

The Level of Psychological Stress Among Patients with Irritable Bowel Syndrome – A Study on a Sample of Teachers with IBS-

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Received: 07/07/2024 Published: 05/02/2025

Abstract:

The study aimed to measure the level of psychological stress among primary school teachers diagnosed with irritable bowel syndrome (IBS) and to examine the impact of gender, age, and professional experience on these stress levels. The study employed a descriptive-analytical approach and was conducted on a purposive sample of 64 teachers. The results indicated that psychological stress levels were high among teachers with IBS, with no statistically significant differences attributed to gender, age, or professional experience. Additionally, IBS symptoms were found to worsen during work hours and decrease during rest periods and vacations. The study recommends implementing strategies to support teachers, such as improving the work environment, reducing professional burdens, providing adequate rest periods, and promoting physical activities and a suitable diet.

Keywords: Psychological stress; Patients with irritable bowel syndrome; Primary school teachers.

INTRODUCTION

Irritable bowel syndrome (IBS) is a common purposeful disorder of the gastrointestinal tract, characterized by continual symptoms along with abdominal pain, bloating, intestinal contractions, and disturbances in bowel actions, which could encompass diarrhea, constipation, or alternating patterns (Moriarty, 2013). IBS substantially influences people's first-class of existence because of its persistent nature and its direct effect on every day functioning. Although IBS does not cause everlasting natural damage, it extensively affects the psychosocial and occupational well-being of these affected.

Psychological pressure is a major thing that exacerbates IBS symptoms, as the gut's response to mental conditions is intently linked via the mind-gut axis. Research suggests that IBS patients are extra liable to psychological stresses such as tension, melancholy, and continual pressure, all of which accentuate symptoms. Psychological

pressure turns on the autonomic apprehensive gadget, main to adjustments in bowel moves and elevated sensitivity of the digestive machine to pain (Drossman et al, 2016).

Psychiatric disorders may additionally boom the hyperactivity of the brain-gut axis, which explains the severity of signs in a few sufferers (Mayer et al, 2015).

This courting will become more and more important while analyzing occupational businesses that require sizable intellectual and emotional effort, which include teachers, who're exposed to excessive degrees of mental strain because of increased work demands, regular interaction with students, strain from opinions, and a work environment that could once in a while lack mental help.

Teachers are one of the most psychologically careworn occupational corporations, because of the non-stop intellectual and emotional attempt required via the teaching career. They face severa demanding situations which include heavy teaching loads, inadequate fabric incentives, problems in handling college students, administrative pressures, and other elements that may cause persistent psychological pressure. Over time, these mental elements might also negatively impact the overall health of instructors, mainly in the event that they already suffer from fitness situations consisting of IBS.

Therefore, this study aims to highlight the relationship between psychological stress and irritable bowel syndrome in teachers by examining the extent to which professional and psychological stress affect the severity of IBS symptoms. It will also detect differences in stress levels based on variables such as gender, age, and years of experience. Additionally, the study seeks to provide recommendations to improve the working environment of teachers with IBS and reduce the negative impact of psychological stress on their health.

2. Theoretical Framework of the Study :

2.1 Study Problems :

The courting between mental strain and irritable bowel syndrome is a subject that has garnered sizable interest in current years, given the strong interaction between the worried gadget and the digestive machine. Psychological problems inclusive of tension, stress, and melancholy exacerbate digestive symptoms in sufferers. In this context, the work surroundings performs an important position in figuring out the extent of strain people face. Among the groups most affected by those pressures are teachers, who come upon ongoing professional demanding situations that can bring about high degrees of stress.

The coaching profession requires continuous interaction with students, management, and dad and mom, in addition to the burdens associated with lesson practise, grading assignments, and different obligations.

This will increase the psychological stress on teachers. The work surroundings may additionally now and again lack factors that guide intellectual health, together with

good enough administrative assist and necessary amenities, making teachers extra liable to psychological stress that could without delay have an effect on their physical fitness, specifically in the event that they be afflicted by chronic situations of psychological starting place, which include IBS. Therefore, this trouble now not only impacts teachers ; its impact extends to college students, whose educational performance can be encouraged by using the mental weather inside the lecture room. Although many studies have addressed mental stress in special work environments, the have a look at of psychological stress amongst instructors, especially on the number one degree, nevertheless calls for further in-depth studies, deliberating the specific nature of this academic section.

