

Should Dyspareunia Be Retained as a Sexual Dysfunction in DSM-V? A Painful Classification Decision

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The DSM-IV-TR (American Psychiatric Association, 2000) classifies dyspareunia as a sexual dysfunction and describes it as a “sexual pain” disorder. This classification has been widely accepted with little controversy despite the absence of a theoretical rationale or supporting empirical data. An examination of the validity of this classification suggests that there is little current justification for the use of the term “sexual pain” or for considering dyspareunia a sexual dysfunction. Dyspareunia fits the current DSM-IV-TR classification criteria for pain disorder better than it fits those for sexual dysfunction. Empirical data from diagnostic, experimental, and therapy outcome studies support this conclusion. The reconceptualization of dyspareunia as a pain disorder rather than as a sexual dysfunction has important implications for the understanding and treatment of this prevalent but neglected women’s health problem.

KEY WORDS: DSM; dyspareunia; pain disorder; sexual dysfunction.

INTRODUCTION

There is almost no controversy today concerning the classification of dyspareunia as a sexual dysfunction. Both the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000) and the *International Classification of Disease* (WHO, 1992) include dyspareunia in their sections on sexual dysfunction and specifically define it with respect to sexual intercourse. The DSM-IV-TR (2000) defines dyspareunia in the following way:

- A. Recurrent or persistent genital pain associated with sexual intercourse in either a male or a female.
- B. The disturbance causes marked distress or interpersonal difficulty.
- C. The disturbance is not caused exclusively by vaginismus or lack of lubrication, is not better accounted for by another Axis I disorder (except

another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Like all sexual dysfunctions, dyspareunia is subtyped as “lifelong or acquired” as “generalized or situational” and as “due to psychological or combined factors.” Even when there is a presumed underlying physical cause, the DSM classifies dyspareunia as a “sexual dysfunction due to a general medical condition.” Although there has been much controversy concerning the definition of other sexual dysfunctions in women (e.g., desire and arousal), recent consensus conferences (e.g., Basson et al., 2000) have not seriously challenged the classification of dyspareunia.

In my view, the definition and diagnostic criteria for dyspareunia make little sense and should be scrapped. Although a proposal to discard an established category may be perceived as needlessly radical, I will argue on both empirical and theoretical grounds that it is justified. Furthermore, I will propose that what is called dyspareunia today can be more usefully re-conceptualized as a group of different “urogenital pain disorders.”

Tracing the origin and development of the term “dyspareunia” will provide a useful background for

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discussing contemporary usage and classification issues. Barnes (1874) coined the term “dyspareunia” (difficult or painful mating) in an attempt to encompass a variety of painful conditions interfering with intercourse. He justified the creation of this term by analogy to other nineteenth century terms like “dyspepsia” or “dysmenorrhea.” Although Barnes (1874, Ch. 12) emphasized the importance of treating gynecological pain, his choice of the term dyspareunia emphasized the interference with function (intercourse) rather than the pain itself. Barnes’ etiological view was physiologically based and he stressed that dyspareunia had multiple causes: “In short, almost every disease to which the sexual organs are liable may entail dyspareunia for one of its consequences . . .” (p. 69). This view would not be considered an unusual one in gynecology today.

A very different view of dyspareunia was being developed in the mental health domain. During the twentieth century, under the influence of psychoanalysis, the concept of psychogenic (hysterical) pain was proposed. This concept was also applied to pain occurring during sexual intercourse and treated accordingly (see Singer-Kaplan, 1983, p. 258). This was not a popular approach for many modern sexologists and some, including Masters and Johnson (1970), reverted to an organically based “Barnesian” approach. On the other hand, non-psychoanalytic but psychologically minded sexologists attributed dyspareunia to a variety of factors, ranging from childhood abuse to inadequate sexual technique. As a result, what we are left with today is a term based on interference with function (i.e., intercourse) that is typically used quite differently by organically based physicians and psychologically based mental health professionals.

