RESEARCH ARTICLE

Association Between Demographic Characteristics and Coping Strategies in Irritable Bowel Syndrome Patients

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ABSTRACT

Background: Irritable bowel syndrome affects a significant number of people and results in significant financial and emotional burdens. Besides this, the patient's physical, psychological, and social well-being might be harmed by irritable bowel syndrome.

Objective(s): The aim of this study is to determine the association between demographic characteristics and coping strategies in IBS patients.

Methodology: A quantitative descriptive, cross-sectional study used assessment approach with questionnaire items is conducted to determine the association between demographic characteristics and coping strategies in IBS patients for the period from 7 November 2021 to 30 May 2022. A convenient sample of (N=150) patients is selected throughout the use of non-probability sampling approach. The study sample is distributed throughout (3) Hospitals in Baghdad City. A self-report questionnaire is developed from the literature, for assessing the effect of coping strategies in Patients with Irritable Bowel Syndrome. The scales were used after the permission of their authors. Furthermore, it is translated to Arabic via a valid translator using the forward-backward translation technique.

Results: The data analysis found that there is significant association between following variables (Occupation, occupation section, and duration of IBS) and level of coping while there is no significant association between following variables (gender, age groups, marital status, residence educational level, income, use of medication, and type of medication with level of coping at p value ≤ 0.05.

Conclusion: There is an obvious association between following demographic variables: (Income, occupation, and occupation status, and duration of IBS) and level of coping.

Recommendations: Adopting educational programs to be taught for nurses and patients in different hospitals and community settings, for teaching patients how to deal with the persistent sufferings resulted from IBS symptoms.

Keywords: Demographic Characteristics, Coping Strategies, Irritable Bowel Syndrome (IBS), Patients.
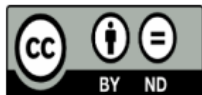
INTRODUCTION

Irritable Bowel Syndrome, often known as IBS, is a disabling ailment that primarily has an adverse impact on the mental health and quality of life of the sufferer. There is a hole in the research about the connection between cognitive assessments and adjusting to the physical and psychological features that are the outcome of IBS (Ben-Ezra et al., 2015). The impact of coping techniques on quality of life has been extensively studied, but little is known about the specific coping methods used by IBS patients to deal with illness in day-to-day life. Stressful situations, such as having a chronic disease, can lead to irrational thinking, which have been speculated to affect quality of life (Stanculete et al., 2015).

The results of the many studies on coping strategies and IBS did not agree with one another, indicating that more research is necessary. The patients' immune system functions are altered when they feel as though they do not have appropriate social supports, but when they do have adequate social supports, they adapt better to stresses and their immune system functions improve (Roohafza et al., 2016).

People who live with chronic irritable bowel syndrome have challenges and restrictions in their day-to-day lives. This is because of their poor health as well as the difficulty in finding solutions to their condition that will work for them. In their interactions with health care professionals, these individuals have the impression that they are not receiving the required help to handle the challenges that are associated with their condition, and they believe that they do not have sufficient knowledge regarding the illness (Hakanson et al., 2011).

Irritable bowel syndrome affects a significant number of people and results in significant financial and emotional burdens. Besides this, the patient's physical, psychological, and social well-being might be harmed by irritable bowel syndrome. When it comes to health-related quality of life (HRQOL), those who suffer from irritable bowel syndrome are comparable to people who suffer from conditions like renal failure and asthma. That's why it has such a big influence and can't be ignored (Stanculete et al., 2015).

Studies demonstrate both unacknowledged sickness experiences as well as an inadequate availability of information regarding the condition, treatment alternatives, and recommendations for self-care. More than half of the participants in a research that asked persons with IBS about their knowledge of the condition felt that they had just a cursory understanding of it. In addition, the majority of participants lacked self-assurance regarding their ability to apply the knowledge they had gained to the everyday management of sickness (Hakanson et al., 2011).

