

## Awareness about Irritable Bowel Syndrome (IBS). A Survey Based Study

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### ABSTRACT

A bowel function disorder, irritable bowel syndrome (IBS) is very common problem that highly affects the quality of life of the patient. IBS may be diarrhoea predominant IBS (IBS-D), may be (IBS-C) constipation predominant IBS, and sometimes mixed bowel pattern (IBS-M) with both harden & loosen stools. Complications may include changes in bowel habits such as diarrhea or constipation, and pain in abdomen along with various symptoms including rectal urgency with diarrhea and abdominal bloating. Risk factors include age, anxiety, depression and adverse life Events. Prognostic techniques are colonoscopy and abdominal ultrasound. Different treatment strategies are used to treat various conditions experienced by individual patients. Drugs like antispasmodics, tricyclic antidepressants, 5-HT<sub>3</sub> antagonists and probiotics are proved effective in this condition.

**Objective:** The survey aimed to find out Awareness about Irritable Bowel Syndrome (IBS) among the pharmacy graduates of 3<sup>rd</sup> to 5<sup>th</sup> professional Pharmacy.

**Method:** A Cross sectional and random method was used to collect data from university students. Data was analyzed and represented in the form of tables and graph.

**Result:** According to our survey, 74% students have basic information about IBS, 26% students have knowledge about the complications of IBS, 33% have knowledge about the risk factors of IBS, 7% have information about the prognosis of IBS and 53% students have knowledge about the treatment strategies of IBS.

**Conclusion:** The overall awareness is very low in pharmacy graduate.

**Keywords:** Bowel function, Irritable bowel syndrome, Diarrhoea, Constipation, Harden, Loosen stools.

## INTRODUCTION

### Irritable bowel syndrome

Irritable bowel syndrome (IBS) is a disorder of bowel with improper function. IBS is one of the common disorders and it affects the life of its patients deeply and makes them unable to function effectively in their societies. Studies have estimated the prevalence in the United States is somewhere between 15% and 20% of the whole population. IBS is a common disorder all around the world.<sup>1</sup>

### Classification of IBS

IBS can be classified according to the predominant bowel habit. Around one third of IBS patients suffers from diarrhoea predominant IBS (IBS-D) and one third of IBS patients suffers from constipation predominant IBS (IBS-C), remaining one third of IBS patients suffers from a mixed bowel pattern (IBS-M) with both loosen & harden stools.<sup>2-4</sup>

### Complications

Irritable bowel syndrome patient faces changes in bowel habits like abdominal pain, diarrhoea and constipation. Various symptoms are also associated with IBS including rectal urgency with diarrhea and abdominal bloating. A number of extra-intestinal symptoms are also associated with IBS, like pains & muscle aches, sexual dysfunction (libido lackness), fibromyalgia syndrome, fatigue, headaches, back pain, and many urinary symptoms including urinary urgency, hesitation in urine or a spasm feeling in the urinary bladder.<sup>1</sup>

### Risk factors

Known risk factors in order of importance include the severity of the initial illness, bacterial toxigenicity,<sup>5</sup> female sex, a range of adverse psychological factors like hypochondriasis<sup>6</sup> depression and anxiety,<sup>7</sup> adverse life Events<sup>8</sup> and Spiller<sup>9</sup>. Post

infective IBS has been reported after shigella,<sup>10</sup> salmonella,<sup>11,12</sup> and campylobacter<sup>7</sup> infections and does not appear specific to any particular organism.<sup>13</sup> Some other alarming features of irritable bowel syndrome are as under:<sup>21</sup>

- Age more than 50 years or elderly
- Nocturnal symptoms
- weight loss
- Recent antibiotic use
- Family history of colon cancer
- Male sex
- Anaemia
- Rectal bleeding

### Prognosis

IBS is not associated with development of any serious disease.<sup>14,15</sup> IBS is not linked to mortality. Patients may undergo certain surgical procedures like cholecystectomy & hysterectomy. Prognosis of IBS is depends on the available treatments. Patients suffering IBS should see their physician for health improve.<sup>16-19</sup>

The other key prognostic factor is chronic ongoing life stress which virtually precluded recovery in one study in which no patient with ongoing life stresses recovered over a 16 month follow up, compared with 41% without such stresses.<sup>20</sup>

### Investigation for irritable bowel syndrome<sup>21</sup>

- Take a symptom history
- Assess psychosocial factors
- Physical examination
- Check for alarm symptoms
- Investigations
  - CBC
  - EMA (endomysial antibodies)
  - Lactose breath hydrogen test
  - Colonoscopy
  - Abdominal ultrasound

