Healthcare seeking behavior among subjects with irritable bowel syndrome

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ABSTRACT

The behaviors exhibited by individuals who seek healthcare for irritable bowel syndrome (IBS) are numerous, varied, and sometimes controversial, and/or inconsistent. This study aims to review the factors associated with these healthcare seeking behaviors. Through a selective review of the literature, articles were identified by using the following search terms: IBS, healthcare seeking, conventional and non-conventional treatment, cultural factors, and gender differences. The roles of different factors associated with healthcare seeking are discussed.


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Irritable bowel syndrome (IBS) is the most common functional bowel disorder, characterized by abdominal pain, and changes in stool consistency and/or stool frequency. There are discrepancies in the prevalence rate and healthcare seeking behavior of IBS patients around the world. A significant part of the international variation may arise from locale-specific differences in healthcare utilization, diagnostic practices, sampling techniques, differences in healthcare systems, and the definition of healthcare seeking. Current evidence supports a biopsychosocial pathophysiological model of IBS in which biological and psychosocial determinants interact in the clinical expression of disease and illness. Psychosocial factors have an impact on symptoms presentation, experience, and interpretation. They can also modify illness behavior and influence treatment and clinical outcomes. Healthcare use is a costly outcome of IBS in terms of inappropriate medical investigation, unnecessary surgery (particularly hysterectomy and cholecystectomy), medication usage, and repeated consultation with healthcare professionals. On average, healthcare costs for IBS patients are 50% higher than those for patients of similar age and gender who do not have IBS. Although IBS causes considerable morbidity and impairment of quality of life, not all IBS patients seek medical care. Previous studies show that individuals with IBS seek medical care for the treatment of their abdominal symptoms at highly variable rates, ranging from 5% to 84%. Multiple factors of interest are associated with the healthcare seeking behavior of IBS patients. This manuscript highlights these factors through a selective review of literature pertaining to this topic from 1980-2011. Selection is based mainly on relevance and year of publication. Using the following search terms we identified approximately 200 articles: IBS, healthcare seeking, conventional and non-conventional treatment, cultural factors, and gender differences. Emphasis was placed on controlled trials and review articles.

Symptoms factor. The importance of IBS symptom severity as a determinant for seeking healthcare has
been recognized in many population-based studies. Among IBS symptoms, abdominal pain is most consistently associated with consultation behavior, along with symptom duration, specifically, duration and/or severity of abdominal pain. Furthermore, Koloski et al reviewed the literature and found that the type of care received by IBS patients was predicted by their pain reports, with tertiary care patients reporting more pain. Irritable bowel syndrome is a chronic, non-organic syndrome, primarily involving altered perception, and processing of pain. These altered pain mechanisms may lead to the heightened perception of physical discomfort related to the gut function, which in turn can lead to increased health-related behaviors (namely, seeking medical advice or taking sick leave). A vicious cycle that is focused on illness-related stimuli and reactions may thus be incurred by increased symptom perception, focus on illness-related stimuli, and illness behavior. Symptoms other than abdominal pain have been reported, but these symptoms are not as significant as abdominal pain in predicting the healthcare seeking behavior of IBS subjects.

Health-related quality of life. There is a strong evidence from previous studies that individuals with IBS have an impaired health-related quality of life (HRQOL) compared with unaffected individuals. Studies have shown that patients with IBS are more likely to have a reduced quality of life that is manifested by a negative effect on sleep, employment, sexual functioning, leisure, travel, and diet. Greater interference of gastrointestinal (GI) symptoms with work and other activities, as well as reduced IBS-specific quality of life, have previously been identified as predictors of increased healthcare seeking and healthcare use among IBS subjects relative to healthy subjects. Interestingly, a study by Hahn et al showed no relationship between patient-perceived severity of IBS and GI symptoms. However, the same study revealed that perceived IBS severity was clearly associated with quality of life. Patients who rated themselves as a very severely afflicted reported the lowest scores and had the poorest overall health indicators for all quality of life dimensions measured. Hahn et al proposed that perceived IBS severity is defined by the limitations that the disease imposes, instead of by the actual symptoms. The limitations imposed by IBS are correlated with the patient’s perception of his or her illness and the manner in which the patient conceptualizes the symptoms. This proposal leaves one with the impression that the effect of IBS on quality of life is unique and complex resulting from the ambiguous characteristics of the disorder, including its psychosomatic nature, and the patient’s subjective GI symptoms. It is thus, entirely conceivable that the complex and psychosomatic nature of IBS can influence the healthcare seeking behavior of IBS patients.

