

**IRRITABLE BOWEL SYNDROME: STUDENTS' AWARENESS, KNOWLEDGE,
ATTITUDE AND EXPERIENCE REGARDING IBS**

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Abstract

To investigate if the under graduate students are aware IBS, and to determine attitude and beliefs and perceptions of undergraduate medical and applied students regarding irritable bowel syndrome (IBS) about its diagnostic criteria and treatment strategies. A questionnaire was sent to students of University of Hail regarding IBS criteria, diagnostic methods and treatment Furthermore, some patients who were diagnosed with IBS underwent telephone interview. The study was carried between 2010 January to September, 2010 with 202 samples by applying simple convenient Method. A total of 202 student responded to the survey. Overall, 13 patients were diagnosed monthly with IBS by gastroenterologist. Most easiest way by Physicians use exclusion criteria to diagnose IBS according to knowledge of students. Sixty percent used the patient's history, 28% used a physical examination, and 12% exclusion of other diseases to diagnose IBS. A total of 82% of subject or students know that IBS is as common and chronic disorder and most of them were satisfied with treatment. IBS affected daily activities in 43% students' shows positives response. Mass media was the most common source of information according to them. Most of the patients with IBS are diagnose by Physicians in their Clinics coming to them with GIT symptoms. Awareness and knowledge of diagnostic criteria for IBS differ between different age groups and under graduate students have enough knowledge about IBS.

Keywords: Irritable bowel syndrome, Questionnaire study, Diagnostic criteria, Physician knowledge

Introduction

Irritable bowel syndrome (IBS) is the one of the most prevalent gastrointestinal disorder. Worldwide Its signs and symptoms in any age which vary periodically from mild to moderate or in some individual severe have many adverse effects on the quality of human life; therefore the its treatment in these patients is vital important. Sufferers should be consult by their physicians that the nature of the IBS is mild or benign which can be treated by gently, and they just need to know how to deal with it.1

IBS is one the disease commonly refers to gastroenterologist in their clinics. It can affect up to two in ten individuals at some point in their lives. The prevalence of IBS varies in different country according to country criteria used for IBS. Various procedure and Mechanism or theories have been proposed about its occurrence and etiology, but the common one which is accepted currently is known as biopsychosocial model.²The complexity of IBS sign and symptoms would be the result of the psychosocial and environmental factors and due to interaction between psychological and behavioral effects which modify the disease symptoms. The confirmatory specific test for diagnosis of IBS. For diagnosis of IBS physician mostly use criteria based on clinical symptoms such as Rome criteria but still in some patients the symptoms are thought to be rare or atypical. This study aim to investigate if the under-graduate students are aware of sign and symptoms of IBS and about it treatment and diagnostic critaria.³⁻⁴

The IBS induce adverse social and economic burden on society and it is one of the chronic pathological condition that are considered a clinical challenge in the 21st century The gold standard method for its diagnosis currently used is called Rome Criteria as uptill now no clinical evidence that are use by the phycians.⁵

Role of stress or mental status:

The association between IBS and stress are now under consideration. Anxiety and stress are psychological factors, that has been described by some studies as one of the etiological factor for many years 6-9One of the study shows that in rats, corticosterone induce stress cause mucosal irritation lead to intestinal inflammation¹⁰.However, further studies are required to evidence the direct association between intestinal dysfunction and stress. Some studies shows that after eating of spicy food the symptoms of IBS in patients become more worse.¹¹Some studies shows that life stress like divorce, relationship difficulties, chronic illness, exam failures or in adult life business failures, housing difficulties effects health life.¹²

Role of food and bile: Some patients with IBS report worsening of symptoms after eating spicy food.¹³⁻¹⁵ Multiple factors have been considered to contribute to food sensitivity or food allergy in subjects with IBS. Investigations have centered on food specific antibodies, carbohydrate malabsorption, and gluten sensitivity. Although some IBS patients related relief of symptoms on a gluten-free diet.¹⁶⁻¹⁷We reported that IBS patients have difficulties with food in general and specific foods may not be involved in IBS pathogenesis.¹⁸⁻¹⁹

