

# Psychologic Treatments for Female Sexual Dysfunction: Are They Effective and Do We Need Them?

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Most successful treatments for sexual dysfunction are psychophysiological, in that physiological change circularly interacts with a psychological change. The topic of this article is female sexual dysfunction treatments that are psychologic, defined as interventions whose primary vector of action is initiated through *psychological mechanisms* in contrast to physiologic treatments initiated through a *physical act on the body*. In the enthusiasm for new physiologic approaches, there has been a strong tendency to overlook or dismiss the evidence that does exist for efficacious or promising psychologic treatments. Each diagnostic category of desire, arousal, orgasm, and pain disorders is briefly reviewed with respect to efficacious or effective criteria. The review shows there to be limited controlled research, with only orgasmic disorders meeting the more stringent “well established” criteria, promising but uncontrolled results for vaginismus and dyspareunia, minimal effectiveness data for hypoactive sexual desire disorder, and no available efficacy data on female sexual arousal disorder and sexual aversion. It is concluded that (a) since a psychologic treatment can and does impact sexual physiology, we need to continue to develop and test psychologic approaches both out of intellectual interest and out of respect for the choices patients require or prefer, (b) the prescription of a physiologic treatment which ignores the fact that human sexuality is infused with individual meaning may invite further interference with sexual functioning, and (c) future research would do well to test the efficacy of the psychologic and physiologic treatments, both separately and in combination, for female sexual dysfunction.

**KEY WORDS:** female sexual dysfunction; psychologic treatment efficacy.

Most successful treatments for sexual dysfunction are psychophysiological, in that physiological change circularly interacts with a psychological change. Yet the focus of intervention can be differentiated between treatments whose primary vector of action is initiated through a *physical act on the body* (physiologic treatments) in contrast to an action initiated through *psychological mechanisms* (psychologic treatments). The present remarks address the latter and address them for women with sexual dysfunction.

## FOUNDATIONS OF PSYCHOLOGIC TREATMENT FOR SEXUAL DYSFUNCTIONS

Psychologic treatments depend on principles of learning and cognitive processing as the mechanisms of change and rely on a general literature that has been well articulated and continues to expand (e.g., Barlow, 1986). It is clear that learning new patterns, changing one’s conceptualizations, and practicing different thoughts and behaviors can lead one out of many disorders and certain illnesses (Dobson & Craig, 1998).

There is increasing evidence that physiological changes result from psychological interventions. We can select two interesting and well-known examples. One is from research on the treatment of obsessive–compulsive disorder in which it was demonstrated that caudate nucleus metabolic rate changes were significantly greater

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for both drug (fluoxetine) and behavior therapy responders than for nonresponders or normal controls (Baxter et al., 1992). Thus, behavioral or drug treatments for obsessive-compulsive disorder can alter brain metabolism in those who respond to either therapy. A second example of physiological changes resulting from psychologic treatment comes from female sexual dysfunction. Cognitive-behavioral treatment (CBT) for female anorgasmia has reliably been shown to result in orgasmic responsiveness (Andersen, 1983; Morokoff & LoPiccolo, 1986). Although it could be argued that the treatment is physiologic, in that the woman masturbates or guides her partner in appropriate sexual touch, significant cognitive changes are needed in order to allow the woman to attempt this approach. In many cases, she must develop a somewhat different relationship with her body or her partner (Heiman, 2000).

In examining the empirically tested therapies for female and male sexual dysfunctions, the treatment approaches have several common ingredients (Heiman & Meston, 1997). They include (a) a detailed history that assesses physical, psychosocial, and interpersonal factors, (b) brief (5–20 session) solution-focused treatment, (c) a theoretical basis of CBT, sometimes with accompanying, though untested, systemic or psychodynamic interpretations, (d) home prescriptions, and (e) a view of sex as a legitimate symptom rather than only as a sign of other issues or pathology.

### Treatment Efficacy and Effectiveness

Several years ago, the American Psychological Association (1995) Task Force on the Promotion and Dissemination of Psychological Procedures proposed two categories of empirically supported treatments (ESTs): *well-established* and *probably efficacious*. *Well-established* treatments require group studies by different investigators showing superiority to another treatment or placebo or by demonstrating equivalency to an established treatment in studies with adequate statistical power; or a large series of well-designed single case studies compared to another treatment or placebo; the use of treatment manuals; and clear specification of patient/client samples. *Probably efficacious* criteria are somewhat less stringent: two studies showing treatment is more effective than a waiting list control group; or studies otherwise meeting well-established criteria; or at least two good studies demonstrating effectiveness but flawed by client sample heterogeneity; or a small series of single case design studies otherwise meeting the well-established treatment criteria. Since the original report of the Task Force, there has been further dis-

cussion of the criteria and meaning of empirically supported treatment (e.g., Borkovec & Castonguay, 1998; Chambless & Hollon, 1998). There is recognition that some level of *efficacy* must be demonstrated using controlled research with a delineated population. This type of research is similar in scope and intent to traditional randomized clinical trial (RCT) research.

