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"Atypical" Depression Following Childbirth*

By BRICE PITT

Introduction

It is common knowledge that women often get depressed after childbirth. Yet there has been little evaluation of what this depression amounts to. Transitory tearfulness in the early puerperium, as observed in maternity wards, is commonplace; has been designated "the Blues" —3rd, 4th or 10th day, Maternity or Mother's— and is generally regarded as a normal phenomenon. It has been variously attributed to psychological difficulties and physical discomfort at the onset of lactation, "narcissistic loss before rediscovery of the child" (Sclare, 1955), perineal soreness and hormonal changes.

At the other extreme, it is now recognized that the commonest of the puerperal psychoses, i.e. those mental illnesses arising post-partum, severe enough to be treated in a psychiatric ward, is depression. From Brooke's (1959) statistics for first admissions to mental hospitals in 1956, there was no overall disparity between the sexes in the rates for schizophrenia, whereas there were 1½ times as many admissions for affective illness in women as in men. This disparity was greatest in the child-bearing years—females to males being as 1·64:1 in those aged 15–44, 1·26:1 in those aged over 45. Pugh *et al.* (1963) found a significantly high admission rate to psychiatric hospitals in the first three months after childbirth, attributable to the high incidence of affective illness. Puerperal depression in the psychiatric hospital has received much study, e.g. by Hemphill (1952), Lomas (1959, 1960 a, b), Douglas (1963), Sim (1963) and Jansson (1964).

What lies between the extremes of severe puerperal depression, with the risks of suicide and, perhaps, infanticide occurring after no more than 1 in 500 births, on the one hand, and the trivial weepiness of "the Blues", said to follow up to 80 per cent. of deliveries (Robin 1962) on the other? The frequent occurrence of states of depression post-partum much less dramatic than the former, yet decidedly more disabling than the latter, is perhaps fairly generally known, but has received little investigation.

A questionnaire circulated by the Association for the Improvement of Maternity Services three years ago found 65 per cent. of mothers describing depression post-partum, and in 25 per cent. of these, symptoms continued for longer than a few weeks. In Sweden, Jacobson *et al.* (1965) gave questionnaires exploring psychiatric symptoms to an unselected sample of women up to one year after childbirth. 25 per cent. had more than six symptoms which had apparently arisen post-partum. The commonest were fatigue, irritability, tension and anxiety.

Some general practitioners have written illuminating reports. Osmond (1953) noted that perhaps the most common post-partum disability was a syndrome of malaise, anergy, backache and fatigue—general debility; he considered that anaemia might contribute to but not wholly explain this condition. Carne (1966) has described how a "vomiting baby" is not infrequently the presenting symptom of the mother's puerperal depression. Ryle (1961) in a retrospective survey, and Tod (1964) in a prospective study, both found an incidence of puerperal depression in their practices of just under 3 per cent.

Most psychiatrists are familiar with the woman at out-patients who has been unwell since the birth of the last child (or even the one before) for a period of weeks, months or more than a year. Indeed, they are likely to see several such for every one ill enough to be admitted to hospital. Yet studies by psychiatrists of these milder disorders are virtually lacking.

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The Research

The research described here was suggested by a Health Visitor's comment on the frequency with which she found newly-delivered mothers to be depressed, and her request for guidance as to why this happened and how to give help.

A survey was planned of National Health Service patients having their babies in the London Hospital, with a view to finding out firstly how many of them became depressed after delivery, and secondly what differentiated those who became depressed from those who did not. Patients were to be assessed initially during pregnancy, at a stage when they might be best adjusted to their condition (the beginning of the last trimester was chosen) and again, at the time of the post-natal examination, 6 to 8 weeks after delivery, to see how they might have changed.

Time was not available to interview every subject on each of these occasions, so a questionnaire was devised as a screening instrument to measure maternal anxiety and depression before and after childbirth. This questionnaire is described in the Appendix. It will suffice to state that it has good test re-test reliability and validity correlations, and that its success in finding cases of puerperal depression was significant.

The procedure was that over a period of some months every N.H.S. patient due to have her baby in the London Hospital was presented with this questionnaire, first at the ante-natal clinic, on or about the 28th week of pregnancy, and then again when she attended the post-natal clinic 6 to 8 weeks after delivery. No subject refused to co-operate, but 10 per cent. were unable to do so because of language difficulty. Further, of 336 patients given the questionnaire at the ante-natal clinic 65 (19 per cent.) failed to attend the post-natal clinic. However, 34 of these returned questionnaires posted to them, so that altogether 305, or 90·8 per cent. of the sample, were followed through to the late puerperium.

