

# Sexual Therapy in the Age of Pharmacotherapy

Stanley E. Althof

Case Western Reserve University School of Medical School  
Center for Marital and Sexual Health of South Florida

Combining medical and psychological interventions for individuals or couples with sexual dysfunction offers an alternative approach to therapy that enhances efficacy, treatment and relational satisfaction, and decreases patient discontinuation. By combining the power of both and changing the way we deliver psychological care, patients may, in the long-term, derive greater benefit. I review the literature on combined therapy and propose one paradigm for combined therapy. This paradigm serves only as a model to be improved upon or extensively modified. Such combined treatment models must be conceptually sound and be subjected to reproducibility and sophisticated analysis.

**Key Words:** combination therapy, erectile dysfunction, pharmacotherapy and psychotherapy of male sexual problems, premature ejaculation.

In 1994, Schover and Leiblum decried the stagnation of sex therapy. They chided clinicians for failing to develop new, innovative sex therapy techniques. Their “call to arms” coincided with the evolving medicalization of sexual problems for men and women.

At that time, intracavernosal injection (Althof et al., 1987), intramuscular apomorphine (Segraves, Bari, Segraves, & Spirnak, 1991) and vacuum pump therapy (Turner et al., 1990) were proliferating as medical treatments for erectile dysfunction (ED), including those men with psychogenic ED. The use of selective serotonergic reuptake inhibitors (SSRIs) was eclipsing sex therapy as the treatment of choice for premature ejaculation (PE; McMahon et al., 2004). Hormone replacement therapy (HRT) was being advocated for women to alleviate the nonsexual and sexual symptoms of the menopausal transition, and testosterone was being recommended by some to treat female hypoactive sexual desire disorder (HSDD) (Buster et al., 2005; Sherwin & Gelfand, 1985). There were voices of dissension, complaint, and warning that the

---

Stanley E. Althof, PhD, is a Professor of Psychology at Case Western Reserve University School of Medical School and Executive Director of the Center for Marital and Sexual Health of South Florida, West Palm Beach, Florida. Correspondence concerning this article should be directed to Stanley Althof, Center for Marital and Sexual Health of South Florida, 1515 N. Flagler Drive, Suite 540, West Palm Beach, FL 33401. (stanley.althof@case.edu)

field of sex therapy was being corrupted and co-opted by the popularization of the emerging medical treatments for sexual dysfunction. Note this was all still pre-Viagra (Tiefer, 1995)!

The treatment landscape forever changed in 1998 after sildenafil (Viagra™) was approved by the Food and Drug Administration (FDA) as the first phosphodiesterase type 5 inhibitor (PDE5i) for the treatment of ED. Five years later, two other PDE5is, tadalafil (Cialis™) and vardenafil (Levitra™), also received FDA approval. Currently, over 90% of men with ED are treated with PDE5is.

With the ever expanding role of approved and “off label” pharmacotherapy for male and female sexual dysfunction, the predisposing, precipitating, maintaining, and contextual factors linked to the dysfunction were often disregarded (Althof, et al., 2005; Hawton, & Catalan, 1986). Sexual dysfunctions were reframed as medical problems that reliably responded to medical solutions. This framework was driven by the clever marketing strategies of the pharmaceutical industry, physicians with insufficient time or interest to grasp the larger picture, and patients who longed for effortless and immediate solutions to complicated life problems. What surprised many, however, was the large percentage of patients who discontinued pharmacotherapy, a phenomenon not easily explained by the robust efficacy and safety of these interventions.

Combined medical and psychological intervention may be one possible solution to the excessive discontinuation rate. Such innovative treatment offers patients the opportunity to overcome the psychosocial obstacles that interfere with them effectively utilizing medical treatments for their sexual dysfunction.

### **The Disconnect Between Efficacy and Continuing Pharmacotherapy**

Chronic administration of clomipramine or SSRI's for rapid ejaculation increases intravaginal ejaculatory latency time (IELT) six to eight fold (Waldinger, Zwinderman, Schweitzer, & Olivier, 2004). As-needed dosing tends to increase IELT by 3 to 4 fold (Pryor et al., 2006). Yet, in spite of this impressive delay, over the long-term, men tend to become disenchanted with pharmacotherapy and discontinue treatment. What contributes to this discontinuation phenomenon?

Similarly, over 60% of men discontinued intracavernosal injection or vacuum tumescence therapy (Turner et al., 1992). Discontinuation was attributed to the objectionable nature of the treatment, for example, having to inject the penis or the use of an artificial means to generate erection. Indeed, these were large hurdles for men/couples to overcome. It was, however, surprising, that when PDE5is, with their ease of use,

excellent efficacy and safety were introduced that the dropout rate was over 50% (Althof, 2002)!

Schiavi (1999) noted that in aging males, sexual functioning and satisfaction are influenced more by psychological and relational factors than vascular, neurological, or hormonal concerns. Age causes the vascular, neurological, and hormonal systems to function less efficiently. Thus, the relational and psychological influences become more prominent. Could these factors influence the dropout rate?

