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The Female Sexual Pain Disorders: Genital Pain or Sexual Dysfunction?

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Vaginismus and dyspareunia have been typically classified as sexual dysfunctions. In practice and research, this conceptualization has led to a focus on sexual and interpersonal issues after biological causes were excluded. Although this approach has been very useful, it has not led to significant theoretical or therapeutic progress in the last 20 years. We propose a reconceptualization of vaginismus and dyspareunia as pain disorders that interfere with sexuality rather than as sexual disorders characterized by pain. This reconceptualization focuses the clinician and researcher on the central phenomenon—pain. It also suggests new approaches to research and treatment. Data from diagnostic, etiologic, and therapeutic studies will be presented to illustrate these points.

KEY WORDS: pain; dyspareunia; vaginismus; vulvar vestibulitis; vulvodyania.

INTRODUCTION

Vaginismus and dyspareunia were categorized, for the first time, as "sexual pain disorders" in the *DSM-III-R* (American Psychiatric Association, 1987). This classification is now implicit in other nosologies (American College of Obstetricians and Gynecologists, 1995; American Psychiatric Association, 1994; World Health Organization, 1992). The fact that the sexual pain disorders are the only pain problems in the *DSM-IV* outside of "pain disorder" appears to reflect the idea that there is a special type of pain associated with sexual activity and that this pain is different from other types of pain. Our alternative view is that there is little that is uniquely sexual about vaginismus and dyspareunia other than the activity which typically induces the pain or interferes with intercourse.

Back pain and work disability is a relevant analogy. Although back pain is a major cause for work disability, few would suggest that it should be classified as a work disorder even when conflicts associated with the work situation are directly related to the experienced pain. Clinicians dealing with this problem carefully and independently assess the pain, the work situation, and the potential relationship between the two. Sometimes the pain and interference with work are closely linked; other times they are not. We believe that the same assessment strategy should be applied to vaginismus and dyspareunia.

We have suggested that the central theoretical question concerning vaginismus and dyspareunia can be expressed in the following way: "Is the pain sexual or is the sex painful?" (Binik, Meana, Berkley, & Khalifé, 1999). We will review the evidence concerning this question under the following categories: (1) symptoms, classification, and diagnostic reliability; (2) etiology; and (3) treatment.

SYMPTOMS, CLASSIFICATION, AND DIAGNOSTIC RELIABILITY

Dyspareunia

Dyspareunia is defined by *DSM-IV* (American Psychiatric Association, 1994) as "recurrent or persistent

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genital pain associated with sexual intercourse in either a male or a female" (p. 513). This definition is unusual in that it is the only pain that is formally defined by the activity with which it interferes. The *DSM* focus on the interference with intercourse may have contributed to the paucity of research examining the major symptom of dyspareunia—the pain. Thus, the major focus of research and therapy has been the interference with intercourse. As a result, in the absence of a general medical condition, there is no diagnostic differentiation between a 21-year-old woman experiencing a sharp/burning pain during penetration and a 40-year-old woman experiencing a shooting/aching pain in the area of her right ovary during deep thrusting.

Meana, Binik, Khalifé, and Cohen (1997b) were the first to empirically investigate the pain experienced by dyspareunic women. In a series of studies, they demonstrated that the pain experienced is clinically significant and systematically varies depending upon genital location and pain pattern. In their samples, it was possible to delineate different subtypes of dyspareunia (e.g., vulvar vestibulitis) on the basis of pain and other symptomatology, and it also became clear that diagnostic taxa from the psychiatric literature (e.g., lifelong/acquired, global-situational, etc.) did not adequately account for the variance in coital pain. Taxa from pain classifications (e.g. location, timing, pain quality, etc.), on the other hand, were much more useful (Merskey & Bogduk, 1994). Bergeron, Binik, Khalifé, Pagidas, and Glazer (2001a) have recently shown that vulvar vestibulitis syndrome can be reliably diagnosed through patient self-reports of pain during the cotton swab test and that over 90% of women with this subtype of coital pain report either thermal or cutting sensations in their pain reports. Similar work needs to be carried out with other coital pain subtypes.