There was a general, highly significant, tendency for questionnaire scores to drop, by a mean of just under 3 points, after delivery. Thus those individuals whose scores *increased* were going against the trend. Those whose scores increased by more than 6 points (i.e. by more than 1 S.D. above the mean difference between a pilot sample's scores in pregnancy and the late puerperium) were interviewed as potential depressives. A random selection of those whose scores were unchanged or diminished were likewise interviewed, as likely to be free from depression and therefore able to act as controls. For the sake of completeness, a number of those whose scores had increased by less than six points were also interviewed.

The criteria for the presence of puerperal depression were that:

i. Subjects should describe depressive symptoms.

ii. These symptoms should have developed since delivery.

iii. These symptoms should be unusual in their experience, and to some extent disabling.

iv. The symptoms should have persisted for more than two weeks.

This last point was stipulated because it was found in a pilot survey that many women could take up to this period to start to adjust to life at home with a new baby after their discharge from hospital.

The *clinical interview* was necessarily limited to about half-an-hour by the pace of the post-natal clinic. Subjects were encouraged to give a spontaneous statement of their feelings since delivery. Their experience of and attitudes to pregnancy, the delivery and the baby were explored, and social circumstances were ascertained.

An index of any depressive symptoms, and their intensity, was recorded on the Hamilton Scale (Hamilton, 1960). There being little time for a full inquiry into previous personality, the Maudsley Personality Inventory (short scale) was administered instead.

From the *obstetric notes* any history of obstetric medical or psychiatric abnormality, menstrual difficulties, physical symptoms in pregnancy, the record of the delivery, blood loss during parturition and success or otherwise in lactation were obtained.

Depressives were sent a follow-up questionnaire a year after the diagnosis was first made.

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Results

Puerperal Depression

Thirty-three, or 10·8 per cent. of the 305 women followed through to the late puerperium, were diagnosed as suffering from puerperal depression (Table I).

In 27 cases the diagnosis was based upon clinical interview, and in six upon postal inquiry. (Two extra patients were added to the group for comparison with controls. One from the pilot sample failed to complete the post-natal questionnaire because she had been admitted to a psychiatric hospital for puerperal depression. The other, who had not completed the ante-natal questionnaire, was seen in the course of another study and found to be suffering from puerperal depression.)

The depression usually began mildly in hospital, where it was to be distinguished from "the Blues" (to which 50 per cent. of the sample surveyed were subject) by its longer duration. A few mothers, though, felt very well while in hospital—all the time or apart from one or two days of "the Blues". Others felt physically rather than emotionally unwell at this time, with such symptoms as fatigue, backache and perineal discomfort.

It was after the return home that depression was always most evident, chiefly as tearfulness, despondency, feelings of inadequacy and inability to cope—particularly with the baby. ("Every other woman seems to be blooming.") Mood was often labile, and any diurnal variation took the form of greater distress in the evenings. Guilt was mainly confined to self-reproach over not loving or caring enough for the baby. Suicidal ideas were present only in the women admitted to psychiatric hospital, and feelings of actual hopelessness were not frequent. Yet many felt quite changed from their usual selves, and most had never been depressed like this before.

Depression was almost invariably accompanied, and sometimes overshadowed, by anxiety over the baby. Such anxiety was not justified by the babies' health; none was seriously ill, and most were thriving. Feeding worries were the commonest. Babies who would not sleep and kept crying were found hard to love, with consequent guilt and anxiety. Overt hostility to the child, though, was rare. Two mothers had great difficulty in accepting their babies as really theirs. A few, while able to satisfy their babies' physical needs, feared spoiling them. Multiparae tended to worry over the older children's jealousy of the new arrival.

Anxiety was also often manifest in hypochondriasis. Somatic symptoms abounded and formed the basis of fears of ill-health. One subject feared (falsely) that her ovaries had been removed in the course of Caesarian section, another feared tuberculosis, another regarded her thyroid as the root of her trouble, and another put her manifold disturbed sensations down to breast-feeding.

Unusual irritability was common, sometimes adding to feelings of guilt. A few patients complained of impaired concentration and memory. Undue fatigue and ready exhaustion were frequent, so that mothers could barely deal with their babies, let alone look after the rest of the family and cope with housework and shopping. Sometimes there was a loss of normal interests.

