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Discovering the Model of Sufferings in Patients with Irritable Bowel Syndrome: A Qualitative Study

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ABSTRACT

Purpose: This study was conducted with the aim of discovering the model of sufferings in patients with IBS.

Methods and Materials: The present research is qualitative in nature and was carried out using inductive thematic analysis. The research context and sample included interview transcripts from 18 patients with IBS who attended gastroenterology clinics in Isfahan. Semi-structured interviews and a thematic analysis results recording form were used to extract the sufferings of patients participating in the study. The interview texts were analyzed through the inductive thematic analysis method of Braun and Clarke (2019), alongside the calculation of the Content Validity Index (CVI) and the Content Validity Ratio (CVR).

Findings: The findings indicated that the sufferings of patients with IBS encompass five final overarching themes: emotional and affective sufferings, sufferings related to reduced quality of life, existential and ontological sufferings, social sufferings, and cognitive and intellectual sufferings. Each of these five major themes also included a diverse range of sub-sufferings.

Conclusion: Based on the findings of this study, the comprehensive model of sufferings in patients with IBS is suggested to be considered in future research as a foundation for psychometric studies (e.g., developing assessment tools to measure the intensity and extent of these sufferings) as well as in the implementation of comprehensive medical and psychological treatment interventions.

Keywords: *suffering, emotional, existential, cognitive, quality of life, social, irritable bowel syndrome*

1. Introduction

Irritable bowel syndrome (IBS) is a chronic gastrointestinal disorder characterized by recurrent abdominal pain, bloating, and altered bowel habits, without identifiable structural or biochemical abnormalities. The condition is classified under disorders of gut–brain interaction, reflecting the complex biopsychosocial mechanisms that underlie its onset and persistence (Drossman & Hasler, 2016; Ford et al., 2020). IBS is among the most common functional gastrointestinal disorders worldwide, affecting quality of life and psychosocial functioning across diverse populations (Canavan et al., 2014; Cañón et al., 2017). Despite its high prevalence, the subjective suffering of patients with IBS and its multidimensional impacts on emotional, cognitive, social, and existential domains remain insufficiently explored in integrative models.

The epidemiology of IBS demonstrates its global burden, with prevalence estimates ranging between 10% and 20% of the population depending on diagnostic criteria and study region (Canavan et al., 2014). In younger populations, such as university students in Colombia, IBS prevalence rates are notable, with significant reductions in health-related quality of life (Cañón et al., 2017). Studies in Asia, including Singapore, have also confirmed the substantial impact of IBS on health-related quality of life, showing impairments in physical, emotional, and social functioning (Wang et al., 2012). Similarly, research in Riyadh has highlighted that patients presenting to family medicine and primary health care clinics experience significant deterioration in quality of life due to IBS (AlDosari et al., 2024). These findings underscore the need to investigate not only physiological symptoms but also the broader psychosocial and existential dimensions of patients' suffering.

The lived experience of IBS is deeply shaped by psychological and social contexts. Research has demonstrated strong associations between IBS symptoms, depression, and structural factors, particularly in patients with diarrhea-predominant subtypes (Lu et al., 2020). Other studies have shown that intestinal symptoms and psychological variables jointly predict patients' health-related quality of life (Zhu et al., 2015). Such findings highlight the necessity of viewing IBS through a multidomain framework, integrating emotional, cognitive, and psychosocial determinants (Surdea-Blaga et al., 2012). Patient-reported outcomes consistently demonstrate that symptom severity scores alone cannot fully capture the lived burden of IBS, necessitating person-centered approaches to assessment (Lackner et al., 2013).

Qualitative studies provide crucial insights into the subjective reality of patients with IBS. For example, work using Q methodology has shown how patients conceptualize and understand their illness, revealing heterogeneous patterns of meaning-making (Stenner et al., 2000). Research focusing on the patient's perspective emphasizes that IBS is not only a medical diagnosis but also a condition that reshapes identity and daily life (Bertram et al., 2001). Gendered experiences further complicate the picture: women often report higher levels of distress and stigma, while men may underreport symptoms or adopt different coping strategies (Björkman et al., 2014; Smith, 2014). These findings suggest that a comprehensive model of suffering must take into account the intersection of gender, culture, and psychosocial context.

Beyond symptomatology, IBS disrupts daily functioning, relationships, and self-management practices. An integrative review has highlighted how patients engage in ongoing efforts to manage their illness through self-care and interaction with healthcare providers (Håkanson, 2014). Long-term qualitative studies reveal that individuals adopt diverse coping strategies to navigate illness in daily life, including lifestyle adjustments, emotional regulation, and negotiation of social roles (Jakobsson Ung et al., 2013). The interpersonal dimension is particularly salient, as general practitioners often perceive that IBS shapes patients' relationships in ways that extend beyond the gastrointestinal tract (Crocker et al., 2013). Such findings emphasize the relational and contextual nature of suffering in IBS.

