Health professional’s knowledge and awareness of perinatal depression: Results of a national survey

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Summary
Introduction: Postnatal depression affects 14% of women, occurring also antenatally, with potential long-term consequences, making it an important disorder to detect and manage early. In this study we sought to examine knowledge and awareness of perinatal depression in health professionals involved in perinatal care throughout Australia prior to the implementation of a comprehensive screening program, aimed at improving detection and access to appropriate management.

Methods: A random sample of General Practitioners (GPs) and Maternal Child Health Nurses (MCHNs) and Midwives, in regions throughout Australia to be subsequently targeted by a screening and education program, were invited to participate. Responses to a hypothetical vignette and a knowledge questionnaire, as well as details of experience were completed.

Findings: Questionnaires were completed by 246 GPs, 338 MCHNs and 569 midwives, with overall response rates; GP’s 23%; MCHN’s 55% and midwives 57%.

Although knowledge level was similar among professional groups, MCHNs had higher levels of awareness of perinatal depression. Both GPs and MCHNs were more likely than midwives to recognize the need for providing help to women with emotional distress. Depression was more likely to be considered postnatally than antenatally in all groups, with GPs most likely to provide this diagnosis. GPs had a significant propensity to recommend antidepressants, and midwives to select non-specific medications.

Conclusions: Health professionals responding to this survey had a high awareness and similar knowledge base. Further education on antenatal depression and the safety risks and alternatives to medication is important for all groups, but particularly important for midwives and GPs. The latter is especially relevant given the preference for women with perinatal depression not to use pharmacological interventions to treat their emotional distress.

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Introduction

Pregnancy and early parenthood has been recognised as a time of significant risk for the development of an emotional disorder. We have previously argued that routine screening is particularly important in the perinatal period, where the prevalence of depression is high; 12% antenatally, 13% postnatally, and that the potential consequences to the woman, her partner and child can be long term.

Studies have shown that detection of depression by health professionals increases with routine use of a screening tool. The most frequently used screening tool for perinatal depression, the Edinburgh Postnatal Depression Scale (EPDS) has a high sensitivity and specificity, and has been validated antenatally. Evans et al. report that 35.4% potential cases of depression were identified when regular screening was in place, compared to 6.3% when it was not. In another study, only 14 of 27 women with high EPDS were identified as depressed by their routine treating clinician without the use of the screening tool.

One of the reasons for screening for mood disorders during pregnancy and early parenthood is that the need for maternity and early infant care ensures that virtually all-child-bearing women will be in contact with the health system. Though screening in itself does not lead to treatment, involvement in a ‘screening program’ is a potential way of accessing and providing information to those women who are not only depressed but also who are at ‘high risk’ of other poor health outcomes, including parenting problems, but who exclude themselves from health care at other times.

Screening is not just a matter of administering a questionnaire, but using it as a point of discussion in a sensitive manner, and making either a diagnosis or referral to appropriate treatment services. Studies have suggested that the highest attendance in the early postpartum period by women is at Maternal Child Health Centres and at GPs, though many women seen by pediatricians in this time period are also depressed. Diagnosis or treatment of depression by obstetricians appears to be uncommon. Already many MCHNs do screen for depression but there is no national routine approach to this; only New South Wales stipulates that it is to be repeated at the completion of the study. In addition, the project involved screening antenatally and postnatally with the EPDS and other questionnaires, provision of depression information routinely, staff education and state-specific intervention programs and meetings with key stakeholders.

Participants

General practitioners

To ensure a representative and unbiased selection of GPs, the name of every Division of General Practice (DGP) in six states of Australia (total number, when survey conducted = 117) was put into alphabetical order. At the time of these surveys, the ACT was not involved and the Northern Territory did not participate due to inadequate funding and staff to provide a leading role here. Divisions of General Practice support the GPs in their region, for example, with educational needs. Every 3rd DGP was contacted by telephone and asked if GPs in their Division would participate in the survey. To assure anonymity of the GPs completing the survey, those DGPs that agreed to participate were provided with pre-packed questionnaires and asked to, at their discretion, select and post questionnaires to 25 GPs in their area. A reply-paid envelope was also provided for completed questionnaires. The research office confirmed with each DGP office that this occurred.

