

Breaking the Silence: Unveiling Sexual Dysfunction in IBD Patients

—Prevalence and Risk Factors in a Moroccan Population

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Abstract

Background: Inflammatory bowel disease (IBD), including Crohn's disease (CD) and ulcerative colitis (UC), is a chronic condition that significantly impacts patients' physical and psychological well-being. While sexual dysfunction (SD) in IBD has been widely studied in Western populations, data from North Africa, particularly Morocco, remain scarce. This study aims to assess the prevalence and risk factors associated with SD among Moroccan IBD patients. **Methods:** We conducted a case-control study that included 100 IBD patients and 100 age- and sex-matched healthy controls. Sexual function was assessed using the Female Sexual Function Index (FSFI) for women and the International Index of Erectile Function (IIEF) for men. Demographic, clinical, and psychological factors were analyzed for their association with SD. Statistical analyses included univariate and multivariate logistic regression models. **Results:** Among IBD patients, SD was identified in 50% of women and erectile dysfunction (ED) in 15% of men, both significantly higher than in controls ($p < 0.05$). Active disease, female sex, the presence of stomas, perianal disease, and anxiety-depressive disorders were identified as independent risk factors for SD in IBD patients ($p < 0.05$). No significant association was found between SD and disease subtype (CD vs. UC), prior surgery, or medication use. **Conclusion:** Sexual dysfunction is more prevalent in Moroccan IBD patients compared to the general population, particularly among women and those with active disease. The presence of perianal manifestations, stomas, and psychological distress further exacerbates SD. Clinicians should systematically assess and address sexual health in IBD management to enhance patients' quality of life. Given the sociocultural barriers surrounding sexual health discussions in Morocco, fostering open doctor-patient communication is essen-

tial to breaking the taboo and improving patient care.

Keywords

Inflammatory Bowel Disease, Sexual Dysfunction, Erectile Dysfunction, FSFI, IIEF, Morocco, Quality of Life

1. Introduction

Inflammatory bowel diseases (IBD), including Crohn's disease (CD) and ulcerative colitis (UC), are chronic conditions that significantly impact patients' physical and psychological well-being [1]. While extensive research has been conducted on IBD in Western populations, data from North Africa, particularly Morocco, remain scarce [2]. Over the past decades, the incidence of IBD has been increasing in newly industrialized countries, including those in the Maghreb region [3]. However, beyond clinical and endoscopic remission, the impact of IBD on patients' quality of life, particularly in terms of sexual health, remains an overlooked issue [4].

Sexual dysfunction (SD) is a common but often neglected consequence of IBD, affecting patients through disturbances in sexual desire, arousal, satisfaction, and overall sexual well-being [5]. Studies from Western countries estimate that SD affects between 40% and 66% of female IBD patients and 44% to 53.9% of male patients [6]. Despite the growing recognition of SD in IBD management, no studies have yet addressed this issue in Moroccan patients. Given the sociocultural context in Morocco, where discussions around sexual health remain taboo, SD in IBD patients may be underreported and poorly managed, further exacerbating its impact on quality of life [7].

The STRIDE II consensus emphasizes that the management of IBD should extend beyond endoscopic and histologic healing to include patient-reported outcomes such as quality of life and functional well-being [8]. In this framework, addressing SD is essential to ensuring a comprehensive approach to IBD care.

This study is the first to investigate SD in Moroccan IBD patients. By assessing its prevalence and associated factors in comparison to healthy controls, we aim to highlight the need for a more holistic, patient-centered approach to IBD management. Raising awareness about this issue is crucial to breaking the silence around SD in IBD, ultimately fostering better clinical care and improving patients' overall well-being.

2. Materials and Methods

A case-control study was conducted in our department, including 100 patients diagnosed with IBD and 100 age- and sex-matched healthy controls. Sexual dysfunction was assessed using the Female Sexual Function Index (FSFI) for women and the International Index of Erectile Function (IIEF) for men.