In addition to interpersonal consequences, IBS significantly alters social and professional lives. Patients frequently report social withdrawal, difficulties maintaining employment, and strained family relationships (Farndale & Roberts, 2011). These social and relational losses compound the physical and psychological burden of the condition, creating a cyclical pattern of suffering that undermines resilience. Recent qualitative evidence from China, based on patient narratives expressed on social media, has confirmed that IBS is perceived as an all-encompassing illness that limits opportunities for social participation and diminishes hope for recovery (Sun et al., 2023). These perspectives highlight the importance of integrating patients' voices into models of IBS-related suffering.

Emerging theoretical frameworks on suffering help situate IBS within a broader psychosocial context. Suffering is increasingly conceptualized as a multidimensional phenomenon, encompassing physical pain, psychological distress, social alienation, and existential disruption (Phillips et al., 2023). A comprehensive clinical model of suffering proposes that health conditions such as IBS cannot be fully understood without accounting for the individual's interpretation of their illness and its implications for meaning, identity, and relational bonds. Similarly, research in long-term illness more broadly describes patients as moving continuously between states of suffering and health, emphasizing that health can coexist with illness through adaptation and resilience (Koskinen & Koskinen, 2025). For IBS, this perspective highlights the necessity of exploring how patients negotiate suffering in ways that sustain meaning and well-being despite persistent symptoms.

The methodological approach of thematic analysis provides an effective tool for uncovering the diverse dimensions of suffering in IBS. Reflexive thematic analysis, as elaborated by Braun and Clarke, emphasizes the active role of the researcher in generating themes and allows for the identification of nuanced patterns in patients' narratives (Braun & Clarke, 2019). Such approaches are particularly suited for complex conditions like IBS, where biomedical explanations cannot fully account for patients' lived experiences. Indeed, the application of thematic analysis has proven essential in capturing the interconnections between emotional, social, cognitive, and existential forms of suffering.

The complexity of IBS underscores the importance of integrating biomedical, psychological, and sociocultural perspectives. Epidemiological studies provide critical insights into prevalence and risk factors (Canavan et al., 2014), while qualitative and mixed-methods research reveals the personal and relational dimensions of suffering (Huisman et al., 2024). Together, these strands of evidence converge on the recognition that IBS is not solely a gastrointestinal condition but a disorder of lived experience, in which the gut–brain axis intersects with cultural expectations, social support, and psychological resilience (Ford et al., 2020; Surdea-Blaga et al., 2012).

The historical trajectory of IBS research further illustrates the evolution of understanding from narrow biomedical models to integrative biopsychosocial frameworks. Early studies highlighted symptom descriptions and illness understanding (Bertram et al., 2001; Stenner et al., 2000), while later work expanded into the psychosocial and relational consequences of the condition (Crocker et al., 2013; Farndale & Roberts, 2011). Contemporary scholarship now emphasizes patient-centered outcomes, subjective experiences, and holistic models of suffering (Koskinen & Koskinen, 2025; Phillips et al., 2023). This progression demonstrates the ongoing need for qualitative investigations that uncover the depth and breadth of patients' experiences.

Taken together, the literature reveals IBS as a chronic, multidimensional illness that challenges not only biomedical frameworks but also psychosocial and existential understandings of health. Patients consistently describe IBS as a condition that undermines emotional stability, social participation, cognitive coherence, and existential meaning (Lu et al., 2020; Sun et al., 2023; Zhu et al., 2015). These findings align with broader conceptualizations of suffering as an integrative construct, extending beyond physical symptoms to encompass the totality of human experience (Phillips et al., 2023).

Despite advances, gaps remain in the comprehensive mapping of suffering in IBS. Existing research highlights individual domains—such as quality of life, psychological distress, or social functioning—but few studies integrate these findings into a unified model of suffering that reflects patients' complex lived realities (Ford et al., 2020; Huisman et al., 2024). The development of such a model has the potential to inform psychometric tools, enhance clinical assessment, and guide integrated therapeutic interventions across medical and psychological domains.

Based on these considerations, the present study seeks to discover an integrated model of the sufferings experienced by patients with IBS, using qualitative methods grounded in inductive thematic analysis. The objective is to provide a comprehensive understanding of emotional, cognitive, social, and existential dimensions of suffering, thereby contributing to the development of holistic care strategies for individuals living with IBS.

