

# Have Related Between Female Sexual Function and Male Partners' Erectile Function?

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**Abstract:** *Objective: Female sexual difficulty (FSD) with or without sexual distress is highly prevalent. Erectile dysfunction (ED) is one of the most common sexual dysfunction in men. Several epidemiological studies have shown that the sexual function of woman is affected in multiple domains when they perceive ED in their partner. Aim of this study was to evaluate the association between female sexual function (FSF) and the erectile function (EF) of their male partners. Materials & Methods: The study was conducted in 2009-2011 among a convenience sample of the female employees and simultaneously among their male sexual partners. Study packages were distributed in total to 359 couples. The questionnaire for women included the 19-items, Female Sexual Function Index (FSFI) and for men was composed of 22-items, which included the 15-items, International Index of Erectile Function (IIEF) and questions about demographic data, comorbidities, length of marriage, relationship with the partner and lower urinary tract symptoms, respectively. Results: The couples have mean ages of  $38.5 \pm 7.5$ Yr (range 18-70Yr) and  $40.3 \pm 6.5$ Yr (range 23-75Yr) for female and male partners, respectively. The total and domain scores of the FSFI were lower for the female partners of men with ED than for those of men without ED, with effect sizes of  $\eta^2 = 0.02-0.08$ . After adjustment for female group, nearly all the FSFI and IIEF domains scores correlate significantly to a slight to moderate degree. On the basis of the FSFI and IIEF scores, 39.7% of the women reported sexual difficulty and 17.5% of men reported mild to moderate ED. The men with ED were older and more likely to report premature ejaculation, low libido than those without ED. ED of the male partner was still a significant risk factor for FSD as well as for sexual difficulty in the aspects of arousal, orgasm sexual satisfaction and sexual pain (OR=2.7-3.9). Conclusion: Yes, the Female Sexual Function have a significant correlations with the Male Partners' Erectile Function*

**Keywords:** Female sexual difficulty

## 1. Introduction

Female Sexual Difficulty (FSD) is a topic of great debate and interest, not only because of the difficulty concerning the understanding of female sexual functions and its response but also because of its estimate high prevalence word – wild, (i.e., up to 40-45%), much higher than for its male counterpart (20-30%)<sup>1</sup>. This is especially high in perimenopausal and postmenopausal woman<sup>2</sup>. FSD can result from a variety of organic conditions, especially those affecting nerves involved in normal sexual response. The most common is diabetes mellitus. Another cause of FSD is persistent genital arousal disorder (PGAD) formerly known as persistent sexual arousal syndrome (PSAS), is a seemingly rare condition seen in woman characterized by generally spontaneous and often unrelenting sensations of arousal in the absence of sexual desire or stimulation. These sensations typically do not fully remit with orgasm and are by definition intrusive, unwanted and distressing. Leiblum and Nathan were the first to provide a definitive description of PGAD in 2001. They presented five cases of women suffering from what they called PSAS<sup>3</sup>. Goldmeier and Leiblum more accurately renamed and more fully defined the condition as PGAD in 2006<sup>4</sup>. Clinical researches on female sexual dysfunctions (FSDs) have been slow to yield of pharmacologic treatment that consistently and meaningfully outperforms placebo. For instance, in recent trials for hypoactive sexual desire disorder (HSDD) and female sexual arousal disorder, 40% or more of women improved significantly after a placebo intervention<sup>5</sup>.

