Original Article

Work and School Absenteeism in Inflammatory Bowel Disease Patients in Jeddah, Saudi Arabia: A Cross-Sectional Study

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Abstract

Background: Inflammatory bowel disease (IBD), which can have a considerable effect on quality of life, productivity and performance, is typically diagnosed during periods of life in which patients have academic and career-related responsibilities.

Objective: The objective of the study was to determine the effect of IBD symptoms on work and school absenteeism in patients from Saudi Arabia.

Patients and Methods: This cross-sectional survey included patients diagnosed with IBD, aged >8–60 years, at King Abdulaziz University Hospital, Jeddah, Saudi Arabia. The validated 32-question IBD quality-of-life questionnaire was used to elicit information regarding quality of life and another 9-question validated questionnaire was used to assess work and school absenteeism. A logistic regression analysis was used to identify possible determinants of absenteeism.

Results: A total of 123 IBD patients were included, with a 1:1 male-to-female ratio. The median age at presentation was 26 years (range: 8–59 years), 56.9% had Crohn's disease, and 43.1% had ulcerative colitis. Further, 58 (47.2%) were employed, 49 (39.8%) were students and 16 (13%) were unemployed. Forty-seven (43.9%) participants reported absenteeism: 26 were employees (55.3%) and 21 were students (44.7%). A binary logistic regression analysis identified IBD subtype ($P = 0.006$) and the presence of perianal disease ($P = 0.028$) as clinical predictors for absenteeism from school or work. A feeling of abdominal pain ($P = 0.015$), fatigue ($P = 0.015$) and difficulty taking part in social engagements ($P < 0.001$) were also significantly associated with absenteeism.

Conclusions: A sizeable proportion of the participants reported absenteeism owing to the effects of IBD. IBD subtype, perianal disease, presence of ongoing abdominal pain, fatigue and difficulty in social engagement were strongly associated with nonattendance.

Keywords: Absenteeism, inflammatory bowel disease, nonattendance, school attendance, work productivity

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INTRODUCTION

Inflammatory bowel disease (IBD) is a group of immune-mediated inflammatory conditions of the gastrointestinal tract, comprising mainly of Crohn's disease (CD) and ulcerative colitis (UC), which tend to have a chronic relapsing–remitting behavior, primarily involving the bowel.[1] Lack of control of the disease may have a considerable negative effect on patient's quality of life, employment status, productivity at work and performance in school.[2,3]

Several studies have found that IBD patients have higher rates of unemployment compared to the general population.[4,5] Unemployment rates of up to 45% have been reported in CD patients in different studies.[6-9] A Swedish study recently found that patients with CD had higher work loss and number of lost workdays in the 5 years before diagnoses than the comparators, and this was more pronounced in the year before the diagnosis.[10] Such work loss also translates into indirect financial loss through diminished earnings, poor productivity and increased unpaid sick leave days. Similarly, higher proportions of documented sick days have also been reported in patients with UC compared with matched controls.[11] Younger IBD patients may have frequent absenteeism from school and university because of digestive symptoms and fatigue, as well as requiring the rescheduling of events, which, in turn, can have a negative impact on their education and psychological well-being.[12,13]

Despite the absence of a national registry that accurately captures all cases of IBD, recent data suggest a sharp increase in the incidence of IBD in the Kingdom of Saudi Arabia.[14-16] However, to the best of the authors' knowledge, no study has previously focused on work and school absenteeism in IBD patients from Saudi Arabia. The aim of this study was to estimate the prevalence of absenteeism from work or school in a cohort of patients with IBD.

MATERIALS AND METHODS

This cross-sectional survey included all patients with IBD aged >8–60 years who regularly followed up at the Gastroenterology Clinic at King Abdulaziz University (KAU) Hospital, Jeddah, Saudi Arabia, between January 2016 and December 2018. KAU Hospital is considered one of the primary governmental tertiary hospitals in the region and the IBD unit is regarded as an important referral centers in the area.

The study included both genders and all nationalities. For patients aged <18 years, the parents/guardians completed the questionnaire. Patients with severe comorbidities, major psychiatric illnesses and aged <8 years or >60 years and those who did not consent to participation were not included in the study. Demographics, clinical, endoscopic and laboratory data were collected using a standard data extraction sheet, and the entered data were cross-verified by another author. Data collection and the survey were suspended during holiday and student examination periods.

This study was approved by the Biomedical Ethics Unit at KAU, and written informed consent was obtained from the patients or guardians for patients aged <18 years.