2. Methods and Materials

2.1. Study Design and Participants

The present research is a qualitative study based on inductive thematic analysis following the approach of Clarke and Braun (2019). Participants in the study were patients with irritable bowel syndrome (IBS) who attended gastroenterology clinics and treatment centers in Isfahan during the winter of 2025. The research context consisted of the interview transcripts of 18 patients with IBS. The interview questions focused on the range of problems and sufferings of these patients. Inclusion criteria included being within the age range of 20 to 45 years, having been diagnosed with IBS for at least 3 to 5 years, having a confirmed diagnosis, and not suffering from chronic psychological disorders such as bipolar disorder, schizophrenia, and similar conditions (as verified through detailed interviews and examination of participants' medical records). Exclusion criteria included lack of cooperation or unwillingness to participate in the study. Ethical principles included preserving the personal and identity-related information of participants, using interview content solely to extract patients' sufferings and problems, and granting full autonomy to participate or not participate in the study. The following tools were used in the research.

2.2. *Measures*

To comprehensively identify the dimensions of patients' sufferings, semi-structured interviews were conducted, and the full content of interviews was recorded either through audio recording or written documentation when necessary. The semi-structured interview questions aimed to capture the network of patients' sufferings, needs, and challenges, and included the following:

1. When did you realize you were suffering from irritable bowel syndrome?
2. What gastrointestinal problems did you experience that prompted you to consult a doctor?
3. How did you become certain about your IBS diagnosis, and what was your reaction when you found out?
4. Please explain in detail the range of issues, problems, and sufferings you experienced after receiving a definite IBS diagnosis.
5. What family and social difficulties (with friends or others) did you face as a result of IBS?
6. What occupational difficulties did you face as a result of IBS?
7. What psychological problems (changes in mood, feelings, thoughts, beliefs, emotions, and affect) did you face due to IBS?
8. Has your outlook and perception of life changed since your IBS diagnosis? If so, what changes?
9. Have you experienced symptoms such as hopelessness, fatigue, exhaustion, depression, or anxiety since your IBS diagnosis? With what intensity and frequency?
10. Do you think your life path and trajectory have changed since your IBS diagnosis? If so, what changes?

2.3. *Data Analysis*

This form was used to document meaningful units, open codes, subthemes, main themes, and examples based on the thematic analysis approach of Braun and Clarke (2019) to identify the problems, needs, and sufferings of patients with IBS. The form was applied during the extraction of results from the interviews, and its content validity was fully aligned with the thematic analysis approach of Braun and Clarke (2019).

Data collection was carried out through interviews with 18 patients with IBS who met the inclusion criteria. Using inductive thematic analysis, patients' sufferings and issues were extracted from the interviews based on Braun and Clarke's (2019) six-phase framework, including meaningful units, open codes, subthemes, and main themes. At this stage, three independent coders carefully reviewed the data extraction process, and the Content Validity Index (CVI) and the Content Validity Ratio (CVR) were calculated. For the three independent coders, both indices equaled 1. After confirming the credibility of the thematic analysis, the thematic network was drawn, and the final content of the thematic network was cross-checked with the four levels of analysis from meaningful units to main themes.

For data analysis, the six-phase process of inductive thematic analysis based on Braun and Clarke (2019) was applied to the semi-structured interview transcripts. To determine the content validity of the conducted thematic analysis, both the Content Validity Ratio (CVR) and the Content Validity Index (CVI) were used.

3. Findings and Results

The results of the thematic analysis of the sufferings and challenges of individuals with irritable bowel syndrome (IBS) are presented in Table 1. It should be noted that, due to the large volume of meaningful units initially extracted from the interviews, these meaningful units are not presented in the tables.

Table 1

Results of the Inductive Thematic Analysis of the Dimensions of Suffering in Individuals with Irritable Bowel Syndrome

Open Codes	Subcategories	Main Categories	Core Theme
Sadness – grief – hopelessness	Depression and mood	Mood and anxiety problems	Emotional and affective sufferings
Constant worry – anxiety – confusion – hyperarousal	Anxiety and worry		
Negative emotions – emotional apathy	Emotional weakness	Emotional weaknesses	
Anxiety-related incapacity – irritability	Anxiety weakness – distress		

