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Sociodemographic Features and Life Quality of Irritable Bowel Syndrome Patients

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Abstract

Object: Irritable bowel disease (IBS) is common in Turkey, as in the World, but is often mis-diagnosed. In this study, the diagnosis, follow up and wellbeing of the patients with irritable bowel disease and the effects of their complaints on their quality of life, has been aimed.

Methods: 202 patients were joined prospectively (n=146, %72,3). Sociodemographic status, Rome III Criteria and WHOQOL quality of life index were recorded by face-to-face questionnaire. Analysis was applied using q-square, t-test, Oneway Annova tests and descriptive statistical methods in SPSS20,0programme.

Results: Most of the participants were women. The only statistically significant association between sociodemographic characteristics was between gender and types of irritable bowel disease. The only statistically significant relationship between sociodemographic characteristics was between gender and types of IBS. Accordingly, constipation (IBS-C) was more common in women and diarrhea (IBS-D) was more common in men (p=0.018). Scores in the physical and environmental quality of life domains of the WHOQOL index and total scores were higher in men (p=0.04, p=0.002, p=0.007). There was a significant relationship in the physical domain scores of housewives and blue-collar workers compared to other occupational groups (p<0.001).

Conclusion: IBS is a disease that can be confused with other events and can affect the quality of daily life. It should be known that there are not only physical complaints in this disease, but also social, environmental and mental complaints.

Key Words: Irritable bowel syndrome, life quality, primary care

İrritabl Bağırsak Sendromu Hastalarının Sosyodemografik Özellikleri ve Yaşam Kalitesi

Özet:

Amaç: İrritabl bağırsak hastalığı (İBS) tüm dünyada olduğu gibi Türkiye'de de yaygın olarak görülmekte, ancak sıklıkla atlanmaktadır. Bu çalışmada irritabl bağırsak hastalığı olan hastaların tanı, takip ve iyilik halleri ile şikayetlerinin yaşam kaliteleri üzerine etkilerinin araştırılması amaçlanmıştır.

Yöntem: Şişli Hamidiye Etfal Hastanesi Aile Hekimliği polikliniklerine gastrointestinal sistem şikayeti ile başvuran 202 gönüllü hasta çalışmaya dahil edildi. Çalışma prospektif bir çalışmaydı. Katılımcıların sosyodemografik durumları, Roma III Tanı Kriterleri ve WHOQOL yaşam kalitesi indekslerinden oluşan değerlendirme formu araştırmacı tarafından yüz yüze anket yöntemi kullanılarak kaydedildi. Analizler yapılarken ki-kare, t-testi, Oneway Annova testleri ve tanımlayıcı istatistiksel yöntemler kullanılarak yapıldı. SPSS20,0 paket programı analizler sırasında kullanıldı.

Bulgular: Katılımcıların büyük çoğunluğu kadın populasyondan oluşmaktaydı (n=146, %72,3). Sosyodemografik özellikler arasında istatistiksel olarak anlamlı tek ilişki cinsiyet ile irritabl bağırsak hastalığı tipleri arasındaydı. Bu sonuca göre kadınlarda kabızlık (IBS-C), erkeklerde ise diyare (IBS-D) daha fazlaydı (p=0.018). WHOQOL indeksinin fiziksel ve çevresel yaşam kalitesi alanlarındaki puanları ve toplam puanları erkeklerde daha yüksekti (p=0.04, p=0.002, p=0.007). Ev kadınlarında ve mavi yakalılarda fiziksel alan puanlarında diğer meslek gruplarına göre anlamlıydı. (p<0.001).

Sonuç İBS başka klinik olaylarla karıştırılabilen ve günlük yaşam kalitesini etkileyebilen bir hastalıktır. Bu hastalıkta sadece fiziksel şikayetleri olmadığı, aynı zamanda sosyal çevresel ve ruhsal şikayetleri de olabileceği bilinmelidir.

