Table 1.
Synthesis of studies included in the exploratory literature review.

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
1	Levy, et al, (2016)	Cognitive-Behavioral. Reported quality of life, clinical symptoms and school absences in IBD	Quantitative/ pre-post of 2 groups (Ex/Control). 13-item Protect subscale of the Adults' Responses to Children's Symptoms; Catastrophizing and Distract/Ignore scales of Pain Response Inventory; Pain Beliefs Questionnaire. Ad hoc report the number of hospital stays and the number of visits to a health care provider in Crohn Disease and Ulcerative Colitis. Ad hoc report of report on the number of days the child missed school. Health-related quality of life in pediatric inflammatory bowel disease questionnaire (IMPACT-III). Child Depression Inventory (CDI). Multidimensional Anxiety Scale for Children (MASC). Functional Disability Inventory. Pediatric Crohn's disease activity index (PCDAI). Pediatric Ulcerative Colitis Activity Index (PUCAI). Montreal classification for inflammatory bowel disease- Paris Classification.	N = 185 parents and childs; 90.7% women; parents between 27 and 67 yrs-old (M = 44.4 SD = 6.9). Aged between 8 and 17 yrs-old for children (M = 13.5 SD = 2.7) Experimental group N = 91 participants and the control group N = 94 children Student's t test	Regarding school absences, a significant effect of treatment due to Crohn's disease or ulcerative colitis was observed ($p < .05$) at 6 months after treatment; Significant effect after treatment for child-reported quality of life ($p < .05$). Parent-reported an increase in the child's adaptive coping ($p < .001$), and reductions in parental maladaptive responses to child symptoms ($p < .05$). Children with a higher level of flares (2 or more) before baseline, those in the social learning and cognitive behavioral therapy condition, were also found to have a greater reduction in flares after treatment. Effects in control group were not sustained over time, observing the inexistence of significant differences in the estimated parameters after 12 months, except in the Pain Beliefs Questionnaire, in the emotion-focused coping subdimensions ($p = .001$) and problem-focused coping ($p = 0.03$), as well as in the measure of the adult's response to the child's symptoms ($p = .003$).

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Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
2	Keerthy, et al. (2016)	Cognitive-Behavioral Frequency of need for clinical care and depressive symptoms in IBD	Quantitative/ pre-post of 2 groups (Ex/Control). Children's Depression Inventory (CDI). Kiddie Schedule for Affective Disorders and Schizophrenia Present and Lifetime Version (KSADS-PL). Children's Depression Rating Scale – Revised (CDRS-R). Pediatric Crohn's Disease Activity Index (PCDAI). Pediatric Ulcerative Colitis Activity Index (PUCAI)	N = 217 pediatric patients between 9 and 17 yrs-old, mean age M = 14.11 SD = 2.32. N=51 participants had a diagnosis of Crohn's disease and N=19 had a diagnosis of Ulcerative Colitis; 42.9% were female Wilcoxon Signed Rank Test Student's t test	In Ex. Group three-month course of psychotherapy was associated with significant decreases in the frequency of hospitalizations (p = .002), days of hospitalization (p = .0001), emergency care (p = .010), radiological examinations (p = .0009, endoscopies for IBD (p <.0001) decrease in the severity of depressive symptoms (CDRS-R: p < .0001) and Crohn's Disease Activity but low effect size (PCDAI: p = .009, d = .57). No difference in Ulcerative Colitis Activity (PUCAI: p = .274).

