

Effect of Irritable Bowel Syndrome on Quality of Life among Patients in King Abdulaziz Hospital in Al-Ahsa Region

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Abstract:

Introduction: Irritable bowel syndrome (IBS) is one of the most common digestive disorders and more prevalent reason for missing work after the common flu. **Methods:** the current study utilized cross-sectional descriptive research design and was conducted in King Abdulaziz Hospital in Al-Ahsa Region. The sample size 150 subjects who were in king Abdulaziz hospitals and fulfill the following criteria: age from 21- 60 years, both sex, accept to be included in the study and who selected according to Rome Criteria IV, which states that they must have experienced abdominal pain at least once per week for the previous three months. Subjects with a history of Crohn's disease, diverticulitis, peptic ulcer, ulcerative colitis, colon cancer, or IBS were not included in this study. **Four tools was used in this study,** patient's demographic data tool, patient's clinical data, the IBS-QOL tool and Irritable bowel syndrome - severity symptom scale (IBS-SSS) .**Results:** Nearly 50% of the participants were men between the ages of 21 and 29, and over 50% of those people were married, graduated from university and unemployed. Finally, the present study shows that most demographic and clinical factors do not significantly influence QOL in IBS patients though; family history plays an important role. **Conclusion:** The results of this study suggest that QOL was significantly correlated with the severity of IBS symptoms. **Recommendations:** Regular plans for continuous patient education are necessary for symptom control and to lessen the negative impact of the condition on QOL. Replicating the study with a bigger sample from a different kind of institution is necessary to generalize the results to a larger population.

Key Words: IBS, QOL, domains

Introduction

Irritable bowel syndrome (IBS) is one of the most common gastrointestinal ailments and, second only to the common flu, a leading cause of missed workdays (**Defrees & Bailey 2017**). Patients with IBS sometimes find themselves disorganized in their professional lives due to the disease's remission and exacerbation periods. Systemic inflammation and altered microbiome diversity may occur in individuals with IBS due to infective gastroenteritis (**Ng Q.X., etal 2018**).

Genetics, nutrition, mental and physical health issues, stress (the leading cause of colon stimulation in IBS patients), changes to the gut flora, chronic inflammation of the intestines, abnormal signaling, and an abnormal gut neuroendocrine system are all potential triggers for IBS (**El-Salhy et al., 2015**).

According to reports, the prevalence of IBS varies between countries, with over 10% of people worldwide being affected. According to reports, the incidence is 5.8% in the Middle East and Africa, 9.6% in Asia, 7.1% in North America and Europe, and 17.5% in Latin America (**Shin, 2023**).

In contrast, by comparison, the IBS prevalence in Saudi Arabia was 15.7% of the population. According to the research, 11% of men and 12.5% of females in Saudi Arabia suffer from IBS. (**Almasary et al., 2023**). Changes in bowel function and abdominal pain caused by IBS, a chronic functional condition, significantly impact the patient's

regular life and job. It is a major health and economic burden, disproportionately affecting women and children, and it often occurs alongside other functional gastrointestinal disorders (FGIDs) (**Yang et al., 2022**).

Patients with IBS are more likely to use healthcare facilities than the general population, as seen by more frequent clinic visits, additional diagnostic testing, medication usage, and the possibility of unnecessary procedures (**Mohamed et al., 2021**). Patients with IBS, despite the condition's mild severity, have a far lower quality of life (QOL) than the overall population. (**Regina Sierzantowicz et al., 2020**).

The Rome Foundation criteria have four distinct versions: Rome I, II, III, and IV; they, along with the Manning criteria, form the basis of the diagnosis of IBS. Classifying symptom-based functional gastrointestinal illnesses is the goal of the Rome criteria (**Drossman, 2016**).

The IBS symptoms that most commonly occur and affect QOL include bloating, diet restriction, abdominal pain, and bowel difficulties. Over 50% of people with IBS are compelled to remain near the bathroom, and 57% felt they had no control over their lives. Additionally, emotional disorders such as being less confident, worry, depression, and anxiety (**Qora et al., 2018**).

