

Sexual Dysfunction in Inflammatory Bowel Disease

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Abstract: Sexual health is a broad term that encompasses a variety of functions including sexual thoughts, desire, arousal, intercourse, orgasm, and the impact of body image. Sexual dysfunction in individuals with inflammatory bowel disease is multifactorial including the impact of psychosocial factors, disease activity, medical therapies, surgical interventions, body image perceptions and changes, hypogonadism, and pelvic floor disorders. Providers caring for patients with inflammatory bowel disease should be cognizant of these concerns and develop management plans and techniques for earlier diagnosis and treatment.

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Key Words: inflammatory bowel disease, sexual dysfunction, sexual health, erectile dysfunction, and dyspareunia

Sexuality can be defined as the capacity to have sexual experiences and responses and is composed of biological, emotional, and spiritual components. Although Freudian theory proposes a complex development of sexuality during childhood, interest in sexual activity typically emerges during puberty.¹ Normal sexual function is generally accepted to involve both physiological and psychological aspects. Physiologically speaking, sexual function relies on the appropriate effects of neurotransmitters and sex hormones and the appropriate operation of genital blood flow and pelvic floor muscular coordination. In terms of psychology, personal, contextual, and interpersonal factors play important roles.

Sexual dysfunction is an umbrella term that encompasses a variety of sexual concerns and can differ significantly in women and men. Sexual dysfunction is very common in the United States. The National Health and Social Life Survey found that 43% of women and 31% of men reported sexual dysfunction.^{2,3} This report was corroborated by a U.S. cross-sectional population-based study in 2008.⁴ Dysfunction can occur at any of the 3 phases of sexual response: desire, arousal, and orgasm. The frequency of reported low desire in women is approximately 20% to 30%, with half experiencing sexual distress related to low desire.⁵ The most commonly reported types of sexual dysfunction among women are low sexual desire and inability to reach orgasm.³ In men, the most

widely recognized disorders include erectile dysfunction (ED), diminished libido, and abnormal ejaculation.⁶ Predictors of sexual distress include increasing age, having a sexual partner, negative mental state, and poor physical health.⁷

Aging can result in a significant change in sexual function. Increasing age has been associated with a decreased interest in sex. Poor physical health is a factor in decreased interest. In men, the prevalence of ED and hypogonadism increases with age.⁸ In aging women, sexual dysfunction is associated with problems such as urogenital atrophy and worsening body image, as well as other psychosocial factors.⁹

Another important influence on sexual dysfunction is negative body image. Body image can be defined simplistically as how people perceive their own body. That definition, however, belies the complexity of the concept. One facet of body image is a person's evaluation of their physical appearance and function. The second aspect is the importance that person invests in physical appearance and function and the effort he or she is willing to make for improvement. The final part of body image is the emotional effect on the individual of their perception of their own body.¹⁰ Having a positive body image has clearly been shown to correlate with satisfactory sexual function. Body image can be affected by social, cultural, and situational stimuli.¹¹

Chronic medical problems can have a significant effect on sexual function. Up to 84% of women and 63% to 70% of men with chronic kidney disease, particularly those who require dialysis, report sexual dysfunction.^{12,13} The etiologic factors are thought to include hormonal disturbances related to anovulatory cycles, age, depression, and menopause.¹² Sexual dysfunction is also more common in patients with rheumatic diseases compared with the general population. From 31% to 76% of patients with rheumatoid arthritis reported sexual dysfunction in various studies.¹⁴ Although fatigue and pain are thought to be important causative factors in this population, many also report diminished sexual drive.¹⁵ Dyspareunia has been reported in 61% of women with Sjogren's syndrome and is also thought to play a significant role in sexual dysfunction in women with systemic sclerosis and

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systemic lupus erythematosus.^{16–18} A higher prevalence of ED has been reported in men with systemic lupus erythematosus and systemic sclerosis.^{19,20} Sexual dysfunction is also more prevalent in functional disorders like irritable bowel syndrome, namely decreased libido and dyspareunia.²¹ Depression and sleep disturbances, rather than increasing severity of gastrointestinal symptoms, correlated with a higher prevalence of sexual dysfunction.²²