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Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
3	McCombie, et al. (2016)	Cognitive-Behavioral Stress, influence of thoughts on feelings and behavior, avoidance, coping, effective communication and attention, and distraction to deal with pain in IBD in computerized cognitive behavioral therapy (CCBT) vs treatment as usual (TAU)	Quantitative/ pre-post of 2 groups (Ex/Control). Internet Health-related quality of life (HRQoL) 12-item Short-Form Health Survey (SF-12). Inflammatory Bowel Disease Questionnaire (IBDQ). Hospital Anxiety and Depression Scale (HADS). Perceived Stress Scale (PSS-10). Social Functioning Questionnaire. Eysenck Personality Questionnaire—Brief Version. Brief Coping Operations Preference Enquiry. Harvey–Bradshaw Index. Simple Clinical Colitis Activity Index.	N = 231 participants (N = 131 Ex. group and N = 100 Ctrl. group), M = 38.3 yrs-old for experimental group, M = 39.6 yrs-old for control group, 33.6% and 38.4% of male participants, respectively. In experimental group, 66.4% had a diagnosis of Crohn's disease and 30.1% of ulcerative colitis; in the control group there was 72.1% diagnosed with Crohn's disease and 23.3 with ulcerative colitis ANOVA *F*	At 12 weeks, SF-12 mental score improved in CCBT completers versus TAU participants ($F = 5.00$, $p = .03$). All other outcomes were not significant ($p = .05$). IBD Questionnaire was significantly increased at 12 weeks in CCBT completers compared with treatment-as-usual patients ($F = 6.38$, $p = .01$).The program did achieve some improvements in IBD activity scores at 12 weeks, but these were not sustained around 6 months after the intervention
4	Mikocka-Walus, et al. (2017).	Cognitive-Behavioral Coping, anxiety, depression, medical-physiological indicators and IBD activity	Quantitative/ pre-post of 2 groups (Ex/Control) Crohn's Disease Activity Index (CDAI). Simple Clinical Colitis Activity Index (SCCAI). Hospital Anxiety and Depression Scale (HADS). Adaptive or maladaptive coping subscale of Brief COPE. Short Form 36 Health Status Questionnaire (SF-36). State-Trait Anxiety Inventory (STAI). Revised Social Readjustment Rating Scale (RSRRS). IBD	N = 176 adult participants, over 18 yrs-old, does not indicate mean or deviation for this data or proportion of men and women. Random assignment: N = 92 patients to experimental group, and N = 84 patients to control group Student's t test	No effect on IBD activity and on various measured parameters: CDAI and the SCCAI at 24 months (CD, $p = .92$; UC, $p = .87$). Mental health, coping or quality of life (all $p > 05$). Trend towards reduced state ($p = .29$) and trait ($p = .24$) anxiety in CBT group; however, it was not statistically significant. At 24 months no significant change the score on any variable of interest in the participants in need of support (all $p > .05$). experimental and control groups were numerically

ISSN 0257-1439 / ISSNe 1659-2913

			Stages of Change Coping Questionnaire (IBDSCCQ).		imbalanced and the comparisons underpowered.

Table 1 (cont.).

#	Authors	Type of Intervention & Objetive	Design & instruments	Sample & Contrast	Main Results
5	Hunt, et al. (2019).	Cognitive-Behavioral IBD activity and severity, gastrointestinal symptom rating, catastrophic cognitions, quality of life, and anxiety	Quantitative/ pre-post of 2 groups (Ex/Control). Harvey‑Bradshaw Index (HBI). Gastrointestinal Symptom Rating Scale (GSRS). Visceral Sensitivity Index (VSI). Gastrointestinal Cognitions Questionnaire (GI‑COG). Short Inflammatory Bowel Disease Questionnaire (SIBDQ). State‑Trait Anxiety Inventory (STAI). Beck Depression Inventory II (BDI).	N = 140 patients with IBD, aged between 18 and 79 yrs-old (M = 35.34 SD = 13.18); experimental group: N = 70 with 64% of women; control group: N = 70 with 67% women. Student's t test	For both groups in HBI and GSRS, no significant differences were observed at the end of treatment or three months later ($p > .05$). Significant differences at post-treatment (3 months) in VSI ($p \leq 0.10$), depression (BDI-II) ($p \leq .10$), in SIBDQ ($p < .05$), in GI-COG ($p < .05$) and in STAI ($p < .05$). For Ex. group at three-month follow-up, gains on all measures were significantly improved from baseline [t(40)>2.3, p<.05], with exception of GSRS score [t(40) = 1.5, p = .13]. Most of the gains remained unchanged at three months after treatment, except for SIBDQ, which showed loss of gains [t(40) = 7.56, $p < .001$]. People who underwent the CBT self-help intervention benefited by being resilient to new flare-ups. Follow-up data from baseline to three months for both groups showed robust and significant differences, (all t > 3.3, $p \leq .001$). Control group participants also received some benefit as they showed statistically significant pre-post improvements in catastrophizing, visceral anxiety, and quality of life.