Questionnaires

Two questionnaires were used to separately assess health-related quality of life (HRQOL) and work and school absenteeism. For the former, the shortened version of the IBD quality-of-life (IBDQ-32) questionnaire was used. The IBDQ-32 is a validated tool that considers different aspect of patients' quality of life. It uses 32 closed ended questions.[17] Work and school absenteeism was assessed using a previously published and validated questionnaire, which included nine questions.[13] Both the questionnaires were in English and were scored using a 5- or 7-point Likert-type scale (higher scores were considered better). While the participants or guardians completed the questionnaires, one of the researchers was available to clear any ambiguities or translate into Arabic when required.

Outcomes and definitions

The primary outcome of the study was to determine the rate of work or school absenteeism and its relation to other variables. The secondary outcome was to identify predictors of absenteeism and measure the prevalence of unemployment. For the purposes of categorization, "employed" was defined as engaged in a full-time occupation during the 4 weeks prior to the survey, whether contracted by others or self-employed; "student" was defined as currently enrolled at an educational institution at any educational level, whether in person or through distance learning, and "absenteeism" was defined as any illness-related leave from work or school (i.e., inability to fulfill occupational or educational duties owing to IBD, directly or indirectly) 2 weeks prior to the survey. Both full-day absences and half-day absences that impacted work or school performance were considered. The 2-week recall period was chosen based on its use in several QOL-related studies on IBD patients.[18]

Statistical analysis

Estimates of means ± standard deviations and medians were used for normally distributed and skewed continuous variables, respectively. Frequencies were reported for categorical variables. An independent samples *t*-test and a Mann–Whitney *U*-test were used to compare means and medians, respectively, while the Chi-squared test was used to compare frequencies. Nonresponse error was considered as missing results or questionnaires, and >20% missing data were defined as a partial response. A binary logistic regression analysis was used to identify binary predictors of outcomes; unemployed participants were excluded from this part of the analysis. STATA 11.2 (StataCorp, Texas, USA) software was used for the analysis, with the statistical significance set at $P = 0.05$.

RESULTS

Baseline characteristics

A total of 123 patients were included in the study. The median age of the participants was 26 years (range: 8–59 years). Seventy-nine percent of the cohort were Saudi. The majority of the patients (59%) were 18–40 years of age, and the male–female representation was approximately 1:1. In terms of the condition, 56.9% ($n = 70$) had CD and 43.1% ($n = 53$) had UC. The most common disease location in CD patients was the colon (57.1%), and the most common disease behavior was nonstricturing and nonpenetrating (67.1%). For patients with UC, left-sided colitis was the most common disease distribution (56.6%). Severe disease contributed to 58.5% of the cases ($n = 72$). One or more of the extraintestinal manifestations were reported in 22.8% of the participants. Of the total participants, 58 (47.2%) were employed, 49 (39.8%) were students and 16 (13%) were unemployed [Table 1].

Outcomes

A total of 47 (43.9%) participants, excluding the unemployed, reported absenteeism from work/school in the 2 weeks prior to the survey. Of these, 26 were employees (55.3%) and 21 were students (44.7%).

A bivariate analysis of attendance status for work and schools in relation to various demographic and clinical variables revealed a statistically significant difference according to the IBD subtype, in which CD patients had a higher rate of absenteeism than UC patients (35/63 [55.5%] vs. 12/44 [27.3%]; $P = 0.004$) [Table 2]. There was no statistically significant difference in the frequency of absenteeism when categorized based on age: 0–18 years, 9/24 (37.5%); 18–40 years, 31/63 (49.2%) and

Table 1: Baseline demographic and clinical characteristics of the study cohort (*n*=123)