Anorexia, occasionally associated with nausea, was present with remarkable consistence. Sleep

Table I

Questionnaire Predictions and Clinical Findings at Post-Natal Clinic

Questionnaire Score	Clinical Assessment			Totals
	Depressed	Doubtful	Not Depressed	
Increased by 6 or more	27	5	2	34
Increased by less than 6	2	9	5	16
Unchanged or diminished	4	5	28	37
Totals	33	19	35	87

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disturbance, over and above that inevitable with a new baby, was reported by a third of the patients, taking the form of difficulty in getting to sleep, and nightmares, more often than of early morning waking. Seventeen depressives, as compared with nine controls, lacked their normal sexual interest (χ^2 4·3, $p<0·05$).

One mother described her symptoms as like the pre-menstrual tension syndrome. In two, physical disorders—epilepsy and psoriasis, were exacerbated.

Only a few lacked the support of relatives, but negative feelings for the husband, regarded as unhelpful or unsympathetic, were admitted by just under a quarter of the group.

The mean Hamilton Rating of depressives was 10 points higher than that of controls ($p<0·001$), and the mean questionnaire score at the time was higher by 17.

Only five of the 33 were known to be receiving treatment for their symptoms at the time of the study. Four were having anti-depressives and/or tranquillizers from their G.P.s and the fifth went into a psychiatric hospital and had E.C.T. Some others were getting help indirectly by discussing anxieties about their babies with G.P.s, health visitors or at local Welfare Clinics.

There were a further 19 patients (6·2 per cent.) classified as *doubtfully* depressed after interview, and therefore excluded from study and control groups. These had symptoms which had developed or persisted after the two weeks' "readjustment period", but which were considered too mild or isolated to justify a confident diagnosis of depression. There were, e.g., cases of unusual anxiety unaccompanied by depression, anxiety and depression purely reactive to the babies' real ill-health, prolonged fatigue and/or difficulty in coping in the absence of obvious depression or anaemia, diminution of libido as a single symptom, and the development or reappearance of possibly psychosomatic disorders such as migraine or rhinitis.

Associated Features

Depressives and the controls, found to be free from depression (and numbering 35) were compared in many respects. The most significant differences were in the M.P.I. scores (Table II). (Eight patients who were not interviewed did not complete the M.P.I.)

Thus, according to the M.P.I., depressives were highly significantly more neurotic, and significantly less extraverted, than controls.

The mean age of depressives (27 years) was practically the same as that of controls (27 years 7 months). All the subjects in both groups were *married*. The average *duration of the marriage* was four years and six months for depressives, five years and seven months for controls; this difference is not significant (t:0·96, $p>0·5$). However, 18 depressives, as against nine controls, had been married for *less than three years*, and this difference is probably significant (χ^2 5·4, $0·025>p>0·01$ for 1 d. of f.).

The groups did not differ significantly in respect of social class (χ^2 1·59, $p>0·5$ for 3 d. of f.). This was assessed, according to the Registrar-General's classification, from the subject's occupation prior to motherhood.

The presence of *social stress*, in regard to finances and/or housing, did not differentiate

Table II

Puerperal Depressives and Controls. M.P.I. Scores

	"N" Score		"E" Score	
	Total	Mean	Total	Mean
Depressives (n: 29)	259	8·93	201	6·93
Controls (n: 33)	194	5·88	267	8·91
	$t = 3·64$ $p<0·001$ for 60 d. of f.		$t = 2·83$ $0·01>p>0·005$ for 60 d. of f.	

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TABLE III

Puerperal Depressives and Controls. Dysmenorrhoea

	Dysmenorrhoea	No Dysmennorrhoea	Totals
Depressives	21	13	34
Controls	11	21	32
Totals	32	34	66

(χ^2 4·95, 0·05>p>0·025 for 1 d. of f.)

the groups significantly either. Nine depressives, as against four controls, expressed worries over money (χ^2 3·27, 0·1>p>0·05). Twelve in each group were concerned about their accommodation.

