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Review

Sexual Activity and Aging

Mary Ni Lochlainn BSc [a,*], Rose Anne Kenny MD, FRCP, FTCD [b,c,d,e]

[a] School of Medicine, Trinity College Dublin, Dublin, Ireland
[b] The Irish Longitudinal Study on Ageing (TILDA), Dublin, Ireland
[c] Department of Medical Gerontology, Trinity College Dublin, Dublin, Ireland
[d] Trinity EngAGE, Trinity College Dublin Centre for Research in Ageing, Dublin, Ireland
[e] Mercer's Institute for Successful Ageing, St James's Hospital, Dublin, Ireland

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A B S T R A C T

Sexuality is an important component of emotional and physical intimacy that men and women experience throughout their lives. Research suggesting that a high proportion of men and women remain sexually active well into later life refutes the prevailing myth that aging and sexual dysfunction are inexorably linked. Age-related physiological changes do not render a meaningful sexual relationship impossible or even necessarily difficult. Many of these physiological changes are modifiable. There are various therapeutic options available to patients to achieve maximum sexual capacity in old age.

This article reviews the prevalence of sexual activity among older adults, the problems these adults encounter with sexual activity, and the role of the health care professional in addressing these problems. The physiological sex-related changes that occur as part of the normal aging process in men and women are reviewed, as well as the effect of age-related physical and psychological illness on sexual function. The attitudes and perceptions of the media and general public toward sexual activity and aging are summarized. An understanding of the sexual changes that accompany the aging process may help general practitioners and other doctors to give practical and useful advice on sexuality as well as refute the misconception that aging equates to celibacy. A thorough awareness of this aspect of older people's quality of life can raise meaningful expectations for aging patients.

The proportion of people older than 65 is growing faster than any other age group.[1] In the United Kingdom the population aged 65 years and older is set to increase by two-thirds to reach 15.8 million in 2031.[2] Health care systems around the world will have to learn to cope with the increasing needs of this sector of the population.

Sexuality is broadly defined as the dynamic outcome of physical capacity, motivation, attitudes, opportunity for partnership, and sexual conduct.[3] Sexuality may include touching, caressing, fantasy, masturbation, physical closeness, and the warmth created by emotionality.[4] Sexuality and the desire for intimacy are essential and important quality-of-life issues from birth until death. Although sexuality is an important means of expressing love and caring in older persons,[5] it receives scanty attention in the education and training of health care professionals and is rarely detailed when taking a history and conducting a physical examination.

Although much has been written about adolescent and adult sexuality, relatively little is available that highlights the nature of sexuality in older age groups. To take a comprehensive approach to aging sexuality, a bio-psychosocial perspective is needed—one that combines biological, psychological, and socio-environmental factors and realms.

Regarding the social realm, Matthias et al[6] reported that of 1216 people older than 65, those with poor social networks (based on the Lubben Social Network Scale) were more likely to be sexually inactive and dissatisfied. Trudel and Piche[7] listed a number of social determinants and factors that influence sexual activity. Among these were social taboos; marital status; and knowledge about sexuality, self-esteem, and attitudes toward sexuality. It appears that sexual expression in any given society is governed by the attitudes and norms of that society. A significant social factor to be considered is the availability of a partner. In a study of men and women older than 70, 52% of women and 38% of men who were sexually inactive cited "no partner" as the main reason.[8] In addition, other external social factors, such as the needs of dependent relatives or illness, may draw emotional energy away from a couple[9] and have a negative impact on sexual activity.

From a psychological viewpoint, sexuality includes identity, body image, self-esteem, eroticism, emotions and their expression, and imagination.[10] Matthias et al[6] found that higher scores in the Functional Status Questionnaire Mental Health Inventory (MHI-5) were associated with higher levels of sexual satisfaction regardless of activity. Psychological conditions, such as anxiety, depression, and their treatment, are known to affect libido and sexual function.[11] Campbell[5] reported that aging women who have a partner with whom they can enjoy intimacy are in better mental health compared

* Address correspondence to Mary Ni Lochlainn, BSc, School of Medicine, Trinity College Dublin, 36 Templemore Avenue, Rathgar, Dublin 6, Ireland.
E-mail address: marynilochlainn@gmail.com (M.N. Lochlainn).

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with women without this type of relationship. Hartmann et al[12] reported that decreased sexual interest in women was related to self-reported negative emotional and psychological feelings, such as lower self-esteem, insecurity, and loss of femininity. Psychological factors associated with male sexual dysfunction include restrictive upbringing, disturbed family relationships, traumatic early sexual experiences, performance anxiety, discord in the relationship, and impaired self-image.[13,14] Clearly, sexuality and mental health are closely linked. A discussion on sexuality is incomplete without addressing emotional and psychological contributions.

Prevalence of Sexual Activity in Older Adults

Gott[15] surveyed 335 individuals in the United Kingdom aged between 50 and 90 years; 81.5% were currently involved in one or more sexual relationships. A global study by Nicolosi et al[16] concluded that 53% of men and 21% of women aged 70 to 80 years engaged in sexual intercourse during the 12 months preceding the interview. Lindau et al[17] conducted a longitudinal survey and clinical study on the sexuality in a nationally representative cohort of 3005 US adults aged 57 to 85. Seventy-three percent of respondents aged 57 to 64, 53% aged 65 to 74, and 26% aged 75 to 85 were sexually active. In the oldest age group, 54% of sexually active persons were having sex at least twice a month, and 23% reported having sex once a week or more. In addition to intercourse, 58% of those in the youngest age group and 31% in the oldest age group engaged in oral sex. Studies on the prevalence of sexual activity among older adults are summarized in Table 1. These statistics counteract the dominant stereotype of the "asexual older person."[38] It is clear that sexual activity is still an important element of aging people's lives.

