

EPIDEMIOLOGY

Physical Intimacy Is an Important Part of Sexual Activities: Korean Older Adults Study



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ABSTRACT

Introduction: Sexual activity can be broadly defined to include not only sexual intercourse but also physical intimacy. However, most studies of sexual activity in older adults have a limited focus on sexual intercourse only.

Aim: The aim was to investigate sexual activities including sexual intercourse and physical intimacy in community-dwelling older Korean adults.

Methods: This study was based on cross-sectional data to measure sexual activities (sexual intercourse and physical intimacy) in 209 participants (100 men and 109 women) aged 65 years or older. Sexual intercourse and physical intimacy were defined as vaginal penetration and as any sexual behavior with sexual arousing (eg, kissing, caressing), respectively. Erectile dysfunction was evaluated by the use of the International Index of Erectile Function questionnaire, and female sexual dysfunction was evaluated by Female Sexual Function Index scores.

Main Outcome Measure: Trained interviewers collected the survey information on sexual activities in the last 6 months at the senior welfare center.

Results: The participants' mean age was 73.4 ± 4.8 years (men, 74.2 ± 5.0 years; women, 71.6 ± 5.3 years). The prevalence of erectile dysfunction was 91.0% (91/100), and the prevalence of female sexual dysfunction was 96.3% (105/109). In the previous 6 months, 122 participants (58.4%) reported sexual activities, and men reported more sexual activities than women ($P = .001$). A total of 69.6% of men and 41.9% of women engaged in sexual activity with intercourse, whereas 30.4% of men and 58.1% of women engaged in physical intimacy only. The physical intimacy-only group was more likely to have erectile dysfunction or female sexual dysfunction than the sexual intercourse group ($P = .035$ and $P = .012$, respectively).

Conclusions: Although sexual intercourse is an important part of sexual activity, our study results suggest that physical intimacy is also a considerable component of sexual activity that should not be neglected in older adults, especially in women. Our findings imply that health-care professionals need to consider physical intimacy as part of sexual activity in the assessment of geriatric patients with sexual dysfunction. **Chung HS, Kim GH, Shin M-H, et al. Physical Intimacy Is an Important Part of Sexual Activities: Korean Older Adults Study. Sex Med 2020;8:643–649.**

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Key Words: Aged; Sexual Behavior; Sexual Health; Sexual Dysfunction

Received March 12, 2020. Accepted June 30, 2020.

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<https://doi.org/10.1016/j.esxm.2020.06.011>

INTRODUCTION

The increase in life expectancy has drawn attention to the quality of life in older adults.¹ Sexual health is an important aspect of a person's life, relationships, and overall life quality in all adult age groups,² and poor health is associated with both a decline in sexual activity with age and sexual dysfunction.³

Sexual health is defined by the World Health Organization as "a state of physical, emotional, mental, and social well-being related to sexuality, not merely the absence of disease, dysfunction, or infirmity."⁴ However, misunderstanding remains about sexual health in older adults, such as whether they become

asexual and lose interest in sexual behavior as they age. This phenomenon is consistent not only among persons of younger ages but also often among older adults and some clinicians.⁵

Previous reports have shown that sexual activity is not considerably different among middle-aged and old-aged adults.⁶ Most studies of sexual activity in older adults have focused on sexual intercourse.^{7–9} However, the definition of sexual activity is broad and includes not only sexual intercourse but also physical intimacy with any sexual arousing, such as touching, holding, and close companionship.^{10,11}

Even though several studies have reported on the role of physical intimacy or tenderness in older adults, there have been no reports in Asia, where the sexual culture is somewhat different from that in western countries. The aim of the present study was therefore to investigate sexual activities including sexual intercourse and physical intimacy (eg, kissing, caressing) in community-dwelling older Korean adults.

