CHAPTER 19

Sexual Pain Disorders – Male and Female

Melissa A. Farmer[1,2,3], Seth Davis[2] and Yitzchak M. Binik[3]

[1]Feinberg School of Medicine, Northwestern University, Chicago, IL, USA
[2]University of Toronto, Toronto, ON, Canada
[3]Department of Psychology, Alan Edwards Centre for Research on Pain, McGill University, QC, Canada

OVERVIEW

- Genito-pelvic pain, which interferes with sexual and non-sexual activities, represents a spectrum of pain conditions
- Genito-pelvic pain impairs sexual functioning by driving negative cognitive/emotional responses and interpersonal conflict
- The multidisciplinary management of genito-pelvic pain is a realistic goal, whereas a focus on 'curing' the pain is unhelpful for physicians and patients
- Unhelpful cognitive/emotional coping strategies require reframing to enhance a patient's ability to adapt to pain
- Comorbid sexual dysfunction can be caused by physiological, psychological and interpersonal factors.

Introduction

The conceptualization of sexual pain has evolved rapidly over the past decade. Pain that was once attributed to sexual neuroses has been accepted as a multifaceted clinical reality that affects between 8 and 15% of women and 5–18% of men. The symptoms that characterize the so-called sexual pain disorders are not restricted to sexual interactions, and this rationale underlies the ongoing efforts to establish these conditions as pain syndromes, rather than variants of sexual dysfunction. Before the release of DSM-5, sexual pain disorders included dyspareunia (pain during sexual intercourse or genital contact in men and women) and vaginismus (fear and avoidance of genital penetration, with possibility of vaginal muscle spasms in women). These disorders have been replaced by genito-pelvic pain/penetration disorder (GPPPD), which captures the clinically significant and frequently comorbid symptoms of genital pain, fear/anxiety (as well as behavioural avoidance) of sexual intercourse, and pelvic floor muscle tension. Importantly, the characterization of GPPPD is expected to simplify the assessment process and provide more straightforward directives regarding treatment strategies (e.g. focusing on psychological factors, pelvic floor muscle function and/or urogynaecological disturbances). This constellation of symptoms is supported by psychological theories of pain as an experience that perpetuates fear/anxiety of future pain and generates muscle tension near painful regions of the body, thereby reinforcing avoidance of pain-provoking activities, such as sexual intercourse.

Whereas GPPPD can manifest in non-sexual situations (e.g. sitting, walking, bicycle riding, during urination), it can also cause debilitating effects on an individual's sexual life. GPPPD is the only sexual dysfunction that can be 'inflicted' by one's intimate partner, and as a result, genito-pelvic pain can facilitate devastating negative sexual self-appraisals ('I am not a real woman if I cannot have sex without pain'), as well as aversive interpersonal experiences between the sufferer and partner. However, these negative sexual effects are highly dependent on the unique pattern of genito-pelvic pain, an individual's awareness of how the body and mind react to pain, as well as the couple's response to the pain.

Pain history

Considering the heterogeneous nature of pelvic pain, the pain interview is an important tool to establish a clear understanding of the pain being presented (Table 19.1). The pain interview can provide critical information to understand the diagnostic category, potential underlying mechanisms, precipitating and maintaining factors and consequences of pain, thus providing a guideline for multidisciplinary treatment. The pain interview is also a unique opportunity to understand the cognitive and behavioural factors that may maintain or exacerbate pain.

Although many genito-pelvic pain syndromes share underlying features, the European Association of Urology has described potentially distinct pain subtypes based on the affected organ(s). Even when a specific pain syndrome is clinically definable, the clinician should be aware of, and assess, the various different systems that likely contribute to the pain experience (refer to Table 19.2).

When assessing the temporal aspects of pain, it is tempting to try to define a precipitating factor or event that caused the pain. Even if a specific event does exist, the patient may not be able to identify it, and the causal factors that initiated pain may not be the most important ones that continue to maintain the pain.

The character (quality) and location of pain may provide important clues as to the underlying mechanism(s); however, it is important to be aware that pain may radiate from another location. For instance, bladder pain may elicit perineal sensitivity to

ABC of Sexual Health, Third Edition. Edited by Kevan Wylie.