SEXUAL HEALTH AND INFLAMMATORY BOWEL DISEASE

The literature regarding sexual health and inflammatory bowel disease (IBD) is limited. Several survey studies published to date have reported that 40% to 66% of women and up to 44% of men with IBD report difficulties with some aspect of sex.^{23–25} An Internet survey of over 12,000 patients with IBD found that 80% of patients experienced sexual dissatisfaction, one-third of which reported moderate-to-severe dissatisfaction. Decreased sexual health has been attributed to the diagnosis of IBD in survey studies with females reporting a greater negative impact than males.^{25,26} Both validated scoring systems and subjective measures in the form of questionnaires have been used to identify the specific sexual concerns of patients with IBD impacted by their disease, including but not limited to erectile and orgasmic function, sexual desire, sexual satisfaction, and body image.

A greater proportion of women with IBD expressed concerns about having children, attractiveness, feelings about their body, and feeling alone.²⁷ Similarly, Maunder et al²⁷ found that concerns about sexual performance and intimacy were more prominent among women with Crohn's disease (CD) compared with their male counterparts ($P < 0.001$); a similar pattern was not found in ulcerative colitis (UC). This study conflicts with a study from the last 1980s, which found no difference in body image concerns between CD and UC.²⁸ Recent reports support the notion that males have better self-reported sexual health than females.²⁹ These results suggest that gender and IBD type do play a role in sexual health.

IMPACT OF PSYCHOLOGICAL FACTORS AND DISEASE ACTIVITY ON SEXUAL HEALTH

Increased disease activity and depression seem to be key predictors of impaired sexual function in patients with IBD. Individuals with IBD sometimes have daily reminders of their disease by the way of their symptoms. These include abdominal and/or perianal pain, diarrhea, flatulence, food intolerances, and the fear of fecal incontinence. The fear of these private physiologic functions becoming publically intensified can exaggerate depression and anxiety. Consequently, social engagements such as dating and interpersonal interactions may suffer.

Psychological Considerations

The prevalence of psychiatric diagnosis such as depression and anxiety in IBD is high.³⁰ The lifetime prevalence of major depression in IBD is reported to be 30%.³¹ IBD-related surgery

has been associated with a 16% and 11% risk of depression in CD and UC, respectively, at 5 years in those without a preexisting psychiatric diagnosis.³² Similar rates of anxiety were found. There have been a number of studies done to assess the impact of psychological factors on sexual function in patients with IBD; however, many of these studies have lacked a control group, were retrospective in nature, were comprised primarily of referral patients, used differing assessment tools (both valid and invalid) (Table 1), and were of limited sample size. Timmer et al conducted a survey to examine sexual function in German women with IBD. They found that patients with IBD with depression experienced low sexual desire, receptivity, pleasure and orgasm, and intercourse frequency, whereas those with anxiety reported decreased intercourse frequency (odds ratio, 2.7–4.8).³³ Another study replicated the association between sexual function and depression in both men and women²⁴ and suggested that the effect of depression on sexual health may be limited to sexual satisfaction in men.³⁴ Interestingly, Marin et al²⁵ found that men were more likely to attribute intimacy issues to psychological effects (i.e., depression, disability, risk of surgery), whereas women attributed difficulty with intimacy to disease-related symptoms. Symptoms of depression have been identified in men with ED,³⁵ and ED has been associated with IBD disease activity.³⁴

Disease-related Considerations

Sexual dysfunction has been associated with increased disease activity. Active symptoms can result in decreased sexual interest secondary to fatigue, concerns about body image and intimacy, and pain. Using a validated ED scoring system, and

TABLE 1. Indices Used for Assessment of Sexual Function

International Index of Erectile Dysfunction	15-item questionnaire validated in males
	Erectile function, orgasmic function, sexual desire, sexual satisfaction, overall satisfaction
Brief Index of Sexual Functioning in Women	Thoughts/desire, receptivity/initiation, pleasure/orgasm, relationship satisfaction, problems affecting sexual function, frequency of intercourse
Rating Form of IBD Patient Concerns	25-item questionnaire ranks intensity of IBD disease-related concerns by sex
Female Sexual Function Index	19-item questionnaire validated in females
	Desire, arousal, lubrication, orgasm, satisfaction, and pain
Sexual Function Questionnaire	34-item questionnaire validated in females
	Desire, enjoyment, sensation, lubrication, pain, and orgasm
Body Image Index Scale	10-item questionnaire
	Affective, behavioral, and cognitive items

