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Research Article

**THE PREVALENCE OF IRRITABLE BOWEL SYNDROME
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Abstract:

Background: despite the modern society and medical knowledge, irritable bowel syndrome has been common these days in medical students in Riyadh city.

Objectives: irritable bowel syndrome [IBS] is a common gastrointestinal disease presenting with abdominal pain, bloating and change in bowel habit. This study aims to assess the prevalence of irritable bowel syndrome in medical students in Almaarefa university, Saudi Arabia.

Methods: a cross-sectional study on the prevalence of irritable bowel syndrome was randomly distributed among male in almaarefa University in Riyadh city, of Saudi Arabia from January to November 2015 involving 100 medical student participants.

Results: in 18% of the participants have been diagnosed with IBS and 28.5% fit Rome III criteria for the diagnosis of IBS. Stress with a percentage of 69.2% and lack of exercise 75.9% being the highest risk factors of IBS.

Conclusion: our result showed that huge number of medical students are suffering from inflammatory bowel syndrome

Research problem :Measuring awareness of irritable bowel syndrome among medical student in almaarefa university.

Research Keywords: Irritable bowel syndrome, Medical students, Rome III criteria.

Research significant and motivation :Measuring the awareness of irritable bowel syndrome among medical student will give us an overall picture on importance of irritable bowel syndrome and how those student deal with it and there for facilitating educational programs about this condition .

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INTRODUCTION:

Irritable bowel syndrome [IBS] is a chronic functional gastrointestinal disorder characterized by recurrent episodes of abdominal pain and discomfort, and altered bowel habits that are not explained by structural or biochemical abnormalities [1]. IBS is the most common chronic disease affecting the digestive system, approximately 10 - 20% of general population [2]. Only 15 % of these patients seek medical attention [2]. Some studies revealed that 12% of primary health care visits and 28% of referrals to gastroenterologists are due to IBS [3,4].

The pathogenesis of this disease is not fully understood. However, many factors such as anxiety, depression, and stress are positively related to the degree of severity of IBS symptoms [5]. Medical students undergo a high level of stress that may negatively impact their general health. A Korean study found that the prevalence of IBS was 29.2% among 319 medical students [6]. A local study in Eastern Province of Saudi Arabia showed that the prevalence of stress among medical students was 53% [7].

As a result, medical students are at higher risk of experiencing IBS. A cross-sectional study conducted on medical students in Beijing, China showed that the prevalence of IBS is 33.3% [8]. A similar study done at King Abdulaziz University, Jeddah presented a 31.8% prevalence of IBS among medical students and interns [9].

General objectives:

- To estimate the proportions of Irritable bowel syndrome in almaarefacollege. Riyadh.
- To identify the most common types of Irritable bowel syndrome among male students in almaarfa health colleges in Riyadh city-2015.

Specific objectives:

- To estimate the Irritable bowel syndrome with stress factor like before exam and in sleep cycle dose it effect.
- To estimate the Irritable bowel syndrome with life style habits like how many type of exercise and for how much time ,and if he have dietary

system or if he have special type of food would be effect in Irritable bowel syndrome.

- To estimate of Irritable bowel syndrome with smoking habits does he feel pain after smoke or not.

METHODOLOGY:

Study design: cross-sectional community-based study

Study area: Male student almareefa university

Sample size: 100.

Technique: convenience sample of male student in MCST.

Data needs:

- Instrument: validity and reliability will be checked being data collection.
- Definition: Irritable bowel syndrome [IBS] is a common disorder that affects the large intestine [colon]. Irritable bowel syndrome commonly causes cramping, abdominal pain, bloating, gas, diarrhea and constipation. IBS is a chronic condition that you will need to manage long term.
- Data collection: questionnaire will be distributed in class rome by investigator explain the procedure and ask them to complete the form.

DATA ANALYSIS:

1. Statistical Package for Social Sciences [SPSS].
2. Descriptive statistics [e.g. number, percentage].
3. Questionnaire will be checked.

Objective: this questionnaire was translated to Arabic language and necessary modification was made to meet the objectives. It consists of three parts: demographic data, IBS diagnosis using Rome III criteria and associated factors.

Ethical consideration: oral consent.