My discussion of the definition and classification of dyspareunia will focus solely on women. While current nosologies recognize dyspareunia in both sexes, the male version appears to be relatively rare. Moreover, there is only a minuscule scientific and clinical literature relating to men (e.g., Luzzi, 2003; Wesselman, Brunett, Abramovici, & Heinberg, 1997). Despite identical labels, it is hard to know for the moment whether dyspareunia in men and women is the same phenomenon. I will also not discuss the relationship of dyspareunia to vaginismus. All major nosologies carefully differentiate dyspareunia from vaginismus. In view of recent data (Basson & Riley, 1994; de Kruiff, Ter Kuile, Weijnenborg, & van Lankveld, 2000; Reissing, Binik, Khalifé, Cohen, & Amsel, 2003; van Lankveld, Brewaeys, Ter Kuile, & Weijnenborg, 1995), this differentiation appears highly questionable; unfortunately, an adequate discussion is beyond the scope this paper. Finally, I will not enter

into the discussion of the validity of the “organic/ due to a medical condition/psychogenic/combined factors” differentiation of dyspareunia except to say that at our current level of knowledge, there are not even any formal suggestions, let alone validated criteria, to make this distinction. In practice, psychogenic dyspareunia is a diagnosis typically made when relevant organic factors are excluded. Unfortunately, the definition of a “relevant organic factor” usually depends more on the opinions and patience of the clinician and patient rather than any formal criteria or data.³

THEORETICAL ISSUES RELATING TO THE CLASSIFICATION OF DYS-PAREUNIA

Evolution of the Classification of Dyspareunia in the Diagnostic and Statistical Manual of the American Psychiatric Association

Although the DSM-II appears to have considered dyspareunia as a “psychosomatic disorder” (American Psychiatric Association, 1968), this classification was changed in the DSM-III (American Psychiatric Association, 1980) when the category of sexual dysfunction was introduced. In the DSM-III-R (American Psychiatric Association, 1987), dyspareunia continued to be classified as a sexual dysfunction and was grouped with vaginismus under the new term of “sexual pain disorder.” Although dyspareunia is also mentioned in DSM-III and DSM-III-R, as a possible symptom contributing to somatization disorder, it is not explicitly mentioned elsewhere. The DSM-IV (American Psychiatric Association, 1994) and DSM-IV-TR continue to mention dyspareunia as a possible symptom of somatization but clearly consider it a sexual dysfunction.

The rationale behind this classification history is not at all clear. The DSM-III introduced the concept of sexual dysfunction and defined it with reference to the sexual response cycle. Specific disturbances of desire, excitement, and orgasm became the main categories of sexual dysfunction (e.g., premature or early ejaculation, inhibited female orgasm or female orgasmic disorder, etc.). Although dyspareunia is not linked to, and does not interfere specifically with, any stage of the sexual

³The ICD-10 also divides dyspareunia into organic and psychogenic categories without giving criteria on how to accomplish this. Psychogenic dyspareunia is classified as a sexual dysfunction while organic dyspareunia is classified under the heading of “Pain and other conditions associated with female genital organs and menstrual cycle.” The ICD-10 does not have a specific pain disorder category and in general classifies pain by anatomic location and by organic/ psychogenic etiology.

response cycle, “functional dyspareunia” was included as a sexual dysfunction. There is also no explanation given in the DSM-III-R for the introduction of the term “sexual pain disorder” or the grouping of dyspareunia with vaginismus. What should have been obvious is that the major symptom of dyspareunia is not a sexual symptom but a pain symptom. This is precisely what defines a pain disorder in DSM-IV. In fact, dyspareunia meets all the criteria in the DSM-IV for pain disorder. These criteria are as follows:

- A. Pain in one or more anatomical sites is the predominant focus of the clinical presentation and is of sufficient severity to warrant clinical attention.
- B. The pain causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. Psychological factors are judged to have an important role in the onset, severity, exacerbation or maintenance of the pain.
- D. The symptom or deficit is not intentionally produced or feigned.
- E. The pain is not better accounted for by a Mood, Anxiety, or Psychotic Disorder and does not meet criteria for Dyspareunia.

Why “does not meet criteria for dyspareunia” is an exclusion factor or why dyspareunia is the only pain diagnosis in the DSM-IV-TR outside of pain disorder is never explained. The DSM appears to imply that there are two types of pain in the world—“sexual” and “non-sexual” pain. This is nonsense!

Is Dyspareunia Specific to Intercourse/Sex?

Dyspareunia is defined by the DSM-IV-TR as specifically linked to sexual intercourse (see Criterion A above, “... genital pain associated with sexual intercourse”). This seems to imply that either the pain experienced during intercourse is not experienced during other activities or is distinct in quality when it is experienced during other activities. Neither assertion seems tenable since it is clear from clinical reports, from the DSM global/situational criterion, and from empirical studies (see below) that the pain experienced by women suffering from dyspareunia can occur during a variety of non-sexual activities, including tampon insertion, urination, sports, etc. In fact, dyspareunia is often diagnosed during a careful gynecological examination that reproduces the same quality and intensity of pain that a woman feels during intercourse.

