

PB-PG-0407-13232 – NIHR Research for Patient Benefit Programme – Final report

Project title: MUMS 4 MUMS: structured telephone peer support for women experiencing postnatal depression. Pilot and exploratory RCT of its clinical and cost effectiveness

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Plain language summary

Background:

Postnatal depression (PND) can be experienced by 13% of women who give birth, many of whom exhibit disabling symptoms, which can have a negative effect on the mother and infant relationship, with significant consequences in terms of the child's later capacity for affect regulation. Research has shown that providing support to mothers experiencing PND can help reduce their depressive symptoms and improve their coping strategies. The Mums4Mums study aimed to evaluate the impact of telephone peer-support for women experiencing PND.

Methods:

The study adopted the MRC framework for the development and evaluation of complex interventions, and involved a feasibility RCT in which eligible women were randomly allocated to receive the Mums4Mums intervention (which comprised telephone support delivered by trained peer-supporters over a four-month period) or standard care. Health visitors in Warwickshire and Coventry Primary Care Trusts screened and recruited potential participants at the 8-week postnatal check using either the Edinburgh Postnatal Depression Scale or the three Whooley questions recommended by NICE (2007). The primary outcome was depressive symptomatology. A range of process data was also collected.

Results:

Recruitment was slow, and despite an extension the total numbers recruited to the study were only half that originally planned (n=28), thereby significantly reducing the power of the study to detect significant change. In addition, drop-out was in the region of 50%, and follow-up interviews highlighted a range of problems for study participants. Despite these difficulties, the results show a positive trend in terms of the reduction of depressive symptomatology.

The qualitative data suggests that those participants who continued with the intervention rated it very highly, and felt that it had improved their low mood, helped to change their outlook on life and improved the relationship with their baby.

Conclusion

Telephone-based peer support may be an effective method of supporting women experiencing PND, but further research is needed to identify effective methods of recruiting and retaining intervention participants.

Keywords

postnatal depression; telephone-based peer support; parent-infant interaction

Summary of research findings

Background:

Affective disorders following childbirth range from 'maternity blues' to postpartum psychosis, a serious condition requiring hospitalisation (Evins & Theofrastous, 1997). Along this spectrum postnatal depression (PND) is classified in DSM-IV as 'a depressive condition that often exhibits the disabling symptoms of dysphoria, emotional lability, insomnia, confusion, anxiety, guilt and suicidal ideation' (APA, 1994). A meta-analysis of 59 longitudinal and epidemiological studies showed a prevalence of PND in the region of 13%, ranging from 3 to 25% of women in the year following childbirth (O'Hara & Swain, 1996). PND has been shown to affect both the mother and her baby, leading to mother-infant relationship difficulties (Loh & Vostanis, 2004) and long-term child behavioural (Alpern & Lyons-Ruth, 1993; Beck, 1999; Murray et al., 1999; Sinclair and Murray, 1998; Welsh-Allis, 1988), cognitive (Sharp et al 1995; Kurtjens & Wolke, 2001), and intellectual problems (Hay et al 2001); particularly for boys from disadvantaged backgrounds (Sinclair & Murray, 1998). The treatment of PND is a public health priority, and recent UK National Institute for Health and Clinical Excellence (NICE) guidance recommends that all women be screened for PND during the first eight weeks postnatally. It also suggests that women experiencing such problems should be offered support from health care professionals and voluntary organisations.

The aetiology of PND suggests the importance of a multitude of contributing factors such as life stresses, difficult infant behaviour, marital conflict, low maternal self-esteem and lack of social support (Dennis, 2003; Miller et al, 1993). Research has shown that factors such as the need to talk to someone who has experienced similar problems, lack of an intimate friend or confidante, the need for support without having to ask for it, and social isolation are all significant in the aetiology of PND (ibid). The use of 8 'listening visits' by specially trained health visitors has been identified as effective in supporting women experiencing PND (Cope & Lawrence, 2007).

A review of non-biological interventions for the treatment of PND identified four evaluations of the effectiveness of peer-support interventions (Dennis, 2004). The first three studies comprised evaluations of a post-partum support group targeting both depressed and non-depressed Canadian women (Fleming et al, 1992), a Chinese evaluation of weekly support group meetings for depressed women only (Chen et al, 2000), and an Australian study of group-based support for postnatally 'distressed' women and their partners (Morgan et al, 1997). The studies suffered from serious theoretical limitations (such as the inclusion of both depressed and non-depressed women) and methodological weaknesses, rendering the results equivocal. The fourth study, however, comprised a Canadian telephone-based peer-support pilot RCT with women identified as being at high-risk of depression (Dennis, 2003). The findings showed significant group differences in depressive symptomatology at the 12-week assessment and support the provision of peer-support to women experiencing PND.

Peer support has been defined as “the giving of assistance and encouragement by an individual considered equal” (Dennis 2003a). Individuals who have similar lived experiences can often offer practical advice and coping strategies of which health professionals may be unaware, and it is suggested that this non- professional approach is vital in helping people to re-connect with their community (Mead and MacNeil 2004). The most comprehensive definition of peer support within a healthcare concept is “the provision of emotional, appraisal and informational assistance by a created social network member who possesses experiential knowledge of a specific behaviour or stressor and similar characteristics as the target population” (Dennis 2003a). The underlying principle in terms of incorporating peer-support into health care is that new knowledge may be understood more effectively when it is communicated by a peer who has shared a common experience (Dennis, 2009).