Baseline characteristics	Summary statistics, mean±SD or *n* (%)
Demographics	
Mean age (years)	29.7±12.8
Age categories (years)	
0-18	24 (19.5)
18-40	73 (59.3)
40-60	26 (21.1)
Female gender	61 (49.6)
Saudi nationality	97 (78.9)
Smoking	25 (20.3)
Family history of IBD	16 (10.6)
Diagnosis	
Crohn's disease	70 (56.9)
Ulcerative colitis	53 (43.1)
Disease location (CD)	
L1: Terminal ileal	5 (7.1)
L2: Colonic	40 (57.1)
L3: Ileo-colonic	25 (35.7)
Disease behavior (CD)	
B1: Nonstricturing, nonpenetrating	47 (67.1)
B2: Stricturing	7 (10)
B3: Penetrating	16 (22.9)
Perianal disease	15 (11.2)
Disease extension (UC)	
E1. Ulcerative proctitis	1 (1.9)
E2. Left sided UC	30 (56.6)
E3. Pancolitis	22 (41.5)
IBD severity	
Mild to moderate	51 (41.5)
Severe	72 (58.5)
EIMs	28 (22.8)
Aphthous stomatitis	20 (16.3)
Arthritis	25 (20.3)
Primary sclerosing cholangitis	2 (1.6)
Erythema nodosum	3 (2.4)
Medications	
Mesalamine	42 (34.1)
Azathioprine	44 (35.8)
Methotrexate	3 (2.4)
Adalimumab	32 (26)
Infliximab	21 (17.1)
Surgery	
Colectomy	8 (6.5)
Small bowel resection	6 (4.9)
Pouch surgery	2 (1.6)

SD – Standard deviation; CD – Crohn's disease; IBD – Inflammatory bowel disease; UC – Ulcerative colitis; EIMs – Extraintestinal manifestations

40–60 years, 7/20 (35%) ($P = 0.41$). There was a significant association between absenteeism and the presence of perianal disease (absent: 9/47 [19.1%]; attended: 3/57 [5.3%]; $P = 0.02$) and the presence of extraintestinal manifestations (absent: 15/47 [31.9%]; attended: 8/60 [13.3%]; $P = 0.02$). No statistically significant difference was detected when stratifying participants according to disease severity: 22/44 (50%) had mild-to-moderate severity and 25/63 (39.7%) had severe disease ($P = 0.29$). When stratifying by IBD subtypes, no statistically significant difference was observed in the frequency of absenteeism between mild-to-moderate and severe CD (15/25 [60%] vs. 20/38 [52.6%], respectively; $P = 0.57$), and

between mild-to-moderate and severe UC (7/19 [36.8%] vs. 5/25 [20%], respectively; *P* = 0.21).

A binary logistic regression analysis confirmed that IBD subtypes (odds ratio [OR] = 3.7, 95% CI = 1.45–9.46, *P* = 0.006) and the presence of perianal disease (OR = 7.3, 95% CI = 1.24–42.33, *P* = 0.028) were predictors for absenteeism from work and school, following adjustment for other confounding variables [Table 3].

Relation between patient-reported quality-of-life measures and school and work attendance status

The main QOL items of various domains were examined through a bivariate analysis to test for various associations with absenteeism from school or work [Table 4]. In the bowel domain, the following items were statistically significant: frequent loose bowel motions (59.6% in those who were absent vs. 38.3% in those who attended; *P* = 0.03), frequent abdominal pain (87.2%) versus 27 (45%), *P* < 0.001), frequent bloating (70.2% vs. 36.7%; *P* = 0.001), passing large amounts of gas (72.3% vs. 48.3%, *P* = 0.012) and a consistent feeling of wanting to go to the bathroom (59.6% vs. 33.3%; *P* = 0.007). In the systemic domain, feeling fatigue (76.6% vs. 35%; *P* < 0.001), having difficulty maintaining weight (55.3% vs. 33.3%; *P* = 0.023) and having trouble with sleep (66% vs. 28.3%; *P* < 0.001) were statistically significant. In the emotion domain, being worried about needing surgery (48.9% vs. 21.7%; *P* = 0.003), fear of not finding a bathroom (68.1% vs. 33.3%; *P* < 0.001), feeling worried and anxious (70.2% vs. 43.3%; *P* = 0.006) and feeling angry (53.2% vs. 30%; *P* = 0.015) were statistically significant. In the social domain, delaying or cancelling social engagements (68.1% vs. 8.3%; *P* < 0.001) and being embarrassed for soiling or having an unpleasant stool odor (29.8% vs. 13.3%; *P* = 0.04) were statistically significant.

After adjusting for confounding variables using a binary logistic regression analysis, the following items remained statistically significant: frequent feeling of abdominal pain (OR = 8.3, 95% confidence interval [CI] = 1.52–44.98; *P* = 0.015), feeling fatigue (OR = 5.5, 95% CI = 1.39–22.53; *P* = 0.015) and delaying or canceling social engagements (OR = 45, 95% CI = 6.19–334; *P* < 0.001) [Table 5].