The answer to all these questions lies in the complex inter-relationship between efficacy, treatment satisfaction, adverse events, insurance concerns and, cost, and the powerful but often silent multiple psychosocial factors. Medical therapy alone does not address these important issues. Combination therapy provides a venue where the psychosocial factors can be identified, acknowledged, and addressed while patients simultaneously make use of a variety of efficacious medical treatments for sexual dysfunction.

In this paper, I focus on combined treatment for male sexual dysfunction. To date, there is no approved pharmacotherapy for female sexual dysfunction in the United States and the data for “off label” testosterone creams and gels for women are incomplete. Although there are integrated/combined treatments for female pain disorders, a comprehensive review of those issues is beyond the scope of this paper (Basson et al., 2004).

### **Conceptual Paradigms**

Prior to the 1980s sexual dysfunction was conceptualized in binary terms—it was either psychogenic or organic. When fewer treatment options were available, this paradigm simplified treatment planning. Over time it became clear that the binary model alone was insufficient to explain the multidetermined, multifaceted intricate underpinnings of male and female sexual function.

The biopsychosocial model gained prominence in the mid-1980s. The integration of biological and psychological predisposing, precipitating, maintaining, and contextual factors and their impact on treatment responsiveness offered a more inclusive and sophisticated understanding of patients’ sexual problems. Such an interactive model conceptualizes the psychological and biological factors as additive and interactive (Althof & Seftel, 1999, Levine, 1992; LoPiccolo, 1992; Schnarf, 1990; Tiefer & Melman, 1989) and captures the ever changing influences of biology and psychological life. Regardless of the precipitating causes, over time, changes in both domains occurred. Such a model emphasizes the psychological impact that the dysfunction has upon the individual,

and the couple's sexual equilibrium, and the fluctuating influence of medication, lifestyle, and disease. The model also explains the failure of treatments for biological problems, which ignored the psychological contributions. What follows is a case vignette illustrating the complex interaction between medical and psychological variables.

Following the diagnosis of prostate cancer, Harold, age 55, underwent a radical prostatectomy that left him with unreliable erectile function. His treating urologist tried him on a PDE5i without success and then offered him intercavernosal injection. The injections resulted in firm erections sufficient for intercourse.

I saw Harold and his wife Judy, age 50, 4 years later. They had never resumed lovemaking, not because of his ED, but because she had discovered his infidelity 6 months after he underwent surgery. Now, both felt ready to rekindle their romantic and sexual life. Their situation is even more complicated. All during their 20-year marriage, Harold had episodically suffered from psychogenic ED. Lovemaking focused on his erectile capacity, not their mutual pleasure. Judy felt Harold was inattentive to her needs, and he felt she did not understand his embarrassment, humiliation, and long-standing dysthymia, which he attributed to the ED.

A simple medical intervention, which provided Harold with a reliable erection, could not overcome the myriad of psychosocial obstacles. This case illustrates the need for combined treatment.

The interactive model fractionated with the introduction of the oral ED agents. Cause and effect, treatment and response, were again narrowly perceived through the biomedical lens. Patients and clinicians alike naively hoped that psychosocial issues would yield to the robust efficacy of these compounds.

The limited long-term success of pharmacotherapy shifted the pendulum back toward the interactive biopsychosocial model. Such a model leads us to consider combination therapy, in which pharmacotherapy and psychological intervention are provided to the patient and/or couple in either a stepwise or simultaneous manner. Perhaps combined therapy was one of the novel sex therapy innovations anticipated by Schover and Leiblum in 1994.

### **Learning From Related Fields**

In a provocative article entitled, "Moving Behavioral Medicine to the Front Line: A Model for the Integration of Behavioral and Medical Services in Primary Care," Pruitt, Klapow, Epping-Jordan, and Dresselhaus (1998) exhorted mental health clinicians to expand beyond their present models and roles of care-giving. They wrote, "The time is right to integrate behavioral medicine concepts into primary care and expand

the role of psychologists in the broader health care arena” (p. 230).

In a scholarly commentary consistent with the interactive biopsychosocial model, Sobel (1995) observed that

Thoughts, feelings, and moods can have a significant effect on the onset of some diseases, the course of many, and the management of nearly all. Even in those patients with organic medical disorders, functional health status is strongly influenced by mood, coping skills, and social support, yet the predominant approach in medicine is to treat people with physical and chemical treatments that neglect the mental, emotional, and behavioral dimensions of illness. This critical mismatch between the psychosocial health needs of people and the usual medical response leads to frustration, ineffectiveness, and wasted health care resources. There is emerging evidence that empowering patients and addressing their psychosocial needs can be health and cost effective. By helping patients manage not just their disease but also common underlying needs for psychosocial support, coping skills, and sense of control, health outcomes can be significantly improved in a cost-effective manner. Rather than targeting specific diseases or behavioral risk factors, these psychosocial interventions may operate by influencing underlying, shared determinants of health such as attitudes, beliefs, and moods that predispose toward health in general. Although the health care system cannot be expected to address all the psychosocial needs of people, clinical interventions can be brought into better alignment with the emerging evidence on shared psychosocial determinants of health by providing services that address psychosocial needs and improve adaptation to illness. (p. 234)