Moreover, it appears that the pain of dyspareunia may sometimes precede a woman’s first sexual experience. Women suffering from dyspareunia resulting from vulvar vestibulitis syndrome (VVS) (see below) will often report avoiding the use of tampons in adolescence. When questioned carefully, it is apparent that they do this because tampon insertion is possible but very painful. Interestingly, we recently assessed a 16-year-old adolescent girl who was a competitive swimmer. Although she had “made out” with boys, she had never attempted intercourse and was not planning to do so in the immediate future. Her major concern was that she had to train every day and needed to use tampons during her periods. Although she could insert a tampon and it did not hurt once it was inserted, it caused an excruciatingly sharp and burning pain during insertion. None of her teammates experienced this pain and she wondered what was wrong with her.

Is Dyspareunia Similar to Dyspepsia and Dysmenorrhea?

Barnes (1874) coined the term “dyspareunia” to parallel terms like dysmenorrhea and dyspepsia, which are still in use today. It is not clear, however, that these terms are useful from a classificatory point of view. For example, it has been argued that the use of the label dyspepsia has impeded adequate classification and progress in understanding the potential mechanisms underlying this problem (Heading, 1991). Furthermore, Barnes’ analogy is logically faulty. Both dyspepsia and dysmenorrhea refer to difficulties or pain associated with a physiological process. Dyspareunia does not refer to a physiological process; it refers to an interpersonal behavior. If we were to define dyspepsia as we currently define dyspareunia, we would have to call dyspepsia an “eating disorder.”

Does Interference with Intercourse Constitute a Classification Criterion?

Sexual dysfunctions are defined by an interference in the processes of desire, arousal, orgasm, etc. It appears that the DSM may have tried to “make dyspareunia into a sexual dysfunction” by defining it in terms of interference with intercourse. This equates the behavior of intercourse with processes underlying desire, arousal, and orgasm. Although desire, arousal, and orgasm have behavioral referents, they refer to much more than behavior. Moreover, such an equation would result in dyspareunia being the only report of pain that is formally defined by the activity with which it interferes. This would result in the classical comment “Not tonight dear, I have a headache” as also being considered dyspareunia.

We typically, albeit crudely, identify pain by the anatomical location affected, i.e., headache, backache, etc. Sometimes we are fortunate enough to understand the mechanism or link the pain to a known syndrome such as arthritis. Functional interference is never a classification criterion for pain. We do colloquially refer to pain problems like “tennis elbow” but no one would formally propose tennis as part of the definition. It may well be necessary to understand the implications of the interference with intercourse in order to treat dyspareunia (or low back pain which interferes with work), but the interference activities does not define the pain. In the section on pain disorder, the DSM-IV-TR does refer to the most developed taxonomy of pain proposed by the International Association for the Study of Pain (Merskey & Bogduk, 1994). This taxonomy proposes a system for classifying pain including the following 5 axes: 1) anatomical region; 2) organ system; 3) temporal characteristics of the pain and pattern of occurrence; 4) patient’s statement of intensity and time since onset of pain; 5) etiology. Although we know little about etiology, the clinical presentation of what is called dyspareunia today maps easily onto the first 4 dimensions.

Is the Label Dyspareunia a “Reasonable” (Valid) Clinical Category?

Face validity has not typically been an important criterion for determining classification. With respect to dyspareunia, however, it is a worthwhile one to consider. Consider whether the following case examples are likely to have much in common: (1) a 22-year-old woman who has always experienced a sharp and cutting pain during penetration; (2) a 40-year-old woman who in the last year began to experience, during thrusting, a dull/shooting pain close to her right ovary; (3) a 65-year-old widow who is experiencing pain during penetration and intercourse for the first time with her new and highly arousing partner.

According to the DSM-IV-TR, all of these women would likely be diagnosed with the label of “dyspareunia.” It is highly unlikely, however, that these women suffer from the same problem. As currently used, the diagnostic label of “dyspareunia” does not connote a specific or unified category as implied by the DSM-IV-TR. Although Barnes knew this in 1874, he thought it would be useful to have a single term to summarize the various types. Such a term may have been useful historically, but it is unlikely to be in the future since lumping together all women with a diagnosis of dyspareunia overlooks potentially crucial differences and may result in inadequate intervention.