There is still no clinical evidence to recommend the use of biomarkers in blood to diagnose IBS. However, a number of different changes in IBS patients were demonstrated in recent years, some of which can be used in the future as a diagnostic support. IBS has no definitive treatment but could be controlled by non-pharmacologic management eliminating of some exacerbating factors such certain drugs, stressor conditions and changes in dietary habits. The traditional pharmacologic management of IBS has been symptom based and several drugs have been used. However, the cornerstone of its therapy is a solid patient physician relationship.²⁰

Irritable bowel syndrome affects all ages especially common in children and adults. Chronic and acute life stress, especially during childhood, has been recognized as central to the initiation of the disorder and the induction of acute symptoms. We propose a developmental continuum whereby the clinical presentation of irritable bowel syndrome changes with age from irritability during infancy, to diarrhea in toddlers, to recurring abdominal pain during school age, and to pain and altered bowel habits during later adolescence and adulthood.¹⁸

Patients with different irritable bowel symptoms and normal subjects were compared to determine whether subtypes of IBS could be distinguished on the basis of colonic motility or psychological test scores. However, there were no significant trait differences between patients with diarrhea and those with constipation. Also, there was no correlation between amount of psychopathology and either colonic motility or severity of symptoms in the whole group of IBS patients.²¹

Women with irritable bowel syndrome who had a history of an anxiety or depressive disorder were compared to those without symptoms of either disorder on indicators of cardiac parasympathetic activity, autonomic nervous system balance, and general autonomic activity²²

A similar comparison was done with healthy controls. Among women with irritable bowel syndrome, those with a positive history had lower parasympathetic and general activity throughout the 24-hr period than did women without a diagnosis. Indicators of autonomic balance were slightly higher in women with a positive history compared to those without a history. Similar differences were seen in controls. Thus, a history of anxiety and depressive disorders is associated with lower parasympathetic activity, both in women with IBS and healthy controls.²³

MATERIALS AND METHODS

This study was conducted at medical college of University of Hail, KSA, from September to December and is cross-sectional by design. The University of Hail is one of the most prestigious Medical University of Saudi Arabia. The entire faculty of Assistant Professors and above, and the lecturers and especially the student of medical college and students of preparatory year and also students of Applied Sciences were included in the study. After explaining the purpose of the study and by obtaining their verbal consent, the participants were asked to complete the questionnaire and return a pre-tested questionnaire to get their knowledge and behavior about the Irritable Bowel syndrome. The general level of understanding and knowledge, attitude and practice of the medical teachers (who also work in clinical hospital) regarding sign and symptoms and how they diagnosis were explored, with a convenient sampling technique. The results were analyzed by using SPSS software.

The questionnaire describe and accurately measures signs and symptoms and it distinguishes patients with functional gastrointestinal disorder and GIT disease from those with other conditions and due to bacterial infection and viral infections. Data from 202 subjects were collected and analyzed. Patients with gastrointestinal symptoms were ultimately diagnosed as having functional gastrointestinal disease 42 with the irritable bowel syndrome and 18 with functional dyspepsia or organic gastrointestinal disease. There were 135 healthy control subjects and 5 patients with a psychiatric disease, somatoform disorder (which includes those with a diagnosis of hypochondriasis, psychogenic pain, and somatization or conversion disorder). All subjects were requested to complete the questionnaire. By the help questionnaire subjects attitude toward the GIT were assessed and it was designed as a self-report tool and an important instrument to measure some common symptoms experienced over the previous year and to collect the participants' past medical and family history. Subjects having common symptoms of IBS were asked to write down their telephone number and give their consent to participate in a telephone survey. Subjects. All research Data were analyzed by SPSS 20 software. Tables were constructed for frequency and percentage. The exact P values are listed in the tables and text

Ethics

Verbal consent as well as written consent were taken, subjects gave their permission for the research.

RESULTS

Table 1 shows the awareness of IBS among subjects. Most of the subject knows well about IBS and some of them having a positive family history and also aware about sign and symptoms of IBS.