What really matters for one's QOL is how they personally rate their own psychological, social, bodily, and

spiritual well-being. Factors beyond an individual's control that impact their QOL include their state of mind and physical health, their degree of autonomy, and the ways in which they engage socially with the world around them (Ngan et al., 2020).

Significance of Study

QOL is low for those who suffer from IBS in comparison to the overall population and those who deal with other long-term health conditions. Along with gastrointestinal problems, IBS can cause headaches, sleep problems, menstrual symptoms, urinary problems, chronic fatigue syndrome (CFS), fibromyalgia, and unusual loss of weight (Sperber & Dekel, 2010). So, this study aimed to evaluate the effect of IBS on QOL among patients in King Fahad and King Abdulaziz hospitals in Al-Ahsa region.

Aim of the Study:

This study aimed to evaluate the effect of IBS on QOL among patients in King Abdulaziz hospitals in Al-Ahsa region.

Research Questions:

What is the relationship between IBS and QOL?

Which domains of the QOL is most affected by IBS?

II. Materials and methods

Study Design: Cross-sectional descriptive research design.

Setting: The research took place in hospitals in Al-Ahsa. There are 10 hospitals in Al-ahsa some of them are private hospitals and some are governmental hospitals.

We was conduct the study in one governmental hospital, king Abdulaziz hospital in Medical department and outpatient's clinics.

Subjects: The convenient sampling technique was used to collect the data of the study .The study subjects who were in king Abdulaziz hospitals and fulfill the following criteria:

Inclusion Criteria: Participants' ages range from 21 to 60, both sexes, and were chosen using the Rome Criteria IV, which is based on the presence of frequent abdominal pain that has happened at least once a week in the previous three months.

Exclusion Criteria: People with a history of Crohn's disease, diverticulitis, peptic ulcer, ulcerative colitis, and colon cancer.

Sample Size: The estimated sample size of 150 patients from the aforementioned environment was derived using a power analysis that used an effect size of 80, a confidence interval of 95%, and a significance level of 0.05.

Tools of data collection: Four tools was used in this study. the IBS-QOL tool and Irritable bowel syndrome - severity symptom scale (IBS-SSS)

1- Patient's demographic data tool, including their age, gender, marital status, level of education, and occupation.

2- Patient's clinical data: including information about their smoking status, duration of illness, any relevant family medical history, and the specific type of IBS they may have.

3- The IBS-QOL survey the work of (Drossman et al., 2000) is used. The IBS-QOL questionnaire serves as its foundation. From "Not at all" to "A lot" or "Extremely," the scale contains 34 items. There are five Likert-type response items and eight subscales, which are divided as follows: dysphoria (eight items), interference with activity (seven items), body image (four items), health worry (three items), food avoidance (three items), social reaction (four items), sexual issues (two items), and relationships (three items). The IBS-QOL is utilized to assess the intensity of symptoms and convert the obtained scores to a scale that ranges from 0 to 100 points. Scores that are higher suggest an improvement in HR-QOL.

4-Irritable bowel syndrome - severity symptom scale (IBS-SSS): It is adopted from (Francis, et al., 1997). The intensity of the symptoms can be assessed using it. Using the Visual Analogue Scale, the five-question survey assessed pain intensity, pain frequency, flatulence severity, satisfaction with defecation, and the impact of IBS on QOL. The scores can range from 0 to 500, with higher ratings indicating more severe symptoms (Mohamed et al., 2021). Based on the data collected, the scores will be divided into three parts: mild symptoms (75-175), medium symptoms (176-300), and extreme symptoms (301-500).