EMPIRICAL DATA CONCERNING THE CLASSIFICATION OF DYSPAREUNIA

There is a small but growing empirical literature concerning dyspareunia. Some of this literature bears on our question of whether dyspareunia is better considered a pain syndrome or a sexual dysfunction. Although much of the data to be presented has been collected in my laboratory and has therefore been tainted with our bias that dyspareunia is a pain syndrome, I will also cite relevant data from other centers. The empirical questions I will address are as follows: (1) Is the pain of dyspareunia similar to other pain? (2) Are the physical and psychosocial correlates of dyspareunia more relevant to pain or to sex? (3) Are sex or pain therapies more effective in treating dyspareunia?

Is the Pain of Dyspareunia Similar to Other Pain?

Pain Characteristics

When we critically reviewed the existing literature on dyspareunia (Meana & Binik, 1994), we were surprised to discover that no one had previously measured the intensity or associated characteristics of the pain (e.g., location, timing, etc). Meana set out to remedy this situation in her doctoral thesis by recruiting a volunteer sample of 105 dyspareunia sufferers. These women all underwent a comprehensive psychosocial and physical assessment protocol. The primary measure of pain was the widely used and standardized McGill/Melzack Pain Questionnaire (Melzack & Katz, 1992).

Meana found that the clinical characteristics of the pain of dyspareunia were quite similar to the characteristics of other pain syndromes. For example, on the average, the pain of dyspareunia was comparable in intensity to the pain of other chronic pain syndromes such as phantom limb and low back pain (Meana, Binik, Khalifé, & Cohen, 1997a). Also similar was the fact that the intensity of the pain varied on a continuum from mild to excruciating. Although the intensity of the pain of dyspareunia was significantly correlated with interference with intercourse, it was clear that this relationship was a complex one. Some women bore reportedly excruciating pain and continued to have regular intercourse while others experienced relatively mild pain and refused further sexual contact of any kind. This is also similar to reports of interference with function (e.g., work) in pain syndromes such as low back pain. In almost all cases, however, the women reported that the pain was not limited to intercourse but was experienced in other situations such as urination, gynecological examinations, sports, etc.

Furthermore, gynecological examinations revealed that the pain associated with dyspareunia occurred in different anatomical locations, ranging from vulvar to pelvic areas, and that the timing and qualities of the pain associated with these different sites also varied considerably (Meana et al., 1997a).

Classification

Given the considerable variation in the clinical characteristics of these women, Meana et al. (1997a) asked the two participating gynecologists to sort the women into different groups based on their examinations. They were able to easily and reliably do this by using four categories which were labeled as follows: 1) no physical findings (N = 25); 2) VVS (N = 48); 3) postmenopausal dyspareunia (N = 14); 4) mixed (N = 18). Using discriminant function analysis, Meana demonstrated that the International Association for the Study of Pain classification criteria (Merskey & Bogduk, 1994) were better able to categorize her subjects than were the sexual dysfunction criteria of the DSM-III-R.

Comment

These findings have major implications for the classification of dyspareunia. From a descriptive point of view, the pain of dyspareunia is comparable to the pain of other pain disorders and is easily integrated into the major international classification of pain. The variations in location, timing, and quality of the pain also suggest that dyspareunia is not likely to be a unitary disorder. Although it now appears unlikely that the four category classification suggested by Meana, Binik, Khalifé, and Cohen (1997b) will be inadequate to encompass all forms of dyspareunia, it is a good start and should be further investigated. Ultimately, it will probably be necessary to divide dyspareunia in a manner similar to how we classify different types of headache. Perhaps most important is the fact that the pain of dyspareunia is not defined by its occurrence during sexual intercourse; the same pain occurs in other non-sexual situations.

Meana's data also emphasized the importance of dyspareunia resulting from VVS (see Friedrich, 1987). There are no symptoms of VVS other than a distinct "burning/cutting" pain which is elicited during any type of physical contact with the vulvar vestibule. This dyspareunia subtype was the most prevalent in Meana's study, constituting almost 50% of the sample. Recent epidemiological evidence suggests that the lifetime population prevalence of VVS is approximately 12% (Harlow

& Stewart, 2003a; Harlow, Wise, & Stewart, 2001). Bergeron, Binik, Khalifé, Pagidas, and Glazer (2001a) have shown that two gynecologists can be trained to reliably diagnose this dyspareunia sub-type using the "cotton swab" test.

ARE THE PHYSICAL AND PSYCHOSOCIAL CORRELATES OF DYS-PAREUNIA MORE RELEVANT TO PAIN SYNDROMES OR TO SEXUAL DYSFUNCTION?