MATERIALS AND METHODS

Study Design and Setting

This study was based on cross-sectional data to measure sexual activities (sexual intercourse and physical intimacy) in community-dwelling participants aged 65 years or older. The study was conducted between June and July 2018 among 228 older adults who visited the senior welfare center in Gwangju, South Korea. Participants of the study were selected by use of convenience sampling. All participants were married and participated in the survey voluntarily. All study participants gave written consent, and the study was conducted in accordance with the guidelines in the Declaration of Helsinki. The study was approved by the Institutional Review Board of Chonnam National University Hospital (no. CNUH-2018-138). Subjects were included if they were aged 65 years or older and were present on the days when data were collected. Subjects were excluded if they refused to provide informed consent for the study. Finally, a total of 209 participants (100 men and 109 women) were included in the study.

Data Collection (Measures and Covariates)

Trained interviewers collected the survey information using validated questionnaires in face-to-face interviews in a private setting at the senior welfare center and assured the secrecy of the survey responses. The interviewers were trained to understand geriatric and sexual medicine before starting this study. The severity of erectile dysfunction (ED) was assessed with the Korean version of the International Index of Erectile Function,¹² and the severity of ED was classified into 5 diagnostic categories.¹³ Female sexual dysfunction (FSD) was evaluated by the use of the Korean version of the Female Sexual Function Index (FSFI).¹⁴ Based on sensitivity and specificity analyses, as previously reported, we classified a FSFI total score of 26.55 to be the optimal cutoff for differentiating women with and without sexual

dysfunction.¹⁵ To investigate sexual activities (sexual intercourse and physical intimacy) in the last 6 months, participants were asked, “Have you ever experienced sexual activities with intercourse in the last 6 months?” with a possible response of “yes” or “no.” Physical intimacy was defined as any sexual behavior with one’s partner that was sexually arousing, noting that the activity did not need to result in orgasm or include vaginal intercourse.¹⁰ If the response to this question was “no,” the participants were subsequently asked, “Have you ever experienced any type of physical intimacy with sexual arousing (eg, kissing, caressing) in the past 6 months?” If the response to this question was “yes,” the participants were asked the reasons for not having sexual intercourse with their partner. Among the participants who reported sexual activities, characteristics were further analyzed and compared between 2 subgroups: the sexual intercourse (sexual activity with intercourse) group and the physical intimacy—only group.

The participants’ demographic characteristics, lifestyle, medical history, and drug use were assessed by using a standardized questionnaire. Body weight and body composition were measured while the subjects wore indoor clothing or a light gown without shoes. Waist circumference was measured with a tape measure at the minimum circumference between the iliac crest and the rib cage. The grip strength of both hands was measured using a hand dynamometer, and handgrip strength was defined as the highest single force recorded during 3 trials with a 1- to 2-min rest period between each trial.¹⁶ The 5-m timed walk has been shown to be a reliable method to assess gait speed.¹⁷ The subject was instructed to walk at a comfortable walking speed. A handheld timer was started on the word “go” and stopped when the subject crossed the 5-m mark.

Statistical Analysis

Data are presented as means \pm standard deviations, or as percentages for categorical variables, according to variables including sexual activity and sexual function status in older adults. Differences in baseline characteristics and the characteristics of older adults who had sexual activities in the past 6 months were stratified by sex and sexual activity with comparison using *t*-tests for continuous data and chi-square tests for categorical data. Statistical analyses were performed by using R software version 3.5.1 (R Foundation for Statistical Computing, Vienna, Austria). A *P* value less than .05 was considered statistically significant.

