Psychiatric disorders of the puerperium in South African women of Nguni origin

A pilot study

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Summary
The clinical impression gained from symptoms exhibited by Zulu and Xhosa obstetric patients referred to the Department of Psychiatry, King Edward VIII Hospital, Durban, was that certain of the psychiatric disorders presented in a different form to those observed in hospitals serving other population groups. Opinions differ as to the aetiology and relationship of disorders of the puerperium to other psychiatric syndromes with controversial hypotheses referring to both the aetiology and the symptomatology. Firstly, the disorders are considered to be a reaction to specific psychological or biological stresses of pregnancy. Secondly, in contradistinction, it is postulated that the illness is incidental to ongoing personality disintegration, which is manifested by premorbid personality disturbances, a family history of mental illness, a past history of psychiatric disorder and nonspecific stresses common to all other psychiatric illnesses.

This pilot study indicates that cultural phenomena contributed to the symptoms of the majority of the 31 severely disturbed Black women displaying psychiatric features in the puerperium studied. While confirming the findings of a number of other authors, we have also detected a high incidence of transient situational disturbances of short duration. The findings indicate the need for more detailed research in this area among Black patients.


Certian authors argue that these disorders are not distinct entities and that premorbid neurotic problems, specific personality types, and a family history of mental illness are present as in other psychiatric disorders. No psychodynamics specific only to the puerperium or to the clinical presentation were determined in a series of studies, but it was commonly considered that after approximately a week a major psychiatric disorder, either schizophrenia or affective disorder, developed with a prognosis comparable to that of a nonpuerperal disorder.

Clinical features of psychiatric illness in the puerperium

Prevalence rates for psychotic disorders during the puerperium have been estimated to approximate 1-2/1000 deliveries. The onset is believed to occur within 6 months in 90% of patients, and during the first 4 weeks in 70%, but rarely before the 3rd day. It has also been stressed that puerperal psychosis is usually preceded by a prodromal period of insomnia, anxiety and restlessness. The incidence of clouding of the sensorium varied, being found in between 52% and 23% of patients but this discrepancy appears to depend upon differences in the definition of confusion. Insomnia was observed in 80%, restlessness in 60%, irritability in 95%, emotional liability in 80%, depression in 80% and hallucinations and delusions in 65%.

The diagnosis appeared to depend upon the nationality of the researcher, in keeping with other studies. At risk, however, were primiparas of approximately 28 years of age or over, with a history of underlying personality or neurotic problems, or subjected to specific and nonspecific stress, with a family or personal past history of mental illness and of obstetric and gynaecological complications. The prognosis varies from a 34% recovery rate to 80%-100% with a future risk of a subsequent puerperal psychotic disorder of 18%.

The majority of studies, controversial as they may be, were undertaken in Western populations. Few studies have been undertaken in Blacks where the lack of relevant data and statistics make retrospective studies difficult. This is unfortunate, since the influence of culture may modify the prevalence, presentation and prognosis of the illness. The determination of similarities in these areas would point to a biological basis to human illness, whereas the finding of differences in these three categories would suggest that psychosociocultural factors influence the aetiology.

The Black population in Durban

The majority of the Black population are of Nguni stock, mainly Zulu and Xhosa people in the transitional stage of the urbanization process from the rural to the sophisticated urbanized individual. Ancestral beliefs, observations of ritual and adherence to custom are similarly transitional, especially in the older generation, whereas in the younger generation these are

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Pregnancy and childbirth provide a multiplicity of psychological stresses while variations in oestrogen and progesterone levels influence both catecholamine metabolism and the mental state of the woman. It is also postulated that a relationship exists between obstetric and gynaecological complications such as pelvic disproportion, perinatal mortality, shortened gestation, symptomatic pregnancies and decreased fetal birth weight, menstrual disorders and certain specific personality problems and puerperal disorders.
frequently at variance with the lifestyle in the city. Under severe stress, however, even the most educated, as well as those who subscribe to one of the Christian or syncretic Zionist or other religious sects, are likely to return to traditional beliefs and the traditional healer.

‘Lobola’ and ‘damages’

A prospective bridegroom, by custom, paid lobola in the form of cattle to the bride’s father to compensate for the loss of the girl to her people and to promote social stability and friendship between the two families. 13 This practice continues today in the majority of marriages and, accompanied by specific rituals, signifies acceptance of the marriage. Increasing urbanization, however, has influenced changes; rituals may not be performed and payment of lobola is frequently only in monetary form and not in cattle.