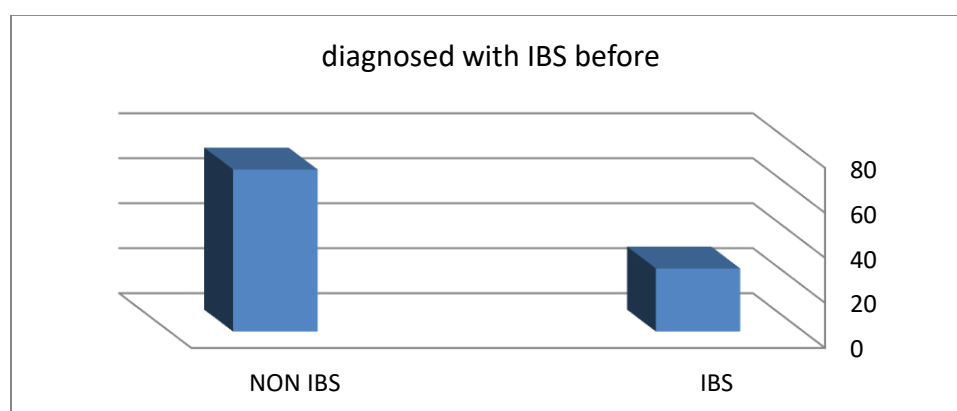
Time line: title selection [first & second week], objectives [third & forth week], background [fifth week], lit review [fifth till tenth week], area [fourth week], sampling [seventh week], instrument [seventh till tenth week], analysis plan [eleventh week]

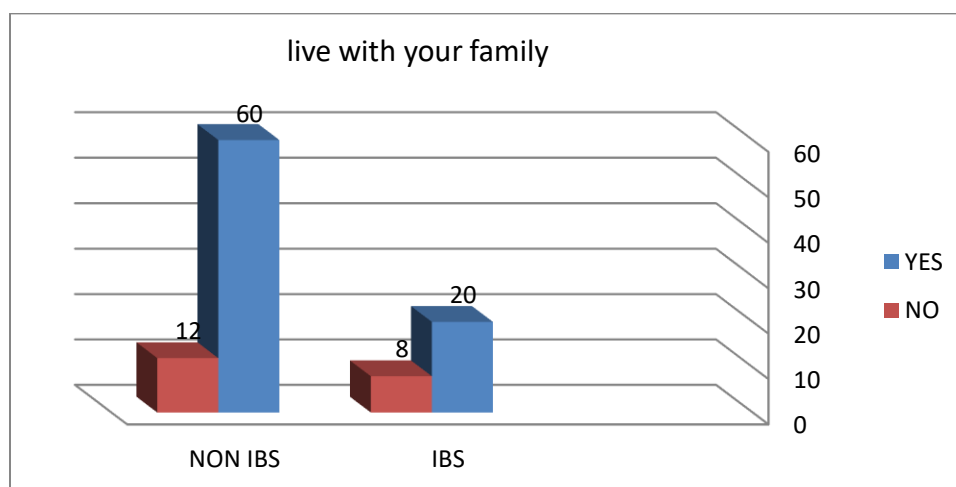
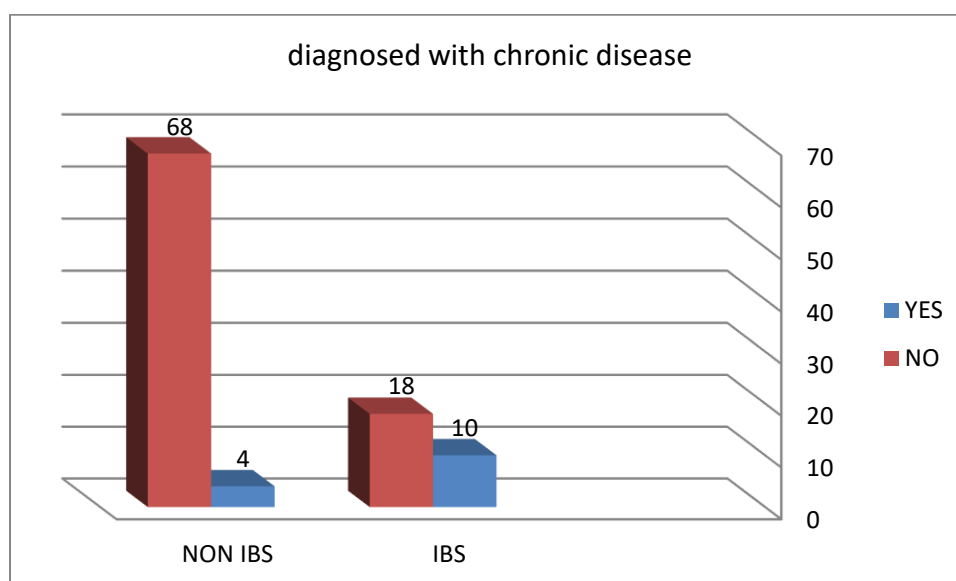
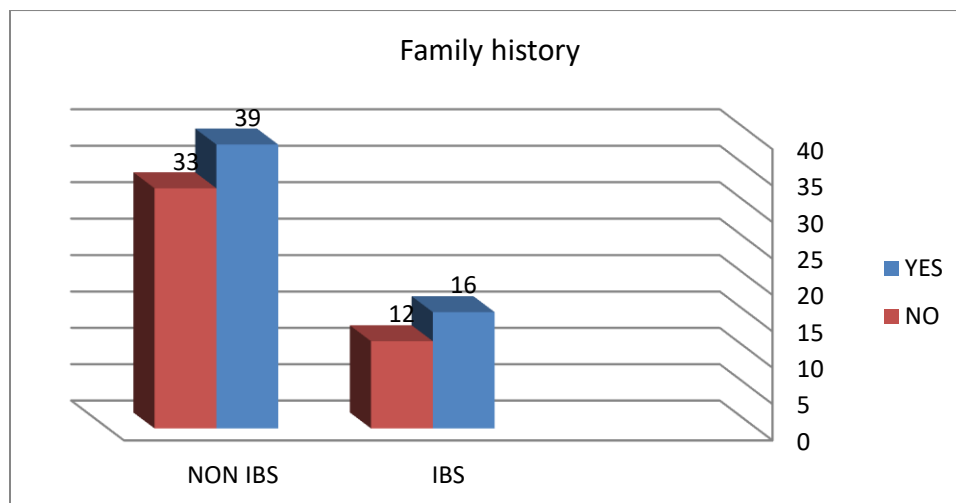
Questionnaire: the questionnaire is Rome III criteria and it consist of 19 questions