## Treatment of IBS

Many people in our society daily experience IBS symptoms just because of their IBS history. There was no effective treatment of IBS. IBS patients should go to their physician for their recommendations for latest treatment options. Physician should council their patients that IBS is a chronic illness. Only symptomatic treatments are provided so the overall outlook is actually quite good.<sup>1</sup>

IBS is a heterogeneous condition with a wide range for treatment, each of which benefits a small proportion of IBS patients. Treatment of associated depression & anxiety often improves bowel and other symptoms. Randomized trials showed benefit as follows: cognitive behavioral therapy and psychodynamic interpersonal therapy improve coping; hypnotherapy benefits global symptoms. Antispasmodics and tricyclic antidepressants can improve pain of IBS patients. Ispaghula can improve pain and bowel habit of IBS patients. 5-HT<sub>3</sub> antagonists improve global symptoms, diarrhoea and pain of IBS patients. It can cause unexplained colitis. 5-HT<sub>4</sub> agonists improve global symptoms, bloating and constipation of IBS patients. Selective serotonin reuptake inhibitors improve global symptoms in IBS patients.<sup>21</sup> (See table 6.)

## METHODOLOGY

This is a survey based study on the awareness of irritable bowel syndrome (IBS). A cross-sectional and random method was used to collect data from Department of Pharmacy, Jinnah University for Women, about the awareness on irritable bowel syndrome (IBS) in the month of Sep-Oct, 2014. A specially designed questionnaire was used for data collection. Data of 100 female students (n=100) was collected from 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional year students and analyzed. Different questions were asked from the subjects to collect the data and to

conclude the awareness rate in university students about IBS. Questions were asked on the basic knowledge or introduction of IBS, its complications, its risk factors, its prognosis and the treatment strategies of IBS (figure 1).

## Data analysis

We have statistically analyzed our data and used tables and graph for the representation of our data collected.

## RESULT

After our survey on the awareness of IBS, at JUW, Karachi, we found that only 29.4% of the pharmacy undergraduate Students belong to 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional pharmacy have awareness while other 70.6% of the pharmacy undergraduate Students belong to 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional pharmacy have no awareness about irritable bowel syndrome (IBS).

## DISCUSSION

A bowel function disorder, irritable bowel syndrome (IBS) is very common problem that highly affects the quality of life of the patient. Irritable bowel syndrome IBS may be diarrhoea predominant (IBS-D) and may be constipation predominant (IBS-C) and may be mixed pattern (IBS-M) with both harden & loosen stools. Our survey aims to find its awareness in 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional pharmacy students at Jinnah University for women, Karachi. We had asked different questions about IBS during our survey.

In our survey about the awareness of irritable bowel syndrome (IBS) the first question was asked about IBS that "What is irritable bowel syndrome (IBS)?" to 100 students belong to 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional pharmacy. 74 out of 100 pharmacy students had knowledge about IBS. While other 26 students of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> professional pharmacy had no basic

knowledge about irritable bowel syndrome (IBS). (Table 1)

In our survey about the awareness of irritable bowel syndrome (IBS) the second question was asked about the complications of IBS that “What are the complications of irritable bowel syndrome (IBS)?” to 100 students belong to 3rd, 4th and 5th professional pharmacy. 26 out of 100 pharmacy students had knowledge about the complications of IBS. While other 74 students of 3rd, 4th and 5th professional pharmacy had no knowledge about the complications of irritable bowel syndrome (IBS). (Table 2)

In our survey about the awareness of irritable bowel syndrome (IBS) the third question was asked about the risk factors of IBS that “What are the risk factors of irritable bowel syndrome (IBS)?” to 100 students belong to 3rd, 4th and 5th professional pharmacy. 33 out of 100 pharmacy students had knowledge about the risk factors of IBS. While other 67 students of 3rd, 4th and 5th professional pharmacy had no knowledge about the risk factors of irritable bowel syndrome (IBS). (Table 3)

In our survey about the awareness of irritable bowel syndrome (IBS) the fourth question was asked about the risk factors of IBS that “What are the prognosis of irritable bowel syndrome (IBS)?” to 100 students belong to 3rd, 4th and 5th professional pharmacy. 7 out of 100 pharmacy students had knowledge about the prognosis of IBS. While other 93 students of 3rd, 4th and 5th professional pharmacy had no knowledge about the prognosis of irritable bowel syndrome (IBS). (Table 4)

In our survey about the awareness of irritable bowel syndrome (IBS) the last question was asked about the treatment of IBS that “What are the treatment of irritable bowel syndrome (IBS)?” to 100 students belong to 3rd, 4th and 5th professional pharmacy. 7 out of 100 pharmacy students had knowledge about the treatment strategies

of IBS. While other 93 students of 3rd, 4th and 5th professional pharmacy had no knowledge about the treatment strategies of irritable bowel syndrome (IBS). (Table 5) we had done these types of survey based studies which is very useful for health care professionals<sup>22-40</sup>.