Method

- Prior to conducting the study, the CoNA research committee approval was acquired.
- An approval from (KAIMRC) IRB committee.
- After giving the administrative authorities of the previously mentioned location an explanation of the study's goal, they were asked for permission to conduct the study.
- All measures were taken to guarantee the well-being and safety of the study participants in accordance with established ethical standards.
- Informed consent was signed.
- The study was completely voluntary, so participants could stop at any moment without any consequences. The participants' personal information was handled with the utmost confidentiality and was utilized exclusively for the research. Only authorized workers had access to the securely stored data.
- The study also adheres to the ethical principles of beneficence, non-maleficence, and respect for persons.
- A pilot study was conducted on (10%) of patients to test the feasibility and applicability of the tools and to determine any obstacles that may be encountered with the researcher during the period of data collection, accordingly, needed modifications were done.
- The pilot sample was included in the main study sample since no major modifications were done on the study tools.
- 5- Reliability: reliability was tested by using alpha Cronbach's factor as

follow: Cronbach's Alpha for tool I is 0.824, tool II is 0.872, for tool III is 0.775 and tool IV 0.812.

- Data of the study were collected over a period of 6 months.

Results

Table (1) Distribution of demographic and clinical data of the participants (N= 150)

Based on their demographic information, this table shows the distribution of patients with IBS. It reveals that about half (42 %) of the total sample were male in age group of 21-29 years old. As for the marital status, more than half of the total sample (60%) were married. In relation to the level of education, slightly more than half (53.34%) of the total sample graduated from university. Regarding occupation, more than half (55.33%) of the total sample were unemployed. In relation to smoking, most of total samples (78.67%) of the total sample are not smokers. Regarding family history, more than two thirds (64%) of the total sample have family history. Finally in relation to type of IBS, this table demonstrates that less than half (45.33%) and more than one third (37.33%) of the total sample have constipation and mixed IBS respectively.

Table (2) Distribution of Mean Scores of Irritable Bowel Syndrome-Quality of life (IBS-QOL) subscales (Domains)

The table below displayed the distribution of the mean scores on the subscales (domains) related to IBS

and QOL. The results showed that the QOL categories related to food avoidance and health worry had the highest mean scores, with mean scores of 62.62 +21.81 and standard deviation of 61.46 +18.66, respectively.

Table (3) Distribution of IBS-SSS

This table illustrates the distribution of IBS symptoms severity. It showed that about two thirds (62.000%) and minority (06.00%) of the total sample were having moderate and mild IBS symptoms respectively.

Table (4) Correlation between total IBS-QOL subscales and total IBS-SSS

This table showed the correlation between the IBS-SSS and the subscales of the IBS-QOL are displayed in the table below. Correlation coefficients (r) and p-values (p) for each of the following subscales are provided: dysphoria, interference with activity, body image, health worry, food avoidance, social relations, and relationships. QOL is significantly correlated with the intensity of IBS symptoms, according to these data. A greater connection between symptom severity and the total IBS-QOL score ($r = 0.61, p < .0001^*$) indicates that a lower QOL is associated with more severe symptoms in these domains. There is strong evidence for the validity of these results, as each subscale likewise has a substantial p-value.

Table (5) Correlation between demographic, clinical factors and

IBS-QOL subscales (Domains) of the participants

This table presents the correlation between demographic, clinical factors and IBS-QOL subscales (Domains) of the participants. It found that age was not significantly associated with QOL, suggesting that age may not influence how individuals with IBS perceive their QOL. Similarly, in terms of QOL, there were no statistically significant differences between the sexes. However, in the married, divorced, and widowed groups, participants reported similar scores, and men reported somewhat higher scores ($M = 52.80$, $SD = 17.39$) than women ($M = 49.49$, $SD = 11.74$). According to educational levels also did not affect QOL greater, because participants at different levels of education from illiterate to university-educated showed comparable scores. There were also no significant differences in QOL among participants by smoking status (current smoker, smoker, and passive smoker). However, the family history of IBS was significantly associated with QOL, with participants who had a family history reporting higher mean scores ($M = 52.77$, $SD = 13.63$) compared to those without ($M = 47.54$, $SD = 13.63$, $p = 0.0327$). Lastly, type of IBS (diarrhea, nausea, or mixed) did not significantly affect QOL, as scores were similar across groups. These results suggest that

although most demographic and clinical factors do not significantly influence QOL in IBS patients though, family history plays an important role.

