Self-Reported Prevalence of and Attitudes toward Premature Ejaculation in a Community-Based Study of Married Couples

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Purpose: We evaluated the self-reported prevalence of and attitudes toward premature ejaculation (PE) in a community-based study of married couples.

Materials and Methods: A community-based cross-sectional study of PE was conducted among married couples in Gwangju, Korea. Self-reported data were collected through the use of questionnaires, which included demographic questions, the Premature Ejaculation Diagnostic Tool (PEDT), the intravaginal ejaculation latency time (IELT), patient-reported outcome (PRO), and the Female Sexual Function Index (FSFI).

Results: Of the 290 couples who completed the survey, the prevalence of PEDT-diagnosed PE including probable PE was 23.7% of men. By IELT measure, the prevalence of PE was 21.7% as reported by the men and 23.9% as reported by their partners, respectively. PRO responses indicated that control over ejaculation and severity of PE were not reported significantly differently by the men and their partners. Satisfaction with sexual intercourse was poorer for the men's partners than for the men. Personal distress and interpersonal difficulty were higher for the men than for their partners. The partners of men in the PE group had significantly lower FSFI scores than did the partners of men in the non-PE group.

Conclusions: The reporting of the prevalence of PE did not differ significantly between the men in this study and their partners. However, PE in men tended to impact their partners' sexual function.

Key Words: Prevalence; Premature ejaculation; Questionnaires

INTRODUCTION

Premature ejaculation (PE) is a common male sexual dysfunction that affects approximately 20% to 40% of the male population.[1-6] In addition to adversely influencing sexual relationships, PE significantly impacts the emotional well-being and overall quality of life of both men and their partners.[7,8] PE may be confused with other sexual disorders, especially erectile dysfunction.[9] Although erectile dysfunction is often regarded as the most significant male sexual dysfunction, PE is associated with a similar negative psychological impact on sufferers and their partners.[10,11]

The results of several recent observational studies sug-

gest that the prevalence of PE varies by geographic location and ethnicity. The Global Study of Sexual Attitudes and Behaviors (GSSAB) reported a PE prevalence ranging from 12% in the Middle East to 30% in Southeast Asia among men aged 40 to 80 years.[2] Also, McMahon et al[8] reported that the percentage of men with PE and probable PE was 31% in the Asia-Pacific region. In Korea, Ahn et al[12] reported that among men aged 40 to 79 years, the prevalence of self-reported PE was 11%, and Park et al[2] showed that the prevalence of PE was 27.5% in young and middle-aged men.

However, there have been few large-scale, population-based studies to evaluate the prevalence of PE and its influence on quality of life in both men and their partners. The purpose of this study was therefore to evaluate the prevalence of and attitudes toward PE in a community-based study of married couples.

MATERIALS AND METHODS

1. Subjects

From April 1 to August 31, 2010, we recruited a total of 303 married couples who lived in Gwangju city, Korea. All of them understood the purpose of the study and agreed to participate. They were enrolled if they met the inclusion criteria of having had regular sexual intercourse with one partner for the past 6 months. A personal survey was completed by each individual while not accompanied by his or her partner. We excluded respondents who could not complete the questions because of misunderstanding. Therefore, a total of 290 married couples were enrolled. We analyzed age, occupation, past history of genitourinary disease or surgery, chronic medical disease (such as hypertension, diabetes, chronic renal failure, hyperthyroidism, and cerebral vascular disease), smoking, and alcohol drinking. The study was carried out in accordance with the ethical principles stated in the Declaration of Helsinki.

2. Assessment of PE

1) Intravaginal ejaculation latency time (IELT)

We used the IELT to assess for PE. The IELT was determined by asking both the male subjects and their partners to estimate the average interval between penetration and ejaculation. According to the method of Waldinger,[13] an IELT of less than 2 minutes was taken to indicate PE.

2) Premature Ejaculation Diagnostic Tool (PTDT)

We also used the PEDT, which is a validated instrument for diagnosing acquired PE.[14] This tool was modified and developed on the basis of the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision (DSM-IV-TR). The PEDT includes five categories: control, frequency, minimal simulation, distress, and interpersonal difficulty. Responses are scored on a scale from 0 to 4 in each category. Therefore, the summed score can range from 0 to 20. A summed score ≤8 indicates no PE, a score of 9 to 10 indicates probable PE, and a score ≥11 indicates PE.