RESULTS

Characteristics of the study participants are summarized in Table 1. The mean age of the participants was 73.4 ± 4.8 years, and the men were older than the women (74.4 ± 4.7 years vs 72.5 ± 4.7 years; *P* = .003). Men had larger waist circumference, greater handgrip strength, faster gait speed, and higher rates of current smoking and alcohol drinking (*P* = .001, *P* = .001,

Table 1. Characteristics of the study participants

Variable	Male (n = 100)	Female (n = 109)	P
Age (years)	74.43 ± 4.73	72.47 ± 4.70	.003
Body mass index (kg/m ²)	23.91 ± 3.55	23.91 ± 3.45	.997
Waist circumference (cm)	87.10 ± 8.07	82.61 ± 6.76	.001
Systolic blood pressure (mmHg)	124.84 ± 14.50	123.24 ± 10.09	.359
Diastolic blood pressure (mmHg)	73.99 ± 52.64	68.92 ± 7.28	.342
Heart rate (bpm)	73.88 ± 12.26	72.72 ± 10.28	.461
Handgrip strength (kg)	33.77 ± 6.11	20.29 ± 4.11	.001
Gait velocity (m/s)	7.84 ± 1.88	6.80 ± 1.76	.001
Current smoking (%)	7 (7.0)	0 (0)	.015
Drink alcohol (%)	35 (35.0)	9 (8.26)	.001
Mental stress (%)	13 (13.0)	17 (15.6)	.736
Hypertension medication use (%)	38 (38.0)	43 (39.5)	.942
Diabetes medication use (%)	11 (11.0)	20 (18.4)	.194
Dyslipidemia medication use (%)	23 (23.0)	42 (38.4)	.023
History of stroke (%)	8 (8.0)	3 (2.8)	.165
History of coronary artery disease (%)	15 (15.0)	12 (11.0)	.514
History of arthritis (%)	18 (18.0)	51 (46.8)	.001
IIEF-EF score			
No ED (IIEF-EF score 26–30)	9 (9.0)		
Mild ED (IIEF-EF score 22–25)	21 (21.0)		
Mild to moderate (IIEF-EF score 17–21)	14 (14.0)		
Moderate (IIEF-EF score 11–16)	11 (11.0)		
Severe (IIEF-EF score 6–10)	45 (45.0)		
FSFI score			
FSFI score > 26.55		4 (3.7)	
FSFI score ≤ 26.55		105 (96.3)	

ED = erectile dysfunction; EF = erectile function; FSFI = Female Sexual Function Index; IIEF = International Index of Erectile Function.

$P = .001$, $P = .015$, and $P = .001$, respectively). Women had higher rates of use of dyslipidemia medication and history of arthritis ($P = .023$ and $P = .001$, respectively). The prevalence of ED was 91.0% (91/100), and the prevalence of FSD was 96.3% (105/109). Of male participants, 21.0% had mild, 14.0% had mild to moderate, 11.0% had moderate, and 45.0% had severe ED.

In the previous 6 months, 122 participants (58.4%) had sexual activities, and men reported more sexual activities than did women (79.0% vs 39.4%; $P = .001$) (Figure 1 and Table 2). A total of 69.6% of men and 41.9% of women had engaged in sexual intercourse (sexual activity with sexual intercourse), whereas 30.4% of men and 58.1% of women had engaged in physical intimacy only ($P = .003$). The most common cause of not having sexual intercourse was no sexual desire (51.1%), followed by no chance to have a sexual partner (26.5%) and concerns about ethical issues (20.4%). The participants could provide multiple answers to this question, and 24.4% of them provided no answer.

For participants who reported sexual activity in the last 6 months, the characteristics of the physical intimacy-only group are compared with those of the sexual intercourse group (Table 3). Men who had physical intimacy only were more likely

to have ED than men who had sexual intercourse ($P = .035$). The mean International Index of Erectile Function scores of men in the sexual intercourse and physical intimacy-only groups were 20.75 ± 6.2 and 5.04 ± 4.99 , respectively ($P = .001$). Women who had physical intimacy only were older ($P = .008$) and more likely to have FSD ($P = .012$) than women in the sexual intercourse group. The mean FSFI scores of women in the sexual intercourse and physical intimacy-only groups were 21.8 ± 4.1 and 7.6 ± 6.8 , respectively ($P = .001$).

DISCUSSION

In the present study, although most participants had sexual dysfunction, more than half of the adults aged 65 years or older surveyed reported sexual activities in the past 6 months. Physical intimacy was an important part of their sexual activities, as well as sexual intercourse, especially among women.

