over 48 hours increased the epithelial cell proliferation rate by up to 56% in Caco-2 (p<0.01) and 42% in HT-29 (p<0.001) cells.

**Conclusion** Our data demonstrates that IL-27 enhances epithelial barrier wound healing. Gene expression data suggests that cell-cell adhesion is enhanced through increased E-cadherin expression, with a reduction in permeability through decreased expression of claudin-2 (pore forming) and increase in claudin-4 (pore closing). Tight junction function is enhanced through increased expression of occludin and tight junctional protein-1. Further studies will define the IL-27 driven permeability related protein expression profile and impact on functional permeability in organoids and whether IL-27 is a potential new treatment for IBD.

**PWE-011** THE PSYCHOSOCIAL EFFECTS OF INFLAMMATORY SMALL BOWEL DISEASE ON REPRODUCTIVE HEALTH – A SYSTEMATIC LITERATURE REVIEW

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**Introduction** Inflammatory bowel disease (IBD) is a chronic condition that can affect patients during their reproductive years. Previous studies report that IBD patients have high levels of pregnancy-related fears and voluntary childlessness. The aim of this project is to perform a literature review on the psychosocial effects of IBD on patient’s reproductive health and investigate factors affecting family planning decisions.

**Method** Six electronic databases (CINAHL, PsycInfo, EMBASE, Pubmed, Web of Science, Sciedirect) were searched using a broad search strategy. Studies using qualitative, quantitative and mixed methods designs were eligible.

**Results** Using Prisma-P, a total of 3600 records were identified through electronic databases, hand searching and contacting authors. After removing duplicates, 1806 titles were screened and 241 abstracts were reviewed. Of these, 79 full text articles were screened and 41 articles have been included. The studies design included cross-sectional surveys, qualitative, mixed methods and non-randomised controlled intervention studies. Synthesis of the data revealed that sexual dysfunction after surgery, specifically ileal pouch–anal anastomosis, is common for female patients. A small minority of female IBD patients do not use contraception and are at ‘risk’ for pregnancy. Knowledge regarding the effects of IBD on pregnancy and fertility is consistently poor and poor knowledge is associated with voluntary childlessness. Many patients report pregnancy-related fears and anxieties including being concerned that IBD or medications may harm the baby or lead to a complicated pregnancy. Patients feared transmission of IBD to their offspring, which may lead to voluntary childlessness. Strategies to improve pregnancy and fertility knowledge (e.g., pre-conception counselling) are successful in reducing pregnancy-related anxieties. However, provisions of pre-conception counselling tend to be limited. The literature in this field is associated with a number of limitations including (a) small sample sizes; (b) low response rate for surveys; (c) the use of unstandardised and non-validated questionnaires; (d) few studies have included male samples and ethnic minority groups; and (e) lack of qualitative enquiry and longitudinal follow-up of patients.

**Conclusion** The literature indicates that some patients with IBD experience sexual dysfunction, poor fertility and pregnancy-related knowledge, high levels of pregnancy-related fears, concerns and voluntary childlessness. Intervention to improve knowledge tends to be successful. This review has identified several psychosocial effects of IBD on reproductive health which need further investigation.