There are significant gender differences in the incidence of sexual intercourse and masturbation; however, these are apparent in adolescence and all through adulthood.[39] Lindau et al[17] reported that 78% of men aged 75 to 85 reported having a spousal or other intimate relationship, as compared with 40% of women in this age group. It is a well-known fact that women live longer than men; the 2006 Irish Census concluded that by age 85 years or older, there are 2.25 women for every man.[40] Thus, lack of opportunity may well account for a large proportion of the gender differences in prevalence of sexual activity.

It is also important to consider lesbian, gay, bisexual, and transgender (LGBT) older adults and their sexual health needs. A report by the National Gay and Lesbian Task Force (NGLTF) estimated the number of older LGBT individuals in the United States in 2000 to be approximately 3 million, and this could expand to 4 million by 2030.[41] There are very few services specific to the needs of older LGBT adults, and resistance to providing these services has been reported at agency level.[42,43] As the population continues to age, the needs of this sector of the population will need to be thoroughly addressed.

Sexual Activity of Older Women

Most of the older population is female. By 2050, it is predicted that 65% of octogenarians will be women.[44] The sexuality of older women is influenced by many factors, including general physical and mental well-being, quality of relationship, life situation, marriage status, menopausal status, education, social class, stressors, and self-perception.[45–48] The prevalence of sexual dysfunction is high[24]; Laumann et al[49] in 1999 reported 43%, whereas Lindau et al[17] in 2007 reported 50% prevalence, illustrating the lack of progress in this area over the course of the decade.

One of the most significant periods in female reproductive aging is menopause. Women live on average 30 years after the menopause,[50] indicating the importance to health care providers of a thorough knowledge of postmenopausal health. Menopausal changes that arise from loss of estrogen include decreased vaginal lubrication, vasomotor symptoms, and neurologic and psycho-sexual changes, including mood, irritability, anorgasmia, decreased libido, and impaired sexual performance.[50,51]

In the Yale midlife study, 68% of 130 postmenopausal women reported sexual problems. Specific complaints included vaginal dryness (58%), dyspareunia (39%), and a decrease in clitoral sensitivity (36%), orgasmic intensity (35%), and orgasmic frequency (29%).[51] Nicolosi et al[16] collected data from 13,882 women in 29 counties and found 39% were affected by at least one sexual dysfunction. The most common sexual dysfunctions reported were lack of sexual interest (21%), inability to reach orgasm (16%), and lubrication difficulties (16%). Laumann et al[21] found that lack of sexual interest (33.2%) and lubrication difficulties (21.5%) were the most common problems among the 749 women surveyed.

In 1998, the American Foundation of Urologic Disease Consensus Panel classified female sexual dysfunction into 4 categories: desire (hypoactive sexual desire disorder), arousal (sexual arousal disorder), orgasmic (orgasmic disorder), and sexual pain disorders (dyspareunia, vaginismus, and other).[52] Definitions have since been further revised.[53] Pain with sexual activity can be caused by pelvic floor disorders, such as urinary incontinence, cystocele, rectocele, enterocele, and vaginal or uterine prolapse.[54] This disorder is particularly relevant to older women, as they are at increased risk of pelvic floor disorders and, thus, sexual pain disorders, owing to muscular and vascular changes associated with age and childbirth.[52]

Therapies for female sexual dysfunction include dilators to improve dyspareunia; vaginal lubricants and topical or oral estrogen may help with vaginal thinning and dryness.[45] Research on testosterone use in women has found meaningful improvements in sexual function for postmenopausal women not receiving estrogen therapy.[55,56] Data from the INTIMATE 1 and 2 trials reported a favorable safety profile, similar to that of placebo[56]; however, testosterone use has been associated with a risk of breast cancer.[55] Long-term data from large clinical trials is needed in this area to fully evaluate the benefits and risks of testosterone use in older women.

Sexual Activity of Older Men

Baumeister et al[57] surveyed a broad range of available evidence on the relative strength of sex drive and found that, by all measures, men have a stronger sex drive than women. Lindau and Gavrilova[58] concluded that sexual activity, good-quality sex life, and interest in sex were higher for men than for women and that this gender gap widened with age.

Significant changes in penile structure occur with aging. The concentration of elastic fibers and collagen decreases with age. In addition, it is estimated that there is a decrease of up to 35% in the smooth muscle content of the penis in men older than 60 years. Mechanical sensitivity of the penis is decreased.[59] These changes may contribute to the development of erectile dysfunction in older men, suggesting that the normal aging process in the absence of disease may be sufficient to produce erectile dysfunction in at least some men. This is consistent with Mulligan et al's[60] finding that age alone is a significant risk factor. Causes of erectile dysfunction may be psychogenic, iatrogenic, hormonal, vascular, or neurogenic.[61] Vascular causes are the most common,[13,61] occurring in up to 40% of patients.[62] Indeed, erectile dysfunction can be considered an early marker for atherosclerosis, cardiovascular risk, and subclinical vascular disease.[63]

Chew et al[22] carried out a survey of 1580 men in Australia and found the prevalence of erectile dysfunction to be 52% among those aged 60 to 69, 69% among those aged 70 to 79, and 76% among those 80 and older. The literature on prevalence of erectile dysfunction is variable, ranging from 3% to 76%.[8,16,19,21,29,33,34,36,64–69] Lindau et al[17]