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Table 1 (cont).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
6	Artom et al. (2019)	Cognitive-Behavioral Fatigue and quality of life in IBD at 3th, 6th and 12th month	Quantitative/ pre-post of 2 groups (Ex/Control). CBT manual adapted from the CBT manual for MS-fatigue management developed. CCUK 'Fatigue in IBD' Information Sheet. IBD-Fatigue (IBDF) scale. UK Inflammatory Bowel Disease Questionnaire (UK IBDQ). Brief Illness Perceptions Questionnaire (BIPQ). Epworth Sleepiness Scales (ESS). Generalised Anxiety Disorder (GAD7) scale. Patient Health Questionnaire (PHQ9). Harvey Bradshaw Index (HBI). Simple Clinical Colitis Activity Index (SCCAI).	N = 31 adults/women. Experimental group: N = 15; M = 37 yrs-old; 93.3% with higher education and 60% married or with a partner; control group: N = 16, M = 39.13 yrs-old; 81.2% had higher education and 68.7% were married or in a relationship Student's t test	Reduced severity of fatigue at 3th month (mean difference between the change scores in Ex. and Ctrl group was − 2.94 (confidence intervals [CI] = − 7.21, 1.32), with a between group effect size of .84 (CI = − .5, 1.82). Improved quality of life in both groups (MD between change scores in Ex. and Ctrl group was 2.70 (CI = − 6.45, 11.85), with a between group effect size of − .25 (CI = − 1.21, .72). Highest in Ex. over time (6th-12th months)

ISSN 0257-1439 / ISSNe 1659-2913

Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
7	Stapersma et al. (2020)	Cognitive-Behavioral Prevention of clinical anxiety and depression, quality of life and coping in IBD	Quantitative/ pre-post of 2 groups (Ex/Control). Screen for Child Anxiety- Related Emotional Disorders (SCARED). Hospital Anxiety and Depression Scale-Anxiety Scale (HADS-A). Child Depression Inventory (CDI). Beck Depression Inventory-second edition (BDI-II). Pediatric Anxiety Rating Scale (PARS). Hamilton Anxiety Rating Scale (HAMA). Child Depression Rating Scale Revised (CDRS-R). Adolescent Depression Rating Scale (ADRS). Hamilton Depression Rating Scale (HAM-D).	N = 70; experimental group: N = 37, 27% men, age M = 18.62 yrs-old; control group: N = 33, 36.4% men, age M = 17,69 yrs-old chi square χ^2	In both groups, a similar proportion of patients had improved; based on chi-square estimates, values for anxiety [χ^2 (1) = .226, p = .801] and depression [χ^2 (1) = 2.680, p = .141] after 6 months did not differ between groups, nor did they find group differences for anxiety scores after 12 months [χ^2(1) = .337, p = .626]. Regarding depression after 12 months, the values differed significantly between groups, indicating that the proportion of patients in the usual medical treatment only group had improved more than that in the experimental group [χ^2 (1) = 5.460, p = .026] and that the proportion of 18–25-year-olds in the control group who had improved on depression after 12 months was higher than in the experimental group [χ^2 (1) = 6.349, p = .019].

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Table 1 (cont.).