Transition has also radically affected the traditional disapproval of premarital sexual intercourse. 14 It was customary for a seduced girl to be castigated, having shamed both her age-mates and her elders, the former demanding payment of a goat and the latter damages in the form of a beast for the dishonour associated with the defloweration of the girl. 17 Should impregnation result ‘every child from an unmarried woman belongs to the home of the mother, and this woman, and will take the name of the family’ unless the biological father marries the girl. There was therefore no illegitimacy. However, with the current move to the city and the concomitant loosening of social cohesion and control, a significant change has resulted, and payment of damages is usually made only in the case of impregnation. Often no payment is made, the biological father absconds and an economic crisis results, or the couple contrive to cohabit and a second pregnancy follows. By virtue of the culturally determined ‘damages’ for defloweration this payment for a second child does not, in the majority of cases, expiate the unacceptable behaviour of the unmarried multiparous mother. In both instances the illegitimate birth results in further conflict and the total disapproval and rejection of the pregnant woman by her parents.

Patients and methods

The metropolitan area of Durban is served by surrounding hospitals which provide services for Black, Indian and White patients. This study, however, refers to those patients admitted to King Edward VIII Hospital, diagnosed as psychiatrically ill and referred to the Department of Psychiatry. There were 31 106 Black women delivered in the Obstetric Department during the period January 1978 - December 1979. Recent reorganization of the obstetric services in Natal, however, provides Black women with a number of clinics situated in the townships and easily available to pregnant women, and 13 265 patients delivered at these clinics during the above period. Included in the referral patients were those suffering from a psychiatric disorder during the puerperium. Our impression, however, was that certain of these had a pathopsychiatric feature and that some specificity existed relative to the aetiology/predisposition, course and prognosis. As a result of these observations three hypotheses were postulated, namely that:

1. Certain psychiatric disorders occurring during the puerperium are related to cultural factors, such as disapproval of the family when custom has not been observed or ‘disapproval of the ancestors’ when rituals have not been performed, or due to the non-payment of lobola’ or ‘damages’.

2. A significant percentage of women with a puerperal psychiatric disability have a history of complicated deliveries or a febrile component to the puerperium.

3. A proportion of the disorders are transient, with a good prognosis, and patients present with specific clinical features.

A control group of 31 mothers, with children aged 6 months or younger, was randomly selected from those attending a postnatal polyclinic. Black women delivered at the hospital and not suffering from psychiatric disorders were not used as controls because of the short stay of women not manifesting any psychiatric disability. In this group, 81% had children aged between 6 weeks and 6 months; the majority were 3-6 months old. The patient sample and control group appear comparable and the majority of disorders in the puerperium began in the first 6 weeks. The same data were recorded on the standardized form by one of the authors (S.R.) and the obstetric records were subsequently scrutinized. The data obtained from the control group differ from those in the patient group in that they were obtained prospectively.

A total of 329 Black women admitted to hospital between January 1978 and December 1979 were referred to the Department of Psychiatry for consultation and management. The records were studied and the psychiatric and obstetric records of all Black women with children under 6 months of age were examined retrospectively. Of all the referred patients 31 were severely disturbed, suffering from a severe psychiatric disorder in the puerperal period; 31 out of a total of 44 324 deliveries in hospital and the polyclinic represents a very low figure of 0,7/1000 deliveries. These 31 severely disturbed women formed the patient group. The data obtained from the retrospective study included: social, family, sexual and marital histories; personality and cultural factors and information relating to gynaecological and obstetric details, including the antenatal period; labour; and the puerperium, with specific reference to the present illness.

Control group

Of the 31 patients in the control group, 7 (23%) were self-referred or referred by local practitioners from home, subsequent to discharge from the hospital/clinic or delivery at home; 20 patients (64%) were referred direct from obstetric wards, and 4 (13%) were referred from medical and surgical wards.

Results

Age and parity. The collected data were analysed and the patient and the control group were found to be comparable for age. With regard to parity, however, 62% of the controls were primiparas as compared with only 32% of the patient group. A statistically significant difference therefore existed between the groups as regards parity (P < 0,01). Significantly more patients were multiparas, the majority having 2-4 children, while primiparas were over-represented in the control group. A possible reason for the higher proportion of multiparas is given under the ‘Social and cultural factors’ heading below.

### TABLE I. COMPLICATIONS OF LABOUR

<table>
<thead>
<tr>
<th></th>
<th>Patients</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum extraction</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Cesarean section</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Eclampsia</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Neonatal death</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Twins</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Rupture of uterus</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Tubal ligation</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Episiotomy</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>
Complications in previous pregnancies. As opposed to 6% of controls, 38% of patients described complications such as miscarriages, premature deliveries, caesarean section and neonatal death. This difference was statistically significant \( P < 0.001 \).