a cancer-specific sexual function questionnaire, Timmer et al found that ED and sexual attractiveness (feeling masculine and attractive) were influenced by disease activity. In addition, the level of sexual activity was low, with only 36% of men reporting “a lot” or “quite a bit” of sexual activity in the preceding 4 weeks. Sixty-seven percent of patients reported moderate-to-high disease activity; 44% of these patients reported no sexual life at all or felt severely compromised.³⁴ Validated disease activity scores have also been used by Kappelman et al²⁹ to show a negative impact of disease activity on sexual interest and satisfaction. Conversely, men with IBD in remission or with mild disease activity had erectile function scores that were similar to controls.²⁴ Similarly, women with IBD seem to have lower sexual health scores attributed to greater disease activity. Timmer et al found that disease activity was strongly negatively associated with intercourse frequency and sexual desire. Moreover, steroid use was associated with both low pleasure and orgasm scores. Active smokers comprised 30% of the participants in this study; smoking was a strong predictor of insufficient lubrication.³³

The complications of IBD can also have a deleterious effect on sexual activity. The majority of patients will develop stricturing or penetrating CD in their lifetime and as such 70% will undergo at least 1 abdominal surgery within 15 years from the time of diagnosis.³⁶ During the perioperative period, sexual function may be greatly affected secondary to abdominal pain, nausea, emesis, fever, fatigue, and enterocutaneous fistula. Sexual function can also be severely limited in the postoperative period by pain and wound healing if complications from surgery occur. Dyspareunia is also common after pelvic surgery. Other complications of IBD can negatively impact sexual function including perianal disease, extraintestinal manifestations, surgical scars, and medication side effects (i.e., moon facies, hirsutism, weight gain, striae, irritability, etc.).

Active perianal disease has been associated with decreased sexual function by affecting sexual desire and body image. Kappelman et al found lower levels of sexual interest and satisfaction in their cohort of patients with active perirectal disease (Kappelman abstract). Horst et al performed a post hoc analysis of patients with IBD with perianal disease treated with combined medical (combined azathioprine, 6-mercaptopurine, biological, and antibiotics) and surgical (seton placement) treatment. Sixty-five patients had moderate to severe restriction of sexual activity at baseline. After 48 weeks of treatment, only 10% reported moderate sexual dysfunction.³⁷ These results suggest that optimal treatment with resultant healing of perianal disease can reverse sexual dysfunction caused by active disease.

Body image is an important component of sexual health and desire. An individual's body image can be altered by both disease-specific and treatment-related changes. Delayed maturation in children and adolescents, abdominal and perianal fistulas, surgical sequela (scars and stomas), and changes in skin integrity (i.e., from nutritional deficiencies, weight fluctuations, and medication side effects) can result in body image concerns. Extraintestinal manifestations of IBD can affect virtually every organ

system of the body and occur in up to 40% of patients.³⁸ Skin findings such as pyoderma gangrenosum and erythema nodosum occur in 2% to 34% of patients and can cause painful and sometimes difficult to heal rashes.³⁹ Corticosteroid side effects such as acne, hirsutism, mood changes, and weight gain combined with cushingoid appearance can be especially compromising for a young patient in early stages of intimacy. Musculoskeletal pain and disease-related joint deformities are common manifestations of IBD causing both chronic and flare-related alterations in overall well being.

IMPACT OF SURGERY ON SEXUAL HEALTH

Sexual function after surgery is a concern of many patients but one that is infrequently addressed by gastroenterologists and surgeons. Sexual activity in the immediate postoperative period can be impacted by postoperative pain, feelings of unattractiveness from scars and wound healing, concern regarding presence and function of stoma appliance, or dyspareunia associated with pelvic surgery.