Table (6) Correlation between demographic, clinical data and IBS-SSS

This table demonstrates the correlation between demographic, clinical data and IBS-SSS. It shows the age was not significantly associated with severity symptom scale IBS SSS; also the male and female were equal in suffering from IBS-SSS. As for marital status, those who suffer most are those who are divorced (mean=284.80). In addition to educational status, those who suffer most from the disease are illiterate (mean=286.66). As for the Occupation status, employees suffered more (mean=277.44). The majority of the sample (mean: 286.80) are smokers and those more suffer from IBS SSS than non-smokers, However, a family history was significantly associated with IBS SSS with participants who had a family history reporting higher mean scores compared to those without, Among the types of IBS, the highest percentage of participants experienced diarrhea (mean: 280.23), followed by mixed symptoms (mean: 276.73). Constipation was the least common type (mean: 271.33).

Table (1) Distribution of demographic and clinical data of the participants (N= 150)

Variable	N	%
Age (Years):		
21 – 29	64	42.667
30 – 39	33	22.000
49 – 49	25	16.667
50-60	28	18.667
Gender		
Male	63	42.00
Female	87	58.00
Marital status		
Single	49	32.66
Married	90	60.00
Divorced	5	3.33
Widow	6	4.00
Level of education		
Illiterate	3	2.0
Reads and writes	11	7.5
Basic education	21	14.0
Secondary schools	35	24.0
University education	80	53.34
Occupation		
Employed	67	44.67
Unemployed	83	55,33
Smoking		
Yes	15	10.00
No	118	78.67
Passive smoker	17	11.33
Family history		
Yes	96	64.00
No	54	36.00
Type of irritable bowel syndrome		
Diarrhea	26	17.33
Constipation	68	45.33
Mixed	56	37.33

Table 2: Distribution of Mean Scores of IBS-QOL subscales (Domains)

IBS-QOL Subscales (Domains)	Mean	SD
Dysphoria	52.83	18.16
Interference with Activity	52.24	17.71
Body image	52.70	16.51
Health worry	61.46	18.66
Food avoidance	62.62	21.81
Social relation	41.80	19.68
Relationship	48.31	20.69

Table 3: Distribution of IBS-SSS

Variable	N	%
Mild	9	06.00
Moderate	93	62.000
Sever	48	32.000

Table 4: Correlation between total IBS-QOL subscales and total IBS-SSS

IBS-QOL	Total IBS-SSS	
	r	p
Dysphoria	0.557783	<.0001*
Interference with Activity	0.55419	<.0001*
Body image	0.499764	<.0001*
Health worry	0.470486	<.0001*
Food avoidance	0.30932	0.0001*
Social relation	0.486851	<.0001*
Relationship	0.482889	<.0001*
Total IBS-QOL	0.61	<.0001*

Table 5: Correlation between demographic, clinical factors and IBS-QOL subscales (Domains) of the participants

Variable		M	SD	<i>p</i>	<i>Test</i>
Age (Years):		Mean 35.50	13.17	0.38	$r = -.07$
Gender	Male	52.80	17.39	0.16	$t(148) = 1.38$
	Female	49.49	11.74		
Marital status	Single	49.743252	14.009836	0.9228	F Ratio=0.16 DF (3)
	Married	51.383513	14.637146		
	Divorced	51.225806	15.031012		
	Widow	52.473118	17.524969		
Level of education	Illiterate	52.903226	12.55995	0.1775	F Ratio=1.5997 DF (4)
	Reads and writes	49.824885	14.535375		
	Basic education	47.096774	11.142815		
	Secondary schools	43.98827	8.6932614		
	University education	53.217742	15.500533		
Occupation	Employed	52.546943	15.314438	0.2064	T -1.26905 Df 1
	Unemployed	49.545278	13.62265		
Smoking	Yes	52.516129	19.077584	0.8010	0.2222 DF 2
	No	50.47567	14.554324		
	Passive smoker	52.296015	8.1302821		
Family history	Yes	96	52.768817	0.0327*	T 2.156466 DF1
	No	54	47.538829		
Type of irritable bowel syndrome	Diarrhea	51.960298	13.626479	0.9150	0.0889 DF (2)
	Constipation	50.749526	14.129329		
	Mixed	50.552995	15.359436		