Behavioral health specialists interface with patient care delivery in unconventional ways that go beyond the traditional method of seeing patients in their offices for psychotherapy. For instance, mental health clinicians may offer onsite consultation to the treating physician without ever seeing the patient. They advise him/her on treatment strategies, which are implemented by the primary care clinician. Alternatively, they may train medical professionals, such as nurse practitioners or physician assistants to assess psychosocial issues and provide care. Or, the mental health professional might engage patients onsite for consultation or treat them in short- or long-term group, individual, or conjoint treatment in their office. Such stratification of services enables psychologists and physicians to target behavioral medicine resources to patients with the greatest needs. Many patients can benefit from low-intensity interventions, whereas more expensive individual treatment is reserved only for those patients who require more in-depth care.

### **Case Vignette**

Bob is a 54-year-old married man who comes to his primary care physician requesting treatment of his ED. He suffers from Type II dia-

betes, hypertension, and obesity and requires five medications for his medical problems. Bob reports having poor morning erections and weak erections with masturbation and foreplay. Intercourse has not been possible for 8 months. He has no ejaculatory difficulties but his sexual interest has decreased.

In this case it is likely that the predisposing and precipitating factors for the erectile dysfunction are entirely medical, namely, diabetes, hypertension, and possibly his medications. However, his mood, attitude, motivation to resume a sexual life, level of performance anxiety, preoccupation with the symptom, expectations and fears of treatment, quality of his interpersonal relationship, degree of his partner's interest in resuming a sexual life, her health status, the couple's interval of abstinence, life stresses, and coping skills could all conceivably worsen the symptom and interfere with responsiveness and continuation of treatment. Simply giving Bob a PDE5i without considering the impact and interaction of all the biopsychosocial issues may be insufficient to overcome the amalgam of medical and psychosocial obstacles. Unfortunately, because of limitations of time, interest, and education all too often the psychosocial features are overlooked.

It is also possible that the PDE5i would not be efficacious in restoring erectile reliability even if there were no psychosocial obstacles. The disease process itself might have progressed too far to be remedied by PDE5is. However, it is also possible that psychosocial issues interfere with the man or couple making use of an efficacious intervention.

In either case, the man (or couple) returns to the clinician's office and states, "Doctor, it didn't work." Clinicians assume this phrase means the medication was not effective in restoring erectile reliability. In response they tend to increase the dose of the medication, switch medications, or suggest alternative medical ED options, such as intercavernosal injection, vacuum pumps, or MUSE. They do not clarify the meaning of the phrase "it didn't work." It might mean exactly what they thought.

However, it might also mean any of the following: I was afraid of another failure; I thought I would leave well enough alone; I no longer find my partner attractive; my partner was not cooperative; it was painful for her; or I thought it would fix the problems in our marriage. Obviously dose titration or alternative medical interventions would not address these disguised psychosocial concerns. Combination therapy simultaneously or in a stepwise fashion might both improve long-term treatment satisfaction and psychosocial outcomes.

### **Combination Therapy**

Combination therapy, alternatively called coaching or integrated

therapy, is not a novel concept. It has been successfully employed in the treatment of depression, schizophrenia, and posttraumatic stress disorder (Keller et al., 2000; Nathan & Gorman, 2002). It is also an important aspect of treatment for diabetes and breast cancer because psychosocial support is a crucial component of care giving.

Although the idea of combination therapy sounds intuitively correct, there remain several unanswered questions. Most important, what is an evidenced-based or proven conceptual framework guiding treatment decisions? Practically speaking, how are the resources allocated—who delivers the care, where is the intervention done, are the medical and psychological treatments concomitant or stepwise?

From experience we know that the traditional referral of patients from a primary care, urological, or gynecological physician to a sex therapist is fraught with difficulties. For a variety of reasons (stigma, cost, insurance issues, lack of motivation, etc.) patients rarely follow through. The rule of thumb is that only 10% of referrals present for a first visit with sexual specialist.

Additionally, sex therapists are a rare commodity. Although large cities generally are fortunate to have this resource available, there are insufficient numbers of trained clinicians to provide care to those in need in smaller cities or rural areas. Also, there is the issue of time and cost. Many patients are not willing to pay “out of pocket” for these services and/or cannot commit to once weekly treatment over a period of several months. One solution to the problem of resource availability, time, and money would be to offer the initial services at the site of the primary care or specialty physician.