FSD (with or without sexual distress) is highly prevalent, affecting 41%-47% of woman in general population<sup>1-6</sup>. In Albania a similar prevalence rate of 47% of female sexual difficulty was reported among female employees of our

centre. The sexual problems of woman include four major subtypes, specifically: problems of desire, arousal, orgasm, and pain<sup>7</sup>. Female sexual functioning can be influenced by various and multiple factors which include: Biologic (e.g., hormonal factors and pelvic floor disorders), Psychosexual (e.g., emotional and affective factors), and Contextual (e.g., relationship discord, partner's health problems and sexual dysfunction) factors<sup>8</sup>. Sexual dysfunction in men refers to disturbances in sexual desire and sexual response cycle, which significantly impact mood, self-esteem, interpersonal functioning, and overall life satisfactions and result from a complex interaction of biological, psychological and social factors. Sexual dysfunction in men may be more distressing to younger people and their partners to than older people. Younger adults are more likely to be establishing intimate relationships and are at the pick of their productive potential. As sexual dysfunction has been found to be correlated with negative perceptions of intimate relationships, it may thus be an unrecognized factor contributing to the prevalence of relationship difficulties in this population.

Erectile dysfunction (ED) is one the most common sexual dysfunction in men. In the Massachusetts Male Aging Study, 52% of men aged 40-70 years were reported to have ED<sup>9</sup>. Among studies of U.S. Civilians, the Boston Area Community Health survey suggested a prevalence rate of 20.7% for erectile dysfunction in men aged 30-70 years, whereas the Male Attitudes Regarding Sexual health (MARSH) survey showed an overall prevalence of ED of 22%, in aged  $\geq 40$  years. Despite increasing demand and new modalities for treatment of sexual dysfunction, epidemiologic data are relatively scant. Several epidemiological studies have shown that the sexual function of woman is affected in multiple domains when they perceived erectile dysfunction in their partner<sup>10,11-13</sup>. The effective treatment of ED has resulted

in improvements in men's erectile function (EF) and in multiple aspects of the sexual function of their untreated female partners<sup>14-16</sup> as well as in the sexual quality of life of the couple. Evidence to date suggests that male EF and female sexual function are interdependent within the context of the couple<sup>10,11-16</sup>. However, there has been limited research to investigate the sexual function and dysfunction of couples in outpatient centre. The study reported herein assessed the sexual function of female employees in Tirana and the EF of their male partners.

## 2. Aims

The objective of the research in our study was to evaluate the association between female sexual function and the erectile function of their male partners.

## 3. Methods

We carried out a data analysis using routine administrative data collecting during outpatient clinic and counters at the central polyclinic, Tirana, Albania. The study was conducted in 2009-2011 among a convenience sample of the female employees and simultaneously among their male sexual partners if available. Given that this was an anonymous survey research, written informed consent was not obtained and a cover letter was submitted to subjects, which outlined the purpose and procedures of the project, with a statement of the response being voluntary and confidentiality and privacy being protected. Two self-administered questionnaires were used, one for the woman and the other for her male sexual partner if she had one and if he agreed to participate. Study packages were distributed in total to 359 couples that completed the questionnaires. The questionnaire for woman was composed of 35 multiple-choice and open-ended questions, which included the 19-items Female Sexual Function Index (FSFI). The questionnaire for men was composed of 22 items which included the 15-item International Index of Erectile Function (IIEF). We also extracted for both (woman and men) the socio-demographic characteristics such as race, marital status, length of marriage, relationship with partner, low urinary tract symptoms, perception of partner's sexual dysfunction, and a checklist of comorbidities and annual income of each partner.

### Outcome Measures

Individual domain scores on the FSFI range from 0 to 6, with a higher score indicating better sexual function and less pain, and a score of zero indicating no sexual activity during the previous four weeks. The full score is obtained by adding the scores of the six domains<sup>16</sup>. The FSFI assesses aspect of female sexual function in six areas: sexual desire (SD), arousal, orgasm, sexual satisfaction, sexual pain and lubrication. We selected a total FSFI score of  $\leq 26.55$  and a score on the desire domain of  $< 3.6$  to define the presence of the female sexual difficulty and sexual difficulty in relation to desire, respectively. For the other domains, a domain score of  $< 3.6$  was chosen arbitrarily as the cut-off point for sexual difficulty in the relevant domain. Thus, women who responded with "more than moderate" or "more than

sometimes" to questions that assessed difficulty in a given domain or "less than sometimes" for questions that focused on being functional would be classified on average as having difficulty in the individual domain.

