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Understanding Distorted Perceptions of External Triggers and Their Link to Symptom Manifestation in Irritable Bowel Syndrome/Inflammatory Bowel Disease Patients: A Qualitative Study

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Abstract: ***Background:*** Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD) are two very prominent and chronic gastrointestinal health conditions, leading to poor quality of life and have been attempted to be studied through a biopsychosocial perspective. Although the psychological comorbidities presenting with the illness have been researched and reported, there is still prevalent lapse in understanding the cognitive and emotional interpretations of external triggers that could be reinforcing the symptoms particularly in the Indian sociocultural context. The current qualitative study aimed at exploring the interpretations of external triggers among individuals with IBS and IBD and examine the cognitive and perceptual processes linking these triggers to symptom experience. The study employed a qualitative research design for which semi-structured interviews were carried out with eight young adults (aged 20–35 years) diagnosed with IBS or IBD and residing in the Delhi-NCR region. Participants were recruited through purposive and snowball sampling from gastroenterology clinics. The data collected through interviews was analyzed through reflexive thematic analysis. The analysis helped extract five broad themes: food as an unpredictable enemy; biased interpretations characterized by catastrophizing and hypervigilance; fear of social situations and loss of control; reliance on traditional and cultural explanations of illness; and the "why me" phenomenon marked by self-blame and victimization. Findings suggest that symptom exacerbation is often mediated by cognitive distortions, anticipatory anxiety, and maladaptive meaning-making processes rather than external triggers alone. The study underscores the role of cognition, emotion, and cultural narratives in shaping symptom perception and illness experience in IBS and IBD. These findings highlight the need for integrative, psychologically informed, and culturally sensitive interventions that address maladaptive illness perceptions alongside medical management to improve patient outcomes.

Keywords: Distorted perceptions, external triggers, IBS, IBD, symptom manifestation.

INTRODUCTION

Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD) are chronic gastrointestinal disorders that considerably diminish people living with these conditions' quality of life, daily functioning, and psychological well-being. While their pathophysiological mechanisms differ, with IBS classified as a functional gastrointestinal disorder and IBD characterized by evident intestinal inflammation, both conditions exhibit fluctuating symptom patterns. Patients frequently report that psychosocial and environmental factors influence the onset and intensity of symptom exacerbations. Over the past decade, the biopsychosocial model has gained increasing recognition within gastroenterology, underscoring the dynamic interplay between

cognitive, emotional, and perceptual processes and gut physiology in shaping symptom perception and management.

Recent literature has highlighted the gut–brain axis, a two-way system connecting the enteric and central nervous systems that illustrates how psychological states can affect gastrointestinal motility, secretion, and immune function (Ghoshal et al., 2022). In this context, psychological processes—stress, attentional bias, and maladaptive cognitive appraisals—are becoming more accepted as key to symptom perception and maintenance.

One of the areas of interest to emerge is the way that people living with this condition notice and interpret external provocation (e.g., foods, social stressors, environmental stimuli) and the potential that there are skewed perceptions or cognitive biases that enhance symptom awareness or exacerbate outcomes. Patients will often describe a story in which particular foods or stressors "always flare me up," but objective testing does not begin to endorse a straightforward one-to-one causality. This inconsistency raises the possibility that people living with this condition's interpretation of external stimuli - a subjective meaning-making process -can itself affect symptom severity and coping responses.

1.1. Global and Indian Context

Globally, IBS is estimated to affect about 10% of adults, whereas the prevalence of IBD is still increasing in developing parts of the world. The prevalence of IBS in India is reported to range between 4 and 7% (Yadav & Patel, 2022). The Indian research suggests that psychological comorbid conditions like depression and anxiety are not incidental but are the focal point of the lived experience of gastrointestinal distress (Tripathi et al., 2025). The Indian Consensus Statements for IBS (Ghoshal et al., 2022) specifically mention the involvement of stress, emotional dysregulation, and cognitive distortions in symptom exacerbation and suggest psychosocial therapy as an adjunct to pharmacotherapy. In addition to this recognition, there is less qualitative investigation into how Indian people living with this condition perceive external factors-dietary, social, or environmental—and how these perceptions are interpreted in terms of symptom expression.

