

Prevalence of Irritable Bowel Syndrome (IBS) & It's Associated Risk Factors among the Adult Bangladeshi Population Attending in Outdoor of Selected Tertiary Level Hospital in Bangladesh

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ABSTRACT

Background: Irritable Bowel Syndrome (IBS) is one of the most common functional gastrointestinal disorder in worldwide. Now-a-days its prevalence rate is also simultaneously increasing in Bangladesh as well. But most of the people are unaware about it as it has no significant complications. The aim of the study was to find out the Prevalence of Irritable Bowel Syndrome (IBS) & its associated risk factors among the adult Bangladeshi population in a selected Tertiary Level Hospital in Bangladesh.

Materials & Methods: A descriptive cross-sectional study was conducted among the adult Bangladeshi population in a selected Tertiary level Hospital in Bangladesh from February to May, 2017 and data was collected from the respondents by using semi-structured questionnaire using face to face interview and it was analyzed by using SPSS.

Results: The study revealed that mean age of the respondents was 30.7 years & almost half (49.3 %) of the respondents were educated up to HSC level. The average monthly income of the respondents was 9230.4 taka. The majority (76%) of the respondents had normal BMI. It has been seen that close to eight-tenth (77%) of the respondents were males and the rest of the respondents were females. more than half (58%) of the respondents were smokers. The findings of this study reveal that the prevalence of Irritable Bowel Syndrome (IBS) was 13.2%. More than half of the respondents had some changes in their bowel habit that is either Diarrhea/ Constipation. In this study the findings also revealed that close to three-tenth of the respondents had anxiety/stress.

Conclusion: Proportion of IBS among adult Bangladeshi Population is increasing day by day & it has been seen that IBS symptoms are associated with anxiety/stress, monthly income of the respondents. The study findings demand the strategic plan for surveillance & control of Irritable Bowel Syndrome (IBS) in Bangladesh.

Keywords: Irritable Bowel Syndrome (IBS), Adult Bangladeshi, Risk factor.

Introduction

Irritable Bowel Syndrome (IBS) is the most common functional gastrointestinal disorder with an estimated prevalence in adults of 3-25% worldwide¹. Irritable Bowel Syndrome (IBS) refers to the intestinal medical disorder, is actually a quite common disorder, yet many people are unaware that their symptoms indicate a medical problem and they go undiagnosed and without treatment even though

IBS can have a major impact on those living with the disease. Lack of awareness of IBS may affect medical treatment and care.

A positive diagnosis can be established using symptom-based criteria that include abdominal pain or discomfort combined with disordered bowel function such as diarrhea and/or constipation². IBS is a chronic condition that may significantly impair a

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person's quality of life with many individuals reporting IBS as the cause for the avoidance of many day to day activities, e.g. eating specific foods, work, travel, sex, socializing, exercising or leisure activities³. Also, at least half of the patients are commonly diagnosed with psychiatric disorders such as depression, generalized anxiety or panic disorder⁴. Recently, several studies have highlighted the role of psychosocial factors in the aetiology and maintenance of IBS symptoms and in the impact this condition has on quality of life⁵. To support this model, several randomized controlled trials have also shown that psychological interventions (e.g. Cognitive Behavioural Therapy and Hypnosis) can be particularly effective in improving IBS outcomes such as symptoms, psychological distress or quality of life⁴. On the other hand, between 5% and 32% of IBS patients have the onset of their symptoms within 6 months after an acute episode of gastroenteritis⁴. The mechanisms underlying this form of Post-Infectious IBS (PIIBS) are still poorly understood, but it is believed that the experience of gastroenteritis might contribute to continuous sub-clinical inflammation due to changes in intestinal permeability. However inconsistent findings regarding mechanisms of action or of the long-term effectiveness of these psychological approaches have highlighted the need for further and more careful study. It is a very common gastrointestinal functional disorder may be misinterpreted with other gastrointestinal problems. Most of the patients live with this problem even without knowing the disease, its associated risk factors. Hence, the aim of the study was to find out the prevalence of Irritable Bowel Syndrome (IBS) & its associated risk factors among the adult Bangladeshi population attending in outdoor of selected tertiary level hospital in Bangladesh.

Methodology:

This was a descriptive type of cross-sectional study carried out in Medicine outdoor at Dhaka Medical College Hospital (DMCH) & Anwer Khan Modern Medical College Hospital (AKMMCH) during the period from 2nd March to 30th May for data collection. Adult patients aged 18 years & above who were willing to participate were the study population. According to this formula sample size was calculated

as 384. Due to feasibility concern 150 samples were selected purposively. Duly pre-tested semi-structured questionnaire was the data collection instrument & data collection method was face to face interview. Prior to data collection a consent form was signed by the respondent as part of ethical consideration. It was processed & analyzed by manually & using SPSS.