Another empirical way of trying to determine whether dyspareunia is better classified as a pain syndrome or as a sexual dysfunction is to investigate the physical and psychosocial correlates of this problem. If these correlates are more closely related to pain than to sex, then this would provide indirect but relevant evidence concerning our classification question.

Physical Factors

Sensory Dysregulation

Current research generally assumes that the experience of pain is the result of an interaction between sensory and cognitive-affective factors. The same could be said about the experience of sexual feelings. Interestingly, there is relatively little sex research concerning underlying sensory factors; by contrast, this has been a major focus in the study of pain. As a result, one of the immediate effects of our adopting a pain perspective to the study of dyspareunia was to begin asking "sensory" questions concerning the pain and touch thresholds of sufferers. It seemed likely to us that measuring such thresholds in painful areas would provide us with a very sensitive and reliable way of measuring the pain associated with dyspareunia.

We focused on VVS since it appeared that this type of dyspareunia provided an easily localizable type of pain which could be conveniently measured in the laboratory through well established psychophysical methods. Since we were aware of a long history in sensory psychology of measuring pain and touch thresholds in many different parts of the body (e.g., the cornea, oral mucosa, penis, etc), we assumed that there were readily available normative data for the vulva. Unfortunately, the female genitalia appear to have been more or less ignored so we had to determine these thresholds for non-vulvar vestibulitis controls as well (see Romanzi, Groutz, Feroz, & Blaiwas, 2001; Vardi, Gruenwald, Sprecher, Gertman, & Yarnitsky, 2000).

Previous work in our laboratory had followed the clinical gynecological approach of attempting to assess pain with a cotton swab (Bergeron et al., 2001a). Although this was a reasonable strategy for clinical diagnosis, it was problematic from an experimental point of view. First, it was impossible using a cotton swab or the smallest von Frey hair (typically used in neurological diagnosis) to exert a pressure that was not already well above the pain threshold of women with VVS. Second, using a cotton swab, it was impossible to control the pressure exerted by the examining clinician. Not surprisingly, we found that male gynecologists typically pushed harder than female gynecologists and patients reacted accordingly.

In her doctoral thesis, Pukall overcame these problems by using surgical monofilaments which were calibrated to exert a pre-determined, standardized pressure when applied perpendicularly to the skin and bent to form a semi-circle. These filaments could exert a wide range of forces, from very minute (1.5 mg) to significant (11,750 mg). Using this methodology, Pukall determined vulvar and non-genital pain and touch thresholds in VVS patients and in matched controls.

Not surprisingly, Pukall found that the vestibular punctate pain pressure thresholds of women suffering from VVS were dramatically lower than those of matched controls (Pukall, Binik, Khalifé, Amsel, & Abbott, 2002; see also Granot, Friedman, Yarnitsky, & Zimmer, 2002). This clearly reflected the clinical phenomenon of VVS. What was surprising, however, was that the touch thresholds of the VVS subjects were also significantly lower than those of matched controls. In fact, women suffering from VVS were able to reliably perceive stimulation that was imperceptible to non-VVS controls. Overall, the range of punctate pressure sensitivity for women with VVS was shifted so that the typical touch threshold for a control woman was equal to the pain threshold for a woman with VVS. Perhaps the most surprising finding was that the differences in touch and pain thresholds were not limited to the vulvar vestibule but occurred in other parts of the body such as the forearm or the deltoid region. These differences were much smaller than those in the vulvar vestibule but were reliably measurable.

Brain Mapping Studies

There are only a few studies which report the use positron emission tomography (PET) and/or functional magnetic resonance imaging (fMRI) technologies to investigate brain function with respect to sexuality. Most of the available studies have investigated the brain correlates of sexual arousal but there appears to be little consensus concerning which brain areas are activated (e.g., Karama

et al., 2002; Maravilla et al., 2003; Park et al., 2001). As far as I am aware, there are no published studies relating to dyspareunia or to sexual dysfunction in women.

By contrast, there is a relatively large literature on how pain is represented in the brain (Casey & Bushnell, 2000; Talbot et al., 1991). This literature is remarkable because it appears that “different pains” are represented quite similarly in the brain. This has led researchers to suggest that there is a “brain signature” for pain which consists of the activation of the primary and secondary somatosensory cortices (S1, S2), the insular cortex, and the anterior cingulate cortex. This situation is unfortunate from the point of view of understanding the different mechanisms underlying different pain syndromes since these syndromes all look the same once the pain is registered in the brain. On the other hand, it presents a unique opportunity to investigate whether once it reaches the brain the pain experienced during dyspareunia is similar to all other pains.