In Algeria, in particular, a single teacher is responsible for teaching scientific, literary, and other subjects in the official language of the country, Arabic. This means that teachers must handle a variety of subjects, prepare lessons, teach children, and evaluate their behavior, leading them to experience more mental stress than other professions.

The questions of this study revolve around the following main points :

- What level of psychological stress do teachers with IBS experience ?
- Do levels of psychological stress in teachers with IBS vary based on variables such as gender, age, and years of experience ?
- Do IBS symptoms worsen during working hours for teachers affected by the condition ?

Hypotheses :

- Teachers with IBS suffer from high levels of psychological stress.
- There are statistically significant differences in the level of psychological stress among teachers with IBS due to the following variables: gender, age, and years of experience.
- IBS symptoms increase significantly during work.

2.2 Objectives of the Study :

The objectives of the study are as follows :

- To measure the level of psychological stress in teachers with IBS.
- To examine differences in levels of psychological stress based on gender, age, and years of experience.
- To compare IBS symptoms during working hours with those during rest periods.
- To enrich the theoretical literature on the subject with the results of the current study.

2.3 Importance of the Study:

The importance of this study lies in identifying the level of psychological stress in

teachers with IBS, based on certain demographic variables, and understanding the sources of stress in order to draw the attention of relevant authorities to addressing, managing, and overcoming them, ultimately improving teachers' performance and effectiveness in their profession.

Theoretical Significance:

The study highlights the relationship between psychological stress and irritable bowel syndrome in a specific occupational group—teachers—thereby contributing to the enrichment of scientific literature on this topic.

Applied Significance :

The study's results will help generate recommendations that can contribute to improving the working environment of teachers and reducing the psychological stress they are exposed to. Additionally, it will support the development of psychological support and training programs for teachers with IBS, aimed at enhancing the quality of their professional and personal lives.

2. 4 Study Terms :

- Psychological stress : the feeling of discomfort resulting from an individual's exposure to external events or disturbing internal motives
- Procedurally, the degree to which teachers have obtained the psychological pressure measure used in the current study, where they study the multiple areas and dimensions in which the teacher's psychological stress is manifested at the primary level.
- Irritable bowel syndrome is a very common condition associated with muscle spasms in the bowel walls. The cause is unknown, but symptoms often seem to be related to stress in many people. (Hockey, 2014, p. 87)
- Primary education : the lowest stage of Algerian education, starting from the age of six. Pupils enrolled in the first grade of primary school up to the fifth grade of primary school (pre-school enrolment at the age of five according to the school system)
- Teachers : They occupy the position of primary education in both public and private schools. They supervise the education and education of young women. In this study, teachers of Arabic subjects who study about nine subjects, including literary subjects such as Arabic, civic education, Islamic education, history, geography and scientific subjects such as mathematics, scientific education and waking subjects such as artistic education and musical education.

2.5 Previous Studies :

A study by Burke, R. J. (2007) examined models for understanding psychological fatigue and emotional and physical well-being in the context of teachers' work. The

study's results found that teachers' demographic characteristics and work pressures were strong predictors of psychological fatigue and emotional and physical health, while the impact of social support was weak.

-Feras Kitts' study (2017) showed that psychological stress in men is higher than in women, that those with shorter experience have higher stress levels compared to those with medium and long-term experience, and no statistical difference in psychological stress was found attributable to marital status.

-The results of the Obeid bin Abdullah Al-Omari study (2013), entitled "Work Pressures for Teachers," found a significant negative relationship between demographic variables (age, monthly salary, length of service, work stress). The results also showed a significant positive relationship between functional variables: workload, role conflict, role ambiguity, nature of work, job security, and work pressures. The study also revealed that functional variables have a greater impact on work stress than demographic variables.

-Fawzi Izzat and Badr Jalal (1997) proposed a study on psychological stress in primary school teachers and its relationship to some personal variables such as age, sex, experience, and dimensions of attitude toward the teaching profession. The results indicated a positive correlation between psychological stress related to male teachers' financial security and age, and the duration of teaching experience, with teachers feeling more psychological pressure when working with primary school pupils compared to female teachers.