Data collection was carried out through an anonymous questionnaire consisting of two sections. The first section, completed by the physician, included detailed information on disease type, localization, phenotype, perianal manifestations, previous surgery, stoma presence, current treatment, and disease activity. The second section, completed by the patient, collected demographic and lifestyle information, including age, gender, height, weight, marital status, socioeconomic status, presence of depression, alcohol and tobacco consumption, and the two sexual function scores. Depression was assessed subjectively without the use of a standardized scoring system.

2.1. Inclusion and Exclusion Criteria

The inclusion criteria were adult patients diagnosed with IBD (Crohn's disease or ulcerative colitis), aged over 18 years, who provided informed consent to participate in the study. Patients and controls with major comorbidities that could affect sexual function (such as diabetes or neurological disorders) were excluded.

2.2. Assessment of Sexual Function

Sexual function was assessed using the International Index of Erectile Function (IIEF) for men and the Female Sexual Function Index (FSFI) for women. The IIEF consists of 15 questions covering five domains: erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction. The FSFI includes 19 questions evaluating desire, arousal, lubrication, orgasm, satisfaction, and pain. Sexual dysfunction was defined as an FSFI score < 26.5 for women and an IIEF score < 42.9 for men.

2.3. Outcome

The primary objective of this study was to compare the prevalence of SD between IBD patients and healthy controls. The secondary aim was to find factors associated with SD in patients with IBD.

2.4. Statistical Analyses

The data are presented as median (interquartile range, IQR) or frequencies, depending on the requirement. Chi-squared or Student's t-test was employed to compare baseline characteristics and scores between groups. A paired Student's t-test was used for the comparison of continuous domain sub-scores and overall scores between age-matched pairs. Univariate logistic regression analysis was performed on potential risk factors for sexual dysfunction (SD) in IBD patients. The event of interest was defined as the occurrence of SD. In the univariate logistic regression, factors with p-values < 0.20 were included in the full multivariate logistic regression model. A manual stepwise elimination process was applied to identify the most appropriate model independent of SD factors. The results are presented as odds ratios with confidence intervals. Two-sided statistical tests were used for all analyses, with a significance level set at $p < 0.05$. Statistical analyses were conducted using SPSS software.

3. Results

3.1. Participant Characteristics

During the study period, 100 IBD patients and 100 healthy controls were invited to participate. Out of the 100 patients, 94 (94%) completed the questionnaire, while 6 declined. No significant differences were found in the socio-demographic and disease characteristics between the 6 patients who did not complete the questionnaire and the 94 who did (Supplementary **Table 1**). The baseline characteristics of the participants are summarized in **Table 1**. Among the participants, there were 60 female IBD patients (median (IQR) age of 41 years), 50 healthy female controls (median (IQR) age of 39.5 years), 34 male IBD patients (median (IQR) age of 40 years), and 50 healthy male controls (median (IQR) age of 39 years). No significant differences were observed between the IBD patients and controls, except for BMI, which was higher in the healthy control group compared to the IBD patients.

Table 1. Participants characteristics.

	Female patients n = 60	Female controls n = 50	Male patient n = 34	Male controls n = 50
Age				
23 - 35	35	29	18	26
35 - 50	25	21	16	24
BMI				
< 18.5	13	7	6	5
18.5 - 25	45	35	27	35
25 - 30	2	8	1	9
> 30	0	0	0	1
Marital status				
Single	7	5	4	4
Married	48	40	29	44
Divorced	5	5	1	2
Socioeconomic status				
Low	18	10	10	11
Medium	27	25	16	24
High	15	15	8	15
Active smoking	1	2	14	17
Active drinking	0	1	2	5
Anxiety and depression	27	12	14	10

Characteristics of the 94 IBD patients included in this study are presented in **Table 2**. In females with IBD, 40 (68 %) had CD, 20 (32%) had UC and 10 (16%) had active disease. In men, 20 (59%) had CD, 14 (41%) had UC and 5 (15%) had active disease.