Pukall, Strigo, Binik, Khalifé, and Bushnell (2004) carried out such a study to investigate whether women suffering from VVS demonstrated the typical “pain signature” associated with other pain syndromes. To carry out this study, Pukall et al. positioned subjects such that their heads were in an fMRI machine while their pelvises were outside of it. An experimenter applied a preset schedule of stimulation to the vulvar vestibule of participants while the recording of brain activation occurred. The data clearly confirmed that during painful vulvar stimulation women suffering from VVS exhibited the typical “pain signature” demonstrated during imaging of other pain syndromes.

Comment

Pukall’s research has provided strong evidence using both psychophysical and brain mapping methodologies to suggest that dyspareunia is similar to other pain syndromes. With respect to sensory processing, vulvar vestibulitis is similar to other pain syndromes in that sensory function in general, not just pain processing, is affected and that these sensory changes are not limited to the primary site of the pain (e.g., Bohm-Stark, Hilliges, Brodda-Jansen, Rylander, & Torebjörk, 2001; Burstein, Cutrer, & Yarnitsky, 2000; Burstein, Yarnitsky, Goor-Aryeh, Ransil, & Bajwa, 2000; Farrell, Gibson, McMeeken, & Helme, 2000; Granot et al., 2002). There is converging evidence from other laboratories to confirm these conclusions and to also suggest that VVS sufferers may experience an elevated number of non-genital pain problems as compared with controls (Danielsson, Sjoberg, & Wikman, 2000). Such research may ultimately yield

important clues relating to the mechanism of VVS. Finally, Pukall's sensory research has led to the development of a new instrument, a vulvalgesiometer, which can be easily used in both clinical and research contexts to measure vulvar pain (Pukall, Binik, & Khalifé, 2003).

The fMRI data also provide strong evidence using another measurement modality to confirm that the pain of dyspareunia is similar to other pain problems and should therefore be classified with them. Based on what we know now, it seems unlikely that there will be a "sexual dysfunction brain signature" that will encompass dyspareunia. It might be highly instructive, however, to carry out an fMRI study of women who get sexually aroused during painful stimulation to see which brain areas are activated and whether the pattern is more similar to sexual arousal or to pain.

Finally, there are several additional reported physical correlates of VVS, including the early use of oral contraceptives (Bazin et al., 1994; Bouchard, Brisson, Fortier, Morin, & Blanchette, 2002), an elevated history of yeast infections (Danielsson, Eismann, Sjöberg, & Wikman, 2001; Graziottin, 2003; Meana et al., 1997b), an increase in the levels of various factors suggestive of chronic inflammation (Bohm-Starke, Hilliges, Blomgren, Falconer, & Rylander, 2001; Foster & Hasday, 1997; Gerber, Bongiovanni, Ledger, & Witkin, 2002; Westrom & Willén, 1998) and an elevated incidence of a genetic allele involved in the regulation of inflammation (Jeremias, Ledger, & Witkin, 2000). It is not clear whether the early use of oral contraceptives is better understood as a behavioral/sexual correlate or whether such use results in hormonal changes which predispose to VVS or both. At this point, these data cannot support either a pain or sexual dysfunction perspective. The other findings are not easily related to any sexual dysfunction perspective but are interpretable as among the factors which would predispose to the development of pain.

Psychosocial Factors

There does not appear to be a well-developed literature on the psychosocial correlates of dyspareunia. The available evidence suggests that, as compared with controls, women suffering from VVS suffer from elevated levels of anxiety and hypervigilance (Granot et al., 2002; Payne, Binik, Amsel, & Khalifé, in press). There are conflicting reports concerning elevated levels of depressive symptoms, somatic complaints, other sexual dysfunction, and increased marital distress (e.g., Meana, Binik, Khalifé, & Cohen, 1999; van Lankveld, Weijnenborg, & Ter Kuile, 1996). From a psychosocial point of view, sexual dysfunction sufferers could probably

be characterized quite similarly (e.g., van den Hout & Barlow, 2000). There is one study that suggests that VVS sufferers have experienced a higher incidence of physical abuse and are more fearful of such abuse than controls (Harlow & Stewart, 2003). On the other hand, sexual abuse and trauma, which are acknowledged to interfere with later sexual function, have not been shown to be correlated with dyspareunia (Meana et al., 1997b; Harlow & Stewart, 2003; Reissing, Binik, Khalifé, Cohen, & Amsel, 2003).

