

The Prevalence of Irritable Bowel Syndrome (IBS) Among Male Medical Students in Majmaah University, Saudi Arabia

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ABSTRACT

Introduction: Irritable bowel syndrome (IBS) is a functional gastrointestinal (GI) disorder characterized by abdominal pain, bloating, changed bowel habits without organic pathology. It affects 10-15% of the population worldwide. In a study conducted among medical students in Jeddah, 31.8% had IBS.

Methods: This was a cross-sectional study conducted among male medical students in Majmaah University, Saudi Arabia. All students from 2nd to 6th year were included as total enumeration. The sample size was 115 students. Data were collected by a pre-tested questionnaire and analyzed by Statistical Package for Social Sciences (SPSS).

Results: The results showed that 9.6% of the students claimed to have IBS: However, only 7.3% were previously diagnosed with the condition. The mixed subtype was 61% of the cases. Constipation and diarrhea subtypes were 22.1% and 16.9% respectively. Prevalence of IBS in students with GPA higher than 4 was 45.5%. The results showed that 8 (72%) of the students with IBS had high GPA compared to 3 (27.3%) who had low GPA; the association is not significant ($p=0.635$).

Conclusion: This study concluded that the prevalence of IBS among medical students in Majmaah University was low; the mixed was the most common subtype. Prevalence was higher among students with higher GPA.


Keywords: Irritable Bowel Syndrome; Prevalence; Male Medical Student.

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INTRODUCTION

Irritable bowel syndrome (IBS) is a functional gastrointestinal (GI) disorder characterized by abdominal pain and altered bowel habits in the absence of specific and unique organic pathology. The diagnosis of the disease is based on clinical findings and the exclusion of other disorders.¹ According to changes in bowel habits, IBS is classified into several subtypes: associated with diarrhea (IBS-D), with constipation (IBS-C), with mixed diarrhea and constipation (IBS-M), and (IBS-U) for the un-sub typed IBS group. Change in IBS may not be in the bowel habits only but may frequency of the bowl movements. Affected patients may also have a feeling of incomplete evacuation, bloating or abdominal distension.²

Although there is no cure for IBS, there are treatments that attempt to relieve symptoms, including dietary adjustments, medication and psychological interventions. Patient education and a good doctor-patient relationship are also important.²

In fact Irritable bowel syndrome is a worldwide problem that has a varying prevalence estimates depending on geographical

locations and the diagnostic criteria used. According International Foundation for Functional Gastrointestinal Disorders (IFFGD) Worldwide it's estimated that 10-15% of the population has IBS. Most persons with IBS are under the age of 50, but many older adults suffer as well.³

Studies showed that IBS is a common health problem; about 20% of American adults are affected with the syndrome.⁴ The overall prevalence of IBS in Europe was found to be 11.5%.⁵ About 2 in 3 IBS sufferers are females. IBS affects people of all ages, children are not excluded³. IBS is the most common disorder diagnosed by gastroenterologists and accounts for up to 12% of total visits to primary care providers.¹

Medical students are thought to experience more stress than other groups of the population due to the stressful academic environment. Not only do they undergo a lot of physical stress and sleeplessness but also undergo psychological stress as they are demanded to carry great future responsibilities. Lifestyle and eating habits of medical students are also responsible.⁶ A study

conducted in a medical school in Korea showed that 29.2% of medical students suffered from IBS.⁷ This number is considerably much higher than the average IBS prevalence among the general population in Korea, which ranged from 6.6% to 9.0%.⁶ In Pakistan, a study in Karachi among medical students reported the prevalence of IBS to be 28.3%.⁸ In Saudi Arabia, a study from King Abdul-Aziz University in Jeddah among medical students and interns revealed an IBS prevalence of 31.8% in all participants.⁹ Similarly, a study from Prince Sattam bin Abdul-Aziz University done in medical students found IBS prevalence as 21% with profiles characterized by constipation (20.0%), diarrhea (34.3%), and other alternating symptoms (45.7%).⁵ Another study was conducted Among Medical Students at Taibah University showed a prevalence of IBS as 10.5%. It was more prevalent in senior students reaching a peak in the 5th year (16.8%). There was

significant relationship between IBS and students who have low socioeconomic status and low grades.¹⁰

The objectives of the current study were to determining the prevalence of IBS among male medical students in Majmaah University, to determine its types and relationship with the students' academic performance.

