Postnatal depression in the community

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SUMMARY

Background. *Postnatal depression affects 15% of all women delivered. Good practice in antenatal and postnatal care suggests that regular contact should take place with members of the primary health care team (PHCT) but, despite this, many cases of postnatal depression are probably not detected. It is also widely perceived that depressed women consult more frequently about themselves and their babies, but it is not clear whether the number of contacts with the primary health care team as a whole reflects this.*

Aim. *To determine whether the use of the Edinburgh Postnatal Depression Scale (EPNDS) at postnatal examination would detect women not recognized as depressed by the PHCT. To determine whether the number of contacts with the PHCT could be used as a screening tool for postnatal depression.*

Method. *The EPNDS was administered at postnatal examination to 176 women delivering their babies between 1 April 1995 and 31 October 1995. Contacts with PHCT members were recorded up to the 42nd day after delivery, together with their assessment of the subjects' mental health.*

Results. *Of 30 women scoring ≥12 on the EPNDS, only 13 were perceived to be depressed by the PHCT. The team as a whole identified more depressed women than any individual professional group. There was no significant difference in the number of contacts made with professionals by women who were or were not depressed. Asian women were more likely to be depressed than women from other ethnic groups.*

Conclusion. *Despite the PHCT as a whole identifying more depressed women than any individual group, more than half were not identified by professionals. Tools such as the EPNDS should be used routinely in primary care; there is an urgent need to validate the EPNDS for non-Caucasian women.*

Keywords: postnatal depression; women's health; primary health care team.

Introduction

DEPRESSION is a major cause of ill health in the United Kingdom (UK) and has been targeted by the government as an area for action.[1] The 'Defeat Depression' campaign[2] has stimulated an interest in the ability of general practitioners (GPs) to diagnose and treat depression. It has been shown[3] that the use of self-rating questionnaires by patients improves the ability of their doctors to make a diagnosis of depression, but there is still some debate among GPs about whether the disorder identified by scales, such as the General Health Questionnaire, is the same as 'depression' as they understand it.[4,5] Nonetheless, it appears that GPs fail to identify 22–55% of patients attending who are probably depressed[6] and, although rating scales should not be seen as a substitute for clinical diagnosis, it is clearly appropriate to use screening tools for mental illness just as fully as in other areas of medical care.[7] Johnstone and Goldberg[8] demonstrated that 'the effects of case detection and treatment were beneficial and immediate', particularly in shortening the illness, and the development of a group of drugs (the selective serotonin reuptake inhibitors) that are effective, safer, and have fewer side effects than the tricyclic antidepressants[9] adds weight to the argument for screening for, and treating, depression in the community.

Postnatal depression (i.e. clinical depression occurring in the 12 months after childbirth) affects 15%[10] of all women delivered, and, with approximately 600 000 deliveries per year, large numbers of women will fall into this category.

There is increasing evidence that postnatal depression affects the quality of the mother/child–relationship and may have longer-term detrimental effects on the child's cognitive development.[11] Current good practice in antenatal and postnatal care provides the opportunity for regular contact with members of the primary health care team (PHCT) but, despite this, Cox *et al*[12] have suggested that many cases of postnatal depression are not detected by GPs. Similarly, Briscoe[13] confirmed that health visitors are not detecting some cases of postnatal depression. Because of the increasing emphasis that is being placed on the PHCT functioning as a team, this study was designed to investigate whether the team as a whole would identify a greater proportion of women suffering from postnatal depression. The Edinburgh Postnatal Depression Scale (EPNDS) was developed by Cox *et al*[12] as a ten-point self-reporting scale that could be used as a screening tool to identify women who are probably depressed, and it has been validated in the community.[14] The EPNDS was therefore used in this study.

It is also widely perceived that depressed women consult more frequently about themselves and their babies,[15] although Seeley *et al*[16] indicated that this was not the case for health visitor contacts. It is not clear whether the number of contacts with the PHCT as a whole reflects the mother's mental health, and so the study was also designed to determine whether the number of contacts with the PHCT could be used as a screening tool for postnatal depression.