Table 19.1 An approach to the pain history

Temporal questions

1. Time since pain began?
2. At what age did pain begin?
3. Frequency of pain?
4. Pain pattern (cyclic, constant, provoked, spontaneous)?
5. Length of pain symptoms?

Pain character/quality

1. Intensity (0–10 scale)?
2. Pain location?
3. Pain radiation?
4. Pain quality?
5. Other accompanying symptoms?

Pain causes

1. Pain triggers?
2. Provoked or idiopathic?
3. Percentage of pain occurrence with provoking activities?
4. Aggravating/relieving factors?
5. Past surgery or trauma to area?
6. For women, use of hormonal birth control, parity?

Consequences of pain

1. Interference with daily life?
2. Interference with relationship/sexual health?
3. Behavioural response to pain?
4. Medication use?

Psychosocial aspects of pain

1. Sexually active?
2. Sexual dysfunction secondary to pain?
3. Anxiety/catastrophizing/depression about pain?
4. Current or past sexual abuse?

touch and pressure. Triggers of pain, such as movement, urination or vaginal penetration, may also provide useful information. However, for many patients, pain is idiopathic or preceding factors may be difficult to identify. In this case, the pain diary may be of particular use.

Finally, the pain interview is the optimal method for understanding the inter-relationship between pain, psychological factors and sexual functioning. It is essential to assess how the individual interprets pain (e.g. it may elicit fear of further injury or trauma), as well as the behaviours the patient engages in to cope with the pain. If the pain is associated with sex, or if comorbid sexual dysfunction is present, it is important to understand the temporal relationship between sexual activity and pain, both during specific sexual encounters, as well as historically. If the patient is in a relationship, the partner's response to pain, as well as the impact of pain on the dyadic relationship, should be assessed. Finally, a history of sexual abuse should be assessed, although positive findings should be used as part of the psychosocial profile, and not as a causal factor.

Physical examination

The initial goal of the pain assessment should be to evaluate whether there is an ongoing disease process that may better explain the pain (refer to pain assessment algorithm in Figure 19.1). There is often a fear shared by many patients that pain may indicate a more nefarious underlying disease process, such as cancer. If disease is detected, the first step should be to treat the specific disease process and then reassess whether treatment has resolved the pain. Once disease has been ruled out, it is still advisable to assess whether acute or recurrent trauma, infection and/or inflammation are present. These symptoms may be present in a small number of patients; however, even when these issues are resolved, the pain may continue. Important factors to rule out include infection/inflammation of the prostate in men, bladder inflammation in men and women, and recurrent vaginal or urinary tract infections.

Once acute processes have been ruled out, a holistic approach to patient care is likely to provide the maximum improvement. This approach should adopt a biopsychosocial approach to assessment, as there are often a variety of contributing and maintaining factors underlying pain. The UPOINT(S) phenotyping system – which is an abbreviation for *U*rological, *P*sychological, *O*rgan-specific, *I*nfectious, *N*eurological, *T*enderness of the pelvic floor, and *S*exual systems – is ideal for evaluating male and female GPPPD, as it assesses pain on these diverse psychological and biomedical domains to guide treatment for the affected domains (Table 19.3). The hypothesis underlying the UPOINT(S) system is that, for the vast majority of genito-pelvic pain patients, there can be multiple distinct systems involved in causing and perpetuating the pain. Even if a single system may have been involved initially, as the pain becomes chronic, more systems may become involved in the maintenance of pain. Each domain of the UPOINT(S) system should be addressed separately and can be coded with a yes/no dichotomy. If a patient is found to be positive on a domain, specific treatment designed for that domain should be combined with treatments that are utilized for other co-existing positive domains.

Keeping a pain diary

A pain diary is a useful tool to help characterize an individual's pain, over time. The goal of a pain diary is to monitor and record the circumstances surrounding the pain experience, including events or situations that immediately preceded pain onset, the individual's cognitive appraisal of the pain, and his or her emotional response. By charting daily fluctuations in pain, mood, stress levels and activities, an individual can identify patterns that are associated with pain. Importantly, individuals can typically change aspects of their environment, as well as their cognitive-emotional responses to pain, thereby providing a sense of control over the pain. This exercise, in itself, can be therapeutic.