Vaginismus

The defining diagnostic symptom of vaginismus in all current nosologies is a vaginal muscle spasm that interferes with intercourse. Reissing, Binik, and Khalifé (1999) have reviewed the problems associated with this definition. The most fundamental problem is that the existence of vaginal spasm has never been reliably demonstrated. The only two published empirical studies investigating pelvic floor activity (van der Velde & Everaerd, 1999, 2001) suggest that women suffering from vaginismus cannot be characterized as suffering from vaginal or pelvic muscle spasm. Another troubling diagnostic issue is that the *DSM-IV* diagnosis does not require the experience of pain even though vaginismus is classified as a sexual pain disorder. As far as we are aware, there are no published empirical studies of pain in vaginismic women. As with dyspareunia, the diagnostic focus is on the interference with intercourse (penetration), not on the symptomatology, be it muscle spasm or pain.

Reissing, Binik, Khalifé, Cohen, and Amsel (2002) examined the reliability and validity of the spasm-based *DSM-IV* definition of vaginismus. To do this, the a priori existence of a vaginal muscle spasm could not be assumed in the inclusion criteria. Therefore, criteria believed to mirror the clinical reality of how health professionals actually diagnose vaginismus were used to replace *DSM-IV*'s Criterion A (spasm): (1) never having been able to experience vaginal intercourse, despite attempts on at least 10 separate occasions; *or* (2) never having been able to experience vaginal intercourse despite attempts on *at least* two separate occasions and demonstration of "*active avoidance*" of vaginal penetration (see below); *or* (3) a current inability to experience vaginal intercourse "*active avoidance*" of vaginal penetration for at least 1 year, although vaginal penetration was experienced at least once before this period.

"*Active avoidance*" of vaginal penetration is defined as an average of less than 1 attempt at vaginal intercourse every 2 months over the past year despite adequate opportunity or being involved in a relationship and also meeting one of the following two criteria: (1) never having seen a health professional for, or never having successfully completed, a pelvic exam; (2) never having used tampons. *DSM-IV*'s Criteria B (causing distress or interpersonal difficulty) and C (not caused by an Axis I disorder or by medical condition) are preserved as is, but the *DSM* subtypes (lifelong, acquired, generalized, situational) are already included in our proposed revision of Criterion A.

Women suffering from vaginismus were compared with two matched control groups: women with vulvar vestibulitis syndrome and those with no current or past intercourse related pain. All women were independently examined by two gynecologists as well as two physical therapists specialized in the assessment and treatment of pelvic floor disorders. Few women with vaginismus reported vaginal spasm and spasm was not characteristic of or specific to vaginismus. Rather, chronic pelvic floor tension was significantly more elevated in women with vaginismus compared to women with vulvar vestibulitis syndrome. In addition, the diagnostic reliability between two gynecologists attempting to assess vaginismus was very low. Finally, all women with vaginismus responded with pain during the cotton swab test and there were no significant differences between the vaginismus and vulvar vestibulitis groups on questionnaires evaluating pain

intensity, quality, or catastrophizing. This suggests that pain may be an important, and so far neglected, aspect of the problem.

Vaginal spasm and chronic pelvic floor tension may be symptoms resulting from repeated experiences with dyspareunia or fear of and anticipation of pain. Yet, hypertonicity and spasm are neither necessary nor sufficient for a diagnosis of vaginismus. Future diagnostic criteria need to reflect the importance of pain with attempts at intercourse. However, taking into account that the intensity and quality of the pain reports between women with dyspareunia and vaginismus do not differ, it appears that the level of avoidance of vaginal penetration in general may be the crucial differentiating diagnostic criterion.

