Evaluation of a Cognitive Behavior Therapy Program for People with Sexual Dysfunction

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This article reports on an evaluation of a cognitive behavioral program for the treatment of sexual dysfunction. Frequency data are provided on the sexual dysfunction of 95 males (mean age = 41.6 years) and 105 females (mean age = 36.4 years). The effectiveness of a cognitive behavioral program among 45 sexually dysfunctional males (mean age = 39.9 years) and 54 sexually dysfunctional females (mean age = 36.2 years) was assessed. The results demonstrated that, after therapy, respondents experienced lower levels of sexual dysfunction, more positive attitudes toward sex, perceptions that sex was more enjoyable, fewer affected aspects of sexual dysfunction in their relationship, and a lower likelihood of perceiving themselves as a sexual failure. The implications of these findings for the treatment of sexual dysfunction are discussed.

Estimates vary regarding the prevalence of sexual dysfunction in the general community, although recent data suggest that sexual problems frequently occur among both males and females. In a recent comprehensive study of sexuality in the United States, Laumann, Gagnon, Michael and Michaels (1994) estimated that the most frequently experienced problem for women was lack of sexual desire (33%), followed by anorgasmia (24%). The most common problem for men was premature ejaculation (29%), followed by a lack of sexual interest (16%). However, these percentages differ from those among males and females who actually present for treatment of their sexual problems. For example, although Laumann et al. (1994) estimated that only 10.4 percent of males in the general population experience erectile dysfunction, a recent study has shown erectile dysfunction to be the most frequent presenting problem for males, with 40.2 percent of male patients who presented...
for treatment of sexual dysfunction experiencing this disorder (Hirst, Baggaly, & Watson, 1996).

Treatment programs for sexual dysfunction frequently lack adequate research methodology, which makes it difficult to evaluate their effectiveness. Among the problems are: frequently is no clear definition of the problem; the target variables for treatment are not clearly specified, and so evaluation of treatment success is inadequate; there are often no pre- and post-measures of target variables; outcome measures, if used, lack adequate information on their psychometric properties; the treatment program is not clearly described; and sample sizes are too small for adequate statistical analysis (Heiman & Meston, 1997). These flaws make it difficult to evaluate which treatment programs for sexual dysfunction are most successful and cost effective (O’Donohue, Dopke, & Swingen, 1997; O’Donahue, Swingen, Dopke, & Roger, 1999).

Although there have been few recent studies evaluating the effectiveness of therapy programs in addressing sexual dysfunctions, a number of studies have been conducted in the past 30 years. Morokoff and Heiman (1980) evaluated the sexual response of dysfunctional (low subjective arousal) women before and after a cognitive behavioral intervention in comparison to a nonclinical sample, using both subjective and physiological measure of arousal. Before therapy, both clinical and nonclinical groups experienced genital responses of similar magnitude. However, the nonclinical group reported higher subjective feelings of sexual arousal than did the clinical group. Following therapy, there were no differences between the groups in either genital response or subjective feelings, leading the authors to suggest that the treatment for low sexual arousal should be directed toward the cognitive and affective experiences of arousal rather than on methods for increasing physical response.

Given that this study used participants who had reported experiencing a low frequency of subjective sexual arousal, it is difficult to know how far this approach can be generalized to women who experience problems in the desire or arousal phases. Of the clinical sample used by Morokoff and Heiman (1980), 8 women were inorgasmic (whether primary or secondary is not specified) and 3 were orgasmic only up to 25% of the time. Therapy enabled all participants to achieve orgasm, with those who were previously orgasmic being able to achieve orgasm more frequently and with a greater variety of stimuli. This finding would seem to suggest that a similar therapy program could be used for these two dysfunctions, and that such a treatment program should focus on attitudes toward sexuality and tuning into one’s physiological levels of arousal.