Result:

Table I: Age distribution of the respondents by age (n=150)

Age (years)	Frequency	Percent
≤20	13	09
21-30	48	32
31-40	49	33
41-50	18	12.
51-60	00	00
>60	21	14
Total	150	100.0
Mean and SD	30.7±16.2	

About 33% respondents were found within age of 31-40 years. Mean age: 30.7years SD:± 16.2 (Table I).

Table II: Risk factors & Co-morbidities associated with irritable bowel syndrome (n=150)

Risk factors & co-morbidities	Frequency	Percentage
Anxiety/ Stress	41	27.3
Yes		
No	109	72.7
Family history of IBS		
Yes	67	44.7
No	49	32.7
Don't Know	34	22.7
Obese/overweight		
Yes	33	22.0
No	117	78.0
Hypertension		
Yes	26	17.3
No	124	82.7
Digestive problem		
Yes	21	14.0
No	54	36.0
don't know	75	50.0

About close to three-tenth (27.3%) of the respondents had anxiety/stress, 16% & 67% of the respondents had diabetes & family history of IBS respectively (Table II).

Table III: Distribution of the respondents by level of education (n=150)

Level of education	Frequency	Percent
Illiterate	16	10.7
Primary	27	18.0
Secondary	23	15.3
HSC	74	49.3
Graduate & above	10	06.7
Total	150	100.0

Almost half (49.3%) of the respondents are educated up to HSC level & around 11% of the respondents are illiterate (Table III).

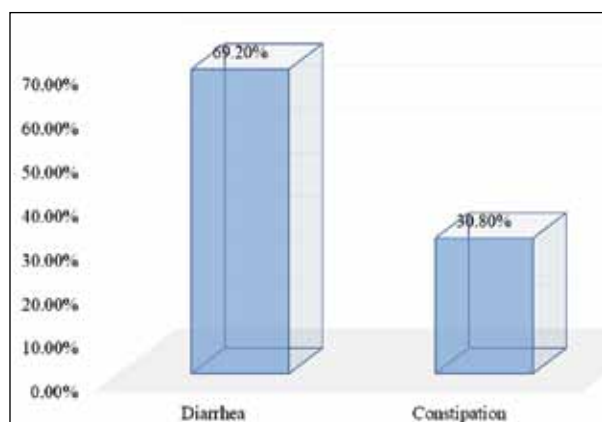


Figure 1: Distribution of respondents by Predominant symptom pattern

Figure 1 shows that close to seven-tenth (69.20%) of the respondents had diarrhea and the rest had constipation.

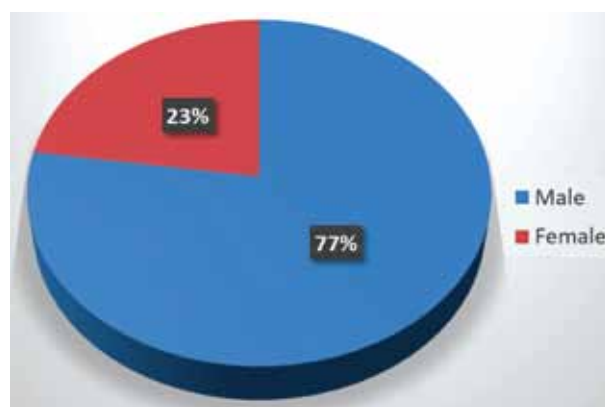


Figure 2: Distribution of respondents by sex (n=150)

figure 2 shows that close to eight-tenth (77%) of the respondents were males and the rest of the respondents were females.

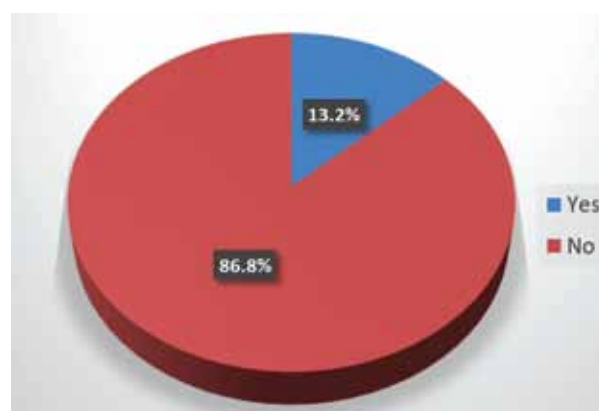


Figure 3: Prevalence of IBS

figure 3 shows that the prevalence of IBS among the Outdoor patients was 13.2%.