Reduced bodily comfort – reduced physical health	Decline in physical health indicators	Decline in physical and psychological well-being	Sufferings related to reduced quality of life
Impaired mental health – suicidal thoughts – insomnia	Decline in mental health indicators		
Impaired healthy interactions – weakened healthy relationships – reduced positive supports	Decline in social health – decline in healthy social bonds	Decline in social well-being	
Change in living conditions – change in self-care – change in care for others	Change in living well-being – change in self and others' well-being	Decline in favorable life conditions	
Reduced relationships – reduced social tolerance – social sufferings – need for supportive relationships	Decline in social relations – social expectations	Weakened social relationships	Social sufferings
Social comparison – weakened social motivation – need for more friends	Need for social bonding – need for social recreation	Sense of social deprivation	
Sensitivity to social pity – sensitivity to others' questions – feelings of isolation – feelings of rejection	Approach-avoidance conflict – social abandonment	Sense of social isolation	
Pessimism toward self – pessimism toward the future	Generalized negativity	Dysfunctional cognitions	Cognitive and intellectual sufferings
Distracted mind – inability to control beliefs – inability to manage anxiety sensitivity	Inability in cognitive and mental control		
Repetitive thoughts – disabling thoughts	Rumination	Dysfunctional attitudes and thoughts	
Weak self-view – defective conditional thoughts – maladaptive conditional attitudes	Disabling attitudes – defective thoughts		
Change in life concept – change in meaning of life – change in life content	Change in life meaning – change in life perspective	Emptiness of life meaning	Existential and ontological sufferings
Emptiness – loneliness – existential abandonment – suffering – torment	Distressing loneliness – emptiness of self and life – painful existential suffering	Sense of emptiness and loneliness	
Lack of willpower – lack of freedom – entrapment – restriction	Captivity – need for release	Lack of willpower and freedom	
Loss of attractiveness – helplessness – sense of destiny change	Decline in vitality – sense of nearing the end	Helplessness and unsuccessful life	

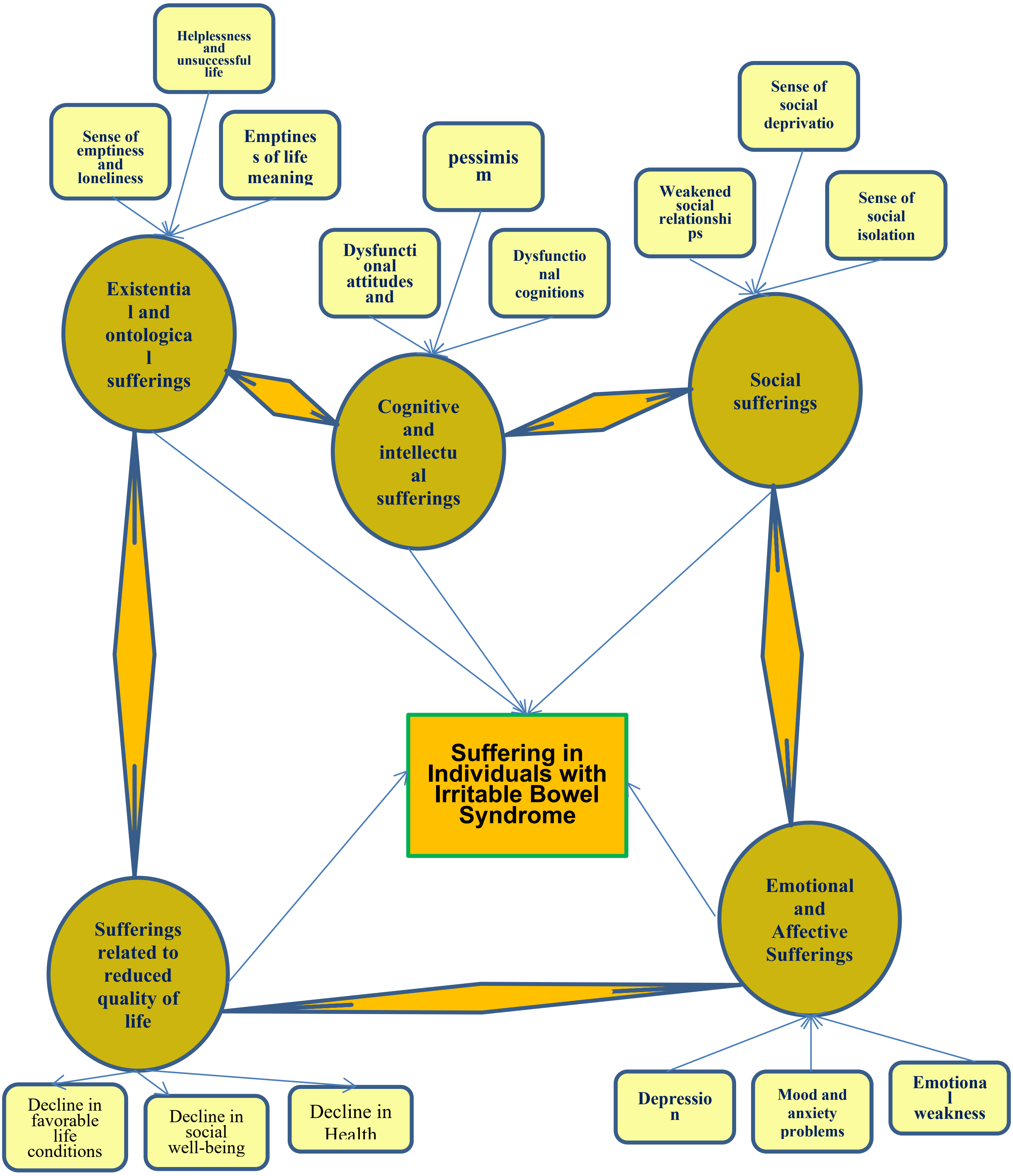
As shown in Table 1, the range of sufferings among patients with IBS consists of five overarching core themes: emotional and affective sufferings, sufferings related to reduced quality of life, social sufferings, cognitive and intellectual sufferings, and existential and ontological sufferings. Each of these five categories encompassed multiple subthemes.