LoPiccolo and Lobitz (1972) reported that cognitive behavioral sex therapy techniques improved orgasmic responsiveness to partner stimulation from a mean of 25% to 50% for 19 secondary-orgasmic dysfunctional women, and improvement was maintained at a three-month follow-up. There was a gradual,
but not statistically significant, improvement in the frequency of orgasm with clitoral stimulation but not during intercourse alone.

Other studies reporting varying degrees of symptom remission among women with secondary orgasmic dysfunction have used a wide range of techniques. For example, Munjack et al. (1976), using systematic desensitization, graduated home assignments and assertiveness training—with a focus on achieving open communication between the partners about sexual desires and preferences—reported that 4 out of 10 women became orgasmic in at least 50% of their sexual interactions. This figure increased to 6 women at the time of follow-up. Delaney and McCabe (1991) also found that a cognitive behavioral program that included a focus on communication, sensate focus, and fantasy training was effective among women with anorgasmia.

From the above studies, it would appear that interventions that use cognitive and behavioral strategies are effective for female arousal and orgasm disorder. However, the success of a cognitive behavioral intervention for desire phase disorder has largely not been determined.

The literature on the effectiveness of therapy for male sexual dysfunction also is largely inadequate. Hawton, Catalan, Martin, and Fagg (1986) found that cognitive behavioral treatment provided a relatively good long-term outcome for the treatment of erectile dysfunction but a poorer outcome for the treatment of premature ejaculation. Reynolds (1991), on the other hand, reported that there is evidence for the effectiveness of a variety of psychotherapeutic approaches to erectile dysfunction, but that comparisons among the various treatment approaches are difficult.

Loss of sexual desire has been considered to be the most difficult of all the sexual dysfunctions to treat. Kaplan (1979) stated that, compared with excitement or orgasmic disorders, desire phase disorders have the least favorable prognosis. A behaviorally oriented program was devised by Schover and LoPiccolo (1982) for the treatment of this condition. Treatment was multifaceted and included the use of sensate focus exercises, sexual fantasy, and assignments to increase sensual awareness and sexual communication. LoPiccolo and Friedman (1988) also integrated cognitive, behavioral, and systematic approaches into a treatment package to address this sexual problem. Treatment started with strategies aimed at the development of sensory awareness, followed by insight-orientated therapy to help patients develop an understanding of the causes of the difficulty. Cognitive restructuring and behavioral interventions then attempted to alter negative feelings and help the patient learn to be sexual. McCarthy (1984) developed a program that also addressed many of these issues. However, he stated that the focus of therapy should be on the quality and satisfaction of the sexual relationship rather than the goal of intercourse frequency. Aroaz (1983) developed a more cognitive approach to therapy, claiming therapy should focus on the negative processing associated with sexual thoughts. He claimed that negative processing leads to guilt and anxiety, which, in turn, leads to a loss of
interest in sex. Although the above papers provide a good description of the components of therapy that should comprise treatment programs for disorders of sexual desire, there have been few studies that have evaluated the effectiveness of these programs.

Fish, Fish, and Sprenkle (1984) suggested that the function of a loss of sexual desire was to ensure the maintenance of power, emotional distance, and lack of intimacy within the marital relationship. Certainly, the data presented by McCabe (1994, 1997) would suggest that both males and females who experience desire phase problems are at greatest risk of also experiencing problems in their relationship, most particularly in their levels of intimacy with their partner. It is only by addressing these issues, they claimed, that the problem can be resolved. Herlbert (1993) evaluated two group approaches for women who reported hypoactive sexual desire. He found that treatment that focused on orgasm consistency, as well as a standard cognitive behavioral approach that addressed marital and sexual problems, was more effective than cognitive behavioral treatment alone. This finding would suggest that there are multiple factors that contribute to low sexual desire, and a multidimensional approach to this disorder is more likely to lead to a successful outcome. In fact, McCabe (1997) found that an approach that addressed communication, emotional responding, and relationship issues was most effective for males with low levels of sexual desire.