#	Authors	Type of Intervention & Objetive	Design & instruments	Sample & Contrast	Main Results
8	Bernabeu et al (2021)	Cognitive-Behavioral multicomponent Stress, anxiety, depression, quality of life and clinical course in IBD	Quantitative/ pre-post of 2 groups (Ex/Control) Perceived Stress Scale (PSS). Perceived stress of illness (EAE). Social Readjustment Rating Scale (SRRS). Hospital Anxiety and Depression Scale (HADS). Quality of life index (IBDQ). Clinical Disease Activity Index (CDAI) for CD activity; Mayo partial score (pMayo) for UC. Self-reports of relapses.	N = 120 adults. Experimental group: N = 60, age M = 44.5 yrs-old, SD = 11.81; 55.6% were women, 61.7% were married, 71.7% had Crohn's disease and 28.3% with ulcerative colitis; control group: N = 60, age M = 42 yrs-old, SD = 11.65; 68.3% were women, 75% married, 61.7% with Crohn's disease, and 38.3% with ulcerative colitis Student's t test	Significant differences for disease perceived stress (EAE) and perceived stress (PSS) for Ex. (p = 0.000 and p = .001, respectively); also in anxiety (p = .003) and depression (p = .019) in Ex., but differences were also significant in same dimensions for Ctrl (p = .009 and p = .012, for anxiety and depression, respectively). Quality of life was statistically significant in Ex., for general score (IBDQ) and for social and emotional dimensions (p = .001, p = .000 and p = .000, respectively). No differences were reported regarding the CD activity index, with improvement in both Ex. (157.6 ± 125.5 vs 131.0 ± 111.2, p = .004) and Ctrl groups (139.7 ± 98.7 vs 97.3 ± 72.9, p = .031). No improvement observed in patients with UC (Ex.: 1.8 ± 2.1 vs 1.5 ± 2.4, p = .589 and Ctrl: 2.2 ± 2.2 vs 1.3 ± 2.3, p = .190). Significant reduction was found in Ex., contrasting the number of relapses per patient (control: .7 vs. intervention: .3; p = .027) and relapses per month perceived after treatment (control: .07 vs intervention: .03; p = .034), in addition, that the proportion of patients with disease relapse was higher in Ctrl group (control group: 30% vs. experimental group: 10%; p = .036).

Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
9	Hou, et al (2017)	Acceptance and Commitment Feasibility of the one (1) day intervention on measures of anxiety and depression and its effects on quality of life, distress and disease activity	Quantitative/ pre-post of 1 group only Depression, Anxiety and Stress Scale (DASS-21). Harvey Bradshaw Index for patients with Crohn's Disease. Partial Mayo score for patients with ulcerative colitis. Short IBD Questionnaire for Health-related quality of life (HRQoL)	N = 20 adults. Age M = 51 yrs-old; no standard deviation values were reported. 9 patients had a diagnosis of Crohn's disease, 10 patients with ulcerative colitis and one with unclassified IBD Student's t test	At three months post-treatment, 79% of the participants obtained decreases in anxiety scores, ($p < .01$). Not statistical significance in depression ($p = .08$) and stress ($p = .06$) even though 64% of participants showed improvements in depression indices and 57% in stress indices. IBD-related indices tended toward better scores, but both IBD activity (SIBDQ) and Crohn's disease activity (HBI) were not statistically significant ($p = .08$ and $p = .28$, respectively); in ulcerative colitis activity (pMayo), the contrast of means for the three-month interval resulted in statistical significance ($p = .05$).
10	Mulcahy, et al. (2017)	Acceptance and Commitment Stress symptoms and stress reaction in IBD	Quantitative/ pre-post of 2 groups (Ex/Control). Depression and anxiety scale DASS-21. Perceived Stress Scale (PSS) as an index of blood pressure. Depression and anxiety scale DASS-21 and the Perceived Stress Scale (PSS as an index of blood pressure. Levels of C-reactive protein and fecal calprotectin	N = 95 adults. Age M = 40 yrs-old; 44.21% were male patients with inactive or mildly active IBD ANOVA *F*	Reduction in stress (42% Ex. and 37% Ctrl) and association with a reduction in perceived stress ($p < .05$) (blood pressure) at 8 and 20 weeks in Ex.; no changes were observed in the clinical or biochemical activity of the disease or in other psychological parameters

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Table 1 (cont.).

