CASE STUDIES
in Lifestyle
Medicine

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Lifestyle Choices Can Augment
Female Sexual Well-Being

Abstract: *Female sexual wellbeing is complex and it's an important part of a comprehensive approach to women's health. Unfortunately, this aspect of health often is not discussed during medical appointments which can be isolating for female patients. Low libido is the most common female sexual dysfunction. There are multiple causes of low libido that may be physical, cultural, emotional, medical psychological or due to her relationship with her partner. A healthy lifestyle is one way to help women overcome low libido and a few examples include exercise, mindfulness and yoga. Ultimately, these lifestyle approaches can enhance sexual satisfaction.*

Keywords: female sexuality; low libido; lifestyle; sexual satisfaction

Female sexual well-being is an important part of wellness that is often overlooked. Studies show that approximately 40% of women will experience some type of sexual problem over the course of their lifetimes.¹ Despite this being a common concern for many women, they may be reluctant to discuss this part of their health with their health care providers. In addition, health care providers may not fully address all aspects of female sexuality. This case

study will highlight how lifestyle approaches can be beneficial to address the complexities of female sexual well-being.

This patient, KS, is a 61-year-old Caucasian woman who came to see me to discuss low libido. She would like to increase her sexual satisfaction. Her past medical history is significant for lumbar degenerative disease, menopause, and depression. Her medications include Celexa, estradiol patch, and ibuprofen as needed for her back pain. Her past

infrequently. A significant stressor in her life is worrying about her brother who has a severe mental illness. She provides him with financial and emotional support.

She has a family history significant for hypertension in both her parents. She has a brother with bipolar depression. She has been married for 20 years and has 1 adult child from her first marriage. She describes that she has a good relationship with her husband. She drinks a total of 5 alcoholic drinks per week. She does not smoke.

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surgical history includes a hysterectomy due to fibroids. She went into menopause at age 49 years.

Overall, she has a happy mood, but often feels stressed and overwhelmed. She works as an accountant and tends to work long hours. The hobbies that she enjoys include hiking and reading, but she does not have much time to do these hobbies. Her main form of exercise is walking on the treadmill, which she does

On sexual history, she is sexually active with one partner, her husband. She describes that she often has vaginal pain with intercourse. Also, at times she has exacerbation of her back pain during intercourse. Her sexual desire has decreased recently over the past 5 to 10 years and she is not easily aroused. She is able to achieve an orgasm infrequently. As a result, she has noticed that she is avoiding intimacy with her husband. She

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worries that her lack of interest in sex is putting a strain on their relationship.

To help KS with her dyspareunia, she was advised to try different vaginal lubricants. She was also given the suggestion of using vibrators as they can enhance sexual arousal and latency to orgasm in women.² To reduce her lumbar pain, it was recommended that she use a pillow wedge to support her back during intimacy. She also worked with an exercise physiologist who created an exercise program that she enjoyed doing, which included yoga and jogging. Lastly, the importance of stress management was discussed.

When KS returned for a follow-up visit, she had started exercising most days of the week. She found a brand of a water-based vaginal lubricant that she finds beneficial to reduce vaginal pain during intercourse. In addition, she was able to manage her stress better. She said that she found time to go hiking with her husband or with friends on most weekends. In addition, she reported that her sexual desire and sexual satisfaction had both improved by implementing some of these suggestions. By incorporating these lifestyle changes, she stopped the pattern of avoiding intimacy.