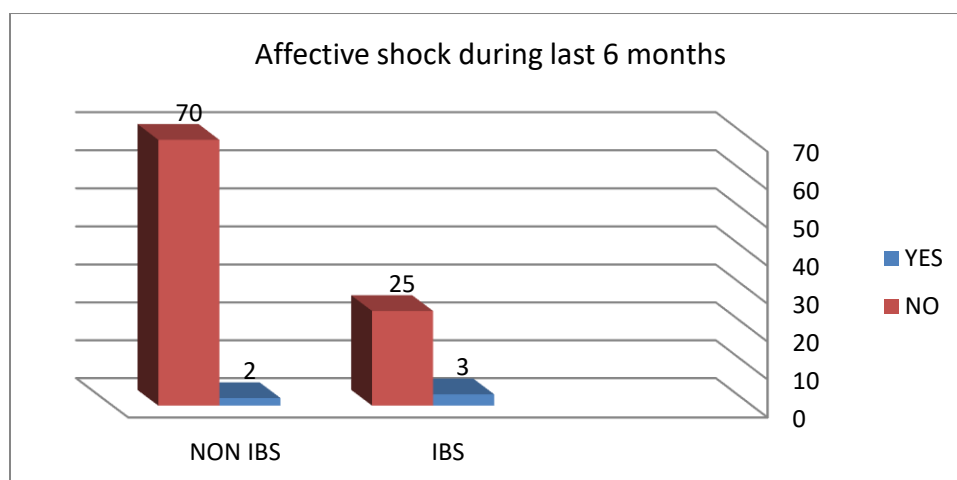
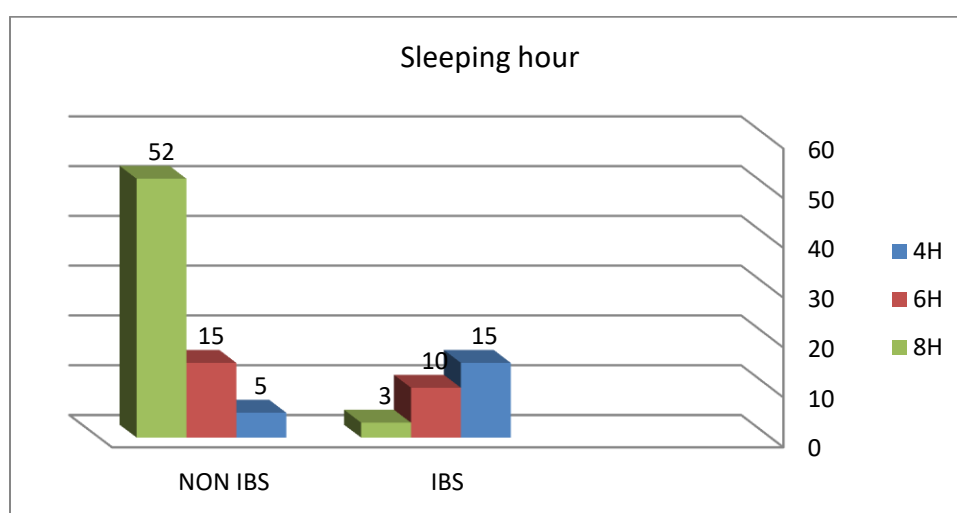
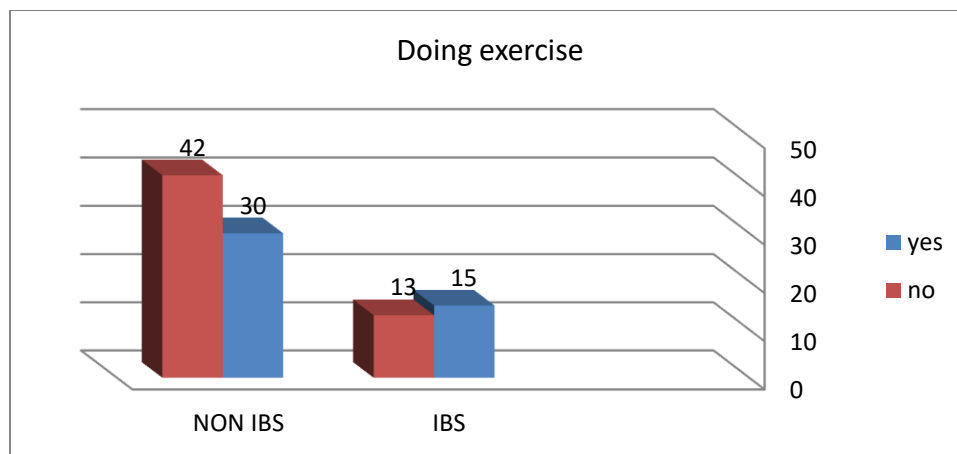
IBS	NON IBS	TOTAL
28	72	100
Family history		
Family history	IBS	NON IBS
YES	16	39
NO	12	33
TOTAL	28	72