Sexual dysfunction and the couple

Genito-pelvic pain can potentially disrupt or inhibit all aspects of the sexual response cycle, including blunting of sexual desire/motivation, inhibiting sexual arousal and vaginal lubrication, impairing the capacity to achieve orgasm, provoking pain at and immediately after ejaculation, as well as leaving residual pelvic pain for minutes to hours after sexual activity. As a result, the incidence of comorbid sexual dysfunction, for those

Table 19.2 Potential syndromes underlying genito-pelvic pain in men and women

Affected systems	Pelvic pain syndromes	Symptoms
Urological	Prostate pain syndrome Chronic prostatitis Prostatodynia	Recurrent pain reproduced in prostate, without proven infection or pathology
	Bladder pain syndrome Interstitial cystitis	Recurrent pain in bladder accompanied by worsening on filling, nocturia or urgency/frequency
	Scrotal/testicular/epididymal pain syndrome	Recurring localized pain without signs of infection or trauma
	Penile pain syndrome	Recurrent pain in penis, but not urethra without signs of infection or trauma
	Urethral pain syndrome	Recurrent pain in urethra without signs of infection or trauma. Found in men and women
	Post-vasectomy scrotal pain syndrome	Chronic scrotal pain following vasectomy. As often as 1% following vasectomy
Gynaecological	Vulvar pain syndrome	Vulvar pain that may be either generalized or localized to specific location. No sign of infection or trauma. Dyspareunia Vulvodynia
	Vestibular pain syndrome (also provoked vestibulodynia and vulvar vestibulitis)	Recurrent pain that is specifically elicited by pressure localized to the vulvar vestibule.
	Endometriosis	Recurrent pain associated with laparoscopically confirmed endometriosis
	Chronic pelvic pain syndrome	Cyclical pain localized to the pelvic region that is not associated with other gynaecological pain conditions.
	Dysmenorrhoea	Menstrual pain with no defined pathology. Diagnosis requires persistent pain that interferes with daily function
Gastrointestinal	Irritable bowel syndrome	Recurrent pain perceived in bowels without pathology. Preoccupation with bowel symptoms. Based on Rome III criteria
	Anal pain syndrome	Recurrent pain in the anus or anal canal without specific pathology. Unrelated to the need or process of defecation
Nervous	Pudendal neuralgia	Chronic pain in regions innervated by pudendal nerve. Pain with ischial palpation
Psychological/sexual	Genito-pelvic pain/penetration disorder	Persistent inability to achieve intercourse/penetration; pain with intercourse/penetration; fear or anxiety regarding pain or penetration; pelvic floor muscle abnormalities during attempted penetration. Causes significant distress/impairment
Musculoskeletal	Pelvic floor muscle pain syndrome	Recurrent pain in the pelvic floor. Associated with sexual and lower urinary tract symptoms. May have over activity or trigger points in pelvic floor
	Pelvic girdle pain	Pregnancy- or postpartum-related pain affecting any of the three pelvic joints. Problems with weight bearing and mobility
	Coccyx pain syndrome (Coccydynia)	Recurrent pain presenting in area of coccyx without signs of specific pathology

individuals who choose to continue being sexually active, can be quite high. An avoidance of sexual activity is a common response that can yield additional psychological and interpersonal conflict. Negative psychological responses to genito-pelvic pain may include increased pain-related anxiety and hypervigilance, as well as negative thoughts and feelings about one's sexual value and identity.

The extent of sexual interference may depend on whether pain is driven by physiological, psychological and/or interpersonal factors. Referring back to the UPOINT(S) approach, a number of physiological factors may produce pain that can become exquisitely intense during sexual activity. Furthermore, increased anxiety related to the expectation of pain may enhance pelvic muscle floor tension, which results in interference with penetration/vaginal spasms, secondary muscle pain and increased pressure against the organ(s) from which pain arises. Tenderness around the perineum, vulvovaginal area and/or the lower abdomen may further increase discomfort with physical contact. Finally, psychosocial factors shape how much an individual pays attention to this pain, as well as how he or she responds to the pain (e.g. catastrophizing versus using distraction to reduce the pain experience).