The above literature review demonstrates that various approaches appear to have had some success in the treatment of sexual dysfunction. The literature suggests that included in any program for the treatment of sexual dysfunction should be strategies to facilitate the development of sexual skills, communication training, and cognitive strategies to reduce anxiety (e.g., challenging of unrealistic expectations, strategies to reduce the focus on sexual performance).

METHOD

Participants

The participants were comprised of males and females who were currently in heterosexual relationships and who presented to a University Sexual Behavior Clinic for treatment of their sexual dysfunction. Some participants were referred by medical practitioners, others were self-referred. The clinic primarily focused on delivering a cognitive behavioral treatment program, and this was known by participants who presented for therapy. In total, 95 males (mean age = 41.6 years) and 105 females (mean age = 36.4 years) presented for treatment. The nature of the participants’ sexual dysfunction is outlined in Table 1. Of these people with sexual dysfunction, 45 males (mean age = 39.9 years) and 54 females (mean age = 36.2 years) completed the treatment program. The nature of these participants’ sexual dys-
functions is outlined in Tables 2 and 3. Participants who dropped out of therapy did so after the first, second, or third session and did so for a number of reasons: relationship problems, unrealistic expectations of speed of changes from therapy program, and difficulty in committing to the requirements of the program.

Materials

The Sexual Function Scale and the Sexual Dysfunction Scale were completed by all respondents pre-therapy (to provide a baseline measure) and post-therapy (McCabe, 1998a, 1998b).

The Sexual Function Scale

Subscales were used that related to current attitudes toward sex (32 items), range of sexual activity (16 items), sexual satisfaction (3 items), communication (10 items), and quality of the relationship (12 items). All items were rated on a five-point scale. Each scale had demonstrated high internal con-

### TABLE 1. Nature of Sexual Dysfunction Pretherapy for Males and Females

<table>
<thead>
<tr>
<th>Dysfunction</th>
<th>Male (n = 95)</th>
<th>Percentagea</th>
<th>Female (n = 105)</th>
<th>Percentagea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painful intercourse</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>16.7</td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>33</td>
<td>34.7</td>
<td>42</td>
<td>38.9</td>
</tr>
<tr>
<td>Erectile disorder</td>
<td>42</td>
<td>44.2</td>
<td>21</td>
<td>19.4</td>
</tr>
<tr>
<td>Retarded ejaculation</td>
<td>15</td>
<td>15.8</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td>Lack of sexual interest</td>
<td>18</td>
<td>18.9</td>
<td>51</td>
<td>42.2</td>
</tr>
</tbody>
</table>

aThese percentages do not total 100 because some respondents experienced multiple sexual problems.

### TABLE 2. Nature of Male Sexual Dysfunction, Pre-therapy and Post-therapy (n = 45)

<table>
<thead>
<tr>
<th>Dysfunction</th>
<th>Pre-therapy</th>
<th>Post-therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentagea</td>
</tr>
<tr>
<td>Painful intercourse</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>21</td>
<td>46.6</td>
</tr>
<tr>
<td>Erectile Disorder</td>
<td>32</td>
<td>71.1</td>
</tr>
<tr>
<td>Retarded ejaculation</td>
<td>5</td>
<td>11.1</td>
</tr>
<tr>
<td>Lack of sexual interest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No sexual problems</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

aThese percentages do not total 100 because some males experienced multiple sexual problems.
sistency (coefficient alpha for current attitudes to sex = .8; range of sexual activities = .7; sexual satisfaction = .6; communication = .7, quality of relationship = .8) and high test-retest reliability over a period of 6 weeks (current attitudes toward sex, $r = .9$; sexual satisfaction, $r = 1.0$; communication, $r = .9$; quality of relationship, $r = 1.0$).