Aging is known to be associated with a range of biological and physiologic changes to the human body related to chronic health conditions. These changes are reported to include a loss of skeletal muscle and peak bone mass and a decline in the levels of sex hormones.^{18,19} Sexual problems in both men and women appear to increase with aging. The prevalence of ED in men has

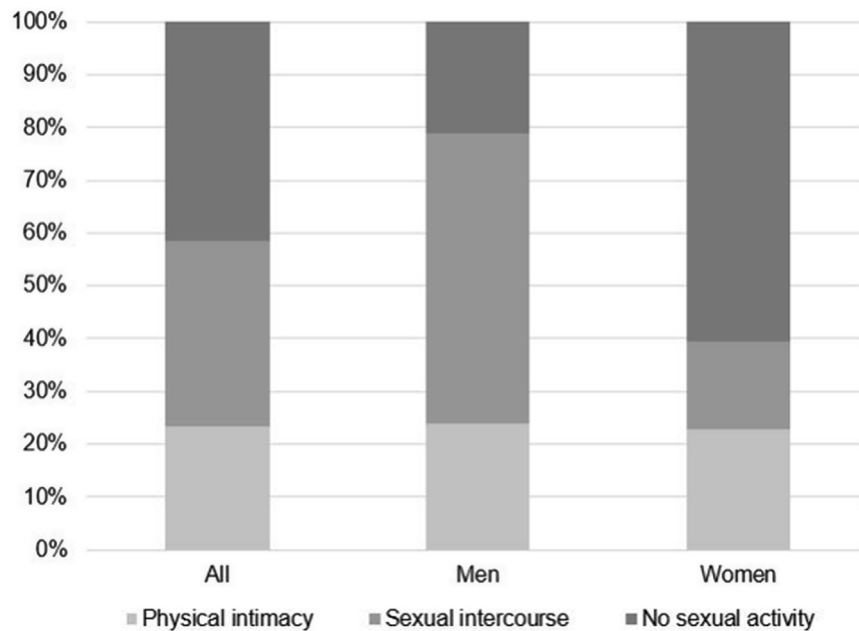


Figure 1. Percentage of participants who reported sexual activity in the last 6 months.

been reported stratified by age as follows: 11–86.3% in men aged 60 years and older, 8–94.7% in men aged 70 years and older, and 43.5–92.9% in men aged 80 years and older.²⁰ The prevalence of FSD among women of all ages is estimated to be 25–63%, which increases in postmenopausal women to 68–86.5%.²¹ FSD is reported to be related to their partner's sexual function: When the ED of the male partner improves, the

woman's desire, sexual arousal, orgasm, and satisfaction can be improved.²² In the present study, adults aged 65 years or older showed a relatively high prevalence of sexual problems; the prevalence of ED in men was 91.0%, and the prevalence of FSD in women was 96.3%.

A previous study reported that despite facing a higher prevalence of bothersome sexual problems, the frequency of sexual activities

Table 2. Characteristics associated with the sexual activity of older adults in the past 6 months

Variable	Male (n = 100)	Female (n = 109)	P
Sexual activity (%)	79 (79.0)	43 (39.4)	.001
Sexual intercourse (%)	55 (69.6)	18 (41.9)	.003
Physical intimacy (%)	24 (30.4)	25 (58.1)	
Sexual dysfunction (%)			
No ED (IIEF-EF score 26–30)	9 (11.4)		
Mild ED (IIEF-EF score 22–25)	21 (26.6)		
Mild to moderate ED (IIEF-EF score 17–21)	14 (17.7)		
Moderate ED (IIEF-EF score 11–16)	10 (12.7)		
Severe ED (IIEF-EF score 6–10)	25 (31.6)		
FSFI score > 26.55		4 (13.7)	
FSFI score ≤ 26.55		39 (86.3)	
No sexual activity (%)	21 (21.0)	66 (60.6)	
Sexual dysfunction (%)			
No ED (IIEF-EF score 26–30)	0 (0)		
Mild ED (IIEF-EF score 22–25)	0 (0)		
Mild to moderate ED (IIEF-EF score 17–21)	0 (0)		
Moderate ED (IIEF-EF score 11–16)	1 (4.8)		
Severe ED (IIEF-EF score 6–10)	20 (95.2)		
FSFI score > 26.55		0 (0)	
FSFI score ≤ 26.55		66 (100)	

ED = erectile dysfunction; EF = erectile function; FSFI = Female Sexual Function Index; IIEF = International Index of Erectile Function.