1.2. Psychophysiological Interactions in Gut–Brain Communication

The gut–brain axis shows how the mind and body are continuously talking, connecting biological processes to psychological and social factors. When a person is stressed, the hypothalamic–pituitary–adrenal (HPA) axis reacts by modifying gut function, usually resulting in modified motility or increased sensitivity. At the same time, gut discomfort can also send distress signals to the brain, perpetuating anxiety and heightening sensitivity to bodily sensations. Emotions and thoughts are central to this cycle—patterns like worrying, constant alertness, and intolerance of uncertainty can render normal sensations more acutely felt or feared (De Gucht et al., 2015). For people who have IBS or IBD, this increased sensitivity will lead them to be in tune with their bodies at all times, interpreting normal sensations as warning signs of worsening symptoms. Shorey et al. (2021) explain how many people refer to a "fear of flare-ups," a vicious cycle in which attempting to avoid pain or closely monitoring symptoms actually produces those symptoms to feel greater and more painful.

1.3. The Role of Cognition and Emotion in Symptom Processing

Illness-perception models suggest that people's beliefs concerning the cause, meaning, and control of their illness have a determining role in coping and health outcomes. De Gucht et al. (2015) showed that seriousness and uncontrollability perception mediate the relationship between the severity of symptoms and quality of life in IBS. These results imply that cognitive appraisal serves as an active filter, and it determines not only the subjective load but also the physiological reactivity of gut discomfort. In qualitative reports, people living with this condition tend to report distress regarding uncertainty—"not knowing when the pain is going to happen"—which promotes maladaptive safety behaviors like food restriction or avoidance of events (Sun et al., 2023). These behaviors can be temporarily relieving but perpetuate caution and worry, maintaining symptom perception.

1.4. Culture, Context, and the Indian Gut Experience

In India, perceptions and reactions to gut issues are influenced by a sophisticated blend of cultural practices, eating habits, and the availability of healthcare. Stigma around mental illness tends to make it challenging to discuss the psychological aspect of these issues, and entrenched dietary habits can complicate the discovery of particular food culprits. Most people living with this condition, according to Saroj et al. (2024), describe bowel trouble in terms of "heat" within the body or "filthy food," a deeply ingrained cultural mode of explanation about illness. In urban centers like Delhi-NCR, extra pressures-long commutes, busy lifestyles, and skipped meals—increase the feeling that external forces are imposing symptoms. They underscore the need for research that hears out people living with this condition' own experiences and applies culturally responsive methods to better capture their lived realities.

With the above, theoretical foundations of this study have been showcased, locating IBS and IBD within a

biopsychosocial framework that synthesizes physiological, cognitive, and affective processes. This discussion has addressed the gut–brain axis as a core theoretical construct, examined the specific contribution of maladaptive cognitive processes like catastrophizing and hypervigilance, and placed these concepts within the Indian sociocultural context. Drawing on this conceptual basis, the second section of the thesis draws on existing theoretical and empirical literature to further inform understanding of how psychological and cultural processes influence symptom perception, coping, and lived experience in IBS and IBD.

1.5. The Body, the Mind, and the Gut: A Biopsychosocial Connection

For people with irritable bowel syndrome (IBS) or Inflammatory Bowel Disease (IBD), the gut is not only a piece of digestion-it is the emotional hub of life itself. The biopsychosocial model describes why it is so. It suggests that our environment, mind, and body are in constant dialogue, shaping our experience of health and disease. Enck et al. (2020) and Black and Ford (2020) refer to this as the gut–brain axis, a bidirectional communication network between the brain's emotional centers and the nerves and microbes in the gut.

When stress, fear, or anxiety enter the system, the body responds physically. Stress hormones can modify gut movement, induce pain, or enhance sensitivity. At the same time, gut discomfort can transmit distress signals to the brain, and with it, a cycle where both systems continue to feed upon one another (Saha & Ghoshal, 2023). The cycle illustrates that what is in the mind is closely related to what is in the stomach-and that healing needs to take into account both aspects.

