & B

	Group A		Group B	
Attitude of husband to patient				
Positive	3	42%	42	93%
Negative	4	58%	3	7%
Attitude of mother to baby				
Positive	3	43%	37	80%
Negative	4	57%	8	20%
N	7		45	
P		S**		

6. Psychometry: The results of Hildreth Scale for depression on comparing the test and retest results in group I subjects were insignificant. The result however was highly significant on comparing depressed mothers and the control group in group I. The scores of the Mini-Mental Scale showed a significant difference when the test was applied on the first interview, the first retest and second retest; indicating that a mild to moderate degree of congenital deficit existed in the patients of group I. The results are displayed in tables (4, 5).

Table 4: Hildreth scale

	Group I	Group A	Group C
First interview	21.55	23.22	9.6 S**
First home visit	22.78		
Second home visit	22.83		NS
N	13.00		40

Table 5: The mini mental scale

First interview	23.13	
		S**
First visit	24.08	
		S**
Second visit	24.28	
		NS
Depressed patients	21.72	
		NS
Control	23.17	
N	53	

DISCUSSION

The incidence figure of 4.3% of the post partum disorders is higher than the figures quoted elsewhere in the literature. The claim put forward by *Davidson (1972) and Cox (1983b)* to the effect that these conditions are restricted to industrialised communities has not been substantiated by this work.

This finding may be attributed to methodological differences and sample idiosyncrasies; but the role of cultural factors cannot be altogether ignored. According to *Mechanic (1978)* "Cultural patterns and typical ways of life give substance to the manner in which illness is perceived ... Similarly, cultural definitions influence the consequences of being defined as having a particular condition". It is worth noting in this context, that a substantial segment of the rural and quasi-rural populations of Egypt believe that the puerpurium the 40 days following delivery- is a period of "uncleanliness" which imposes on the concerned woman taboos against certain activities such as cooking, washing and cohabiting with her husband. Rest and relative seclusion are also imposed *(Shaheen, 1983).* Consequently, uncontrollable or strange behaviour which could lead to the breaking

of these taboos would engender anxiety in the family leading them to the medical practitioner's doorstep for help and advice.

The distribution of the clinical syndromes in our sample is different from that reported by other authors.

The maternal blues are generally defined as temporary alterations of mood subjective as well as objective with a presumed peak incidence on the third day following delivery. Their incidence is approximately 50% with variations extending from 29% (*Ballenger et al., 1980*) to 76% reported by *Harris (1981)* in Tanzania. *Condon and Watson (1987)* refer to four risk factors associated with the blues: severity of premenstrual tension, pregnancy rated by subjects as subjectively stressful, pessimistic expectations regarding delivery and ambivalence towards pregnancy. Our figure of 8% can only be explained by the narrowness of the criterion used in this study which was objective weediness *(Robin, 1962)* and which excluded other cases which would have fallen under the category of the blues.

The distribution of the other syndromes in the total sample and in a descending order was as follows: schizophreniform 24%, main 21%, depression 11%, schizoaffective 8% and organic syndromes 5%. In the *Dean and Kendell study (1981)* minor and major depressions accounted for 69%, mania for 11%, schizoaffective for 6% and probable schizophrenia for 1%. No organic syndromes were reported. We would like to suggest the following explanations for our findings:

i. their distribution probably expresses what one may call "social reactivity to mental illness" in relations to the cultural peculiarities of the puerpurium mentioned elsewhere in this paper.
ii. the relatively low incidence of depression reflects the supportive role of the Egyptian extended family, the lack of concern of the parturient woman over decreased earning potential and the self esteem enhancing value of childbirth in our culture and the lack of major conflicts over the mothering role.
iv. the incidence of organic psychiatric syndromes could indicate an associated hypovitaminosis or undernutrition. However, it should be noted that the occurrence of cognitive changes in affective disorders are by no means uncommon. Thus, *Siberman et al. (1985)* found that the following changes in 44 patients with

affective disorders: time disorientation 9% and amnesic episodes in 11% in addition to their perceptual and behavioural changes. These findings would warrant the application of rigorous criteria to a puerpural case before diagnosing it as organic.

The absence of cases with organic psychiatric syndromes in group II (Abbassia Hospital Inpatients) manifests the reluctance of the family to refer a patient to a mental hospital in the presence of fever or any organic illness to avoid the stigma and the protracted stay.

As a group, the experimental subjects were older than the controls; they were mostly housewives; their first delivery occurred at a younger age; no significant association was found between social class and status and the incidence of these disorders and no significant correlation was found between the frequency of puerpural disorders and the gender of the baby which is surprising in view of the exalted status of the latter in our culture.