-Abdel Fattah Khalifat and Emad Zaghloul (2003): The study aimed to explore the phenomenon of psychological stress among teachers in the education directorates of Karak Governorate and its relationship with certain variables. The results revealed that the most significant sources of psychological stress were related to income, relationships with the community, parents, extracurricular activities, infrastructure, school climate, and the teaching process. Other factors did not play a major role in creating psychological stress among the participants. Statistically significant differences were found in some dimensions, particularly related to gender, with differences emerging in areas such as income, educational supervision, and relationships with the community, parents, and students. However, no gender differences were found in other areas. Additionally, there were no significant differences in these dimensions related to social status, except for the teaching process and educational supervision, where differences were found in favor of single teachers.

-Ali, Iboni (2016): The take a look at at the psychological pressures faced by primary schooling instructors within the Umm Ban area and their relationship with positive

variables confirmed that the psychological pressures on these instructors have been excessive. The take a look at found statistically considerable variations inside the level of mental pressure among instructors based totally on gender, with females experiencing better tiers of stress. The look at also revealed good sized differences in strain levels based on marital reputation, with married teachers experiencing better stress, and based totally on housing, with condo employees reporting higher tiers of strain.

2.6 Commentary on Previous Studies :

The previous studies show that psychological stress among teachers is influenced by several demographic and functional factors, with the nature and severity of stress varying depending on multiple variables.

Agreement on the Impact of Stress on Mental and Physical Health :

The Burke (2007) study confirmed that teachers' demographic characteristics and work pressures are strong predictors of psychological fatigue and emotional and physical health. This finding is consistent with the results of the Al-Omari (2013) study, which showed a negative correlation between stress and certain demographic variables such as age, income, and length of service.

Disparate Effect of Demographic Variables :

Feras Kitts' study (2017) showed that men experience higher psychological stress than women, while Walponi's study (2016) found that females are more vulnerable to psychological stress, suggesting that cultural or environmental factors are likely to influence these outcomes. There is also agreement between the studies of Kitts and Al-Omari regarding the impact of professional experience on the level of stress.

The Role of Functional Factors in Increasing Stress :

The Al-Omari study (2013) showed that workload, role conflict, and role ambiguity affect stress more than demographic factors. This finding aligns with the study by Abdel Fattah Khalifat and Emad Zaghoul (2003), which confirmed that income and relationships with the community and parents were among the most significant sources of psychological stress for teachers.

Linked to the Tendency Toward Teaching :

Fawzi Izzat and Bader Jalal's study (1997) noted that psychological pressures influence the tendency toward the teaching profession, as financial security, age, and experience have a positive relationship with psychological stress. Male teachers feel more pressure when dealing with primary school students than female teachers.

These studies reveal that instructors' psychological strain is a complex phenomenon influenced through a variety of factors, including demographic (along with sex, age,

and reveal in), purposeful (along with workload and role conflict), and economic (such as earnings and housing). Studies additionally verify that stress can have an effect on teachers' intellectual and physical fitness, highlighting the need for sensible answers, including enhancing running conditions.

New in the Current Study :

The cutting-edge examine is distinguished by means of its recognition on instructors with irritable bowel syndrome, an aspect that has not been deeply addressed in preceding research at the psychological stresses of teachers in preferred. The clinical contributions of this take a look at consist of the subsequent factors :

1. **Focus on the Level of Psychological Stress in IBS Patients :** This contributes to a deeper understanding of the impact of the professional environment on psychosomatic diseases.
2. **Study Differences Based on Sex, Age, and Professional Experience :** The study aims to analyze the impact of demographic variables on the level of stress in affected teachers, which may help identify the groups most vulnerable to stress.
3. **Measuring Symptom Fluctuations Between Working Times, Rest Times, and Holidays.** Through these aspects, the study adds a new dimension to the understanding of the relationship between occupational stress and psycho-physical health in teachers, which can contribute to the development of practical strategies to improve the working environment and reduce the negative effects of stress on this group.

3-Theoretical Aspect of the Study:

Concept of Psychological Pressure :

Definition of Psychological Pressure : Psychological pressure is generally defined as the relationship between an individual and his or her environment, which is perceived by the individual as either greater or lesser than their abilities and potential, thus threatening their mental health. Pressure occurs when there is a clear contradiction between the demands a person must fulfill and their ability to meet those demands.

Abdul Ma'aty defined psychological pressure as intense and persistent internal stimuli that burden an individual's coordination, and in some cases, may lead to dysfunction or behavioral problems. The term "stress" refers to the outcomes that arise when an individual suffers from persistent environmental challenges (physical, moral,

emotional, or psychological) that they attempt to overcome through adaptation (Abdul Muti, 2006, p. 23).