Sexual dysfunction due to genito-pelvic pain is often an experience shared by the couple. In many cases, the partner directly contributes to the provocation of pain, as is the case with painful vaginal penetration or ejaculation, and this can create an environment of sexual ambivalence. The individual coping with pain may lose the motivation to engage in sexual activity, and his or her subsequent avoidance of sexual activity may encourage feelings of confusion and anger in the intimate partner. Understanding the couple's reaction to pain is paramount in determining its sexual impact: whereas some couples may immediately stop sexual activity when pain begins, other couples may learn to communicate about and pursue other sexually pleasurable activities that do not evoke pain.

Managing genito-pelvic pain

Women and men with genito-pelvic pain may seek help from a number of medical professionals in an attempt to understand and

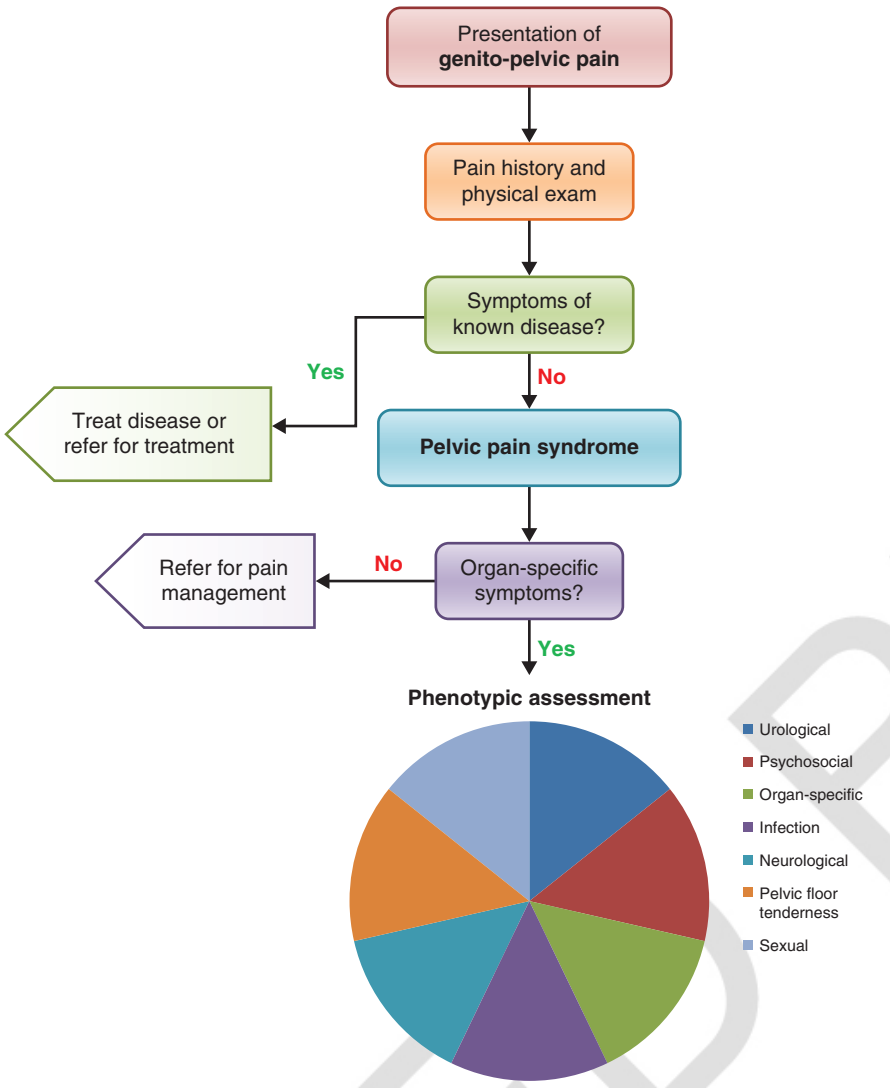

Figure 19.1 Pain assessment algorithm. A thorough pain history and physical exam are required to determine whether pain is idiopathic or due to a known disease. It is notable that treatments may fail to relieve pain and associated symptoms, and when no cause of pain can be found, a patient is considered to have an idiopathic pelvic pain syndrome. If no organ-specific symptoms are found, referrals for pain management may be made. When specific organs are implicated, it is recommended that a comprehensive phenotypic assessment be conducted to determine the respective contributions of urological/gynaecological, psychosocial, organ-specific, infectious, neurological, pelvic floor tenderness and sexual factors. Positive domains can further direct the referral and treatment process.

manage their pain. There are currently no clinically supported efficacious treatments for this family of idiopathic pain conditions. Topical treatments (e.g. corticosteroids, lidocaine and oestrogen for women) are often attempted first, as well as a course of oral antibiotics if infection is suspected to play a role. If urological symptoms are present, alpha blockers have been used, with equivocal results. Hormonal treatments in women, including use of oral contraceptives, may help reduce pain in a small subset of individuals. In extreme cases, some individuals have sought the surgical excision of painful tissue to relieve pain.