Method

This study was carried out in seven practices in the Bolton area by eight GPs of the Bolton Research Group. The EPNDS has been validated previously and is considered to be reliable[14] (sensitivity 95% and specificity 93% at a score of >11). Each participating GP piloted the EPNDS on two patients (totalling 16) attending for postnatal examination during the month of March 1995 to see if there were any problems in the procedure. No problems were experienced.

The main study was carried out between June and December 1995. The subjects were mothers who delivered their babies between 1 April and 31 October 1995 and attended for their post-

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natal examination. Patients who were unable to read or speak English were excluded, as were those who had suffered a neonatal death or whose babies had major congenital abnormalities. A total of 185 women took part in the study.

General practitioners, health visitors, and midwives recorded the number of routine and non-routine contacts made during the postnatal period. Contacts were recorded up to the 42nd day after delivery, and postnatal examinations were conducted between six and eight weeks after delivery. Health visitors and midwives were also asked to record whether or not they were 'aware of a mental health problem' in the mother, with 'yes' or 'no' as the possible responses, and this was recorded before the results of the EPNDS were known.

While attending surgeries for their postnatal examination, mothers were given an explanatory note about the aims and objectives of the study. Confidentiality and anonymity were assured. They were asked to give consent if they were willing to participate in the study and were then given the EPNDS to complete. During the postnatal examination, GPs were also asked to record whether or not they were aware that the patient had a mental health problem, again with 'yes' or 'no' as their possible responses, and the EPNDSs were scored by GPs only after they had recorded their opinion of the patient's mental health. Care was taken to ensure that, if a woman was identified as depressed on the EPNDS and, in particular, if her answer to question 10 (suicidal risk) was positive, appropriate help was offered at the consultation.

Ethical consent was obtained for the study from the district ethics committee.

Results

Data were collected from 185 postnatal women from seven practices. No woman refused to take part in the study, but four were excluded: two women of Asian origin could not read English, one woman suffered a neonatal death, and one baby had a congenital abnormality. Variables entered for analysis were age, EPNDS score, total contacts, gravida, parity, ethnic origin, and length of hospital stay. Total contacts represented the sum of routine and non-routine contacts (face-to-face and by telephone) with the GP, health visitor, and midwife. EPNDS scores were available for 176 women: the mean score was 7 (SD 4.9, range 0–23). Nine women did not attend for their postnatal examination within eight weeks of delivery.

For further analysis, the EPNDS scores were divided into a non-depressed (<12) group and a depressed group (≥12). A total of 30 out of 176 women (17%) were in the depressed group. There was no significant difference between the GP practices in the proportion of depressed women ($\chi^2 = 4.06$; $P = 0.13$). Comparison was made between the professional's perception of the woman's mental health and her score on the EPNDS (Table 1). The ability of GPs, health visitors, and midwives to identify depressed postnatal women was estimated by comparing their perception of a problem with the EPNDS category (score <12 or ≥12). The professionals' sensitivity, specificity, and predictive value were calculated, as was a composite of all three professional groups as in a functioning PHCT (Table 2).

Analysis of EPNDS by ethnicity (Table 3) showed a significant difference between white Caucasian and other women (Fisher's exact test, $P = 0.0003$). This relationship was maintained when the two Afro-Caribbean women (one of whom was depressed) and the Middle Eastern woman (who was also depressed) were excluded from the analysis (Fisher's exact test, $P = 0.002$).

The number of contacts made by professionals with the postnatal women varied from seven to 29 (median 14, mode 12, range 22). This was further analysed by dividing the subjects into depressed (EPNDS ≥12) and not depressed (EPNDS <12), as shown in Figures 1 and 2. There was no significant difference in the number of contacts with depressed women (Mann–Whitney $U = 927.5$; $P = 0.37$).

Table 1. Perception of mental health problem by professionals compared with EPNDS score.