METHODS

This was a community-based, cross-sectional study conducted at Majmaah University, Majmaah, Riyadh region in Saudi Arabia.¹¹⁻¹³ All male students from 2nd year to 6th year of the College of Medicine, Majmaah University were included in the study. Data were collected by a pre-tested questionnaire and analyzed by SPSS version 22. The ethical approval was obtained from Majmaah University ethics committee.

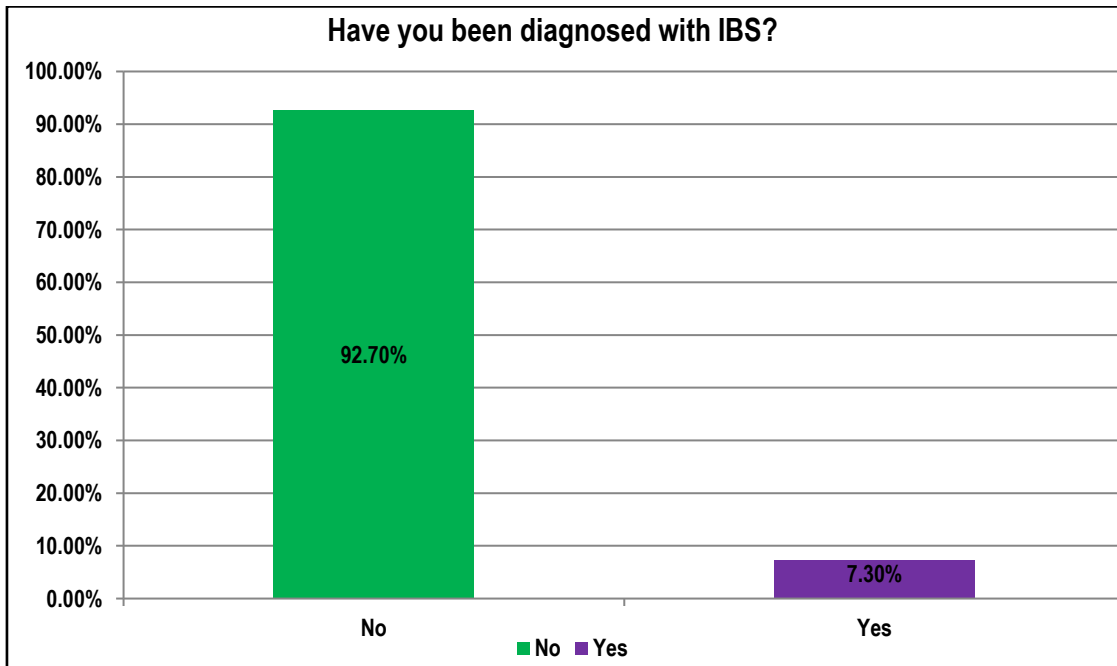


Fig 1: Prevalence of irritable bowel syndrome among male medical students

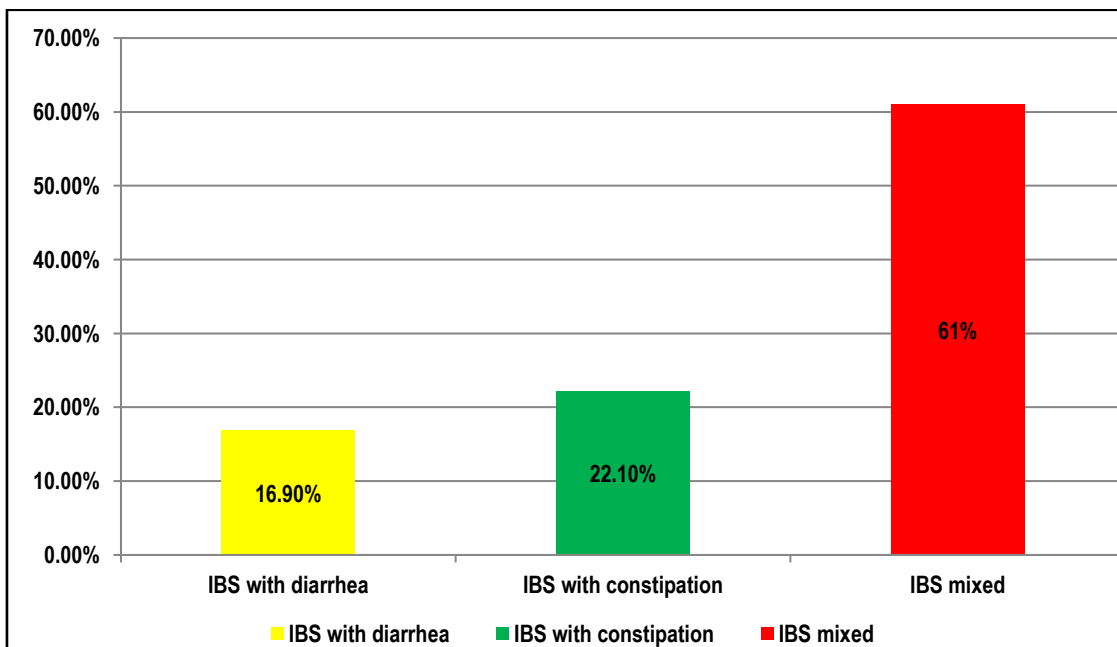


Fig 2: Distribution of IBS type

Table 1: Association between medical students GPA and irritable bowel syndrome

GPA	IBS		Total	p value
	Yes No. (%)	No No. (%)		
High (3.5 and more)	8(72.7%)	73(70.2%)	81(70.4%)	0.635
Low (Less than 3.5)	3(27.3%)	31 (29.8%)	34(29.6%)	
Total	11(9.6%)	104(9.6%)	115(100%)	

RESULTS

Figure (1) shows an IBS prevalence of 7.3% among medical students.

Figure 2 illustrates that the most common IBS type was the mixed one with a prevalence of 61.0%, the constipation type (22.1%) while the diarrhea type presented as 16.9%.

Table (1) shows that 8(72.7%) and 3(27.3%) of the students who have IBS have high and low GPA respectively. Seventy three (70.2%) and 31(29.8%) of the students who had no IBS had low GPA respectively.

DISCUSSION

Addressing Irritable Bowel Syndrome is to focus on a subject that is a real health problem because of its cost but also by the suffering experienced by students and patients in general, difficulties encountered by doctors to manage them and the resulting negative impact on the quality of life