#	Authors	Type of Intervention & Objetive	Design & instruments	Sample & Contrast	Main Results
11	Wynne, et al. (2019)	Acceptance and Commitment Effect of the procedure on stress in IBD	Quantitative/ pre-post of 2 groups (Ex/Control) Depression, Anxiety and Stress Scale (DASS-21); ad hoc scale for perceived stress. Modified list of practical and family problems to identify potential stressors. Acceptance and Action Questionnaire (AAQ-II). Brief Health Scale for IBD. Brief Crohn's Disease Activity Index (CDAI). Concentration of C-reactive protein, hemoglobin, leukocytes and serum albumin and stool samples were collected to determine the concentration of fecal calprotectin at weeks 0, 8 and 20. Hair samples at the beginning of the study and at week 20 to evaluate capillary cortisol concentration.	N = 79 (with Cronh's disease: N = 38; with ulcerative colitis: N = 41). Experimental group N = 42; age M = 39.2 yrs-old SD = 12.2, 55% women, with an average of 10.4 yrs of development of the disease. Control group: N = 37, age M = 40.6 yrs-old SD = 11.2; 54% women , with an average of 12.5 yrs of development of the disease. ANOVA *F*	Significant interaction (39% and 45% at 8 and 20 weeks) in stress measurement (DASS-21) through period in Ex.(F = 7.19, p = .001) compared to 8% and 11% in Ctrl group and in perceived stress scores (p = .036) and depression (p = .10) over time, but not for anxiety (p = .388). Quality of life improved in Ex. (p = .009). At the beginning of the study the biochemical markers correlated with stress (capillary cortisol concentrations r_{xy} = .205, p = .050; anxiety (r_{xy} = .208, p = .046), but did not change significantly in Ex. during the study period. Measures of disease activity were similar between groups (all p-values > .05)

ISSN 0257-1439 / ISSNe 1659-2913

Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
12	Carvalho, et al (2021).	Acceptance and Commitment Acceptability and efficacy of four (4) online ACT sessions in patients suffering from chronic diseases, including IBD	Quantitative/ pre-post of 2 groups (Ex/Control) Hospital Anxiety and Depression Scale (HADS). Chronic Illness-related Shame Scale (CISS). Cognitive Fusion Questionnaire–Chronic Illness (CFQ-CI). Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT). Self-Compassion Scale (SCS).	N = 49 adults. With Cronh's disease: N = 16 (32.4%); with ulcerative colitis: N = 4 (8%). Experimental group: N = 25, age M = 43.2 yrs-old, SD = 9.39, 23 women. Control group N = 24, age M = 43.2 yrs-old, SD = 9.39, 19 women. 60% vs. 58.3% married Student's t test	The participants in both conditions (Ex. and Ctrl.) did not present clinical change in the post-intervention. Was necessary to estimate reliable rates of change (RCIs) for each outcome (a measure of clinically significant change over time: participant's pre-intervention score minus the post-intervention score divided by the standard error of the difference; results: HADS depression, p = 1; HADS anxiety, p = .14; CompACT, p = .61 for openness to experience, p = 1 for behavioral awareness, and p = 1 for valued action; CISS, p = 1; CFQ, p = 1; SCS, p = 1 for compassionate, p = .4, for non-compassionate. Both conditions are acceptable for treatment in chronic diseases.

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Table 1 (cont.).

#	Authors	Type of Intervention & Objetive	Design & instruments	Sample & Contrast	Main Results	#
13	Drent, et al (2016).	Mindfulness Stress reduction, influence on fatigue, psychosocial functioning (including anxiety, depression, and well-being), illness perceptions, and mindfulness in IBD	Quantitative/ pre-post of 1 group only. Fatigue (MFI), anxiety and depression (HADS), well-being (WHO-5 and VAS scale [1–10]), illness perception (IPQ-R), and mindfulness (FFMQ). Structured self-report items of Motivation for participation.	N = 20 adults. women 90%, age M = 40.7 yrs-old, SD = 13.7. Not shown	Not showed specific statistics of contrast of means. Mean well-being scores (WHO-5 and VAS), HADS, MFI and IPQ-R showed improvements from baseline to three months later in Ex. Mindfulness as measured by the FFMQ instrument (five aspects: observe, describe, act with awareness, non-judgement of inner experience, and non-reactivity to inner experience) also showed improvement from baseline, particularly participants they score lower on the judgment of their thoughts and feelings. Most frequently reported motivation for participating in the study was to experience less stress related to the disease.	

