Effectiveness of an Instructional Program concerning Knowledge on clients with Irritable Bowel Syndrome in Liver and Digestive Disease Hospital at Baghdad City

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أثرالبرنامج التوجيهي المتعلق بمعارف مرضى متلازمة القولون العصبي في مستشفى امراض الجهاز الهضمي والكبد في مدينة بغداد

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الخلاصة

خلفية البحث : متلازمة القولون العصبي هواكثر اضطرابات الجهاز الهضمي انتشارا للغاية ويتميز بوجود آلاآم في البطن مع إسهال أو الإمساك ونزول المخاط مع الغائط ولم يثبت بشكل قاطع مسببات متلازمة القولون العصبي وتبقى الحالة تشكل تهديداً خطيراً على نوعية حياة المصابين.

أهداف الدراسة: تهدف الدراسة الحالية الى التعرف على أثر البرنامج التوجيهي والمتعلق بمعارف مرضى المصابين بمتلازمة القولون العصبي.

منهجية البحث: دراسة شبه تجريبية أجريت في مستشفى امراض الجهاز الهضمي والكبد في مدينة بغداد للمدة من ١٣كانون الثاني ولغاية الاول من تشرين الأول للعام ٢٠١٥ تكونت عينة الدراسة من (60) مراجع لمستشفى امراض الجهاز الهضمي والكبد والذين يعانون من متلازمة القولون العصبي و قسمت العينة بشكل متساوي إلى مجموعة الدراسة (30) مراجع والمجموعة الضابطة (30) مراجع .

المنهجية: تألفت أداة الدراسة من ثلاثة أجزاء حيث تضمن الجزء الأول من 5 فقرات هي المعلومات الديموغرافية والمتضمنة (الفئة العمرية والجنس والحالة الاجتماعية، ومستوى التعليمي والحالة المهنية، ويتكون الجزء الثاني من (4) فقرات تتعلق بالمعلومات الطبية للمراجع (حيث شملت كتلة الجسم ،مدة الاصابة بالمتلازمة، نوع المتلازمة، والامراض الاخرى والعوامل المؤثرة على المرض ،ويتكون الجزء الثالث من(5) محاو رئيسية تتعلق بمعارف المراجعين بالمرض وشملت :(تعريف المرض، واسباب وأعراض المرض، تشخيصه، ومحور الخطة العلاجية يتضمن (تعديل النمط الغذائي، العلاج بالأدوية، العلاج النفسي ،العلاج بالأعشاب، والأخير العلاج من خلال المتابعة الصحية). تم تحليل البيانات من خلال تطبيق الإحصاء الوصفي (التكرارات، والنسب المئوية، والمتوسط الحسابي)، والتحليل الاستدلالي (تحليل التباين) وتم استخدام الحقيبة الإحصائية الإصدار رقم 21 لإدخال البيانات لغرض تحليلها.

النتائج: أشارت نتائج الدراسة الحالية بأن معظم عينة الدراسة (56%) هم اناث ضمن الفئة العمرية 37-33 سنة وفيما يتعلق بالحالة الاجتماعية فان اغلب المرضى كانوا من المتزوجين، وان غالبية عينة الدراسة هم خريجو معاهد وكليات 66.6 % يعملون موظفين حكوميين و نسبة عالية كانوا لا يدخنون السجائر وبينت الدراسة بأن البرنامج التوجيهي على مجموعة الدراسة كان مؤثرا". وأشارت النتائج أيضا بوجود دلالة إحصائية مؤثرة على معارف المرضى المتعلقة بمتلازمة القولون العصبي بعد البرنامج التوجيهي لمجموعة الدراسة كذلك بين مجموعة الدراسة.

الاستنتاج: استنتجت الدراسة بان البرنامج المطبق له اثر واضح على تحسين معارف المراجعين المتعلقة بتعريف واعراض وكيفية السيطرة على المرض من خلال الاختبار القبلي والبعدي للبرنامج.

التوصيات:توصي الدراسة بنشر الوعي الصحي من خلال تنفيذ دورات و محاضرات بالتنسيق مع وزارة الصحة والتربية والتعليم العالي بغية السيطرة على اسباب الاصابة بالمرض وتقليل اعراض ولتحسين نوعية حياة المصابين.

