Assessing the psychological impact of a first-trimester antenatal screening program for pre-eclampsia: A systematic review

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Background

- Pre-eclampsia (PE) affects 2% of all pregnancies and causes 50,000 maternal deaths(1) each year.
- Development of PE also affects the fetus, resulting in growth restriction.
- A new screening test predicts the risk of developing PE with 5% false-positive rate(2).
- High-risk women are referred to a specialist clinic for increased monitoring, low-risk women receive standard care.

Antenatal screening traditionally focuses on conditions that have implications for the fetus, or those that have implications for the mother.

The PE screening tests implications for both

Antenatal screening tests offer treatment (e.g. diabetes) or reproductive choices (e.g. Down Syndrome)

There is no treatment or reproductive choices for PE

Research Question

What are the behavioural, emotional and cognitive impacts of prenatal screening for conditions that have health implications for (a) the mother and (b) the fetus

Method

The question was defined using the PICO(3) process, a search strategy of 185 terms validated using expert advice and executed across seven databases.

Results

Screening Tests with a Maternal Health Impact

- 21 studies, 0 reviews
- 2 behavioural impact
- 13 emotional impact
- 14 cognitive impact

Screening Tests with a Fetal Health Impact

- 34 studies, 4 reviews
- 4 behavioural impact
- 27 emotional impact
- 18 cognitive impact

Discussion

- Prenatal screening can have both positive and negative psychological consequences, but women undergoing them welcome the information they provide.
- Emotional impacts are greater when screening for conditions that impact fetal health. This anxiety may demonstrate decision making processes rather than a negative consequences(4).
- Behavioural impacts appear greater when screening for conditions that impact maternal health(5,6). If so, prenatal screening may be used as part of an intervention.
- No studies looked at the impact of screening tests for conditions that affect maternal health on prenatal bonding. This warrants further investigation.
- The psychological impact of PE screening will be dependent on whether those undergoing the screen attribute greater concern to themselves or their fetus.

Translation to Practice

Prenatal screening has the potential to have a positive impact on health behaviours, and a negative impact on emotions, depending on who the prenatal screen impacts.

Proposed Further Research

- A semi-structured interview study informed by Leventhal’s common sense model(7) utilising both Interpretive Phenomenological Analysis and Framework Analysis methodologies is underway.
- Further proposed future research includes:
  - investigating the impact screening for pre-eclampsia has on prenatal bonding;
  - testing whether screen-positive women attribute greater concern to the potential impact to themselves or their fetus;
  - an investigation into if being screen-positive for pre-eclampsia alters perceptions and birth-intentions at the end of pregnancy.

References


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