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Review

Psychological Management of Irritable Bowel Syndrome: A Review

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ABSTRACT

Irritable Bowel Syndrome (IBS) is a chronic disabling condition in which dysfunction of the brain-gut axis plays a central role. It is one of the most commonly occurring functional Gastro-intestinal disorders in which psychological factors are thought to have significant impact. Although clear causes of IBS are not known, stress and anxiety are known to have a crucial effect on the initiation and maintenance of the symptoms of IBS. There is no cure for IBS. Hence, treatment is mainly focused on the management of symptoms. An amalgamation of pharmacotherapy and psychotherapy gives good results in the management of associated symptoms of IBS. Psychological therapies like relaxation therapy, mindfulness-based approaches, psychodynamically oriented therapies, gut-directed hypnotherapy, Cognitive Behavioural Therapy (CBT) are very efficacious in the treatment of symptoms. This review aims to explore the various psycho-social factors and the role of non-pharmacological ways to manage IBS symptoms.

INTRODUCTION

Irritable bowel syndrome (IBS) is a chronic functional bowel condition that is thought to be caused by a problem with brain-gut communication. A disorder of the gastrointestinal tract, Irritable Bowel Syndrome (IBS) is associated with varied symptoms such as pain in the abdomen, diarrhoea, constipation, bloating, excessive gas, spasms, cramps, feeling the need to defecate often, mucus in the stool, etc.[1,2]

It is a type of functional Gastrointestinal(GI) disorder, meaning it is diagnosed on the basis of symptoms, not on the basis of medical tests. This makes the digestive tract very sensitive and also changes how the bowel muscles contract[3,4,5]. Therefore, centrally acting medications like antidepressants and psychosocial treatments may be successful in managing the symptoms of IBS[6,7]. IBS is a pathogenic condition influenced by dysfunctional gut-brain interactions, and various psychological variables like stress are known to have an impact on the initiation and maintenance of the symptoms.

IBS may result in frequent absenteeism from school or workplace and is also thought to have a negative effect on the quality of life[8].People with IBS Frequently suffer from disorders such as depression, anxiety, and chronic fatigue syndrome[8].

IBS can be categorized on the basis of the type of problem of bowel movement. Different interventions may be targeted at different problems[9]. It is not necessary that someone with IBS will have problems associated with the gut everyday. However, sometimes, they may have regular movements, whereas, at other times, it may be abnormal[10].

The type of IBS someone has, depends on the kind of abnormal movement of the bowel. It can be categorized as-IBS with constipation (IBS-C), when most of the stool is hard and lumpy, IBS with diarrhoea (IBS-D), where most of their stool is loose and watery and IBS with mixed bowel habits (IBS-M), where they have both hard and lumpy bowel movements and loose and watery movements on the same day[11].

IBS may have multiple underlying causes[12]. Theories range from changes in the gut's motility, visceral hypersensitivity, neurotransmitters, hereditary factors, and dietary sensitivity to combinations of "gut-brain axis" issues[12]. An intestinal infection (post-infectious irritable bowel syndrome) or a stressful life event may cause the condition to first manifest[13].

Research shows that this is a chronic condition with no cure, with a need to manage symptoms. Management of symptoms can be done by making lifestyle and dietary changes, learning to manage stress, pharmacotherapy, etc.[14,15]

IBS seems to be common worldwide, although there are variations in prevalence rates across regions and countries. In a large-scale multinational study where data was collected from 24 countries, it was found that FGIDs impact more than 40% of persons worldwide, which also affects their quality of life and use of health care[16].

Risk factors for IBS

The condition most frequently affects people in their late teens to early 40s. IBS may affect women twice as frequently as it does males[17]. IBS is also known to run in families, indicating a genetic linkage[18].

Risk factors for IBS include family history of IBS, emotional strain, stress, anxiety, food sensitivity, physical or sexual abuse in the past and severe gastrointestinal infection[19].

There is evidence that the onset, severity, and chronic nature of irritable bowel syndrome are influenced by psychological variables. A study conducted by Tilburg and colleagues included 286 IBS patients who completed a questionnaire regarding abuse history, life events, neuroticism, anxiety,catastrophizing and somatization, in which only two psychological factors i.e. catastrophizing and somatization were found to be positively correlated with the severity of IBS[20]. The study further revealed that anxiety was found to have indirect impact on IBS symptoms which was due to catastrophization.