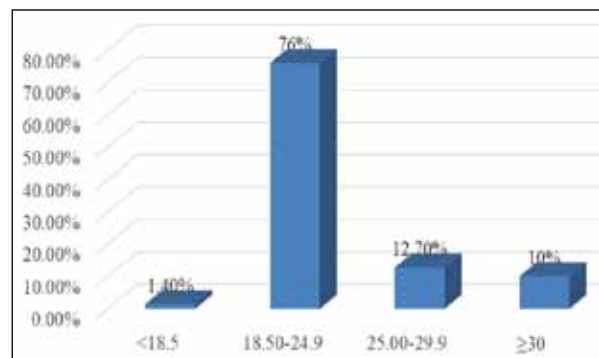


Figure 4: Distribution of respondents by BMI (n=150)

figure 4 shows that the majority (76%) of the respondents had normal BMI, followed by overweight (12.70%), Obese (10%) and the rest were underweight respectively.

Discussion:

This cross-sectional study was done in Medicine Outdoor of Dhaka Medical College (DMC) & Anwer Khan Modern Medical College (AKMMC) with an attempt to determine the proportion of Irritable Bowel Syndrome (IBS) & its associated risk factors among the attending patients.

In this study prevalence of Irritable Bowel Syndrome (IBS) among the patients attending at Medicine outdoor of selected tertiary level Hospital in Dhaka was found around 13.2%.A total 150 respondents

were interviewed by face to face through a semi-structured questionnaire. In the present study the mean age of the respondents was 30.7 years. The average family monthly income was 9230.4 taka. The majority (76%) of the respondents had normal BMI. It has been seen that close to eight-tenth (77%) of the respondents were males. More than half (58%) of the respondents were married. More than four-fifth (84%) of the respondents were Muslims. It has been found that three-fourth (75%) of the respondents were living in rural area. Slightly below half (49.3%) of the respondents had HSC. Close to half (44.7%) of the respondents had familial history of irritable bowel syndrome. Among them 38.8% had the history from their brothers/sisters. The prevalence of IBS was 13.2%. This is higher than prevalence of IBS in another study (8.4%) which was found by Norwegian study from 2006⁷ and also higher than that of another study from Vietnam by Zuckerman et al. (2006) showed a prevalence of IBS of 7.2%, using Rome I criteria. More than half (56%) had some changes in the bowel habit. 72% of the respondents don't take any medicine on IBS. More than half (58%) of the respondents were smokers. 45.3% of the respondents were taking smokeless tobacco and the majority (48.5%) were taking sadapata. 3.3% of the respondents were drinking alcohol.

Close to three-tenth (27.3%) of the respondents had anxiety/stress. A recent qualitative study reveals that an anxiety reaction often is followed by an attack of illness both in patients with IBS and patients with inflammatory bowel disease (Schneider and Fletcher 2008). 16% of the respondents had diabetes. All of the diabetic patients were suffering the diabetes for 2 years. 22% of the participants were obese, due to lack of physical activity. One study of IBS in relation to exercise showed that physical activity may improve IBS symptoms in IBS patients⁸. One study showed significance for functional bowel symptoms among the obese (Breckan et al., 2012). Being overweight is more associated with upper GI symptoms, such as gastro-oesophageal reflux disease (GORD)⁶.

Close to one-fifth (17.3%) of the respondents had hypertension, and 80.8% of the hypertensive patients were suffering the illness for 1-2 years. 14% of them

had digestive problem. Over the years, several studies have highlighted the importance of psychosocial factors in the aetiology, progression and management of IBS⁵. Acceptance and Commitment Therapy (ACT) should be tried as an alternative form of treatment for IBS to reduce psychosocial factors which is an important triggering factor of IBS⁹. We confirm the findings from previous reports; that female gender, psychological problems and young age (<50), are significant risk factors for IBS⁷.

Conclusion:

The findings of this study reveals that the prevalence of Irritable Bowel Syndrome (IBS) was 13.2%. More than half of our respondents had some changes in their bowel habit. In this study the findings also revealed that close to three-tenth of the respondents had anxiety/stress and It has been seen that IBS symptoms were associated with anxiety/stress, occupation and family monthly income of the respondents.

Recommendations:

Considering the findings of present study, there are following recommendations:

- Efforts needed to enhance knowledge & awareness regarding Irritable Bowel Syndrome (IBS) & its associated risk factors as it is a lifelong functional gastro-intestinal disorder.
- Family physicians & Primary Health care physicians can act as a role model towards developing positive health habits in order to limiting IBS symptoms
- An in depth large scale study on IBS is needed to explore the magnitude & extent of the disease situation as it is most often undiagnosed or even misdiagnosed with other gastrointestinal disorders.

Conflict of interest: None.

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