Behavioural treatments are often attempted when biomedical treatments have failed. However, the optimal strategy is concurrent multidisciplinary treatment that focuses on pelvic floor rehabilitation and psychological/psychosexual pain management, as biomedical assessments and treatments are attempted. Pelvic floor physical therapy may facilitate pain reduction in individuals who present with pelvic floor muscle dysfunction. Notably, sustained pelvic pain may promote heightened pelvic floor tension, reduced muscle strength, and poor muscle control. Additionally, group and individual cognitive behavioural therapy for pelvic pain is designed to increase attention to sexual enjoyment and employ pain management strategies, such as mindfulness and distraction from pain. Behavioural approaches to pain management can provide individuals with the positive coping skills necessary to manage, and ideally accept, living with pain. Finally, couple therapy and/or sex therapy may be used to enhance communication about the impact of pain, as well as to focus on enhancing sexual motivation and arousal.

Table 19.3 UPOINT(S) classification assessment domains, symptoms and methods of evaluation

Domain	Symptoms	Evaluation
Urological	Painful urination	Residual volume > 100 ml
	Frequent urination	Nocturia > 2/night
	Incomplete emptying	Bothersome report
	Urgency	
Psychosocial	Anxiety/fear of pain	Psych evaluation
	Pain catastrophizing	Validated questionnaires
	Depression	Fear/refusal of gynaecological exam
Organ specific	Pain localized to prostate or bladder	Rectal examination (prostate tenderness)
		Pre–post-prostate massage analysis
		Evidence of inflammation (leucocytosis, prostatic calcification, Hunner's ulcers)
		Bladder challenge test
Infection	Painful urination or ejaculation	Uropathogens (Gram-negative bacilli or Gram-positive Enterococcus) in mid stream urine or post-prostate massage
Neurological	Comorbid and/or related medical conditions	Irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, migraine headache, low back pain
	Sensitivity to heat, Pain with light touch, Pain when no stimulus is present	Patient report, sensory testing, conditioned pain modulation testing
Tenderness of pelvic floor	Pain when sitting for long periods, high stress	Abnormal findings in skeletal muscles of pelvic floor, palpable myofascial trigger points
Sexual dysfunction	Painful intercourse, erectile dysfunction, premature ejaculation, changes in desire/arousal	Patient report, validated questionnaires (IIEF or FSFI), painful gynaecological exam

IIEF, International Index of Erectile Function; FSFI, Female Sexual Functioning Index.

Further reading

Davis, S.N., Binik, Y.M. & Carrier, S. (2009) Sexual dysfunction and pelvic pain in men: a male sexual pain disorder? *Journal of Sex and Marital Therapy*, **35**, 182–205.

Dewitte, M., van Lankveld, J.V. & Crombez, G. (2011) Understanding sexual pain: a cognitive-motivational account. *Pain*, **152**, 251–253.

Nickel, J.C. & Shoskes, D. (2009) Phenotypic approach to the management of chronic prostatitis/chronic pelvic pain syndrome. *Current Urology Reports*, **10**, 307–312.

Rosenbaum, T.Y. (2007) Pelvic floor involvement in male and female sexual dysfunction and the role of pelvic floor rehabilitation in treatment: a literature review. *Journal of Sexual Medicine*, **4**, 4–13.

Van Lankveld, J.J.D.M., Granot, M., Weijmar Schultz, W.C.M. *et al.* (2010) Women's sexual pain disorders. *Journal of Sexual Medicine*, **7**, 615–631.

Wise, D. & Anderson, R. (2011) *A Headache in the Pelvis, a New Expanded 6th Edition: A New Understanding and Treatment for Chronic Pelvic Pain Syndromes*. National Center for Pelvic Pain Research, Occidental, CA.