Onsite intervention would allow more individuals to have access to sexual health education and intervention. In a “one-stop shopping” model, patients could see the physician and the person designated to do the psychosocial intervention (this may or may not be one and the same person). This places less burden on the patient and could possibly result in a cost savings for them as well. To take a lesson from the behavioral medicine interventions, this would require sexual experts to train physicians and other health care workers in assessment, education, and rudimentary psychological intervention. The conceptual model would guide these caregivers to recognize when more intensive psychological treatment is required and to appropriately refer.

Combined treatment paradigms challenge traditional sex therapy practices. Are we willing to train other professionals to provide some of the care, are we willing to leave the comfort of our offices and provide onsite assessment/intervention? Or, in the future, will we witness the establishment of comprehensive sexual treatment centers that include

specialists from several disciplines (Levine, 1989)?

### **Review of Combined Therapy Treatment Efforts**

Several articles have described combined treatments for men with ED. No combined interventions have been reported for PE, delayed ejaculation, or female desire, arousal, or orgasm difficulties.

Psychological interventions combined with the use of sildenafil have been evaluated in two articles. In the first Melnik and Abdo (2005) randomly assigned men with psychogenic ED to one of three experimental groups. In Group 1, participants received 6 months of theme-based psychotherapy plus sildenafil 50mgs; in Group 2, they received only 50 mgs of sildenafil; in Group 3, they received only theme-based sexual counseling. At the end of 6 months, compared to baseline, all three groups demonstrated significant improvement in posttreatment International Index of Erectile Function (IIEF) scores. However, utilizing the criterion of normalization of IIEF scores (EF domain  $\geq 26$ ), only the combined and psychotherapy only groups demonstrated statistically significant improvement.

The authors explained the results in terms of psychotherapy encouraging patients to understand the emotional component of their condition, helping them to strengthen their commitment to the change process, to become more deeply involved, and to benefit from treatment. Psychotherapy also promoted more realistic and positive sexual expectations instead of expecting automatic, autonomous erections.

In the second article Phelps, Jain, and Monga (2004) highlighted the value of a one-session psychoeducational intervention. The authors compared two groups of men: The first received combined treatment with one session of psychoeducational intervention and sildenafil, and the second received only sildenafil. Those in the psychoeducational plus sildenafil group received one 60 to 90 min session of counseling, which included information about sexual function, clarified their treatment expectations, and gave them communication exercises and references for self-help books. After 24 weeks of treatment, there were no differences in the IIEF scores between the two groups: Both demonstrated significant improvement. However, the treatment satisfaction scores for the psychoeducational intervention group were significantly higher than the sildenafil-only group.

Three articles have addressed combined treatment with intercavernosal injection therapy (ICI). Lottman, Hendriks, Vruggnik, and Meuleman (1998) compared a small group of men receiving ICI plus three sessions of counseling at weeks 0, 6, and 12, with a larger cohort of men receiving ICI without counseling. During the trial dosing phase, there

were no differences in discontinuation patterns. From the trial dosing phase forward until the 6-month follow up, no additional patients discontinued treatment in the combined therapy group. In contrast, the discontinuation rate after the trial dosing phase in the ICI-only group was 60%. Patients reported that counseling increased their knowledge about factors contributing to erectile dysfunction and improved their ability to communicate about their sexual interest and desires. Through counseling they felt more comfortable talking about feelings and thoughts concerning sexual problems.

Hartmann and Langer (1993) described an integrated treatment program involving injection therapy and sex counseling. They concluded that a combined approach was more beneficial to men with primarily psychogenic ED and that improvement could occur only in the absence of partner problems or premature ejaculation.

In a more recent study, Titta, Tavolini, Dal Moro, Cisternino, and Pierfrancesco. (2006) reported on a group of non-nerve sparing radical retropubic prostatectomy and cystectomy patients receiving ICI who were randomized into two groups. The first group received ICI plus sexual counseling, while the second group received only ICI. Patients were followed for 18 months after initiating ICI. Over the course of the 18 months all men also received a trial of sildenafil. In these patients, there were no differences between the groups on baseline IIEF or post-surgery scores. At the 3-month and 18-month follow-up, compared to the ICI only group, the counseling plus ICI group achieved significantly higher erectile function, desire, orgasm, and satisfaction scores. Additionally, the counseling plus ICI group manifested a lower discontinuation rate and were able to achieve good quality erections with lower doses of medication. Finally, more men in the sexual counseling group responded to sildenafil than subjects in the ICI-only group.

Combined treatment utilizing vacuum tumescence therapy and counseling was reported by Wylie, Hallam-Jones, and Walters (2003) who randomized 45 patients with primarily psychogenic ED into two groups. The first group participated only in couples therapy, whereas the second was instructed in the use of a vacuum device while simultaneously receiving couples therapy. Improvement was reported by 84% of the combined group but by only 60% of the therapy-only group. The authors suggested that early combination treatment of couples therapy and a physical treatment, such as a vacuum device, may lead to a more beneficial response than psychotherapy alone. They also highlighted the importance of demonstrating potential benefits from a physical intervention early in therapy and suggested that delaying the demonstration of such benefits to the patient may have a negative impact on treatment outcome.