Psychological stress results from an individual's assessment of their resources to determine whether they are adequate and suitable to meet their needs and life conditions. When life demands exceed an individual's adaptive resources, their cognitive evaluation may contribute to stress (Ali & A, 2014, p. 17).

Following these definitions, psychological stress can be defined as a situation in which an individual feels uncomfortable, insecure, and upset as a result of being exposed to external events or internal motives that influence their thinking. This leads to organic responses that drain psychological energy and sometimes manifest as an urgent need to respond appropriately to a demand or requirement that they have insufficient capacity to meet. These pressures are reflected in tension, anxiety, and a negative impact on the individual's ability to achieve harmony and balance in their personality. Additionally, they result in a loss of emotional balance and the emergence of behavioral patterns that affect both mental and physical health.

Types of Psychological Stress :

- **Positive Psychological Pressure :** This is a change or challenge that benefits one's growth and development (e.g. thinking), and this type of pressure improves overall performance and helps increase self-confidence.
- **Negative Psychological Pressure :** These are stressors faced by an individual in family life, work, or social relationships. These stressors adversely affect both the physical and psychological condition, leading to symptoms associated with psychological stress, such as headaches, stomach pain, back pain, muscle cramps, indigestion, insomnia, hypertension, and diabetes (Mr. Obaid, 2008, p. 25).

Common Causes of Stress for Professors :

Ten potential sources of stress have been identified : teaching pupils who lack motivation, maintaining the school system, time and work pressures, adapting to change, evaluating others, dealing with colleagues, positioning and self-esteem, administrative work, role conflict and ambiguity, and difficult working conditions.

Regardless of the physical suffering caused by moving within the classroom and between other rooms, as well as moving between sections during working hours, some schools have separate areas, which constitute additional suffering for teachers (Chris Kiriakou, 2008, p. 47).

Symptoms of Irritable Bowel Syndrome (IBS)

Symptoms can vary from person to person. There are three main types :

- Painful constipation.
- Diarrhea.
- A combination of painful constipation and diarrhea, accompanied by abdominal discomfort.

Additional symptoms may include :

- Abdominal bloating.
- Unpredictable and irregular bowel movements, varying from day to day.
- Indigestion. (Moriarty, 2013, p. 15)

Psychological Stress as a Source of Psychiatric Illness

Ibrahim (1996) explained that the evidence gathered showed that these behavioral aspects explain many health-related issues, including the severity of disease symptoms and the quality of the illness, as well as the onset and progression of diseases, both organic and psychological. It remains for us to clarify its relevance to the development of psychiatric diseases, especially depression. (Ibrahim, 1996, p. 112)

Psychiatric Diseases as the Origin of Physical Illnesses

According to Weed (2019), IBS is a psychosomatic disorder, where psychological factors such as anxiety and stress directly worsen physical symptoms. This confirms the relationship between the nervous system and the digestive system through the brain-gut axis (Weed, 2019). Moriarty (2013) noted that IBS is significantly influenced by psychological factors, as persistent psychological stress can exacerbate symptoms and trigger relapses.

Here's the English translation of the field study section you provided :

4. Field Study Procedures :

4-1 Research Methodology :

The descriptive-analytical method was adopted as it describes and explains the reality. This is done by reviewing the theoretical literature on the problem under study, which relates to psychological stress among primary school teachers based on some demographic variables.

4-2 Study Population and Sample :

The study population consisted of teachers in the schools of the city of Djelfa. A representative sample was selected from this population through purposive sampling, focusing on teachers diagnosed with Irritable Bowel Syndrome (IBS). The sample

included 64 teachers, distributed across schools in Djelfa, all of whom were diagnosed with IBS.

Table (1) : Distribution of Sample Members According to Study Variables

Variables	Frequency	Percentage (%)
Age		
Less than 25 years	15	23.4
25 – 30 years	34	53.1
31 – 40 years	7	10.9
41 years and above	8	12.5
Total	64	100%
Gender		
Male	14	21.9
Female	50	78.1
Total	64	100%
Professional Experience		
School Teacher	37	57.81
Senior Teacher	16	25.00
Instructor	11	17.19
Total	64	100%