**Sexual Dysfunction Scale**

All participants completed sections of the Sexual Dysfunction Scale that were relevant to their particular dysfunction. This scale evaluates the nature of the sexual problem (30 items), as well as information on premature ejaculation (33 items), erectile disorder (33 items), retarded ejaculation (31 items), anorgasmia (48 items), female sexual arousal disorder (51 items), vaginismus (31 items), and lack of sexual desire (91 items). The information reported in this article relates to the frequency of experiencing the sexual dysfunction, the length of time the problem has existed, and the perceived causes of the sexual problem. The subscales of the Sexual Dysfunction Scale have been shown to be reliable (coefficient alpha of nature of sexual dysfunction = .6; premature ejaculation = .7; erectile problems = .7; retarded ejaculation = .7; anorgasmia = .6; female unresponsiveness = .7; vaginismus = .7; lack of sexual interest = .6).

**Procedure**

All respondents presented for treatment of their sexual dysfunction at the Sexual Behavior Clinic. All sexual dysfunctions were primarily due to psychogenic causes. If respondents were referred by a medical practitioner, physical causes for their sexual problem had been assessed; if the respondents were self-referred or referred by other professionals, they were assessed by a medical practitioner to eliminate physical causes for their sexual problem before they commenced the treatment program. The nature of the physiological evaluations varied from one practitioner to another, but all

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**TABLE 3. Nature of Female Sexual Dysfunction Pre-therapy and Post-therapy ($n = 54$)**

<table>
<thead>
<tr>
<th>Dysfunction</th>
<th>Pre-therapy</th>
<th></th>
<th>Post-therapy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Painful intercourse</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Anorgasmia</td>
<td>36</td>
<td>66.7</td>
<td>6</td>
<td>11.1</td>
</tr>
<tr>
<td>Sexual arousal disorder</td>
<td>18</td>
<td>33.3</td>
<td>8</td>
<td>14.8</td>
</tr>
<tr>
<td>Vaginismus</td>
<td>3</td>
<td>5.5</td>
<td>2</td>
<td>3.7</td>
</tr>
<tr>
<td>Lack of sexual interest</td>
<td>43</td>
<td>79.6</td>
<td>29</td>
<td>53.7</td>
</tr>
<tr>
<td>No sexual problems</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>44.4</td>
</tr>
</tbody>
</table>

$^a$ These percentages do not total 100 because some females experienced multiple sexual problems.
included an assessment of prolactin, free testosterone levels, and a screen for diabetes.

The treatment program was based on cognitive behavioral principles. It was a ten-session program that focused on enhancing communication between the partners, increasing sexual skills, and lowering sexual anxiety and performance anxiety. Cognitions and behaviors that impeded functioning in these areas were addressed. Homework exercises comprised both cognitive strategies and behavioral exercises to enhance communication between partners, as well as sensate focus exercises. During therapy sessions, blocks to sexual performance were discussed, and strategies to overcome these blocks were developed by addressing cognitions and behaviors that impeded sexual performance and enjoyment of sexual activities. The first two therapy sessions occurred weekly, and the subsequent session occurred every 2 weeks.

Partners were involved in therapy sessions when appropriate in order to ensure compliance with the treatment regime; this generally occurred for two or three sessions for most couples. Since it was understood at the commencement of therapy that the focus was on sexual functioning within the context of the relationship, and that partner involvement was an essential ingredient of therapy, there was generally little or no resistance to partner involvement.

RESULTS

The nature of the sexual problems of males and females who presented for treatment of their sexual dysfunction is summarized in Table 1. The most common problem for males was erectile disorder, followed by premature ejaculation, lack of sexual interest, and retarded ejaculation. For females, the most common problem was lack of sexual interest, followed by orgasmic disorder, sexual arousal disorder, painful intercourse, and vaginismus.

Table 2 summarizes the nature of the sexual dysfunctions of respondents who completed therapy both pre-therapy and post-therapy. Males who presented with erectile disorder were most likely to complete therapy, followed by males with premature ejaculation, and then males with retarded ejaculation. Males with a lack of sexual interest did not complete therapy. Therapy was successful for 53.3 percent of males and was most likely to be effective for males with premature ejaculation, followed by males with erectile dysfunction, and then males with retarded ejaculation.