3) Patient-reported outcome

We used the patient-reported outcome questions of Patrick et al[1] to evaluate the attitudes of the men and their partners toward PE. The questions consist of five categories such as control over ejaculation, satisfaction with sexual difficulty, personal distress, interpersonal difficulty, and severity of PE. Scores range from 0 to 19 and higher scores indicate more severe PE.

3. Partner's female sexual dysfunction

We used the Female Sexual Function Index (FSFI) of Rosen et al[15] to assess female sexual dysfunction. The FSFI includes a total of 19 questions in 6 categories: desire, arousal, lubrication, orgasm, satisfaction, and pain. Scores range from 2 to 36 and lower scores indicate more severe female sexual dysfunction.

4. Statistical analysis

Data collected were processed and analyzed by using routine statistical methods, and a $p < 0.05$ level was taken to indicate significant differences. Basic data were described as frequencies and as the average±standard deviation. Comparison of intergroup differences was performed by using the chi-squared test or paired-sample t-test. For analysis of female sexual dysfunction with regard to the PE of the subjects, we used multivariate analysis of variance. All statistics were calculated by using SPSS version 15.0 (SPSS Inc., Chicago, IL, USA).

RESULTS

1. Demographic characteristics

A total of 290 married couples were surveyed. The mean ages of the men and women were 43.25 ± 8.55 (range, $21 \sim 59$) and 41.51 ± 8.48 (range, $22 \sim 59$) years, respectively. The age distributions of the respondents are described in Table 1.

2. Prevalence of PE

1) IELT

By self-report of the men, the prevalences of IELT ≤ 2 min and IELT > 2 min were 21.7% and 78.3%, respec-

tively. By report of the men's partners, the prevalences of IELT ≤ 2 min and IELT > 2 min were 23.8% and 76.2%, respectively. There was no significant difference in the reported prevalence of PE between the men and their partners ($\chi^2 = 0.49$, p > 0.05, Table 2).

2) PEDT

Overall, the PEDT by self-report diagnosed PE in 12.1% (35/290) of couples and probable PE in an additional 11.7% (34/290) of couples (Fig. 1).

3) Correlation of PEDT and IELT

Correlation existed between self-report and partner-report of IELT (r $= 0.77$, p < 0.01; Table 3).

3. Summary of responses to patient-reported outcome measures by the men and their partners

The men and their partners were asked to complete pa-

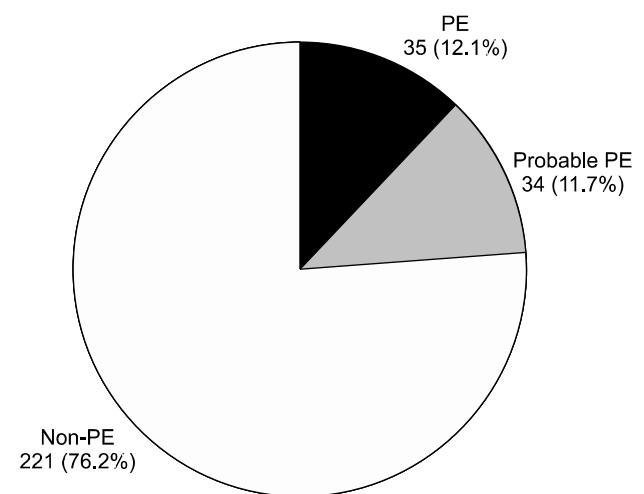**Table 1.** Demographic characteristics of the subjects and their partners (n $= 290$ couples)