Source : Prepared based on SPSS outputs

Distribution of Sample Members Across Schools

No	Schools	Male	Female	Total
01	Primary School Majma' Al-Qutb M 27	2	10	12
02	Primary School Blahi Mohamed	2	6	8
03	Primary School Hamidi Amer	1	5	5
04	Primary School Haji Saad	2	3	5
05	Primary School Masoudi Mohamed	0	4	4
06	Primary School Al-Fusha Al-Jadida	2	3	5
07	Primary School Rqad Al-Mokhtar	1	4	6
08	Primary School Lahrash Bachir	2	6	4
09	Primary School Harfouch Issa	1	5	6

10	Primary School Imam Barbi'	1	4	6
	Total	14	50	64

Source : Prepared based on SPSS outputs

Study Boundaries :

- **Subject Boundaries :** This study aims to identify the level of psychological stress among teachers diagnosed with IBS and to explore the differences in relation to certain demographic variables.
- **Human Boundaries :** The study sample consists of 64 primary school teachers diagnosed with IBS who teach Arabic subjects and have been diagnosed by their doctors.
- **Spatial Boundaries:** The study was conducted in several primary schools in Djelfa, with the sample collected through direct distribution and educational seminars, as the researcher works in the educational field.
- **Time Boundaries :** The study was conducted from the first semester to the third semester of the academic year 2022-2023.

4-3 Data Collection Tool :

To achieve the study's objectives and determine the level of psychological stress among teachers diagnosed with IBS, the Shabany Scale (2012) for psychological stress was adopted, using the relevant dimensions for the study. The final scale consisted of 35 items distributed across the following dimensions :

- Dimension 1 : Administrative stress faced by the teacher (10 items)
- Dimension 2 : Stress related to student behavior and performance (5 items)
- Dimension 3 : Stress related to colleagues (6 items)
- Dimension 4 : Relationship with parents (7 items)
- Dimension 5 : Stress related to teaching processes and work demands (7 items)

4-4 Validity and Reliability of the Study Tool :

- **Content Validity :** The researchers verified the tool's content validity through several steps, including rephrasing items and modifying their content, adding necessary items, and removing irrelevant ones, to ensure that the tool measures what it was designed for in the local context.
- **Reliability :** The split-half method was used to measure reliability. The scale was applied to a pilot sample of 16 teachers. After obtaining the results, the items were divided into odd and even items, and the reliability was calculated

using the split-half method. The Pearson correlation coefficient between the odd and even items was 0.853, which is a good value for descriptive research.

4-5 Statistical Methods:

Several statistical methods were used to analyze the data obtained from the study sample, including Pearson correlation coefficient, frequencies, percentages, means, standard deviations, T-test, and one-way ANOVA.

- **Survey Scoring :** A 3-point Likert scale was used to score the survey responses, with the following options : (Always, Sometimes, Never), representing the scores 1, 2, and 3, respectively. The following scale was used for result analysis :
 - Mean score from 1.00 to 1.66 represents à low level of psychological stress.
 - Mean score from 1.67 to 2.33 represents à moderate level of psychological stress.
 - Mean score from 2.34 to 3.00 represents à high level of psychological stress.

4-6 Presentation, Analysis, Discussion, and Interpretation of Results in Light of the Study Questions and Hypotheses :

4-6-1 Presentation, Analysis, Discussion, and Interpretation of the First Hypothesis Results :

The first hypothesis states : The level of psychological stress among teachers diagnosed with IBS is high.

The questionnaire contains 35 items, and there are 3 possible responses. The mean response is 2. The theoretical (hypothetical) mean is calculated as $35 \times 2 = 70$. If the theoretical mean is 70, we compare the responses of the participants in terms of their psychological stress levels to this theoretical mean (average) to determine whether it is high, moderate, or low. This is done using a one-sample T-test to compare a quantitative variable with the population's average.

Here’s the translation of the text you provided :

Table (2) : Shows the Mean and Standard Deviation

Level of Psychological Stress	Sample Size (N)	Mean (\bar{X})	Standard Deviation (S)
Psychological Stress Level	64	85.31	7.68

Source : Prepared based on SPSS outputs.

From the table, we observe that the mean for the participants is $\bar{X} = 85.31$, which is higher than the theoretical mean of 70, with a standard deviation of $S = 7.68$.

Table (3) : Shows the Results of the One-Sample T Test Compared to the Theoretical Mean

	Theoretical Mean = 70			
Psychological Stress Level	T	Df	Sig	Difference in Mean
	15.94	15.94	15.94	15.94

Source : Prepared based on SPSS outputs.