Table 6: Correlation between demographic, clinical data and Irritable bowel syndrome - severity symptom scale IBS SSS

Variable		M	SD	<i>p</i>	<i>Test</i>
Age (Years):		Mean 35.50	13.17	0.54	r = 0.04
Gender	Male	274.70	62.90	0.8023	t (0.03), DF 3
	Female	275.15	82.00		
Marital status	Single	269.69	75.43	0.8023	F Ratio=0.3319 DF (3)
	Married	278.44	70.82		
	Divorced	284.80	50.73		
	Widow	255.83	66.74		
Level of education	Illiterate	286.66	58.79	0.9356	F Ratio=0.2044 DF (4)
	Reads and writes	270.18	51.03		
	Basic education	267.09	68.515		
	Secondary schools	270.11	87.09		
	University education	279.23	68.27		
Occupation	Employed	277.44	73.86	0.1546	t -0.39314 DF (148)
	Unemployed	272.83	69.52		
Smoking	Yes	286.80	88.724	0.7944	F Ratio 0.2305 DF 2
	No	273.50	71.62		
	Passive smoker	274.05	52.749		
Family history	Yes	289.61	65.14	0.0006*	T 3.496638 DF1
	No	248.72	74.78		
Type of irritable bowel syndrome	Diarrhea	280.23	50.028	0.8404	0.1741 DF (2)
	Constipation	271.33	75.314		
	Mixed	276.73	75.43		

Discussion:

IBS is characterized by persistent abdominal pain and an irregular bowel movement (constipation, diarrhea, or both) (**Bonetto et al., 2021**). QOL as it relates to capacities (such as being able to lead a fulfilling life in terms of mental and physical health) (**Quality of life, 2024**). QOL is significantly impacted by the prevalence of IBS. It is believed that over 50% of individuals with IBS also suffer from mental health difficulties, which further complicates treatment and reduces their QOL. (**Kopczyńska et al., 2018**).

As a result of the heavy burdens placed on males by their families and jobs, the current study found that men made up around half of the sample. This outcome aligned with the conclusions drawn by (**Kopczyńska et al., 2018**), who observed that in the IBS group, women's IBS-QOL scores were marginally lower than men's. Conversely, (**Kim, 2018**) asserted that women are more likely to suffer from IBS than men.

The current study demonstrated that patients aged 21–29 are more likely to experience irritable bowel syndrome as a result of a combination of life transitions, such as career changes, education, or relationships. Additionally, this age group often experiences irregular eating habits, poor sleep, and increased use of caffeine. This discovery was corroborated by (**Tang et al., 2012**), who observed that patients aged 48–57 had lower scores compared to individuals aged

28–37. Contrary to this discovery, (**Cheng et al., and 2024**) revealed that patients aged 43 years or older are more prevalent.

Regarding the marital status, more than half of the total samples who suffer from IBS were married. This finding is justified by the stress from relationships, caregiving responsibilities, and social expectations. This finding contradicts that of (**Aljahdli et al., 2023**), who discovered that IBS is more common in people who are not married.

Regarding the topic of family history, the current study found that almost two-thirds of the entire group has a history of IBS. This result agreed with that of (**Jadallah et al., 2022**), which found that the likelihood of acquiring IBS was eight times higher in individuals with a positive family history of the disorder than in patients with a negative one.

Finally, the results indicated that less than half and more than one-third of the total sample, respectively, have constipation and mixed IBS. (**Aljahdli et al., 2023**) corroborated the findings by demonstrating that mixed IBS was the most prevalent variant.

The results of the mean scores of the IBS-QOL subscales (Domains) indicate that the Health Worry and Food Avoidance QOL domains had the highest mean scores. Patients avoid foods that irritate the bowel because they believe they will exacerbate their symptoms. In sharp contrast to this finding, the study by (**Melchior et al., 2021**) found that

just under a quarter of the patients in their group avoided bowl-stimulating items.