of students. In the current analysis, 9.6% of the medical students claimed that they had IBS: However: only 7.3% of them previously diagnosed by a physician. The prevalence of IBS presents a great variation among different studies. An international study conducted among 41,984 subjects in 8 European countries showed a prevalence of IBS of 11.5%.¹¹ Dong YY et al. (2010) conducted a survey among 2126 Chinese students and found that the prevalence of IBS was 7.85%; they also reported a prevalence of 15%-24% among the general population of Western countries.¹² A study on medical students and interns in Jeddah, King Abdulaziz University, showed a high prevalence of IBS (31.8%).¹³ The discrepancy might be attributed to the limited size of our sample or the choice of one gender group (males), in fact, females are more likely to develop IBS internationally. In our study, the IBS mixed type was found as the predominant type (61% of cases). In this context Darweesh M et al. and El-Fetoh, N. et al. in their work carried out among medical and non-medical students reported similar results. The mixed IB type was found the most common, followed by the constipation type and then the diarrhea type.^{1,14} In our study, students with higher GPA had higher rates of IBS; this was reported by some Ibrahim NKR et al in Saudi Arabia.¹³

CONCLUSION

This study concluded that the prevalence IBS among medical students in Majmaah University, Saudi Arabia is low. The most common type is the mixed one. No significant association between IBS and the academic performance of the students.

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