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Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
14	Lyall et al. (2022)	Mindfulness Test whether mindfulness practice is associated with subjective well-being (SWB) homeostatic resilience in IBD based on the relationship between SWB and patient-reported psychological and IBD symptoms	Quantitative/exploratory (cross-sectional survey via online questionnaire) Personal Wellbeing Index (PWI). Depression and Stress scales of the Depression, Anxiety and Stress Scale (DASS-21). Crohn's disease patient-reported outcomes signs and symptoms (CD-PRO/SS). UC patients are asked an additional three items (relating to blood in bowel movements, mucus in bowel movements and leaking prior to reaching the toilet)	N=793 adults (62.4% with Crohn's Disease; 85.6% women; mean age M = 37.86 yrs-old, SD = 11.98) Neither. Comparison of normative data, bivariate correlation and logistic regression	Depresión: −.57***; Stress: −.40***). (with SWB). Disease symptoms with SWB: (CD-Bowel, −.31***; UC-Bowel, −.29***). Mindfulness practice would independently predict SWB in the normal homeostasis range. In binomial logistic regression for CD cohort, model was statistically significant, χ^2 (9, n = 341) = 97.10, $p <$ .001 (.25 $<R^2<$.34 odds being in the normal homeostatic range). An increase of one point on the bowel symptom measure reduced the odds of the participant reporting SWB in the normal homeostatic range by about a third (OR 65, 95% CI: .50, .83). One-point increase in depression scores decreased the chances of the participant reporting SWB inside the range (OR .97, 95% CI: .95, .98). For the UC cohort, the model was also statistically significant, χ^2 (9, n = 226) = 48.87, $p <$ .001. (.19 $<R^2<$.26 odds being in the normal homeostatic range). Mindfulness did not significantly predict SWB homeostasis for this cohort, nor did the patient-reported physical symptoms, nor stress. Depression significantly predicted SWB homeostasis, after controlling for the other variables (OR .97, 95% CI: .95, .99).

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Table 1 (cont.).

#	Authors	Type of Intervention Objetive	Design and instruments	Sample Contrast	Main Results
15	Neilson, et al. (2016).	Mindfulness Feasibility, acceptability and efficacy of a mindfulness-based intervention in IBD	Quantitative/ pre-post of 2 groups (Ex/Control). Crohn's Disease Activity Index (CDAI). Ulcerative Colitis Disease Activity Index (UCDAI). The World Health Organization–Quality of Life BREF (WHOQoL-BREF). Hospital Anxiety and Depression Scale (HADS). Five Facet Mindfulness Questionnaire (FFMQ).	N = 60 adults. 45% men, 55% women, age M = 36.38 yrs-old, SD = 11.49; duration of disease M = 10.93 yrs (SD = 9.15); 24 participants had active disease (12 patients with CD and 12 patients with ulcerative colitis). Experimental group: N = 33; control group: N = 27 chi square χ^2, Mann-Whitney U, ANACOVA	At 32 weeks from the baseline significant differences for stress intensity (U = 36.00; p = .048), with Ex. reporting more intense stressors. In covariance models, significant differences between Ex.-Ctrl. groups at week 8, for anxiety (HADS: 1.82 (.39, 3.26), $p < .05$); depression (HADS: 1.75 (.01, 3.49), $p < .05$); quality of life-physical health (21.54 (22.43, 20.66), $p < .01$); quality of life-psychological health (21.61 (22.65, 20.57), $p < .01$); FFMQ-mindfulness: observing (26.20 (28.92, 23.49), $p < .001$; FFMQ-mindfulness: describing (23.22 (25.56, 20.88), $p < .01$; FFMQ-mindfulness: no reactivity (23.41 (25.73, 21.11), $p < .01$; FFMQ-mindfulness: total scores (213.88 (221.04, 26.73), $p < .001$. Differences were maintained at 32 weeks in depression (HADS: 2.61 (.51, 4.71), $p < .001$; FFMQ-mindfulness: observing (25.71 (28.03, 23.39), $p < .001$; FFMQ-mindfulness: describing (24.53 (26.95, 22.11), $p < .001$; FFMQ-mindfulness: no reactivity (24.22 (26.59, 21.86), $p < .001$; FFMQ-mindfulness: total scores (214.53 (222.01, 27.04), $p < .001$