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Abstract:

Background: Irritable bowel syndrome (IBS) is a highly prevalent gastrointestinal disorder characterized by abdominal pain with diarrhea and/or constipation and defecation with mucus. The etiology of IBS has not been definitively established., The IBS remains a condition that can seriously compromise an individual s' quality of life.

Objective: The present study aims to identify the effectiveness of an Instructional Program concerning Knowledge on clients with Irritable Bowel Syndrome .

Methodology: A quasi-experimental design study conducted in Liver and Digestive Disease Hospital at Baghdad City from the period of January ,13th 2015 to October, 1st 2015, the study sample consist of 60 clients have IBS, divided into two groups (30) case and (30) control groups.

The study instrument was composed of three parts which as socio- demographic information was included 5 items; (age group, gender, marital status, level of education, occupational), and second parts deals medical history which include(4) items BMI, The duration of developing IBS, type of IBS, diseases, smoking and alcohol drinking, other chronic diseases and factors affecting disease). part three consist of 5 domains concerned to clients knowledge toward the IBS which include (definition, causes and symptoms, diagnosis, and treatment plan which include (dietary change, drug therapy, psycho therapy, herbal therapy, and flow up). The data have been analyzed through the application of: descriptive analysis (frequency, percentages; mean of scores; and the inferential analysis that include: Analysis of variance, and the researcher used the SPSS version 21 to analysis of data**.**

Results: the findings revealed that the 56% of the case group were females at age 33-37 years old, 56% were married at institute & collage graduated, 66.6% of the case group have government employment, 40% of them have IBS from 1-3 years , 50% of the case group have diarrhea prodromal , high percent of them not Smoker, and the results revealed that their effectiveness of instructional program on IBS clients at P≤ 0.05 level.

Conclusion: the study concluded that the program applied by the researchers was a clear impact on improving the knowledge of clients relating to the definition and symptoms and how to control the disease through the pretest and posttest of the program.

Recommendation: the study recommends to increase health awareness among people through the implementation of courses and lectures in coordination with the Ministries of Health and Education and Higher Education in order to control the causes of disease and reduce symptoms of IBS.

Keywords: Instructional Program, Irritable Bowel Syndrome, Knowledge.

INTRODUCTION

Irritable bowel syndrome (IBS) is considered a biopsychosocial disorder, whose onset and precipitation are a consequence of interaction among multiple factors which include motility disturbances, abnormalities of gastrointestinal sensation, gut inflammation and infection, altered processing of afferent sensory information, psychological distress, and affective disturbances[1].

More comprehensive definition of IBS according to the International Foundation for Functional Gastrointestinal Disorders sometimes referred to as spastic colon, mucous colitis, spastic colitis, nervous stomach or irritable colon, IBS is a disturbance of colonic function characterized by abdominal pain or discomfort, bloating and abnormal bowel function, resulting in episodes of chronic diarrhea, chronic constipation, or both in alternation. Discomfort and bloating are often relieved by defecation[2].

Chronic abdominal pain in IBS is the most common of these conditions and is considered an important public health problem because it can be disabling and constitutes a major social and economic burden given the lack of effective treatments. IBS etiology is most likely multi-factorial involving biological, psychological and social factors. Visceral hyperalgesia (or hypersensitivity) and visceral hyper vigilance, which could be mediated by peripheral, spinal, and/or central pathways, constitute key concepts in current research on pathophysiological mechanisms of visceral hyperalgesia.[3]

IBS is a frequent diagnosis in clinical practice for gastroenterologists and primary care physicians. IBS has a multifactorial etiology, involving altered gut reactivity and motility, altered pain perception, and alteration of the brain-gut axis. In addition, psychological and social factors can influence digestive function, symptom perception, illness behavior and outcome. Psychological distress and major life events are frequently present in IBS, and are responsible, at least in part, for some outcomes[4].

As one does not know the etiology of IBS, no specific treatment regimen exists. The first line of treatment for patients with mild or moderate types of IBS is exploration of possible dietary or behavioral triggers. Use of pharmacologic therapy is often aimed at the predominant symptom in the individual patient. Some patients may benefit from an increase in fiber intake [5].

Milwaukee, *et al.,* (2008) conclude that the treatment options are wide ranging and include symptomatic prescribing, dietary management and a range of psychotherapeutic and complementary therapies [6].