Anahtar Kelimeler: İrritabl bağırsak sendromu, yaşam kalitesi, birinci basamak.

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INTRODUCTION

Irritable Bowel Syndrome (IBS) is a common, non-life-threatening, functional bowel disease that impairs quality of life and causes serious economic losses. It is a functional bowel disease that occurs or increases during periods of high stress or emotional tension without any biochemical or organic disorder, progresses with changes in defecation habits such as diarrhea and constipation, especially abdominal pain, and is defined by many different symptoms (1). Despite the studies conducted around the world for many years, its pathophysiology has not been fully revealed. IBS describes medically unexplained bidirectional disorders between the gut and the brain (2).

IBS is a chronic disease characterized by attacks of abdominal pain, bloating - indigestion. The pain is usually located in the hypogastrium, the right and left sides of the abdomen, and sometimes in the epigastrial area. The severity of the pain varies, as does the location (1). This variable process impairs the quality of life by reducing daily activities, weakening in self-care and even making it difficult to comply with treatment. Patients with IBS may complain of diarrhea, constipation, alternating periods of diarrhea and constipation, or alternating bowel habits with a normal bowel habit as sequential diarrhea or constipation (3). In a study conducted in the USA, it was found that IBS had an effect on anxiety, sleep status, sexual life, leisure time, travelling, working order and diet, and it was determined that these individuals had a low quality of life due to these effects (1).

There is no laboratory test and/or clear physical examination findings that we can use to diagnose IBS. After excluding the organic-related diseases that may be caused by abdominal pain, abdominal bloating, changes in defecation habits and/or indigestion complaints, the patient is diagnosed with IBS after the patient has the criteria, which have now been revised as the final version of the ROMA IV symptom criteria (4).

The World Health Organization (WHO) Quality of Life (WHOQOL) group includes quality of life; It is defined as the patient's personal perception of his/her situation in life, both in the context of the cultural structure and value system in which he/she lives and in terms of his/her own goals, expectations, standards and concerns (5).

In this study, IBS, which has been proven by many studies to affect a significant percentage of the world's population regardless of geographical difference, is evaluated in patients who apply to primary health care institutions in our country, to evaluate the condition of being affected by the complaints of patients with or without diagnosis, to determine the frequency and characteristics of other accompanying diseases, if any. It is aimed to determine the effect of IBS on the quality of life of patients, whether they are accompanied by diseases or not.

METHODS

202 people who applied to the outpatient clinic with gastrointestinal system complaints were included in the study. The study was conducted prospectively on outpatients in the Family Medicine Outpatient Clinic. A questionnaire form prepared for the study was filled by the coordinator by interviewing the patients one-on-one. The survey consisted of 58 questions and took approximately 20 minutes to answer. In the study, sixteen questions about sociodemographic characteristics, eight questions about patients' nutritional habits and physical activity habits, seven questions about clinical findings, complaints status and Rome III criteria, and the Turkish version of the short form of the quality of life scale developed by WHO (WHOQOL-BREF TR) were composed of twenty-seven questions. A structured questionnaire form was used. In order according to the Rome III diagnostic criteria; Pain relief with defecation, change in stool frequency, change in stool shape or appearance were questioned.

The Turkish adaptation of the WHOQOL-BREF TR scale and its validity and reliability study were performed by Eser et al. SPSS for statistical analysis of data (Statistical Package for Social Sciences for Windows) 20.0 program was used. While evaluating the study data, in addition to descriptive statistical methods (Mean, Standard deviation, Frequency, Percentage), Chi-Square, T test and Oneway Annova test were used to compare qualitative data.