Decreases in HRQOL have been linked to a significantly higher burden on the economy, both in terms of direct medical expenditures and indirect societal costs. The impact of coping mechanisms in connection to HRQOL is rarely explored, despite the fact that it is known that psychosocial variables have an influence on HRQOL of IBS patients (Stanculete et al., 2015).

METHOD

Study Design

A quantitative descriptive, cross-sectional study used assessment approach with questionnaire items is conducted to explore the effect of coping strategies on severity of symptoms in patients with irritable bowel syndrome for the period from 7 November 2021 to 30 May 2022.

Administrative Arrangements

The official permissions were obtained from relevant authorities before collecting the study data as follow: Approval from the Research Ethical Committee at the College of Nursing, University of Baghdad. Official permissions are obtained from the Ministry of Planning Central Statistical System. Official permissions were also obtained from Al-Rusafah Health Directorate. Official permissions were also obtained from Al-Karkh Health Directorate. Official permissions were also obtained from The Medical City Health Directorate.

Ethical Considerations

Patients were informed that their participation was voluntary in the study. The purpose and the benefits of the study was explained by the researcher. After they agreed to participate in the study, anonymous questionnaire was published for the participants to contribute in the present study.

Study Setting

The study is carried out in three settings which are AL-Rusafah Health Directorate (Al-kindy Hospital), AL-Karkh Health Directorate (Al-Karamah Hospital) and The Medical City Health Directorate (Gastrointestinal diseases Hospital).

Study Sample

A convenient sample of (N=150) patients is selected throughout the use of non-probability sampling approach. The study sample is distributed throughout (3) Hospitals in Baghdad City.

Study Instruments

A self-report questionnaire is developed from the literature, for assessing the effect of coping strategies on severity of Symptoms in Patients with Irritable Bowel Syndrome. The scales were used after the permission of their authors. Furthermore, it is translated to Arabic via a valid translator using the forward-backward translation technique.

Data Collection Methods

After completing the required approvals, data was collected by the use of a self-report questionnaire (Hard copy). The researcher introduced himself to the participants and explained the purpose of the study in order to get oral agreement. The questionnaire fills out an answer by the participants (Patients). The researcher gathered the questionnaire after participants self-administration on individual bases in a quiet place from the consultancy departments to provide suitable environment to draw the best and most accurate answer possible. Approximately each self-report took (15 to 20) minutes. Data collection was performed for the period of 17 March 2022 to 25 April 2022.

RESULTS

Table (1): Distribution of the study sample by socio- demographic and disease-related characteristics

Variables	Groups	Frequency	Percent
1-Gender	Male	97	64.7
	Female	53	35.3
	Total	150	100.0
2-Age groups	16-26	9	6.0
	27-37	40	26.7
	38-48	51	34.0
	49-59	35	23.3
	≥ 60	15	10.0
	Total	150	100.0
3-Marital Status	Married	121	80.7
	single	13	8.7
	Widower/Widow	5	3.3
	Divorced	10	6.7
	separated	1	0.6
	Total	150	100.0
4-Residency	City	142	94.7
	Country Side	8	5.3
	Total	150	100.0
Income	Sufficient	82	54.7
	Insufficient	8	5.3
	Barely sufficient	60	40.0
	Total	150	100.0
5-Educational level	Illiterate	0	0.0

	Read and write	3	2.0
	Primary	7	4.7
	Intermediate	13	8.7
	Preparatory	23	15.3
	Institute (diploma)	32	21.3
	Bachelor	47	31.3
	High diploma	10	6.7
	Master and above	15	10.0
	Total	150	100.0
6. occupation	**Employee (receive salary)**	78	52.0
	Free job	36	24.0
	Retired	6	4.0
	Students (have no job)	7	4.7
	Housewife	19	12.7
	Does not work (dependent)	4	2.6
	Total	100.0	150
occupation section	Governmental	80	53.3
	Private	70	46.7
	Total	150	100.0
Duration of irritable bowel syndrome (IBS)	≤ one year	21	14.0
	2-7 years	81	54.0
	8-13 years	31	20.7