Psychological comorbidity. It is widely recognized that IBS patients have a high prevalence of psychopathology, affecting 40-60% of afflicted individuals. This psychopathology displays itself as anxiety, depression, panic disorder, post-traumatic stress, and somatization disorder. Numerous investigators have found that psychiatric symptoms are predictors of healthcare seeking in IBS patients. However, other studies have found no association between psychological comorbidity and healthcare seeking behavior in these individuals. These conflicting results make it difficult to draw a conclusion about this matter and raise a valid query on the role of methodological factors in the suppositions. For example, many studies suggesting a relationship between psychiatric comorbidity and healthcare seeking targeted out-patients and volunteers, while studies failing to confirm this relationship were population-based. Another relevant issue is the reliability of the psychiatric assessment tools that were used in the various studies. It is worth noting that the relationship between psychological comorbidity and IBS must be viewed in a broad context that is not confined to healthcare seeking behavior per se. Generally, depression and anxiety are known to be associated with higher healthcare costs in the population at large, despite the coexistence of IBS. In IBS patients, however, psychopathological features generally influence symptom perception, healthcare seeking behavior, and quality of life. Furthermore, psychological disturbances in IBS patients appear to be bone fide predictors of poor health outcomes of more days spent in bed, more frequent healthcare visits and surgeries, greater pain scores and psychological distress, and impaired daily function. Given these findings, we can conclude that psychological comorbidity has a significant effect on healthcare seeking behavior in IBS patients, either directly or indirectly via multiple effects on different aspects of the disorder.

Gender differences. Numerous studies show a significant female predominance in hospital series of IBS patients in Western countries, but this was not the case in community series. This finding has been attributed at least in part to gender differences in healthcare utilization, because women with IBS are more likely to seek healthcare for their symptoms compared with men. Some authors have suggested that GI symptoms are augmented in female patients with IBS, which might be related to the effects of ovarian hormones on visceral hypersensitivity. However, this
view is probably not sufficient to explain the possible gender differences between women and men.

In contrast, the predominance of female IBS patients in hospital series is sometimes nonexistent in developing countries.\textsuperscript{48,49} For instance, male IBS patients are the majority in India and Sri Lanka, which suggest that differences in the healthcare seeking behavior of men versus women instead of disease prevalence are responsible for gender variations in these countries.\textsuperscript{39,50} However, other investigations have found no influence of gender on healthcare seeking behavior in patients with IBS, regardless of the country.\textsuperscript{17,41} Because the results regarding gender are neither consistent nor universal, a solid conclusion cannot be drawn on gender effect on healthcare seeking behavior. Moreover, this issue may be the subject to the influence of additional factors, such as sociocultural background.

The effect of culture. Sociocultural factors must be considered in regard to IBS, not only in terms of healthcare seeking behavior, but for almost all pertinent aspects of the disorder. For example, results from prevalence studies may be biased by the use of translated questionnaires, given that the description of IBS symptoms may have different meanings in different cultures and languages.\textsuperscript{50,51} Moreover, earlier studies suggested that the effect of IBS on HRQOL varies in different cultural settings.\textsuperscript{32,52} It has been found that IBS has a significant effect on quality of life in both of United Kingdom (UK) and the United States (US). But, the effect appeared to be greater in the UK than in the US.\textsuperscript{32} Furthermore, individuals may interpret their health events that is partly dependent on their social and cultural backgrounds.\textsuperscript{53} Based on several lines of evidence, Gwee et al\textsuperscript{44} concluded that the perception of IBS symptoms by patients in Asia might be different from the perception of symptoms by patients in the West, and that sociocultural factors may therefore be more important determinants of healthcare seeking behavior than psychological factors. Generally, up to approximately 50\% of individuals suffering from IBS will seek healthcare for their GI symptoms, according to the estimates in Western\textsuperscript{55} and Asian populations.\textsuperscript{56} Consultation rates were reported to be as high as 84\% in Singapore, 57\% in Hong Kong, and 55\% in Taipei. These rates were generally higher than those reported in many Western countries.\textsuperscript{13,14,57-60} Observation of different Asian countries reveals a trend for higher consultation rates in more affluent city-states. The highest rate of medical consultation for IBS was recorded in Singapore (84\%), followed by Japan (59\%), Hong Kong (57\%), and Taipei (55\%).\textsuperscript{15,57,59} However, more modest consultation rates were reported in Malaysia (43\%), Pakistan (39\%), Bangladesh (35\%), and India (34\%) (Table 1).\textsuperscript{50,61-63} In India, IBS consultation rates were associated with higher socioeconomic class.\textsuperscript{50,61} Generally, healthcare-related behavior and beliefs, the socioeconomic environment, and religious proclivities\textsuperscript{52} are all cultural factors of interest in regard to IBS. These factors play an important role in the patient's overall perception of his or her IBS symptoms and hence, healthcare seeking.