These studies all suggest that combining medical and psychological treatments for ED improves the physical outcome and promotes greater treatment satisfaction and decreased discontinuation rates than medical treatment groups alone. The benefits of the psychological intervention appear to be educational and aspirational in terms of treatment expectations, improving sexual confidence by demonstrating early on that reliable erections are possible with medical intervention, and improving communication between partners.

### **Psychological and Relational Responses to Pharmacotherapy**

The introduction of pharmacotherapy alters the sexual script of most men/couples utilizing these treatments (McCarthy & Fucito, 2005). Usual patterns of lovemaking may be disrupted to accommodate the use of pharmacotherapy, for example, when lovemaking occurs, who initiates, and so on, with some couples being more flexible in their routines than others. The duration of a medication's window of opportunity may influence the sexual script as well (Dunn, Althof, & Perelman, 2006). Specifically, sildenafil's and vardenafil's erectile facilitating effects last between 4 and 10 hr; tadalafil's duration can be up to 36 hr. For some men, use of a shorter acting agent increases the pressure to perform within the window of opportunity. Extended duration medications may allow for more spontaneity, repairing sexual mishaps, creating more opportunities for the partner to initiate, and less focusing on the clock for both partners.

Until sexual confidence is restored, men may focus more on the quality of their erections than on deriving pleasure from the experience or pleasing their partners. Some partners may resent men using medications to assist with arousal, believing they are responding only to the drug effects and not to them. Other partners fear that the medication may harm the man and carefully monitor his physical reactions rather than focusing on their own sensations or pleasure.

Additionally, administration of a pharmacological agent functions as a "therapeutic probe," uncovering patient and partner, interpersonal, and contextual issues that can conspire to interfere with the stated goal of resuming lovemaking. For example, when relationships are problematic, any of the following motives by one or both partners may interfere with the successful resumption of lovemaking: poorly managed or unresolved anger, power and control issues, and contempt and disappointment. These concerns, complicated by prolonged sexual abstinence, need to be addressed before or during the pharmacological treatment intervention to achieve the stated goal. The following vignette illustrates how a medical intervention can significantly and, in this case, negatively alter the couple's equilibrium.

Richard Friedman (2006), a psychoanalyst, writes about his patient, Dan, age 53, who although in excellent health and free of sexual dysfunction asked him for Viagra™ to “jazz up” his marital sexual life. Dr. Friedman inquired whether his wife was complaining; she wasn’t. Dan ultimately obtained a prescription for Viagra™ from his internist and nothing was mentioned in therapy for several months.

Then Dan reported that for the first time in his married life that he and his wife were fighting over their sexual life. Dan had become more sexually demanding, which was not well received by her. Additionally, Dan sought to convince his wife that she should find a medical intervention so that she too could be more sexual.

Dr. Friedman writes, “What Dan had not realized was that his newfound sexual vigor had changed his relationship with his wife. She was perfectly happy with her affectionate, laid-back, middle-aged husband; she had no desire for a sexual athlete as a partner at this point in her life. Viagra™ had become an intruder in their intimate life. Dan was loath to give up his new vigor. If he couldn’t get her a remedy, he just hoped that with time his wife would adjust to her rejuvenated husband. Dead wrong. His exhausted wife finally lost her patience and told him that he had to stop the Viagra™ if he cared about their marriage” (Friedman, *New York Times*, August 22, 2006). In the end Dan did not renew his prescription for the drug.

Another obstacle to successful use of a pharmacological agent focuses on the unrealistic expectations that patients may have. For instance, some men believe that “with my restored erection, lovemaking will be more frequent” or “I will feel more lovable and successful in life.” When these expectations are not realized, demoralization results and patients discontinue treatment.

Finally, disguised or hidden (conventional and unconventional) sexual arousal patterns may be the cause of pharmacotherapy failure. PDE5is require the man to desire his partner, and a lack of sexual arousal for his partner is likely to prevent any erectile response. Examples of disguised or hidden conventional and unconventional arousal patterns can include the married man who is secretly attracted to men, the man who has no sexual desire for his partner, and the man who cannot acknowledge his unconventional patterns of arousal, such as to young children or to sadomasochistic situations. Any of these arousal patterns are likely to interfere with the man’s achieving or sustaining his genital response to his conventional partner. Pharmacotherapy alone cannot be expected to overcome these psychosocial obstacles.

### **Conceptual Paradigm for Combined Therapy**

To date there are no evidence-based or accepted models for conducting combination therapy. Clinicians who advocate for its use stress the

multidimensional nature of sexual dysfunction and the myriad ways that psychosocial issues can interfere with the success and utilization of pharmacological treatment (Althof, 1998, 2003; Perelman, 2001, in press; Rosen & Leiblum, 1995).