	Mental health problem perceived	No mental health problem perceived
General practitioner (n = 172)		
EPNDS ≥12	9	18
EPNDS <12	6	139
Health visitor (n = 162)		
EPNDS ≥12	5	20
EPNDS <12	9	128
Midwife (n = 137)		
EPNDS ≥12	4	15
EPNDS <12	2	116
Primary health care team as a whole (n = 176)		
EPNDS ≥12	13	17
EPNDS <12	12	134

Table 2. Sensitivities and specificities (all values are percentages).

	GP	HV	MW	Team
Sensitivity	33	20	21	43
Specificity	96	93	98	92
Predictive value	60	36	67	52

Sensitivity is the proportion of true positives detected; specificity is the proportion of true negatives detected; predictive value is the proportion of cases thought to be positive that scored ≥12.

Table 3. EPNDS scores by ethnicity.

	<12	≥12	Total
Caucasian	141	21	162
Asian	5	6	11
Afro-Caribbean	1	1	2
Middle Eastern	0	1	1

Discussion

Use of the EPNDS at routine postnatal examinations has, as expected, brought to light a group of women who are likely to be depressed. This study asked for PHCT members' global assessment of women's mental health, rather than specifically for a diagnosis of depression, in order to avoid problems of the definition of depression between different professional groups. However, even using this deliberately vague definition of depression, and despite an average of 14 contacts in the postnatal period, nearly half the women likely to be depressed were not recognized as such by any member of the PHCT. This emphasizes the need for the team to use a formal tool to detect depression if they are to care effectively for their depressed patients.

Although the health visitors and midwives involved in the study were enthusiastic participants, some difficulty was experi-

enced in collecting full data sets. This perhaps reflects the fact that the study was designed by a GP research group rather than by a multidisciplinary team, and if co-operation is expected from other professional groups they should be invited to participate at an early stage.

The study included only women who attended for their postnatal examination, and Seeley *et al*[16] have suggested that women who are depressed are less frequent clinic attenders than women who are well. It was also limited to women who could read English, and it was therefore disturbing to find that Asian women who completed the EPNDS were more likely to be depressed than white women. Helman[17] reviewed the literature concerning depression as it affected different cultures and concluded that somatization of complaints is frequent in some cultures, particularly Asian groups, and that this is true whether the patients are living in their native country or whether they are immigrants to a new country. This means that questionnaires designed for use in one country will not necessarily be valid in another, even if translated into the patients' native language, and that scoring systems will undoubtedly need to be revalidated for individual patient groups. The EPNDS contains few items relating to somatic symptoms, and Asian patients may tend therefore to have lower scores than Caucasians, even when they are depressed. Thus, despite the relatively high scores in the Asian women surveyed, depression in this group of patients may still be underestimated. The EPNDS has not been validated for Asian women, and there is an urgent need for a tool that could be used with ethnic minority groups; in the meantime, it is essential that women at higher risk of depression, whether by virtue of ethnicity or non-attendance at their postnatal examination, are followed up by the PHCT.

There was no correlation between the frequency of contact with professionals and the woman's mental health. Whether this is because women who are depressed are too retarded to make contact with the team or because women who are anxious (but not depressed) are more likely to be noticed by team members is unclear; nevertheless, the lack of correlation emphasizes that the PHCT cannot rely on routine contacts with women to identify those who are depressed.

In conclusion, this study shows that, even when data on new mothers' mental health are collected from members of the PHCT with whom they are most likely to have contact, there remains a group of women who are depressed but are not diagnosed as being so. Although the team as a whole does identify more of these women than any individual professional group, it is clear that a significant number of depressed women are not being diagnosed. PHCTs should routinely use tools, such as the EPNDS, with those patients with whom they are in contact, and should make every effort to follow up those patients who do not attend for postnatal checks. There is an urgent need to develop a similar tool for use with women from ethnic minorities, who appear to be at higher risk of depression.

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