Somatic symptoms in pregnancy were described by 63% of the patients as against 58% of the controls; however, the quality or type of symptoms varied. Of the controls 30% complained of nausea and vomiting during pregnancy but this was significantly absent in patients in whom serious symptoms such as toxemia and haemorrhage had been evident.

Complications of labour. Table I indicates that complications of labour were significantly more common in the patient group \( P < 0.001 \) than in the controls.

Somatic complications of the puerperium. Table II indicates the somatic complications in the two groups. The difference here between patients and controls was also statistically significant \( P < 0.001 \).

<table>
<thead>
<tr>
<th>TABLE II. SOMATIC COMPLICATIONS OF THE PUEPERIUM</th>
</tr>
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<tbody>
<tr>
<td>Patients</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Fever</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Bleeding</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

* Of 25 patients in the sample (no data available on 6 patients), several had more than one complication.
† Two of the controls had more than one complication.

Social and cultural factors. The two groups were comparable with regard to legal marriage (20% of the patients and 22% of the controls). The pregnancy was considered illegitimate in both the legal and the traditional sense in 80% of the patient group in contrast to only 13% of the control group. This statistically significant difference must be attributed to the lack of observance of the traditional payment of lobola and damages, or to the consequences of the birth of a second child out of wedlock. The existence of other social stresses was determined specifically in relation to interpersonal problems or bereavement in the home or non-performance of the necessary rituals. (Table III). The difference between the two groups in terms of the incidence of these stresses was again statistically significant \( P < 0.0001 \).

<table>
<thead>
<tr>
<th>TABLE III. INTERPERSONAL OR SOCIAL PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients</td>
</tr>
<tr>
<td>Conflict with partner</td>
</tr>
<tr>
<td>Parental disapproval</td>
</tr>
<tr>
<td>Conflict in the home</td>
</tr>
<tr>
<td>Death of family member</td>
</tr>
<tr>
<td>Non-observance of rituals</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Family history. Inadequate data precluded statistical evaluation of level of education and personality, sexual and menstrual histories, but 20% of the patients had a family history of mental illness as compared with 10% of the controls.

Past psychiatric history. This was assessed in terms of psychiatric disorders, either associated with pregnancy or not. No history of any previous mental illness was found in the controls, but 35% of the patients described a previous episode, of which one-third followed an earlier pregnancy. Schizophrenia, manic-depressive psychosis and hysteria were evenly distributed among these conditions.

The condition of the baby at the onset of the mother's illness was assessed. A comparison between the patient group and the control group indicated that in 94% of the controls the condition of the baby was good and no deaths had occurred; only 48% of babies in the patient group were in good condition and 9% died. The difference between the groups in this regard was statistically significant \( P < 0.0001 \).

Clinical presentation. The time of onset of illness was similar in the two groups. In 38% of the patients and 36% of the controls the onset occurred between the 1st and the 6th days, in approximately 20% of both groups in the first 2 weeks, and in virtually all by 3-6 months.

The symptoms are represented in Fig. 1 which indicates that confusion, agitation, anxiety, irritability and hallucinations are predominant. Specific clusters of symptoms were evident in the patients and are presented in Table IV in decreasing order of frequency; this table indicates the high incidence of confusion alone, and of confusion together with other symptoms of agitation. Confusion in this regard is defined as disorientation as to person, time and place. The frequency and duration of these symptoms is depicted symbolically in Fig. 2.

<table>
<thead>
<tr>
<th>TABLE IV. SPECIFIC CLUSTERS OF SYMPTOMS IN THE PATIENT GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptom</td>
</tr>
<tr>
<td>Confusion</td>
</tr>
<tr>
<td>Confusion &amp; agitation (including behaviour and restlessness)</td>
</tr>
<tr>
<td>Confusion &amp; agitation &amp; anxiety</td>
</tr>
<tr>
<td>Confusion &amp; agitation &amp; anxiety &amp; irritability</td>
</tr>
<tr>
<td>Confusion &amp; agitation &amp; anxiety &amp; irritability &amp; hallucinations</td>
</tr>
<tr>
<td>Confusion &amp; agitation &amp; anxiety &amp; irritability &amp; insomnia</td>
</tr>
</tbody>
</table>
Final diagnosis. The initial and final diagnoses appear in Table V. The diagnoses as initially recorded were made by different consultants and registrars in the Department, but on reviewing all available data we discarded the referral diagnosis of 'puerperal psychosis'. In the 8 patients so diagnosed the retrospective assessment suggested that 5 suffered from transient situational disturbances and the remaining 3 from schizophrenia.