Variable	Subjects	Partners
Age (yr)	43.25 ± 8.55	41.51 ± 8.48
$20 \sim 29$	16 (5.5)	28 (9.7)
$30 \sim 39$	70 (24.2)	78 (26.9)
$40 \sim 49$	108 (37.2)	109 (37.6)
$50 \sim 59$	96 (33.1)	75 (25.8)
Chronic medical disease		
Presence	55 (19.0)	61 (21.0)
Absence	235 (81.0)	229 (79.0)
Genitourinary disease		
Presence	12 (4.1)	29 (10.0)
Absence	278 (95.9)	261 (90.0)
Smoking		
Presence	113 (39.0)	13 (4.5)
Absence	177 (61.0)	277 (95.5)
Alcohol		
Presence	168 (57.9)	79 (27.2)
Absence	122 (42.1)	211 (72.8)
Occupational state		
Full-time employed	253 (87.2)	166 (57.6)
Part-time employed	14 (4.8)	46 (15.9)
Unemployed	23 (7.9)	78 (26.5)

Values are presented as mean $\pm$ standard deviation or number (%).

Table 2. Prevalence of premature ejaculation by IELT

IELT (min)	IELT≤ 2	IELT> 2	χ^2	p value
Subject	63 (21.7)	227 (78.3)	0.49	0.554
Partner	69 (23.8)	221 (76.2)		

Values are presented as number (%).
IELT: intravaginal ejaculation latency time.

Fig. 1. Prevalence of premature ejaculation (PE) by use of the Premature Ejaculation Diagnostic Tool.

Table 3. Correlation of IELT and PEDT between the subjects and their partners (r)

		IELT		PEDT subjects
		Subjects	Partners	
IELT	Subjects	-	0.77	-0.41
	Partners		-	-0.32

IELT: intravaginal ejaculation latency time, PEDT: Premature Ejaculation Diagnostic Tool.

tient-reported outcome measures to assess control over ejaculation, satisfaction with sexual intercourse, personal distress, interpersonal difficulty, and severity of PE. Control over ejaculation and severity of PE were not significantly different between the men and their partners (p=0.662 and p=0.418, respectively, Table 4). Satisfaction with sexual intercourse was poorer for the men's partners than for the men. Personal distress and interpersonal difficulty were higher for the men than for their partners.

4. Partners' female sexual dysfunction

The couples were divided into two groups (PE and non-PE) according to PEDT score. Probable PE and PE were included in the PE group. Partners in the PE group had significantly lower FSFI scores than did partners in the non-PE group (22.42±4.50 for PE vs. 26.10±5.41 for non-PE, Table 5). Scores on the sexual desire domain of the FSFI did not differ significantly between the PE and non-PE groups. However, scores for arousal, lubrication, orgasm, satisfaction, and pain were lower for partners in the PE group than for partners in the non-PE group.

DISCUSSION

Previous studies have focused on the prevalence of PE in men. The focus of the present study was the prevalence of and attitudes toward PE of both the men and their married partners.

By use of the PEDT, which is a validated tool for the diagnosis of PE, 23.8% of the subjects in this study were found to have PE (PE, 12.1%; probable PE, 11.7%). Also, the percentage of subjects and their partners reporting IELT <2 was 21.7% and 23.8% of total respondents, respectively. There was no significant difference between subject-report and partner-report. Previous studies have reported PE prevalences of 20% to 40%.[1-6] According to a study by Park et al[2] in 2010, the prevalence of PE in Korean populations is 27.5%. Thus, the prevalence reported in this study by the men's partners is similar to the prevalence in previous studies. However, Park et al[2] also reported a prevalence of 7.9% in the same study when they used an IELT of less than 2 minutes to indicate PE. Their study might have underestimated the actual prevalence because they conducted

Table 4. Summary of subject and partner responses to patient-reported outcome measures

Items	Subjects	Partners	t	p value
Control over ejaculation	1.64±0.96	1.67±0.95	−0.43	0.662
Satisfaction with sexual intercourse	1.22±0.83	1.48±0.89	−4.06	0.000
Personal distress	1.00±0.90	0.78±0.91	3.42	0.001
Interpersonal difficulty	0.78±0.90	0.64±0.92	2.48	0.014
Severity of PE	0.99±0.72	0.95±0.78	0.81	0.418

Values are presented as mean±standard deviation.
PE: premature ejaculation.