There was a dearth of such obvious *psychological stresses* as illegitimate birth and stillbirth in the study. Nine depressives and seven controls did not want, or at any rate *plan*, their pregnancies; the difference is insignificant. Three depressives had premature or in some small way abnormal babies; so had three controls. There were no significant differences in the baby's sex between the two groups; 18 depressives and 15 controls had boys. Of eight depressives who admitted a sex preference during pregnancy, four had babies of the sex preferred, while of 15 controls eight had babies of the preferred sex—i.e. the proportions are almost identical.

Three depressives and six controls had a history of *previous psychiatric illness*. The difference is not significant (χ^2 1·1, 0·5>p>0·25). Two patients in each group had previously suffered a spell of depression post-partum.

There was a preponderance of physical illness (requiring treatment in hospital but excluding minor operations in childhood) in the previous histories of the depressive group (18, compared with 10 of the controls) which, however, just falls short of significance (χ^2 3·8, 0·1>p>0·05 for 1 d. of f.).

There was a probably significant association of dysmenorrhoea (evident during the past two years) with depressives (Table III). (This information was obtained, from the obstetric notes, on all but four subjects.)

Obstetric Status: Parities in the two groups are set out in Table IV.

There are slightly, not significantly, more primiparae among the depressives (χ^2 1·01, 0·5>p>0·25). On the other hand, there is a probably significant (χ^2 3·97, 0·05>p>0·025) excess *of multiparae 3* among the controls. Seven of the multiparae among the depressives and nine among the controls had had a *previous abnormal delivery*. This difference is not significant (p>0·5).

Anxiety in pregnancy was assessed firstly from the questionnaire scores at the ante-natal clinic. The mean depressives' score at that time was 16, and that of the controls 14. The difference is not significant (t:1·05, 0·5>p>0·25 for 68 d. of f.). Then, at the post-natal clinic interview, subjects were asked about anxieties in pregnancy, which were chiefly over the possibility of an abnormal foetus and over labour. In each group 23 subjects admitted such anxieties. Minor physical

TABLE IV

Puerperal Depressives and Controls. Parity

	Parity							Totals
	1	2	3	4	5	6	7+	
Depressives	25	8	1	–	–	1	–	35
Controls	21	8	6	–	–	–	–	35
Totals	46	16	7	–	–	1	–	70

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symptoms in pregnancy, such as vomiting, constipation, breathlessness and abdominal pains, which might indirectly indicate anxiety over, or negative attitudes towards, pregnancy, were recorded in the ante-natal notes of 12 patients in each group.

The incidence of *complications during pregnancy* is set out in Table V.

Only nine depressives, compared with 18 controls, suffered complications in pregnancy. This is probably significant (χ^2 5·52, 0·025>p >0·01 for 11 d. of f.). The single complication most conspicuous by its relative absence from the depressive group is *toxaemia*, but the difference is not quite significant (χ^2 3·62, 0·1>p> 0·05).

The mean *time in labour* of the depressives was 18 hours 12 minutes—more than four hours longer than that of controls (13 hours 43 minutes) but not significantly (t:1·67, 0·25>p >0·1).

The groups did not differ significantly in respect of complicated *delivery*—induced and prolonged labour, malpresentation, forceps delivery, Caesarian section, manual removal of the placenta, post-partum haemorrhage and the delivery of a premature or otherwise abnormal baby. *Prolonged labour* was commoner in depressives, but not significantly so (χ^2 2·69, 0·25>p>0·1).

Only three depressives, and none of the controls, suffered complications of the puerperium (other, of course, than depression). The slight difference was not significant (χ^2 1·51, 0·25>p>0·1).

Twenty-one depressives, of 30 from whom the information was obtained, and 12 of 28 controls, experienced *transitory tearfulness* ("the Blues") while in hospital after delivery. This difference is probably significant—χ^2 4·35, 0·05>p>0·025 for 1 d. of f.

There were 25 breast feeders in each group. Of these, 12 depressives and nine controls experienced difficulty with feeding—an insignificant difference (χ^2 1·2, 0·5>p>0·25).

Follow Up

Twenty-eight of the depressives completed the questionnaire sent them a year after the post-natal assessment. Sixteen appeared to have fully recovered, taking from a few weeks to several months to do so. But the remainder (3·9 per cent. of total sample) seemed to have made little or no improvement. They described such symptoms as loss of sexual and other interests, irritability, fatigue and ready depression. No special features were found which might have distinguished those who did not improve from those who did.