From Table (3), we observe that the value of $t = 15.94$, and the difference between the theoretical mean and the calculated mean is 15.31 in favor of the calculated mean, with a Sig value of 0.00, indicating the presence of psychological stress among teachers with irritable bowel syndrome, which is close to the theoretical mean by 15.31. This confirms that the calculated mean of 85.31 falls within the range [81.2, 105.2], indicating a high level, which supports the first hypothesis that states that the psychological stress level among teachers with irritable bowel syndrome is high.

The high psychological stress among teachers with irritable bowel syndrome is due to several factors such as the nature of the teaching profession, which requires emotional and mental effort, the interaction of psychological stress with IBS symptoms, the school work environment, relationships with students and parents, limited rest opportunities, and the role of demographic variables.

The results align with studies by Burke (2007), Obeid Al-Omari (2013), and Onal & Boni (2016), which confirmed the effect of work stress on health. However, it does not align with Firas Qritaa's (2017) study, which found higher stress in males, nor with Fawzi Ezzat and Badr Jalal's (1997) study that focused on financial stress.

4-6-2 : Presentation, Analysis, Discussion, and Interpretation of the Results of the Second Hypothesis : There are statistically significant differences in the level of psychological stress among teachers with irritable bowel syndrome based on the gender variable.

Table (4) : Shows the Means and Standard Deviations Based on the Gender Variable

Gender	Sample Size N	Mean \bar{X}	Standard Deviation S
Male	14	84.57	7.07

Female	50	85.52	7.89
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Source : Prepared based on SPSS outputs.

From Table (4), we find that the mean for males is $\bar{X} = 84.57$, which is close to the mean for females ($\bar{X} = 85.52$). The number of males (14) is much smaller than the number of females (50).

But the question is, are there significant differences between these means ? This will be answered by the results of the t-test for mean differences in Table (5) :

Table (5) : Shows the Significance of Differences (t) Based on the Gender Variable

t Value	F	Sample Mean		Probability Sig
		First Mean	Second Mean	
. -0.40	0.037	84.57	85.52	0.68

Source : Prepared based on SPSS outputs.

From Table (5) and the test results, we find that the significance value (Sig = 0.68) is greater than the significance level (Sig = 0.05), so we accept the null hypothesis that says there are no statistically significant differences in psychological stress levels among teachers with irritable bowel syndrome based on gender, and reject the alternative hypothesis. This indicates that stress levels do not differ among male and female teachers with irritable bowel syndrome.

The results are consistent with Obeid Al-Omari's study (2013), which showed no gender differences in work stress. The explanation is that psychological stress factors in the teaching profession are more related to the nature of the work than gender differences, as both male and female teachers face similar pressures in performing educational tasks and managing classrooms.

When comparing to studies like Firas Qritaa's (2017) and Abdel-Fattah Khalifat & Emad Zaghoul (2003), which found gender differences in some aspects of psychological stress, the current study found no differences, indicating that gender may be less important in this context.

Conclusion : Psychological stress among teachers with irritable bowel syndrome is more influenced by professional factors than gender factors.

4-6-3 : Presentation, Analysis, Discussion, and Interpretation of the Results of the Third Hypothesis : There are statistically significant differences in the level of psychological stress among teachers with irritable bowel syndrome based on the age variable.

To test this hypothesis, we used one-way ANOVA, and the results are as follows :

Table (6) : Shows the Means and Standard Deviations Based on the Age Variable of Teachers with Irritable Bowel Syndrome

Age	Sample Size N	Years of Work	Mean \bar{X}	Standard Deviation S	Total Mean \bar{X}	Total Standard Deviation S
	15	< 25	85.60	7.62	85.31	7.68
	34	26-35	84.76	7.85		
	7	36-45	90.42	5.82		
	8	> 45	82.62	7.68		
Total	64					

Source : Prepared based on SPSS outputs.

From Table (6), we observe the means and standard deviations for the various age groups, but the question is, are there significant differences between these means ?

This will be clarified by the results of the one-way ANOVA in Table (7) :

Table (7) : Shows One-Way ANOVA for the Level of Psychological Stress Among Teachers with Irritable Bowel Syndrome Based on Age

Source	Sum of Squares	Degrees of Freedom (df)	Mean Square	F	Sig.
Between Groups	252.44	3	84.14	1.45	0.235
Within Groups	3465.30	60	57.75		
Total	3717.75	63			

Source : Prepared based on SPSS outputs.