ETIOLOGY

Dyspareunia

The traditional clinical etiological approach to dyspareunia has been a dualistic one. Health professionals have typically initially investigated potential physiological factors and, in their absence, assumed psychosocial causation. As a result, the main symptom, pain, was not systematically investigated or used as a basis for classification in etiological studies. There have been numerous pathological conditions and illnesses that have been proposed as causes of dyspareunia. The existing evidence, which is not extensive, suggests that the correlations between these physiological factors and reported pain is higher than chance but can rarely account for the reported dyspareunia or interference with intercourse (Rapkin, 1995; Steege, Metzger, & Levy, 1998). The lists of proposed psychosocial etiological factors is also very long and includes everything from childhood sexual abuse to marital dissatisfaction and psychopathology. The major problem in interpreting both of these literatures is that as far as we have been able to determine, until recently there have been no controlled physiological or psychosocial studies of the etiology of dyspareunia or any potential subtype.

In a recent study using a control group matched on age, relationship menopausal status, primary language, and parity, Meana, Binik, Khalifé, and Cohen (1997a) carried out an initial etiological investigation of a heterogeneous group of women reporting dyspareunia as their primary symptom. They found no support for an increased incidence of physical or sexual abuse, for the presence of psychopathology, or for couple/marital distress. Meana et al. (1997a) did find, however, an increased incidence of variety of physical conditions in the dyspareunia group, but the interpretation of this finding is problematic. For example, in the vulvar vestibulitis subgroup of dyspareunia, vulvar inflammation was reported to be the most common physiological factor associated with vulvar vestibulitis. Unfortunately, Bergeron et al. (2001a) were unable to confirm the reliability of this criterion. It remains to be seen whether visual or colposcopic inspection of vestibular erythema can be carried out reliably and, if so, whether they are clinically relevant markers. Given the ethical dilemmas associated with obtaining carefully matched nondiseased control samples of vulvar tissue, it may be problematic to resolve this issue easily.

There is little doubt that further etiological studies which focus on pain symptomatology and carefully differentiate subtypes of dyspareunia will yield interesting hypotheses. For example, Pukall, Binik, Khalifé, Amsel, and Abbott (in press) have recently reported that women suffering from vulvar vestibulitis exhibit lower vulvar tactile detection and pain thresholds than matched controls. There is also preliminary evidence that psychological factors, such as attribution style, mood, and catastrophization, affect reported pain intensity during the cotton swab test and intercourse (Binik & Koerner, 1998; Meana, Binik, Khalifé, & Cohen, 1998, 1999).

Vaginismus

Vaginismus has been traditionally considered a "psychophysiological" disorder (Reissing et al., 1999). Without resorting to painful gynecological examinations or such examinations under anesthesia, however, it is very difficult in clinical gynecological practice to identify women with physiological causes (e.g., hymeneal abnormalities) for their vaginismus. It has also been our experience that it is virtually impossible to identify these physiological causes from clinical history and behavior. Thus, after a "failed examination," it would not be uncommon for a gynecologist to presume psychosocial causation and to not pursue more invasive or painful physical assessments.

Commonly cited determining factors for vaginismus are sexual abuse and trauma, negative sexual attitudes and inexperience, religious orthodoxy and sexual guilt, and relationship difficulties (Reissing, Binik, Khalifé, Cohen, & Amsel, in press). However, these etiological hypotheses resulted mostly from positive treatment outcome studies and none have been evaluated empirically. In addition, the available studies suffer from such basic methodological problems that a serious evaluation of etiology is not currently possible (Reissing et al., 1999).

TREATMENT

Dyspareunia

Recent reviews of the literature point out that there are no published randomized treatment outcome studies of dyspareunia (Heiman & Meston, 1997; O'Donohue, Dopke, & Swingen, 1997). The lack of such studies is somewhat surprising since coital pain has been estimated to affect almost 15% of American women (Laumann, Paik, & Rosen, 1999). It is very hard to draw any conclusions from the many uncontrolled reports (see Bergeron, Binik, Khalifé, & Pagidas, 1996; Meana & Binik, 1994) and, as a result, neither psychosocial nor medical treatments can be considered empirically validated or even probably efficacious (Heiman & Meston, 1997; O'Donohue et al., 1997).