- **Emotional and affective sufferings** included mood and anxiety problems (depression and low mood, anxiety and worry) and emotional weaknesses (emotional fragility, anxiety-related weakness, and distress).
- **Sufferings related to reduced quality of life** included declines in physical and psychological well-being (reduced physical health indicators, reduced mental health indicators), declines in social well-being (reduced social health and reduced healthy social bonds), and declines in favorable life conditions (changes in life well-being and reduced self and others' well-being).
- **Social sufferings** included weakened social relationships (decline in social ties and increased social expectations), a sense of social deprivation (need for bonding and social recreation), and a sense of social isolation (approach-avoidance conflict and social abandonment).
- **Cognitive and intellectual sufferings** included dysfunctional cognitions (generalized negativity and inability in cognitive and mental control) and dysfunctional attitudes and thoughts (rumination, disabling attitudes, and defective thoughts).
- **Existential and ontological sufferings** included emptiness of life meaning (changes in life meaning and perspective), sense of emptiness and loneliness (distressing loneliness, emptiness of self and life, and painful existential suffering), lack of willpower and freedom (sense of captivity and need for release), and helplessness and unsuccessful life (decline in vitality and sense of nearing the end).

The results of the thematic analysis were cross-checked with the interview texts by three independent coders. After revisions, the Content Validity Ratio (CVR) and the Content Validity Index (CVI) for the three independent coders were both equal to 1.

Figure 1

The comprehensive thematic network of sufferings in patients with irritable bowel syndrome



4. Discussion and Conclusion

The findings of this qualitative study revealed that the sufferings of patients with irritable bowel syndrome (IBS) can be understood through five major themes: emotional and affective sufferings, sufferings related to reduced quality of life, social sufferings, cognitive and intellectual sufferings, and existential and ontological sufferings. Each of these domains encompassed multiple subthemes that reflected the diverse challenges encountered by patients, including depression, anxiety, relational strain, maladaptive cognitions, a sense of emptiness, and diminished meaning in life. These results indicate that IBS is not only a functional gastrointestinal disorder but also a complex biopsychosocial condition that profoundly shapes patients' psychological, social, and existential worlds.

The first theme, emotional and affective sufferings, highlighted the prevalence of depression, hopelessness, anxiety, and negative emotional states. These findings are consistent with prior research documenting the strong link between IBS and psychological comorbidities, particularly depression and anxiety (Lu et al., 2020; Zhu et al., 2015). Studies have shown that symptoms of diarrhea-predominant IBS are closely associated with depressive symptoms, pointing to the reciprocal influence between gut dysfunction and emotional well-being (Lu et al., 2020). Similarly, research from China revealed that both intestinal symptoms and psychological distress collectively impair patients' quality of life, confirming the interconnected nature of affective and gastrointestinal experiences (Zhu et al., 2015). The prominence of affective suffering in the present study supports the growing understanding of IBS as a disorder of gut–brain interaction rather than a purely gastrointestinal illness (Drossman & Hasler, 2016; Ford et al., 2020).

Sufferings related to reduced quality of life emerged as another central theme, reflecting diminished physical, mental, and social well-being. These results align with evidence that IBS significantly undermines health-related quality of life in both Western and non-Western contexts (AlDosari et al., 2024; Wang et al., 2012). For instance, patients in Riyadh reported significant impairments across physical, social, and emotional domains due to IBS, echoing the multi-faceted nature of suffering identified in this study (AlDosari et al., 2024). Similarly, Singaporean patients described how IBS restricted daily activities, interpersonal functioning, and psychological well-being (Wang et al., 2012). These findings also converge with earlier work showing that patients' perspectives emphasize not only physical discomfort but also disruptions to broader life satisfaction and productivity (Bertram et al., 2001; Lackner et al., 2013). Collectively, these studies confirm that quality of life impairments are a defining element of IBS-related suffering.

