



## *World Journal of Pharmaceutical Science & Technology*

Journal homepage: [www.wjpst.com](http://www.wjpst.com)

### Review Article

#### A REVIEW ON RELATIONS OF IBS AND ANXIETY(STRESS)

**Dr. Priyanka Yadav<sup>1</sup>**

1. Ph.D (Ay.) Scholar, Department of *Kayachikitsa*, Shri Krishna Ayush University, Kurukshetra, Haryana. Assistant professor, Dept. of *Kayachikitsa*, MLR Ayurveda college, Charkhi Dadri, Haryana.

#### Address for correspondence:

**Dr. Priyanka Yadav**, Ph.D (Ay.) Scholar, Department of *Kayachikitsa*, Shri Krishna Ayush University, Kurukshetra, Haryana. Assistant professor, Dept. of *Kayachikitsa*, MLR Ayurveda college, Charkhi Dadri, Haryana.

E-mail- [pinkdeep55@gmail.com](mailto:pinkdeep55@gmail.com)

Received: 15-11-2022, Revised: 29-11-2022, Accepted: 15-12-2022

#### ABSTRACT

Irritable bowel syndrome (IBS) is recognized as an illness in which symptoms may be caused by biological, psychological, and social factors. Irritable bowel syndrome (IBS) has been associated with high prevalence of psychological and psychiatric disorders. However, the association between IBS and each of its subtypes (diarrhoea IBS-D, constipation IBS-C, mixed IBS-M) with anxiety still remains unclear. The purpose of this study was to perform a comparative analysis of the association between anxiety and IBS.

**KEYWORDS:** Anxiety, Irritable bowel syndrome

#### INTRODUCTION

##### IBS:

Irritable bowel syndrome (IBS) is a functional disorder, It affects about 20% of the population. As per the Rome III criteria, the IBS can be characterized as recurrent abdominal pain or discomfort for at least 3 days per month, from the last 3 months, connected with two or more of the symptoms described as below: improvement with defecation, onset associated with a change in the frequency of stool and/ or onset associated with a change in form or appearance of stool.<sup>i</sup>

## Overview of IBS

IBS can be divided as:

- **IBS-C:** symptoms usually start with constipation
- **IBS-D:** symptoms usually start with Diarrhoea
- **IBS-A:** Usually alternate stool pattern

There is no any structural abnormality in the gut in IBS like many other gastrointestinal diseases but it's driven by underlying issues within the nervous system of the gut. It hasn't any gender predominance. The exact cause of the condition is unknown but IBS and other similar conditions are classified as disorders of gut-brain interaction (DGBI). Some other factors might also play role in IBS including:

- Stress related situations
- bacterial or viral infections
- food sensitivity or intolerance
- intestinal bacterial growth dysbiosis

## Symptoms

When IBS and anxiety symptoms are together, it is very difficult to know which one is the cause of what you're feeling. IBS symptoms could come on without warning. This unpredictability might make you feel worried about going to new places or being too far away from a restroom. Digestive symptoms can be caused by both anxiety and stress, or anxiety can be a side effect of IBS, especially if your symptoms come on without warning.

## IBS & STRESS/ANXIETY:

Co-morbidity between IBS and anxiety disorders is high. Moreover, anxiety and depression contribute to inefficient therapies in IBS. IBS symptoms are often exacerbated during periods of stressful events. Numerous investigations have reported co-morbidity between IBS and stress-related psychiatric disorders as high as 30–50%. A relation between IBS (*Vataja Grahni*) and psychiatric symptoms (*Manas Sadanam*) are also mentioned in Charak Samhita *Grahni Chikitsa* also<sup>ii</sup>.

## How Stress and Anxiety Can Aggravate IBS Symptoms

Which came first — the IBS or the anxiety? Each is known to trigger the other. Stress and anxiety are intended to be your body's responses to danger. But today's challenges with work, school, and relationship responsibilities mean these emotional states have become more of an everyday occurrence. If you have IBS, stress and anxiety can come to rule your life.

## **How does stress and anxiety affect the gut?**

Together, the brain and the nerves that control your body are called the central nervous system. This system operates on internal controls and divided into two parts: the sympathetic and parasympathetic nervous systems. Some also consider third part also, the enteric nervous system which control the activities of the gastrointestinal system.

The sympathetic and parasympathetic systems usually work in collaboration. The parasympathetic system is known as the “rest and digest” system. It controls body functions like urination, defecation, digestion, tear production, and saliva production in short, many of the functions your body does in going through the activities of daily life.

The sympathetic nervous system is your “fight or flight” side. The response of system is aggravated by Stress and anxiety. They set off a chain reaction of hormone that increases heartbeat, cardiac output, slows or even stops digestive processes in your stomach.

According to an article published in the World Journal of Gastroenterology Trusted Source<sup>iii</sup>, having IBS results in disturbances in the balance between your brain and gut. The result is that stress and anxiety sometimes trigger over activity of your gut. This causes the diarrhea and stomach churning that those with IBS know well. In others, the brain signals are underactive, and their gut may slow down, resulting in constipation, gas, and abdominal discomfort.

## **How stress may trigger IBS**

The body’s goal is to maintain homeostasis, or a steady state of being. After a stress response, fluctuating hormones are meant to return to normal levels. However, when people experience chronic stress and anxiety, their bodies can’t achieve homeostasis. This is often the case when a person has IBS.

Stress can wreak havoc on your gut. It causes the release of many hormones, including corticotrophin releasing factor (CRF). This hormone is linked to the gut’s healthy bacteria, which maintains bowel function. The extra CRF also activates your body’s immune response. While that may sound like a good thing, immune activity can have adverse effects, as is the case when a person has a strong allergic response to a healthy food.