One proposed conceptual model of combined therapy is based upon the level of psychosocial complexity of the individual and/or couple (Althof, 2003). Psychosocial complexity refers to the contextual features of the individual or couple. It includes such factors as the length of time the couple has been sexually abstinent, the quality of the interpersonal relationship, the motivation of each partner to resume lovemaking, the presence of serious psychiatric psychopathology, and so on. The clinician categorizes the couple as having (a) *no or insignificant barriers* preventing use of the medical intervention, (b) *mild to moderate barriers*, or (c) *profound psychological/interpersonal difficulties* that will render medical intervention relatively ineffective.

Individuals or couples who are classified as having no or insignificant barriers to utilizing medical treatments generally have a good to excellent relationship. Although the male has premature ejaculation or erectile dysfunction, they continue to be affectionate and respectful to one another. The partner's disappointment is well managed, and she is supportive of his seeking help. One or both partners have realistic expectations for treatment, and they value their return to a satisfying sexual life. In such ideal circumstances, and if the sexual dysfunction is mild to moderate in severity, pharmacotherapy most likely will ameliorate the sexual symptoms. Such couples require nothing more than a medical prescription and practical suggestions as to how to maximize the treatment's effect.

However, the most frequently encountered clinical situation is the second scenario in which individuals/couples are judged as having "mild to moderate psychosocial barriers." These patients have been sexually abstinent for an extended period of time. Expressions of affection have dwindled. At least one person is mildly depressed and uncertain of how to re-initiate or repair their sexual life. Brief, directed coaching is often helpful in improving this couple's sexual life. Coaching refers to offering the patients guidance, suggestions, and techniques for overcoming their resistance or inhibitions.

One such technique discussed by Perelman (in press) refers to teaching a man with severe premature ejaculation to recognize the premonitory sensations associated with the point of ejaculatory inevitability, as men who ejaculate rapidly are frequently unaware of these sensations. The delay induced by the medication allows men to linger in less intensely aroused states and to recognize the signals of impending

orgasm. This important lesson can be practiced while on medication, and over time it may be possible to decrease the dose or discontinue the medication while the man continues to gain proficiency with his new found skill in modulating arousal.

Suggestions for increasing emotional intimacy or planning a romantic evening prior to initiating sexual behavior can help dislodge the asexual equilibrium that might be present in these “second scenario” cases. Addressing one or both partners’ depression, attending to performance anxiety, or inquiring about any physical obstacles, such as vaginal dryness, that might diminish the quality of their sexual experiences will likely prove helpful.

It is relatively easy to recognize individuals/couples in the third scenario, that is, those with profound psychological or interpersonal difficulties (or both). Medication alone is likely to be ineffective with these patients. Common patient obstacles include poorly managed or unresolved anger, power and control issues, abandonment concerns, broken attachments, substance abuse, serious depression, contempt, and disappointment. These psychological states, complicated by prolonged sexual abstinence, must be addressed prior to or during the pharmacological treatment intervention in order for the couple to benefit from medical interventions and to achieve emotional satisfaction from sex. Although these suggestions may appear time consuming to the busy clinician, some or all of the above suggestions can be implemented onsite by trained personnel.

Additionally, referral to a mental health clinician can occur at any point but will likely be required with the man/couples who fall into the profound psychosocial complexity category. Traditional interventions addressing the serious issues that interfere with the man or couple’s life can then be offered in the clinician’s office.

Finally, McCarthy, and Fucito (2005) advise incorporating a relapse prevention plan into combined therapy. Setting follow-up appointments, planning brief phone contacts, or providing patients with handouts describing relapse prevention techniques are simple, brief, and often very helpful additions to combination therapy.

### **Proposed Research Agenda**

Although the idea of combined therapy for sexual dysfunction may seem intuitively correct, the field requires solid evidence-based research supporting its efficacy. Health care providers must be able to clearly answer the following set of questions: What are the characteristics of patients most likely to benefit from combined treatment, and conversely, which patients do not require such intervention? When should

the intervention be initiated? By whom? What is the ideal duration and form of such an intervention? How can relapse prevention be successfully implemented? What is the guiding model(s) for combined treatment? And how do we train professionals to administer this intervention?

In the end, health-care providers and therapists must be able to demonstrate that combined treatment has greater efficacy at symptom improvement than either medical treatment or psychological treatment alone. Additionally, combined treatment should result in a lower discontinuation rate over the long-term and greater treatment, sexual and relational, satisfaction. While the studies reviewed herein are encouraging, more research needs to be generated to support, modify or dismiss the usefulness of this intervention.

### Conclusion

Preliminary evidence suggests that combined medical and psychological treatment results in improved efficacy of the medical interventions, decreased discontinuation rates, and enhanced treatment and sexual satisfaction. Providing combined treatment to patients challenges therapists to move beyond traditional postures and paradigms and to work with, rather than in opposition to, or independent of, medical providers.