RESULTS

The majority of the participants were female (n=146, 72.3%). When looking at age groups, there were 113 people (55.9%) in the 18-39 age group, with 112 (60.4%) married and 80 (39.6%) single people. The majority of the participants had a high level of education. (n=134, 66.3%). When the occupational groups are examined in our study, the number of participants in the white-collar group is 86 (42.6%), 49 people (24.3%) in the blue-collar group, 39 people (19.3%) in the housewife group, 28 people in other professions (13.9%). Among the participants, those with chronic diseases had the most gastrointestinal system disease (n=48, 41%) and the least food allergy (n=4, 3.4%). The patients had more than one chronic disease. Eighty-eight (43.6%) of the participants had

insomnia problems. Of those who stated that they had sleep disorders, 26 (29.5%) stated that they had insomnia continuously, while 60 (68.2%) stated that they had intermittent insomnia. 72 (35.6%) of the participants were smokers. The average smoking of smokers was 10 (Min:1-Max:75) pack/year. The median alcohol use of the participants who took alcohol was 2 (Min:1-Max:12) days/month. The weekly consumption amounts of basic foodstuffs such as bread, vegetables, fruits, legumes and yoghurt were questioned. Consumption percentages of bread types were close to each other when the consumption amounts were classified as never consuming, consuming every day and consuming between 1 and 6 days. There were obvious differences in the consumption status of other food types.

178 (88.1%) of the participants had constipation problems. While 19 (10.7%) of the constipated patients stated that they were constipated continuously, 157 (88.2%) intermittently, 58 (28.7%) had diarrhea problem. Of those with diarrhea, 10 (17.2%) stated that they experienced diarrhea continuously, while 48 (82.8%) stated that they experienced diarrhea intermittently. Of the participants, 63 (31.2%) had bloating, 128 (63.4%) had pain, 88 (43.6%) had insomnia.

When the relationships between constipation, diarrhea, bloating and sleep disturbance of the participants were examined according to demographic characteristics, constipation and sleep disorder were more common in women, and this situation was statistically significant (p=0.009, p=0.008) Constipation and sleep disorder status by demographic characteristics Table 1 and Table 2 is given.

Constipation rates were found to be lower in the participants in the group with three main meals compared to those who had two meals (p= 0.006). There was no significant difference between the number of meals and the complaint of diarrhea (p= 0.067).

Table 1. Distribution of retention constipation distribution by demographic expansion

Constipation			Positive		Negative		p[1]
			n	%	n	%	
Gender	Female		134	91.8	12	8.2	0.009
	Male		44	78.6	12	21.4	
Age	18-39 yo		100	88.5	13	11.5	0.852
	40-64 yo		78	87.6	11	12.4	
Marital status	Married		105	86.1	17	13.9	0.265
	Single		73	91.2	7	8.8	
Education status	Low education level		56	82.4	12	17.6	0.071
	High education level	122	91	12	9		

[1] Chi-square test

Table 2. Distribution of the presence of sleep disorder according to demographic characteristics

Sleep disorder		Positive		Negative		p[1]
		n	%	n	%	
Gender	Female	72	49.3	74	50.7	0.008
	male	16	28.6	40	71.4	
Age	18-39 yo	43	38.1	70	61.9	0.075
	40-64 yo	45	50.6	44	49.4	
Maritial status	Married	52	42.6	70	57.4	0.739
	Single	36	45	44	55	
Education status	Low education level	32	47.1	36	52.9	0.476
	High education level	56	41.8	78	58.2	

[1] Chi-square test

When the distribution of IBS types was examined, it was found that 140 (69.3%) IBS-C, 20 (9.9%) IBS-D, 38 (18.8%) IBS-M. There was a statistically significant relationship between IBS types and sociodemographic characteristics only according to gender. Accordingly, IBS-C was more common in women and IBS-D in men. (p = 0.018) Sociodemographic characteristics according to IBS types are shown in Table 3. 98 (48.5%) of the participants stated that they used drugs. Of the drug users, 71 (72%) took motility-regulating drugs, 61 (62%) non-motility-regulatory drugs (such as PPI, antacids, herbal cures) and 34 (34%) both motility regulators and non-motility regulators. was using the drug together.

