



Aging Beautifully with Healthy Sexual Life

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Abstract

Sexual health among older generations is still a major issue for individuals and couples. However, most people still believe that older adults are asexual. The reported prevalence of sexual problems in the elderly population was quite high, especially in postmenopausal women. For older women, menopause remains the main cause of sexual dysfunction. Chronic diseases occurring as a result of aging were found to be the second most common cause of sexual dysfunction. Both of these conditions will impact the patient's physical, mental, and psychosocial wellbeing. Therefore, it is important to achieve better sexual health in order to increase overall health and quality of life.

Keywords: *aging, sexual health, sexual dysfunction, quality of life, postmenopause*

Introduction

Regardless of age, a healthy sex life is a necessary component of human existence. Our sexuality plays a significant role in who we are as people. Sexual health is frequently neglected among the elderly due to the generally held idea that older persons are asexual. This idea is still embraced by both younger and older generations. Numerous research studies have shown that older people's sexual health is commonly disregarded in healthcare settings [1,2,3].

The reported prevalence of sexual issues, such as sexual dysfunction, is said to range from 25% to 63% in women. The prevalence is even higher in postmenopausal women, where it ranges from 68% to 86.5%. According to data from the National Health and Social Life Survey, which included 3,432 adults in the US, sexual disorders are more common in women (43%) than in males (31%). According to reports, the incidence of sexual disorders differed among women and was impacted by their socioeconomic status [4,5].

In general, a healthy woman will normally experience an increase in the occurrence of sexual complaints as she ages. One or more sexual function domains may experience issues. The main issue that older populations encountered was a decline in their desire for sexual activity. Menopause was primarily to blame for this issue in women. A decrease in estrogen levels after menopause causes vulvovaginal atrophy, often known as genitourinary syndrome of menopause (GSM) [6].

Another problem that is also commonly faced by the elderly is the development of chronic disease. Chronic disease among the elderly can significantly impact the patient's health and quality of life (QoL). The aging process will usually cause an increase in the likelihood of developing one or more chronic diseases. According to statistics, around 80% of seniors have one chronic illness, and about 50% of them have two ailments. Sexual expression and reactions will be impacted, either directly or indirectly, as chronic diseases emerge in older women [7].

Overall, aging in both men and women causes several physiological changes that have an impact on their sexual health. Understanding the effects of aging allows for the optimization of sexual performance through lifestyle changes, medicine, and in some cases surgical intervention [8]. Sustained sexual desire and satisfaction are important components contributing to successful aging, as a healthy sexual life among the elderly is also linked to an improvement in both physical and mental health [9].

Definition of Sexual Health

Sexual function and sexual health are fundamental elements of everyone's happiness, well-being, and quality of life. Sexual health is described by the World Health Organization as "a state of physical, emotional, mental, and social well-being related to sexuality; not simply the absence of disease, dysfunction, or infirmity." Sexual health is more concerned with ongoing sexual activity than it is with sexual performance or sexual functioning [9]. Emotional closeness, personal friendship, flirtation, tenderness, embracing, kissing, desire, and self-pleasure are all included in this sexual activity. Another crucial component of sexual activity is the physical contact that partners have with one another [11].

Prevalence of Sexual Dysfunction in Older Woman

According to data obtained from a survey of 27,000 men and women aged 40 to 80 between 2001 and 2002, 39% of women and 28% of men reported having at least one issue with their sexual function. Some 23% of the female respondents stated that older people no longer desire sex [12]. Older women will experience a range of sexual issues, such as dyspareunia, inadequate vaginal lubrication, difficulty achieving orgasm, and a lack of enthusiasm for sex.

Age-related disorders experienced by aging women also rise in frequency. According to Luffey et al., sexual dysfunction is strongly positively correlated with age in women between the ages of 30 and 79. Waite et al also found that sexual dysfunction is prevalent in women between the ages of 57 and 85. In a major US population-based study involving individuals between the ages of 57 and 85, the most common complaints made by older women who were sexually active were a lack of desire (43%), problems with vaginal lubrication (39%), and difficulty reaching orgasm (34%). According to Huang et al.'s study of 1,977 women between the ages of 45 and 80, 43% of participants reported having a moderate sexual urge and 60% had engaged in sexual activity in the previous three months. These results show that many women continued to try to pursue or partake in sexual activity as they grew older [14].