Although one paradigm is offered in this manuscript, it serves only as a model to be improved upon or extensively modified. Such combined treatment models must be conceptually sound and subjected to reproducibility and sophisticated analysis. Combination therapy, if proven useful, may be one answer to Schover and Leiblum's (1994) challenge to develop fresh and innovative treatments for sexual problems. In the future, pharmaceutical interventions for female sexual dysfunction (FSD) will likely be approved. Clinicians should stand ready to consider combined therapy for FSD and to test models and interventions for these problems. As the field develops, paradigms and techniques of combined therapy will hopefully evolve and become the future standard of care for treating male and female sexual dysfunction.

### References

- Althof, S. E. (1998). New roles for mental health clinicians in the treatment of erectile dysfunction. *Journal of Sex Education and Therapy*, 23, 229–231.
- Althof, S. E. (2002). When an erection alone is not enough: biopsychosocial obstacles to lovemaking. *International Journal of Impotence Research*, 14(Suppl. 1), S99 -S104.
- Althof, S. E., (2003). Therapeutic weaving: The integration of treatment techniques. In S. Levine, C. Risen, & S. Althof (Eds.), *Handbook of clinical sexuality for mental health professionals* (359-376). New York: Bruner-Routledge.
- Althof, S. E., Leiblum, S. R., Chevret-Measson, M., Hartman, U., Levine, S. B., McCabe, M., et al. (2005). Psychological and interpersonal dimensions of sexual function and dys-

- function. *Journal of Sexual Medicine*, 2, 793-800.
- Althof, S. E., & Seftel, A. (1999). The evaluation and treatment of erectile dysfunction. *Annual Review of Psychiatry*, 18(5), 55-87.
- Althof, S. E., Turner, L., Levine, S., Risen, C., Kursh, E., Resnick, M., & Bodner, D. (1987). Intracavernosal injection in the treatment of impotence: A prospective study of sexual, psychological and marital functioning. *Journal of Sex & Marital Therapy*, 13, 155-167.
- Basson, R., Shultz, W. C. M., Binik, Y. M., Brotto, L. A., Eschenbach, D. A., Laan, E., et al., (2004). Women's sexual desire and arousal disorders and sexual pain. In T. F. Lue, R. Basson, R. Rosen, F. Giuliano, S. Khoury, & F. Montorsi (Eds.), *Sexual medicine: Sexual dysfunctions in men and women* (pp. 851-974). Paris: Health Publications.
- Buster, J. E., Kingsburg, S. A., Aguirre, O., Brown, C., Breaux, J. C., Buch, A., et al. (2005). Testosterone patch for low sexual desire in surgically menopausal women: A randomized trial *Obstetrics and Gynecology*, 105, 944-952.
- Dunn, M., Althof, S., & Perelman, M. (2006). *PDE5 inhibitors' extended duration of response as a variable in the treatment of erectile dysfunction*. Manuscript submitted for publication.
- Friedman, R. (2006, August 22). A quest for better sex meets "Not Now, Dear." *New York Times*, Science Section.
- Hartmann, U., & Langer, D., (1993) Combination of psychosexual therapy and intra-penile injections in the treatment of erectile dysfunctions: Rationale and predictors of outcome. *Journal of Sex Education and Therapy*, 1, 1-12.
- Hawton, K., & Catalan, J. (1986). Prognostic factors in sex therapy. *Behavior Research & Therapy*, 24, 377-385.
- Keller, M. B., McCullough, J. P., Klein, D. N., Arnow, B., Dunner, D. L., Gelenberg, A. J., et al. (2000). A comparison of nefazodone, the cognitive-behavioral analysis system of psychotherapy, and their combination for the treatment of chronic depression. *New England Journal of Medicine*, 342, 1462-1470.
- Levine, S. B. (1989). Comprehensive sexual health centers: Is it time? *Journal of Sex and Marital Therapy*, 15, 215-224.
- Levine, S. B. (1992). Intrapsychic and interpersonal aspects of impotence: Psychogenic erectile dysfunction. In R. C. Rosen & S. R. Leiblum (Eds.), *Erectile disorders: Assessment and treatment* (pp. 198-225). New York: Guilford.
- LoPiccolo, J. (1992). Postmodern sex therapy for erectile failure. In R. C. Rosen & S. R. Leiblum (Eds.), *Erectile disorders: Assessment and treatment* (pp. 171-197). New York: Guilford.
- Lottman, P. E., Hendriks, J. C., Vrugnik, P. A., & Meuleman, E. J. (1998). The impact of marital satisfaction and psychological counselling on the outcome of ICI-treatment in men with ED. *International Journal of Impotence Research*, 10, 83-87.
- McCarthy, B., & Fucito, L. (2005). Integrating medication, realistic expectations, and therapeutic interventions in the treatment of male sexual dysfunction. *Journal of Sex and Marital Therapy*, 31, 319-328.
- McMahon, C. G., Meston, C., Abdo, C., Hull, E., Incrocci, L., Levin, R., et al. (2004). Disorders of orgasm and ejaculation in men. In T. F. Lue, R. Basson, R. Rosen, F. Giuliano, S. Khoury, & F. Montorsi (Eds.), *Sexual medicine: Sexual dysfunctions in men and women* (pp. 409-468). Paris: Health Publications.
- Melnik T & Abdo C. (2005). Psychogenic erectile dysfunction: Comparative study of three therapeutic approaches. *Journal of Sex and Marital Therapy*, 31, 243-256.
- Nathan, P. E., & Gorman, J. M. (Eds.). (2002). *A guide to treatments that work* (2nd ed.). New York: Oxford Press.
- Phelps, J. S., Jain, A., & Monga, M. (2004). The PsychoedPlusMed approach to erectile dysfunction treatment: The impact of combining a psychoeducational intervention. *Journal of Sex and Marital Therapy*, 30, 305-314.
- Perelman, M. A. (2001). The impact of the new sexual pharmaceuticals on sex therapy. *Current Psychiatry Reports*, 3, 195-201.