Table 3. Sociodemographic characteristics according to IBS types

		IBS - C		IBS - D		IBS - M		p[1]
		n	%	n	%	n	%	
Gender	Female	109	75.7	10	6.9	25	17.4	0.018
	Male	31	57.4	10	18.5	13	24.1	
Age	18-39 yo	81	74.3	9	8.3	19	17.4	0.437
	40-64 yo	59	66.3	11	12.4	19	21.3	
Maritial status	Married	81	67.5	15	12.5	24	20.0	0.319
	Single	59	75.6	5	6.4	14	17.9	
Education status	Low education level	44	65.7	11	16.4	12	17.9	0.108
	High education level	96	73.3	9	6.9	26	19.8	
Occupation	White collar	63	75.0	6	7.1	15	17.9	0.216
	Blue collar	30	61.2	5	10.2	14	28.6	
	Housewife and others	47	72.3	9	13.8	9	13.8	

[1] Chi-square test

Table 4. WHOQOL scale and total scores

WHOQOL	Average	SD	Minimum	Maximum
Physical	12.92	2.04	5.14	17.71
Mental	13.95	2.43	6.67	20.00
Social	13.64	3.14	4.00	20.00
Enviromental	13.26	2.32	7.11	19.11
Total	88.97	12.63	42.00	116.00

SDS. Standard deviation

In Table 4, the scores of the areal calculations of the WHOQOL-Bref scale are given. When the total scores of the scale were examined, the mean score of the participants was 89 ± 13 (Min 42-Max: 116).

When the scale scores were examined according to gender, the scores obtained in both groups were similar. However, the physical and environmental quality of life domains and total scores of the scale were higher in males, and this result was statistically significant (p=0.041, p=0.002, p=0.007). Scale scores by gender are shown in Table 5.

Table 5. Scale scores by gender

WHOQOL	Female		Male		p[1]
	Average	SD	Average	SD	
Physical	12.74	1.96	13.39	2.17	0.041
Mental	13.77	2.33	14.40	2.63	0.097
Social	13.44	3.10	14.17	3.19	0.142
Enviromental	12.94	2.31	14.09	2.15	0.002
Total	87.49	12.26	92.80	12.89	0.007

[1] T test SD. Standart deviation

As shown in Table 6, when the scores of the domains of the WHOQOL scale were examined according to the Rome III diagnostic criteria, no statistically significant difference was found according to the positivity of the first and third criteria of Rome III. (p>0.05 for all fields). In the second criterion of the Rome III criteria, the environmental area score was found to be lower and this result was statistically significant (p=0.036).

When the scores of the domains of the WHOQOL scale were examined according to the occupational groups, the physical and mental quality of life scores of housewives were found to be lower than the other groups, but only the physical quality of life score was statistically significant (p<0.001). In addition, physical and mental quality of life scores were found to be higher in the blue-collar group compared to all other groups, but the physical quality of life score

alone was statistically significant (p<0.001). Scores according to occupational groups are shown in Table 7.

Table 6. Scale area scores according to Rome 3 criteria

WHOQOL	Yes Average	Yes SD	No Average	No SD	p[1]
	ROME 3.1				
Physical	12.85	2.05	13.28	1.95	0.296
Mental	13.96	2.43	13.89	2.46	0.887
Social	13.59	3.19	13.96	2.86	0.556
Enviromental	13.14	2.36	13.91	1.99	0.095
	ROME 3.2				
Physical	12.84	2.04	13.37	1.96	0.208
Mental	13.85	2.44	14.52	2.28	0.176
Social	13.49	3.06	14.62	3.45	0.076
Enviromental	13.12	2.33	14.11	2.08	0.036
	ROME 3.3				
Physical	13.05	2.00	12.41	2.11	0.069
Mental	14.02	2.42	13.65	2.45	0.375
Social	13.72	3.04	13.33	3.50	0.473
Enviromental	13.27	2.30	13.21	2.44	0.870