Surgery can cause sexual dysfunction in both men and women (Table 2). Surgery can impact sexual function by affecting the rich network of autonomic and somatic nerves that feed the female and male genitalia. Pelvic dissection can injure the sympathetic and parasympathetic nerves⁵⁵ or distort pelvic anatomy resulting in changes to sexual response. Sympathetic nerve injury results in decreased vaginal lubrication, whereas parasympathetic injury can affect erectile function. Decreased vaginal lubrication can result in dyspareunia. The rates of dyspareunia in patients after restorative proctocolectomy (RPC) are as high as 38%.⁵⁶ Profuse vaginal discharge, decreased vaginal proprioception, and fecal leakage during intercourse have also been reported.^{41,56} Postoperative impotence and retrograde ejaculation was reported in 3% of men after RPC from a large Ileal Pouch Registry from the Mayo Clinic. Based on the reported higher rates of sexual complaints in women, it is not surprising that women experienced higher rates of sexual dysfunction after RPC than men. In fact, sexual function actually slightly worsened after RPC in women (sexual dysfunction 8% preoperatively versus 11% postoperatively).⁴⁵

Despite the presence of such postoperative physiologic changes, published reports of improved quality of life and sexual function and satisfaction after surgery exist.^{54,57} Metcalf et al surveyed 100 female patients with UC and polyposis coli and found improved sexual function related to overall better health. Moreover, individuals with ileal pouch-anal anastomosis had lower rates of dyspareunia compared with individuals with a continent ileostomy.⁴⁰ Whether a gender difference exists in sexual function postoperatively is unclear. Timmer et al found no difference in sexual activity in men perioperatively, whereas women reported a decrease in sexual activity after surgery (84% preoperative versus 56% postoperative, $P < 0.0005$).²⁶ Age-related changes in sexual function have also been reported in patients after RPC. Restriction in sexual activities has been reported in 20% of patients aged 65 years and older who undergo RPC.^{50,58} In

TABLE 2. Summary of Sexual Function Outcomes in UC Patients After Surgery

Author	Participants	Type of Surgery	Sexual Function Outcomes
Metcalf et al ⁴⁰	100 F (UC and polyposis coli)	Koch and IPAA	Dyspareunia in 38% Koch and 18% IPAA Sexual function increased—attributed to general better health
Oresland et al ⁴¹	100 F/M	RPC (J- and S-shaped pouch)	Dyspareunia and/or leaks during intercourse occurred in about 30% Male sexual disturbances occurred in 8% (erectile problems and one loss of ejaculation)
Counihan et al ⁴²	100 F/M	IPAA	27% had “persistent” dyspareunia
Bambrick et al ⁴³	92 F	RPC	Increase in dyspareunia and decrease of sexual activity due to concern of stool leakage No change in other sexual parameters including satisfaction
Tiainen et al ⁴⁴	95 F/M	IPAA	Dyspareunia increased 11% to >22% Retrograde ejaculation in 2.3% and ED in 14.6% Sexual satisfaction improved
Farouk et al ⁴⁵	1386 F/M	IPAA	Sexual function: 16% abstinent and 20% decreased pre; >25% improved, 56% no affect post 3% had severe restrictions 10 yr after IPAA Dyspareunia in 8% early and 11% late; fecal leakage during intercourse in 3% of women Retrograde or no ejaculation was reported by 3%
Berndtsson et al ⁴⁶	43 F/M	Colectomy and ileostomy	Dyspareunia in 36% Loss of ejaculation in 11% Satisfaction in 54% pre; >78% post
Cornish et al ⁴⁷ : systematic review	419 F	RPC	Dysfunction: 8% pre or 25% post
Larson et al ⁴⁸	125 F/M	IPAA	Orgasms lower in men Post
Ogilvie et al ⁴⁹	90 F	IPAA	47% had low FSFI post related to leakage
Davies et al ⁵⁰	59 F/M	IPAA	IIEF unchanged/female sexual function—improved at 12 mo post
Bengtsson et al ⁵¹	108 F/M (UC pouch versus pouch failure)	IPAA	Inferior body image in group w/pouch failure No difference in sexual function using FSFI and IIEF No difference in FSFI scores between groups
Cornish et al ⁵²	109 F (UC versus non-RPC IBD controls)	RPC	
De Zeeuw et al ⁵³ : systematic review	13 studies included (UC and FAP)	IPAA	Pooled incidence of sexual dysfunction was 3% post
Kuruvilla et al ⁵⁴	59 F/M	IPAA/ileostomy	IPAA had better sexuality/body image scores versus ileostomy ($P < 0.001$)

RPC, restorative proctocolectomy; IPAA, ileal pouch anal anastomosis; IIEF, international index of erectile function; FSFI, female sexual function index.

individuals whose sexual activities was not restricted at 5 years after ileal pouch-anal anastomosis, mild restriction was reported in 16% and 17% and severe restriction in 2% and 4% at 10 and 15 years, respectively. Differences in older patients may be related to non-IBD and non-surgical changes in sexual function related to aging rather than the surgery itself.