In a recent epidemiology study of 4000 adults in Italy by Rose et al. (2019), it was found that sexual dysfunction occurred in 1795 (33%) of the sample. The most prevalent problems affecting sexual function in men were phimosis, varicocele, prostate, and testicular abnormalities, which were reported by 42.0%, 37.0%, 39.0%, and 31.0% of the sample respectively. Additionally, the male sample revealed that erectile dysfunction, STDs, infertility, premature ejaculation, and penile curvature affected 27.7%, 27.0%, 17.0%, 14.4%, and 7.8% of respondents, respectively. Low sexual satisfaction was reported by 65.0% of the women surveyed. The percentage of women who reported having a lack of libido, dyspareunia, fertility problems, arousal disorder, and sexually transmitted diseases was 32.0%, 29.0%, 24.0%, 24.0%, and 19.7%, respectively. Additionally, it was discovered in this study that sexual dysfunction worsens with age. [15]

In a population-based study conducted in 2019 by Din et al. in Malaysia, it was discovered that depression and sexual dissatisfaction were both quite common, with prevalence rates of 26.6% and 20.2%, respectively. The study showed a substantial correlation between depression and sexual satisfaction. When compared to participants who did not have depression, participants who reported feeling depressed were 81% less likely to be satisfied sexually.[16]

A population-based study conducted in the United Kingdom with 6,201 persons (56% women) aged 50 to >90 years showed that sexual activity significantly declined in men and women from 50 to >80 years of age (from 94.1% to 31.1% and 75.9% to 13.2%, respectively). 75.9% of women aged 50 to 59, 59.9% of people aged 60 to 69, 34.3% of people aged 70 to 79, and 14.2% of people over 80 reported having had any sexual activity in the last year. A US population-based study that comprised 3,005 adults ages 57 to 85 also found a similar trend of deterioration. According to this study, 22–30% of men and 23–34% of women reported at least one sexual issue which caused them to avoid having sex [17].

Aging Process and Sexual Health

As women age, they inevitably face a process referred to as the menopause . Ovarian function (perimenopause) typically starts to decline in the 40s and culminates in complete cessation of menses by the early 50s. Changes that occur during menopause include: [18]

- Urogenital tissue atrophy, which reduces the size of the uterus and vagina;
- Vasocongestion and decreased vaginal lubrication; and
- Loss of sensitivity in the nipples, clitoris, and vulvar tissue during sexual activity.

As a result of menopause, sexual function declines dramatically. Accompanying changes include a decrease in libido, sexual responsiveness, comfort level during intercourse, and a decline in sexual frequency [18].

The genitourinary syndrome of menopause (GSM) is one of the effects of menopause that has a substantial impact on sexual health. The lower urinary tract, the labia majora/minora, the vestibule/introitus, the clitoris, and the vagina are all affected

by the chronic, progressive disorder known as GSM. Clinical signs of GSM include decreased vaginal turgor and elasticity, shrinking of the labia minora, loss of the vaginal rugae, pallor, erythema, and an increase in vaginal friability. The drop in sex hormone levels led to the development of this condition. According to reports, middle-aged and elderly women are about 50% more likely to be affected by GSM. In addition, GSM is associated with a considerable decline in sexual health and general quality of life [19].

Table 1. Chronic conditions associated with sexual dysfunction [20]

Medical Condition	Information
Hypertension	The prevalence of hypertension, which is linked to female sex dysfunction, decreases with proper blood pressure management.
Stable angina pectoris	Lower cardiovascular risk during sexual activity will result from a problem that is optimally managed.
Myocardial infarction	Ability to climb 2 flights of stairs is generally considered adequate fitness for sexual activity
Heart failure	Sexual activity is acceptable with mild or compensated heart failure. Patients with decompensated or severe heart failure should be advised to refrain from sexual activity until their condition has stabilized.
Arrhythmia	Sexual interest and activity may increase as a result of implantable cardioverter defibrillator being perceived as a lifesaver.
Stroke	Sexual function and satisfaction are correlated with patient and partner understanding of sexual function following a stroke.
Emphysema and other causes of dyspnea	Use of inhaler or oxygen as needed
Arthritis	Sexual concerns are prevalent in individuals with hip osteoarthritis, followed by rheumatoid arthritis
Diabetes mellitus	Diabetes mellitus has complex effects on women, and is associated with depression.
Dementia	Consciously strike a balance between a patient's right to sexual autonomy and irresponsible behavior that could harm both oneself and others.
Depression	There is a two-way relationship between depression and sexual dysfunction: depression increases the chance of sexual dysfunction, and vice versa. Selective serotonin reuptake inhibitors (SSRIs) have been linked to decreased arousal, diminished sexual desire, and orgasmic dysfunction.