Illness behavior and patient beliefs. Illness behavior describes the various aspects of how patients perceive, react, and cope with their symptoms. The term “illness behavior” was originally introduced by Mechanic.\textsuperscript{64} Illness behavior includes features such as healthcare seeking, requests for investigations, partaking in conventional or non-conventional treatment, taking sick leave, avoidance of physical activity, and expression of symptoms. These features are subject to multiple cultural, psychosocial, economic, demographic, and geographic factors that influence the reaction of an individual to illness. An individual who holds the belief that he or she is vulnerable to illness and disease and who then experiences IBS symptoms may regard the symptoms as confirmation of this vulnerability; thereby, reinforcing the negative illness belief.\textsuperscript{65} A perception of vulnerability to illness may also increase treatment seeking behavior and fears of serious disease, reducing an individual's expectations for his or her own recovery.\textsuperscript{65} Pilowsky\textsuperscript{66,67} introduced the term “abnormal illness behavior” to summarize the behavioral aspects that might contribute to the maintenance of the disorder.

Interestingly, illness behavior shows only moderate association with illness severity. This implies that subjects with the same illness can exhibit very different illness behaviors, highlighting the fact that intra-individual and social factors play a major part in illness behavior.\textsuperscript{68} Thus, a patient's attitude to his or her symptoms will determine what type of illness behavior he or she will adopt. However, it is possible that the illness attitudes of individuals with IBS actually develop as a response to the experience of living with the disorder and the (potentially frustrating) process of seeking medical treatment.\textsuperscript{69} It must be noted that some IBS patients do not seek medical help for their disorder. Kolosky et al\textsuperscript{11} found that the main self-reported reasons for non-consultation for IBS-related GI symptoms were that the subjects believed they could treat their GI issues themselves by taking over-the-counter medications or by altering their diet. Furthermore, these subjects were already knew the cause of their symptoms (diet, stress, viral infection, and so forth) and that consultation would be of little help.
reliably effective for IBS, it is not surprising that up to 50% of IBS patients turn to CAM therapies. Ample treatment and their overall medical care, in terms of clinical implications for the healthcare of IBS patients. Thus, the ambiguity of IBS symptoms. Many IBS patients express concerns or fears on their disease and believe that their symptoms represent a dangerous or life threatening condition, such as cancer. Such patients pay selective attention to abdominal sensations and may feel as if physicians do not answer their questions or provide appropriate support. Indeed, fear of cancer is a major factor in predicting whether a person with IBS decides to consult a healthcare provider on his or her symptoms. This fear is of great importance in terms of clinical implications for the healthcare of IBS patients. Thus, the ambiguity of IBS, the generally limited response to treatment, and the great impact on HRQOL necessitate that the patient’s fears and concerns be thoroughly addressed.