Objectives:

The present study aims to identify the effectiveness of an Instructional Program concerning Knowledge on clients with Irritable Bowel Syndrome.

METHODOLOGY

Design of the Study: A quasi-experimental design study is carried out through the application of pre-test and post-test approach for the study and control groups, from the period January, 13th 2015 to October, 1st 2015.

Setting of the Study: The present study is carried out in Liver and Digestive Disease Hospital at Baghdad City.

Sample of the Study: A purposive (Non probability) sample of (60) clients are selected. The sample is divided into two groups; (30) clients (case group) are exposed to the instructional

program and (30) clients are not exposed to the program, considered as the control group. The selection of clients was simply randomly IBS and 18 and above years were diagnosed IBS.

Instrument: The questionnaire consists of three parts:

Part I: The demographic data which included the client's characteristic, such as age, gender, level of education, marital status, and Occupational status.

Part II: include the medical history as physical measurements (BMI), the duration of developing IBS, type of IBS, diseases, other diseases and factors affecting.

Part III: Knowledge questionnaire was consisted 5 main domains. Client's knowledge related to anatomy of colon and definition. (14) items, clients knowledge related to causes. (20) items, clients knowledge related to signs and symptoms of IBS. (13) items, clients knowledge related diagnosis of domain (13) items, Clients knowledge related to treatment domain divided into (5) subdomains, clients knowledge related to of diet therapy domain (16) items, clients knowledge related to drug therapy domain (6) items. Clients knowledge related to psychotherapy domain (12) items, clients knowledge related to herbal domain (13) items, clients knowledge related to important of follow up for client with IBS domain (8) items. The score include was (don't know=1, uncertain=2, know =3

Validity and Reliability: The content validity of the instrument was established through a panel of (14) experts, the reliability of the items was based on the internal consistency of the questionnaire was assessed by calculating Cronbach s' Coefficient alpha which as= 0.75.

Statistical Analysis: The data have been analyzed through the application of: descriptive frequency, percentages; mean of scores; and the inferential analysis that include: Analysis of variance and the researcher used the SPSS version 21 to analysis of data.

RESULT:

Table 1: Distribution of IBS Clients by Socio- Demographic Characteristics for case and control groups.

Variables	Classification	Case group (No. 30)		Control group (No. 30)	
		F	%	F	%
Gender	Male	13	43.4	15	50.0
	Female	17	56.6	15	50.0
Age	18-22 years	2	6.7	3	10.0
	23-27 years	3	10.0	3	10.0
	28-32 years	5	16.6	5	16.6
	33 - 37 years	5	16.6	3	10.0
	38-42 years	4	13.4	8	26.6
	43-47 years	3	10.0	2	6.6
	48-52 years	3	10.0	1	3.4
	53-57 years	2	6.7	1	3.4
	58 years and over	3	10.0	4	13.4
	Mean ± SD	**3.33 ± 4.83**		**3.33± 4.63**	
Marital Status	Single	8	26.7	6	20.0
	Married	17	56.7	16	53.5
	Widowed	0	0.0	5	16.6
	Divorced	5	16.6	2	6.6
	Separated	0	0.0	1	3.3
Level of Education	Unable to read & write	2	6.7	3	10.0
	Read & Write	2	6.7	5	16.6
	Primary	1	3.3	5	16.6
	Intermediate	4	13.3	1	3.4
	Secondary	5	16.6	7	23.4
	Institute	8	26.7	6	20.0
	College and above	8	26.7	3	10.0

Occupational status	Government employee	20	66.7	10	33.4
	Private sector employees	0	0.0	1	3.3
	Retired not having job	1	3.3	2	6.6
	Housewife	9	30.0	14	46.7
	Other jobs	0	0.0	3	10.0

Table 1 shows the demographic Characteristics of case and control groups which as females were 56.6 % For two age groups 23-28,33-37 years old, 56.7% of them was married at institute & collage graduated, high percent (66.7%) he was Government employment, The socio-demographic of control group was 50% of the sample was males & females, at age 38.42 years old, 53.5% of them was married, 23.3% graduated from Secondary school, 46.7% of them were housewife.