## CONCLUSION

After our survey on the awareness of IBS at JUW, Karachi, we find the overall awareness rate of IBS is very low among the students of pharmacy belong to 3rd, 4th and 5th profession. There was only 29.4% female students of pharmacy who aware about this inflammatory condition.

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**Table 1.** Basic knowledge about irritable bowel syndrome (IBS)

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No	26	26.0	26.0	26.0
	Yes	74	74.0	74.0	100.0
	Total	100	100.0	100.0	

**Table 2.** Complications of irritable bowel syndrome (IBS)

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No	74	74.0	74.0	74.0
	Yes	26	26.0	26.0	100.0
	Total	100	100.0	100.0	

**Table 3.** Risk factors of irritable bowel syndrome (IBS)

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No	67	67.0	67.0	67.0
	Yes	33	33.0	33.0	100.0
	Total	100	100.0	100.0	

**Table 4.** Prognosis of irritable bowel syndrome (IBS)

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No	93	93.0	93.0	93.0
	Yes	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

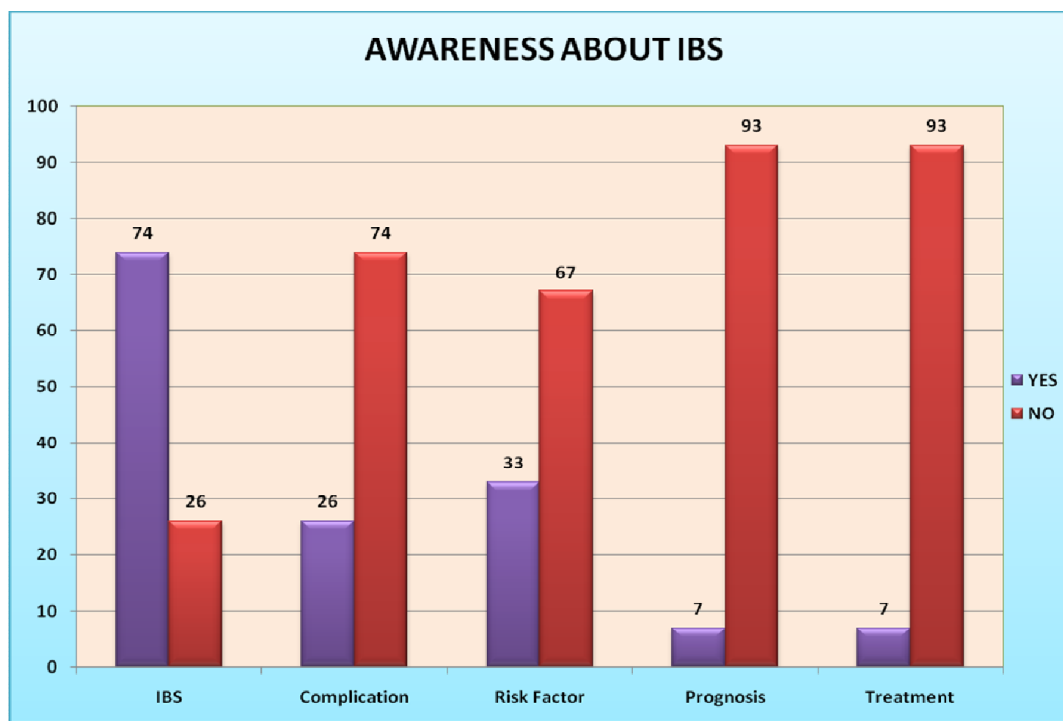
**Table 5.** Treatment strategies of irritable bowel syndrome (IBS)

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No	93	93.0	93.0	93.0
	Yes	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

**Table 6.** Suggested sequence of pharmacological treatment for irritable bowel syndrome<sup>21</sup>

Predominant symptom	First line	Second line
Pain	Antispasmodic agents	Tricyclic antidepressants Hypnosis Psychological treatments
Diarrhoea	Loperamide	5-HT3 antagonist*
Constipation	Ispaghula	5-HT4 agonist*
Bloating with distension	Dietary manipulation Polyethylene glycols	Probiotics 5-HT4 agonist*
Bloating without distension	Antispasmodic agents	Probiotics Tricyclics

\*No representative of this class of drugs is currently licensed for IBS but there are other related drugs in development.

**Figure 1.** Awareness about IBS