	14-19 years	11	7.3
	20-25 years	6	4.0
	Total	150	100.0
Medication use	Yes	109	72.7
	No	41	27.3
	Total	150	100.0
. Type of medications used for IBS	With Antidepressants/anxiolytics	78	52.0
	Without Antidepressants/anxiolytics	31	20.7

Table (1) presents frequency and percentage of socio- demographic characteristics and disease-related characteristics of studied sample. This table shows that approximately more than half of studied samples (64.7%) were male, who were mostly (34.0%) within (38-48). Also vast majority of them were married (80.7%) and live in city most of them (94.7%). Furthermore this table illustrates that more than half of sample (54.7%) have sufficient income level, about one third of studied samples were within bachelor, also half of them (52%) were within employee (receive salary) category who work in governmental section as half of them (53.3%).also It can be showed that high percent (54.0 %) of studied samples had IBS with long duration (2-7 years), with three quarters of them approximately (72.7%) (used medications as treatment for IBS , and approximately half (52.0%) of above-mentioned studied samples used medication for treatment of IBS contained "Antidepressants/anxiolytics" as general.

Table (2): chi-square test for association between socio-demographic and disease-related characteristics with levels of coping for the studied samples

Demographic and disease-related characteristics variables	Chi square value	Df	Sig
1. Gender	0.342	2	0.843
2. Age groups	6.248	8	0.619
3. Residence	3.179	2	0.204
4. Income	8.309	4	0.080
5. Marital status	1.686	8	0.989
6. Educational level	10.853	14	0.698
7. Occupation	25.668	14	0.029
8. Occupation section	10.426	2	0.005

9. Duration of IBS	15.998	8	0.042
10. Use of medication	1.236	2	0.539
11. Type of medication	2.701	2	0.259

Table (4.10) displayed chi-square test for association between socio- demographic and disease-related characteristics with levels of coping for the current study.it can be found that there is significant association between following variables (Occupation ,occupation section, and duration of IBS) and level of coping while there is no significant association between following variables (gender, age groups, marital status, residence educational level , income, use of medication ,and type of medication with level of coping at p value ≤ 0.05.

DISCUSSION

The findings of the present study show that approximately more than half of studied samples were male, who were mostly within (38-48). Also, the vast majority of them were married and most of them live in cities. Furthermore, this table illustrates that more than half of the sample have sufficient income level, about one third of studied samples were within bachelor, also half of them were employees (receive salary) and half of them work in governmental section. Also, it can be showed that more than half of studied samples had IBS with long duration (2-7 years), with three quarters of them approximately (used medications as treatment for IBS, and half of above-mentioned medication used as treatment for IBS contained "Antidepressants/anxiolytics" medication as general as presented in table (1).

The findings of this study come in contrast with the findings of Bengtsson et al. (2013) and Riquelme-Heras (2019) who stated that the majority of IBS patients were female. While the findings of Riquelme-Heras (2019) support the results of the current study regarding age, as it was found that over sixty percent of the sample were over 37 years old, and about less than two thirds of them were married, while two thirds were employed. In the same line with this variable Riquelme-Heras (2019) found that half of the samole were married.

The predominant educational level was diploma in about two thirds of the sample. While two thirds were employed. In the same context about three fifths of the sample were diagnosed with IBS (Riquelme-Heras, 2019). The duration of disease varied from a minimum of one year to a maximum of 21 years (Stanculete et al., 2015).

Another supportive evidence was found in the literature that of Selim and colleagues (2022) who stated that slightly less than two thirds of the sample were females and about one third were male. Furthermore, Selim and his co-

authors reached the same result of the current study regarding age, as the frequent age group was between 29 and 38 years. Otherwise, almost half of the sample were married. Nearly half of the participants held at least a college degree, more than half of them were employed, and had a monthly income of less than 1300 USD (Selim et al., 2022). In contrast to our findings Roohafza et al. (2016) found that only one fifth of the sample were with IBS syndrome.

