

INVITED COMMENTARY

Mindfulness Interventions for Treating Sexual Dysfunctions: the Gentle Science of Finding Focus in a Multitask World

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Mindfulness, a form of meditation, has become a familiar term in many domains of Western health care over the past few decades. It is awareness of what is happening as it happens and may be defined as “paying attention, in a particular way, on purpose, in the present moment and non judgementally” [1]. Although mindfulness has been widely practiced for nearly 4,000 years in the East, and is a core component of Buddhism, it was the pioneering work of Jon Kabat-Zinn, originally a molecular biologist at the Massachusetts Institute of Technology who can be credited for ushering in a contextualized version of mindfulness meditation into Western health care. In the late 1970s, Kabat-Zinn introduced mindfulness to patients suffering from debilitating chronic pains, who were otherwise resistant to other forms of management. His basic premise was that “as long as you are breathing, there is more right with you than wrong with you”. Kabat-Zinn taught a group of ailing patients how to pay attention to the breath, and guided their awareness to notice when the mind got lost in thoughts or distractions. Through his gentle guidance, and their daily practice at home, he taught these individuals to notice the bare sensations of their pain without getting lost in the “story” behind their suffering and to work around the pain. As a result, he saw great improvements in their quality of life and significant reductions in their pain severity [2].

Kabat-Zinn's groups have evolved into mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) and have been associated with increasing interest in and availability of mindfulness teachers training courses, conferences bridging brain scientists with Buddhist leaders, and a multidisciplinary mass of researchers interested in studying why and how

mindfulness works. In addition to the seminal research showing that mindfulness benefits chronic pain [3], there is now strong evidence suggesting that mindfulness is effective in managing a number of conditions including chronic stress, depression, anxiety, attention deficit hyperactivity disorder, child behavior problems, substance use, as well as a wide range of medical ailments from tinnitus to cardiovascular disease, to chronic pelvic pain [4]. Changes in clinical symptoms are accompanied by alterations in brain structure and function, and the decoupling of amygdala and insula activation from other areas of activation is thought to underlie, at least in part, the reduced distress associated with certain psychologic and medical conditions [5]. In the domain of sexual functioning, there is evidence that mindfulness significantly improves many domains of sexual response, distress, and mood among women with low sexual desire [6,7], those with sexual dysfunction associated with gynecologic cancer [8,9], women with vulvodynia [10,11], and women with sexual distress because of a history of sexual abuse [12]. Research is now turning to which aspects of mindfulness contribute to these changes [13], and what are the underlying mechanisms that might maintain the positive outcomes. There has been increasing interest in studying the mechanisms underlying the benefits of mindfulness, and there is evidence that mindfulness leads to neuroplastic changes in the structure and function of brain regions involved in the regulation of attention, emotion and self-awareness [5]. In particular, increases in attention are associated with altered brain activity in the anterior cingulate cortex, and with reduced activity in multiple prefrontal regions and the limbic area. Increases in self-awareness are reflected in the insula, medial prefrontal cortex, posterior cingulate cortex, and the precuneus and

the striatum. There is also evidence that the ability to put feelings into words without judging, which increases with mindfulness practice, is positively associated with gray matter volume in the right anterior insula and right amygdala [14], suggesting that increased insular volume may reflect one's greater awareness of one's own stressful state and more ability to cognitively manage emotions. In our clinical experience, we find that patients who initiate and continue a regular mindfulness practice prior to addressing their particular sexual dysfunction issues have a better outcome than those who do not. Moreover, although the empirical literature has only focused on the application of mindfulness to women's sexual difficulties and genital pain, we regularly employ and find benefits from using mindfulness for a wide array of sexual difficulties for men as well [15], including for erectile dysfunction (ED), premature and delayed ejaculation (DE), and sex-related pain. The psychophysiology of psychogenic ED is largely underpinned by performance anxiety and negative cognitions. Learning to mindfully focus on genital and subjective arousal while noticing, but not becoming emotionally involved with these negative thoughts can improve erections in men with ED. Psychogenic DE is often associated with previous idiosyncratic sexual arousal. We have found that reshaping arousal using mindful observation rather than getting focused on goal centered excitement has produced useful results. In both of these clinical situations, we implore researchers to empirically evaluate our clinical hypotheses about the usefulness of mindfulness.