**TABLE V. THE INITIAL AND FINAL DIAGNOSES IN THE PATIENT GROUP**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Incidence</th>
<th>Incidence revised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Transient situational disturbance</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Toxic psychosis</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Miscellaneous (manic-depressive psychosis, paranoid state, reactive depression)</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Hysterial</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Undiagnosed</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Puerperal psychosis</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100</td>
</tr>
</tbody>
</table>

**Duration and outcome of illness.** The duration of illness varied; 7 (23%) of the patient group had recovered within 6 days and 15 (48%) within 4 weeks. Almost 75% therefore responded to treatment. Complete remission occurred in 55% of the patients and sudden improvement in a further 29%. Here remission refers to full recovery, whereas improvement indicates that the patient could be discharged and function independently, although certain symptoms persisted. No change was found in 2 patients, and in a further 2 cases the condition deteriorated, leading to referral and admission to a psychiatric hospital.

**Discussion**

It must be emphasized that this is a pilot study; although certain results appear to be statistically significant, these must be validated in more detail and in a larger number of subjects. Nevertheless, the findings indicate that certain observations are possible.

Although the study was conducted over a period of 2 years and although the majority of deliveries took place either at home or in the surrounding clinics, less than 25% of patients referred to the Department during the puerperium were referred from their place of residence. This figure must be regarded as abnormally low. It is suggested that this could be ascribed to poor identification of psychiatric illness by the community or to the fact that the level of tolerance and containment of mental patients in the community, especially in the outlying areas, is remarkably high. It is also noted that the incidence of transient situational disturbances is high — this suggests that the duration of illness may be limited or that alternate methods of treatment by the local traditional healers might be successful. We have noted that rapid improvement appears to occur once a change in the attitude and the acceptance of the pregnancy by the parents has been conveyed to the patient; immediate improvement has also been observed subsequent to the performance of the necessary rituals.

The majority of deliveries took place in King Edward VIII Hospital (31 106 of the total of 44 574 in the 2 years studied). There was a tendency for patients at obstetric risk to deliver at the hospital rather than at the peripheral clinics. The patient group can therefore probably be regarded as biased, although a large majority of delivered patients were not at obstetric risk. This bias can possibly influence the findings in relation to parity, admission of multiparas with a history of previous complications, a history of complications in previous pregnancy, the incidence of somatic symptoms in pregnancy, and complications of labour and the puerperium, as these were greatly over-represented in the patient group. However, it can be argued that the results are valid.

In principle our findings in relation to these factors are in agreement with the results of other authors and can be similarly explained. Firstly, antenatal complications and complications of delivery and of the puerperium constitute in themselves a physical and psychological stress, as a precipitant to psychiatric disorders. Secondly, if considered in the psychosomatic perspective, antenatal complications, delivery-room problems and a symptomatic puerperium could be correlated with the puerperal mental disorder by a common denominator. *Inter alia,* this could be an underlying reproductive conflict, uncertain sexual identity, sexual problems, and conflicts over dependency needs.

The duration of the illness varied; 7 of the 31 patients had recovered within 6 days and 15 within 4 weeks. Almost 75% therefore responded to treatment. Complete remission occurred in 55% of the patients with a further 29% showing improvement. A striking finding, however, was that one-third of the controls suffered from 'morning sickness' while none of the patients complained of nausea or vomiting. This is in direct conformity with recorded studies in which some degree of gastric distress is regarded as normal rather than pathological. A moderate degree of nausea and vomiting is said to occur more frequently in emotionally well-adjusted women with a definite feminine orientation, who suffer less puerperal distress and to whom healthier babies are born. Gastric symptoms are more likely to be absent in women with problems of sexual identity or role identification, indicative of a possible denial of pregnancy and, as in this study, psychiatric problems in the puerperium.

Infection appeared to be either a significant aetiological or concomitant factor — fever persisted for some time in 36% of the patients and only 6% of the controls. The symptoms in certain of the patients are possibly related to pyrexia.
The patients and the members of the control group studied were at varying stages of transition from the rural to the urbanized mode of living. Nevertheless, tradition and custom, particularly in relation to marriage, was strongly observed. This was evident in the generation to which the parents of both groups belonged, who subscribed to the custom of the payment of lobola, which constituted acceptance of marriage, or payment of damages as a recompense for pregnancy.