The IIEF contains 15 items and is divided into five domains; EF, intercourse satisfaction (IS), orgasmic function (OF), SD, and overall satisfaction. The presence and severity of ED was based on the IIEF-EF domain score with 26-30 representing no ED, 22-25 mild ED, 17-21 mild to moderate ED, 11-16 moderate ED, and  $< 11$  severe ED.

Consequently, those who had zero responses in any item of the FSFI or the IIEF, which indicated no sexual intercourse or activity during the previous four weeks, were excluded from the analyses of the IIEF and FSFI scores (21,22).

## 4. Statistical Analysis

Correlations between total and individual domain scores on the FSFI and IIEF were assessed using Pearson correlations, and also by partial correlations to control for age, because sexual function is related to age. Only female age was controlled for given that a high degree of col-linearity existed between the age of each gender, with a correlation coefficient,  $2(614)=0.91$ ,  $P<0.001$ . The female ages were categorized into three groups: 20-34, 34-49, 50-65 years.

Total IIEF scores and EF, IS and OF domain scores were converted to Z-scores for partial correlations because of having a skewed distribution.

Analysis of covariance was used to compare normally distributed variables with adjustment of other factors, and partial eta-squared,  $\eta^2$  was calculated to measure effect size.

The risk factors identified previously included female age group, having children, diabetes in woman, female urge urinary incontinence, male low libido and premature ejaculation (PE) perceived by the female partner<sup>(4)</sup>. Length of marriage was categorized as single vs. length of marriage  $< 5$  years,  $> 5$  and  $\leq 10$  years, and  $> 10$  years.

## 5. Results

The 359 couples had mean ages of  $39.5 \pm 8.5$  ( $40.11 \pm 9.5$ ) years (range 18-70) and  $36.9 \pm 7.7$  ( $35 \pm 9.7$ ), range 20-65 years for male and female partners, respectively. There were no zero score responses to any items of the IIEF and the FSFI, among the 359 couples.

On the basis of IIEF-EF score, 44.5% - 160(359) of men had ED and between them were: a) 12% - 43(160) with moderate ED; b) 17.5% - 63(160) with mild to moderate ED; c) 15.5% - 54(160) with mild ED. 55.5% - 199 (359) men were without ED.

According to the total FSFI score, 39.7% - 142(359) of the women had female sexual difficulty.

The men with ED were older and more likely to report PE and low libido than those without ED. Of the 160 men with ED (defined by the IIEF-EF score) only 27.7% self-reported ED and 72.3% were perceived by their female partners to have ED, whereas of those with mild to moderate (N=63) and moderate (N=43) ED, 50.0% self-reported to have ED in both groups, and 14.3% and 50.0% were perceived by their partners to have ED, respectively after adjustment for the female age groups there were mild to moderate correlations between most of the FSFI and IIEF total and domain scores among the 359 sexually active couples and also the total FSFI score and the score for satisfaction domain had the highest correlations with IIEF scores, whereas the scores for the FSFI desire and pain domains had the lowest correlations with IIEF scores.

The total and domain scores of the FSFI were lower for the female partners of men with ED than for those of men without ED (data not shown). In addition the group difference effect sizes for FSFI total and domain scores ranged from 0-02 to 0.08 with the smallest being in the desire and pain domains. Female partners of men with ED had higher prevalence of sexual difficulty in every domain than those of men without ED. After further adjustment for other risk factors, which included female age group, length of marriage, having children, female urge urinary incontinence, and men's self-reporting PE and low libido, ED of the male partner was still a significant risk factor for female sexual difficulty as well as for sexual difficulty in the aspects of: arousal, orgasm, sexual satisfaction, and sexual pain (OR=2.7- 3.9).

## 6. Conclusion

In the present study population, male erectile function was correlated positively with all aspect of the sexual function of their female partner. Further, male ED, to whatever degree of severity, was associated with higher risk of sexual difficulty among their female partner in the aspects of arousal, orgasm, sexual satisfaction, and sexual pain. These finding contribute further evidence to the body of literature concerning the interdependence of male and female sexual function within the content of the couple and support the importance of screening the partner's sexual function when treating the sexual problems of each gender.