Table 2: Medical History of the Study Sample (Case and Control)

NO.	Variables	Classification	Case group (No. 30)		Control group (No. 30)	
			F	**%**	**F**	**%**
1	**BMI**	**<18.5 (low weight)**	**1**	**3.3**	**1**	**3.3**
		18.5–24.9 (normal weight)	**7**	**23.3**	**10**	**33.4**
		25–29.9 (over weight)	**10**	**33.4**	**11**	**36.7**
		30 or above(obese)	**12**	**40.0**	**8**	**26.6**
	Duration of disease	**2.1 - less than a year**	**3**	**10.0**	**4**	**13.3**
		2.2- 1 year -3 years	**12**	**40.0**	**9**	**30.0**
		2.3- 4- 6 years	**7**	**23.4**	**7**	**23.4**
		2.4- 7-9 years	**3**	**10.0**	**3**	**10.0**
		2.5- 10 years and over	**5**	**16.6**	**7**	**23.3**
3	**Type of IBS**	**3.1- Constipation (IBS-C)**	**11**	**36.7**	**7**	**23.4**
		3.2- Diarrhea (IBS-D)	**15**	**50.0**	**12**	**40.0**
		3.3- Alternate of both (IBS-A)	**4**	**13.3**	**11**	**36.6**
4	**Other diseases and factors affecting disease**					
4.1	**Hypertension**	**Yes**	**6**	**20.0**	**13**	**43.4**
		No	**24**	**80.0**	**17**	**56.6**
4.2	**Diabetics**	**Yes**	**30**	**100**	**9**	**30.0**
		No	**0**	**0.0**	**21**	**70.0**
4.3	**Cholesterol**	**Yes**	**4**	**13.4**	**6**	**20.0**
		No	**26**	**86.6**	**24**	**80.0**
4.4	**Cardiac**	**Yes**	**5**	**16.6**	**7**	**23.4**
		No	**25**	**83.4**	**23**	**76.6**
4.5	**Respiratory disease**	**Yes**	**11**	**36.6**	**7**	**23.4**
		No	**19**	**63.4**	**23**	**76.6**
4.6	**Digestive disease**	**Yes**	**12**	**40.0**	**8**	**26.6**
		No	**18**	**60.0**	**22**	**73.4**
4.7	**Migraine**	**Yes**	**5**	**16.6**	**1**	**3.3**
		No	**25**	**83.4**	**29**	**96.7**
4.8	**Allergy**	**Yes**	**14**	**46.7**	**17**	**56.6**

			No	16	53.3	13	43.4
4.9	**Smoking**		**Yes**	**3**	**10.0**	**8**	**26.6**
			No	**27**	**90.0**	**22**	**73.4**
4.10	**Negative smoking**		**Yes**	**11**	**36.7**	**15**	**50.0**
			No	**19**	**63.3**	**15**	**50.0**

Table 2: demonstrate the medical history of case group was 40% of them was obese , 40% of them have IBS since 1-3 years , 50% of them have diarrhea prodromal ,30% have diabetic ,46.7% have allergy ,40% of them have digestive problems , high percent of the case group not Smoker, the medical history of control group was 36.7% was overweight, 30% of them have IBS since 1-3years,40%have diarrhea prodromal of IBS, 56.6 % of them have allergy, and high percent of them not smoker .
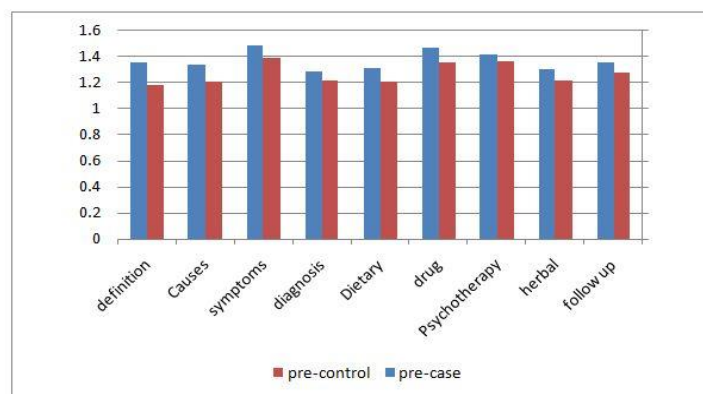