Table 5. Female sexual function scores from each functional domain of the FSFI by PE group

Domains	Non-PE	PE	F	p value
Desire	3.56±1.10	3.27±1.01	2.55	0.111
Arousal	4.05±1.03	3.46±0.83	12.31	0.001
Lubrication	4.81±1.06	4.20±1.18	10.88	0.001
Orgasm	4.46±1.05	3.85±1.04	11.59	0.001
Satisfaction	4.38±1.04	3.61±0.87	20.29	0.000
Pain	4.81±1.17	4.01±1.18	16.19	0.000
FSFI total	26.10±5.41	22.42±4.50	16.98	0.000

Values are presented as mean±standard deviation.
FSFI: Female Sexual Function Index, PE: premature ejaculation.

the study as an online internet survey, whereas our study was done as a person-to-person survey. In a study by Serefoglu and Saitz[16] online surveys were shown to have several advantages compared with face-to-face interviews, such as wide geographic reach, privacy and anonymity, and reducing the stress of discussing sensitive issues with a person. However, internet-based surveys have disadvantages too, such as a low response rate, overrepresented volunteers (volunteer bias), and sampling bias. In our study, there was a correlation between the PEDT and IELT of the subjects (r = −0.41, p < 0.01).

Generally, IELT is measured by the partner with a stopwatch. The study of Serefoglu et al[17] reported that 57.1% of the subjects had an IELT < 1 minute, 31.5% had an IELT of 1 to 2 minutes, and 11.4% had an IELT of > 2 minutes. Lee et al[18] reported that the prevalence of stopwatch-recorded IELT < 2 minutes was 16.6%. In contrast, in our study, the prevalences of IELT < 2 minutes as reported by the subjects and their partners were 21.7% and 23.8%, respectively. This difference might be due to differences in methodology. We analyzed self-reported IELT. Another study that used self-reported IELT as in our study was a study by Ahn et al.[12] They reported that the prevalence of IELT < 2 minutes was 11%.[12] Thus, according to the methodology used, measuring the prevalence of PE by use of the IELT can be a viable method.

The subjects' control over ejaculation in this study was not reported significantly differently by the subjects and by their partners. However, satisfaction with sexual intercourse was poorer for the partners than for the subjects. Personal distress and interpersonal difficulty were higher for the subjects than for their partners. Thus, our results showed that the men were satisfied with sexual intercourse, but also simultaneously experienced stress concerning PE and interpersonal difficulty concerning the dissatisfaction of their partners. Our results also showed that the men had more personal stress and interpersonal difficulty than did the women. However, the reported prevalence of PE was not significantly different between the men and their partners. This result suggests that men tend to underestimate their own sexual function. Further study is needed to assess the relationship between a couple's sexual life and female sexual dysfunction.

The total FSFI of the partners was 26.10 ± 5.41 in the non-PE group and 22.42 ± 4.50 in the PE group. This result suggests that PE may influence female sexual dysfunction. Hobbs et al[19] reported that 77.7% of PE partners had at least one sexual dysfunction, compared with 42.7% of the control group. Numerous studies have indicated that the effects of PE on the female partner are integral to understanding the effects of PE on the male and on the sexual relationship as a whole.[1,20-22] The results of this study indicate that PE similarly and adversely affects the female partner and the male with PE. Although partner perceptions of PE generally indicated less sexual dysfunction than those of subjects, males with PE play an important part in the assessment of female sexual dysfunction. In contrast, female sexual dysfunction could lead to PE of men. Because sexual life is influenced by the relationship of the couple, one's sexual dysfunction can cause sexual dysfunction in a partner. Therefore, when physicians treat a patient's sexual problems, they should pay attention to the partner's sexual function.

A limitation of this study was the relatively small sample size of the respondents. Furthermore, there is the difficulty of generalizing these results. Another limitation was the survey methodology. Our survey was based on self-report of the subjects and their partners. Self-reported IELT tends to be more inaccurate than stopwatch-recorded IELT. Also, recent study has suggested a more validated tool for measuring PE, such as the PE profile. Further study with a more validated method and on a larger scale is needed.

CONCLUSIONS

The results of this observational study characterize PE by PEDT and IELT as reported by men and their partners. The prevalence of PE was not significantly different according to the self-report of the men and their partners' report. However, PE had an impact on the female sexual dysfunction of the partner. Further large-scale study is needed to better understand the reason for these gender differences.

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