Adverse changes in urinary and fecal function do not appear to be a major determinant of overall sexual function in patients undergoing RPC.⁵² Cornish et al found overall unchanged

sexual function despite increased urinary and fecal frequency and incontinence/seepage episodes in patients with UC after RPC. A systematic review of 7 studies considered that despite a number of negative effects of RPC on sexual function, overall sexual satisfaction was not impacted as a result of increased libido from overall improvement in health.⁴⁷ In addition, some negative effects of RPC may be treated medically. Lindsey et al⁵⁹ found that sildenafil completely reverses or improves postproctectomy ED in 79% of patients.

Patients with IBD with stomas face a unique challenge of having to manage an external appliance during sexual intercourse. These patients often perceive themselves as less attractive and less desirable. Also, stomas often report concerns regarding odor, gas, and leakage from the appliance that can negatively influence sexual desire. Carlsson et al⁶⁰ found that having an ileostomy resulted in concerns regarding intimacy, energy level, loss of sexual drive, ostomy odors, being a burden on others, sexual performance, attractiveness and body image. Clearly, this population of patients with IBD most certainly requires special attention and support in discussing sexual health.

IMPACT OF MEDICAL THERAPY ON SEXUAL HEALTH

The direct impact of IBD medications on sexual health is unclear as the literature regarding this issue is limited (Table 3). A survey of 347 patients with IBD in Australia found that over 60% of respondents did not express concerns regarding the impact of medications on libido or frequency of sexual activity. However, a small subgroup (9.7%) purposefully withheld medications due to a perceived notion of its negative effects on sexual function.²⁶ There are currently no published data regarding the direct impact of tumor necrosis factor- α antagonists on sexual function.⁶¹ Limited literature regarding the impact of immunosuppressive therapy on sexual function is mainly extracted from the organ transplant literature.^{62,63} The rate of sexual dysfunction reported in survey studies of organ transplant recipients is relatively high. Ho et al found an increased rate of sexual dysfunction in liver transplant recipients posttransplant (24 pretransplant versus 47% posttransplant). Thirty-six percent of the respondents believed that medications were the main factor contributing to their sexual dysfunction after liver transplantation, followed by liver disease (33%) and depression (10%). Inability to reach an orgasm, dyspareunia (40%), and ED were the most commonly reported concerns. Despite these complaints, a majority of patients were satisfied with their sex life.⁶³ A small study of cardiac transplant patients found no difference in the rate of ED in men who received azathioprine or corticosteroids after transplant.

Non-IBD medications, namely certain antihypertensives have been associated with decreased sexual desire.²⁴ Diuretics and

beta blockers have been associated with decreased libido and orgasmic response.^{64,65} Commonly prescribed opiates and antidepressants have also been associated with negative side effects on sexual health. Specifically, selective serotonin reuptake inhibitors can cause erectile and ejaculatory dysfunction and arousal and orgasmic disorders.⁶⁶ A meta-analysis revealed that sexual dysfunction occurred in 25% to 80% of individuals taking a variety of antidepressant agents, with the highest rates found for citalopram, fluoxetine, paroxetine, sertraline, and venlafaxine. Men had significantly higher rates of problems with desire and achieving an orgasm whereas women had higher rates of problems with arousal.⁶⁷ Similarly, opiates have been associated with ED. Studies have found high rates of ED while receiving methadone maintenance therapy.^{68,69}

SPECIAL CONSIDERATIONS

Hypogonadism

Hypogonadism can occur in individuals with IBD as a result of chronic inflammation and secondary factors such as medications. Pediatric studies have demonstrated that proinflammatory cytokines can affect sex steroid production at the level of the testes and the ovaries, thereby affecting normal growth. Tumor necrosis factor- α and interleukins 1 and 6 are known to inhibit testosterone production of Leydig cells and steroidogenesis of ovarian cells.⁷⁰