Discussion

The 10·8 per cent. incidence of puerperal depression is higher than was expected or than has previously been reported. As there was no significant association with primiparity or with past obstetric complications, the fact that the study was of hospital patients is probably irrelevant. The patients' account of the depression as unusual in their experience and as having emerged since delivery is not in favour of an

Table V

Puerperal Depressives and Controls. Pregnancy Complications

	Toxaemia	Toxaemia and Anaemia	Toxaemia and Hypertension	Toxaemia and Pyelitis	Anaemia	Hypertension	A.P.H.	Placenta praevia	None	Totals
Depressives	2	0	1	0	4	0	1	1	26	35
Controls	5	3	0	1	7	2	0	0	17	35
Totals	7	3	1	1	11	2	1	1	43	70

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interpretation that this "puerperal depression" was merely the re-emergence of neurotic traits post-partum after a transitory period of well-being during pregnancy (Irvine, 1948). Nor is it likely that so high an incidence in the puerperium was due to chance alone. Morbidity studies in London general practices (Kessel, 1960; Ryle, 1960) show annual prevalence rates for psychological disorders in women of child-bearing age of 9 per cent. and 10 per cent. respectively. At least six times this rate would be required to account for the incidence of depression in up to two months post-partum shown in this study on the basis of chance.

It is unlikely, therefore, that the incidence has been exaggerated; indeed, it is probably a slight under-estimate, since the questionnaire, though effective, is a rather blunt instrument, and some cases must have "slipped through the net". The prospective research and the use of a questionnaire, encouraging the expression of feelings which mothers are usually diffident about admitting spontaneously to their obstetricians and G.P.s (Malleson, 1953), have probably brought to light emotional disorders commonly overlooked or ignored. Depression of the kind described here must, therefore, be one of the principal complications of the puerperium. There were, too, an additional 6·2 per cent. found at interview to have other psychological symptoms developing or exacerbated in the puerperium.

These findings are broadly in accordance with those of the Scandinavian questionnaire study mentioned earlier in this paper (Jacobson *et al.*).

Only two patients (one of the 33 followed from the ante- to the post-natal clinic, and one of those added to the group for comparison with controls) showed the picture of classical depressive illness, with suicidal ideas, worsening of depression in the morning and early morning waking; both of these were admitted to psychiatric hospitals. In the rest the pattern of symptoms was that of *Atypical Depression*, as described by West and Dally, 1959, Sargant, 1961, and Pollitt, 1965. "Atypical" depression is a milder variant of physiological depression most often seen in younger women or immature personalities. It is atypical either because of the prominence of neurotic symptoms, such as anxiety, irritability and phobias, overshadowing the depression, or because some features are opposite to those of classical depression, e.g. worsening at the end rather than the beginning of the day, early rather than late insomnia. Atypical depression is much more often seen in general practice or the O.P. clinic than in the psychiatric ward. It has been more clearly recognized since the advent of the anti-depressive drugs. This study suggests that a sizable proportion of the cases of atypical depression in the community must arise after childbirth.

Associated Features

If the depressives' high neuroticism and low extraversion scores on the M.P.I. are taken to indicate their previous personalities, they belong to Eysenck's (1952) "dysthymic" category, i.e. with anxious and/or obsessional traits. These are characteristic of the "good", compliant, over-controlled premorbid personality described by Douglas (1963) and Sim (1963) as predisposed to puerperal depression.

On the other hand, Coppen and Metcalfe (1965) showed that patients given the M.P.I. before and after recovery from depressive illness showed a significant decrease in their mean scores on neuroticism and a significant increase in their mean scores on extraversion when the two occasions were compared. Although these were in-patients, with severe depression, unlike the majority of the depressives in this study, the possibility that any degree of depression influences M.P.I. scores casts doubts upon their validity as indicative of previous personality.

The finding that depressives did not differ significantly from controls in respect of previous psychiatric history is unexpected, being at odds with the reports of other workers, e.g. Jansson (1964), Tod (1964). It may be that the illness here described occurs in women who find particular difficulty in their biological role, but function adequately otherwise. The probable significant association with dysmenorrhoea can be interpreted as supporting this theory.

The lack of complications during pregnancy, and of third pregnancies, and the tendency to marriage for less than three years in the group

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of depressives (all probably significant) have not been observed previously, and their interpretation must be speculative. The probably significantly higher incidence of "Maternity Blues" in this group may represent a true association between the two conditions. On the other hand puerperal depression often develops gradually in the early puerperium, when it may be virtually indistinguishable from "the Blues".