DISCUSSION

IBD comprises a set of chronic illnesses that can dramatically influence patient quality of life, involving various mechanisms that extend from the presence of persistent symptomatology to the development of

Table 2: Bivariate analysis of variables according to school and work attendance status (*n*=107)

Variable	Absents (*n*=47), *n* (%)	Attended (*n*=60), *n* (%)	*P**
Demography			
Gender			
Male	26 (55)	34 (56.7)	0.89
Female	21 (45)	26 (55.3)	
Nationality			
Saudi	37 (78.7)	47 (78.3)	0.96
Non-Saudi	10 (21.3)	13 (21.7)	
Age category (years)			
0-18	9 (19)	15 (25)	0.41
18-40	31 (66)	32 (53.3)	
40-60	7 (15)	13 (21.7)	
Smoking			
Yes	10 (21.3)	12 (20)	0.87
No	37 (78.7)	48 (80)	
Family history of IBD			
Yes	2 (4.3)	8 (13.3)	0.11
No	45 (95.7)	52 (86.7)	
Clinical features			
Diagnosis			
Crohn's disease	35 (74.5)	28 (46.7)	0.004**
Ulcerative colitis	12 (25.5)	32 (53.3)	
CD location			
L1: Terminal Ileal	1 (2.8)	2 (7.1)	0.08
L2: Colonic	17 (48.6)	20 (71.4)	
L3: Ileo-colonic	17 (48.6)	6 (21.4)	
Perianal disease			
Yes	9 (19.1)	3 (5.0)	0.02**
No	38 (80.9)	57 (95)	
CD disease behavior			
B1. Nonstricturing nonpenetrating	24 (68.6)	18 (64.3)	0.66
B2. Stricturing	4 (11.4)	2 (7.1)	
B3. Penetrating	7 (20)	8 (28.6)	
Disease Extension (UC)			
E1. Ulcerative proctitis	0 (0.0)	1 (3.1)	0.23
E2. Left-sided UC	9 (75)	15 (46.9)	
E3. Pancolitis	3 (25)	16 (50)	
IBD disease severity			
Mild to moderate	25 (53.2)	38 (63.3)	0.29
Severe	22 (46.8)	22 (36.7)	
Extraintestinal manifestations			
Yes	15 (31.9)	8 (13.3)	0.02**
No	32 (68.1)	52 (86.7)	
Medical treatment			
Mesalamine			
Yes	17 (36.2)	19 (31.7)	0.63
No	30 (63.8)	41 (68.3)	
Azathioprine			
Yes	17 (36.2)	23 (38.3)	0.82
No	30 (63.8)	37 (61.7)	
Adalimumab			
Yes	12 (25.5)	15 (25)	0.95
No	35 (74.5)	45 (75)	
Infliximab			
Yes	11 (23.4)	7 (11.7)	0.11
No	36 (76.6)	53 (88.3)	
Surgery			
Colectomy			
Yes	4 (8.5)	3 (5.0)	0.47
No	43 (91.5)	57 (95)	
Small bowel resection			
Yes	1 (2.1)	2 (3.3)	0.71
No	46 (97.9)	58 (96.7)	

*Chi-square/Fisher's exact tests; **P<0.05. CD – Crohn's disease; IBD – Inflammatory bowel disease; UC – Ulcerative colitis

Table 3: Predictors of work and school absenteeism in the study cohort (*n*=107)

Variables	B	SE	OR	95% CI		P
				Lower	Upper	
Gender	−0.010	0.46	0.99	0.41	2.44	0.98
Age category (years)	−0.193	0.36	0.83	0.41	1.66	0.59
0-18						
19-40						
41-60						
Family history of IBD	1.467	0.88	4.34	0.77	24.43	0.09
IBD subtypes	1.309	0.48	3.70	1.45	9.46	0.006*
Crohn's disease						
Ulcerative colitis						
Perianal disease	1.982	0.90	7.26	1.24	42.33	0.028*
Extraintestinal manifestations	1.171	0.60	3.23	0.99	10.48	0.05
Thiopurines	0.409	0.57	1.51	0.49	4.57	0.47
Adalimumab	−0.154	0.59	0.86	0.27	2.72	0.79
Infliximab	−0.671	0.69	0.51	0.13	1.97	0.33
Colectomy	0.254	1.07	1.29	0.16	10.51	0.81
Small bowel resection	−0.184	2.18	0.84	0.01	59.34	0.93

*$P<0.05$. IBD – Inflammatory bowel disease; SE – Standard error; OR – Odds ratio; CI – Confidence interval

superimposed functional and mental disorders.[19] A growing body of literature has supported the notion that IBD treatment should target not only symptom relief and bowel mucosal healing but also quality of life.[20,21] A good representation of patient quality of life status is the ability to maintain work and school attendance. Since absenteeism is frequently attributed to treatment failure, it may also be a marker of decline in quality of life.[20,21]