From Table (7), the F value is 1.45, and the significance level (Sig = 0.235) is greater than the threshold (0.05), so we accept the null hypothesis and reject the alternative hypothesis. This indicates that there are no statistically significant differences in psychological stress among teachers with irritable bowel syndrome based on age.

Explanation : The absence of differences between age groups in stress levels may be because all age groups of teachers experience similar work-related stress, regardless of age. Therefore, work-related factors like workload, work environment, student interactions, and professional stress are the main influences, rather than age.

Comparison with Previous Studies :

- Obeid Al-Omari's study (2013) showed no significant differences between age and work stress, which aligns with the current study's results.
- Fawzi Ezzat and Badr Jalal's study (1997) showed that psychological stress was related to experience and age, which may contradict the findings of this study.

Conclusion : Psychological stress among teachers with irritable bowel syndrome is not significantly affected by age, with professional factors appearing to be the most influential.

4-6-4 : Presentation, Analysis, Discussion, and Interpretation of the Results of the Fourth Hypothesis : There are statistically significant differences in the level of psychological stress among teachers with irritable bowel syndrome based on professional experience.

To test this hypothesis, we used one-way ANOVA, and the results are as follows :

Table (8) : Shows the Means and Standard Deviations Based on Professional Experience

Professional Experience	Sample Size N	Professional Experience	Mean \bar{X}	Standard Deviation S	Total Mean \bar{X}	Total Standard Deviation S
	37	Teacher	83.94	7.63	85.31	7.68
	16	Head Teacher	87.93	6.53		
	11	Teacher Trainer	86.09	8.91		
total	64					

Source : Prepared based on SPSS outputs.

It is evident from Table 8 that the mean values were 83.94, 87.93, and 86.09, with standard deviations of 7.63, 6.53, and 8.91, respectively. The question that arises is whether there are significant differences between these means. Table 9, which presents the results of the one-way ANOVA test, will provide the answer to this question :

Table 9 : One-Way ANOVA Analysis Between the Level of Psychological Stress in Teachers with IBS Attributed to Professional Experience Variable

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	186.012	2	93.00	1.60	0.209

Within Groups	3531.73	61	57.89		
Total	3717.75	63			

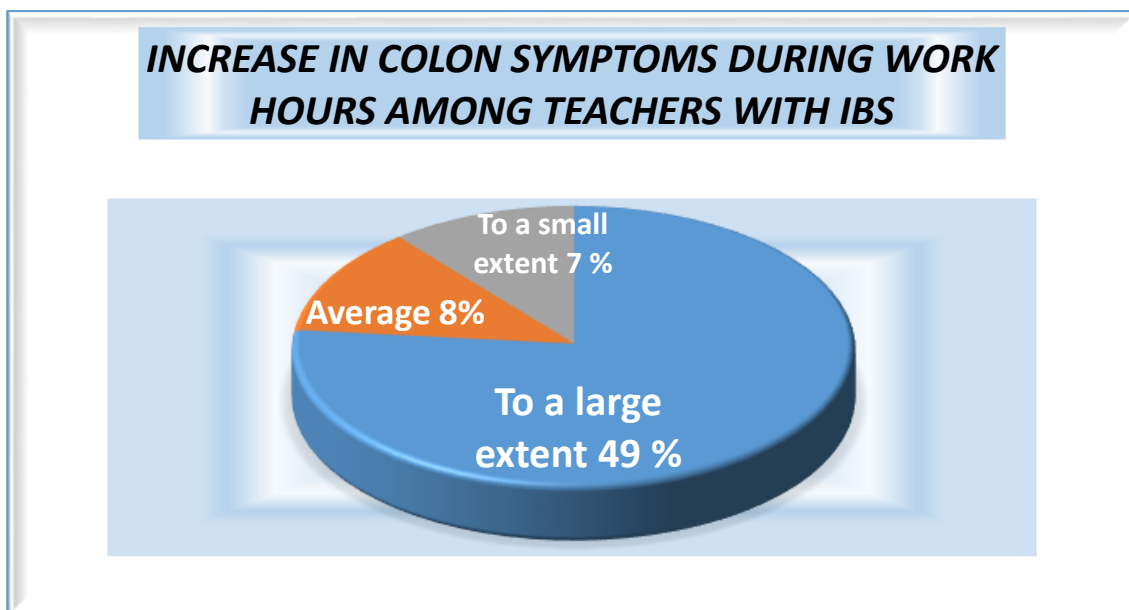
Source : Prepared based on SPSS outputs.