ISSN 0257-1439 / ISSNe 1659-2913

Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
16	Kohut, et al (2019)	Mindfulness Feasibility and initial efficacy of a mindfulness-based group intervention and its impact on anxiety, depression, self-efficacy, pain acceptance and social support	Qualitative/Mixed Self-reported disease activity questionnaire for IBD. Health-related quality of life in pediatric inflammatory bowel disease questionnaire (IMPACT-III). Multidimensional anxiety scale for children (MASC). Columbia depression scale (CDS). Self-efficacy questionnaire (SEQ—adapted for pediatric IBD). Child acceptance and mindfulness measure (CAMM). Psychological inflexibility in pain scale (PIPS). PROMIS peer relationship: short form. Post-session satisfaction questionnaire (ad hoc).	N = 44 adolescents. Age M = 14.59 yrs-old, SD = 1.28; 55.6% men, 61.1% had Crohn's disease, and 38.9% had ulcerative colitis Qualitative discourse analysis in focus groups ANOVA *F*	No significant differences for level of disease activity (F =.78, p = .42) nor other measures collected (all with p < .10). Significant differences were only found that indicated improvement in the emotional functioning measures of IMPACT-III (HRQoL) as an index of quality of life (F = 3.60, p = .04), in CDISC depression measure (F = 2.62, p = .09), acceptance and full attention, observation and acceptance of internal experiences without judging them, and acting with awareness in the daily life of CAMM adolescents (F = 2.47, p = .10), and in PROMIS (F = 2.79, = .08). In focus groups, themes emerged: (1) personal interpretation and application of mindfulness and (2) benefits of perceived peer support from other people with IBD, emphasizing the importance of meeting others who also lived with IBD, for which many valued the shared life experiences of group members. Also meditated outside the group for an average of 5.31 minutes per day (SD = 10.08). Satisfaction questionnaires after the sessions allowed to identify that these were more useful to increase body awareness (7.40 / 10, SD = 1.81), improve the ability to manage stress (7.38 / 10, SD = 1.94) , to

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#	Authors	Type of Intervention Objetive	Design and instruments	Sample Contrast	Main Results
					feel less alone (6.80 / 10, SD = 2.59) and to cope with IBD (5.96 / 10, SD = 2.40)

Table 1 (cont.).

#	Authors	Type of Intervention Objetive	Design and instruments	Sample Contrast	Main Results
17	González-Moret, et al. (2020).	Mindfulness Effect of a mindfulness-based intervention on biomarkers associated with IBD	Quantitative/ pre-post of 2 groups (Ex/Control) Biological markers of disease inflammation in members of both groups: fecal Calprotectin (µg / g) 198 (±394) and 222 (±242); C-reactive protein (mg/dL) 1.93 (±2.50) and 2.46 (±3.81); Hair cortisol (µg/mL) 1.75 (±1.19) and 2.18 (±1.92); Leukocytes (x109 L) 6.76 (±2.29) and 7.97 (±2.27); Platelets (x109 L) 264 (±67) and 252 (±79); Hemoglobin (g/dL) 13.4 (±1.2) and 14.4 (±1.2); Hematocrit (%) 41.0 (±3.2) and 43.5 (±3.3); Ferritin (ng/mL) 183 (±290) and 129 (±100); Albumin (g/dL) 4.6 (±0.3) and 4.7 (±0.7)	N = 57 adults. Experimental group: N = 37; 29 women; age M = 46.2 yrs-old SD = 10.9; control group: N = 20; 9 women; age M = 46.3 yrs-old SD = 11.9. In remission three (3) months prior to the study and without changes in medication, with at least one flare of IBD in the last 12 months and no cognitive impairment ANACOVA square eta ηp^2	Significant differences after six (6) months of treatment, obtaining lower levels of inflammation biomarkers of C-reactive protein (p = .05, np^2 = .066) and fecal calprotectin (p = 0.03, np^2 = .085) in patients of Ex. group and in relation to the baseline, moderate effect sizes. Capillary cortisol allow to establish that there was a slight decrease in the levels of the Ex. with a small to moderate effect size at 6 months, but this difference was not statistically significant (p = .25, np^2 = .036).

