THE EFFECTS OF PRECONCEPTION INTERVENTIONS ON IMPROVING REPRODUCTIVE HEALTH AND PREGNANCY OUTCOMES IN PRIMARY CARE: A SYSTEMATIC REVIEW

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Abstract

Background

Reproductive health and pregnancy outcomes may be improved if reproductive risk assessment is moved from antenatal to preconception period. Primary care has been highlighted as an ideal setting to offer preconception assessment, yet the effectiveness in this setting is still unclear.

Objective

To evaluate the effectiveness of preconception interventions on improving reproductive health and pregnancy outcomes in primary care.

Method

MEDLINE, CINAHL, EMBASE and PsycINFO databases were searched from July 1999 to end of July 2015. Only interventional studies with a comparator were included.

Results

Eight randomised controlled trials were eligible. Preconception interventions involved multifactorial or single reproductive health risk assessment, education and counselling and the intensity ranged from brief involving a single session within a day to intensive involving more than one session over several weeks. Five studies recruited women planning pregnancy. Four studies involved multifactorial risks interventions; two were brief and the others were intensive. Four studies involved single risk intervention, addressing folate or alcohol. There was some evidence that both multifactorial and single risk interventions improved maternal knowledge; self-efficacy and health locus of control; and risk behaviour, irrespective of whether brief or intensive. There was no evidence to support reduced adverse pregnancy outcomes. One study reported no undue anxiety. The quality of the studies was moderate to poor.

Conclusion

The evidence from eligible studies is limited to inform future practice in primary care. Nevertheless, this review has highlighted that women who received preconception education and counselling were more likely to have improved knowledge, self-efficacy and health locus of control and risk behaviour. More studies are needed to evaluate the effects on adverse pregnancy outcomes.

Recent publications

Hussein N, Weng SF, Kai J, Kleijnen J, Qureshi N. Preconception risk assessment for thalassaemia, sickle cell disease, cystic fibrosis and Tay-Sachs disease. Cochrane Database of Systematic Reviews 2015, Issue 8. Art. No.: CD010849. DOI: 10.1002/14651858.CD010849.pub2.

Hussein, N., Kai, J., Qureshi. N., 2015. The effects of preconception interventions on improving reproductive health and pregnancy outcomes in primary care: A systematic review. European Journal of General Practice. (In Press.)

S.S.L. Wong, C.J. Ng, S.M. Liew, N. Hussein. Effectiveness of a colour coded HbA1c graphical record in improving diabetes control in people with type 2 diabetes: A randomized control trial. Diab Res Clin Pract (2011), doi:10.1016/j.diabres.2011.11.001

Robson, NMH.,Aziz, N., Abdul Aziz, AF., Mohamed, M., Othman,S., Hussein, N. 2008. The need for Good Clinical Practice in health care research. South Africa Family Practice. In press.

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Biography

Norita is a Senior Lecturer in the Department of Primary Care Medicine at the University of Malaya, Malaysia. She received her PhD in 2016 from the University of Nottingham, United Kingdom. Her thesis focused on preconception assessment of genetic risk in primary care setting. Her special interest is primary care genetics especially developing strategies to improve genetic risk assessment among the reproductive women. She is also involved in the teaching and training of the postgraduate Master of Family Medicine at the University of Malaya.

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