In another study done by Farnam and his colleagues using the NEO Five Factor Inventory, nonpsychiatric IBS patients had significantly greater levels of neuroticism and conscientiousness and lower levels of openness and agreeableness[21,22]. The exact cause of IBS is not known. However, some associated factors include changes in gut microbes[23], abnormal muscle contractions in the intestine[24], nervous system dysfunction[25], severe infection, early life stress[26]. Multiple researches have also shown that individuals with IBS have a worsening prognosis in line with increasing psychosocial comorbidities[28].

Efficacy of Psychological Therapies

In order to comprehend the effectiveness of psychological therapies in the treatment of people with IBS, Black and colleagues conducted a meta-analysis in which they discovered that gut-directed hypnotherapy and CBT-based therapies were the most effective over the long run[29].

A controlled study comparing conventional medical care alone to normal medical care plus psychotherapy, relaxation techniques, and treatment for 102 patients with irritable bowel syndrome has shown that psychological treatment is viable and successful in two thirds of irritable bowel syndrome patients[29].

Gut-directed Hypnotherapy

Hypnotherapy has been found to effective in the treatment of IBS conditions[30,31]. A post-hoc analysis from the largest randomised control trial of gut-directed hypnotherapy conducted to date by Devenney and colleagues, recruited patients with refractory IBS using the Manchester protocol and results indicated a positive response to hypnotherapy and improvement in abdominal pain scores[30]. These findings from the biggest randomised trial of tailored, therapist-delivered hypnosis indicate that patients who experience a greater number of somatic extra-intestinal symptoms are more likely to benefit from hypnotherapy. Additionally, there is a larger chance of improvement in stomach pain in people with higher baseline IBS severity and lower depression levels. Therefore, it may be crucial to carefully evaluate the intensity profiles of gastrointestinal, somatic, and psychological symptoms in order to identify the patients who will benefit from hypnosis[30].

Another study done on 30 patients with severe, unresponsive irritable bowel syndrome were assigned at random to receive hypnotherapy, psychotherapy, or psychotherapy and a placebo[32]. However, the psychotherapy patients' bowel habits did not change, although their abdominal pain, abdominal distension, and general well-being did. All aspects significantly improved in the hypnotherapy patients, with a highly significant difference between the two groups.

Efficacy of Psychodynamic Psychotherapy in IBS

Psychodynamic psychotherapy has been found to be effective in the treatment of IBS in some of the studies[33,34,35]. Recently, psychodynamic psychotherapy has also been recommended by The World Gastroenterology Organization for its efficacy[36]. In the most current and largest trial, the findings revealed that psychotherapy to a large extent can also be beneficial for IBS[37].

However, we do not have enough literature from recent years to show the efficacy of Psychodynamic psychotherapy, probably because of longer duration of therapy and reduced popularity in recent times.

Efficacy of Relaxation Therapy or Training in IBS

In a study, researchers aimed to assess relaxation training, a single element of many of these regimens in which relaxation condition substantially improved more than the symptom. At the end of the programme, 50% of the Relaxation group had improved clinically[38].

Another randomised controlled trial comprised 98 participants with irritable bowel syndrome in which it was found that relaxation training dramatically reduced symptom severity, perceptions of general health, and medicine use immediately after, as well as six and twelve months afterwards[39].

Efficacy of Mindfulness Training in IBS

Over the past few decades, the practise of mindfulness has become very popular due to an increase in studies showing its efficacy. It can be used as a part of CBT as well as by itself.

A prospective study attempted to examine how mindfulness intervention can reduce stress in IBS patients' specific gastrointestinal symptoms and quality of life (QoL), results showed significant reduction in symptom-specific anxiety and improved QoL[40]. In another study, mindfulness-based therapy revealed the reduction in symptoms which sustained along with an increase in life satisfaction and a decrease in stress[41]. Similar studies with female IBS patients also found the significant effect of 8 weeks of mindfulness-based therapy in the reduction of symptom severity and improved quality of life when compared to a control group[42]. However, in one study while comparing to waiting list control individuals, the intervention has shown mixed results in which an 8-week mindfulness-based therapy programme[43]. Though in this study the bowel complaints showed a considerable decrease, there was no discernible difference in the two groups' quality of life or mood.