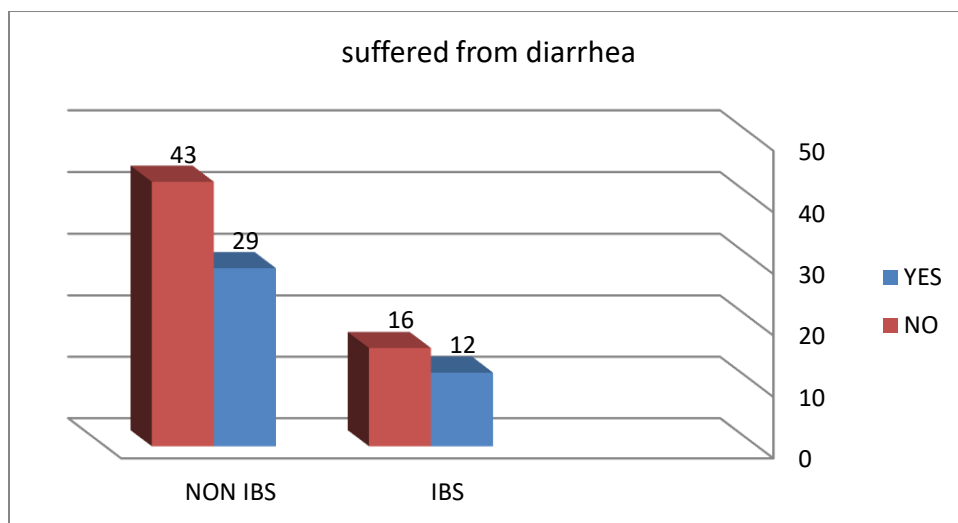
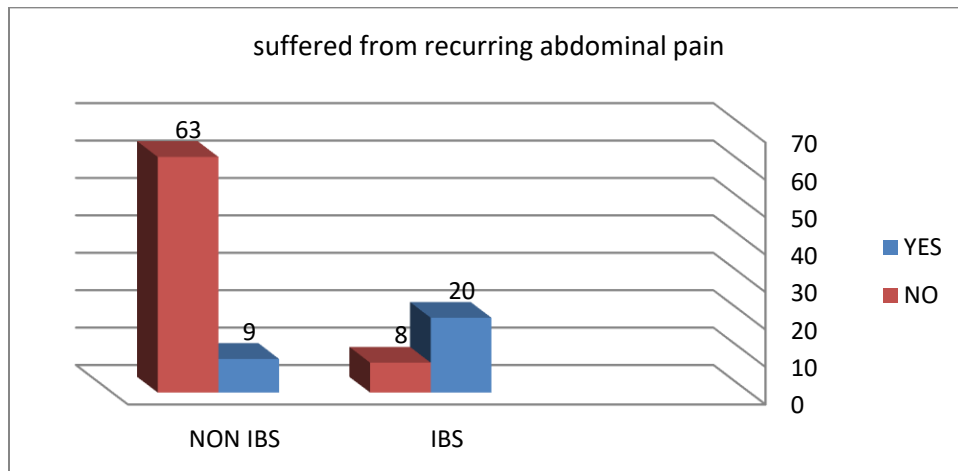
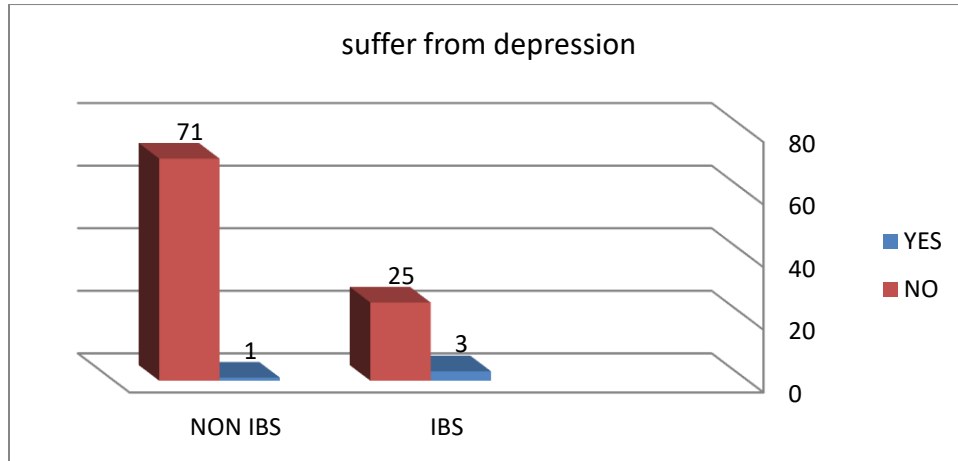
diagnosed with chronic disease		
diagnosed with chronic disease	IBS	NON IBS
YES	10	4
NO	18	68
TOTAL	28	72
live with family		
live with your family	IBS	NON IBS
YES	20	60
NO	8	12
TOTAL	28	72
Doing exercise		
Doing exercise	IBS	NON IBS
yes	15	30
no	13	42
total	28	72
Sleep hour		
HOUR	IBS	NON IBS
4H	15	5
6H	10	15
8H	3	52
TOTAL	28	72
Affective shock during last 6 months		
Affective shock during last 6 months	IBS	NON IBS
YES	3	2
NO	25	70
TOTAL	28	72
suffer from depression		
suffer from depression	IBS	NON IBS
YES	3	1
NO	25	71
TOTAL	28	72
suffered from recurring abdominal pain		
Suffered from recurring abdominal pain	IBS	NON IBS
YES	20	9
NO	8	63
TOTAL	28	72
suffered from diarrhea		
suffered from diarrhea	IBS	NON IBS
YES	12	29
NO	16	43
TOTAL	28	72
suffered from constipation		
suffered from constipation	IBS	NON IBS
YES	16	46
NO	12	26
TOTAL	28	72
blood in the stool		
blood in the stool		
YES	3	4
NO	25	68
TOTAL	28	72
suffer from Sudden rapid weight loss		
Sudden rapid weight loss	IBS	NON IBS