Chronic disease is another important factor that leads many older women to neglect their sexual health. Many chronic diseases and/or their medications have been linked to affecting the patient's quality of life, including their sexual health (Table 1). Among patients with diabetes, the prevalence of sexual dysfunction for diabetes type 1

and type 2 was reported to be 40% and 70%, respectively. Meanwhile, about 30% of patients diagnosed with cardiovascular disease reported that their medication was the source of their sexual difficulty. A study conducted on post-stroke patients also revealed that most patients have a decreased interest in sex[21].

The issues that a woman may have following the menopause when estrogen levels fall include menstrual disorders, vasomotor instability, hot flushes, sweating during the night, arthralgia, myalgia, mood disorders, sexual dysfunction, short-term memory problems, and psychological disorders (such as sleep disorders, mood lability, and depressive symptoms), which can affect a woman's quality of life.[22]

Typically, gynecological surgery is done to treat any pathological condition. However, it has been noted that this surgery can worsen sexual function (Table 2). A hysterectomy is among the most frequent gynecological procedures worldwide. The uterus can be completely removed during this treatment (total hysterectomy) or just the uterine body can be removed (partial hysterectomy). Other gynecological organs, such as the ovaries, fallopian tubes, or upper vagina, may also be removed during surgery. Damage to the branch of the pelvic plexus was one cause of sexual dysfunction that developed following a hysterectomy [23].

Table 2. Surgical procedures associated with sexual dysfunction [20]

Surgical Procedure	Information
Hysterectomy	For optimal wound healing, abstinence is advised for 6–8 weeks. The majority of women who were sexually active prior to surgery continue to have the same or improved function; nevertheless, some women report alterations or diminished orgasmic experiences. Depression could reduce desire.
Oophorectomy	The effects of decreasing androgen, estrogen, and progesterone have not been thoroughly researched.
Mastectomy	Mastectomy patients have more problems with sexual desire, arousal, and orgasm than breast-conserving surgery patients or healthy controls. Depression, anxiety, concerns about disease recurrence, feelings of being sexually unattractive, and changes in femininity are all very common. Sexual health is significantly influenced by the quality of the relationship with a partner's, therefore pre- and post-procedure counseling, education, and support are strongly encouraged.

Sexual Activity and Successful Aging

Successful aging is a concept that has been growing for over three decades. There is still no available standardized definition of it. However, the majority of definitions take social, psychological, and physical aspects into account. Rowe and Khan assert that three key factors undermine successful aging:

1. Low risk of illness and incapacity;
2. Good bodily and mental health; and

3. Active participation in life.

The association between sexual activity and successful aging has recently been the subject of extensive research. Rowe & Khan state find a significant association between an older individual's sexual activity and their self-rated health. Older adults who engage in sexual activity are substantially more likely to rate their health as excellent or very good This result demonstrated a link between overall health and sexual health in later life [13].

It has been noted that sexual engagement has a positive impact on physical health in the older population (Figure 1). Sexual activity is a type of exercise, and people who regularly engage in it are likely reaping the advantages to their physical and mental health that come with leading an active lifestyle. Endorphins are released during sexual activity, which causes a joyful or pleasurable feeling. Higher activity of the natural killer cells is correlated with higher levels of circulating endorphins. Consequently, it might be linked to a lower risk of developing a virus or cancer. Additionally, it was discovered that regular sexual activity decreased the number of pro-inflammatory cytokines, further reducing inflammation [4].

Estrogen and testosterone levels will gradually decrease as we age. Low testosterone levels have reportedly been linked to sarcopenia in older women. The levels of testosterone will rise with greater sexual activity, which may counteract the unfavorable effects and slow down muscle loss and the onset of frailty [4,24].

Aside from physical health, sexual activity and mental health are also linked in many ways (Table 3). An association was found between sexual satisfaction with the mental health. Better mental health is usually reported by the elderly who are satisfied with their sexual activity and its frequency. Sexual activities will mainly result in fostering relaxation, social attachment, and feelings of love. All of those sensations cause the body to release various hormones such as dopamine, endorphins, and oxytocin, which in turn reduce levels of anxiety and stress [24,25].