Six or more DGPs in each state (n = 6) were approached to participate. A low response rate was anticipated and this approach was used to ensure an adequate sample size was achieved. A total of 62 DGPs were invited to participate with 19 declining this invitation citing either a lack of interest, a lack of appropriate inducement for their GPs to complete the surveys or concern about over burdening their GPs with additional paperwork.

In total, the questionnaires were posted to 1075 GPs; 25 from each of 43 DGPs across Australia.
Midwives and maternal-child health nurses

Midwives (n = 995) from hospitals participating in the National Postnatal Depression Program and MCHNs (n = 610) from associated regions were requested to complete the questionnaires prior to receiving information about the program and training about the recognition and management of perinatal depression.

Questionnaires

Two self-report questionnaires were provided — a Depression Vignette and a Knowledge Questionnaire. Respondents were also asked to describe their own professional experiences with perinatal women.

The content of the Knowledge Questionnaire was based on the work of Watts and Pope. On a 10-item questionnaire, respondents were to select the best response from four options. Correct answers were given a score of 1; incorrect answers were given no score. A total score out of 10 was calculated and converted to a percentage. Mean scores were then compared between health professional groups.

The Depression Vignette was based on the work of Jorm et al. and described a hypothetical woman, Mary, who was suffering from an antenatal or postnatal mood disorder. Respondents were first asked to complete a series of questions related to the antenatal and then postnatal vignettes. Respondents rated, on Likert scales, what they felt Mary’s problem was and whether a range of people, medications, treatments and lifestyle changes would be ‘not useful at all’, ‘moderately useful’, ‘very useful’ or ‘don’t know’, for the person described in each vignette.

Management approaches to Mary’s illness were also questioned: If you saw Mary how likely would you be to provide interventions such as ‘providing support and counselling’, ‘recommending counselling or medication’, ‘suggesting Mary attends a mother’s group’, ‘liaising with Mary’s MCHN or GP’ [WHO IS THE HEALTH VISITOR?], and ‘referring Mary to a specialised mental health service’. Responses were rated from 1 (very likely) to 5 (unlikely).

Assessment of awareness of depression was based on methodology described by Jorm et al. High ratings for positive awareness on questions related to recognition of depression, need for help and appropriate treatments, and low scores on these questions giving a negative awareness score, suggesting they were less likely to miss the diagnosis or need for help. The sum of positive and negative awareness scores (maximum possible score of 10 and –10, respectively) was derived for each questionnaire, and a mean value obtained across all questionnaires.

Findings

Two hundred and forty six GPs, 338 MCHNs and 569 midwives returned questionnaires. This reflected response rates of 23%, 55% and 57%, respectively, for each profession. Results of the knowledge questionnaire are reported in Table 1. Overall, MCHNs had the highest mean score (70.3). This compared to an overall mean for GPs of 60.7 which was significantly affected by the very low Queensland mean (GP mean score 66.1 without Queensland GPs). Midwives had a mean score of 64.0.

Positive and negative awareness scores are presented in Table 2. Comparisons were made using Analysis of Variance (ANOVA). There was no significant difference between the GPs and either MCHNs or midwives on positive awareness scores. There were, however, significantly lower negative awareness score for the GPs compared to both midwives and MCHNs (p < 0.001). There were no significant differences between midwives and MCHNs.

Responses to key questions in the Vignette are presented in Table 3. To the question “What do you think is wrong with Mary?” 79% of health care professionals provided an adequate diagnosis of depression (i.e. depression, antenatal depression, postnatal depression or perinatal depression).

### Table 1 Knowledge questionnaire

<table>
<thead>
<tr>
<th>Professional group</th>
<th>New South Wales (mean (S.D.))</th>
<th>Queensland (mean (S.D.))</th>
<th>South Australia (mean (S.D.))</th>
<th>Tasmania (mean (S.D.))</th>
<th>Victoria (mean (S.D.))</th>
<th>Western Australia (mean (S.D.))</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>61.3 (18.2)</td>
<td>33.5 (35.6)</td>
<td>69.8 (15.1)</td>
<td>67.5 (13.9)</td>
<td>61.6 (20.1)</td>
<td>70.5 (17.2)</td>
</tr>
<tr>
<td></td>
<td>n = 38</td>
<td>n = 40</td>
<td>n = 40</td>
<td>n = 8</td>
<td>n = 8</td>
<td>n = 37</td>
</tr>
<tr>
<td>MCHNs</td>
<td>78.0 (15.8)</td>
<td>70.8 (15.7)</td>
<td>64.5 (18.5)</td>
<td>70.0 (17.8)</td>
<td>65.7 (20.0)</td>
<td>73.1 (16.8)</td>
</tr>
<tr>
<td></td>
<td>n = 25</td>
<td>n = 26</td>
<td>n = 101</td>
<td>n = 18</td>
<td>n = 69</td>
<td>n = 99</td>
</tr>
<tr>
<td>Midwives</td>
<td>67.8 (18.5)</td>
<td>64.3 (28.4)</td>
<td>65.1 (15.2)</td>
<td>59.0 (24.7)</td>
<td>59.6 (19.7)</td>
<td>68.7 (17.5)</td>
</tr>
<tr>
<td></td>
<td>n = 111</td>
<td>n = 21</td>
<td>n = 109</td>
<td>n = 10</td>
<td>n = 127</td>
<td>n = 181</td>
</tr>
</tbody>
</table>