Having a gut disorder sometimes involves coming to understand mystifying body messages. Individuals with IBS or IBD may be very tuned in to each gurgle or twinge, fearing it could be the beginning of the next bout. Studies indicate that this constant alertness, though understandable, actually makes symptoms seem greater. Research by De Gucht et al. (2015) found that what people perceive regarding their illness—whether they view it as controllable or unpredictable-influences how they feel from day to day. If one perceives that they have no control over their symptoms, they may feel anxious and helpless, which in turn can exacerbate physical distress. Likewise, when people concentrate excessively on possible causatives or catastrophize minor feelings ("this pain means something's seriously wrong"), the body reacts with additional stress, yielding an unfortunate circle (Van Oudenhove et al., 2022). Fears and uncertainties tend to accompany such a line of thinking. Thakur and Whorwell (2023) clarify that the "fear of flare-ups" can lead people to restrict food, limit outings, or constantly scan their bodies. Such vigilance may provide temporary relief but instead sustains high levels of anxiety, which continues to fuel the body–mind cycle that perpetuates distress.

1.6. How Thoughts and Emotions Influence Symptoms

Life with gut disease usually involves getting to know the bewildering signals from the body. IBS or IBD sufferers might listen very closely to each gurgle or twinge, in fear that it will be the beginning of another attack. Studies confirm that this over-vigilance, though understandable, actually makes the symptoms more intense. Research by De Gucht et al. (2015) found that what people perceive about their illness—whether they view it as being controllable or not—may alter how they feel daily. If one perceives that he or she cannot control his or her symptoms, then he or she may feel helpless and anxious, which, in turn, can exacerbate physical distress. In the same way, when people overthink possible causes or exaggerate mild sensations ("this pain means something's terribly wrong"), the body naturally responds with increased stress, a self-perpetuating cycle (Van Oudenhove et al., 2022). These patterns of thought often coexist with emotions such as fear and uncertainty. As Thakur and Whorwell (2023) describe, the "fear of flare-ups" will lead people to limit food intake, stay indoors, or constantly watch their bodies. Constant watchfulness provides temporary solace but keeps tension high, which loops back into the body–mind cycle that maintains suffering.

1.7. Hearing Out Patients' Stories

While lab tests can quantify inflammation or bacterial imbalance, they cannot capture the essence of experiencing IBS or IBD. Qualitative research comes into play here—listening to tales, feelings, and meanings people attribute to their symptoms. Shorey et al. (2021), in their meta-synthesis, identified that people usually speak of their gut as unpredictable or even "betraying" them. This unpredictability gives rise to perpetual vigilance and anxiety. Morales et al. (2025) identified the way people living with this condition attempt to give meaning to their suffering by attributing it to food, stress, or something in their life, despite not being identified by tests. Personal explanations, or meaning-making processes, provide people with a sense of control but sometimes become self-blame or restriction. Likewise, Sun et al. (2023) discovered that vagueness regarding when pain may strike causes many to steer clear of social events or attempt strict food regimens. Together, these studies remind us that gut disease is not merely biological but very personal-twisted up with one's feelings, anxieties, and daily choices.

Rationale for the study

There has been evidence suggesting the psychological

basis of IBS/IBD but the perceptual and cognitive processes of individuals in attaching meaning to external triggers is still very scarcely studied. The possibility of understanding whether cognitive distortions play a role in mediating the trigger and symptom manifestation relationship still remains under studied.

MATERIALS AND METHOD

Aim

The study aimed at exploring the perceptions of external triggers of individuals with irritable bowel syndrome (IBS) and irritable bowel Disease (IBD) and their relationship with symptom and illness manifestation.

Objectives

To identify and define the common external triggers that are linked to symptom manifestation in individuals with IBS/IBD.

To explore cognitive and perceptual processes employed by individuals with IBS/IBD to attach meaning to external triggers possibly leading up to symptoms of the illness.

To understand whether individuals are employing any distorted patterns of perception to attach meaning to external triggers and the relationship between cognitive distortions and symptom manifestation of the illness.

Research Design

The current study employs a qualitative research methodology that has been accomplished by administering semi-structured interviews with eight individuals having IBS/IBD and analyzing the manuscripts through thematic analysis. Age of participants included in the study ranged between 20-35 years and were residents of Delhi-NCR. Out of 8 participants included in the study, five were female and three males.