The results also revealed social sufferings, including weakened social relationships, feelings of social deprivation, and experiences of isolation. This theme is strongly supported by prior research indicating that IBS affects not only the patient but also their relational environment. General practitioners have observed that interpersonal difficulties often emerge as central consequences of the disorder (Crocker et al., 2013). Patients themselves describe significant challenges in maintaining social bonds, partly due to stigma, embarrassment, or unpredictable symptoms (Farndale & Roberts, 2011). Moreover, gendered perspectives highlight how women often face additional social burdens, reporting higher levels of stigma and relationship strain (Björkman et al., 2014). In line with this, Smith (Smith, 2014) underscored that male and female experiences of IBS differ in terms of coping and disclosure, suggesting that social suffering must be understood through a gender-sensitive lens. The current study adds to this body of work by demonstrating how social difficulties form a distinct category of suffering, one that intersects with emotional and existential challenges.

Cognitive and intellectual sufferings, encompassing maladaptive cognitions, rumination, and generalized negativity, were also prominent in the findings. These results resonate with research showing that dysfunctional cognitive patterns play a critical role in the maintenance and exacerbation of IBS symptoms (Lackner et al., 2013). For example, maladaptive thoughts and illness-related beliefs have been linked to greater symptom severity and reduced capacity for coping. Stenner and colleagues (Stenner et al., 2000) further showed that patients' interpretations of their illness vary widely, often reflecting distorted cognitions and misunderstandings that contribute to distress. These findings support the necessity of addressing cognitive patterns within therapeutic approaches to IBS, as dysfunctional beliefs can perpetuate cycles of anxiety and symptom exacerbation.

The existential and ontological sufferings identified in this study represent an important yet often overlooked dimension of IBS. Patients reported feelings of emptiness, loss of meaning, lack of freedom, and a sense of approaching life's end. These findings echo broader conceptualizations of suffering that emphasize its existential nature (Koskinen &

Koskinen, 2025; Phillips et al., 2023). Phillips and colleagues (Phillips et al., 2023) argued that suffering extends beyond physical pain to encompass disruptions to identity, purpose, and life meaning, while Koskinen and Koskinen (Koskinen & Koskinen, 2025) described suffering and health as fluid states through which individuals oscillate during chronic illness. These perspectives help contextualize the current study's findings, suggesting that IBS must be understood not only as a medical condition but also as a challenge to patients' existential orientation.

Taken together, the five dimensions of suffering identified in this study are consistent with prior qualitative and quantitative investigations. Patients consistently describe IBS as a condition that reshapes their lived experience in multidimensional ways (Håkanson, 2014; Jakobsson Ung et al., 2013). For example, Jakobsson Ung and colleagues (Jakobsson Ung et al., 2013) showed that long-term IBS sufferers develop strategies to manage daily life but continue to experience ongoing disruptions, while Håkanson (Håkanson, 2014) highlighted how healthcare encounters and self-care efforts become central to illness management. These findings support the view that IBS-related suffering is pervasive and enduring, affecting every aspect of patients' lives.

Another important implication of the results is that IBS-related suffering cannot be fully captured by symptom-based assessment tools. While epidemiological studies provide critical data on prevalence and distribution (Canavan et al., 2014), they often fail to reflect the depth of patients' suffering. Similarly, patient-reported outcomes, although valuable, may not encompass existential and social dimensions (Lackner et al., 2013). This underscores the importance of qualitative approaches, such as reflexive thematic analysis, which allow for rich exploration of subjective experiences (Braun & Clarke, 2019). The methodology used in this study aligns with prior calls for patient-centered frameworks that integrate biomedical, psychological, and existential domains (Ford et al., 2020; Surdea-Blaga et al., 2012).

The present findings also resonate with cultural and contextual studies of IBS. Social media analysis in China highlighted how patients interpret their condition as an all-encompassing life disruption, mirroring the existential and social themes identified in this study (Sun et al., 2023). Similarly, qualitative work in Colombia demonstrated that young adults with IBS experience substantial impairments to quality of life, even at early stages of illness (Cañón et al., 2017). These cross-cultural findings suggest that while specific manifestations of suffering may vary, the multidimensional nature of IBS suffering is a global phenomenon.