* p < 0.05; refers to between health groups within State.

### Table 2 Positive and negative awareness scores

<table>
<thead>
<tr>
<th>Professional group</th>
<th>N</th>
<th>Mean positive awareness (S.D.)</th>
<th>Mean negative awareness (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>227</td>
<td>7.1 (2.7)</td>
<td>–0.2** (2.3)</td>
</tr>
<tr>
<td>MCHNs</td>
<td>338</td>
<td>6.9 (2.4)</td>
<td>0.8 (1.7)</td>
</tr>
<tr>
<td>Midwives</td>
<td>567</td>
<td>6.5 (2.9)</td>
<td>0.8 (2.1)</td>
</tr>
</tbody>
</table>

** p < 0.001.
Depression was more likely however, to be considered in all groups postnatally. Pair wise comparisons using t-tests showed that GPs were more likely to provide an accurate diagnosis than the midwives or MCHNs (95% CI; 3.9–14.9 MCHNs, 6.9–16.6 Midwives). There was no significant difference between MCHNs and GPs on whether further assistance was needed, but both were significantly more likely than the midwives to think Mary needed help (95% CI; 4.0–13.0).

The greatest difference among health professionals was in the use of antidepressants. Antenatally, GPs were significantly more likely to choose these than either MCHNs or midwives (95% CI 8.4–23.2 and 20.9–34.3, respectively). This remained significant postnatally compared to the midwives (95% CI 3.0–9.6) but not the MCHNs. Inappropriate treatments included antibiotics, analgesics and antipsychotics. There were no significant differences among groups antenatally, but significantly more midwives than GPs selected these postnatally. When broken down further, antipsychotics accounted for almost all of the response, in all health professional groups.

GPs had been in practice for an average of 18.7 years, MCHNs 17.4 years and midwives 13.5 years. Neither level of knowledge nor years of experience significantly affected the responses to the vignette as assessed via a MANCOVA analysis.

### Discussion

This study reports on a survey of the awareness and knowledge of health professionals regarding perinatal mood disturbances. Whilst much has been done with postnatal mood disorders, there has been little focus on antenatal disorders until Evans et al. drew attention to it. This is particularly significant for midwives who have often been neglected in regards to education or acknowledgment of their role in the detection of antenatal depression.

Prior to the implementation of this survey, a number of Australian MCHNs were already involved in screening for depression, with most using the EPDS. This has been supported by training and education about the detection and management of depression.

For GPs, education has been patchy and largely Pharmaceutical Company-sponsored. Recent advances in GP mental health training through private and government programs such as ‘Sphere’ and ‘Better Outcomes in Mental Health’ and increased financial remuneration for GPs who see patients with a mental health problem has improved, to some degree, the levels of care provided. However, specific and specialized training in perinatal depression remains unfulfilled.

A high level of awareness of depression was present in all professional groups postnatally, with the GPs the most aware. This finding may possibly reflect a biased sample due to a low response rate in this group (23% of GPs approached), with a higher proportion of those interested and educated in this area responding. Response rates for MCHNs and midwives suggest that their responses are more likely to be representative.

All health professional groups responded differently to the antenatal and postnatal scenarios. Pregnancy appeared to be a time of either missing the diagnosis or as being overly cautious or uncertain about treatment, thereby withholding antidepressants (where appropriate) or inappropriate medications (antipsychotics). This most likely reflects reluctance by women to use medications during pregnancy and a concern by health professional of the possible teratogenic effects of medication on the growing fetus. This may reflect less knowledge in the midwives, as evidenced by the lower knowledge questionnaire scores, or a focus on puerperal psychosis by this group of professionals in order to ensure detection of all cases. This latter point might also explain the increase in antipsychotic use suggested by all health professionals postnatally.