Approximately two-thirds of the whole group displayed mild IBS symptoms, according to the current study's findings on the IBS-SSS. This is attributable to stress and irregular eating patterns. The results of (Aljahdli et al., 2023) showed that most of the participants were just mildly uncomfortable, which is completely at odds with our findings.

Regarding to correlation between total IBS-QOL subscales and total IBS-SS

This finding provides more evidence linking dysphoria to IBS. This finding is justified by IBS can influence anxiety and depression due to the discomfort and pain in the gastrointestinal tract. This result agreed with that of (Sibelli et al., 2018), who found that difficulties in processing emotions are associated with more severe irritable bowel syndrome symptoms.

According to activity, the results showed that the IBS caused activity intolerance because the daily activities, like going to school or work, increased the stress on the digestive system. This result was consistent with the findings of (Ballou et al., 2019), who reported that individuals with IBS were more likely to avoid locations without bathrooms, experience difficulty making arrangements, avoid leaving the house, and be reluctant to travel. Conversely, (Johannesson et al., 2015) reported that a moderate increase in physical activity has been

demonstrated to alleviate gastrointestinal symptoms in IBS.

The substantial influence of body image is demonstrated in this result. IBS patients have complex body image problems due to changes in their perceived body shape with physical symptoms like bloating and distention of the abdomen. Similar to (Jedel et al., 2015), who noted that body image are significant concerns for IBS patients and may affect their QOL. However, (Geller et al., 2024) who suggested that IBS negatively affects body image appreciation.

The result shows that health worry is correlated with IBS severity. Because the diagnosis is frequently predicated on ruling out other disorders, which can leave patients feeling unsure about their health and afraid that their symptoms are more severe. These findings corroborate those of (Song et al., 2012), who found that compared to the general population, those with IBS report significantly greater levels of stress, anxiety, and trait anxiety.

According to food avoidance, the results showed that there is a simple relationship between IBS and food avoidance because of certain foods, like spicy foods, fatty foods, and soft drinks, can trigger or worsen symptoms like abdominal pain, bloating, diarrhea, or constipation, this finding is similar to (Böhn et al. 2013), who noted that food avoidance helps to minimize IBS symptoms.

According to social relations, the result showed a relationship between social relations and IBS. Individuals may avoid social settings because

they are concerned that their symptoms will manifest in public. This outcome is comparable to that of (Sowerbutts et al., 2020), who discovered that they experienced a variety of negative emotions and social consequences, including challenges in maintaining relationships and socializing.

Concerning the correlation between demographic, clinical factors and IBS-QOL subscales (Domains) of the sample

First of all, the relationship between age and IBS-QOL is very weak and statistically non-significant due to age increases IBS-QOL scores might slightly decrease, but the effect is negligible. Similar to (Melchior et al., 2022), who found that age does not independently affect the QOL among IBS patients. On the contrary, (Chen et al., 2022), who found that older adults may experience a different impact on IBS-QOL.

Although males reported somewhat higher scores owing to biological, psychological, and social factors, there were no significant differences in QOL ratings between men and women in terms of gender. However, this result was disproven by (Fan et al., 2024), who noted that women frequently report worse QOL and symptoms.

Referring to marital status, widows show the largest variability than the single, due to widow groups suggest diverse individual coping mechanisms, social support differences. This finding was accepted by (Chen et al., 2021), who mentioned that marital status affects QOL through differences in

social support. On the other hand, (Chen et al., 2022), who mentioned that marital status alone is not a determinant of IBS-QOL.

Regarding education level, it significantly affects IBS-QOL due to people with higher education levels often having better access to health information, enabling them to understand and manage their conditions more effectively. The findings corroborated those of (Shorey et al., 2021), who proposed that more education could improve people's health.

Regarding occupation, employed patients also reported a better QOL compared to the unemployed. Due to employment can instill a sense of purpose and routine that may reduce psychological distress. This result agreed with that of (Frändemark et al., 2022), which indicated that working-age people with IBS often come up with plans to improve their quality of life while still juggling the responsibilities of their jobs.

For smoking habits, Passive smokers reported a slightly better QOL compared to active smokers. Active smoking exacerbates symptoms due to increased inflammation in the gut and this affects QOL. This corresponds with the results of (Papoutsopoulou et al., 2020), who reported that smoking has an impact on the mental and physical health of patients with IBS.