From Table 9, it can be observed that the F-value is 1.60, and the significance probability (sig = 0.209) is 20.9%, which is greater than the significance level (sig = 0.05) or 5%. Therefore, we accept the null hypothesis that there are no statistically significant differences in the level of psychological stress among teachers with IBS based on professional experience, and we reject the alternative hypothesis that suggests there are differences in stress levels based on professional experience. Consequently, the fourth hypothesis is not supported. This result confirms that stress levels among primary school teachers do not differ significantly based on their rank or professional experience.

Interpretation : Psychological stress may be caused by common job-related factors such as workload and educational responsibilities that affect all teachers, regardless of rank or experience.

Comparison with Previous Studies : Studies by Obeid Al-Omari (2013) and Abdul Fattah Khalifat (2003) confirm that work-related factors, such as workload, have a greater impact on psychological stress than rank or experience.

4-6-5 : Last Hypothesis : Increased IBS symptoms among teachers with IBS during work hours



Source : Prepared based on SPSS outputs.

It is noted that IBS symptoms increase during work hours and decrease during rest periods and holidays. 49% of respondents reported a significant increase in symptoms, 8% reported a moderate increase, and 7% reported a slight increase.

Interpretation : The increase in IBS symptoms during work hours may be related to the psychological stress arising from work pressures, such as the burden of teaching responsibilities, interactions with students, and time constraints. These factors contribute to the exacerbation of symptoms. During rest periods and holidays, reduced psychological stress allows the body to relax, leading to a decrease in symptoms.

Comparison with Previous Studies : Burke (2007) indicates that work-related stress is a major factor in psychological burnout and physical health issues, including IBS symptoms. This finding is also consistent with the study by Firas Qrayta (2017), which showed that work-related psychological stress increases overall psychological stress levels.

Study Results : Based on the analysis of the results, the following conclusions were drawn :

- The level of psychological stress among primary school teachers is high.
- There are no statistically significant differences in psychological stress among teachers with IBS based on gender.
- There are no statistically significant differences in psychological stress among teachers with IBS based on age.
- There are no statistically significant differences in psychological stress among teachers with IBS based on professional experience.
- IBS symptoms among teachers with IBS increase during work hours.

Findings of the study : In light of the results obtained in this study, it can be concluded that psychological stress plays a significant role in affecting the health of teachers with IBS. Despite the absence of statistically significant differences between some variables, such as gender, age, and years of experience, psychological stress remains notably high and impacts the disease symptoms of IBS. This study suggests that professional factors related to the school environment, such as increasing administrative and professional workload, ongoing interactions with students and parents, and job-related pressures, contribute to exacerbating psychological stress in teachers with IBS. These stresses, in turn, affect their physical and mental health, leading to a deterioration in their professional performance and impacting their personal life and quality of life.

Furthermore, the findings confirm the urgent need to create a more supportive school environment and to provide preventive and therapeutic strategies to alleviate psychological stress, either through direct psychological support or by improving work organization and increasing incentives for teachers.

Conclusion : In conclusion, this study on psychological stress among primary school teachers with IBS shows that psychological stress is a central factor in increasing the severity of the disease symptoms, negatively affecting teachers' professional performance and personal life. The results showed that teachers with IBS suffer significantly from psychological stress caused by the school environment, which is closely linked to the worsening of the disease symptoms.

Based on these findings, the researcher recommends providing a more supportive and comfortable work environment for teachers, focusing on reducing administrative burdens, and improving professional appreciation. Training teachers on psychological stress management strategies and providing continuous psychological support within schools will improve their mental and physical health, thus enhancing their work performance and reducing their workload.

Therefore, it can be concluded that psychological stress plays a fundamental role in the severity and exacerbation of IBS symptoms, making it necessary to manage these stresses through appropriate psychological and behavioral strategies. Understanding the relationship between the mind and the digestive system will help patients effectively cope with the disease and improve their quality of life.

The researcher suggests some strategies for dealing with stress, including :

- **Psychotherapy** : such as cognitive behavioral therapy (CBT) to help reduce anxiety associated with IBS.
- **Relaxation Techniques** : such as meditation, deep breathing exercises, and yoga.
- **Physical Activity** : regular exercise to improve mood and reduce tension.
- **Dietary System** : avoiding foods that irritate the intestines, while focusing on a balanced diet.

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