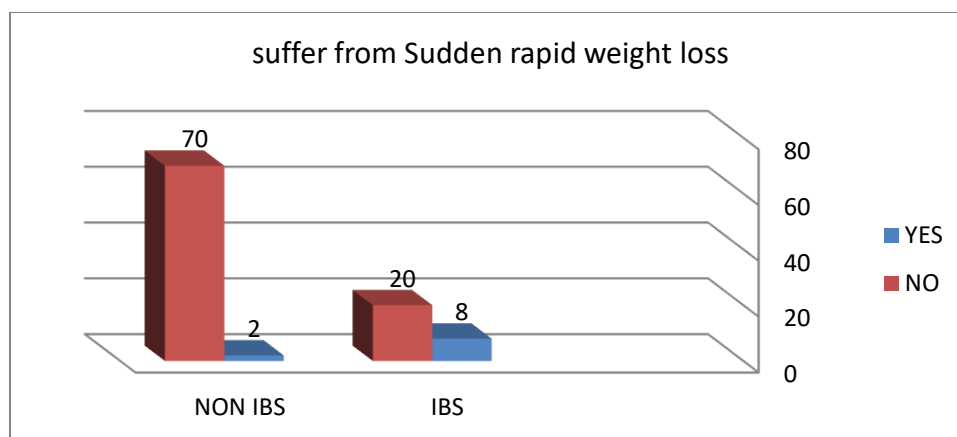
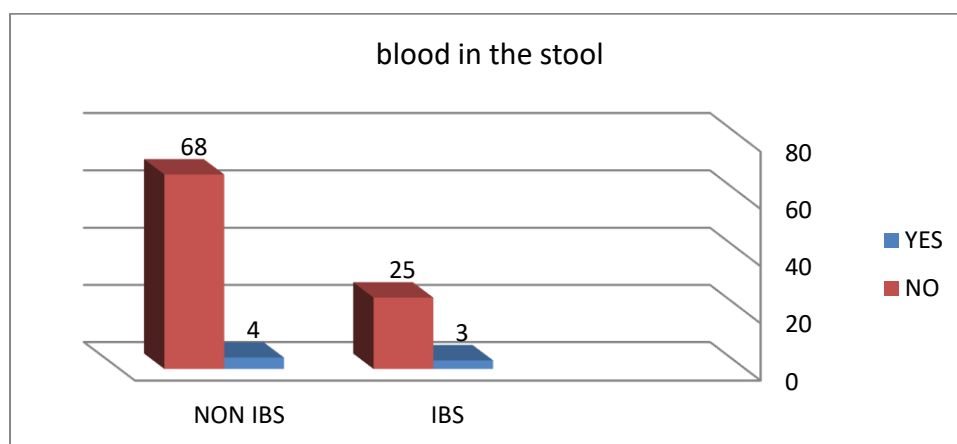
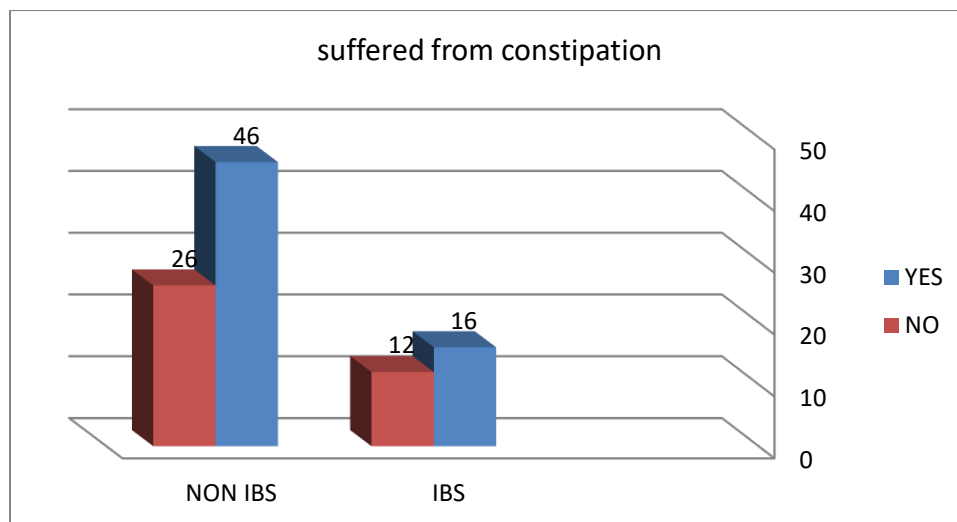
YES	8	2
NO	20	70
TOTAL	28	72
smoking		
smoke	IBS	NON IBS
YES	17	55
NO	11	17
TOTAL	28	72
an allergy to any type of foods		
an allergy to any type of foods	IBS	NON IBS
YES	8	21
NO	20	15
TOTAL	28	72
financial problem		
financial problem	IBS	NON IBS
YES	6	6
NO	22	66
TOTAL	28	72
pain affects your presence on university		
pain affects your presence on university	IBS	
YES	14	
NO	14	
TOTAL	28	
pain wake you from sleep		
pain wake you from sleep	IBS	
YES	16	
NO	12	
TOTAL	28	
pain go away after the bowel habits		
pain go away after the bowel habits	IBS	
YES	12	
NO	16	
TOTAL	28	

