

# Improving the mother-infant relationship following postnatal depression: A randomised controlled trial of a brief intervention (HUGS)

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## BACKGROUND

Postnatal depression (PND) is highly prevalent, causes enormous suffering and disrupts the crucial mother-infant relationship on which optimal child development depends. Well-evaluated, brief mother-infant interaction interventions that can be integrated into PND treatment are needed, and have the potential to improve relationships.

This study evaluated the effect of a brief, group mother-infant interaction intervention (“*Happiness, Understanding, Giving and Sharing*”: HUGS), compared to a control playgroup, both following cognitive-behavioural therapy (CBT) for PND, on mother-infant relationships and early child developmental outcomes.

## METHODS

This parallel, two-group randomised controlled trial (RCT) included 77 mothers diagnosed with major or minor depressive disorder and their infants (aged <12 months). Exclusion criteria were current: (1) treatment for depression, (2) suicide risk, (3) self-harm, (4) substance abuse, (5) post-traumatic stress disorder, (6) manic/hypomanic episode, (7) psychotic symptoms, or (8) poor English literacy.

All women received a well-evaluated, manualised, 9-week group CBT program for PND (Milgrom et al., 1999, 2005).

Women allocated to HUGS also received four, weekly 1.5 hour manualised, group sessions of HUGS mother-infant intervention (Milgrom et al., 1999). Session 1: Play and physical contact. Session 2: Observing and understanding baby’s signals. Session 3: Parental responses to infant cues. Session 4: Consolidating gains (booster session).

Women allocated to **control playgroup** received four, weekly 1.5 hour non-directive group sessions. This controlled for possible effects of group membership, social networking, therapist contact and play with infant. Facilitators limited their role to social conversation and general parenting education (e.g., healthy eating).

Primary outcomes were observed mother-infant interactions (Parent Child Early Relational Assessment: ERA) and parenting stress (Parenting Stress Index: PSI). Data were collected at baseline, post-PND treatment, post-HUGS intervention and 6-month post-HUGS follow-up.

## RESULTS

74% of participants in the HUGS condition attended at least half of the HUGS sessions ( $\geq 2$ ).

Significant group differences emerged at the 6-month follow-up: HUGS dyads showed significantly improved parental positive affective involvement and verbalisation (ERA;  $F_{1,47}=4.96, p=.03, \eta_p^2=.10$ ) and less impaired bonding on the Postpartum Bonding Questionnaire (PBQ;  $F_{1,45}=4.55, p=.04, \eta_p^2=.09$ ) than control dyads.

No differences were found on the PSI or early child development. Both groups improved substantially on the PSI following PND treatment (~30 points), so that average scores were below threshold when beginning HUGS.

## DISCUSSION & CONCLUSIONS

HUGS was shown to be effective at improving observer-rated mother-infant interactions, as well as self-reported mother-infant bonding, suggesting that treatment for PND may be enhanced by incorporating HUGS interaction work to target the disrupted mother-infant relationships that tend to accompany PND.

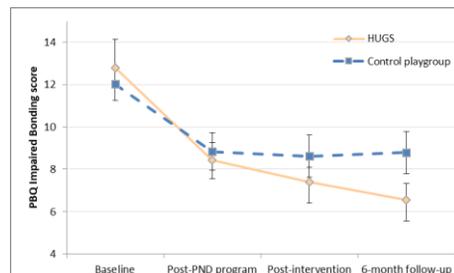
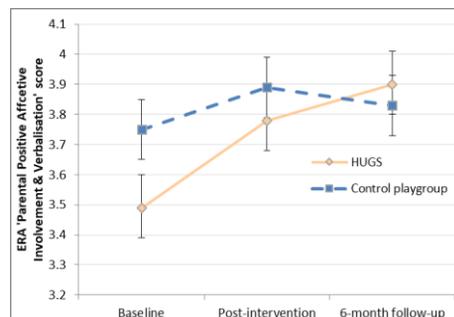
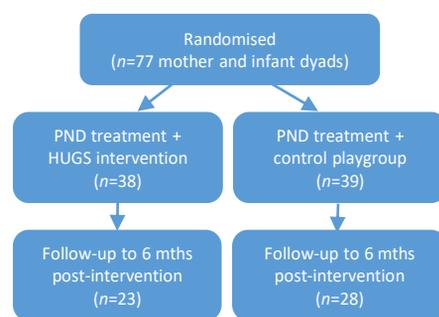
A strength of this study is the rigorously conducted RCT, and measurement of both the mother-infant relationship and early child development, addressing deficits in previous research. Compared to many other mother-infant interventions, a highly novel contribution is that the HUGS intervention is brief and can be added to existing PND treatment.

A longer-term follow-up and larger sample size may be needed for improved mother-infant relationships to show an impact on observable child developmental outcomes.

The huge economic costs associated with PND, a large proportion of which are attributable to the lasting adverse impacts on children (Luca et al., 2020), highlight the importance of this area of research.

## REFERENCES

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