Figure 1:Clients knowledge at Pre case - Pre control group

Figure 1 shows the client responses for instructional program concerning their knowledge toward Irritabl Bowel Syndram at pre test for (case and control groups).
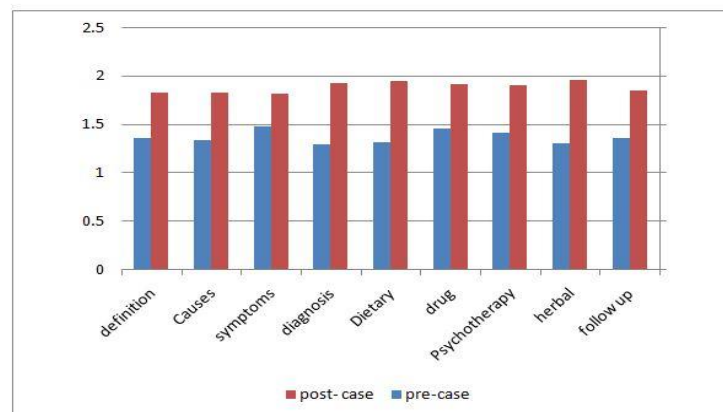

Figure 2: Clients knowledge at Pre case - post case group.

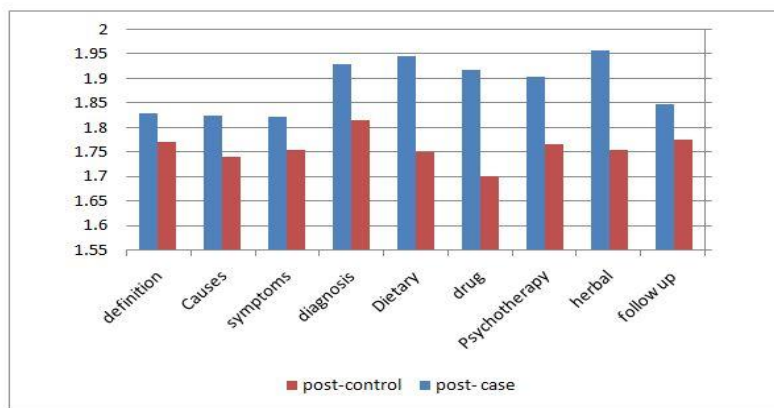Figure 2 shows the case group responses at pre and post instructional program.

Figure 3: Clients knowledge for Post case - Post control group

Figure 3 shows the responses of the study sample at post test for (case and control groups) for instructional programe toward their knowledge about Irretable Bowel Syndrome.

Table 3: Statistical Differences of Clients between level of education and Instructional program Domains.

Domains	df	Mean Square	F	Sig. P≤0.05
Symptoms	6	0.04	6.70	
	23	0.06		0.000
	29			H.S.
Diagnoses	6	0.01	6.3	
	23	0.02		0.000
	29			H.S.
Treatment (dietary modify)	6	0.03	2.9	
	23	0.01		0.02
	29			S.
Drug therapy	6	0.04	5.02	
	23	0.09		0.002
	29			H.S.
Psychotherapy	6	0.03	7.78	
	23	0.04		0.000
	29			H.S.
	6	0.03	3.5	
	23	0.09		0.01
Herbal therapy	29			S.

Table 3 revealed that there were significant differences between the aspect of Symptoms, Diagnoses, Treatment (dietary modify), Drug therapy, Psychotherapy, and Herbal therapy relative to educational level at P≤ 0.05 level.

Table 4: Statistical Differences of Clients between employments and Instructional program Domains.

Domains	df	Mean Square	F	Sig.P≤0.05
Treatment (dietary modify)	2	0.07	6.042	**0.004** **H.S.**
	27	0.01		
	29			
	29			
Psychotherapy	2	0.06		**0.002** **H.S.**
	27	0.05	11.8	
	29			
Herbal therapy	2	0.08	8.3	**0.009** **H.S.**
	27	0.09		
	29			

Table 4 indicated that the treatment (dietary modify), Psychotherapy, and Herbal therapy domains were significant differences relative to the clients employments at P≤ 0.05 level.

Table 5: Statistical Differences of Clients between types of IBS and instructional program domains.