With this background, we might recommend that all patients being referred for treatment of sexual difficulties be first offered mindfulness training. Would this be possible?

In order to answer this question we need to look a bit more closely at what mindfulness training and practice entails. In the developed world there is an ethos and expectation that outcomes of any action should be immediate, and this certainly would seem to be the case for sexual dysfunction treatments, where the notion of "magic bullet" medications are expected by patients. Mindfulness, on the other hand, is a mind training that takes time, energy, grit, determination, and discipline [16]. Both clinicians and patients may find the idea of putting aside up to one hour a day for mindfulness to be just not possible, and to perpetuate their already existing cycles of stress and anxiety. Although standardized MBSR and MBCT protocols recommend up to 45 minutes per day of practice, 6 days per week,

the minimal "dose" for efficacy is not entirely clear. Applications such as "HeadSpace" for Smartphones promise positive outcomes after only 10 minutes per day of mindful practice. In our own protocols, which have applied mindfulness in either a four-session or eight-session group protocol to various populations of women with sexual dysfunction [as reviewed in [17], we first engage women in a daily commitment to general mindfulness practice, using eating meditations, the body scan, and mindfulness of breath, sounds, and thoughts. We then integrate mindfulness practice into sexual arousal-enhancing exercises during which women may be first encouraged to elicit some sexual arousal (e.g., with a sexual fantasy, vibrator, or erotica), then follow the arousal enhancement with a mindfulness practice focused on noticing the elicited body sensations. There is preliminary evidence that such an approach may improve the concordance between physiological and self-reported sexual response in women [18], and may directly relate to women's ability to notice and attend to sexual sensations as they are emerging. The extent to which these improvements are due to women's overall improvement in interoceptive awareness (i.e., the ability to notice internal physiologic changes) is currently under investigation.

We believe that Masters and Johnson's "sensate focus" was, itself, a mindful practice. With instructions to "... begin without any preconceived notions of what you will feel ... reorientate your thinking away from being judgemental and evaluative to simply being and experiencing ... to avoid judging ... and to concentrate on what's happening ...", it is clear that what patients were doing while orienting to their partner's touch was, indeed, mindful awareness in a nonjudgmental manner. Interestingly, Masters and Johnson never used the term "mindfulness" in their descriptions of sensate focus [19].

So where does one start?

In the first place, the clinician has to receive training in mindfulness, and maintain an active personal mindfulness practice themselves. This results in greater compassion (for oneself and one's patients) as well as developing the therapeutic skills of better observing, describing and participating at patient interaction by way of being less judgmental, more focused and increasing the quality of clinical performance [20]. Clinicians who attempt to "teach mindfulness" without having their own solid personal practice may find such an approach frustrating, superficial, and ineffective. Patients may experience the same.

Once a clinician has acquired the skill, it may be passed on to the patient. Brief “taster” sessions, in which the clinician introduces mindfulness with gentle guidance of instructions, in short bursts of time, can be very useful. These should be done in a quiet room where one is not going to be disturbed. Sitting on a chair is as good as sitting cross-legged on the ground. The patient might be asked or rather “invited” to focus on the breath, and to notice all of the emerging sensations associated with breathing, such as, the movements of the belly and chest, the coolness of the air at the nostrils, and the sound as the air moves into and out of the body. They are further asked to observe distractions (e.g., thoughts, bodily discomforts, noises) in an accepting and noncritical fashion, and to gently bring the attention back to the breath. These cycles of: breath, distraction, breath, etc., should be gently observed as well as any emotions that come up. Learning to focus, with compassionate observation of distractions, has obvious relevance to sex-related difficulties. For instance, in a man with ED largely attributed to psychologic factors, once he has practiced mindfulness, he will be better positioned to notice bodily sensations during sensate focus as well as see distractions by negative thoughts (e.g., “will I ever get an erection?”) as passing events of the mind, rather than facts that need to be followed.

General mindfulness training may be undertaken under the guidance of the therapist on a weekly basis, and/or patients may find a course local to them at their local community center or meditation center, which exist all over the world. Many programs are available via the Internet. Alternatively the patient may purchase one of the many good books or Apps that provide an 8-week training course via text and audio work [21] or one of Kabat-Zinn’s audio apps.

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