In addition, after establishing efficacy, there is reason to examine treatment *effectiveness* or utility, i.e., whether treatment can be shown to be beneficial in actual clinical practice. Effectiveness addresses the concept of generalizability that an RCT is often unable to address, because sample selection is more restricted in clinical trials than in clinical practice. To test effectiveness, quasi-experimental and nonexperimental designs may be usefully employed.

I will address both efficacy and effectiveness but focus on the former because it is the most crucial for the initial establishment of treatment usefulness. One of the female sexual dysfunction (FSD) categories meets the well-established criteria, but others do not. In large part, this is due to the lack of adequately controlled research, funded research, and the near evaporation of psychologic treatment outcome studies since the mid-1980s. Since that time, there has been an increasing pressure, driven significantly by the dominance of medicine and the increasing health care demands in the United States, to validate psychologic treatments with methodologies comparable to medical research. This in fact is not an easy task. Although well-controlled psychologic studies are relatively straightforward to design, they can present difficulties with implementation. The demands on psychologic treatment sometimes fit uncomfortably with the rigors of patient homogeneity, adherence to treatment manuals, and treatment delivery consistency and reliability. More in-depth discussion on psychologic treatment research issues can be found in Heiman and Meston (1997).

### TREATMENT EFFICACY/EFFECTIVENESS BY DIAGNOSTIC CATEGORY

For convenience and ease of communication, I will organize my comments around sexual dysfunction categories as outlined in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* by the American Psychiatric Association (1994). Although it differs from the World Health Organization's International Classification of Diseases (ICD-10; WHO, 1992), the basic categories used are highly similar and thus have similar disadvantages (cf. Heiman, 1999). The more recent definitions and classification system provided by an international consensus panel (Basson et al., 2000) has modified the *DSM-IV*

but the main categories are unchanged (Leiblum, 2001). Diagnostic categories can include either men or women, unless otherwise indicated.

### Sexual Desire Disorders

The *DSM-IV* lists two types of desire disorders: *hypoactive sexual desire* (HSD) and *sexual aversion*. Neither has any efficacy data and only HSD has (limited) effectiveness data. That is not to say there are not many treatment approaches that have been discussed (Leiblum & Rosen, 1988). The difficulties in researching this condition include the breadth of its *DSM-IV* definition (“persistently or recurrently deficient or absent sexual fantasies and desire for sexual activity”) and the lack of clinically and methodologically meaningful subcategories (Heiman, 2001). With respect to definition, very little is known about normative desire levels by age, hormonal status, general physical condition, and relationship factors, making it unclear where to separate normal variation from “disorder.” Thus, a great deal rests on the subjective and probably highly variable evaluation of the clinician and the level of “marked distress or interpersonal difficulty” the woman expresses about her sexual desire level (American Psychiatric Association 1994).

What would be important for systematic research in this area is attention to more specifically defined samples with respect to suspected etiological factors (age, relationship factors, hormonal condition), operationalizing low sexual desire levels (e.g., Schreiner-Engel & Schiavi, 1986), and using the *DSM-IV* modifying variables of lifelong/acquired and generalized/situational. Generalized and lifelong HSD is likely to need a different treatment approach than acquired and situational HSD.

One HSD potentially distinct category that is under discussion is that of postmenopausal women. These women have less bioavailable testosterone, either because of reduced ovarian function or because of hormone replacement therapy. Testosterone replacement for postmenopausal women has been attempted with some success (Davis, 1998). Whether a psychologic intervention could help potentiate or enhance the response to testosterone is unknown (Bartlik, Legere, & Andersson, 1999).

But as Laumann and colleagues (Laumann, Gagnon, Michael, & Michaels, 1994; Laumann, Paik, & Rosen, 1999) have demonstrated, sexual desire problems, though perhaps not the same type of desire problems, show nearly the same prevalence in younger and older U.S. women. Women aged 24–25 showed rates (rounded) of 29–32% and 50–59-year-old women reported rates of 30–37%

(Laumann et al., 1994). These figures (approximately double the incidence of the men of the same ages) make one curious about the normative range of desire that women would label as adequate versus inadequate levels for satisfying sexual lives.

Other than clinical case studies and retrospective reviews, there are few data on HSD. One study worth mentioning is a prospective, noncontrolled study of a community sample in Great Britain (Hawton & Catalan, 1986). A sample of 154 couples underwent a modified Masters and Johnson (1970) type of treatment. Of those initially experiencing impaired sexual desire, 56% were rated as having their problem largely or completely resolved following treatment. As these were single item therapist ratings, the results are best seen as suggestive. They do imply that future research might compare a treatment with similar components to another experimental treatment.

