

## Effects of Irritable Bowel Syndrome (IBS) on the health-related quality of Life among Saudi Males at Al-Jouf, Kingdom of Saudi Arabia

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### Abstract

**Background:** Irritable bowel syndrome (IBS) is a functional disorder of the gastrointestinal tract. Moreover, it is characterized by recurrent episodes of abdominal discomfort which may improve with defecation.

**Objective:** The objective of this study was to assess and evaluate the effect of IBS on the HR-QoL among Saudi population at Al Jouf region (Northern Saudi Arabia) by using generic Arabic translated questionnaires.

**Materials and methods:** This was a descriptive and cross-sectional survey study in which 70 patients were enrolled in the investigation (all men, aged 20±4 years). All participants met the Rome criteria-II for IBS. Furthermore, data were collected via structured questionnaires (25-IBSQoL).

**Results:** The results showed that 63% of the study population consent that IBS is a health concern; whilst 55% agreed that IBS restricted their activities and social life. Furthermore, 40% agreed that IBS affecting their emotional mode. Equally important, 69.1% agreed that IBS restrict their food and diet interest and 34.6% of the study population agreed that their sexual life is affected by IBS.

**Conclusion:** IBS is negatively affecting the quality of life of the study population. It constitutes to remain a health concern for them restricting their diet interests and badly affecting their social life. Hence, participants seem to be lacking knowledge and are unaware of their condition. Therefore, we recommend the health authorities to launch an awareness-raising campaign and an initiative program towards community awareness of this disease.

**Keywords:** IBS, syndrome, HR-QoL.

### Introduction:

Irritable bowel syndrome (IBS) is a functional disorder of the gastrointestinal tract. Moreover, it is characterized by recurrent episodes of abdominal discomfort which may improve with defecation<sup>(1)</sup>. There are no known structural abnormalities associated with IBS<sup>(2)</sup>. The diagnosis of IBS is Symptom-based, and many diagnostic criteria have been assigned to identify the cases of abdominal bloating, distension, and change in stool consistency are the landmarks of case definition<sup>(3, 4)</sup>. Severity of clinical presentations and chronology are variable<sup>(5, 6)</sup>. IBS is further classified into sub-entities according to the clinical presentation: diarrhea-predominant (IBS-D); constipation-predominant (IBS-C); and mixed (constipation/diarrhea) (IBS-M)<sup>(7, 8)</sup>.

The global prevalence of IBS shows a great variation (12 to 30%) and this may attribute to the variation in case definition. The prevalence of IBS is strongly dependent on the classification algorithm employed<sup>(9)</sup>. Also, IBS constitutes 40% gastroenterology clinics visits

<sup>(10)</sup>. Detailed frequency of IBS among countries is scarce; however, it may reach 10-15% in Europe and North America, and even increased among countries in the Asia-Pacific region (14% in Pakistan and 22.1% in Taiwan<sup>(11, 12)</sup>).

The prevalence of IBS might reach 31.8-40.7% among elders<sup>(13, 14)</sup>. However, this varies according to age group and gender. In Al Jouf area the frequency of IBS recorded 8.9% among young adults at secondary schools<sup>(15)</sup>.

The Pathophysiology of IBS is not very well understood. However, there are some events that are associated with IBS such like abnormality in gut motor and sensory activity, central neural dysfunction, with other psychological disturbances<sup>(16)</sup>.

Also, it is believed that IBS may be due to consequence of deregulation of the brain-gut axis with both central and peripheral mechanism involved<sup>(17)</sup>.

Patients with IBS have been found to have a considerable reduction in quality of life<sup>(18, 19)</sup>.

IBS reduces quality of life to the same degree of impairment as major chronic diseases, such as congestive heart failure, hepatic cirrhosis, renal insufficiency and diabetes <sup>(20, 21)</sup>. IBS causes a significant effect on the individual (reduced quality of life), society (time lost off work) and health services. Comparison of studies evaluating the management of IBS has been hindered by the lack of a widely adopted validated symptom score <sup>(22)</sup>. There has been an underestimation of the impact of irritable bowel syndrome on individuals functioning and quality of life (QOL). The general health status of both young and elderly individuals with IBS is generally found to be poorer than that of the general population. Patients with IBS seem to have worse health-related quality of life than patients with certain other conditions <sup>(23)</sup>.

**Materials and method:**

**Study design:**

This was a descriptive across-sectional survey study in which 70 male patients were enrolled. Participants were selected on the base of fulfilling the Rome criteria for IBS excluding other evident GIT problems. Data were collected via structured study questionnaires (25-IBSQoL). All participants were interviewed by a research assistant physician using data collection instrument.

**The study survey questionnaires (appendix-1)**

The questionnaire was adopted from previously validated and published questionnaires <sup>(26, 27)</sup>. However, we applied a novel Arabic translated modified version <sup>(28)</sup>. It contains 25 items about the knowledge, attitude, and practice of patients towards IBS and for how long it had affected their quality

of life (25-IBSQoL) (see appendix-1). It follows the “Likert scale” (typical five-level responses: strongly disagree, disagree, I’m not sure, agree, and strongly agree). The questions of the 25-IBSQoL questionnaires were grouped into five categories according to the measures of the health-related quality of life, which are; 1) health worry 2) activity and social life, 3) emotional, 4) food and diet interest, 5) sexual relations.