The females who completed therapy were most likely to experience lack of sexual interest pre-therapy, followed by anorgasmia, sexual arousal disorder, then vaginismus (see Table 3). However, a large percentage of the respondents experienced multiple sexual dysfunctions. Therapy was successful for 44.4 percent of females and was most likely to be effective for females who experienced anorgasmia and sexual arousal disorder; it was least effective among women who experienced a lack of sexual interest.
Both males and females had experienced sexual dysfunction for a considerable period of time (see Table 4), ranging from since adolescence (no males, 3.7 percent of females) to the past 12 months (20 percent of males, 9.2 percent of females). The model frequency for females was in the past 5 years (53.7 percent), and the model frequency for males was more than five years (42.6 percent).

Both males and females who presented for treatment with sexual dysfunctions were most likely to experience problems 75 percent or 100 percent of the time that they attempted sexual activity, although 27.8 percent of women experienced problems only 25 percent of the time (see Table 5). After therapy, there was a greater spread in the percentage of time that respondents experienced sexual dysfunction, although 26.7 percent of males and 27.8 percent of females continued to experience some form of sexual dysfunction 100 percent of the time that they attempted sexual activity (see Table 5).

The percentage of time respondents had sexual problems decreased after therapy ($F = 5.19, p < .05$) for both males and females (see Tables 2 and 3). There was no change after therapy in frequency of intercourse, frequency of other types of sexual activity, general feelings about the relationship, communication in the relationship or fatigue being perceived as a problem that contributed to the sexual dysfunction.

However, post-therapy, there were more positive attitudes toward sex ($F = 7.8, p < .01$). Sex was more likely to be perceived as being more enjoyable ($F = 7.5, p < .01$), sex was seen to affect fewer aspects of the relationship ($F = 17.3, p < .001$), and participants were less likely to feel as if they were a sexual failure ($F = 4.8, p < .05$).

**DISCUSSION**

The percentage of men and women presenting for treatment of the various sexual dysfunctions in the present study is consistent with previous studies (Hirst et al., 1996). The most frequent sexual problem for females was lack of sexual interest and for males it was erectile dysfunction. These also were found for both males and females who completed therapy. The exception to this finding was that males who presented with a lack of sexual desire ap-
<table>
<thead>
<tr>
<th>Frequency occurrence of problems (percentage)</th>
<th>Pre-therapy</th>
<th></th>
<th>Post-therapy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>53.3</td>
</tr>
<tr>
<td>&lt;10</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.4</td>
</tr>
<tr>
<td>25</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>75</td>
<td>19</td>
<td>42.2</td>
<td>4</td>
<td>8.8</td>
</tr>
<tr>
<td>100</td>
<td>26</td>
<td>57.8</td>
<td>12</td>
<td>26.7</td>
</tr>
</tbody>
</table>

**TABLE 5.** Frequency of Occurrence Sexual Dysfunctions for Males \( n = 45 \) and Females \( n = 54 \), Pre-therapy and Post-therapy
peared to be less likely to complete therapy than other patients. This may be related to gender differences in factors associated with low sexual desire (Donakey & Carroll, 1993). Overall, these authors found that males with low sexual desire appeared to experience less psychological and marital distress than females. Although one may expect that this would be a favorable predictor for treatment outcome, the present results would suggest that these low levels of distress may be associated with lower levels of motivation to change current behaviors and subsequent lessened involvement in treatment (Hawton, 1995). This proposal is only conjecture and needs to be assessed in future studies that explore factors related to successful outcome with sexual dysfunction. Motivation to change sexual attitudes and behaviors has not been explored among sexually dysfunctional populations, but levels of motivation may be an important element in understanding and in successful treatment.

Another possible explanation for the above results is that lack of sexual desire is the most difficult sexual dysfunction to treat (McCarthy, 1984). Certainly, the dysfunctions most likely to improve were those centered on the orgasm phase (premature ejaculation, anorgasmia), with those in the arousal phase (erectile disorder, sexual arousal disorder) showing moderate improvement, and desire phase disorders showing least improvement.