Sexual health can be defined in many ways. In 2001, the United States Surgeon General Call to Action to Promote Sexual Health and Responsible Sexual Behavior explained sexual health in this way:

Sexual health is inextricably bound to both physical and mental health. Just as physical and mental health problems can contribute to sexual dysfunction and diseases, those dysfunctions and diseases can contribute to physical and mental health problems. Sexual health is not limited to the absence of disease or dysfunction, nor is its importance confined to just the reproductive years.³

This description of sexual health highlights the complexities of sexual health. With the introduction of sildenafil, there has been a major focus on male sexual dysfunction (ie, erectile dysfunction).⁴ Female sexual dysfunction,

however, has been found to be more prevalent, more difficult to define, and more complex to treat.⁴

According to the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (*DSM-IV TR*), female sexual dysfunction generally is characterized as any sexual complaint or problem resulting from disorders of desire, arousal, orgasm, or sexual pain that causes marked distress or interpersonal difficulty.⁵ Sexual dysfunction in women includes several conditions that are characterized by loss of sexual desire, impaired arousal, inability to achieve orgasm, or pain during sex.⁶ It is not uncommon for a woman to have problems in more than one category of female sexual dysfunction and they can overlap. Sexual dysfunction and problems with sexual well-being can affect women of all ages—premenopausal and postmenopausal. In addition, it can affect women who are married or single as well as women who are heterosexual or in the LGBTQ community. Some women suffer in silence for years without discussing their concerns with anyone, perhaps even their sexual partners.⁷ As a result, having sexual problems can be very isolating to women.

Hypoactive sexual desire disorder (HSDD) is defined as persistent or recurrent deficiency or absence of sexual desire or receptivity to sexual activity.⁶ It is the most commonly diagnosed sexual dysfunction in women.⁶ In addition, HSDD is associated with significant levels of emotional and psychological distress, as well as lower sexual and relationship satisfaction.⁸ HSDD is also associated with reduced general health, including aspects of mental and physical health.⁸ For women struggling with low sexual desire, the cause may be multifactorial, including medical conditions and medications. Relationship factors such as conflict or a partner's sexual dysfunction (eg, erectile dysfunction and premature ejaculation in a male partner), stressors such as financial hardship, career-related pressures, and familial obligations can also contribute to decreased sexual desire.¹ Also, cultural, social, and

religious values and morals can negatively influence women's sexual desire, especially in women raised in highly restrictive cultures or religions.¹

Taking into account a patient's medical history is important when evaluating a person's sexual well-being, especially her emotional health. The various aspects of depression, including low interest, low energy, low self-esteem, and anhedonia can all affect sexual function.⁹ In addition, many medications can adversely affect sexual function. Use of antidepressants, particularly selective serotonin reuptake inhibitors (SSRIs), oral contraceptives, and corticosteroids can be associated with HSDD.¹⁰ Both SSRIs and selective norepinephrine reuptake inhibitors are associated with disruption of sexual desire, genital arousal, and delay or loss of orgasm.¹⁰ Instead, one option is to use alternatives to standard SSRIs, including bupropion.¹¹

Sexual well-being during menopause has some unique features. Symptoms of sexual dysfunction associated with menopause include vaginal dryness, pain during penetration, dyspareunia, vaginal bleeding associated with sexual activity, reduced sexual responsiveness, and impaired sexual arousal.¹² In postmenopausal women, decreased estrogen levels induce vulvovaginal atrophy, leading to pain and trauma during sex.⁶ Atrophic vaginitis and pelvic floor surgery can lead to dyspareunia, sexual aversion, and loss of sexual desire.⁵ To help overcome this, women can use a vaginal lubricant. Women can use a variety of lubricants to assist with vaginal dryness and to allow for easier entry when engaging in intercourse.¹¹ In one study, both water-based and silicone-based lubricants were associated with higher ratings of pleasure and satisfaction during partnered sexual events.¹³ Silicone-based lubrication is much more lubricious than water-based lubrication, but it can cause irritation to vaginal mucosa.¹¹ Water-based lubricant, in particular, was associated with significantly fewer reports of genital symptoms in relation to penile-vaginal intercourse.¹² Alternative options to treat

vaginal atrophy and to reduce vaginal pain in postmenopausal women include vaginal estrogen and vaginal dehydroepiandrosterone.¹⁴