As this is a first study of its kind on Sudanese population, thus we confined to a simple descriptive statistical analysis in which frequencies of responses were shown as a percentage.

**Ethical clearance:**

The proposal of this study was approved by the Ethical Committee of the Faculty Board Council of the College of Medicine- Al Jouf University.

**Result:**

A total of 70 IBS patients were enrolled in this study, age was 25±44 years old. The response to the 25-IBSQoL questionnaire was (95.56%).

There was 63% of the study population whom agreed that IBS is a health concern for them. More than half of study populations (55%) agreed that IBS restricted their activity and social life. 40.5% agreed that IBS affected their emotional mode. There was 45.4% of the study population who showed disagreement that IBS affected their sexual life. The highest response was 69.1% for participants who agreed that IBS restricted their diet interest.

Table-1 and figure-1, illustrate the frequencies (percentage) of the responses for each category.

Table-1: Percentage of the responses to 25-IBSQoL questionnaires according to the five categories.

Category	Disagree%	agree %	Not sure
Health concern	22	63	15
Restriction of activity and social life	24.6	55	20.4
Emotional effect	40.8	40.5	18.7
Restricting of food and diet interest	20.3	69.1	10.6
Affecting the sexual life	45.4	34.6	20

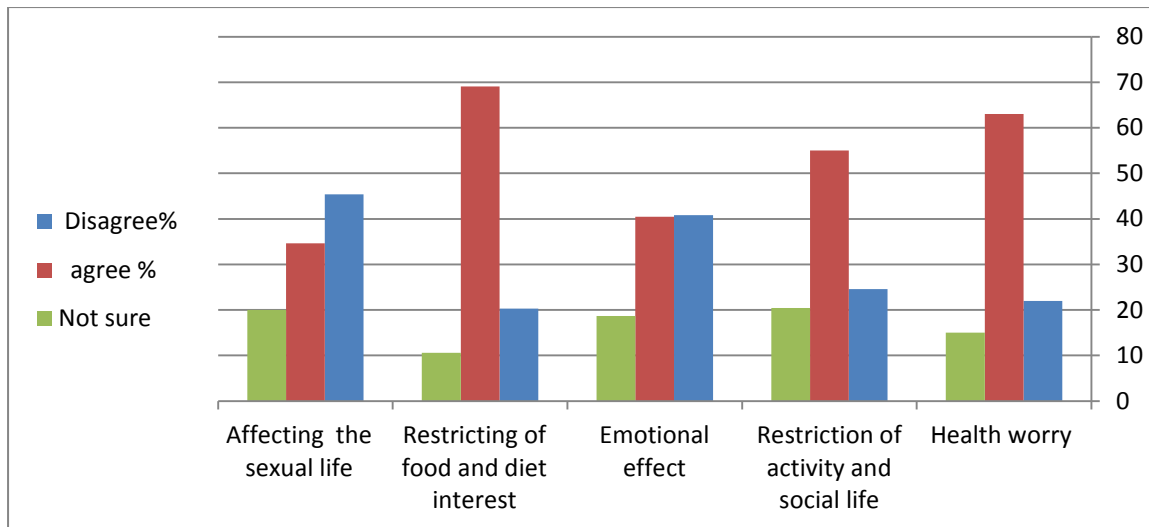


Figure-1: Bar chart illustrates the percentage of the responses to the study questionnaires.

### Discussion:

The health-related quality of life defines as the integration of the patient's awareness, illness experience and capacity for conducting daily activities in regard to medical condition and health status. It is affected sociologically and psychologically. Health related quality of life is evaluated and assessed by many instruments. They all have a consensus about the basic determinants of the HRQoL.

In this attempt, we utilized a generic Arabic translated 25-IBSQoL questionnaire. The questionnaires were adopted from and inspired by many several published studies.

Although we achieved maximum response (95.56%), it was difficult for many participants to identify a definite response to many of the questionnaires items. This may be attributed to the lack of serious understanding of their problem. In many instances during this survey, researchers felt that, participants don't want to speak about their problem because of traditional and cultural restrictions. This was clearly observed on the responses to sexual related questions. It was found that 20% of participants responded with "I don't know". Fass et al's study indicated that the amount of sexual related is 51% in a group of women specially with IBS registered in a self-management; consequently, the occurrence of sexual related was linked with older age, a history of depression <sup>(29)</sup>. Other studies have attempted that sexual related is relatively common in women with IBS <sup>(29,30)</sup>. The higher rate of sexual dysfunction found in this study as Furthermore, it was found that the problem

is even worst regarding the effect of IBS on the food and diet interest.

While our study conducts 40.5% agreed that IBS affected their emotional mode. On the other hand, another study indicated that women participants with IBS symptoms reported more depression that those without IBS (Chi-Square (df=3) = 19.1,  $p < .001$ ) <sup>(30)</sup>.

It was apparent that the impact posed by IBS has an effect that extends to the patient surroundings.

The highest response was 69.1% for participants who agreed that IBS restricted their diet interest. It was obvious that the study population were suffering from lack of awareness. This study paved the road for further assessment and evaluation studies focusing on socio-economic impact and the effect of intervention methods on the improvement of the health related QoL.

### Conclusion:

This study concluded that the IBS is negatively affecting the quality of life of study population. It constitutes a health concern for them, restricting their diet interest and severely affecting their social life. Participants seemed to have a lack of knowledge and awareness of their condition. We recommend the health authorities to launch an initiative program towards the better understanding of IBS.

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