

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## INTRODUCTION

**Review question / Objective:** P: Inflammatory bowel disease patients I: Positive psychological interventions, including acceptance and commitment therapy, mindfulness therapy, quality of life therapy, hope therapy, optimism therapy,

## Effects of Positive Psychological Intervention on Psychological Outcomes, Quality of Life and Inflammation biomarker in IBD patients: A Meta-Analysis of Randomized Controlled Trials

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**Review question / Objective:** P: Inflammatory bowel disease patients I: Positive psychological interventions, including acceptance and commitment therapy, mindfulness therapy, quality of life therapy, hope therapy, optimism therapy, gratitude therapy, solution-focused therapy, and other interventions using positive psychology as a theoretical basis. C: Conventional medical treatment and care. O: Anxiety, depression, stress, positive thoughts, hope, quality of life and disease activity, and inflammatory biomarkers. S: RCT.

**Information sources:** The databases searched include Cochrane Library, Pubmed, EBSCO, Embase, Web of science, China Biomedical Literature Database, China Knowledge Network, and Wanfang database. In cases where data is not available through the original text, we will contact the original author in the hope of obtaining the original data.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 November 2022 and was last updated on 15 November 2022 (registration number INPLASY2022110070).

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**Condition being studied:** Inflammatory bowel disease (IBD) is an idiopathic inflammatory disease of the intestinal tract involving the ileum, rectum, and colon. Clinical manifestations include diarrhea, abdominal pain, and even bloody stools. This disease includes ulcerative colitis (UC) and Crohn's disease (CD). Ulcerative colitis is a continuous inflammation of the mucosal and submucosal layers of the colon, and the disease usually involves the rectum first and gradually spreads to the whole colon. Crohn's disease can involve the entire gastrointestinal tract and is a discontinuous total inflammatory disease, most often involving the terminal ileum, colon and perianal area. IBD is a chronic immune-mediated inflammatory disease that affects people of all ages and has an etiology involving disease susceptibility genes, environmental factors and abnormalities in intestinal bacteria. The course of the disease is prolonged, and patients often present with recurrent abdominal pain, diarrhea, mucopurulent stools, intestinal obstruction and other intestinal symptoms, accompanied by fever, weight loss, fatigue, anemia and other systemic manifestations.

## METHODS

**Participant or population:** Patients diagnosed with inflammatory bowel disease, including Crohn's and ulcerative colitis, of any race, nationality, or duration of disease.

**Intervention:** Acceptance and commitment therapy, mindfulness therapy, quality of life therapy, hope therapy, optimism therapy, gratitude therapy, solution-focused therapy, and other interventions using positive psychology as a theoretical basis.

**Comparator:** Usual care.

**Study designs to be included:** RCT.

**Eligibility criteria:** Diagnostic points of IBD include: clinical manifestations, laboratory tests, endoscopy, imaging and histopathological examination, and the

diagnosis is a comprehensive judgment of all indicators.

**Information sources:** The databases searched include Cochrane Library, Pubmed, EBSCO, Embase, Web of science, China Biomedical Literature Database, China Knowledge Network, and Wanfang database. In cases where data is not available through the original text, we will contact the original author in the hope of obtaining the original data.

**Main outcome(s):** Anxiety, depression, stress, positive thoughts, hope, quality of life and disease activity, and inflammatory biomarkers.

**Quality assessment / Risk of bias analysis:** The quality of the literature is generally evaluated, and the 14 papers included in the meta-analysis are all B, except for Jedel 2014, which has a quality rating of A.

**Strategy of data synthesis:** The meta-analysis was performed using RevMan 5.4 software. Continuous data were analyzed by weighted mean difference (WMD) if the same measurement instruments were used and the values did not differ significantly, otherwise standardized mean difference (SMD) was used. Heterogeneity among studies was determined by  $\chi^2$  test, and if there was no statistical heterogeneity among studies ( $P > 0.1, I^2 < 50\%$ ) a fixed effects model was used; if there was heterogeneity among studies ( $P \geq 50\%$ ), a random effects model was used and sensitivity analysis was used to trace heterogeneity, and if the source of heterogeneity could not be determined, descriptive analysis was performed. Funnel plots were used to analyze the publication bias of the literature.

**Subgroup analysis:** Subgroup analysis according to different follow-up times.

**Sensitivity analysis:** Each study was excluded one by one, and the remaining studies were re-meta-analyzed to see if the results changed.

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**Country(ies) involved:** School of Nursing,  
Taihu University of Wuxi, Wuxi, Jiangsu,  
China.

**Keywords:** Positive psychology; IBD;  
psychology; quality of life; meta-analysis.

**Contributions of each author:**

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Author 3 - Mingming Zhou.