The participants were included in the study through purposive sampling from few known gastroenterology clinics and later also through snowball sampling.

Inclusion Criteria

The participants were chosen for the study based on the following criteria:

- Have received a clinical diagnosis of IBS/IBD from a certified medical health practitioner.
- Belongs to the age bracket of 20 to 35 years.
- Recognizes as any gender (Male, female or others)
- Residing in Delhi-NCR.
- Can speak and understand Hindi and English language.

Ethical Considerations

Ethical concerns such as confidentiality, data anonymity, informed consent and reserving the right to leave the study at any point without having to face any consequences for it were taken care of.

RESULTS

Semi-structured interviews with 8 participants were analyzed through an in-depth thematic analysis to procure emerging themes. The analysis revealed five broad themes that explained how individuals suffering with IBS/IBD perceive and give meaning to their environment in regard to interpretation of their symptoms.

Theme 1: Food: The unprecedented, unpredictable and unimaginable enemy.

Out of 8 participants, 6 (75%) expressed never contemplating how food could become their enemy and could lead them into having anxiety. Their concerns about how a basic need like food could become a trigger that needed attention and caution highlighted their preoccupation with the worry surrounding what they chose to eat.

"I only keep assuming what will trigger my stomach and food just seems to not make me happy anymore. I still feel like trying different foods but my stomach doesn't support me."

"It feels like food and I have become enemies as it just makes me feel so unsure of even my outings."

Theme 2: Biased interpretations: Building catastrophic perceptions and being hypervigilant.

It was observed through interviews that symptoms were manifested and even intensified through attaching catastrophic interpretations to external triggers. Five participants (62.5%) mentioned that even minor discomfort in their gut made them assume the worst-case scenarios which in turn lead them to experiencing more discomfort than before. They happened to experience anxiety even before being actually exposed to a potential food or external trigger as they were excessively self-monitoring for any signs of discomfort.

"A little bit of gas also makes me feel like my entire day will be ruined due to diarrhea"

"I start with enterogermina or probiotics if I happen to eat out and experience even minor pain like feeling."

Theme 3: Stress about social situations and fearing loss of control

A very prevalent theme that emerged during the interviews was individuals fearing losing control and wanting to use the restroom in public spaces. Their

fear was intensified with a common thought of the restrooms not being accessible or being too far or not available at all. This thought made them avoid stepping out often to not land up in embarrassing situations. Six participants (75%) confirmed that their social life had suffered due to their condition.

"I often avoid going to places where I feel it would be difficult to find a washroom around as my symptoms could trigger anytime."

"I feel scared of long car travels as I could possibly not control my symptoms and might end up embarrassing myself."

Theme 4: Traditional and cultural explanations

There were some cultural and traditional explanations of the condition for some participants that were provided by either family, relatives or friends. Few participants (n=5, 62.5%) mentioned how their family, relatives and friends interpreted the situation through a cultural or traditional lens. Alternative therapies and solutions were suggested too for healing the situation.

"My family believes its all because of heat in the body and bad food choices our generation makes."

"Family has been suggesting to start ayurvedic treatments as they believe allopathy won't work."

Theme 5: The "Why me" Phenomena

Two commonly expressed emotions that surfaced were "victimization" and "self-blame". Majority of the participants (n=8, 87.5%) expressed feeling lost as they did not have a proper explanation of why they suffered with what they suffered so they ended up victimizing themselves and blaming their bodies.

"I am so careful of what and where I eat and regularly work out, but my body still doesn't support me. Don't know why I have to go through this uncertainty."
"I surely am a very hard-working person, but only if my body supported my growth. I end up going 3-4 months behind in work when I suffer from gut issues like recurrent typhoid."

DISCUSSION

The current qualitative study aimed at studying how individuals with a diagnosis of IBS/IBD attach meaning to external triggers and how their perceptions could cognitively and emotionally result into symptom manifestation. Being rooted within the biopsychosocial model, the research widened the horizon beyond the physiological explanations of the condition to delve into the meaning making process which help individuals understand their relationship with food, external and internal stressors, situations and narratives that are culturally defined.