Table 2. Characteristics of the IBD population.

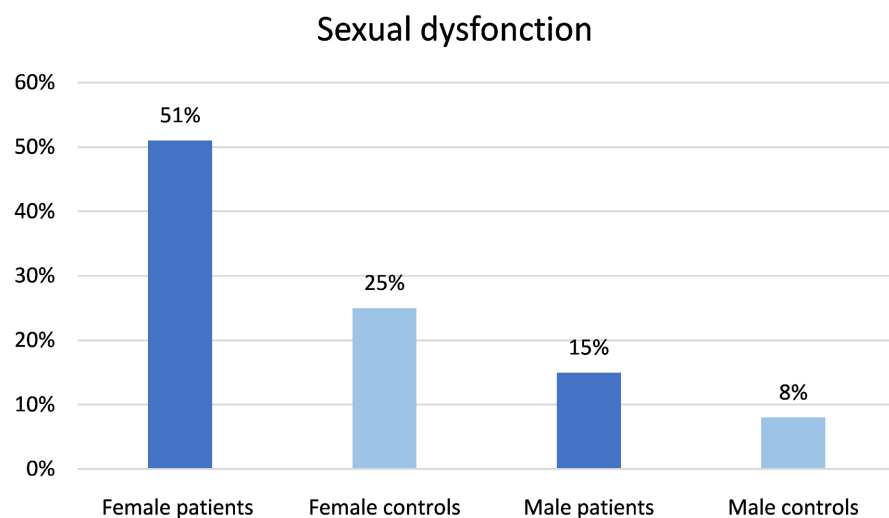
	Female patients n = 60	Male patients n = 34
CD, n (%)	40 (68%)	20 (59%)
UC, n (%)	20 (32%)	14 (41%)
Active disease, n (%)	10(16%)	5 (15%)
Perianal disease, n (%)	17(28%)	9 (26%)
Previous surgery, n (%)	13 (21%)	10 (29%)
Presence of stoma, n (%)	8 (15%)	6 (17%)
5 ASA current use, n (%)	6(10%)	4 (11%)
IS current use, n (%)	20(33%)	10 (29%)
Biological therapy, n (%)	40 (66%)	20 (58%)
Corticosteroids, n (%)	3 (5%)	2 (6%)

CD, Crohn's disease; UC, ulcerative colitis; IS, immunosuppressants; 5 ASA,5-Aminosalicylic acid.

The disease activity was assessed using the CDAI for Crohn's disease and the Mayo score for ulcerative colitis.

3.2. Sexual Dysfunction

In women, SD was identified in 50 % (30/60) of the IBD patients and 25% (13/50) of the healthy control individuals. The rate of SD was not different between CD and UC patients: The prevalence of SD in patients IBD was significantly higher than that observed in the control group. The proportion of SD in IBD patients with the active disease was significantly higher than that of those patients in remission: 70 % (7/10) and 46% (23/50), respectively (p 0.018). The prevalence of SD in active and remission IBD patients was also significantly higher than that observed in the control patients.

**Graphic 1.** Sexual dysfunction of IBD patients compared to healthy controls.

In men, SD was identified in 15% (5/34) of the IBD patients and 8 % (4/50) of the healthy controls (**Graphic 1**). The rate of ED was not different between CD and UC. However, The prevalence of ED in IBD patients was significantly higher than in the control group. The rate of ED in IBD patients with the active disease was significantly higher than in patients with IBD-remission: 60 % (3/5) and 7 % (2/29), respectively , which were significantly higher than healthy controls.

When compared to age-matched control pairs, regarding sexual function from each domain of FSFI score for women (**Table 3**), IBD patients scored significantly lower than controls in sexual desire, arousal, orgasm, and satisfaction ($p < 0.001$, $p < 0.03$, $p < 0.01$, and $p = 0.02$, respectively). Pain and lubrication scores in IBD patients were not different from controls ($p = 0,17$ and $p = 0,135$ respectively).