It has been reported that high-dose opiate use may cause secondary hypogonadism by effecting plasma testosterone.⁶⁹ Opioids interfere with the release of adrenal androgens such as dehydroepiandrosterone (DHEA). One study found low DHEA blood levels in 67% of chronic opioid users compared with only 8% of those who used opioids rarely ($P < 0.001$). Severe deficiency in DHEA was associated with fatigue, depression, weakness, and sexual dysfunction.⁷¹

Commonly reported symptoms of hypogonadism include but are not limited to sexual dysfunction, amenorrhea, menstrual irregularities, fatigue, decreased libido, hot flashes, and/or infertility. Standardized questionnaires have been developed for the sole purpose of detecting these adverse effects (Table 1).⁷² In a published review, Brennan recommends that patients on chronic opioids equivalent to ≥ 100 mg of morphine daily should be tested for hypogonadism. Laboratory evidence of opioid-induced hypogonadism includes decreased total and free testosterone, sex hormone-binding globulin, luteinizing hormone, and estradiol (women), and decreased DHEA (preferred over testosterone levels for women). Chronic opioid use has also been linked with increased fracture risk; therefore, bone mineral density testing may be used as a surrogate marker for hypogonadism.⁷³ It is not clear if hypogonadism should be screened for in patients with active IBD as treatment of the underlying disease activity should reverse the hypogonadism. If symptoms and signs of hypogonadism persist after treatment of active disease, disease restaging followed by evaluation for endocrinopathies should be performed.

TABLE 3. IBD and Non-IBD Medications Commonly Associated with Sexual Dysfunction

Antihypertensives
Beta blockers
Diuretics
Narcotics
Selective serotonin reuptake inhibitors
Glucocorticoids
Immunosuppressive agents

Male Pelvic Disorders

Male pelvic disorders may impact sexual health. ED before and after radiation therapy or radical prostatectomy for prostate cancer is common, with upward of 70% of men reporting sexual dysfunction. Neurovascular injury at the time of treatment is believed to be the cause. Hypogonadism has also been reported in more than 20% of men after surgery and can be worsened by androgen deprivation therapy. Penile rehabilitation and penile prosthesis have been used with good outcomes.⁷⁴

The good news is that the risk of cancer of male organs was not increased in a large Danish cohort of patients with IBD compared with the general population (0.81 [0.22–2.06]).⁷⁵ However, prostate cancer can certainly occur in patients with IBD; therefore, regular age appropriate screening should be recommended. The American Cancer Society recommends annual prostate-specific antigen blood test with or without digital rectal examination at age 50 for men who are at average risk of prostate cancer. Screening should take place at age 45 in African Americans or in those with a family history of a first-degree relative with prostate cancer at an early age (American Cancer Society, 2014).

Female Pelvic Disorders

Similar to men, female pelvic disorders and gynecologic malignancies can negatively impact sexual health. The incidence of altered sexuality in cancer survivors is high and can be long lasting.⁷⁶ Women undergoing treatment for cancer, particularly gynecologic and breast cancer can experience sexual dysfunction. Sexual dysfunction in this setting can occur as a result of premature ovarian failure related to chemotherapy, reactive depression, and body image changes.⁷⁷ The surgical effect of oophorectomy

and hysterectomy for both cancer and non-cancer related reasons, and its impact on hormonal changes and sexual dysfunction has been well established. Importantly, the risk of cancers involving female organs seems not to be increased in patients with IBD (1.21 [0.39–2.81]). However, cervical dysplasia including carcinoma in situ is increased (1.65 [1.10–2.37]), particularly in patients diagnosed with CD at age 0 to 19 years (standardized incidence ratio [SIR], 2.52; 95% confidence interval [CI], 1.26–4.51), smokers (SIR, 2.15; 95% CI, 1.27–3.40), and in patients treated with 5-ASA (SIR, 1.69; 95% CI, 1.08–2.51) or thiopurines (SIR, 2.47; 95% CI, 1.54–3.73).⁷⁵ The relationship between IBD and human papilloma virus-related cervical dysplasia on this risk is still debated.⁷⁸ Although the risk of pelvic cancers such as endometrial and ovarian cancers is not increased in IBD, appropriate monitoring and evaluation of unexpected symptoms such as vaginal bleeding is important. These symptoms should be brought to the attention of the patient's gynecologist.