The study derives its importance from the notable gap in literature of identifying the relationship between perceiving external triggers through distorted patterns of thinking and symptom manifestation which still remains underexplored especially in the Indian cultural context.

The first theme of the study, "Food as the unpredictable enemy" highlights how a basic and essential requirement of human regular life could become a threat and anxiety provoking stimuli. Participants verbatim is a reflection of the anxiety and fear conditioning towards food which is similar to other qualitative studies (Sun et al., 2023; Shorey et al., 2021) that are suggestive of conditioned fear responses towards specific foods due to episodes of symptom manifestation and not solely food intolerances. The fear driven relationship built with food could result into restrictive eating patterns, nutritional deficiencies and being hypervigilant about symptoms leading into stressful gut brain cycle (Van Oudenhove et al., 2022).

The second theme, "Catastrophic perceptions and being hypervigilant" explains how distorted perceptions and unhelpful thinking styles can over exaggerate the symptoms of the condition. Participants expressed how minor discomfort like a stomach sensation made them perceive the situation as serious leading to heightened anxiety which in turn intensified their physical symptoms. A study (Enck et al., 2020) supports the current theme identifying that individuals diagnosed with IBS often tend to attend to every minor sensation in their gut and body that makes the symptoms more prominent and dreadful. Likewise, De Gucht et al., 2015 also reported that negative perceptions of individuals of their symptoms could make them experience elevated distress. It is suggestive of how negative perceptions could be responsible for intensifying symptoms and be more than mere vigilance of symptoms.

The next theme, "stressing about social situations and loss of control" highlights how anticipating embarrassing social situations and not having access to restrooms could lead to individuals totally avoiding social engagement. According to Thakur & Whorwell (2023) these safety behaviours could alleviate anxiety temporarily but would reinforce fear based conditioning that would maintain the vicious cycle of symptom related anxiety. Avoiding social situations that has been expressed by individuals also leaves an impression about the extensive psychosocial burden of the condition which has been seen to have a direct relationship with poor quality of live and increased depressive signs (Banerjee et al., 2024).

Cultural and traditional explanations was another pertinent theme that emerged through the thematic analysis that uncovered some unique ways of interpreting illness and their treatment modalities in an Indian context. Views such as "heat in the body" and preference of alternative forms of treatments explain how culturally driven narratives could define people's interpretations of their symptoms and choice of treatment. Earlier research (Saroj et al., 2024; Saha & Ghoshal, 2023) has described that such patterns could act as beneficial explanations for patients but they could cause delay in them receiving timely psychological interventions and might reinforce self-blame. It becomes crucial to design psychological interventions that provide culturally aligned psychoeducation that doesn't dismiss traditional belief systems while also proposing biopsychosocial aspects.

Lastly, the "why me" phenomenon is a reflection of participants deeply embedded emotional state of victimization and blaming oneself. The theme is in sync with findings from a study (Van Oudenhove et al., 2022) that describes perceiving chronic conditions as situations leading to identity crisis as the uncertainty of the illness promotes feelings of helplessness and hopelessness (Morales et al., 2025). The self-blaming behavior would only add to the stress levels that would trigger activity of the gut-brain axis making the illness more chronic (Van Oudenhove et al., 2022).

The findings of the study underscore the importance and significance of comprehensive gastroenterological care that would include psychological aspects such as assessment and intervention. The case analysis should be driven with special emphasis on illness perception, unhelpful thinking patterns and safety behaviours that could be contributing to symptom manifestation or intensifying them. Interventions such as cognitive behavioural therapy, gut-directed hypnotherapy, and acceptance-based approaches may be especially useful in reducing catastrophizing, hypervigilance, and fear of symptom flare-ups. The results also emphasize the need for culturally informed clinical practice, particularly within the Indian context, where traditional explanatory models of illness should be acknowledged while collaboratively reframing maladaptive beliefs through psychoeducation on the gut–brain connection. However, the study's qualitative design, small sample size, and restricted geographic and age range limit the generalizability of findings. Further research should include larger and more diverse samples, longitudinal designs, and quantitative investigations to examine the mediating role of cognitive distortions in symptom manifestation. Overall, this study reinforces the understanding of IBS and IBD as biopsychosocial conditions, underscoring the value of integrative, psychologically informed, and culturally responsive care approaches in improving patient outcomes.