[1] T test SD. Standard deviation

Table 7. Scores of scale according to occupational groups

WHOQOL	White Collar Average	White Collar SD	Blue Collar Average	Blue Collar SD	House wife Average	House wife SD	Other Average	Other SD	p[1]
Physical	12.55	2.01	13.90	1.85	12.40	2.14	13.04	1.75	<0.001
Mental	13.94	2.36	14.61	2.72	12.85	2.09	14.33	2.06	0.043
Social	13.74	3.08	13.82	2.86	12.38	3.49	14.81	2.80	0.720
Enviromental	13.21	2.33	13.42	2.67	12.76	2.02	13.81	1.98	0.849

[1] Oneway ANOVA test SD. Standard deviation

DISCUSSION

The most common complaints in our study participants were intestinal gas, abnormal stool frequency and abnormal stool shape, respectively. In Özgen K's study, the most common problems were inability to empty completely during defecation, excessive gas in the intestine, and the need to strain during defecation (1). Although the textbooks list the complaints for IBS as abdominal pain, intestinal

gas, abnormal stool and bloating, they also mention that these symptoms may be in different orders and in different severity in patients (6). We attribute the reason for the different ordering of the data in our study to the different personal perceptions of the complaints of a sociopsychological disease such as IBS.

In treatment planning, priority should be given to the patient's education and symptomatic treatment. Fibrous and osmotic laxatives for constipation, opioids for diarrhea, antispasmodics for pain, and management of associated psychological disorders are required (7). 98 (48.5%) of the participants in our study stated that they were using drugs and our participants were using antispasmodic agents much more in line with the literature. In Özden K's study (1), it was determined that 90% of people tried to regulate their complaints with diet without using medication, while this rate was 51.5% in our study. We think that this difference between the rates of fighting the disease with diet alone is due to the socio-cultural differences of the participants.

Considering the studies on IBS subtypes in the literature, it was determined that IBS - C, IBS - D, IBS - M and IBS - U subtypes were dominant at different rates in different geographical regions (8). In studies conducted in our country, Özden et al. found the IBS-C subtype in university students in 32 different provinces, Çelebi et al. in Elazığ and Baysoy et al.; Yılmaz et al. found the IBS-D subtype to be higher in Diyarbakır (9). In the study of Varlı M. (10), the subtype with the highest prevalence in both genders was IBS-M. The second subtype is IBS-C in women and IBS-D in men, and this difference was statistically significant. In Özden K's study (1), this rate was determined as 4.6% diarrhea, 53.2% predominant constipation, 21.8% mixed type and 20.3% unidentified type. In our study, when the distribution of IBS types of the participants was examined, IBS-C was dominant (n=140, 69.3%). We attributed these differences between studies primarily to the fact that the nutritional habits of the regions where the studies were conducted were very different from each other. In addition, the fact that different criteria were used as diagnostic criteria in these studies (Rome II, Rome III) may have caused such different results. In a study by Ersryd et al., it was shown that the agreement between Rome II and III criteria in categorizing IBS subtypes was weak (11). Today, Rome IV diagnostic criteria are used instead of these criteria (4). When the relationship between occupation and IBS prevalence was investigated, housewives and workers were the group with the highest prevalence of IBS in the study in Sivas, and this difference was found to be significant. In studies in Elazig and Diyarbakir, housewifes constitute the occupational group with the highest prevalence of IBS. In a study conducted in the USA, the prevalence of IBS was found to be

higher in unemployed people. (8). In our country, Özden et al. in their study, a significant relationship was found between having a job and the distribution of IBS (9). In the same study, housewives constitute the occupational group with the highest prevalence of IBS. In our study, when the occupational groups were examined, there were 86 (42.6%) participants who were mostly in the white-collar group. Accordingly, while Özden et al.'s study and our study reached similar results, we cannot express the same results for other studies in the literature. This may be due to the fact that the study was conducted in different geographical regions and there were changes in business concepts according to the regions. In addition, according to our study, we can say that occupations that require mental strength are more prone to IBS.