Referring to family history, patients with family history of IBS was related to better QOL. Information, coping mechanisms, and medical guidance tend to be more readily available to those with a family

history of IBS. This result agreed with that of (Lee et al., 2019), who found that people who have a history of the condition in their family are more likely to practice good self-care, which improves their QOL.

Concerning the subtypes of IBS, the diarrhea-predominant form had a slightly better QOL than the constipation-predominant or mixed type. This finding is justified by diarrhea-predominant IBS comes and goes, making symptom management possibly easier. (Kaplan et al (2022) corroborated this discovery, indicating that functional gastrointestinal disorders are the most prevalent comorbidity in chronic constipation and defecatory disorders. Consequently, individuals who are affected experience more severe symptoms and a lower QOL.

Regarding correlation between demographic, clinical data and IBS-SSS

This research looked at how demographic and clinical variables correlated with the intensity of IBS symptoms. There was no statistically significant relationship between the severity of IBS symptoms and the age of the patient. Because IBS is influenced more by factors like stress, diet, and psychological health rather than age. Consistent with this conclusion was the study by (Makkawy et al., 2023), which indicated that although the frequency of IBS may change with age, the intensity of symptoms is not directly related to age but is affected by environmental variables such as stress and life choices. Similarly,

findings by (Glynn et al., 2021), who showed that psychological stressors, often associated with younger individuals, might exacerbate symptoms, but age itself does not play a decisive role in symptom severity.

Regarding to gender, comparison revealed slightly higher symptom severity in females than in males, though this difference was not statistically significant. This aligns with (Narayanan et al., 2021), who highlighted the role of hormonal influences, particularly among females, in increasing symptom severity. This finding reveals that most of total sample were divorced due to stress and psychological pressure resulting from going through the divorce experience. (Choi et al., 2017) noted that being in a married, divorced, or widowed status increases the likelihood of experiencing more severe IBS symptoms. On the other hand (Hafiz et al., 2023), who mentioned that most of the people who suffered were married.

The result of these correlations indicated that most of samples were illiterate due to their ignorance of how to control symptoms. The study's findings were contradictory (Niknam et al., 2016), which noted that the correlation between educational attainment and symptom intensity was not statistically significant. The current study indicated that many of them were employees due to exposure to physical, psychological and material stress. This finding was accepted with (Saha., 2014), who noted High-

pressure jobs or those that require long working hours may exacerbate the symptoms of the condition due to psychological stress, which in turn affects QOL.

The current results indicated that most of the samples were smokers due to smoker's smoke when they feel anxious and stressed, and this is also linked to the colon. This result corroborated that of (Saha, 2014), who noted that smoking increases the likelihood that symptoms may manifest following colon damage.

There is a substantial sample whose results are associated with family history due to suppression of feelings and the many quarrels between the infected and the uninfected. This finding was accepted with (Alemany et al., 2023), who found that one of the factors influencing the likelihood of developing IB) is family history.

Our study shows that individuals with relatives affected by IBS are more likely to develop it themselves. Most of the total sample had diarrhea due to colon disease associated to psychological state and anxiety, as well as to the function of the sympathetic system, which increases the occurrence of diarrhea. (Choi et al., 2017) confirmed this result by showing that diarrhea patients had more depressive symptoms and more severe symptoms (such as bloating, nausea, loose or watery feces, and increased urgency) compared to diarrhea-free patients.

V: Conclusion and recommendations: Findings from this study point to health concerns

and food avoidance as areas of quality of life most affected by IBS. Additionally, there was a statistically significant correlation between the severity of IBS symptoms and QOL. Lastly, people with IBS do not have their QOL greatly affected by most clinical and demographic variables; nevertheless, family history does play a significant role.

Recommendations: Regular plans for continuous patient education are necessary for symptom control and to lessen the negative impact of the condition on QOL. In order to apply the findings to a broader population, the study needs to be repeated using a larger sample size and in a different type of hospital environment.

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