ISSN 0257-1439 / ISSNe 1659-2913

Table 1 (cont.).

#	Authors	Type of Intervention &Objetive	Design & instruments	Sample & Contrast	Main Results
18	Ewais, et al. (2020)	Mindfulness Experience of participants with IBD after mindfulness-based therapeutic intervention	Qualitative/Mixed None	N = 29 adolescents/ young adults. Age M = 21 yrs-old SD = 7.72. 55.2% women, 65.5% had a diagnosis of CD and 34.5% ulcerative colitis; 55.2% were single, 17.2% were employed, 38% were students, and 44.8% worked and studied Not shown. Qualitative discourse analysis in focus groups and open response questionnaires	Did not include a baseline or objective measures of the course of IBD. No report whether the therapeutic procedure neither exerted any influence neither on the physical health nor on relief of IBD symptoms; nor were there any before-after measurements of psychological variables associated with IBD. Research shows that participating value mindfulness practice over the course of their illness. Relational-group experience and with the facilitator (therapeutic alliance) makes it possible to highlight the importance of connection and shared understanding, IBD patients seek to make their experiences visible to other patients, a key issue that for researchers underlies the therapeutics of change in the disease. Patient groups are conducive to personal growth and transformation as they describe the key themes of growing in wisdom and sub-themes of healing and self-compassion, acceptance and mastery, and purpose and meaning, which correspond to the common factors of exposure and meaning of mastery, enactment of adaptive actions and existential factors, in keeping with themes of feeling towards oneself, awareness and acceptance and taking control through understanding, all

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within the process of therapeutic change.

Table 1 (cont.).

#	Authors	Type of Intervention Objetive	Design and instruments	Sample Contrast	Main Results
19	Cebolla, et al. (2021)	Mindfulness Examination of the efficacy of a blended intervention (face-to-face and remote) in mindfulness (MBI) compared to standard medical therapy (SMT), in a sample of patients with IBD	Qualitative/Mixed Inflammatory Bowel Disease Questionnaire (IBDQ). Hospital Anxiety and Depression Scale. Perceived Stress Scale. Five Facet Mindfulness Questionnaire (Short Form). Life Orientation Test-Revised (LOT-R) All Spanish validated	N = 90 adults, 47 males, age M = 44.13 yrs-old SD = 11. N = 35 in the MBI condition and N = 22 in the SMT condition. 74% vs. 64% married, 57% vs. 64% employed. 46% vs. 55% with Crohn´s disease, 54% vs. 45% with ulcerative colitis. Student's t test Comparison of treatment response questionnaire protocols between both groups	MBI condition significantly increased HRQoL and optimism compared to the SMT condition. No differences were reported between groups in anxiety, depression, perceived stress, pessimism, or facets of mindfulness. Statistically significant increase in the IBDQ-Global Index score from Time 1 (pre; M = 156.1, SD = 34.3) to Time 2 (post; M = 176.85, SD = 26.49; $t(32) = -4.50$, $p < .001$). Large effect size (eta-squared = .39). There were significant differences between group conditions on post-intervention scores on the IBDQ-Global Index (F (1, 51) = 5.75, p = .020, ηp^2 = .101), IBDQ-Emotional function (F (1, 53) = 7.31, p = .009, ηp^2 = .121), IBDQ-Social function (F (1, 51) = 4.49, p = .039, ηp^2 = .081), and LOT-R (Optimism; F (1, 53) = 6.03, p = .017, ηp^2 = .102). Interviewed participants of MBI group (n = 19) stated that they had learned strategies to regulate their emotions (anxiety, depression, stress) and to manage pain and fatigue.

ISSN 0257-1439 / ISSNe 1659-2913