Table 3. Age-matched comparison of IBD patients and healthy controls for FSFI.

FSFI	IBD patients (Median score)	Healthy controls (Median score)	p-value
Sexual desire	3.5	4.5	< 0.001
Arousal	3.8	4.6	0.030
Orgasm	3.7	4.5	0,010
Lubrication	4.3	4.5	0.135
Pain	4	4.4	0.179
Global satisfaction	3.3	5	0.020

In male patients when compared to age-matched control pairs, the only parameter that was significantly affected was erection with a p value 0,01 (**Table 4**).

Table 4. Age-matched comparison of IBD patients and healthy controls for IIEF.

IIEF	IBD patients (Median score)	Healthy controls (Median score)	p-value
Sexual desire	7	8	0,845
Orgasm	8	9;8	0,432
Erection	22	25	0,010
Satisfaction	15	18	0,070

3.3. Factors Associated with SD or ED in IBD Patients

In the univariate analysis, the presence of sexual dysfunction was significantly correlated with disease activity, female sex, the presence of stomas, anoperinal manifestations , and anxiety-depressive disorders ($p = 0.01$, $p = 0.02$, $p = 0,01$, $p = 0,02$ and $p = 0,04$) (**Table 5**).

Table 5. Factors Associated with SD or ED in IBD Patients.

	Sexual dysfunction %	No sexual dysfunction %	p-value
Gender			
Women	51	49	0,020
Men	15	85	
Active disease	73	27	0,018
Stomia	66	34	0,010
Ano-perineal manifestations	54	46	0,023
Anxiety and depression	66	34	0,047

4. Discussion

Sexual dysfunction (SD) in patients with inflammatory bowel disease (IBD) is frequently overlooked by healthcare providers, with insufficient attention given to this aspect of patient care. Various factors, including social and religious beliefs, make it challenging to discuss sexual health openly with patients. As a result, SD has become a “blind spot” in the medical field, despite its significant impact on both the physical and mental well-being of patients. In some cases, SD can exacerbate psychosomatic disorders, complicating the management of IBD and severely diminishing the quality of life for many individuals affected by the disease [9] [10].

Our study revealed that 50 % of female IBD patients and 15 % of male IBD patients experienced sexual dysfunction (SD) and erectile dysfunction (ED), respectively, with both rates being notably higher than those observed in the control groups. These findings suggest that individuals with IBD are more vulnerable to SD compared to healthy individuals. Previous studies have reported SD prevalence ranging from 40% to 71% in female IBD patients and 30% to 55% in male IBD patients [9]-[14]. An interesting observation was the high prevalence of SD among female IBD patients with active disease. While the exact cause remains unclear, we propose that women may be more prone to abdominal pain, diarrhea, and other discomforts associated with active disease, which could contribute to the higher prevalence of SD in this group [12].

We found no association between IBD subtype and sexual dysfunction (SD). However, patients with active disease were more likely to experience SD compared to those in remission. Additionally, our study showed that IBD had the most significant impact on female sexual desire, arousal, orgasm, and satisfaction. Previous studies have identified IBD disease activity as a risk factor for SD [12] [13], which aligns with our findings. Increased disease activity often results in reduced libido, particularly in female patients. Active patients tend to experience more lubrication issues and dyspareunia. Concerns about discomfort, such as abdominal pain and diarrhea, can cause pelvic floor muscle tension, potentially leading to pain-

ful intercourse and lubrication difficulties due to fear of pain [12] [13]. A key finding in our study was that perianal disease (especially active PD) was an independent risk factor for SD. Moody *et al.* reported that Crohn's disease (CD) patients, especially those with anal fistulas, are more likely to experience dyspareunia or even a complete lack of sexual activity [15]. Kappelman *et al.* observed low sexual desire and satisfaction in patients with active perirectal disease [16]. Horst *et al.* analyzed perianal disease in IBD patients treated with both medication and surgery, finding that 65% of patients had moderate to severe SD at baseline, with only 11% reporting moderate SD after 48 weeks of treatment. These findings suggest that active perianal disease can impair sexual function in IBD, and that treatment may help alleviate SD [17].