This study examined absenteeism in a cohort of Saudi patients with IBD and found that 55.3% of employees and 44.7% of students reported absenteeism from work and school in the past 2 weeks. This study found no statistically significant difference between absenteeism and age, which is in contrast with few studies where age has been associated with absenteeism. A recent study by Carreon *et al.*[17] examined school attendance in 161 adolescents and revealed that up to two-third of patients with IBD reported absence from school for various reasons, including follow-up visits to health centers, hospitalization and feeling unwell. The study found an association between older age and active disease as strong predictors of school absence. School-attending children and adolescents are at risk of suffering from compromised academic performance. Carreon *et al.*,[17] in their regression analysis, found that disease activity ($P < 0.01$) and older age ($P = 0.03$) accounted for 9% and 3%, respectively, of the variances in child-reported difficulties with being at school. In a case–control study regarding the effect of IBD on psychosocial and school performance parameters, Mackner *et al.*,[22] showed that adolescents with IBD reported significantly more full-day absences than healthy controls ($P = 0.05$).

Patients are typically diagnosed with IBD at an age where they have many responsibilities, including employment requirements and social obligations. Inability to cope with this disease can have a negative impact on these activities.[22] A large cross-sectional study[23] carried out in Holland, involving 1092 IBD patients with a mean age of 47 years, reported relatively low quality of life data and found an association between employment difficulties and disease duration, IBD-related surgery and fecal incontinence and active perianal disease, after adjusting for age (OR = 0.67; 95% CI: 0.50–0.91; $P = 0.01$). Our study found a strong association with the presence of perianal disease (OR = 7.3, 95% CI = 1.24–42.33, $P = 0.028$), in agreement with Vollebregt *et al.*[23] A French web-based cross-sectional study surveyed 1410 patients with IBD about their work status and reported that 80% were actively employed, but half of those considered IBD a barrier to work;[24] fatigue and diarrhea were the most common restricting symptoms.

A Japanese cross-sectional study revealed an unemployment rate of 12.3% among IBD patients (compared with an unemployment rate of 3.2% in the general population), which extended across all age groups but was more pronounced in those aged >50 years.[25] Unemployment was associated with older age, female gender, presence of depression, previous surgery and prescription of biologics. In Saudi Arabia, the unemployment rate in the general population was estimated to be approximately 5.9% in 2018,[26] but in the present cohort, unemployment rate was 13%.

Absenteeism was associated with CD as an IBD subtype ($P = 0.006$) and the presence of perianal disease ($P = 0.028$). Absence from school and work was also associated with feeling abdominal pain ($P = 0.015$), fatigue ($P = 0.015$) and delaying or canceling social engagements ($P < 0.001$). This observation is consistent

Table 4: Patients reported quality-of-life measures associated with work and school absenteeism (bivariate analysis)

Main domains and items	Absents, *n* (%)	Attended, *n* (%)	*P**
Bowel			
Frequent loose bowel motions			
Yes	28 (59.6)	23 (38.3)	0.03**
No	19 (40.4)	37 (61.7)	
Frequent abdominal pain			
Yes	41 (87.2)	27 (45)	<0.001**
No	6 (12.8)	33 (55)	
Frequent bloating			
Yes	33 (70.2)	22 (36.7)	0.001**
No	14 (29.8)	38 (63.3)	
Passing large amount of gases			
Yes	34 (72.3)	29 (48.3)	0.012**
No	13 (27.7)	31 (51.7)	
Rectal bleeding			
Yes	7 (14.9)	12 (20)	0.49**
No	40 (85.1)	48 (80)	
Feeling of having to go to bathroom			
Yes	28 (59.6)	20 (33.3)	0.007**
No	19 (40.4)	40 (66.7)	
Systemic			
Feeling fatigue			
Yes	36 (76.6)	21 (35)	<0.001**
No	11 (23.4)	39 (65)	
Problem in maintaining weight			
Yes	26 (55.3)	20 (33.3)	0.023**
No	21 (44.7)	40 (66.7)	
Troubled sleep			
Yes	31 (66)	17 (28.3)	<0.001**
No	16 (34)	43 (71.7)	
Emotion			
Worried about needing surgery			
Yes	23 (48.9)	13 (21.7)	0.003**
No	24 (51.1)	47 (78.3)	
Fear of not finding a bathroom			
Yes	32 (68.1)	20 (33.3)	<0.001**
No	15 (31.9)	40 (66.7)	
Feeling depressed			
Yes	22 (46.8)	23 (38.3)	0.38
No	25 (53.2)	37 (61.7)	
Feeling worried or anxious			
Yes	33 (70.2)	26 (43.3)	0.006**
No	14 (29.8)	34 (56.7)	
Feeling relaxed			
Yes	30 (63.8)	34 (56.7)	0.45
No	17 (36.2)	26 (43.3)	
Feeling angry			
Yes	25 (53.2)	18 (30)	0.015**
No	22 (46.8)	42 (70)	
Personal life satisfaction			
Yes	41 (87.2)	49 (81.7)	0.43
No	6 (12.8)	11 (18.3)	
Social			
Delaying or cancelling social engagement			
Yes	32 (68.1)	5 (8.3)	<0.001**
No	15 (31.9)	55 (91.7)	
Difficulty on sport activities			
Yes	17 (36.2)	15 (25)	0.21
No	30 (63.8)	45 (75)	
Embarrassed as a result of soiling or unpleasant odor			
Yes	14 (29.8)	8 (13.3)	0.04**
No	33 (70.2)	52 (86.7)	
Lack of understanding from others			
Yes	9 (19.1)	8 (13.3)	0.41
No	38 (80.9)	52 (86.7)	