The integration of previous literature with the current findings suggests a comprehensive model of IBS-related suffering that encompasses emotional, cognitive, social, and existential dimensions. This aligns with broader clinical models of suffering that emphasize multidimensionality (Phillips et al., 2023). It also affirms the need for healthcare providers to move beyond symptom management toward holistic care approaches that address the totality of patients' lived experience. Shared sensemaking between clinicians and patients has been proposed as a valuable approach for managing IBS-like symptoms in complex contexts, such as quiescent inflammatory bowel disease (Huisman et al., 2024). This approach could be extended to IBS more generally, where integration of patients' narratives into treatment planning may enhance therapeutic outcomes.

In conclusion, this study provides robust evidence that IBS-related suffering is multidimensional, spanning affective, quality-of-life, social, cognitive, and existential domains. The findings converge with existing literature yet also extend it by offering a unified thematic model that captures the breadth of patients' experiences. This model has important implications for assessment, intervention, and the development of integrative care frameworks that acknowledge IBS as both a medical and existential condition.

This study has several limitations. First, the sample size was limited to 18 patients in a single city, which restricts the generalizability of findings to other cultural or geographic contexts. Second, qualitative data were collected through semi-structured interviews, which rely on self-report and may be influenced by recall bias or participants' willingness to disclose sensitive information. Third, while three independent coders were used to enhance validity, thematic analysis remains interpretive, and different researchers might have generated alternative themes. Finally, the study did not include healthcare professionals' or family members' perspectives, which might provide additional insights into patients' suffering.

Future research should expand the sample to include more diverse populations across different cultural and healthcare contexts, allowing for cross-cultural comparisons of IBS-related suffering. Longitudinal qualitative studies could track how patients' experiences of suffering evolve over time and in response to interventions. Mixed-methods approaches may also be valuable, integrating quantitative measures of symptom severity and quality of life with qualitative exploration of existential and social dimensions. Finally, future studies should explore the perspectives of caregivers and clinicians to build a more comprehensive understanding of the relational aspects of IBS suffering.

For practice, healthcare providers should adopt a holistic approach to IBS management, addressing not only gastrointestinal symptoms but also emotional, cognitive, social, and existential domains. Clinical encounters should prioritize active listening and validation of patients' experiences, incorporating their narratives into care planning. Psychological interventions, such as cognitive-behavioral therapy or meaning-centered therapies, could help patients manage emotional and existential suffering. Interdisciplinary collaboration between gastroenterologists, psychologists, and social workers is essential to provide comprehensive care. Ultimately, integrating biomedical treatment with psychosocial and existential support may enhance outcomes and improve the quality of life for patients living with IBS.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

References

AlDosari, M. N., Alotaibi, R. M., Algahtani, M. N., Alshammari, T. S., & Almziri, B. F. (2024). Assessing the impact of irritable bowel syndrome on quality of life in patients at family medicine and primary health care clinics of the national guard health affairs, Riyadh. *Cureus*, *16*(12), e76158. https://doi.org/10.7759/cureus.76158

Bertram, S., Kurland, M., Lydick, E., Locke, G. R., & Yawn, B. P. (2001). The patient's perspective of irritable bowel syndrome. *Journal of Family Practice*, *50*(6), 521-525. https://go.gale.com/ps/i.do?id=GALE%7CA75995850&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=00943509&p=HRCA&sw=w

Björkman, I., Dellenborg, L., Ringström, G., Simrén, M., & Jakobsson, U. E. (2014). The gendered impact of Irritable Bowel Syndrome: A qualitative study of patients' experiences. *Journal of Advanced Nursing*, *70*(6), 1334-1343. https://doi.org/10.1111/jan.12294

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative research in sport, exercise and health*, *11*, 1-9. https://doi.org/10.1080/2159676X.2019.1628806

Canavan, C., West, J., & Card, T. (2014). The epidemiology of irritable bowel syndrome. *Clinical Epidemiology*, *6*, 71-80. https://doi.org/10.2147/CLEP.S40245

Cañón, M., Ruiz, A. J., Rondón, M., & Alvarado, J. (2017). Prevalence of irritable bowel syndrome and health-related quality of life in adults aged 18 to 30 years in a Colombian University: An electronic survey. *Annals of Gastroenterology*, *30*(1), 67-75. https://doi.org/10.20524/aog.2016.0093

Crocker, K., Chur-Hansen, A., & Andrews, J. (2013). Interpersonal relationships for patients with irritable bowel syndrome: a qualitative study of GPs' perceptions. *Australian family physician*, *42*(11), 805-810. https://search.informit.org/doi/abs/10.3316/INFORMIT.686646179850804