In male patients, the only parameter that was significantly affected was erection.

Our study also identified anxiety and depression as independent risk factors for sexual dysfunction (SD) in women and erectile dysfunction (ED) in men. Given the physical and psychological distress associated with IBD, anxiety and depressive symptoms are more prevalent in these patients, with anxiety being particularly common among women [11]. Previous research has also linked anxiety [6] [10] and depression [11]-[13] to SD in IBD patients, which aligns with our findings.

Additionally, our study found no correlation between IBD-related surgical history and SD. This lack of association may be attributed to variations in surgical techniques, the expertise of the operating team, and differences in postoperative recovery, all of which can influence the impact of surgery on sexual function. Similarly, we did not find any link between IBD-related medications and SD. A survey conducted in Australia among 347 IBD patients revealed that over 60% of respondents were unconcerned about the potential impact of medications on their libido or sexual activity frequency. However, a small subset of patients (9.7%) reported deliberately avoiding medication due to concerns about its negative effects on sexual function [18]. These findings highlight the importance of patient education regarding medication use to improve adherence and dispel misconceptions.

Similarly, we did not find any link between IBD-related medications and SD. However, the number of patients receiving certain treatments (e.g., corticosteroids: n = 3 females, n = 2 males) was too small to draw meaningful conclusions. This is the first study conducted in Morocco assessing sexual dysfunction (SD) in women and erectile dysfunction (ED) in men with IBD. Given the potential influence of geographical and cultural factors, we believe this study provides valuable new perspectives in this field.

5. Conclusion

Sexual dysfunction is more common in patients with IBD than in the general population, affecting nearly one in two women and one in six men. Disease activity, female sex, the presence of stomas, anoperineal manifestations, and anxiety-de-

pressive disorders are independent risk factors for SD in IBD patients. Clinicians should assess the sexual function of IBD patients and provide appropriate treatment to enhance their quality of life. We strongly recommend systematically addressing this topic with patients as part of fostering a better doctor-patient relationship, allowing them to express their concerns and helping to break the long-standing taboo surrounding sexual health.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Mowat, C., *et al.* (2011) Inflammatory Bowel Disease in the UK: 2011. *Gut*, **60**, 591-606.
- [2] Kharraki, K., *et al.* (2020) Epidemiology of Inflammatory Bowel Disease in Morocco: A Retrospective Study. *Journal of Crohn's and Colitis*, **14**, 1220-1226.
- [3] Ben Amor, A., *et al.* (2015) The Increasing Incidence of Inflammatory Bowel Disease in the Maghreb Region. *World Journal of Gastroenterology*, **21**, 8693-8699.
- [4] Lazarus, R., *et al.* (2019) The Impact of Inflammatory Bowel Disease on Quality of Life: A Comparison between Patients with Crohn's Disease and Ulcerative Colitis. *Clinical Gastroenterology and Hepatology*, **17**, 1062-1069.
- [5] Peyrin-Biroulet, L., *et al.* (2017) The Quality of Life in Patients with Inflammatory Bowel Disease: A Comprehensive Review. *Alimentary Pharmacology & Therapeutics*, **46**, 495-510.
- [6] Levenstein, S., *et al.* (2000) Sexual Dysfunction in Women with Inflammatory Bowel Disease. *American Journal of Gastroenterology*, **95**, 1533-1539.
- [7] Szigethy, E., *et al.* (2010) Sexual Dysfunction in Men and Women with Inflammatory Bowel Disease. *Inflammatory Bowel Diseases*, **16**, 679-684.
- [8] Baumgart, D.C., *et al.* (2020) STRIDE II: An International Consensus on the Management of Inflammatory Bowel Disease. *The Lancet Gastroenterology & Hepatology*, **5**, 20-30.
- [9] Rivière, P., Zallot, C., Desobry, P., Sabaté, J.M., Vergniol, J., Zerbib, F., *et al.* (2017) Frequency of and Factors Associated with Sexual Dysfunction in Patients with Inflammatory Bowel Disease. *Journal of Crohn's and Colitis*, **11**, 1347-1352. <https://doi.org/10.1093/ecco-jcc/jjx100>
- [10] O'Toole, A., de Silva, P.S., Marc, L.G., Ulysse, C.A., Testa, M.A., Ting, A., *et al.* (2018) Sexual Dysfunction in Men with Inflammatory Bowel Disease: A New IBD-Specific Scale. *Inflammatory Bowel Diseases*, **24**, 310-316. <https://doi.org/10.1093/ibd/izx053>
- [11] Bel, L.G.J., Vollebregt, A.M., Van der Meulen-de Jong, A.E., Fidder, H.H., Ten Hove, W.R., Vliet-Vlieland, C.W., *et al.* (2015) Sexual Dysfunctions in Men and Women with Inflammatory Bowel Disease: The Influence of IBD-Related Clinical Factors and Depression on Sexual Function. *The Journal of Sexual Medicine*, **12**, 1557-1567. <https://doi.org/10.1111/jsm.12913>
- [12] Marín, L., Mañosa, M., Garcia-Planella, E., Gordillo, J., Zabana, Y., Cabré, E., *et al.* (2012) Sexual Function and Patients' Perceptions in Inflammatory Bowel Disease: A Case-Control Survey. *Journal of Gastroenterology*, **48**, 713-720. <https://doi.org/10.1007/s00535-012-0700-2>