### Female Sexual Arousal Disorder

*Female sexual arousal disorder* (FSAD) is rarely identified as separate from either desire or orgasmic ease. In the *DSM-IV*, FSAD is described in terms of lubrication and vasocongestion problems. There are no outcome psychologic data specifically related to FSAD as a separate diagnosis. Since the release of sildenafil (Viagra, Pfizer Pharmaceutical) for men in 1998, there has been considerable interest in finding parallel agents for women. As of January 2002, there has been one published clinical trial supporting sildenafil for a sample of 51 young premenopausal women (Caruso, Intelisano, Lupo, & Agnello, 2001) and one published abstract of a well-controlled randomized trial using 583 estrogenized women showing no differences between drug and placebo (Basson, McInnes, Smith, Hodgson, Spain, & Koppiker, 2000). Several different pharmaceutical agents are currently under investigation (Bartlik, Kaplan, Kaminetsky, Roentsch, & Goldberg, 1999). Whether that will in turn encourage comparisons to psychologic treatments is uncertain. Continued exploration of treatments for arousal disorders in women may also encourage a reexamination of FSAD as a separate and distinct diagnosis (e.g., Basson, 2001).

### Orgasmic Disorders

There is enough evidence to conclude that there is an efficacious treatment for *female orgasmic disorders*, though this is more accurate for primary than secondary orgasmic problems (Andersen, 1983; Morokoff & LoPiccolo, 1986). Across all comparison controlled

studies ( $N = 577$ ), using 6–14 sessions, directed masturbation (DM) was more effective than systematic desensitization; and DM plus sensate focus was more effective than sensate focus alone (Heiman & Meston, 1997). Although group, individual, and couple therapies appear to be effective, comparisons between them are too infrequent to make any conclusions. For most criteria, primary orgasmic disorder fits the well-established efficacy designation and secondary orgasmic disorder fits the probably efficacious criteria. The difficulty with these designations is that most of the studies have significant weaknesses in how well they characterize their samples.

### Sexual Pain Disorders

*Vaginismus* without the primary diagnosis of dyspareunia appears to be a relatively rare condition. Over their 5-year study, Masters and Johnson (1970) treated only 29 women with vaginismus compared to 342 women who were treated for orgasmic disorders. The low prevalence of this condition may play a role in the fact that there are no treatment comparison studies. There are two no-control studies (total  $N = 54$ ) plus a number of case studies. Almost all studies used a gradual dilation procedure with considerable success. Completed sexual intercourse was possible in approximately 75–100% of women by the end of treatment. In the past 10 years, perineal biofeedback procedures have been used for both diagnosis and treatment of vaginismus, though almost no empirical data exist for this diagnosis except when combined with dyspareunia (cf. Glazer, Rodke, Swencionis, Hertz, & Young, 1995). There is considerable evidence that this is a promising and useful procedure either by itself or with dilators and sex therapy, but to date, comparison studies have not been published.

*Dyspareunia* refers to pain associated with intercourse but the location, duration, and patterns of pain can be quite variable. Vulvar vestibulitis syndrome (VVS) is thought to be the most common subcategory of dyspareunia and it has a more precise diagnosis (Bergeron, Binik, Khalife & Pagidas, 1997; Goetsch, 1991). There are very limited reports of treatment success with the general category of dyspareunia and no controlled studies. However, there are some suggestions from research with VVS patients that a psychologic treatment may be helpful (Bergeron et al., 1997, 2001; Glazer et al., 1995). Bergeron et al. (2001) reported on a randomized comparison study and found that vestibulectomy resulted in significantly higher rates of improvement than biofeedback or a pain management/sex therapy intervention. However, mean levels of self-reported pain during intercourse were

significantly lower at posttreatment for all three treatment conditions and vestibulectomy patients were not significantly different from biofeedback patients on this measure. Perineal biofeedback may be particularly effective when there is presumed hypertonicity of the pelvic floor muscles. Preliminary work by Glazer et al. (1995) found that after 28 weeks of biofeedback training practice, 17 out of 33 women with VVS reported pain-free intercourse.

In spite of indications of effective treatment for a notable number of women with genital pain disorders, the lack of controlled studies prevents us from concluding that there are any clearly efficacious treatments for women. Given the more recent research, we can expect that new treatments will evolve that will be combination therapies of more than one intervention for the majority of cases (Bergeron et al., 2001). In addition, we might expect developments on the physiologic treatments to be helpful in themselves and very appropriate for combination with psychologic treatments.