All groups have potentially heard of postpartum psychosis and may have considered this when reading the vignette. The group with best diagnostic skills (GPs) appeared less concerned than midwives and MCHNs that the vignette description reflected a psychosis, possibly because they recognized it as a typical depression without psychotic features, although there was still a number who considered antipsychotic medications. Unlike MCHNs and midwives, GPs deal with a wide range of disorders in different age groups and genders. Whether this explains the very low results in the knowledge questionnaire in the Queensland GPs, is unclear. One possible explanation is that due to the geographical challenges of the state, education on perinatal mood disorders had not reached the more remote areas, as well as some GPs seeing few perinatal women, contributing to the wide standard deviation. If this were the case however, it would expected that similar problems would emerge in Western Australia where the geographic challenges would be similar. In the light of major concerns about the checking of qualifications and supervision of rural and remote Doctors in Queensland that has resulted in a recent major enquiry and recommendations for significant

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Vignette responses – diagnosis and treatment</th>
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<tbody>
<tr>
<td>Vignette response</td>
<td>GP (%)</td>
</tr>
<tr>
<td>Depression diagnosis at any time</td>
<td>91.1*</td>
</tr>
<tr>
<td>Need of assistance</td>
<td>91.7*</td>
</tr>
<tr>
<td>No medication antenatal/postnatal</td>
<td>7.4/0.4</td>
</tr>
<tr>
<td>Antidepressants antenatal/postnatal</td>
<td>77.8*/96.7*</td>
</tr>
<tr>
<td>Inappropriate medications antenatal/postnatal</td>
<td>4.1/16.0*</td>
</tr>
</tbody>
</table>

* p < 0.05.
disciplinary and legal action, another possibility is that this is a true reflection.

MCHNs, who had the highest knowledge scores, may have a high awareness, which has not translated into diagnosis but rather an index of suspicion. In reality, these nurses would urgently refer such suspected cases to a medical service and their high selection of antipsychotics may reflect this heightened awareness and need for an action plan, rather than poor knowledge. With hospital stays being mostly brief, postpartum psychosis is most likely to be identified by primary health care professionals, so this awareness is important if we are to avoid tragedies.

In a recent tragedy in Australia, both a MCHN and GP had seen a woman one week postpartum, who subsequently killed herself and her two children two days later. This highlights that whilst postpartum psychosis is a rare condition (1 in 600), the outcome if it is not detected promptly and managed, can be tragic.

The greater knowledge of perinatal depression in MCHNs is likely to reflect the fact that they are the main health professionals who have been involved in screening to date and who primarily focus on this group of women. Lack of knowledge of treatments is less of an issue, provided they have a suitable service to which to refer these women. However, adoption of the medical model and need to not miss the more rare psychotic disorder may contribute to some reports by women of excessive concern and fear of overmedication of postpartum distress.

The results from the MCHNs suggests that, with increased training, midwives could increase their awareness of antenatal depression — with the advantage of being able to help women earlier. GPs strengths appeared to be in diagnosis, but more training is required regarding antenatal depression, and safety of medications. Women themselves do not appear to readily present to health professionals for emotional needs and whilst public education in reducing stigma is crucial, it is likely to be slow and health professionals are in a better position to identify the source of the problem.

This study has a number of limitations. Hospitals involved were largely public services in major cities. Whilted we did have a representation of private, rural and remote, these were largely opportunistic rather than randomised. Response rates are low for GPs and may not be representative. These limitations are balanced by the fact that the numbers are high, and it is an Australian wide study (albeit neither territory was included in this sample).

Conclusions & implications

Overall, the knowledge and awareness amongst health professionals in this sample of postnatal depression was high. MCHNs were best informed about this disorder and this suggests that their continual close work with new mothers, together with ongoing education and training, has put them in a key position to identify these women. Further education is needed to increase awareness of antenatal depression, particularly in midwives, as well as to assist GPs to develop depression management plans. A heightened awareness of psychosis is important but more so the ability to differentiate the far more common postnatal depression and avoidance of overmedicating the vast majority of patients who present with mild forms of this disorder.

Acknowledgements

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