

**Fidelity of interventions to reduce or prevent stress and/or anxiety from pregnancy
up to two years postpartum: A systematic review**

Gregory Gorman^a, Elaine Toomey^b, Caragh Flannery^a, Sarah Redsell^c, Catherine Hayes^d,
Anja Huizink^e, Patricia M Kearney^a, Karen Matvienko-Sikar^{a*},

a. School of Public Health, School of Public Health, University College Cork

b. School of Psychology, Arts Millennium Building, National University of Ireland
Galway, Ireland,

c. School of Nursing and Midwifery, Anglia Ruskin University, Cambridge, England,

d. School of Medicine, Trinity College Dublin, Ireland,

e. Department of Clinical, Neuro- and Developmental Psychology, VU University
Amsterdam, Amsterdam, The Netherlands,

*= presenting author

Abstract

Background. Intervention fidelity refers to whether an intervention is delivered as intended and can enhance interpretation of trial outcomes. Fidelity of interventions to reduce or prevent stress and anxiety during pregnancy and postpartum has yet to be examined despite inconsistent findings for intervention effects.

Objective. This study systematically reviews use and/or reporting of intervention fidelity strategies in trials of interventions, delivered to (expectant) parents during pregnancy and postpartum, to reduce or prevent stress and/or anxiety.

Methods. MEDLINE, Embase, CINAHL, PsychINFO, and Maternity and Infant Care were searched from inception to March 2019. Studies were included if they were randomised controlled trials including expectant parents and/ or parents within the first two years postpartum. The National Institutes of Health Behavior Change Consortium checklist was used to assess fidelity across five domains (study design, provider training, delivery, receipt, enactment).

Results. Sixteen papers (14 interventions) were identified. Average reported use of fidelity strategies was 'low' (45%), ranging from 17.5% to 76%. Fidelity ratings ranged from 22% for provider training to 54% for study design.

Conclusion. Low levels of intervention fidelity may explain previous inconsistent effects of stress and anxiety reduction interventions. Important methodological areas for improvement include intervention provider training, fidelity of comparator conditions, and consideration of non-specific treatment effects. Increased

methodological rigour in fidelity enhancement and assessment will improve
intervention implementation and enhance examination of stress and anxiety
reduction and prevention interventions.