### PROGNOSTIC FACTORS

One might expect that some individuals would benefit from psychologic interventions more than others, yet there is almost no information on the factors that might predict treatment response. An exception is the Hawton and Catalan (1986) study. Even though it did not use controls, this prospective study of sex therapy has a large enough sample ( $N = 154$  couples, 96 of whom completed treatment) and variability in outcomes to make it valuable for generating some initial thoughts about prognostic factors. The sample was British, heterosexual, and had a mean age of 32 years. Factors *predicting a good outcome* were higher pretreatment therapist global ratings of the overall and the sexual relationship, higher pretreatment therapist ratings of the male partner's motivation, the female's (not the male's) positive rating of the overall relationship, ease of communication of anger in the couple, and homework attempted early in the treatment process.

There were no analyses predicting poor outcome. However, the treatment dropouts, a sizable 27% of the couples, reveal important factors to be further examined. Those who dropped out were likely to be of lower social class, lower male motivation, rated by the therapist as having a poorer general relationship, and as having made less progress by the third treatment session.

It is of interest to note factors in this study which *failed to predict* treatment outcome: age, age differences between partners, social class, the duration of the sexual problem, relationship duration, affairs during the current relationship, number of children, strength of religious

beliefs, and current psychiatric disorder. These variables may have not shown significance because of their limited variability in this rather young sample. Few conclusions can be made from these data, except that a search for predictive factors for treatment success is useful. It would help clinicians to advise patients with regards to treatment options and would be important to investigate in both psychologic as well as physiologic treatments. Important data domains in addition to the sexual symptoms identified would seem to be the general as well as the sexual relationship of both the patient and her partner.

## CONCLUSIONS

Almost all of the previous data on psychologic treatments were generated in the mid-1980s or earlier. Currently, we are in a climate that overlooks and dismisses psychologic treatments. We can speculate on many possible reasons for this, including the success of sildenafil with men, a significant number of whom had “psychogenic” erectile disorders, the belief that psychologic treatments are time-consuming and expensive, and the sociocultural pressure in the medical and larger culture to see physiologic treatments as superior and sexuality as a primarily physical experience (e.g., Tiefer, 1995). These are understandable biases but problematic if we want to adequately treat the complexity of sexual response which cannot be understood without a psychosocial and biological dialectic.

To return to the original questions of this review:

1. Are psychologic treatments efficacious? Yes, for orgasmic disorders (primary *well-established*, secondary probably efficacious); possibly for pure vaginismus; and suggestive for some types of dyspareunia. The data are too limited for conclusions about hypoactive sexual desire and sexual aversion. Outcomes are unknown for female sexual arousal disorder.
2. Do we need (efficacious) psychologic treatments? Yes, for the following reasons: patient choice, (essentially) zero adverse event/side effect profiles, to optimize physiologic treatments, and to combine with physiologic treatments.

With respect to combining psychologic and physiologic treatments, it is worth mentioning a recent study on a completely different diagnostic group. A large clinical trial, including 681 patients with chronic major depression, was conducted at 12 U.S. sites (Keller et al., 2000). This study compared nefazodone (Serzone, Bristol-Meyers Squibb) to a cognitive-behavioral therapy called

cognitive-behavioral analysis system of psychotherapy (CBASP) to combined treatment. The response rates to the treatments were striking: CBASP 52%, Serzone 55%, and Serzone + CBASP 85%. The monotherapies were not significantly different from each other. The combined treatment was significantly greater than either monotherapy. The combined treatment resulted in a treatment response that was the highest ever reported in clinical trials for chronic major depression. This study is valuable to illustrate that a complicated health condition (chronic major depression) with both biologic and psychosocial etiological factors can be significantly improved by physiologic or psychologic therapies alone. However, the clearly superior approach in this case was a combined treatment. The implications for sexual dysfunction treatment are compelling, though we have some distance to cover to clarify which drugs and psychologic therapies might be compared and combined.

The fact that a psychologic treatment can and does impact sexual physiology demands that we continue to develop and test the psychologic approach both out of intellectual interest and out of respect for the choices patients require or prefer. Furthermore, to prescribe any treatment and ignore the fact that human sexuality is infused with individual meaning is to invite further interference with sexual functioning. In the enthusiasm for new physiologic approaches, there has been a tendency to overlook or dismiss evidence for psychologic treatments. This is troubling and a poor reflection on the field overall at a time when female (and male) sexual functioning could benefit from (a) more research on both psychologic and physiologic treatments and (b) a pursuit of comparison and combination studies of each treatment category. As has been demonstrated in the development of treatments for psychophysiological conditions such as depression, this strategy is likely to enhance the effectiveness and maintenance of change. I believe this is our common goal.

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