Sexual satisfaction has been linked to quality of life throughout a person’s life, and distress related to sexual dysfunction impacts the health of the individual and their relationship.1 A common misconception is that aging women are not sexually active. National representative data indicate that, while sexual activity declines with age, both men and women continue to engage in vaginal intercourse, oral sex, and masturbation even in the eighth and ninth decades of life.1 However, patients and medical providers lack understanding about female sexual function, particularly in older women. To offer appropriate management to patients, the effects of age-related changes in sexual function must be distinguished from the effects of health changes on sexual function.

Sexual function in women is multifaceted and is affected by somatic, psychosocial, and neurobiological factors.2 Sexual dysfunction is assessed in the domains of desire, arousal, orgasm, and pain. Sexual desire or libido is complex and is influenced by various factors, including the physical and psychological health of the patient, relationship concerns, past sexual experiences, and personal beliefs about sexual activity. Arousal is a neurovascular response to desire that is characterized by vascular congestion in the breasts, clitoris, and vagina (resulting in vaginal lubrication). Orgasm, which may follow arousal, is marked by sexual release followed by rhythmic contractions in the pelvic musculature. Pain related to penetrative sexual activity may occur with initial or deep penetration (or both).3 The timing of the pain is an important distinction for identifying the underlying cause of the pain.3

The normal aging process, even in healthy women, generally leads to an increased prevalence of sexual complaints. Difficulties may occur in one or more domains of sexual function, most commonly, desire for sexual activities. However, these complaints may or may not be associated with distress. Decreased estrogen levels after menopause lead to the genitourinary syndrome of menopause (GSM), previously known as vulvovaginal atrophy. Genitourinary syndrome of menopause, which occurs in approximately 50% of postmenopausal women, is characterized by an alteration in the vaginal microbiome and architecture of the vagina and vulva; the result is vaginal dryness and pain with penetration.4 Age-related decrease in genital blood flow and diminished genital sensation, along with decreased pelvic floor tone may contribute to a delayed or a less intense orgasm. Decreasing levels of estrogen and androgens may also contribute to low desire, difficulty with arousal, and impaired orgasm.5

Distress related to sexual function is the hallmark of female sexual dysfunction. In the Prevalence of Female Sexual Problems Associated With Distress and Determinants of Treatment Seeking (PRESIDE) study of 31,000 women aged 18 to 102 years, sexual health concerns increased with age; sexual complaints were reported by 27% of women aged 18 to 44 years, by 44.6% aged 45 to 64 years, and by 80.1% aged 65 years or older. Interestingly, distress related to sexual problems was the highest (14.8%) in the middle-age group (45 to 64 years old) and the lowest (8.9%) in women 65 years or older.6 In addition to the changes that accompany normal aging, chronic medical
conditions and related treatment in older women may have a profound effect on sexual function (Table). An important consideration not to be overlooked and commonly reported in partnered women is the lack of sexual activity due to the partner's health.1 In general, women who rate their health as poor are less likely to be sexually active, and women with poor health who do remain sexually active often report sexual problems.1 Additionally, medications can cause or worsen pre-existent sexual health problems. Selective serotonin reuptake inhibitors induce sexual dysfunction in 30% to 70% of women and lead to complaints in the domains of sexual desire, arousal, and orgasm.3 Antihistamine and anticholinergic medications may impede arousal, and common cardiovascular drugs (eg, β-blockers) may negatively affect sexual desire.7 While moderate alcohol consumption has been associated with perceived improvement in sexual function, alcohol intoxication impairs sexual response.7

There are both provider and patient barriers to discussing sexual health–related matters in aging women. This is sometimes due to a discrepancy between patient and provider in age and sex (when the provider is male).1 Moreover, providers often perceive sexual health matters as being private and consider related discussions to be offensive and a breach of the patient's privacy.1 The lack of medical training on age-related changes in female sexuality contributes to providers being less confident in dealing with sexual health.9 A summit on medical school education in sexual health reported the lack of a well-developed and consistent curriculum relating to sexual medicine in the United States and Canada.9 Patients are also often reluctant to discuss sexual health concerns with their primary care providers; in a survey of older adults across the United States, 96% of women and 92% of men who had at least one sexual problem had not sought help.1

How can providers of any medical specialty approach a conversation regarding sexual concerns in older women? As in the PLISSIT model, normalizing and giving the patient permission (P) to discuss sexual concerns is primary. The patient can be counseled according to their health status, as opposed to age, giving limited information