In a meta-analysis done by Lakhan and colleagues found a minor to moderately beneficial effect of mindfulness-based therapies on symptom intensity, pain, sadness, and anxiety related to somatization disorders, as well as an improvement in IBS patients' overall quality of life[44]. Acceptance and sustained attention/awareness are the two main characteristics of mindfulness and mindfulness promotes a more non-reactive and accepting attitude as compared to one's habitual methods of relating to thoughts and feelings[45,46]. Additionally, practising mindfulness can also aid in the development of a metacognition that enables one to recognise that thoughts are not real, hence reducing preoccupations with the substance of one's thoughts and also reducing the debilitating impact of IBS on one's life[47,48,49].

In a preliminary non-controlled study on mindfulness for chronic pain including individuals with gastrointestinal discomfort, Researchers also showed significant improvements during post-treatment and follow-up[50]. Blanchard and Keefer in a study found that relaxation response meditation was superior to the control group and that significant improvements in subjects' flatulence and belching were seen after the therapy[51]. Through experiential activities intended to stimulate fundamental processes like acceptance, being present, and committed action, this flexibility is developed. ACT has demonstrated potential as a technique for treating conditions like stress, depression, eating disorders, and chronic pain. By emphasising present-moment experiences and responses, ACT aims to promote psychological flexibility by helping people alter their behaviour in accordance with their particular ideals[52,53,54]. Early research has shown that accepting chronic pain lessens discomfort, psychological distress, and physical and psychological handicap; in addition, researchers discovered that accepting chronic pain was a more accurate predictor of future pain[36].

Efficacy of CBT in IBS

Ford *et al.* conducted a meta-analysis of nine trials on 610 people to compare CBT with control therapy[34]. The fact that symptoms of IBS did not show improvement in 145 (41.5%) of 349 patients assigned to CBT compared with 166 (63.6%) of 261 subjects assigned to control showed the relative efficiency of CBT over the no treatment condition[34].

In another study where 75 Rome II diagnosed IBS patients (86% of whom were female) without comorbid gastrointestinal disease were chosen from the local medical community and randomly assigned to either one of two CBT treatments or a wait list control that guarded against internal validity threats. The 10-week therapy phase was completed 2 weeks after the final evaluation[54]. In this study, participants reported significant relief and symptom improvement at week 12, both CBT variants considerably outperformed WLC.

The effectiveness of psychotherapy on everyday functioning and mental health in persons with IBS was evaluated using meta-analysis. Psychotherapy resulted in much higher gains to everyday functioning and mental health compared to a variety of control situations. The most trials (21 trials) evaluating cognitive behaviour therapy (CBT), hypnosis (4 trials), psychodynamic (3 trials), and relaxation techniques (2 trials). The effects of the various psychotherapy techniques on mental health were comparable. The biggest gains to everyday

functioning were brought about by CBT, and this effect was far greater than what was brought about by relaxation therapy[53,54].

A prospective research with 436 IBS patients was conducted to compare between different treatment options for IBS. Randomly chosen groups of subjects received either 10 weekly, 60-minute sessions of standard CBT including self-monitoring of symptoms, their causes, and effects, muscle relaxation, worry control, flexible problem solving, and relapse prevention training, or 4 sessions of primarily home-based CBT requiring minimal therapy[55].

In another study of 33 RCTs (2657 children in total), by Sinopoulou, twelve studies compared CBT with no intervention, five with educational assistance, three with yoga, two with hypnotherapy, two with gut-directed hypnotherapy, and two with guided imagery for relaxation. The study suggested that CBT and hypnotherapy are viable options for treating Functional Abdominal Pain Disorder (FAPDs) in children[56].

All these evidences point towards the efficacy of mindfulness based interventions in improving the symptoms of IBS, hence, improving their quality of life and associated distress. These practices have always been more prevalent in the Eastern societies but now are also getting adapted by the Western ones due to increased scientific evidence. Therefore, in order to have a more lasting impact, mindfulness-based therapy may need to be combined with other therapies.

CONCLUSION

Irritable bowel syndrome (IBS) sufferers are currently treated with the intention of improving quality of life through symptom relief. While traditional medicine still accounts for the majority of treatment methods, more and more people are looking for non-pharmacological methods of symptom management. Cognitive behavioural therapy being the most prominent intervention has shown significant efficacy in in the management of IBS symptoms and associated overall QoL. Other forms of psychotherapies such as mindfulness based interventions, hypnotherapy and short psychodynamic psychotherapy are current examples of non-drug treatments for IBS that have all been shown some efficacy in clinical trials. We suggest that focusing on psychoeducation and CBT components along with altering awareness and accepting one's own situation, would facilitate the optimal non pharmacological interventions of IBS conditions.

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