The risk factor examined in this study was the attitude of/to key figures and the results are outlined in tables (2 & 3). It can be seen that a negative attitude was significantly predominant among the husbands of depressed women. Their attitude to the baby was essentially negative. This latter observation seems to support the hypothesis put forward by *Condon and Watson (1987)* refuted by their own study which assumes that the blues are a "hormonally assisted grief reaction" provoked by the breakage of the bond between the mother and her fantasy baby and the establishment of a new one with the real baby. It is quite possible that the subjects were in the stage during which a new bond was being formed which explains their significantly negative attitude to the infant.

The Hildreth Scale for depression did not show a significant difference when the same group was examined on three different occasions; it was highly significant when the depressed subjects were compared with the healthy controls. The Mini-Mental Scale shows that cognitive impairment increased on the second re-test and on the first re-test as well. When the depressed subjects were compared with the normal controls the difference was not significant. These findings indicate that some impairment of cognitive functions is present in the first days following delivery. It also shows that subjects with post partum depression do not display a significant cognitive deficit which

does conform to the special features of puerpural depression summarized by *Pitt (1975)* to wit, confusion with no obvious toxic or infective component.

The issue of specificity versus unspecificity of the puerpural disorders is a controversial issue like the diagnosis of schizoaffective disorders and the endogenous/neurotic depression dichotomy.

In this study, the following points were against the specificity hypothesis:

a. the high incidence of a positive family history in patients with affective disorders.
b. the high incidence of a past history of mental illness (57%) at times other than the puerpurium.
c. the absence of a characteristic confusion as a distinguishing sign and the absence of a ready shifting from schizophrenia to depression. The application of the diagnostic criteria of the DSM III revealed that the different syndromes were not different from those occurring at other times.

In favour of some degree of specificity or rather idiosyncratic incidence of the different syndromes; one may mention the high incidence of mania which amounted to 21%. This figure is much higher than the figure reported for affective disorders by *Okasha et al. (1968)* which was 8.6% of which less than 1/5 were cases of mania (1.7%).

We would like to sum up our views on this controversy in the following way, "While the post partum psychiatric disorders do not exhibit characteristic clinical or syndromatic manifestations from a qualitative point of view; they do display a differential incidence and are related to social, demographic, biological and occasional cultural variables of a particular nature. These variables are of prognostic and therapeutic value. We do agree therefore with *Meltzer and Kumar (1985)* who pointed out the urgent need for improving the system for categorising and registering mental illness related to childbirth. This objective cannot be obviously achieved unless the rubric of post partum psychiatric disorders is retained and some of its quantitative features outlined".

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PSYCHOSES DU POST PARTUM ÉTUDE DÉSCRIPTIVE ET ÉPIDEMIOLOGIQUE

ABSTRAIT

Un nombre total de 62 nouvelles accouchées furent soumises à un examen psychiatrique et psychométrique approfondi. Fréquence des désordres du post partum a été estimée d'être 4,3%. La repartition des entités nosologiques selon les critères du DSM III furent tel qui suit: désordres schizophréniformes 24%, accès maniaques 21%, états dépressifs 11%, psychoses organiques 5%, dépressions éphèemeres de la maternité 8%. La fréquence des troubles psychiatriques parmi les proches des patientes a été estimée d'être 33% et celle des troubles psychiatriques antécédents 57%. Un nombre significant des femmes déprimées entretenait des sentiments négatifs envèrs le nouveau né, leurs maris entretenaient des sentiments semblables envèrs leurs épouses.

Les differents facteurs sociaux, culturels et psychologiques, vraisemblablement apparentés aux trouvailles précédentes sont discutés en detailles.

الموجز

اضطرابات النفاس النفسية
دراسة وبائية وصفية

قام الباحثون بدراسة ٦٢ حالة من ثلاثة مصادر . فاتضح ان نسبة حدوث هذه الاضطرابات ٤.٣٪ وان توزيعها كالاتى اضطرابات شبيهه بالفصامن ٢٤ ٪ ، الهوس ٢١ ٪ ، الاكتئاب ـــــ ١١٪ والذهان العضوى ٥٪ واكتئاب الامومة الطارىء ٨٪ وذلك حسب محكات الدليل التشخيصي والاحصائى الثالث الامريكى . وكانت نسبة حدوث الاضطرابات النفسية فى أسر المفحوصين ٣٣٪ ونسبة الاصابات بالاضطرابات النفسية فى السابق ٥٧٪ . وكان اتجاه الامهات المكتئبات نحو الوليد يتصف بالسلبية وكان اتجاه الازواج نحو الامهات المكتئبات سلبيا أيضاً.

وقد قام الباحثون بمناقشة العوامل الاجتماعية والحضارية والنفسية المتعلقة بالنتائج.