Table 3. Comparison of characteristics between the sexual intercourse and physical intimacy—only groups for participants who reported sexual activity in the last 6 months

Sexual activity	Men			Women		
	Sexual intercourse (n = 55)	Physical intimacy only (n = 24)	P	Sexual intercourse (n = 18)	Physical intimacy only (n = 25)	P
Age (years)	73.8 ± 4.4	75.3 ± 5.2	.198	69.4 ± 2.7	72.2 ± 3.6	.008
Body mass index (kg/m ²)	24.0 ± 2.6	23.2 ± 5.6	.493	22.0 ± 6.4	24.1 ± 2.8	.195
Waist circumference (cm)	86.7 ± 7.6	85.9 ± 9.1	.686	80.9 ± 6.9	81.8 ± 7.9	.695
Systolic blood pressure (mmHg)	124.5 ± 16.3	123.0 ± 10.6	.623	121.9 ± 12.2	121.6 ± 10.7	.944
Diastolic blood pressure (mmHg)	78.0 ± 70.7	68.9 ± 6.3	.351	70.6 ± 8.8	66.8 ± 6.8	.121
Heart rate (bpm)	73.4 ± 11.6	73.8 ± 13.8	.898	72.2 ± 6.3	70.4 ± 13.8	.576
Handgrip strength (kg)	34.0 ± 6.2	32.3 ± 5.9	.256	21.0 ± 4.6	20.4 ± 4.6	.667
Gait velocity (m/s)	7.4 ± 1.9	7.9 ± 2.4	.43	6.8 ± 1.9	7.1 ± 1.9	.546
Current smoking (%)	4 (7.3)	2 (8.3)	1	0 (0.0)	0 (0.0)	1
Drink alcohol (%)	20 (36.4)	7 (29.2)	.717	4 (22.2)	3 (12.0)	.633
Mental stress (%)	5 (9.1)	5 (20.8)	.282	0 (0.0)	5 (20.0)	.124
Hypertension medication use (%)	20 (36.4)	9 (37.5)	1	5 (27.8)	8 (32.0)	1
Diabetes medication use (%)	4 (7.3)	5 (20.8)	.174	2 (11.1)	4 (16.0)	.992
Dyslipidemia medication use (%)	11 (20.0)	7 (29.2)	.547	2 (11.1)	11 (44.0)	.048
History of stroke (%)	5 (9.1)	2 (8.3)	1	0 (0.0)	2 (8.0)	.621
History of coronary artery disease (%)	5 (9.1)	5 (20.8)	.282	2 (11.1)	1 (4.0)	.767
History of arthritis (%)	7 (12.7)	8 (33.3)	.066	6 (33.3)	10 (40.0)	.899
Sexual dysfunction (%)*	46 (83.6)	24 (100.0)	.035	14 (77.8)	26 (100.0)	.012
IIEF-EF scores	20.75 ± 6.2	5.04 ± 4.99	.001			
FSFI scores				21.8 ± 4.1	7.6 ± 6.8	.001

EF = erectile function; FSFI = Female Sexual Function Index; IIEF = International Index of Erectile Function.