Bergeron, Binik, Khalifé, Pagidas, and Glazer (2001b) have recently completed a randomized treatment outcome study comparing cognitive–behavioral therapy, surface electromyographic biofeedback, and vestibulectomy in the treatment of vulvar vestibulitis. Participants were 78 women randomly assigned to one of three treatment conditions and assessed at pretreatment, posttreatment, and 6-month follow-up via gynecological examinations, structured interviews, and standard questionnaires pertaining to pain, sexual function, and psychosocial adjustment. As compared with pretreatment, all treatment groups reported statistically significant reductions on pain measures at posttreatment and 6-month follow-up, although the vestibulectomy group was significantly more successful than the two other groups. All three groups significantly improved on measures of psychological adjustment and sexual function from pretreatment to 6-month follow-up. No predictors of outcome were identified.

On the basis of a general measure of self-reported improvement, 68.2% of vestibulectomy participants had a successful outcome at 6-month follow-up. However, 9.1% of participants from this condition were worse at posttreatment. As for behavioral treatments, 34.6% of biofeedback participants and 39.3% of cognitive–behavioral therapy participants had a successful outcome at 6-month follow-up. Depending on the pain outcome measure, the average percentage of pain reduction from pretreatment to 6-month follow-up ranged from 46.8% to 70.0% for the vestibulectomy participants, from 19.0% to 35.0% for the biofeedback participants, and from 20.7% to 37.5% for the cognitive–behavioral therapy participants. On the basis of the 6-month follow-up data, vestibulectomy appears to be superior to the two psychological interventions.

Despite its relatively small sample size, this study is important because it is the only one for which data are available. Moreover, the data raise interesting questions about the interrelationship of different outcome measures for dyspareunia. Although vestibulectomy was the most effective treatment with respect to pain outcome, it was not more effective with respect to frequency of intercourse and other psychosocial variables. A 2.5-year follow-up has been completed and confirms the previously reported pattern of results (Bergeron, Binik, Khalifé, Pagidas, & Glazer, 2001c).

Vaginismus

Vaginismus has been considered one of the classic success stories of sex therapy (e.g., Masters & Johnson, 1970). Most treatment models include vaginal dilatation and various forms of relaxation and anxiety reduction. Although there appears to be a consensus concerning the success of these techniques and the overall positive treatment outcome, neither has been investigated systematically. The methodologies of the available outcome studies are seriously flawed and no randomized treatment outcome studies have been conducted. Reissing et al. (1999) summarize this situation in the following way: "It is not clear whether researchers have failed to empirically demonstrate the clinically reported positive treatment outcome, or whether the presumed positive outcome is an artifact of self-selection and selective reporting" (p. 312).

DISCUSSION

Meana et al. (1997) have argued that our central question; "Is the pain sexual or is the sex painful?", is more than a semantic exercise. We believe that the answer to this question has significant clinical (Binik, Bergeron, & Khalifé, 2000) and research (Binik et al., 1999) implications. Furthermore, it has important implications for how women and their partners react to the pain and how health and social service organizations address the problem.

Our basic suggestion is that vaginismus and dyspareunia should be reconceptualized as genital pain disorders (see Wesselman, Burnett, & Heinberg, 1997) that interfere with intercourse and any "insertion/penetration" activity that affects the female genitalia (e.g., tampon use, gynecological examinations, etc.). These genital pain problems only sometimes affect other aspects of sexuality (e.g., desire, arousal, orgasm, etc.). We suspect that in most cases the interference with sexuality is a fairly natural result of experiencing or expecting pain. Further biopsychosocially oriented studies of the genital pain and interference with sexual function will help to elucidate these poorly understood women's health problems.

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