Pelvic floor disorders can cause or contribute to sexual dysfunction. Pelvic floor symptoms include urinary incontinence, fecal incontinence, and pelvic organ prolapse. The National Institutes of Health Prevention National Health and Nutrition Examination Survey found that the prevalence of at least 1 pelvic floor disorder was 23.7% in U.S. women, with 9.0% experiencing fecal incontinence, and 2.9% experiencing pelvic organ prolapse.⁷⁹ In the general population, pelvic floor symptoms are associated with sexual inactivity especially in patients of older age.⁸⁰

CONCLUSIONS

Sexual health involves both emotional and physical wellness. Sexual health is a broad term that encompasses a variety of

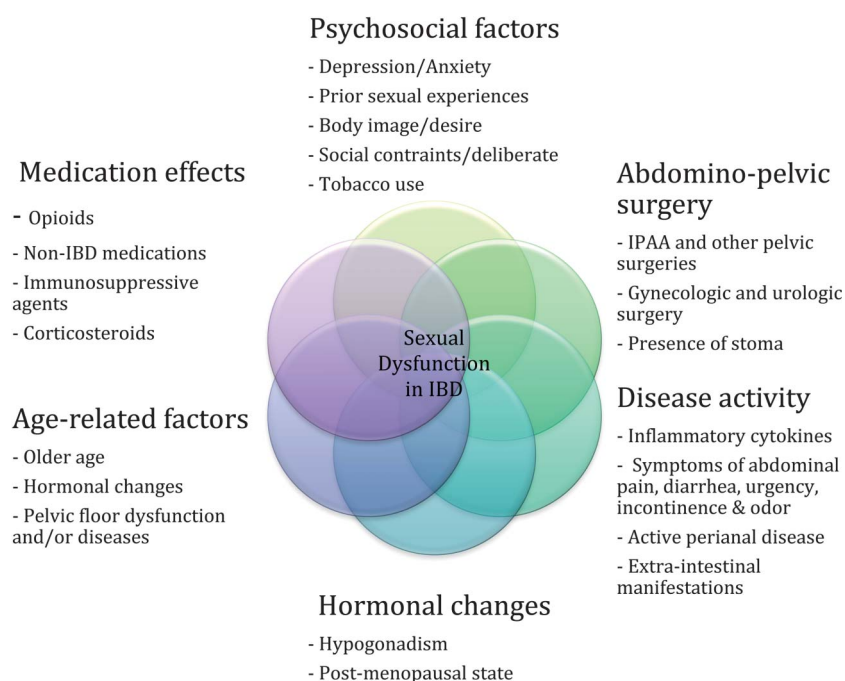
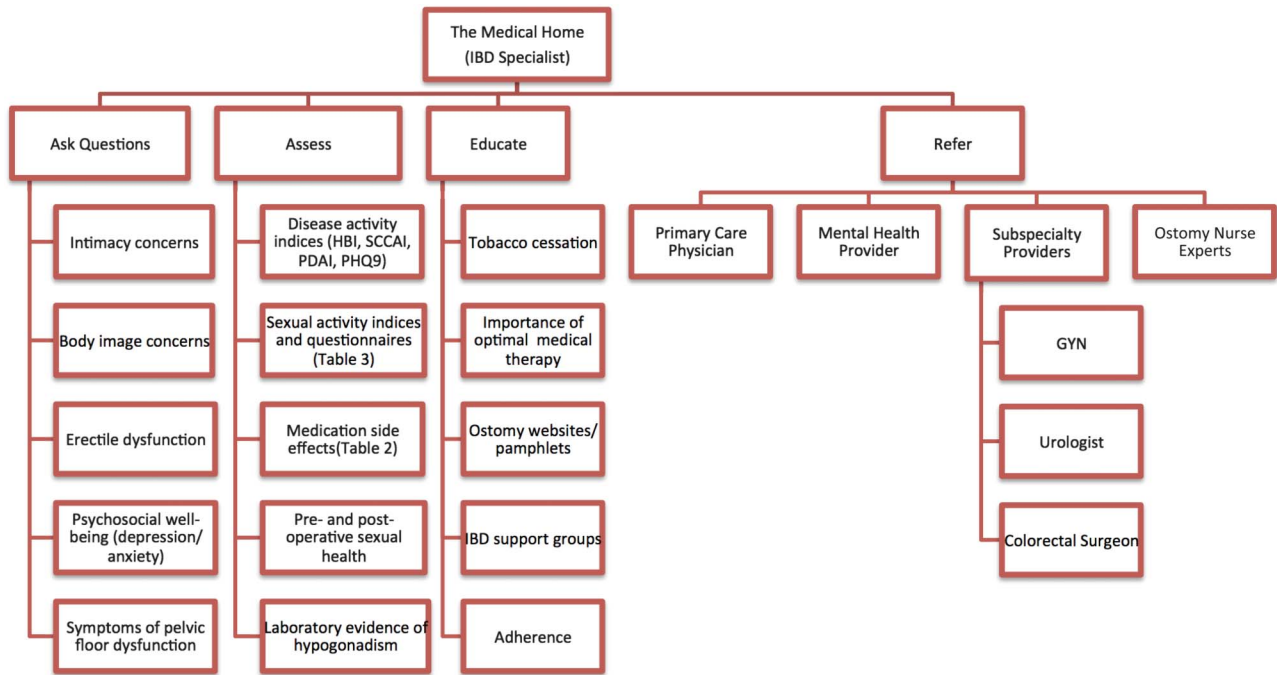


