

## LEADING COMMENT

# The integration of pelvi-perineal re-education and cognitive-behavioural therapy in the multidisciplinary treatment of the sexual pain disorders

Painful genital sexual activity in women is a neglected, poorly understood, and costly sexual health issue. Often misdiagnosed or ignored, it entails great personal cost to patients and significant financial outlay for society. A recent study showed that only 60% of women who reported suffering from chronic genital pain sought treatment for this symptom, and 40% of those never received a formal diagnosis (Harlow *et al.*, 2001). Painful genital sexual activity has traditionally been diagnosed as either dyspareunia and/or vaginismus, two disorders classified under the category of sexual pain in the DSM-IV (American Psychiatric Association, 1994). Based on these definitions, current epidemiological estimates suggest that dyspareunia has a prevalence of 8–21% in community samples (Laumann *et al.*, 1999). Vaginismus—a presumed recurrent or persistent involuntary spasm of the musculature of the outer third of the vagina—accounts for 12–17% of women presenting to sex therapy clinics (Spector & Carey, 1990). Despite high prevalence rates and associated impairments in reproductive and sexual functioning (Meana *et al.*, 1997; Reissing *et al.*, 2003), there is only one randomized trial evaluating treatments for dyspareunia (Bergeron *et al.*, 2001), and no published studies examining the efficacy of treatments for vaginismus (Heiman & Meston, 1997). Moreover, typical interventions are still largely based on a unidimensional view of painful intercourse and fail to address all of its biopsychosocial components (Bergeron *et al.*, 1997).

One of the main problems with the DSM classification is that there is considerable overlap between dyspareunia and vaginismus. In fact, recent studies show that the vast majority of women diagnosed with vaginismus experience pain during a gynecological examination and during attempted intercourse (Reissing *et al.*, 2002). Moreover, avoidance of penetration appears to be the only factor that differentiates between dyspareunia and vaginismus (de Kruiff *et al.*, 2000; Reissing *et al.*, 2002). We have thus suggested that these two disorders are but one and the same, i.e., a chronic, recurrent pain syndrome, albeit with multiple aetiologic pathways (Meana & Binik,

1994; Binik *et al.*, 1999). In line with current conceptualizations of chronic and recurrent pain problems, we have emphasized the multidimensional nature of genital pain and the interdependent roles of biological, cognitive, affective, behavioural, and interpersonal factors that contribute to its development and maintenance (e.g. Melzack & Wall, 1983). Based on this biopsychosocial pain conceptualization, we have developed an Integrated Pain Relief Treatment (IPRT) programme which combines cognitive-behavioural therapy for pain and sexual dysfunction with physical therapy.

## **Rationale**

The decision to develop an integrated treatment programme including cognitive-behavioural and physical therapy stemmed from a number of considerations. First, recent evidence suggests that the pelvic floor musculature might play a role in the maintenance of genital pain. Reissing *et al.* (2002) investigated pelvic floor hypertonicity in three groups of women: those with vaginismus, vulvar vestibulitis (VVS) syndrome, and no pain controls. Results showed that women with vaginismus had the highest average muscle tension, which was significantly higher than that of women with VVS, which was, in turn, significantly higher than that of no pain controls. These findings indicate that chronic pelvic floor hypertonicity is probably contributing to painful genital sexual activity and should be dealt with directly in treatment via physical therapy. In terms of the influence of psychosocial factors, other recent studies have demonstrated that women with VVS—a condition resulting in painful genital sexual activity—display significantly higher state and trait anxiety than normal controls (Granot *et al.*, 2002; Payne *et al.*, 2002), as well as fear-mediated hypervigilance to pain (Payne *et al.*, 2002). Such findings are supported by a strong body of research highlighting the important role of cognitive, affective and behavioural factors in the maintenance and exacerbation of various chronic pain conditions (e.g., Gatchel & Turk, 1999).

Second, findings from two retrospective treatment studies showed that biofeedback delivered on its own (Glazer *et al.*, 1995) and physical therapy including biofeedback (Bergeron *et al.*, 2002) had promising success rates. Findings from two retrospective studies of cognitive-behavioural sex therapy also showed success rates ranging from 43 to 68% (Abramov *et al.*, 1994; Weijmar-Schultz *et al.*, 1996). Our own randomized trial confirmed these positive results by showing that both biofeedback and cognitive-behavioural therapy participants significantly reduced their pain from pretreatment to 6-month follow-up and maintained their gains at 2.5 year follow-up (Bergeron *et al.*, 2001).