In the study of Heliawi M (12), it was found that 84.3% (n=183) all patients had insomnia while lying down and had difficulty waking up easily at night and sleeping again. This problem those with IBS (89.5%. n=136) than those without IBS complaints (72.3%. n=47) found higher (RR=1.24). Our study had similar resultsEighty-eight (43.6%) of the participants had insomnia problems and 68.2% of them had this problem intermittently. With these results, we can predict that insomnia is among the secondary problems caused by IBS. Since insomnia generally affects the body balance for multiple reasons, it may be one of the main reasons for the vicious circle especially in IBS patients. Or, from another point of view, the appearance of insomnia and IBS in people with high stress can be explained by similar personality types or lifestyles. In the study conducted by Uzan et al., approximately 25% of the participants were diagnosed with IBS, and stress (17.85%) was the second reason for outpatient clinic admission (13). This result proves that insomnia problems can be seen in stressed people.

In the field of health research, there has been an intense interest in the evaluation of “Quality of Life” in recent years. There are studies that found that the quality of life in patients with IBS decreased depending on the presence and severity of symptoms and the presence of different accompanying disorders (1). In the study of Si et al. (14), all sub-scores were significantly reduced in patients with IBS, except for the SF-36 Quality of Life physical sub-score. In studies conducted with the same scale in the USA and England, differences were found in patients with IBS in all parameters (15).

In our study, it was observed that the mean scores of the four subgroups of the WHOQOL quality of life scale were the lowest in the physical and highest mental areas. Accordingly, it was determined that IBS patients were mostly affected by somatic complaints. In Özgen K's study (1), the total scores were close to our study, and the physical domain scores were low and the

social domain scores high in subscale scores. This may be due to the fact that patients perceive the severity of IBS symptoms at different levels and reflect them on their quality of life in different ways.

In our study, we determined that women with IBS were affected more than men in physical, social areas and total score. In the literature, no information could be found in the available sources regarding this result. We attribute this to the fact that women express their complaints more than men, apply to the hospital more often, and are more sensitive about this issue.

Anxious and/or depressive states may occur in individuals with IBS, and individuals who continue to be followed up and treated for this group of diseases may have undiagnosed IBS patients (16). In the study conducted by Keskin et al. with 1475 people, where the distribution of psychiatric disorders by gender was evaluated, all disorders except possible alcohol abuse were found to be more common in female gender (17). In our study, there were no psychiatric diseases among the chronic diseases declared by the participants. However, this does not indicate that our participants do not have any psychiatric disorders. Our participants should be evaluated for any psychiatric illness that could masquerade as IBS.

IBS, which is etiologically caused by multifactorial reasons, causes changes in the dynamics of people's quality of life (18). In our study, quality of life scale scores were compared according to gender. Accordingly, although the average scores were close to each other in both genders, statistical significance was detected in men in the total score and in both physical and environmental subgroups. These findings in our study are compatible with the literature. The fact that material resources are evaluated in the environmental subgroup evaluation may have affected our study results in favor of men due to our patriarchal social structure.

IBS is a disorder that affects the quality of life of individuals and is a very common condition that can often be confused with other diseases. In the studies conducted in our country, as in other countries, female dominance draws attention. It will increase the chances of diagnosis and treatment if physicians are aware of IBS criteria and symptoms regarding Irritable Bowel Syndrome, which is a disease that can be diagnosed easily by differential diagnosis in primary health care services. In addition, it should be considered that patients may have not only physical but also social, environmental and spiritual complaints with these complaints, and a biopsychosocial holistic approach to the disease should be displayed.

Ethics Committee Approval: Ethics committee approval for this study Istanbul Şişli Hamidiye Etfal Training and Research Hospital Clinical Research Ethics Committee obtained from the

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