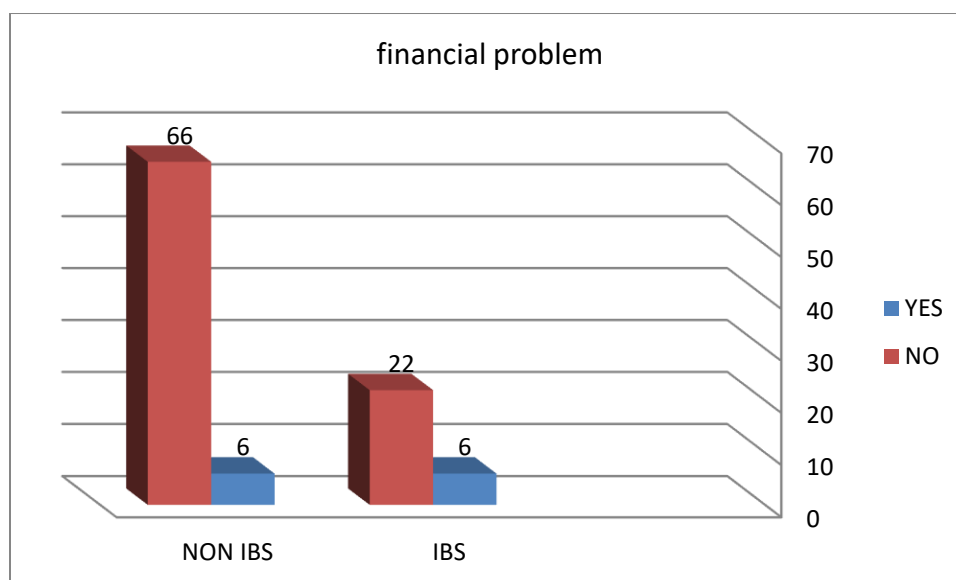
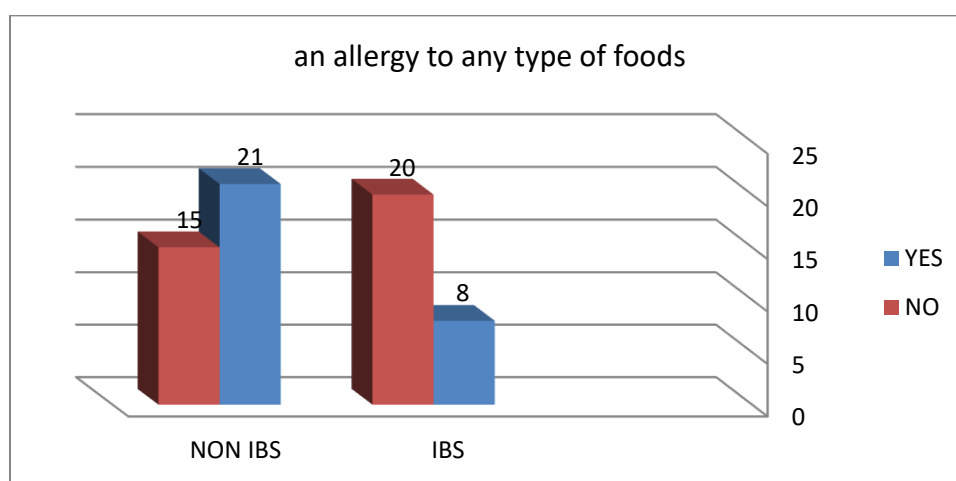
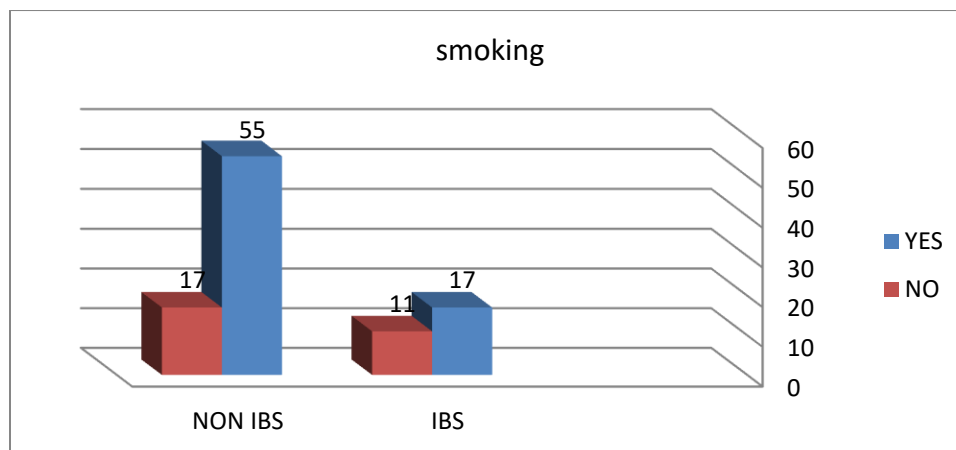