Third, physical and cognitive-behavioural therapies share similar goals and strategies, for example, decreasing the fear of pain and penetration, and increasing voluntary control over the circumvaginal muscles. These two types of interventions have long been combined together in multidisciplinary chronic pain clinics and such an approach has proved successful in reducing pain and improving disability (Flor *et al.*, 1992). Considering that IPRT targets multiple dimensions of genital pain, it is logical that it would also provide effective pain relief and improved sexual functioning. Our clinical experience has indeed taught us that their combination leads to increased treatment success. Finally, others have used a similar approach to the treatment of

genital pain and have reported that in addition to IPRT being quite successful, it has the advantage of saving a large proportion of women who have this difficulty from surgical intervention (Weijmar Schultz & van de Wiel, 2002).

### **Therapeutic goals and strategies**

The goals of cognitive-behavioural therapy for pain and sexual dysfunction are to enable patients to: (1) reconceptualize genital pain as a multidimensional pain problem influenced by a variety of factors including thoughts, emotions, behaviours and couple interactions; (2) modify those factors associated with pain during intercourse with a view to increasing adaptive coping and decreasing pain intensity; (3) improve the quality of their sexual functioning and (4) consolidate skills. The treatment package, often given in a group format, includes the following: information about the nature of cognitive-behavioural therapy; education and information about genital pain and how it impacts on desire, arousal and orgasm; education concerning a multifactorial view of pain; pain monitoring; self-exploration of the genitals and of the painful area; relaxation techniques; cognitive restructuring exercises focusing on pain-related irrational beliefs; distraction techniques focusing on sexual imagery; identification of sexual needs and preferences; rehearsal of coping self-statements; and communication skills training. Traditional Kegel and vaginal dilatation exercises are omitted since much more effective and sophisticated desensitization exercises are accomplished in the context of physical therapy. More detailed descriptions of our cognitive-behavioural therapy for pain and sexual dysfunction have been published elsewhere (Binik *et al.*, 2000; Bergeron *et al.*, in press).

The main goal of physical therapy is to rehabilitate the pelvic floor by (1) increasing awareness and proprioception of the musculature; (2) improving muscle discrimination and muscle relaxation; (3) normalizing muscle tone; (4) increasing elasticity of the tissues at the vaginal opening, as well as desensitizing the painful area (Travell, 1983), and (5) decreasing fear of vaginal penetration. These goals are achieved through education about the role of the pelvic floor musculature in the maintenance of genital pain, electromyographic (EMG) biofeedback, electrical stimulation, manual techniques (e.g. stretching) and insertion techniques (accommodators).

All physical therapy techniques are performed first in the office by the therapist and then taught to the patient and her partner as part of a home exercise programme. The combination of biofeedback and manual techniques helps women to learn how to contract and relax their pelvic floor adequately. Patients also learn how to contract and relax when there is movement in the vagina (initiated by moving a biofeedback vaginal sensor in an in-and-out motion) and how to change the automatic muscle contraction (protective reaction) when there is pain. Visual feedback from the computer screen, verbal feedback from the therapist, and the physical 'sensory' feedback from movement of the therapist's fingers in the vagina, all complement one another to teach women about pelvic floor musculature.

Education is the foundation of pelvi-perineal rehabilitation. Women are gradually brought to realize that hypertonicity of the pelvic floor muscles increases the intensity of the pain by reducing the size of the vaginal opening and, therefore, increasing pressure

on the already hypersensitive tissue as well as on the hypertonic muscles. Patients are trained to learn both proper muscle contraction and complete voluntary relaxation, skills that they could then carry over into sexual intercourse. Although on the surface this process appears similar to that of sex therapy, we would argue that the underlying goals are best achieved in the context of an integrated treatment approach.

### **Advantages**

The efficacy of traditional sex therapy strategies used in the treatment of painful genital sexual activity—mainly vaginal dilatation and Kegel exercises—have never been empirically validated (Meana & Binik, 1994; Heiman & Meston, 1997). We have gradually learned that these exercises prescribed in the context of sex therapy have little impact on a tense pelvic floor, and that moreover, women are not aware of what a tense pelvic floor feels like until they actually see it on a biofeedback computer screen. However, when performed in physical therapy with direct feedback and coaching, perineal contraction/relaxation exercises can have a very positive influence on facilitating non-painful vaginal penetration. This finding should not be surprising since the process constitutes true *in vivo* desensitization.

