

A Rapid Review of the Evidence on Cardiovascular Disease Prevention Programmes for Women with a History of Hypertensive Disorders of Pregnancy

Principal investigators: Professor Colette Kelly and Professor Saoirse Nic Gabhainn, University of Galway, Ireland

Researchers: Dr Elena Vaughan, Ms Tricia Harte, University of Galway, Ireland and Ms Orna O'Brien, Irish Heart Foundation

Funder: Irish Heart Foundation.

Background

Women who have experienced any category of hypertensive disorders of pregnancy (HDP) are at increased risk of cardiovascular disease (CVD) in later life (Tooher et al., 2017). In 2016, approximately 6% (n=3531) of pregnant women in Ireland experienced HDP, with 4.6% (n=2790) experiencing preeclampsia. Increases in obesity and the trend towards having children later in life, mean the numbers of women experiencing pre-eclampsia are likely to rise, therefore it will be necessary to develop and implement effective intervention programmes to offset the CVD risk among this population.

Aims

The aim of this research was to investigate and document the evidence base for lifestyle and/or behavioural modification programmes aimed at promoting healthy dietary patterns and/or physical activity to reduce CVD risk among postpartum women with a history of HDP.

Methods

A rapid review approach was employed for this review of the evidence. Three databases were selected for this review: Ovid Medline, Embase and PsycInfo. Studies were included if they were empirical peer reviewed journal articles and reviews published after 2010 that explore post-partum interventions for women with previous HDP with the aim of improving diet and physical activity behaviours associated with development of CVD. A total of 4083 records that met inclusion criteria were identified through database searches. After screening against inclusion criteria, a total of 7 studies were included in the final review.

Findings

Overall, there is a dearth of studies that have examined lifestyle and behaviour modification interventions aimed at reducing CVD risk among post-partum women with a history of HDP.

Of the existing studies, interventions took place largely online, in clinical settings, or used a hybrid approach. No community interventions were identified. There was a lack of diversity among intervention participants, with under-representation of women from diverse ethnic backgrounds, lower levels of educational achievement and lower socio-economic status.

Programmes that focused primarily on educational approaches appear to increase self-efficacy, knowledge of physical activity, and CVD risk more broadly. The impacts however on actual health behaviours and overall reduction in CVD risk are uncertain.

Specific barriers to engagement in such types of interventions were highlighted by the authors of one study, who carried out a comprehensive evaluation of the barriers and facilitators, noting that time was a major barrier to participation (Berks et al., 2019).

Dissemination

A report on the findings has been prepared and submitted to the Irish Heart Foundation, who commissioned the research. A manuscript is currently being prepared for publication.