*Male, IIEF-EF score ≤ 25; female, FSFI score ≤ 26.55.

did not decrease considerably with increasing age.²³ In that study, the frequency of sexual activity in adults aged 57–85 years was similar to that in adults aged 18–59 years. Another study showed that adults remain sexually active into their 70s and 80s.²⁴ In the present study, irrespective of partner status, 58.4% of older adults experienced sexual activities, and men had more sexual activities than women in the previous 6 months. Women may be affected by sudden changes of environment, including the decline in levels of sex hormones after menopause.²¹ In addition, it may be harder for older women to have a sexual partner as a result of cultural aspects because the life expectancy of women is longer than that of men. These findings were demonstrated by several studies reporting that one of the most important barriers to sexual activity is the lack of a partner at an older age, especially in women.^{10,25} In the present study, no chance to have a sexual partner was one of the most common reasons given for not having sexual intercourse. No sexual desire was another reason for not having sexual intercourse. In addition, several studies have shown that sexual desire is significantly associated with frequency of sexual activity at older ages.^{6,24,26,27} Sexual desire declines sharply with age in both men and women,²⁷ which has been demonstrated to be strongly

associated with the frequency of sexual intercourse for both men and women.⁶

There has been a tendency that most studies about sexual activity in older adults have been limited to evaluations of sexual intercourse.^{7–9} Sexual activity can be broadly defined, however, to include not only sexual intercourse but also activities with any sexual arousing, termed *physical intimacy*.^{10,25} Therefore, broadening of the definition of sexual activity should be considered for more proper insight into the prevalence and importance of sexual activity in older adults. In general, physical intimacy as well as sexual intercourse is a component of sexual activity. Therefore, in the present study, the sexual intercourse group was defined as participants who had sexual intercourse irrespective of physical intimacy. Our results showed that 30.4% of men and 58.1% of women experienced physical intimacy only, whereas 69.6% of men and 41.9% of women had sexual intercourse. The women who had sexual activity were more likely than men to have physical intimacy only, especially in older ages.

Although sexual intercourse is an important part of sexual activity, physical intimacy is also a considerable part of sexual

activity that should not be neglected in older adults, particularly in women. In the present study, men and women in the physical intimacy-only group tended to have more ED and FSD, respectively, than men and women in the sexual intercourse group. This result might reflect that physical intimacy is an alternative sexual activity to sexual intercourse in older adults. A previous study showed that men are more likely to report enjoying sexual intercourse, while women are more likely to report enjoying both foreplay and afterplay rather than intercourse only.²⁸ Similarly, a recent study showed that physical intimacy is associated with greater enjoyment of life in sexually active women, whereas frequent sexual intercourse is not.⁴ The present study demonstrated that sexual intercourse might be more important for men than for women in terms of promoting well-being, whereas women's enjoyment is more closely linked to other sexual activities.

The present study had several limitations. This study was conducted with a relatively small sample size confined to a population from a specific part of East Asia, which could be influenced by a specific sociocultural environment.²⁹ We did not evaluate socioeconomic status or physical activity, which could have affected the participants' sexual activities.^{26,30} Physical intimacy was assessed by using one question, which is not validated. A validated questionnaire for the assessment of physical intimacy needs to be developed for the evaluation of sexual activities in older adults. The present study could be used as an Asian pilot study for future research with a larger population and with validated tools to provide normative data for different countries and ethnic groups. Nevertheless, the present study would be worthwhile for physicians to note that physical intimacy is an important part of sexual activities in older adults in addition to sexual intercourse, especially in women.

CONCLUSIONS

Although sexual intercourse is an important part of sexual activity, our study results suggest that physical intimacy is also a considerable component of sexual activity that should not be neglected in older adults, especially in women. Our findings imply that health-care professionals need to consider physical intimacy as part of sexual activity in the assessment of geriatric patients with sexual dysfunction.

ACKNOWLEDGMENTS

The authors express special thanks to Jennifer Holmes, ELS, of Medical Editing Services for English editing services.

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Conflicts of Interest: The authors report no conflicts of interest.

Funding: This study was supported by grants (CRI18094-1 and BCRI20065) from Chonnam National University Hospital Biomedical Research Institute.

STATEMENT OF AUTHORSHIP

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