Development of Mums4Mums: telephone peer-support for mums experiencing PND. Mums4Mums adapted for use in the UK a telephone-based peer-support intervention shown to be effective in Canada (Dennis, 2003), to pilot its use, and provide preliminary data on its effectiveness in reducing depressive symptoms amongst women experiencing PND.

Aims of Study

This study aimed to test the feasibility of conducting a large-scale randomised controlled trial of a telephone based peer-support intervention to reduce depressive symptomology in women with PND.

Research Objectives:

The objectives of the feasibility RCT were as follows:

- i) ascertain the acceptability of a randomised control trial for women with PND;
- ii) explore effective methods of recruitment;
- iii) explore the participants' and health professionals' views about the intervention;
- iv) ascertain the acceptability of the outcome measures;
- v) identify a cost-effectiveness measure;
- vi) provide an estimate of the size of change that might be expected with such an intervention to inform the power calculation for the larger RCT;
- vii) build a working alliance with health care professionals for the larger clinical trial;
- viii) make any necessary adaptations to the intervention and develop a full proposal for a main RCT to be submitted to the MRC in 2012.

Peer-supporters:

Health visitors in Coventry and Warwickshire PCTs identified 18 participants to be trained as peer-supporters. They were recruited by personal invitation using a specification that set out essential and desirable attributes established from stakeholder consultation, including that they had a) recently experienced PND (i.e. within the last five years) b) fully recovered from depression; c) an empathic and non-judgmental disposition; and d) could commit the time to participate in the training and provide the telephone support. Multiple assessments of mental health and social wellbeing were made and their GPs were required to confirm the suitability of individuals identified for the proposed peer-support role.

Participant Recruitment:

Inclusion criteria: women > 16 years of age at the time of giving birth and who were experiencing depressive symptomatology (i.e. EPDS \geq 10 and/or clinical judgment) at or after the 8-week check, and who were potentially receptive to receiving telephone support. Exclusion criteria: women with a score of 23 or above on the EPDS; women who posed a suicide risk or a risk to their children; women receiving specialist psychiatric care or experiencing any mental illnesses (other than PND) or learning difficulties, or who were not able to speak English, or who are not accessible via the telephone. Participation in the study is only undertaken with the consent of the participant and their health visitor.

Recruitment:

All health visitors within Warwickshire and Coventry Primary Care Trusts (PCTs) recruited to the study. Potential participants were screened for eligibility by the health visitors at the 8-week postnatal check.

Intervention group:

All participants received standard care from their GP and health visitor. Women allocated to the intervention group also receive telephone support calls over a period of 4 months from peer-supporters who have been specially trained to deliver the intervention.

Sample Size:

A total of 30 participants were recruited to study. This enabled us to detect an effect size of around 0.6sd using a power of 80% and two-sided significant level of 95%. Analysis of the data was carried out on an intention-to-treat basis.

Outcome Measures

The primary outcome measure was depressive symptomatology, which was measured using the Edinburgh Postnatal Depression Scale (Cox et al, 1987). Secondary outcome measures to assess maternal functioning include: Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983), The Parenting Stress Inventory (Abidin, 1990), Dyadic Adjustment Scale (Spanier, 1989), Emotional Support Questionnaire (Zemore & Shepel, 1989) and Self-Efficacy (Ware & Sherbourne, 1992). The CARE-Index (Crittenden, 1979-2004) was used to assess the interaction between the mother and baby. Maternal perceptions of the telephone peer-support and were assessed using the Peer-support Evaluation Inventory.

Results

EPDS - There was no significant difference between the two groups at baseline. At post intervention the scores in both groups reduced however, the reduction in the intervention group (12.36, SD 4.65) was more than the control group (13.20, SD 3.91). Summary of Quantitative Results

The number of participants that took part in the mums4mums feasibility study was too small to provide any conclusive statistically evidence of the effectiveness of the peer support intervention. There was also a fifty percent drop-out rate from baseline to follow-up which made it even more difficult to analyse the data statistically for any significant outcome to be drawn. However it is fair to conclude, based on these outcome measures that for those participants that took part in the peer support intervention, there was a positive trend in reducing their depressive symptomatology.

Summary of Qualitative Results

We explored the experiences of those participants that took part in the study to provide a deeper understanding of what works in which context. The participants felt the support was better than their expectations, they felt they could talk to their peer supporters about anything and they felt heard and supported. When asked about her mood changes, mum replied “Yes Well I think when I first started talking to my supporter, I was a bundle of anxiety and nerves, I’m a lot happier, that’s the main thing, not depressed now.

Patient and public involvement

We recruited and trained twenty-three peer supporters in total. They were mums who had recovered from PND and were willing to take part in research in order to help other mums. The peer supporters were committed to taking part in the research and carried out all the tasks that were required of them. It was a great experience to build these relationships and to maintain them over time.

We also recruited the help of the 'Improved Access to Psychological Services team. They have a research department that was willing to help us to recruit new mums into the study.

Data sharing statement

See link

[\[https://www.nihr.ac.uk/documents/nihr-position-on-the-sharing-of-research-data/12253\]](https://www.nihr.ac.uk/documents/nihr-position-on-the-sharing-of-research-data/12253) for the NIHR position on the sharing of research data. The NIHR strongly supports the sharing of data in the most appropriate way, to help deliver research that maximises benefits to patients and the wider public, the health and care system and which contributes to economic growth in the UK. All requests for data should be directed to the award holder and managed by the award holder.

Disclaimer

This project is funded by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number PB-PG-0407-13232). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

This project was carried out between August 2008 and December 2011. This final report has not been peer-reviewed. The report was examined by the Programme Director at the time of submission to assess completeness against the stated aims.