REFERENCES

1. Banerjee, A., Gupta, N., & Singh, R. (2024). A follow-up study of anxiety and depressive symptoms in patients with irritable bowel syndrome. Indian Journal of Psychiatry, 66(2), 115–123. https://doi.org/10.4103/0972-6748.411726
2. Black, C. J., & Ford, A. C. (2020). Global burden of irritable bowel syndrome: Trends, predictions, and risk factors. Nature Reviews Gastroenterology & Hepatology, 17(8), 473–486. https://doi.org/10.1038/s41575-020-0286-8
3. De Gucht, V., Garcia, F. L., & Maes, S. (2015). Illness perceptions mediate the relationship between symptom severity and quality of life in irritable bowel syndrome. Quality of Life Research, 24(9), 2033–2045. https://doi.org/10.1007/s11136-015-0932-8
4. Enck, P., Aziz, Q., Barbara, G., Farmer, A. D., Fukudo, S., Mayer, E. A., & Spiller, R. C. (2020). Irritable bowel syndrome. Nature Reviews Disease Primers, 6(1), Article 75. https://doi.org/10.1038/s41572-020-00223-y
5. Ghoshal, U. C., Ghoshal, U., Misra, A., & Choudhuri, G. (2022). Indian consensus on irritable bowel syndrome: Psychological comorbidities and management recommendations. Indian Journal of Gastroenterology, 41(6), 483–496. https://doi.org/10.1007/s12664-022-01333-5
6. Morales, P. S., Martinez, C., & Lopez, E. (2025). Patients' perspectives on irritable bowel syndrome: A focus-group study. Journal of Psychosomatic Research, 178, Article 111050. https://doi.org/10.1016/j.jpsychores.2025.111050
7. Saha, R., & Ghoshal, U. C. (2023). The Indian gut–brain connection: Psychosocial stress and irritable bowel syndrome. Indian Journal of Gastroenterology, 42(3), 210–218. https://doi.org/10.1007/s12664-023-01547-9
8. Saroj, A., Rao, P. N., & Kumar, A. (2024). Psychiatric co-morbidities and symptom profile of patients with irritable bowel syndrome: An Indian perspective. Brain Sciences, 14(4), Article 393. https://doi.org/10.3390/brainsci14040393
9. Shorey, S., Ng, E. D., & Lin, S. E. (2021). Adults living with irritable bowel syndrome (IBS): A meta-synthesis of qualitative evidence. Journal of Psychosomatic Research, 146, Article 110487. https://doi.org/10.1016/j.jpsychores.2020.110487
10. Sun, S., Zhao, H., & Li, Y. (2023). Patients' perspectives on irritable bowel syndrome: A qualitative study from China. BMC

Gastroenterology, 23, Article 97. https://doi.org/10.1186/s12876-023-02874-3

11. Thakur, E. R., & Whorwell, P. J. (2023). The role of psychological therapies in the management of irritable bowel syndrome: An updated review. Therapeutic Advances in Gastroenterology, 16, 1–13. https://doi.org/10.1177/17562848231105241
12. Tripathi, A., Sinha, R., & Das, S. (2025). Irritable bowel syndrome and psychiatric comorbidities: Implications for integrative care. International Journal of Biological Sciences, 21(7), 221–230. https://doi.org/10.7150/ijbs.12043
13. Van Oudenhove, L., Crowell, M. D., Drossman, D. A., & Tack, J. (2022). Biopsychosocial aspects of functional gastrointestinal disorders. Gastroenterology Clinics of North America, 51(1), 1–19. https://doi.org/10.1016/j.gtc.2021.09.001
14. Yadav, M., & Patel, S. (2022). Prevalence of anxiety and depression among Indian patients with irritable bowel syndrome: A meta-analysis. International Journal of Research in Medical Sciences, 10(4), 932–940. https://doi.org/10.18203/2320-6012.ijrms20220987