FIGURE 1. Multifactorial etiology of sexual dysfunction in IBD.



HBI - Harvey Bradshaw Index; SCCAI - Simple Clinical Colitis Activity Index
 PDAI - Perianal Disease Activity Index; PHQ-9 - Patient Health Questionnaire

FIGURE 2. Guidelines for the management of sexual dysfunction in patients with IBD.

functions including sexual thoughts, desire, arousal, intercourse, and orgasm. Sexual function in patients with IBD can be negatively affected by a variety of factors including psychosocial factors, disease activity, medical therapies, surgical interventions, body image perceptions/changes, hypogonadism, and pelvic floor disorders (Fig. 1).

In patients with stomas, identifying patient concerns by using sexual health-related questionnaires, and early referral for counseling and education may help to improve perceptions and experiences so that patients are better prepared to cope and adjust to life with a stoma. Resources are available to assist patients in coping with sexual health concerns related to their ostomy. The United Ostomy Association of America offers a guidebook entitled “Intimacy after Ostomy Surgery Guide” and several web-based fact sheets including “Sex and the Male Ostomate,” “Sex and the Female Ostomate,” and “Sex and the Single Ostomate.” Local ostomy nurse experts can also direct patients to support groups and provide guidance for purchasing appropriate ostomy supplies to alleviate the technical aspects of intercourse.

A discussion of sexual health can be challenging for both the patient and the provider. Providers may feel uncomfortable initiating a discussion regarding sex and intimacy as they may not feel properly trained to interview, counsel, or treat patients with sexual dysfunction. In addition, providers may have significant time constraints that limit their ability to discuss topics like sexual function. Although some patients may be wary of discussing intimacy with their gastroenterologist, we suspect that most

patients want their gastroenterologist to ask about sexual function as he or she often serves as the “medical home” for their care (Fig. 2). In fact, some patients may be disappointed when the gastroenterologist does not discuss sexual function during the office visit. This is supported by a study by Marin et al²⁵ which found that 64% of women and close to half of men surveyed in their study wanted information regarding the impact of IBD on intimacy and sexuality at the time of diagnosis, majority of whom believed this responsibility is suitable for the IBD specialist. It is important that specialists caring for IBD are aware of the possibility of sexual dysfunction concerns in their patients and initiate a discussion of sexual health in a timely manner, including but not limited to the baseline visit and before surgery. It is likely that a multidisciplinary approach among the providers involved in the care of patients with IBD (primary care physician, gastroenterologist, surgeon, urologist, and gynecologist) will be needed to formulate a management plan for evaluation and treatment. Moreover, ongoing studies may help to better characterize and to confirm the degree of and factors associated with sexual dysfunction in IBD. Long term, it seems likely that gastroenterologist will require additional training in the form of didactic lecture, workshops, and other settings to learn how to evaluate and treat patients with sexual dysfunction.

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