

The psychosocial effects of Inflammatory Bowel Disease on patients' reproductive health – a systematic literature review

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1. Background

Inflammatory bowel disease (IBD) is a chronic condition that can affect patients during their reproductive years. Adverse maternal/infant outcomes are associated with active IBD during pregnancy (1,2) in around one third of patients (3). The highest incidence of IBD is among 20-29 years olds (4) with 17-44% of IBD patients delay starting a family and have fewer children or remain childless (5). These could be partly explained by women's pregnancy-related anxiety, fear of pregnancy complications, and pregnancy impact on IBD (6,7). Recent data have also indicated that women with IBD (regardless of phenotype) are more likely to experience poor maternal and infant outcomes (8). There is limited psychological insight into the effects of IBD on pregnancy.

The aims of the study are to:

- A) Investigate factors that determine inflammatory bowel disease (IBD) patients choosing parenthood or childlessness; and**
- B) Examine the psychosocial effects of IBD on patients' reproductive health.**

4. Discussion/Conclusion

The incidence and prevalence of IBD is rising worldwide and IBD usually affects patients in their childbearing years (4), so the number of patients who require reproductive health care and education will increase. This review lends support to pre-conception counselling for IBD patients to tackle poor knowledge and allow patients to make an informed decision on their reproductive health and childbearing decisions. Medical care professionals working with IBD patients should discuss reproductive health and based upon research evidence, it is recommended that they;

- educate patients on the impact of IBD on pregnancy and fertility;**
- give advice on contraceptive use, record the use of contraceptive and identify 'high' pregnancy risk patients;**
- discuss the potential impact of surgery on sexual functioning;**
- advise on the effects of medication on fertility, pregnancy and breastfeeding and record medication adherence during pregnancy.**

This is the first, comprehensive systematic review on the psychosocial effects of IBD on patient's reproductive. Based upon the research evidence, clinical implications offered from the review recommend pre-conception counselling for all IBD patients of childbearing ages to tackle poor knowledge and allow patients to make an informed decision on their reproductive health and childbearing decisions.

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2. Method

The review is registered with PROSPERO—CRD42017078787

Six electronic databases were searched: CINAHL, PsycINFO, EMBASE, PubMed, Web of Science, ScienceDirect. No time, language, or publication restrictions were applied. A broad search strategy was used (but subject to variability between databases).

Population: Female or males humans with IBD (Crohn's disease or ulcerative colitis). Exclusion criteria: Studies were excluded if they include non-human or animal studies, or have population selected for other diseases/conditions.

Study design: Inclusion criteria: All published or unpublished studies using all study designs (qualitative, quantitative and mixed methods) were eligible. Exclusion criteria: Studies were excluded if they do not specifically assess the impact of IBD on any aspect of patients' reproductive health (this is not consistent with our aims). Studies were also excluded if they were not reporting original data (reviews, book chapter, editorial, comments, letters etc).

Outcomes: Outcomes included a) factors that determine IBD patients choosing parenthood or childlessness; b) patients reported experiences or feelings on the impact of IBD on any aspects of their reproductive health; and c) patients reported experiences or feelings regarding IBD pregnancy related concerns and anxiety.

Data extraction: Data were extracted using the methodology for JBI Scoping Reviews - from The Joanna Briggs Institute Reviewers' Manual 2015.

Quality assessment: Qualitative study quality was assessed using guidelines adapted from Paterson et al (2001) and quantitative studies (e.g., cross-sectional survey and intervention designs) was used using the Critical Appraisal Skills Programme (CASP) guidelines.



3. Results

A total of 41 articles were included in the review. The effects of IBD on patient's reproductive health is a complex interaction of biological, psychological, and socio-cultural factors.

- Knowledge of pregnancy and fertility issues relating to IBD and pregnancy related fears and anxieties are inter-related determinants of childbearing decisions for IBD patients. Higher levels of pregnancy and fertility knowledge are associated with parenthood. Whereas, lower levels of pregnancy and fertility knowledge are associated with voluntary childlessness.**
- Pre-conception counselling is effective at improving knowledge and associated with reduced odds of voluntary childlessness.**
- Pregnancy related fears and concerns are multifaceted and often stems from lack of knowledge and, higher levels of pregnancy related fears are associated with voluntary childlessness.**
- A significant number of female patients may be considered at 'high risk' for pregnancy because of low levels of contraception use.**
- The research evidence for sexual dysfunction after disease and treatment is inconsistent.**
- Medication non-adherence during pregnancy has been reported in some, but not all studies. However, nearly all studies report fears of a negative effect of medication on fertility or the child and that pre-conception/pregnancy counselling is associated with medication adherence.**
- Evidence on breastfeeding rates is mixed and there is limited research on patient's experiences of parenthood.**