A healthy lifestyle approach is one way to help overcome low libido. Specifically, exercise has been shown to be an effective strategy. Exercise improves sexual function in depressed women not taking medication.¹⁵ Research conducted with women taking SSRI found that exercise is helpful in enhancing sexual well-being. One study found that in women with diagnosable sexual dysfunction, a regimen of 30 minutes of vigorous exercise 3 times a week was sufficient to produce clinically relevant improvements in sexual function, particularly sexual desire.¹⁵ Exercise was also shown to be helpful in women taking SSRIs. Acute exercise improves genital arousal in women taking serotonergic antidepressants.¹⁰

There are other aspects of one's lifestyle that can affect sexual function in women. There are a handful of studies evaluating the influences of nutrition and female sexual function. In one study, women with the highest adherence to the Mediterranean diet had the lowest prevalence of sexual dysfunction.¹⁶ The impact of smoking on sexual function has also been researched. A few studies show that smoking was an independent risk factor of female sexual dysfunction and the cause may due to adversely affecting sexual arousal responses.^{17,18} Finally, the impact of alcohol on sexual function is another important lifestyle consideration. Research on alcohol and sexual arousal suggests that alcohol attenuates physiological sexual arousal, while increasing self-reported sexual arousal at low levels of intoxication and has no effect at higher levels of intoxication.¹⁹

Sexual functioning is an important contributor but is clearly not the only factor contributing to sexual satisfaction in women.²⁰ Significant links have been noted between women's sexual satisfaction and numerous quality-of-life factors, including age, physical health, and general well-being and happiness.²⁰ Perhaps not surprisingly, chronic stress has been shown to adversely affect sexual well-being. For

women, higher levels of chronic daily stressors were related to both higher levels of sexual problems and lower levels of sexual satisfaction.²¹ Ongoing research is exploring the mechanism that explains this relationship. There are both psychological and physiological components that can potentially be involved in the relationship between stress and sexual function.²¹

Mindfulness can be one option to reduce stress. Mindfulness has its roots in Buddhist meditative practices, where purposefully focusing attention on bodily sensations during meditation cultivates a nonjudgmental moment-to-moment awareness that permeates into daily life.²² Mindfulness and other forms of meditative practices have consistently been associated with improvement in attentional capacities and clinical symptoms of anxiety and depression.²² There is mounting evidence that mindfulness can be helpful in improving sexual well-being. One goal of mindfulness is to improve awareness; this may address distraction, which can negatively affect sexual function, mood, and self-esteem.²³

Yoga has been found to be significantly associated with improved psychological well-being and overall physical health.²⁴ Some discuss yoga as "physical mindfulness."²⁴ There are a few studies looking at female sexuality and yoga. Yoga appears to be a nonpharmacological method of improving sexual functions in women.²⁵ One study showed that yoga can produce improvement in all 6 domains tested (desire, arousal, lubrication, orgasm, satisfaction, and pain).²⁵

Continual sexual activity carries numerous health benefits throughout the life span: because sexual intimacy affects sexual desire necessary for ongoing healthy sexual interactions in human relationships, problems in any area of the sexual experience should be addressed as part of a holistic health assessment.²⁶ A study surveyed physicians from a number of specialties and there were a variety of reasons cited by doctors as to why they were not asking their female patients about their sex life. The study identified limited time

as the greatest obstacle to discussing sexual health, followed in descending order by embarrassment (either the respondent's or the patient's), absence of effective treatment options, limited training in female sexual function, and reliance on patients to initiate the discussion.²⁷ However, when physicians are able to discuss sexual concerns their patients, it allows for a more comprehensive approach to women's health.

For KS, she found lifestyle changes that improved her sexual well-being. She benefited from exercising, yoga, and stress management. For her, addressing her lumbar back pain and her vaginal atrophy that were contributing to painful intercourse augmented her sexual satisfaction. These lifestyle changes made a difference for her by improving not only her low sexual desire but also her intimate connection with her husband.

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Trial Registration

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