- [13] Timmer, A., Bauer, A., Dignass, A. and Rogler, G. (2007) Sexual Function in Persons with Inflammatory Bowel Disease: A Survey with Matched Controls. *Clinical Gastroenterology and Hepatology*, **5**, 87-94. <https://doi.org/10.1016/j.cgh.2006.10.018>
- [14] Timmer, A., Bauer, A., Kemptner, D., Fürst, A. and Rogler, G. (2007) Determinants of Male Sexual Function in Inflammatory Bowel Disease: A Survey-Based Cross-Sectional Analysis in 280 Men. *Inflammatory Bowel Diseases*, **13**, 1236-1243. <https://doi.org/10.1002/ibd.20182>
- [15] Moody, G., Probert, C.S.J., Srivastava, E.M., Rhodes, J. and Mayberry, J.F. (1992) Sexual Dysfunction amongst Women with Crohn's Disease: A Hidden Problem. *Digestion*, **52**, 179-183. <https://doi.org/10.1159/000200951>
- [16] Kappelman, M., Sandler, R., Martin, C., Chen, W., Anton, K., Lewis, J., et al. (2012) An Update on the CCFA Partners Internet Cohort Study. *Inflammatory Bowel Diseases*, **18**, S44. <https://doi.org/10.1097/00054725-201212001-00104>
- [17] Horst, S.N., Wagnon, J.H., Paik, P., Armstrong, S., Duley, C., Beaulieu, D.B., et al. (2012) Mo1716 Significant Sexual Dysfunction in Patients with Perianal Crohn's Disease Improves with Multimodality Treatment. *Gastroenterology*, **142**, S-668. [https://doi.org/10.1016/s0016-5085\(12\)62571-2](https://doi.org/10.1016/s0016-5085(12)62571-2)
- [18] Bhasin, S., Singh, H., Targownik, L.E., Israeli, E. and Bernstein, C.N. (2016) Rates and Reasons for Nonuse of Prescription Medication for Inflammatory Bowel Disease in a Referral Clinic. *Inflammatory Bowel Diseases*, **22**, 919-924. <https://doi.org/10.1097/mib.0000000000000753>