Drossman, D. A., & Hasler, W. L. (2016). Rome IV-functional GI disorders: Disorders of gut-brain interaction. *Gastroenterology*, *150*(6), 1257-1261. https://doi.org/10.1053/j.gastro.2016.03.035

Farndale, R., & Roberts, L. (2011). Long-term impact of irritable bowel syndrome: a qualitative study. *Primary Health Care Research & Development*, *12*(1), 52-67. https://doi.org/10.1017/S1463423610000095

Ford, A. C., Sperber, A. D., Corsetti, M., & Camilleri, M. (2020). Irritable bowel syndrome. *The lancet*, *396*(10263), 1675-1688. https://doi.org/10.1016/S0140-6736(20)31548-8

Håkanson, C. (2014). Everyday life, healthcare, and self-care management among people with irritable bowel syndrome: An integrative review of qualitative research. *Gastroenterology Nursing*, *37*(3), 217-225. https://doi.org/10.1097/SGA.0000000000000048

Huisman, D., Fernhout, F., Moxham, F., Norton, C., Bannister, K., & Moss-Morris, R. (2024). Managing patients' reports of abdominal pain and irritable bowel syndrome-like symptoms during quiescent inflammatory bowel disease: a role for shared sensemaking. *British Journal of Pain*, *18*(4), 325-336. https://doi.org/10.1177/20494637241230807

Jakobsson Ung, E., Ringstrom, G., Sjövall, H., & Simrén, M. (2013). How patients with long-term experience of living with irritable bowel syndrome manage illness in daily life: a qualitative study. *European Journal of Gastroenterology & Hepatology*, *25*(12), 1478-1483. https://doi.org/10.1097/MEG.0b013e328365abd3

Koskinen, M., & Koskinen, C. A. (2025). Movement between suffering and health-experience of health during long-term illness. *Scandinavian Journal of Caring Sciences*, *39*(2), e70069. https://doi.org/10.1111/scs.70069

Lackner, J. M., Jaccard, J., & Baum, C. (2013). Multidomain patient-reported outcomes of irritable bowel syndrome: exploring person-centered perspectives to better understand symptom severity scores. *Value in Health: The Journal of the International Society for Pharmacoeconomics and Outcomes Research*, *16*(1), 97-103. https://doi.org/10.1016/j.jval.2012.08.2207

Lu, J., Shi, L., Huang, D., Fan, W., Li, X., Zhu, L., Wei, J., & Fang, X. (2020). Depression and structural factors are associated with symptoms in patients of irritable bowel syndrome with diarrhea. *Journal of Neurogastroenterology and Motility*, *26*(4), 505-513. https://doi.org/10.5056/jnm19166

Phillips, W. R., Uygur, J. M., & Egnew, T. R. (2023). A comprehensive clinical model of suffering. *Journal of the American Board of Family Medicine*, *36*(2), 344-355. https://doi.org/10.3122/jabfm.2022.220308R1

Smith, G. (2014). Uncovering male and female experiences of irritable bowel syndrome. *Evidence-Based Nursing*, *70*, 1334-1343. https://doi.org/10.1111/jan.12294

Stenner, P. H., Dancey, C. P., & Watts, S. (2000). The understanding of their illness amongst people with irritable bowel syndrome: a Q methodological study. *Social Science & Medicine*, *51*(3), 439-452. https://doi.org/10.1016/S0277-9536(99)00475-X

Sun, S., Chen, J., Li, H., Lou, Y., Chen, L., & Lv, B. (2023). Patients' perspectives on irritable bowel syndrome: a qualitative analysis based on social media in China. *Quality of Life Research: an International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, *32*(9), 2561-2571. https://doi.org/10.1007/s11136-023-03417-x

Surdea-Blaga, T., Băban, A., & Dumitrascu, D. L. (2012). Psychosocial determinants of irritable bowel syndrome. *World Journal of Gastroenterology*, *18*(7), 616-626. https://doi.org/10.3748/wjg.v18.i7.616

Wang, Y. T., Lim, H. Y., Tai, D., Krishnamoorthy, T. L., Tan, T., Barbier, S., & Thumboo, J. (2012). The impact of irritable bowel syndrome on health-related quality of life: A Singapore perspective. *BMC Gastroenterology*, *12*, 104. https://doi.org/10.1186/1471-230X-12-104

Zhu, L., Huang, D., Shi, L., Liang, L., Xu, T., Chang, M., Chen, W., Wu, D., Zhang, F., & Fang, X. (2015). Intestinal symptoms and psychological factors jointly affect quality of life of patients with irritable bowel syndrome with diarrhea. *Health and Quality of Life Outcomes*, *13*, 49. https://doi.org/10.1186/s12955-015-0243-3