Comment

It is not clear whether the fact that the known psychosocial correlates of dyspareunia do not differentiate between a pain syndrome and sexual dysfunction approach, reflect the inability of psychosocial correlates to discriminate or the relative lack of research in this area. My impression is that it is the latter. It is also quite possible that the different dyspareunia subtypes have different psychosocial correlates. Until we are able to carefully sort these subtypes, we may not be able to discern the appropriate psychosocial correlates (see Meana et al., 1999)

ARE THERAPIES FOR PAIN OR FOR SEX MORE EFFECTIVE IN TREATING DYS-PAREUNIA?

From a clinical perspective, conceptualizing dyspareunia as a sexual dysfunction limits the range of treatments to be considered to different psychotherapies directed at the sexual problem or to medical/surgical interventions directed at the underlying pathology. Although there has been much recent discussion of an integrated biopsychosocial approach to the treatment of sexual dysfunction, the practical result with respect to dyspareunia has been a "serial unidisciplinary" treatment strategy typically starting with medical interventions, which, if unsuccessful, are followed by psychotherapy/sex therapy and then possibly surgery. This model has not been a successful one in treating dyspareunia. Although there have been case reports and uncontrolled studies (Meana & Binik, 1994), we have only been able to find only two randomized controlled trials which have been inspired by this approach. Both of these trials were directed at VVS patients and neither found that the medication investigated was better than placebo (Bornstein, Livnaat, Stolar, & Abramovici, 2000; Njirjesy et al., 2001). Recent sex therapy reviews have suggested that there are no empirically validated treatments for dyspareunia (e.g., Heiman & Meston, 1997).

The prevailing model for the treatment of chronic pain is quite different. The typical starting points for both conceptualization and treatment are multidisciplinary and, where possible, multiple modalities of treatment are often used simultaneously. Pain control is always a major goal and all relevant methods for accomplishing this are attempted whether they are linked to the presumed pain mechanism or not. Applying this perspective to dyspareunia expands the range of treatments that can be considered and encourages multidisciplinary treatment. For example, it becomes reasonable to consider pelvic floor physical therapy (Bergeron et al., 2002), acupuncture (Danielsson, Sjöberg, & Östman, 2001), or hypnosis (Kandyba & Binik, 2003) as possible treatments for dyspareunia. It also becomes advisable to combine these with other forms of treatment such as cognitive behavioral therapy (see Bergeron, Binik, & Khalifé, 2003; Bergeron & Lord, 2003). As far as we can determine, there have been two randomized controlled trials inspired by this model (Bergeron, Binik, Khalifé, Pagidas, & Glazer, 2001; Weijmar-Schultz et al., 1996). The Weijmar-Schultz et al. trial was not completed but was similar in outcome to the Bergeron et al. trial, which we will present in detail.

In her doctoral thesis, Bergeron compared the relative efficacies of vestibulectomy, pelvic floor biofeedback, and group cognitive behavioral pain management for the treatment of VVS. Women suffering from VVS for a mean duration of 5 years were randomly distributed to one of these treatments after a 6 week baseline period and were then followed up for a period of 2.5 years after the completion of treatment. The major outcome variables were measures of pain and sexuality. There were no significant changes during the baseline period on these measures but all treatments resulted in statistically and clinically significant changes which were maintained at follow-up. Vestibulectomy resulted in an average pain reduction of approximately 70% while group cognitive-behavioral pain management and pelvic floor biofeedback resulted in pain reductions of approximately 40%. All groups improved equally and significantly on measures of sexual functioning but the post-therapy levels on these measures (e.g., intercourse frequency) did not approximate population norms.

Comment

Overall, these data strongly suggest that pain, as opposed to sex oriented therapies, are the starting point for the treatment of dyspareunia. There are other important implications. First, they suggest that it is possible to significantly reduce the pain of dyspareunia. Second, if evidence from randomized controlled trials is used as

the criterion for empirical validation, then the therapies investigated in the Weijmar-Schultz et al. (1996) and Bergeron et al. (2001) studies are the only ones with any strong empirical promise. Third, pain reduction was possible through vastly different treatments, which were associated with different professionals and which presumably had different therapeutic mechanisms. This is consistent with the multidisciplinary pain oriented approach described above. Fifth, it is clear from these studies that pain reduction is not the equivalent of a return to “normative” sexuality. This is not surprising if one takes seriously the pain therapy outcome literature, which is filled with similar examples (e.g., reduction of back pain does not insure return to work; Sullivan, 2003). It does suggest, however, that even if pain is diminished, then there is still an important need for intervention to promote sexuality.