Depression was unrelated to complicated delivery, past or present, to social or obvious psychological stress (as indicated by unplanned pregnancy, and a premature or otherwise abnormal baby) or to endocrine factors as far as such crude indices as P.P.H. (which might lead to hypopituitarism—Sheehan, 1939) or lactation difficulties, might reflect them.

Tod (1964) wrote that pathological anxiety in pregnancy was an important warning sign of puerperal depression. In this study, though, there was no evidence that depressives were significantly more anxious in pregnancy than controls.

Despite the apparent mildness of the depression, 43 per cent. seemed *not to have improved after a year*. The implications of this continuing disability (in just under 4 per cent. of the population surveyed) for the mother, the baby, and indeed the whole family could be grave. There is no evidence that cases failing to improve could have been predicted. All workers in the obstetric field, therefore, need to be aware of the condition so that early treatment can be considered; apparently only two patients of the 12 who did not improve received such treatment (with drugs).

Further research is needed, however, and this is planned. It is intended to survey mothers more directly and intensively, from an earlier stage in pregnancy and at home, to find out the relevance of the place of delivery, constitution, personality, attitude and support at home to the incidence of puerperal depression, any effects of such depression upon the family, and the effectiveness of early treatment with psychotherapy and/or anti-depressive drugs.

Summary

It is well known that women are often depressed after child-birth, but only those ill enough to be admitted to hospital have received much study.

A random sample of 305 maternity hospital patients was given a questionnaire designed to measure anxiety and depression associated with childbirth in the seventh month of pregnancy and again 6–8 weeks after delivery. Potential depressives, whose scores had increased, and potential controls, free from depression, with unchanged or diminished scores, were thus obtained, and the diagnosis was confirmed or excluded by clinical interview. Depressives were followed up by questionnaire one year later.

Thirty-three (10·8 per cent.) subjects developed puerperal depression. In only one of these was the illness classical; in the rest it was *atypical*. Twelve depressives (3·9 per cent. of the total population studied) had not improved after one year. There were also 19 subjects (6·2 per cent.) with new or exacerbated psychological symptoms who were classified as doubtfully depressed.

Depressives differed most from controls in their M.P.I. scores. Their neuroticism scores were highly significantly greater, and their extraversion scores significantly less. It is unsure whether these scores represented their previous personalities, or simply the fact that they were depressed. At probably significant levels, more depressives had a history of recent dysmenorrhoea, more had been married for less than three years, fewer had obstetric complications in pregnancy, and more suffered "Maternity Blues" in the early puerperium. There were no significant differences in respect of previous psychiatric, physical or obstetric disorder, age, endocrine abnormality, complicated labour or obvious psychological or social factors.

Atypical depression is, therefore, a common and important complication of the puerperium, about which more needs to be known.

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Appendix

A Questionnaire Indicating Anxiety and Depression During Pregnancy and the Puerperium

The Questionnaire consists of 24 short questions based upon clinical experience of depressive illness and the special anxieties of childbearing women. The questions, which concern current feelings and experiences, are answered "Yes", "No", or "Don't know". The 24 questions measure 12 "factors", which are hypothetical and not necessarily mutually exclusive. There are two questions per factor, one expecting the morbid answer "Yes", the other "No".

The "factors" are:

i. Depression (Q.s 5 and 17).
ii. Anxiety—general (Q. 10), and over the baby (Q. 22).
iii. Guilt (Q.s 9 and 21).
iv. Irritability (Q.s 2 and 14).
v. Hypochondriasis (Q.s 3 and 15).
vi. Depersonalization—in respect of self (Q. 23) and the baby (Q. 11).
vii. Retardation (Q.s 8 and 20).
viii. Cognition (Q.s 6 and 18).
ix. Dependency (Q.s 12 and 24).
x. Appetite (Q.s 4 and 16).
xi. Sleep (Q.s 1 and 13).
xii. Libido (Q.s 7 and 19).

The first twelve questions inquire about the 12 factors in the following order: Sleep, Irritability, Hypochondriasis, Appetite, Depression, Cognition, Libido, Retardation, Guilt, Anxiety, Depersonalization and Dependency. This sequence is repeated in the next twelve questions.

The instrument is introduced by a brief, reassuring explanation of its purpose and ends with an invitation to the spontaneous expression of current feelings.

