PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Experiences of women with cardiac disease in pregnancy: A
	systematic review and meta-synthesis
AUTHORS	Dawson, Angela J; Krastev , Yordanka; Parsonage, William A; Peek,
	Michael; Lust, Karin; Sullivan, Elizabeth

VERSION 1 – REVIEW

VERSION 1 – REVIEW		
REVIEWER	Dr Anna Roberts Consultant Obstetrician Lead for Obstetric Cardiology Service St Marys Hospital Manchester UK	
REVIEW RETURNED	02-May-2018	
GENERAL COMMENTS	This paper addresses an interesting, topical and important subject matter. Whilst the concept and methodology seem robust, the quality of the written english and structure of the results and discussion is at times inadequate. Particularly in the dicussion, there is a great deal of overlap between subheadings and repetition. This section would benefit from being more succint and organising salient points into a more coherent sequence.	
REVIEWER	Zachary Steinberg	
REVIEWER	University of Washington Seattle, WA, USA	
REVIEW RETURNED	22-May-2018	
GENERAL COMMENTS	 Retrospectively extracting comments from previously published studies in order to categorize them in one of four categories relating to autonomy and control comes with the caveat of miscategorization. How was this addressed? One of your stated goals is to explore the decision-making process of women with cardiac disease contemplating pregnancy. It remains unclear to me what sort of centers women from each of these studies were receiving their care from. Was it primarily cardiologists or obstetricians or a combination of both? Was it from cardiologists specializing in congenital heart disease and used to a young patient population? Was it from obstetricians with a focus on complex maternal medicine and cardiovascular diseases? Were women being seen by both cardiologists and obstetricians and were they concordant or discordant advice from different physicians? And, of course, how did these differences influence the experience of women? 	
	3) While there may not be evidence-based guidelines laying out a clear management plan on how to provide optimal counseling to women with cardiovascular disease contemplating pregnancy, there are many centers that approach this counseling in a multidisciplinary	

fashion. It might be very interesting comparing the experiences of women undergoing pregnancy or pre-pregnancy counseling in centers with establish adult congenital heart disease programs who
work closely with obstetricians with centers that do not have this expertise.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1 Comment

This paper addresses an interesting, topical and important subject matter. Whilst the concept and methodology seem robust, the quality of the written English and structure of the results and discussion is at times inadequate. Particularly in the dicussion, there is a great deal of overlap between subheadings and repetition. This section would benefit from being more succinct and organising salient points into a more coherent sequence.

Response: We have thoroughly edited the manuscript and re-organised the discussion.

Reviewer 2 Comment

Retrospectively extracting comments from previously published studies in order to categorize them in one of four categories relating to autonomy and control comes with the caveat of miscategorization. How was this addressed?

Response: The initial analysis was independently undertaken by two authors and decisions regarding categories and later themes were made in negotiation with all researchers. This process ensured that consensus was reached and that all issues regarding the categorisation of the codes to the decisions about themes were thoughtfully explored. First we extracted the data from the findings sections of each paper and two authors separately hand coded this data by identifying relevant units and giving these appropriate names. Conceptual maps and tables were created to group the codes into "like" categories. This was a fluid and iterative process. Codes and categories were either renamed or modified to better reflect the data and identify patterns across the data as well as data that was distinctive. We aimed to allow themes to emerge from this process to discover its various components, while also controlling our own assumptions about it.

Reviewer 2 Comment

One of your stated goals is to explore the decision-making process of women with cardiac disease contemplating pregnancy. It remains unclear to me what sort of centers women from each of these studies were receiving their care from. Was it primarily cardiologists or obstetricians or a combination of both? Was it from cardiologists specializing in congenital heart disease and used to a young patient population? Was it from obstetricians with a focus on complex maternal medicine and cardiovascular diseases? Were women being seen by both cardiologists and obstetricians and were they concordant or discordant advice from different physicians? And, of course, how did these differences influence the experience of women?

Response: We have added this paragraph in the paper to clarify the facilities and health providers discussed in the included papers and relationship to the women's experiences.

There was a paucity of information in the literature regarding the healthcare centres and the specialist skills of their providers to support the needs of women with heart diseases. In Australia, women with congenital heart disease were reported to have received care from cardiologists in a public tertiary hospital 24 and in private clinics 25, in south eastern USA they received care at a large tertiary care centre 21, and in Norway, they received care at a university hospital 18. Women with congenital heart disease had also been recruited through an audit of records at a hospital department of paediatric and

congenital cardiology in Belgium 19 and in another US study, by private paediatricians 20. Women only referred to care they had received from both cardiologists and obstetricians in the Australian studies. Although women in the American and Norwegian studies referred generically to their "doctors" or "health providers" and nurses were noted in the paper from Belgium, less information was available regarding the health facilities and providers of women with other acquired heart disease from the US 22 26 27 and Sweden 28 23. However, women in all studies, except in Hess et al. 27, referred to cardiologists, obstetricians, nurses 22 23, midwives28 23 and emergency department staff 27 23as their healthcare providers. It is difficult to draw conclusions from the findings of this study concerning the different healthcare experiences of women according to their providers and the facilities where they received care. While women with acquired heart disease were more likely to mention the care of cardiologists and obstetricians, as well as describe being listened to by their providers, such descriptions were not available in the corresponding papers that described women with congenital heart disease 24 25.

Reviewer 2 Comment

While there may not be evidence-based guidelines laying out a clear management plan on how to provide optimal counseling to women with cardiovascular disease contemplating pregnancy, there are many centers that approach this counseling in a multidisciplinary fashion. It might be very interesting comparing the experiences of women undergoing pregnancy or pre-pregnancy counseling in centers with establish adult congenital heart disease programs who work closely with obstetricians with centers that do not have this expertise.

Response: We agree this would be a very useful piece of research however the available data in the papers reviewed in this study does not allow for such an analysis. A primary research study would be appropriate and we thank the reviewer for this idea.

VERSION 2 - REVIEW

REVIEWER	Zachary Steinberg
	University of Washington Medical Center Seattle, WA, USA
REVIEW RETURNED	19-Jul-2018
GENERAL COMMENTS	No additional comments.