Domains	df	Mean Square	F	Sig. P≤0.05
Definition	2	0.009539	2.15177	
	27	0.004433		0.13
	29			N.S.
Causes	2	0.002258	3.182753	
	27	0.000709		0.05
	29			S.
Symptoms	2	0.000112	0.077143	
	27	0.001453		0.91
	29			N.S.
Diagnoses	2	0.000542	0.114143	
	27	0.004752		0.89
	29			N.S.
Treatment (dietary modify)	2	0.002208	1.318884	
	27	0.001674		0.27
	29			N.S.
Drug therapy	2	0.005871	0.334176	
	27	0.017569		0.77
	29			N.S.
Psychotherapy	2	0.001047	1.053116	
	27	0.000994		0.34
	29			N.S.
Herbal therapy	2	0.001394	0.922544	
	27	0.001511		0.46
	29			N.S.
Follow-up	2	0.001965	0.663803	
	27	0.00296		0.51
	29			N.S.

Table 5 revealed that the post-case domains were no significant differences relative to types of IBS, except the causes of IBS knowledge at P≤ 0.05 levels.

DISCUSSION:

Throughout the course of the data analysis of present study, shows the demographic characteristics of case and control groups was females 56% For two age groups 23-28,33-37,years old, 56% of them was married at institute & collage graduated, high percent (66.6%) was government employment 40 % of them was obese , 40% of them have IBS from 1-3 years. (Table 1), the findings of present study is agree to the result obtained from another study that indicated in their study that the (30%) IBS was females at 28-37 years old, most of females (61%) was government employee, and revealed in their study that 40% of the case group has complained Diarrhea prodromal [7].

In other study similar to the result obtained from another study Showed that the IBS affected primarily those of working age [8].

High percent (66.6%) in present study was government employment; this finding agrees with the result obtained from another study who assess that the IBS among employees and the impact of disease on work productivity [9].

Most of the sample in present study was institute & collage graduated. This result agree with the result obtained from another study was stated most of the sample of the study was college and above educational graduated [10].

Most of the sample of the present study 50% of the case group have Diarrhea prodromal, this results disagree with the result obtained from another study was stated that 43% of males and 46% of female had an alternating symptoms of diarrhea and constipation[11].

The effectiveness of instructional program was appear in figure 1 which demonstrate that the improvrmrnt of the case group knolegde at post programe.

The diffrentiateded between the pre and post test for case and control group concerning the instructional programe was clear improved for case group in present study showes in figure 3. The present results agree with the result obtained from another study who applied educational programe on 2132 pateints to correct misconcept about the prevalent of IBS and causes by dietary factors, food allergies and intolerance, heredity or a lack of digestive enzymes; worsens with age they concluded that the patients are 'unhappy' with their level of knowledge or feel poorly informed (65%). They want information about the diagnostic process, which foods to avoid (63%), causes (62%), coping strategies (59%), new medications (55%), and the role of psychological factors (51%). They recommended in their study that the IBS patients do have a large variety of educational needs. Educational programs optimally addressing these needs can be used adequately as a placebo control condition in research on psychological interventions [12].

There were significant differences between the aspect of Symptoms, Diagnoses, Treatment (dietary modify), Drug therapy, Psychotherapy, and Herbal therapy relative to educational level at P≤ 0.05 level, The treatment (dietary modify), Psychotherapy, and Herbal therapy domains were significant differences relative to the clients employments at P≤ 0.05 level, and there were no significant differences relative to types of IBS, except the causes of IBS knowledge at P≤ 0.05 levels.(table 3,4,5).The result obtained from another study which revealed in their study on 848 participants (42.8%) completed the pre-to-post questionnaire. Baseline medication knowledge was positively correlated with participants' education level and negatively correlated with age. Significant improvement in medication knowledge was evident at the end of the program. The age and education level were significant determinants in the improvement of the pre-to-post program test score [13].

CONCLUSION:

The instructional program concerning the client's knowledge about IBS was effective on case group, and there were significant differences between instructional program and educational level and employments of clients.

RECOMMENDATION:

1- Establishing special department in L&DDH called (psychotherapy and nutritional management) to instruct and to prepare programmed lectures for patients who attending to the center weekly to learn stress management and diet modification, and to improve adherence to treatment, quality of life, and satisfaction with care. .

2- Printing disseminates and distributing guide booklet to IBS patients to learn how to coping with syndrome

3- Increase health awareness among young people through the implementation of courses and lectures for youth in coordination with the Ministries of Health and Education and Higher Education in order to control the causes of disease .

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