	Yes	No	Don't Know	Not Applicable
IBS is common or known condition by subjects	166 (82.2%)	12 (5.9%)	24 (11.9%)	—
IBS is easy to Diagnosis	104 (51.5%)	34 (16.8%)	28 (13.9%)	36(17.8%)
Need for awareness	186 (92%)	—	16 (8%)	—
Family and friends have a history of GIT symptoms similar to IBS	132 (65.3%)	14 (6.9%)	56 (27.7%)	—
Blood samples help is making accurate diagnosis	184 (91.1%)	—	18 (8.9%)	—
IBS is associated with stress and emotions	140 (69.3%)	—	62 (30.7%)	—
IBS is disturb life	110 (54.5%)	92 (45.5%)	—	—

Table 2 Awareness of the disorder, diagnosis and treatment in interviewer-diagnosed patients n (%)

	All subjects(n =202)
Diagnosed with IBS	20 (22.2)
Awareness and Knowledge of IBS	63 (65.4)
Present with of IBS symptoms	37 (39.4)
Satisfied with treatment for IBS	12 (12.8)
IBS affects daily activities and Routine life	40 (42.6)
Think they will be cured of IBS	29 (30.9)
Think they will always suffer from IBS	27 (28.7)

Patients had heard of IBS and had seen a physician because of IBS symptoms, but only half of those had received a diagnosis of IBS. IBS patients were satisfied with the treatment they had been given. IBS did affect daily activities in approximately 43% of the cases One third of the IBS patients thought they would be cured of IBS but a similar proportion thought they would always suffer from IBS. More than half of patients believed that dietary modification was important for treatment of IBS.

Awareness of the disorder, diagnosis and treatment in interviewer-diagnosed patients n (%)

TABLE 2: ATTITUDE AND PRACTICE OF STUDY RESPONDENTS REGARDING IBS

	Yes	No	Don't Know	Not Applicable
Treatment used by subject Mebeverine	152 (75.2%)	38 (18.8%)	12 (6%)	—
Husk and other medication	32 (15.8%)	170 (84.2%)	—	—students
Lifestyle and food changes	170 (84.2%)	32 (15.8%)	—	—
Relaxation	136 (67.3%)	34 (16.8%)	—	32 (15.8%)
IBS is not life threatening condition	190 (94.1%)	12 (5.9%)	—	—
Placebo Information be given to Study Participants	154 (76.2%)	48 (23.8%)	—	—
Can Placebo or No Treatment be Used	132 (65.3%)	36 (17.8%)	34 (16.8%)	—

The attitude and practice of the respondents about research are given in table 2. Most useful medication is Mebevarine used by Patients. Patients were found to use more non-traditional medication than prescribed drugs Only 32 percent students use husk and other medication for IBS. Subjects also belief that there is some relation of mental status to IBS and stress condition can raised symptoms of IBS so they believe during exams, they feel abdominal motility to be increased and they get relief by relaxation . Placebo information also given to the study subjects. 32 percent subject show positive behavior towards Placebo use.

Table :3 Most common irritable bowel syndrome symptoms (%)

Abnormal bowel movements	61
Abdominal pain	86
Bloating	20
Gas	9
Passage of mucus	5
Incomplete evacuation with defecation	5

Most common IBS symptom is abnormal bowl movement and 86 out of 202 subject said abdominal pain as a most common symptoms and bloating is second most observed by them. Most IBS patients reported abdominal pain (73.7%), bloating (21.1%), constipation (5.3%) and diarrhea (10.5%) as the symptom that led to the diagnosis. More than half (57.9%) of the IBS patients who received management for their IBS symptoms were satisfied.

DISCUSSION

The prevalence of IBS is not as high here in hail as compare to other cities of Saudia. The awareness of IBS is good enough among students. Subjects with positive friend and family history IBS most likely visited to clinics and some believe self-medication and herbal method are best to get relief from symptoms. Only half of the IBS patients who saw a physician received a diagnosis of IBS. Knowledge and perception of IBS is limited among non medical students. This study suggests that awareness programs which involve physicians, consultant and patients should be helpful in which IBS criteria, sign symptoms and effect of stress should be highlighted. The study shows the awareness and knowledge, perception of students for treatment methods ,diagnostic criteria for IBS varies between students of different disipline. Mostly used method is by physicians is a diagnosis of exclusion²⁴ IBS is chronic functional disorder characterized by irregular bowl motility and abdominal discomfort. It is more prevalent than asthma and diabetes ²⁵A precise diagnostic tool very important to treat the IBS symptoms. Most physicians have used the method of exclusion when diagnosing patients with IBS. Most community providers also believe IBS is a diagnosis of exclusion rather than using positive criteria to support the diagnosis²⁵Although it is been time consuming and expensive but recently, Rome III criteria are now a days gold standard method used by the physicians to diagnose IBS.²⁴There is no doubt that diagnostic criteria constitute a useful and important tool to help heath care provider to make aaccurate and good diagnosis of IBS. The study has addressed not only the importance of diagnosis and treatment used by the patients but also the importance of consensus about the diagnosis of the disease and how good knowledge and awareness make a positive impact on understanding the common sign and symptoms . This study has also addressed the IBS students perspective, how many student sought physicians, and how many of themor their family member experienced the disease.²⁶