**“Honey moon is over and the best day of lover dead and go”.**

**“Since we share the same bed we not share the same dream, any more”.**

## References

- [1] Dunn KM, Croft PR, Hackett GI. Sexual problems: A study of the prevalence and need for health care in the general population. *Fam Pract* 1998; 15: 519-24.
- [2] Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: Prevalence and predictors. *JAMA* 1999; 281:537-44.
- [3] Leiblum SR, Nathan SG. Persistent sexual arousal syndrome: A newly discovered pattern of female sexuality. *J sex Marital Ther* 2001; 27: 365-80
- [4] Goldmeier D, Leiblum S. Persistent genital arousal disorder-A new syndrome entity. *Int J STD AIDS* 2006; 17: 215-6.
- [5] Brotto LA, Bitzer J, Laan E, Leiblum S, Luria M. Women's sexual desire and arousal disorders. In: Montorsi F, Bason R, Adaikan G, Becher E, Clayton A, Giuliano F, Khoury S, Sharlip I, eds. *Sexual medicine: Sexual dysfunctions in men and women*. Paris: Health Publication Ltd 2010; 11: 49-205.
- [6] Fugl-Meyer AR, Sjögren Fugl-Meyer. Sexual disabilities, problems and satisfaction in 18-74-year-old Swedes. *Scand J Sexology* 1999; 2 : 79-105
- [7] American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 4<sup>th</sup> edition. Text Revision. Washington, DC; American Psychiatric Association; 2000.
- [8] Graziottin A, Dennerstein L, Alexander JL, Girdali A, Whipple B. Classification, etiology, and key issues in female sexual disorders. IN: Porst H, Buvat J; The Standarts Committee of the International Society for Sexual Medicine, eds. *Standart practice in sexual medicine*. Massachusetts, MA: Blackwell Publishing; 3: 05-14.
- [9] Feldman HA, Goldstein I, Hatzichristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: Results of the Massachusetts Male Aging Study. *J Urol* 1994; 151. 54-61.
- [10] Jann BP, Su CC, Yu CC, Wu TT, Huang JK. Risk factors for individual domains of female sexual function. *J Sex Med* 2009, 6: 3364-75.
- [11] Dennerstein L, Leher P, Burger H, Dudley E. Factors affecting sexual functioning of women in the mid-life years. *Climacteric* 1999; 2: 254-62.
- [12] Oberg K, Sjögren Fugl-Meyer K. On Swedish women's distressing sexual dysfunction: Some concomitant conditions and life satisfaction. *J Sex Med* 2005; 2: 169-80.
- [13] Witting K, Santtila P, Varjonen M, Jern P, Johansson A, von der Pahlen B, Sandnabba K. Female sexual dysfunction, sexual distress, and compatibility with partner. *J Sex Med* 2008; 5: 2587-99.
- [14] Althof SE, Turner LA, Levine SB, Bodner D, Kursh ED, Resnick MI. Through the eyes of women, The sexual and psychological responses of women to their partner's treatment with self-injection or external vacuum therapy. *J Urol* 1992; 147. 1024-7.
- [15] Cayan S, Bozlu M, Canpolat B, Akbay E. The assessment of sexual function in women with male partner's complaining of erectile dysfunction; Does treatment of male sexual dysfunction improve female partner's sexual functions? *J Sex Marital Ther* 2004; 30: 333-41.
- [16] Goldstein I, Fisher WA, Sand M, Rosen RC, Mollen M, Brock G, karlin g, Pommerville P, Bangerter K, Bandel TJ, Derogatis LR, Vardenafil Study Group. Women's sexual function improves when partners are administered vardenafil for erectile dysfunction: a prospective, randomized, double-blind, placebo-controlled trial. *J Sex Med* 2005, 2: 819-32