A high percentage of females, compared to males, experienced multiple sexual dysfunctions at the commencement of therapy. In fact, women who experienced multiple sexual dysfunction appeared also to be more likely to complete therapy. Having multiple problems may increase the motivation of women to complete therapy, but this does not necessarily lead to treatment success, since these women require more difficulties to be resolved in therapy.

A large percentage of patients who completed the current therapy program still experienced sexual problems at the conclusion of the study. In fact, 35.5 percent of males and 40.8 percent of females still experienced sexual dysfunction 75 to 100 percent of the time. However, this was a substantial shift from the levels of sexual dysfunction pretherapy, where 100 percent of the males and 61.1 percent of the females experienced sexual dysfunction 75 to 100 percent of the time. These findings would suggest that males tend to seek help for sexual problems when they are well-entrenched, and so the sexual problems are more likely to impact on other aspects of their lives (McCabe, 1997). These findings also highlight the difficulty in defining successful therapy. Not only are there difficulties in terms of what variables to assess (e.g., level of sexual dysfunction, sexual satisfaction, frequency of sexual activity), but there are also difficulties in concluding when the sexual dysfunction has been cured. The results of the current study demonstrate that a large proportion of participants experienced sexual dysfunction less frequently post-therapy, but many of them still experienced some level of sexual dysfunction. Does this constitute successful therapy, or does successful therapy only entail a complete absence of sexual dysfunction post-therapy? This dilemma demonstrates the difficulty of defining suc-
cess in therapy, and the importance of a complete description of pre-therapy and post-therapy levels of sexual dysfunction, as well as other associated measures of sexual functioning. However, these results would suggest that a longer term therapy program may be more effective, particularly given the fact that a substantial proportion of respondents (particularly women) were experiencing multiple sexual dysfunctions.

A further factor that may relate to the success of therapy is the length of time that the problem has been in place. Only 20 percent of males and 9.2 percent of females who completed therapy had developed the problem within the past 12 months. In fact, 42.6 percent of males and 33.3 percent of females had experienced their problem for longer than five years, with 3.7 percent of females developing the problem during adolescence. These findings are consistent with those of Donakey and Carroll (1993), who found that patients with low sexual desire, particularly females, had experienced the problem over many years. When a problem has been present for an extended period of time, it may have become incorporated into the person’s view of themselves, and the relationship may have adjusted to incorporate the dysfunction. As a result, a number of changes need to occur if the dysfunction is no longer present. The person with the dysfunction or the partner may be resistant to these changes.

The findings of the current study demonstrate that many of the males and females who present for treatment of sexual dysfunction experience multiple sexual problems that have been in place for many years. They also are likely to experience the problem most of the time rather than only occasionally. These findings present a picture of sexual problems that are likely to be resistant to treatment because of the long-standing and pervasive nature of the problem. In fact, many of the relationship and sexual variables showed no change post-therapy, although there were some changes in attitudes toward sex. It, therefore, is not surprising that short-term cognitive behavioral treatment only is effective with about half of the respondents. It is least effective in the arousal and desire phase.

Another way of looking at the results from the present study is that, despite the long-term and pervasive nature of these disorders, a 10-week program led to remediation of the sexual dysfunction with about 50 percent of respondents. This should provide impetus for psychologists to develop longer, more intensive programs to change the lifestyle, cognitions, and relationships of patients with sexual dysfunction. In this way, the effectiveness of psychological treatments for sexual dysfunction is likely to increase. Future programs are more likely to address problems that underpin disorders in the arousal and desire phases, as well as the orgasm phase of the sexual response cycle.

Intensive, long-term therapy may be more effective with these disorders. Alternatively, a combination of both psychotherapy and pharmacotherapy also should be evaluated in future research. With the advent of readily available medications for erectile disorder in males, combination thera-
pies may demonstrate superior efficacy than either intervention on its own. Future research, therefore, needs to focus on whether outcomes are improved by the use of longer-term psychotherapy or combination therapies. In this way, the most efficacious treatment for the different types of sexual dysfunctions can be determined.

REFERENCES