Scoring

The pattern of morbid answers is easily remembered, viz.:

1st 6 questions:	No,	Yes,	Yes,	No,	No,	Yes
2nd 6 questions:	No,	Yes,	Yes,	No,	No,	Yes
3rd 6 questions:	Yes,	No,	No,	Yes,	Yes,	No
4th 6 questions:	Yes,	No,	No,	Yes,	Yes,	No

A morbid answer scores 2 points, "Don't know" 1, and a healthy answer 0. The maximum score is 48 points.

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Reliability

A pilot group of 40 subjects were given the questionnaire twice in pregnancy—at 28 weeks and 34 weeks. Test re-test reliability was indicated by the correlation between their scores on these two occasions.

The correlation co-efficient, assessed by Pearson Bravais's product moment, was significantly high: +0·76 ($t = 7{\cdot}2 - p < 0{\cdot}001$ for 38 degrees of freedom).

Validity

Forty early subjects, drawn from the Ante-Natal Clinic, the Maternity Wards and the Post-Natal Clinic in roughly equal proportions, were given the questionnaire and then interviewed. The interviewer, ignorant of their questionnaire score, rated them according to a scale based upon the Hamilton Rating Scale for Depression.

Subjects were then ranked according to their clinical rating and questionnaire scores. The correlation between their rank orders on the two assessments was an indication of the validity of the questionnaire.

Spearman's rank correlation was, in fact, significantly high: +0·78 ($t = 7{\cdot}7$, $p < 0{\cdot}001$ for 38 degrees of freedom).

Means and Standard Deviations

These are calculated from the scores of the first 164 subjects, who completed the questionnaire in the maternity wards as well as at the ante- and post-natal clinics.

i. 28 weeks' pregnant	Mean 14·46	S.D. 7·9
ii. 7–10 days post-partum	Mean 11·89	S.D. 7·7
iii. 6–8 weeks' post-partum	Mean 11·82	S.D. 7·9

Also, from the scores of the 40 subjects who completed the questionnaire twice in pregnancy (for the assessment of test re-test reliability):

iv. 34 weeks' pregnant	Mean 15·6	S.D. 7·3

Questionnaire

Name ....Date of Birth CONFIDENTIAL

We are asking you these questions in order to find out how you feel about things during this time of having your baby. Your answers will help us to help you. We want your answers to tell us how you feel *at the present time*, that is today, or over the past few days.

Please read the questions carefully and then answer as frankly and honestly as you can. Just answer "Yes" or "No", putting a circle round your own answer. If you really cannot make up your mind you may put a circle round "Don't know", but try to avoid this if you can.

Don't spend too much time on any one question, but please don't miss any out. After you have finished the questions you are invited to write a few of your own words about the way you feel in the blank space at the bottom of this form.

At the present time—

1. Do you sleep well?	Yes	No	Don't know
2. Do you easily lose your temper?	Yes	No	Don't know
3. Are you worried about your looks?	Yes	No	Don't know
4. Have you a good appetite?	Yes	No	Don't know
5. Are you as happy as you ought to be?	Yes	No	Don't know
6. Do you easily forget things?	Yes	No	Don't know

At the present time—

7. Have you as much interest in sex as ever?	Yes	No	Don't know
8. Is everything a great effort?	Yes	No	Don't know
9. Do you feel ashamed for any reason?	Yes	No	Don't know
10. Can you relax easily?	Yes	No	Don't know
11. Can you feel the baby is really yours?	Yes	No	Don't know
12. Do you want someone with you all the time?	Yes	No	Don't know

At the present time—

13. Are you easily woken up?	Yes	No	Don't know
14. Do you feel calm most of the time?	Yes	No	Don't know
15. Do you feel that you are in good health?	Yes	No	Don't know
16. Does food interest you less than it did?	Yes	No	Don't know
17. Do you cry easily?	Yes	No	Don't know
18. Is your memory as good as it ever was?	Yes	No	Don't know

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At the present time—

19. Have you less desire for sex than usual?	Yes	No	Don't know
20. Have you enough energy?	Yes	No	Don't know
21. Are you satisfied with the way you're coping with things?	Yes	No	Don't know
22. Do you worry a lot about the baby?	Yes	No	Don't know
23. Do you feel unlike your normal self?	Yes	No	Don't know
24. Do you have confidence in yourself?	Yes	No	Don't know

Is there anything you want to add about your feelings at the moment? If so, please write it here.

Signed ....

Date..................................

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