The findings of our study lend to support those of (Ferreira et al., 2013; Wilpart et al., 2017; & Farnaz Torkzadeh et al., 2019) were the participants had an average age of 47 years, with an average length of illness over 7.5 years, where the majority was female, around half were married or cohabiting and only over a third had some form of higher education (Ferreira et al., 2013).

The present study reached a highly observable result by stating that there is significant association between following demographic variables (Income, occupation, and occupation status, and duration of IBS) and level of coping while there is no significant association between following demographic variables (gender, age groups, marital status, residence educational level, Use of medication, and type of medication with level of coping as in table (2).

In the current context a newly conducted study in Saudi Arabia confirmed that an IBS diagnosis substantially connected with individuals in the age range of 28 to 39 years old. There is a demonstrated inverse link between age and the intensity of IBS symptoms, but there is no one explanation for why this association exists. It was revealed that young age is one of the primary risk factors for IBS. The results of a study conducted on women who suffered from IBS indicated that the severity of IBS symptoms decreased with increasing age; however, the levels of anxiety and depression did not differ between the age groups; the only difference was that the ability to cope improved with increasing age. In the current investigation, an association

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between IBS and other age groups was not found to be statistically significant (Selim et al., 2022).

Our findings are consistent research showing that worse disease assessments lead to more maladaptive coping, and in turn, greater psychological discomfort. Our findings offer additional support to the pilot research that was done to discover that changes in IBS severity following cognitive behavioral therapy were not mediated by shifts in mood, but rather sickness beliefs (Knowles et al., 2017).

Although there was no discernible difference between the gender in terms of IBS diagnosis in the present data, a number of studies have suggested that IBS is more common in women. One of the major risk factors for irritable bowel syndrome (IBS) has been identified as being female gender. On the other hand, the results of a recent study indicated that the level of felt stress was considerably greater among males with irritable bowel syndrome when compared to their healthy counterparts, although among women, the difference was not significant (Selim et al., 2022).

IBS patients who used adaptive coping strategies more frequently than maladaptive coping strategies were found to have less symptoms of IBS, according to the findings of the current study. According to the findings of our research, the intensity of IBS symptoms has a direct association with the use of maladaptive coping strategies, whereas it has an inverse correlation with the use of positive coping methods (Farnaz Torkzadeh et al., 2019).

Regarding the impact of coping, the final model lends further support to the findings of the earlier studies, which found that maladaptive forms of coping, not adaptive ones, have the greatest impact on health outcomes, and that maladaptive coping is associated with higher levels of psychological distress (Knowles et al., 2017).

According to the findings of this study, irritable bowel syndrome (IBS) is significantly more prevalent among people with higher incomes compared to those with lower incomes. However, this study also found that income did not maintain a significant independent relationship with IBS after other factors were taken into account. Previous research has shown that a higher income level is strongly connected with irritable bowel syndrome (IBS), in comparison to lower and intermediate levels of income. On the other side, a number of studies have shown that a lower income is related with a lower quality of life, as well as a lower health status, and as a consequence, a greater number of life stresses (Selim et al., 2022).

According to the findings of other research, patients with irritable bowel syndrome who had a negative affect had lower problem-focused coping scores and lower seeking social support coping scores than patients with irritable bowel syndrome who had a positive affect (Farnaz Torkzadeh et al., 2019).

CONCLUSION

The predominant attributes of the sample were males, in their forties, married, and employed. There is an obvious connection between following demographic variables: (Income, occupation, and occupation status, and duration of IBS) and level of coping. While, there is no relationship between the following demographic variables: (gender, age groups, marital status, residence educational level, Use of medication, and type of medication with level of coping.

RECOMMENDATIONS

Adopting educational programs to be taught for nurses and patients in different hospitals and community settings, for teaching patients how to deal with the persistent sufferings resulted from IBS symptoms.

ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

This study was completed following obtaining consent from the University of Baghdad.

AUTHOR'S CONTRIBUTIONS

Study concept, Writing, Reviewing the final edition by all authors.

DISCLOSURE STATEMENT:

The authors report no conflict of interest.

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