- Perelman, M. A. (in press). A new combination treatment for premature ejaculation: A sex therapists perspective, *Journal of Sexual Medicine*.
- Pruitt, S. D., Klapow, J. C., Epping-Jordan, J. E., & Dresselhaus, T. R. (1998). Moving behavioral medicine to the front line: A model for the integration of behavioral and medical services in primary care. *Professional Psychology: Research and Practice, 29*, 230-236.
- Pryor, J., Althof, S., Steidle, C., Rosen, R., Hellstrom, W., Shabsigh, R., et al. (2006). Efficacy and tolerability of Dapoxetine in the treatment of premature ejaculation: An integrated analysis of two double-blind, randomized controlled trials. *Lancet, 368*, 939-947.
- Rosen, R., & Leiblum, S. (1995). Treatment of sexual disorders in the 1990s: An integrated approach. *Journal of Consulting & Clinical Psychology, 63*, 877-890.
- Schiavi, R. C. (1999). *Aging and male sexuality*. Cambridge, UK: Cambridge University Press.
- Schnarf, D. (1990). *Constructing the sexual crucible*. New York: Norton.
- Schover, L., & Leiblum, S. (1994). The stagnation of sex therapy. *Journal of Psychology & Human Sexuality, 6*(3), 5-30.
- Segraves, R. T., Bari, M., Segraves, K., & Spirnak, P. (1991). Effect of apomorphine on penile tumescence in men with psychogenic impotence. *Journal of Urology, 145*, 1174-1175.
- Sherwin, B. B., & Gelfand, M. M. (1985). Differential symptom response to parenteral estrogen and/or androgen administration in the surgical menopause. *American Journal of Obstetrics and Gynecology, 151*, 153-160.
- Sobel, D. S. (1995). Rethinking medicine: Improving health outcomes with cost-effective psychosocial interventions. *Psychosomatic Medicine, 57*, 234-244.
- Tiefer, L. (1995). *Sex in not a natural act and other essays (Psychology, gender and theory)*. Boulder, CO: Westview Press.
- Tiefer, L., & Melman, A. (1989). Comprehensive evaluation of erectile dysfunction and medical treatments. In S. R. Leiblum & R. C. Rosen *Principles and practice of sex therapy: Update for the 1990s* (pp. 207-236). New York: Guilford.
- Titta, M., Tavolini, I. M., Dal Moro, F., Cisternino, A., & Pierfrancesco, B. (2006). Sexual counseling improved erectile rehabilitation after non-nerve sparing radical retropubic prostatectomy or cystectomy: Results of a randomized prospective study. *Journal of Sexual Medicine, 3*, 267-273.
- Turner, L., Althof, S., Levine, S., Bodner, D., Kursh, E., & Resnick, M. (1992). A 12-month comparison of the effectiveness of two treatments for erectile dysfunction: Self-Injection versus external vacuum devices. *Urology, 39*, 139-144.
- Turner, L., Althof, S., Levine, S., Kursh, E., Bodner, D., & Resnick, M. (1990). Treating erectile dysfunction with external vacuum devices: Impact upon sexual, psychological and marital functioning. *Journal of Urology, 141*, 79-82.
- Waldinger, M. D., Zwinderman, A. H., Schweitzer, D. H., & Olivier, B. (2004). Relevance of methodological design for the interpretation of efficacy of drug treatment of premature ejaculation: A systematic review and meta-analysis *International Journal of Impotence Research, 16*, 369-381.
- Wylie, K. R., Hallam-Jones, R., & Walters, S., (2003). The potential benefit of vacuum devices augmenting psychosexual therapy for erectile dysfunction: RCT. *Journal of Sex and Marital Therapy, 29*, 227-242