Table 3. Sexual activity and mental health [25]

Benefits of sexual activity for mental health in older adults
1. Having sex with one's partner strengthens the bond between the two of you, and being close to your mate is a sign of wellbeing.
2. Close emotional ties between partners during sexual activity contribute to a higher quality of life.
3. More kissing, petting, and fondling are linked to higher levels of life satisfaction.
4. Sexual activity improves general health, which has a positive impact on life satisfaction.
5. When having an orgasm or engaging in sexual activity, the body releases endorphins, which are followed by a euphoric or blissful feeling.
6. Since sexual activity is a physical activity and has been shown to have positive impacts on a person's mental health, it helps to improve psychological aspects.
7. Because worries regarding older individuals' sexual lives are inversely correlated with life satisfaction, easing these worries might improve a person's quality of life. In this context, a further connection to the benefits of an active and trouble-free sexual life appears likely.
8. Other strategies should concentrate on preserving sexuality as sexual engagement is a sufficient defense against mental health issues including depression and anxiety in older persons.
9. More frequent sexual encounters, particularly for men, are linked to better life satisfaction, whereas for women, life satisfaction is more closely linked to other sexual behaviors.
10. Physical sensitivity is a crucial component of women's mental health.

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11. Older persons who engage in more sexual activity have more favorable aging characteristics and fewer chronic illnesses, which results in a higher quality of life.
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Many older adults believe that their mental and physical health is strongly influenced by their capacity to maintain an active sex life and have satisfying sexual experiences. Numerous studies have shown that older adults who were more sexually active had fewer medical issues and needed fewer or no drugs. The patient's social life is significantly impacted by positive sexual experiences as they have more regular emotional connections and/or enjoy sexual activity. At the same time, it also leads to an improved capacity for sexual communication in relationships, as well as an improvement in romance and intimacy. Overall, sexual activity has a positive effect on a patient's social, emotional, and physical well-being. All of the mechanisms described above can be considered to be important mechanisms in the way that sexual activity results in successful aging in the elderly [24].

Optimization of Sexual Health in Elderly

Although older women face a variety of sexual conditions, these conditions should not stand in the way of having a good sexual life (Table 4). In order for the patient to have a healthier sexual life, treatment should be provided. Lubricants can be given to women who show signs of vaginal dryness in order to improve their sexual experience. There are several types of lubricants, including water-based, silicone-based, and oil-based ones. The most secure lubricant for sexual activity is water-based, while silicon-based lubricants last longer. If lubricants are ineffective at alleviating the symptoms, estrogen therapy using creams, pills, or an estrogen-releasing ring might also be recommended [8,26].

Table 4. Treatments of sexual problems in aging women [11]

Decreased libido	<ul style="list-style-type: none"> • Treatment with testosterone and estrogen replacements • Selective estrogen receptor modulators • Phosphodiesterase-5 inhibitors (sildenafil) • Nutritional supplements (ArginMax)
GSM	<ul style="list-style-type: none"> • Topical substances (vaginal lubricants used during sex) • Estradiol vaginal creams • Sustained-release estradiol vaginal ring

Women who exhibit symptoms of vaginal pain may be treated with estrogen. Estrogen treatment with can reduce pain and vaginal burning during sexual activity. For older women, topical estrogen creams assist in heightening sensation in the clitoral area. Women who struggle to experience orgasm or who have low libido might also receive physical therapy. Symptoms of chronic fatigue can be treated in older women by eating well and exercising regularly. Overall, elderly women may find it difficult to maintain a good sexual life, but with the correct medical interventions, it may be possible [27,28,29].

The following are some therapeutic options for postmenopausal women with sexual dysfunction: [30,31,32]

1. Vaginal moisturizers (for example, hyaluronic acid, polycarbophil, and pectin-based moisturizers) and lubricants.
2. Vaginal estrogen therapy (low dose, moderate dose, systemic dose of vaginal estrogen, other hormonal agents). However, estrogen therapy is known to have possible adverse effects, including endometrial hyperplasia and venous thromboembolism.

3. Ospemifene: This medication is used to treat moderate to severe dyspareunia caused by vaginal atrophy in postmenopausal women and those with a history of breast cancer.

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