Preconception care and health behaviours: a systematic review

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Background

• Health and behaviour prior to conception
  - Fertility (Lane et al., 2014)
  - Uterine environment = development and long-term health of foetus (Steegers-Theunissen et al., 2013)
  - Predictor of pregnancy behaviour and health outcomes (Hinton and Olson, 2001; Gaston and Cramp, 2011)

• Preconception care
  providing biomedical, behavioural, and social health interventions before pregnancy occurs to improve health and modify behaviours and environmental influences (WHO, 2012)

• Existing literature focused on pregnancy outcomes, regardless of behaviour (Whitworth et al., 2009).
Aim of review

Assess the effectiveness of pre-conception health promotion interventions, compared to usual care for improving:

1) pre-conception health behaviours;
2) pregnancy health behaviours;
3) pregnancy outcomes.
Methods

- Systematic search of three databases (MEDLINE, CINHAL, PsychINFO)
- Inclusion criteria:
  - RCT
  - English language
  - Participants of reproductive age and not pregnant at time of study
  - No pre-existing physical or obstetric health conditions
  - Measurement of health behaviour, pre and post intervention
- Papers screened by two authors: good level of agreement ($\kappa = 0.74$, $\kappa =0.77$)
- Data extracted
- BCTs coded by two authors ($\kappa =0.76$)
- Quality appraisal using Cochrane Collaboration Risk of Bias Tool
Key findings

- 6 included studies (2005-2017)
- No follow up to pregnancy
- Quality mixed: 2 low risk, 1 unclear, 3 high risk of bias
- Intention of participants varied
- Target behaviours (N=10):
  - folic acid,
  - physical activity,
  - nutrition,
  - alcohol use,
  - tobacco use
  - substance use

- Improvement in behaviours in all groups
- Significantly greater improvement in intervention group (vs control) for weekly folic acid, nutrition, physical activity.
  - Reminders/ group sessions
  - Shorter follow up
- Social Support in all interventions; with feedback and monitoring and comparison of behaviours common
Conclusions

- Very mixed findings
- Preconception behaviours can be improved but very under researched area
- No UK based literature
- Do women (and men) know importance of preconception health behaviours?
- Recruitment strategies
- Growing interest in this area: preconception health recognised in antenatal guidelines (NICE, BMJ) and in practice... watch this space...
Any Questions?

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