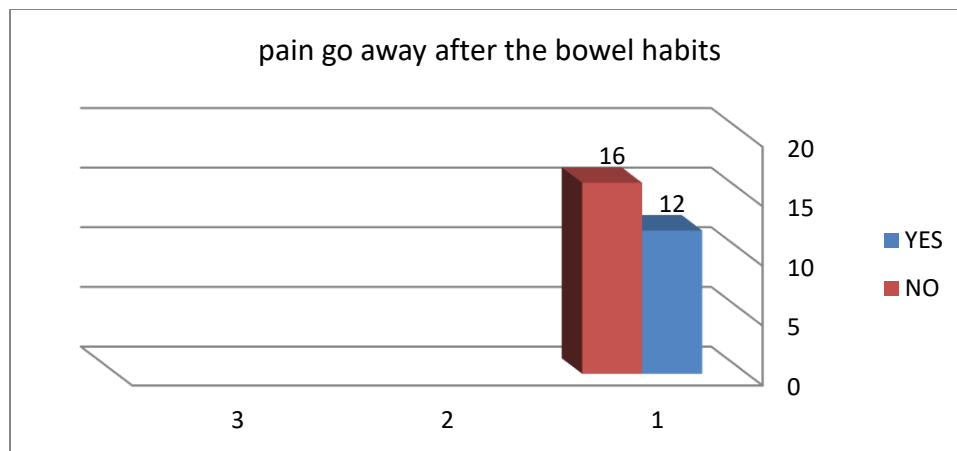
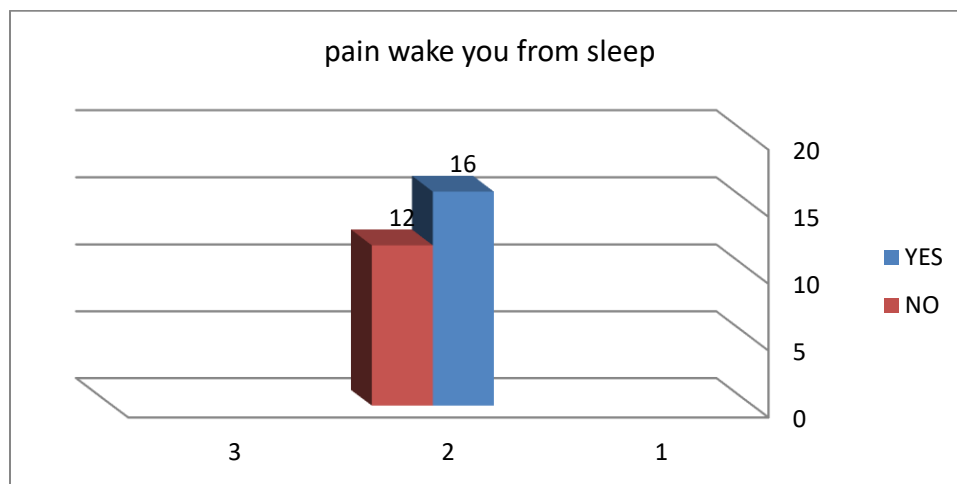
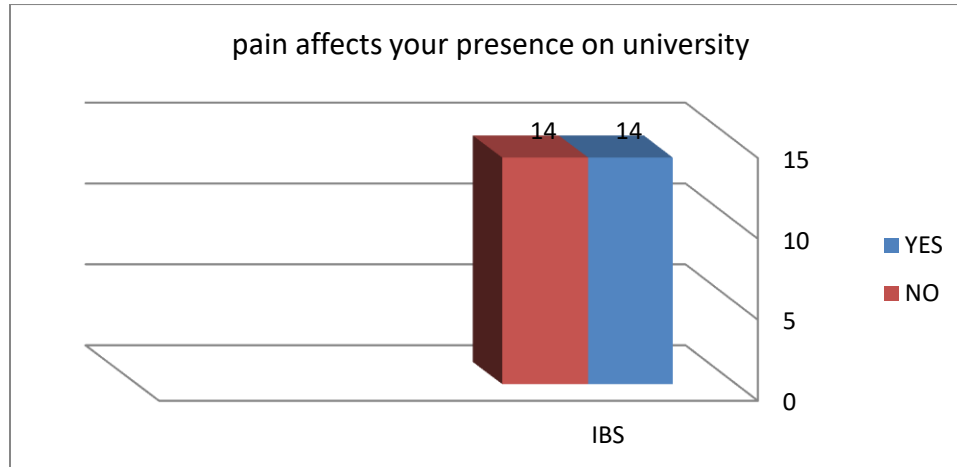