According to the results of this study, most IBS patients were seen by GPs, and this is most likely also the case in other countries, underlining the importance of awareness and knowledge of IBS on the part of the GPs. However, physicians are aware of and use the most common IBS symptoms such as abnormal bowel movements, abdominal pain and bloating in their diagnostic approach, and these were the most common symptoms IBS subjects in the present study.

In the current study, physicians reported in most cases that they gave advice on diet and education on IBS as a treatment of IBS symptoms; this finding underlines the importance

of providing reliable and useful information on IBS to patients, as well as the fact that there are no specific treatment options for IBS that are useful for all patients.

It is of interest that among interviewer-diagnosed IBS patients, only one out of five was diagnosed with IBS, even though more than half of the IBS patients saw a physician because of their symptoms. Subject also agreed on low quality of life caused by IBS. It is also conceivable that subjects do not recognize IBS as a disease that leads to impaired quality of life. The absence of positive diagnosis of IBS might lead to lack of relevant treatment for specific symptoms of IBS such as abdominal pain. There is a need for a simple, practical and reliable diagnostic tool to be used in everyday clinical practice to diagnose IBS more accurately; a tool that will encourage physicians to be able to make a reliable diagnosis and to provide effective treatment^[32,33].

The limitation of this study was the relatively low response rate in the study group, which raises the question as to whether the level of awareness and knowledge of diagnostic criteria might be even lower than the result obtained. The strengths of the study, however, were that all participants of the study in the relevant fields of general practice and gastroenterology were invited to participate, and the fact that all IBS medicine who were contact to some patient to fill the questionnaire by telephone participated in the survey. In conclusion, in this study, only few of the IBS patients who saw a clinicians received a diagnosis of IBS. Knowledge of IBS is enough high among IBS under graduate students. More widespread knowledge and use of the diagnostic criteria among physicians can be expected to support a more accurate diagnosis of IBS.

Conclusion

Irritable bowel syndrome (IBS) is a conjoint functional gastrointestinal condition that is well known by subjects here in the study group. The prevalence of this functional GI disorder in middle east countries is estimated to be 25%-25%. Many General Physicians approach IBS as a diagnosis of exclusion. Patients diagnosed with IBS are mostly outpatient clinic visits, inpatient stays, outpatient prescriptions, and hospitalizations than those not diagnosed with IBS. IBS patients are often reluctant to consult a clinicians , often because they think their symptoms do not deservetreatment and can be treated self-medication and no need a visit to a physician, or they are afraid that they have a life-threatening condition or disease some subjects with IBS symptoms think that they bowl habits are only disturb due to some mental stress and emotions and they will disappear after relaxation patients, study also concluded that subjects gives a positive response for awareness programme to overcome some problems

which include difficulties in satisfying patients and treatment decision making, and finding the time required, and their lack of knowledge could interfere with patient care.

Research frontiers

The prevalence of IBS in the general population is high and physicians often lack the tools to diagnose and treat IBS. It is important for IBS in general population to understand each other IBS symptoms, and to improve knowledge of IBS. The aim of the present study was to analyze IBS from the undergraduate students points of view.

Applications

IBS patient and students points of view are important for understanding IBS as in this age group most of young girls are remain in stress due to educational burden and exam phobia. It is important for the students to understand IBS and stress and anxiety linkage to bowel irritability so that they can modify their life style and they can understand and deal with patients and to know that many who seek medical care will not receive a diagnosis.

The prevalence of IBS is estimated to be 12%-15% and is associated diminished quality of life. Studies that examine IBS from the sufferers and gastroenterologist point of view are important and there is a need to document secular trends by further studies.

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Limitations: The data were collected from only one Medical University and some patients from hospital . The results could be different from Private Sector Universities.

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