Alternative healthcare use. Complementary and Alternative Medicine (CAM) is defined by the National Center for Complementary and Alternative Medicine (NCCAM) as a group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine. Based on low levels of satisfaction with conventional treatment and their overall medical care, in addition to the fact that no single available treatment is reliably effective for IBS, it is not surprising that up to 50% of IBS patients turn to CAM therapies. Ample evidence suggests that out-patients with IBS experience symptoms that are more severe than those of patients in primary care. As a result, IBS out-patients may consider alternative healthcare remedies more frequently than patients in primary care. In out-patient studies, rates of CAM use for IBS ranged from 16-50%. By contrast, a population-based study showed that 21% of IBS patients sought care from an alternative healthcare provider. Complementary and Alternative Medicine users tend to be younger, more frequently female, and more highly educated than non-CAM users. Moreover, CAM users report an enhanced level of IBS symptom severity, as well as less satisfactory relief of bowel symptoms following treatment for their condition. They also demonstrate a greater degree of bowel distention, a higher rate of depression and anxiety, higher somatization scores and expenditures on non-prescription drugs, and a lower quality of life. In a randomized, double-blinded, placebo-controlled trial, Chinese herbal formulations were shown to be effective for the management of IBS. However, there is considerable variation in alternative healthcare use in terms of its availability, efficacy, level of organization, and acceptance by patients, not to mention differences in the cultural and religious backgrounds of the patients themselves and the attitudes toward CAM that these backgrounds afford. Another relevant issue relating to IBS management is self-medication, which is a common practice worldwide in both developed and developing countries. Self-medication may be even more common than the use of prescribed medication, with prevalence rates ranging from 13-92%. Furthermore, a population-based case control study showed that the use of over-the-counter (OTC) drugs is common among IBS patients.

Healthcare systems. Irritable bowel syndrome is common worldwide, and major variances in healthcare systems around the globe are likely to influence the means by which individuals seek medical care. Healthcare system variables include the distribution of services and their organization, accessibility, and integration; patient satisfaction with the quality of their healthcare and the physician-patient relationship; availability and efficiency of a primary care system; the referral system for medical care; the availability of gastroenterology services, and so on. Interestingly, a population-based study published in 2003 revealed that only satisfaction with the physician-patient relationship discriminated between IBS subjects who sought continued consultation with a physician versus those who did not. This relationship provided an independent prediction of healthcare seeking behavior.

Regarding the patient-physician relationship and as noted above, the majority of IBS patients report that they are insufficiently informed on their condition and that physicians do not provide an adequate explanation for their symptoms. Irritable bowel syndrome patients often ask for explanations and educate them about their

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On the other hand, excessive health anxiety represents one of the most prevalent maladaptive illness behaviors exhibited by IBS patients who are high healthcare seekers and users. In this regard, studies have found that healthcare seeking among IBS subjects was associated with disproportionate concern on the medical meaning of IBS symptoms. Many IBS patients express concerns or fears on their disease and believe that their symptoms represent a dangerous or life threatening condition, such as cancer. Such patients pay selective attention to abdominal sensations and may feel as if physicians do not answer their questions or provide appropriate support. Indeed, fear of cancer is a major factor in predicting whether a person with IBS decides to consult a healthcare provider on his or her symptoms. This fear is of great importance in terms of clinical implications for the healthcare of IBS patients. Thus, the ambiguity of IBS symptoms, the generally limited response to treatment, and the great impact on HRQOL necessitate that the patient’s fears and concerns be thoroughly addressed.

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disease, rather than for medication to cure or alleviate their symptoms.Outside of the patient-physician relationship, Koloski et al.\(^1\) found that factors related to the healthcare system in and of itself did not appear to be important in explaining the healthcare seeking behavior and healthcare use of IBS patients. However, research in this area is scarce, and further investigation is required to more conclusively elucidate the impact of healthcare system factors on healthcare seeking for the treatment of IBS.

In conclusion, the heterogeneous clinical presentation of IBS and the magnitude of the inter-individual variability in symptom perception can result in highly erratic manifestations of this disorder. At the same time, healthcare seeking behavior is multidimensional and involves many intersecting factors. The end result of these complex interactions might drive an IBS patient to seek healthcare, or not. The lack of effective treatment options makes IBS a frustrating condition. Education represents a cornerstone in the overall care for IBS patients. It is mandatory for patients to understand the nature of IBS, how to react to it, what they should expect from IBS and IBS treatment, and how to live with it. Thus, an increase in patient education in regard to the illness and a better strategy to address patient concerns on symptoms are anticipated to improve the overall well-being of IBS sufferers, while concomitantly decreasing their healthcare seeking behaviors and healthcare costs.

**References**