In only 13% of the controls was lobola or damages not paid, as against 79% of the patients. This discrepancy suggests that this is another anxiety-provoking factor, possibly related to the high incidence of parental disapproval. Further stress arose from conflicts within the home, either familial or husband/partner-related.

There was an unexpected low overall figure for cohabitation with the husband or male partner (10% of patients and 36% of controls). Despite the number of patients living in the extended family situation, more controls lived with the child’s father than did patients. This suggests a possible additional stress factor in the form of a lack of male support during the pregnancy and parturition. However, particularly in rural areas, it is the rule rather than the exception for the women to reside in the domain of the extended family of the husband’s parents while the men seek employment in the cities.

Unfortunately, insufficient data were available to draw meaningful conclusions about family characteristics and relationships and other cultural factors. For similar reasons personality assessment and an accurate sexual and menstrual history could not be obtained, although these have been regarded as meaningful by other authors.

There was support for the findings of other authors that disturbed mothers tend to have distressed babies, or that distressed babies create a stressful situation that precipitates psychiatric disorder of the puerperium. The babies of only 6% of the controls were distressed whereas this occurred in approximately half of the patients studied. Without a detailed analysis of the type of illness, symptoms, onset and duration in each instance, however, it is impossible to postulate cause or effect.

It is apparent that 56% of patients presented with symptoms within 2 weeks and a further 13% within the next 4; thus the onset of the disorder is relatively rapid. In 90%, reality testing was impaired to a degree severe enough to indicate a psychotic illness. The remaining 10% displayed evidence of a dissociative type of hysteria in which loss of contact with reality was evident. The most common symptom was confusion, present in 74% of patients, and associated with agitation, anxiety and irritability in decreasing frequency; a combination of the four symptoms appeared in over 50% of the patients. These findings are in keeping with those described earlier, except for the relatively low incidence (approximately 23%) of depression. This is an unusual finding, particularly in our experience affective disorders in Black patients frequently present with emphasis on somatic symptoms. These symptoms are treated, but the affective component is often missed. Hallucinations, mainly auditory, were present in 50% of patients, but delusions only in 15%. The low incidence of both depression and delusions could be attributed to the fact that mental illness is not easily identified by the community. As described earlier, 21 the recognition of mental illness depends on the observation of abnormal behaviour rather than disordered cognition or affect.

Remission ultimately occurs by virtue of the self-limiting nature of the illness. This will also partly account for the high incidence of schizophrenia, as the affective disorders are frequently not identified. It is also noted that many of our patients are in a state of transition, being resident in an urban area and with reduced or with no adherence to traditional behaviour. A correlation has already been made between the high incidence of psychiatric illnesses in the patients and parental disapproval. This is regarded as a contributory factor severe enough to precipitate a transient situational disturbance. Further proof of the transient and reactive nature of the disorder is the finding of rapid recovery in so many patients, dramatic improvement often occurring after parental approval had been obtained or the necessary rituals promised or performed. Also in keeping with the diagnostic categories and the findings of other authors is the fact that over 50% of patients achieved a full recovery and it was possible to discharge a total of 84% to the normal social environment. Only 2 (6% of the sample) required admission to a psychiatric hospital for prolonged treatment.

Conclusions

Our findings confirm the hypothesis that certain psychiatric disorders during the puerperium are related to cultural factors, such as family disapproval, failure to observe customs, or non-payment of lobola and damages. It was difficult to confirm the suggestion that the disapproval of the ancestors played a significant role, despite confirmatory clinical observations in the past. This is probably accounted for by the fact that it is not readily discussed by a patient, and thus resistance must be anticipated.

The second postulate, that a significant percentage of women with a puerperal psychiatric disability have a history of complicated deliveries or a febrile puerperium, is indicated in our results. Attention is however drawn to the doubtful validity of this section of the study.

The third hypothesis in terms of the transient nature, good prognosis and specificity of the clinical presenting features is borne out by the results which indicate that these features apply to the majority of the patients referred for psychiatric evaluation. We emphasize the investigatory nature of this pilot study, the tendency of the sample to be biased, and the need for an in-depth knowledge of cultural factors in a study of this type. The conclusions reached demonstrate the need for a more detailed prospective study also involving Indian and White patients. A research project of this nature would probably reveal the extent to which cultural features are involved, thus providing some resolution of the current controversy of the biological basis versus the psychosocial/cultural aetiology of psychiatric illness in the puerperium.

REFERENCES