**TABLE. Chronic Medical Conditions and Related Treatment in Older Women That May Have a Profound Effect on Sexual Function**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Physiologic affect</th>
<th>Sexual function impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes mellitus</td>
<td>Diminished genital vascular supply</td>
<td>Decreased arousal and orgasm</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>Diminished genital vascular supply</td>
<td>Decreased arousal and orgasm</td>
</tr>
<tr>
<td>Peripheral neuropathy</td>
<td>Impact on small nerve fibers in vulva and anterior vagina</td>
<td>Decreased genital sensation and impaired arousal</td>
</tr>
<tr>
<td>Neuromuscular disorders/spinal cord/multiple sclerosis</td>
<td>Direct effect on vulvar/vaginal innervation</td>
<td>Decreased desire and arousal</td>
</tr>
<tr>
<td>Malignancy</td>
<td>Direct effect of diagnosis and treatment-Menopausal hormone loss</td>
<td>Decreased desire, genital sensation, arousal, and orgasm</td>
</tr>
<tr>
<td></td>
<td>GSM Vaginal stenosis/dyspareunia</td>
<td></td>
</tr>
<tr>
<td>Musculoskeletal conditions</td>
<td>Difficulty with movement/positioning</td>
<td>Decreased desire and arousal</td>
</tr>
<tr>
<td>Gynecologic conditions</td>
<td>Dyspareunia</td>
<td>Decreased desire and genital sensation, arousal and orgasm</td>
</tr>
<tr>
<td>Pelvic organ prolapse</td>
<td>Loss of urine during intercourse</td>
<td></td>
</tr>
<tr>
<td>Urinary incontinence</td>
<td>Loss of systemic estrogen</td>
<td></td>
</tr>
<tr>
<td>Surgical interventions: hysterectomy/oophorectomy</td>
<td></td>
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</tbody>
</table>

aGSM = genitourinary syndrome of menopause.

bData from Kingsberg et al.3

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(LI) on how their medical condition may affect their sexual health. Specific suggestions (SS) to improve identified issues can be discussed and referral for intensive therapy (IT) if warranted. In addition, a validated single-item questionnaire offered as part of medical history can provide opportunity for open discussion.

Treatment options are directed at the specific concerns and underlying conditions. Dyspareunia and vaginal dryness are a common problem often occurring simultaneously in 80% of postmenopausal women. For mild symptoms, vaginal lubricants and moisturizers may suffice. For moderate to severe symptoms in appropriately selected patients, hormonal treatments may include vaginal estrogen or dehydroepiandrosterone (DHEA) and oral ospemifene. In comparative studies, both intravaginal estrogen twice weekly and DHEA (6.25 mg) suppository nightly improved vaginal dryness and dyspareunia. However, after 1 year of use, DHEA improved all domains of female sexual dysfunction including desire and orgasm with no increase in sex steroid levels. A recent position statement from the North American Menopause Society outlines safety issues related to topical hormone treatment of GSM.

Currently, no US Food and Drug Administration–approved medications are available to enhance female sexual function (desire, arousal, or orgasm) in postmenopausal women. While flibanserin has been found to improve hypoactive sexual desire disorder in postmenopausal women, it is US Food and Drug Administration–approved for this indication in premenopausal women only. Herbal medications designed to enhance libido have not been studied in the elderly. The use of a personal vibrator or pillows for positioning during sexual activity may enhance sexual function. Patients with more complex sexual health issues may need a multidisciplinary approach including psychotherapy or sex therapy.

Social determinants of sexual function are equally important. Women residing in an assisted-living facility or a nursing home may still need tenderness, sexual contact, and emotional closeness, but the lack of privacy, attitudes of staff and family members, lack of a sexual partner, and physical limitations are some of the identified barriers to healthy sexual expression in institutional care. Furthermore, facilities may have policies that inhibit sexual activity out of concern for resident safety. Sometimes sexual activity requires the approval from a resident’s representative (eg, a family member). Certainly, patient safety concerns are appropriate if the patient has a cognitive disorder. Proactive policies that balance the autonomy of residents with their safety are likely to enhance the quality of life and sense of dignity of residents in long-term care.

It is estimated that 20% of the US population will be older than 65 years by 2030. Therefore, the medical community will witness an increasing number of geriatric health issues. Many older women are single, widowed, or have partners with sexual health issues. An often overlooked trend is the increasing rate of sexually transmitted infections, including AIDS, in persons older than 50 years. Moreover, this age group is becoming more socially diverse, with 4% (3 million) projected to be lesbian, gay, bisexual, transgender, or queer. In addition, growing racial diversity calls for health care providers to have culture-specific knowledge and skills.

CONCLUSION
Female sexual function education should be incorporated into medical school curricula to enhance the skills and comfort level of providers in discussing sexual health with patients. With this commentary, our goal is to both challenge and encourage the providers to consider sexual health as an important aspect of women’s health in their midlife years and beyond.

Abbreviations and Acronyms: GSM = genitourinary syndrome of menopause

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