CONCLUSION

There is little current justification for continuing to classify dyspareunia as a sexual dysfunction. Recent empirical and theoretical work strongly suggests that the symptoms of dyspareunia fit perfectly into what DSM-IV-TR currently calls a pain disorder. At some point in the future, we will perhaps develop a classification system that is based on more than symptom descriptions but, until we do, we should at least focus on the right symptoms.

If pain disorders are to continue being included in the future editions of the DSM, then dyspareunia should be classified among them. This future edition should take into account the variance in the symptoms and the fact that it is unlikely that dyspareunia is a unitary category. The term “dyspareunia” should, therefore, be dropped and the different urogenital pain syndromes (e.g., vulvar vestibulitis, vulvo/vaginal atrophy) that are currently called dyspareunia should be individually described based on the available evidence. The current interest and flurry of research concerning VVS reflects the advantage of careful description of the possible urogenital pain subtypes.

The question remains, however, of whether it really matters whether dyspareunia is classified as a sexual dysfunction or as a pain disorder (see Meana et al., 1997). I think it does for a number of reasons, not the least of which is that trying to clarify ideas is an important endeavor for its own sake. Moreover, the definition of a problem typically determines who studies it and what techniques they use. It is unlikely that most of the research carried out in our laboratory would have occurred without our pain bias. I am “painfully” aware, however, that such

“ivory tower rationales” are usefully supported by more practical reasons.

One of the major “side-effects” of a classification system is to indicate which clinicians are the experts in the area. For most of the last century, the classification pointers for dyspareunia have been to gynecology and to the mental health professions. Unfortunately, neither set of professionals has taken that much interest. Although dyspareunia is usually briefly mentioned in standard gynecology texts, it sometime isn’t mentioned at all. At my university, it is not part of the formal curriculum for gynecology residents. I suspect that this is true at many other programs as well. While sex therapy texts have traditionally included some reference to dyspareunia, they have either medicalized the problem or attributed it, without empirical evidence, to a variety of other problems ranging from abuse and trauma to lack of arousal and poor sexual technique. This general lack of interest was reflected in our review of the literature that indicated that there had never been a randomized controlled treatment outcome study for dyspareunia or an etiological study with a control group (Meana & Binik, 1994). This is quite amazing when one considers that recent epidemiological estimates have reported that approximately 15% of North American women suffer from recurrent pain during intercourse (Laumann, Paik, & Rosen, 1999). Reclassifying dyspareunia as a pain problem should not exclude gynecological and sex therapy expertise. On the contrary, such expertise is crucial but should be utilized in a true multidisciplinary biopsychosocial framework whose goals are pain control, illness reduction, and sex promotion.

There are other reasons to adopt a “pain perspective.” As a clinician, I have noted how relieved and pleased women suffering from dyspareunia were when I focused on their pain. As a result, I have often heard the following from patients: “I have been asked about everything but you are the first to ask me about the pain. Thank God.” The “therapeutic alliance” created by this shared agenda makes it easier for everyone to work on a problem for which there is no obvious cure. As an administrator, I have also noted that it is easier to “sell” the idea of allocating resources to pain treatment than allocating them to the treatment of sexual problems. Finally, as a seeker of research funding, I have noted that there have been several recent new governmental funding initiatives for pain related to dyspareunia (see National Institute of Child Health and Development, 2000). As far as I know, this is not being matched in the sexuality area where funding is constantly under attack.

Reclassifying and renaming dyspareunia as a urogenital pain disorder and describing subtypes based on pain symptoms is only a first step. I suggest that in

addition to pain three other major dimensions should be considered in future attempts at classification: (1) physical pathology (especially that related to the pelvic floor); (2) behavior (e.g., avoidance of sexual and other activities, interpersonal/couple interactions); (3) cognitive-affective factors (e.g., fear/anxiety, hypervigilance, catastrophization, pain attributions, etc.). A consideration of these dimensions will hopefully lead us to a better understanding of the underlying mechanisms. My prediction is that future research will confirm vulvar vestibulitis as a distinct syndrome and point to the existence of a number of other urogenital pain syndromes which will replace our current discrete categories of dyspareunia and vaginismus (Reissing, Binik, Khalifé, Cohen, & Amsel, 2004). Reconstructing our classification in this way will help to advance our thinking and provide better treatment for the many women sufferers.

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