



## Systematic review of women's health outcomes from digital or blended preconception interventions targeting diet, physical activity and weight

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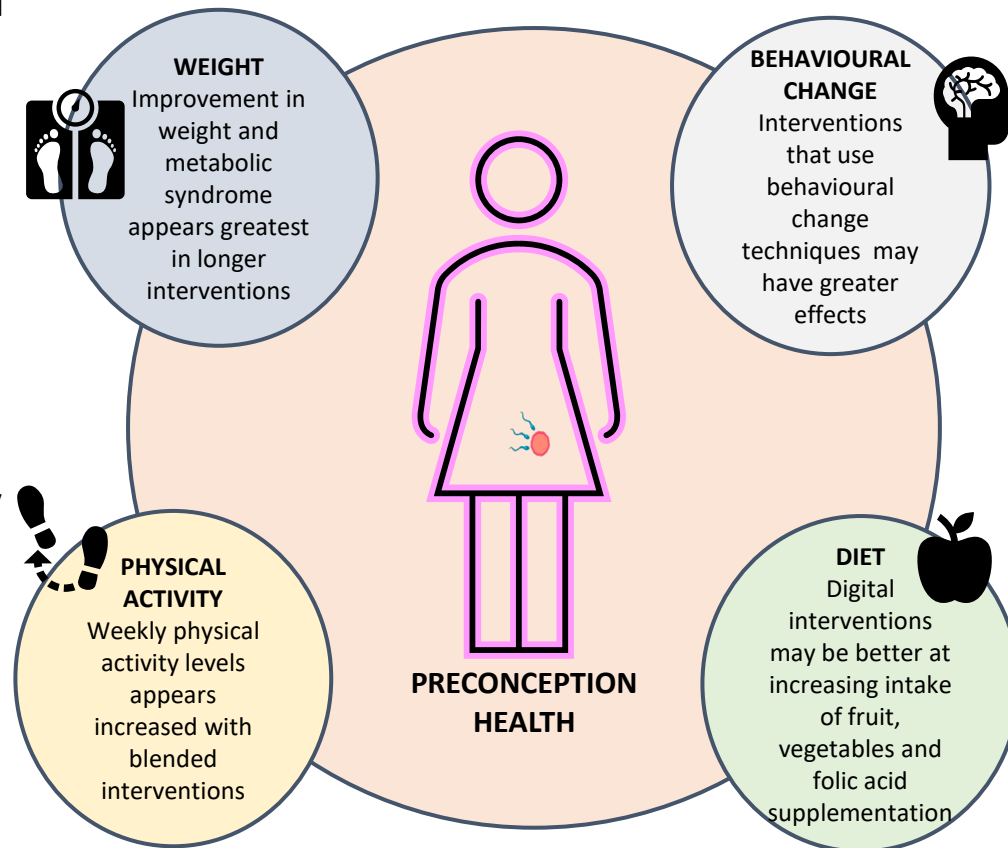
Preconception (PC) health can affect maternal and infant outcomes of pregnancy and the adult health of future generations.

### Aim

To assess and synthesise the evidence on the **effect of digital or blended** (combining digital and face to face) **PC interventions** on **women's health outcomes**, notably weight, diet, and physical activity (PA) levels.

### Method

- Searched **six databases** (PubMed, Cochrane, Embase, Web of Science, Cinal and PsychINFO) between January 1990 and February 2021.
- PC period defined as women of reproductive age >18 years and premenopausal; not currently pregnant and not given birth previously; the period before pregnancy, or between pregnancies, up until conception; and women actively trying to conceive.
- **Outcomes of interest:** weight, BMI, diet, PA, supplement use (folate, iodine and iron), knowledge and self efficacy.



### What we know...

- **Four** out of 3601 screened **studies** were included in the review. Three examined weight and BMI, two examined diet and PA, and one examined behavioural change.
- In PC women, digital and blended interventions may have a **positive impact** on weight loss, diet, PA and self-efficacy.
- In-person **counselling and education** sessions may be **more effective** when **delivered in combination with digital media** (SMS, social media or web-based).
- **Frequency of contact** may be an important consideration for adherence in long term PC lifestyle interventions.

### What we still do not know...

- The role of paternal PC health.
- Does the effectiveness of digital interventions translate outside of high income countries?

### Where to next?

- Further investigation in the delivery of PC health interventions is warranted as limited research available.
- Inclusion of men and couples in PC intervention research.
- How to target and capture a wide range of women who do not typically interact with health services.
- How to utilise behavioural change theory in digital interventions.