RESULTS:

A total of 100 students participated in the study 28% was diagnosed as IBS before and 72 % not diagnosed as IBS .and from whom diagnosed as IBS 57.1% had family history of IBS and non IBS students had family history in 45.8%. 35.% of IBS

students diagnosed as chronic disease while non IBS students only 5.5% diagnosed as chronic disease. 71.5 % of IBS students live with their family while other non IBS students 83% are living with family .53.6 %doing exercise in IBS student and 41.6% doing exercise in non IBS students.10% of IBS

students sleep 8 hours per day while in non IBS 72.2% students sleep 8 hours per day .10.7% was affected by shock in last 6 months in IBS students and in non IBS student about 2.78 % only was affected by shock in last 6 months.10.7 in IBS was affected by depression in non IBS students the percentage is 1.38%.abdominal pain71.4%,diarrhea42.9%,constipation57.1%,blood in stool 10.7% in IBS student while in non IBS students the percentage is 12.5%.abdominal pain71.4%,diarrhea40.3%,constipation63.8%,blood in stool 5.5%. in IBS students 28.5 had sudden loss of weight while in non IBS students 2.7%. in IBS student 60.75% had financial problems and 21.4% had financial problems in university . in non IBS student 76.38% had financial problems.28.5% had allergy to some food in IBS students in other non IBS about 29.1%.in IBS 57.1% had pain wake them from sleep .42.8% relief the pain after bowel habit.

DISCUSSION:

The global estimated prevalence of IBS is 10-15% [4]. Our study reports a prevalence of 28% of IBS among the students of University in AlMaarefa, KSA. KSA which reported a prevalence of 21% of medical students are having IBS [10]. The disparity of our result with those of the cited published studies maybe attributed to the variability of the study group, diagnostic criteria, age group, learning environment, culture and geographical location. The difference in sample size may also be another reason for this difference in disparity. It turns that IBS is increasing these days not only worldwide but also in all students of AlMaarefa university. Family history was reported as good risk factor for IBS in this study 57.1%. in our study no difference between living with family or in developing IBS may be related to the person himself. This study reports no statistically significant association between doing exercise in IBS students and non IBS student.but sleep pattern and quality of sleep play important role in IBS student and in non IBS student in IBS only 10% sleep 8 hours per day while in non IBS students the percentage about 72.2%. The main complaint in our study are abdominal pain followed by constipation,diarrhea, lastly is blood with stool.the pain relieved with bowel habits in 42.8.

CONCLUSION:

We can conclude that irritable bowel syndrome is common in students of AlMaarefa University, KSA. Stress and lack of exercise, family history smoking ,are risk factors of IBS. More community awareness and education is required and internal medicine doctors are advised to have an active role in the

health education and awareness about IBS problem among all students.

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