Suggesting the use of vaginal dilators (or accommodators) in the context of a hypertonic pelvic floor—as is prescribed in most sex therapies—is also counter-productive since it can result in more intense pain experiences and more unsuccessful penetration attempts. This outcome, in turn, can impact negatively on important psychological factors such as self-efficacy, anxiety, and irrational beliefs surrounding pain and penetration. We have found that a focus in sex therapy on these issues is greatly facilitated by a method of vaginal accommodation practiced in physical therapy where the goal is for the patient to learn to ‘accommodate’ the inserted object rather than to ‘force’ dilate the vagina with it. This step is always preceded by exercises to relax the pelvic floor.

IPRT provides an opportunity to work on mind-body interactions in a direct way, alternating between cognitive, affective and behavioural processes. This treatment approach allows patients to transfer the skills learned in cognitive-behavioural therapy more easily to the sexual context via the body work performed in the physical therapy setting. Benefits can also be found in the opposite direction, that is, skills learned in physical therapy can be applied more readily during sexual activity, based on the psychotherapeutic work on desire, arousal and relationship issues.

An IPRT approach presents additional advantages when done in a couple therapy context. Involvement of the partner appears important since he often does not understand the reasons for, and location of, the pain and may inadvertently contribute to maintaining the problem. Physical therapy sessions present him with an opportunity to actually feel the muscle hypertonicity and see the woman’s protective reaction; he can then learn to provide positive feedback rather than engage in activities which are likely to induce pain. The cognitive-behavioural therapy sessions typically address the role of the partner in the avoidance of sexual activities, gradual reduction of the sexual repertoire, and decreased desire and arousal of the woman. These sessions also enable the partner to receive much needed emotional support.

### **Issues involved in the adoption of an integrated treatment approach**

Although the IPRT approach has met with a lot of clinical success, many issues still remain problematic or unresolved. First, no randomized controlled trial demonstrating its empirical validity has been conducted. Although some aspects of this programme have passed the empirical test (e.g., Bergeron *et al.*, 2001), we do not know the extent to which combining physical and cognitive-behavioural therapy in the treatment of sexual pain results in significantly higher success rates than the use of each of these approaches alone.

Second, on the clinical level, the best method for combining physical and cognitive-behavioural therapy is still unclear. Should both treatments be undertaken simultaneously? Should one follow the other? Our experience to date suggests that the parallel delivery of these two time-consuming and costly interventions can become a burden for patients in terms of financial and scheduling issues. Whenever possible, we prefer to begin with one treatment, usually letting the patient choose. We then gradually lengthen the interval between sessions to allow time (and financial resources) for the second treatment. That the two therapies overlap to some degree seems beneficial in order to provide a better integration of the physical and psychological issues addressed in treatment.

A third problem lies in the lack of physical therapists trained in pelvi-perineal rehabilitation. Since our own collaboration began through a rather naïve and unplanned process of trial and error, we suggest that sex therapists approach physical therapists who treat urinary stress incontinence—where similar techniques are applied—and work with them to develop a combined expertise in the treatment of the sexual pain disorders.

Two other issues merit consideration. One is the increased cost of the IPRT approach in comparison to a single therapy or medical care paid for by a medical insurance plan, which, in turn, makes it a feasible option only for a small proportion of women suffering from painful genital sexual activity. The other issue has to do with the actual physical space where treatment takes place. Clinics where both the sex therapist and the physical therapist work together in close quarters and share knowledge and information via regular meetings are unusual. Organizing care in this way would undoubtedly improve treatment delivery. Our own team is presently a virtual one with the different health professionals working at opposite ends of the city and patients having to travel between the two.

### **Recommendations**

Adopting an integrated approach to the treatment of the sexual pain disorders requires some humility. More specifically, such an approach involves seeing the limits of one's own therapeutic skills, willingness to change what one does based on new knowledge, and cultivating the flexibility to adapt one's treatment strategies to that of the other health professional, all with a view to creating a productive synergy. How can the two therapists work productively together? We believe it begins by both adhering to the same general etiologic model—in this case conceptualizing pain as multidimensional. Sharing the same viewpoint is important if the patient is to develop a good therapeutic alliance

with both health professionals as well as a clear understanding of the role of the various interventions comprising the overall programme. Both therapists should stress the contribution of all aspects of the integrated treatment programme and their interdependence (Bergeron *et al.*, in press). Having some basic knowledge about the other health professional's skills and strategies and maintaining open channels of communication constitute two final aspects of a successful integration of physical and cognitive-behavioural sex therapy. Although these recommendations do not guarantee a successful outcome, we believe they contribute to patient satisfaction and hope. Considering the scarcity of high-quality care available to women suffering from genital pain associated with sexual activity, the impact of enhanced patient satisfaction and optimism can be substantial.

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