*Chi square/Fisher's exact tests; **P<0.05

Table 5: Binary logistic regression analysis of various patient-reported quality of life data in relation to work and school absenteeism (*n*=107)

Variables	B	SE	OR	95% CI		P
				Lower	Upper	
Frequent loose bowel motions	−0.895	0.74	0.41	0.09	1.76	0.23
Frequent abdominal pain	2.111	0.87	8.26	1.52	44.98	0.015*
Frequent bloating	−0.201	0.89	0.82	0.14	4.69	0.82
Passing large amount of gases	−0.132	0.76	0.88	0.19	3.91	0.86
Feeling of having to go to bathroom	0.169	0.72	1.18	0.29	4.85	0.82
Feeling fatigue	1.698	0.70	5.46	1.39	21.53	0.015*
Problem maintaining weight	−1.750	1.14	0.17	0.02	1.64	0.13
Troubled sleep	0.034	1.03	1.04	0.14	7.82	0.97
Worried about needing surgery	−0.435	0.89	0.65	0.11	3.69	0.63
Fear of not finding a bathroom	0.887	0.87	2.43	0.44	13.47	0.31
Feeling worried or anxious	−0.631	0.88	0.53	0.095	2.97	0.47
Feeling angry	0.843	0.72	2.32	0.57	9.48	0.24
Delaying or cancelling social engagement	3.818	1.02	45.49	6.19	334.03	<0.001*
Embarrassed as a result of soiling or unpleasant odor	−1.608	1.01	0.20	0.03	1.45	0.11

*$P<0.05$. SE – Standard error; OR – Odds ratio; CI – Confidence interval

with some previous reports that have associated CD and perianal disease with work-related difficulties.[4,27]

The current study highlights an important significant relationship between work and school performance and Saudi patients with IBD, and this is a novel contribution to the growing body of literature on IBD. Despite the limitation of being a cross-sectional study with a small sample size, the authors believe it may serve as a nidus for further large, prospectively conducted studies dedicated to probing the barriers and challenges that IBD patients face and their impact on quality of life.

This study has identified CD diagnosis, ongoing abdominal pain and delaying or cancelling social engagement as strong predictors of absenteeism from work or school. These have important clinical implications in terms of interventions for management through appropriate control of symptoms in the clinic or through referral to other subspecialists, such as with respect to pain management, sleep hygiene and psychological and social support.

CONCLUSIONS

The results show that a large proportion of the studied cohort of IBD patients from Jeddah, Saudi Arabia, reported absenteeism from work/school. CD subtype, the presence of perianal disease, ongoing abdominal pain, fatigue and a lack of social engagement strongly predicted nonattendance.

Ethical considerations
The Ethical Research Committee, Biomedical Ethics Unit at KAU, approved the study prior to its commencement [Ref. no.: 418-1; date of approval: July 21, 2017]. The study was conducted in adherence with the guidelines of Declaration of Helsinki, 2013, and all participants or guardians (for patients aged <18 years) provided their written informed consent.

Peer review
This article was peer-reviewed by two independent and anonymous reviewers.

Conflicts of interest
There are no conflicts of interest.

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