Chronic stress can cause your intestinal bacteria to be imbalanced, a condition known as dysbiosis. According to an article in the World Journal of Gastroenterology Trusted Source, stress-induced dysbiosis may play a key role in a person developing IBS.

An estimated 40 to 60 percent Trusted Source<sup>iv</sup> of those with IBS have a psychiatric disorder, such as anxiety or depression. Stress and major life traumas, such as a breakup, loss of a close family member, or a family member leaving home, are all known to worsen the symptoms associated with IBS.

If you have IBS, you may have noticed that what is going on in your mind is inextricably linked to how your bowel is behaving and now research has confirmed the link between bowel and brain.

Stress can have the following effects on IBS:

- reduces intestinal blood flow
- increases intestinal mucosal permeability
- activation of immune system

All of these changes can greatly affect IBS systems. And for a person who has a lot of stress in their life, the symptoms can become severe. An upset stomach can be natural when you're anxious, but how do you know if it's something more than nerves — such as irritable bowel syndrome (IBS)? Stress and anxiety can manifest in the body in surprising ways. For many people, digestive issues are common when life feels overwhelming. Along with nausea and uneasiness, stress can even feel as though there's a large, uncomfortable rock sitting in your stomach. When you live with both anxiety *and* a medical condition such as irritable bowel syndrome, however, it can be difficult to know which one is responsible for your symptoms.

When you live with both IBS and anxiety, apprehension about IBS symptoms could make your anxiety worse, and your anxiety could make your IBS symptoms feel more intense.

### **Prevention**

To break the cycle of stress and IBS is the way to prevent IBS. When you deeply think when IBS will strike, finding a way to change your thoughts could help. Mindfulness<sup>v</sup> is one method that's been shown to be helpful in managing anxiety disorders, according to a 2017 research review Trusted Source<sup>vi</sup>. A 2020 study Trusted Source<sup>vii</sup> found that mindfulness-based strategies can also help improve IBS symptoms. When you practice mindfulness<sup>viii</sup>, you learn to allow your thoughts to occur in the moment without following them down into the “rabbit hole” where you focus on them over and over again.

Awareness could help with cognitive focus, which might help stop the IBS and anxiety cycle.

### **Management**

The relation between IBS and anxiety is complicated, and you might need to involve management strategies for both conditions. Working with a mental health professional in addition to a healthcare professional could help you work toward anxiety reduction while also treating your IBS symptoms. Both IBS and anxiety could benefit from cognitive behavioral therapy (CBT)<sup>ix</sup>. During this process, you'll learn to identify inaccurate beliefs that might be contributing to negative emotions and worsening the symptoms of IBS. A healthcare professional might also recommend gut-directed hypnotherapy<sup>x</sup>, which is a form of hypnosis. Visualization exercises and suggestive images and metaphors are used during hypnosis to calm your digestive tract and help

move your focus away from your gut sensations. A 2020 review<sup>xi</sup> found that hypnotherapy is an effective approach for the long-term management of IBS symptoms.

While you progress in the clinical setting, there are ways you could help prevent anxiety on your own, including:

- limiting alcohol and caffeine
- practicing yoga, meditation, mindfulness, or other relaxation methods
- using focused breathing techniques
- eating regular, balanced meals
- exercising
- self-care<sup>xii</sup> activities
- seeking humour<sup>xiii</sup> when you feel anxious
- reminding yourself it's OK to be imperfect
- using positive affirmations<sup>xiv</sup>
- distracting yourself with a hobby or activity
- Always ask family and friends to support

IBS management strategies could overlap with anxiety reduction techniques. These strategies might include:

- dietary control (eat Less FODMAP's Diet)
- exercising
- stress management
- sleep schedule
- medications and supplements to recover diarrhoea, constipation, or both

## CONCLUSION

IBS and anxiety are linked in many ways. Not only can they have similar genetic pathways, but experiencing one may also increase the symptoms of the other. Anxiety doesn't cause IBS, but it's natural to feel anxious when you live with unpredictable digestive symptoms. Both IBS and anxiety can be managed, however, and often through the same processes.

## REFERENCES:

<sup>i</sup> Spiegel BM, Farid M, Esrailian E, Talley J, Chang L. Irritable bowel syndrome a diagnosis of exclusion?: a survey of primary care providers, gastroenterologists, and IBS experts. *Am J Gastroenterol.* 2010;105(4): 848–858.].

<sup>ii</sup> CharakSamhita, Chikitsashasthana, ghrani chikitsa , 15/62 .Available from: <http://niimh.nic.in/ebooks/echarak> (Accessed on 3 october2020)

<sup>iii</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4202343/>

- <sup>iv</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3400821/>
- <sup>v</sup> <https://psychcentral.com/health/everyday-mindfulness>
- <sup>vi</sup> <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC5679245/>
- <sup>vii</sup> <https://onlinelibrary.wiley.com/doi/10.1111/nmo.13828>
- <sup>viii</sup> <https://psychcentral.com/anxiety/using-mindfulness-to-treat-anxiety-disorders>
- <sup>ix</sup> <https://psychcentral.com/lib/in-depth-cognitive-behavioral-therapy>
- <sup>x</sup> <https://www.healthline.com/health-news/i-tried-hypnosis-to-help-manage-my-ibs-heres-what-happened>
- <sup>xi</sup> <https://gut.bmj.com/content/69/8/1441.long>
- <sup>xii</sup> <https://psychcentral.com/blog/what-self-care-is-and-what-it-isnt>
- <sup>xiii</sup> <https://psychcentral.com/health/ways-that-humor-heals>
- <sup>xiv</sup> <https://psychcentral.com/health/what-are-positive-affirmations>