



Female Sexual Dysfunction in Teachers and Nurses of Productive Age in Lampung, Indonesia

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ABSTRACT: Sexual function is an important part of an individual's physical and emotional well-being that can be influenced by various factors, including the type of work. Vocational high school (SMK) teachers and nurses are faced with different working conditions, with levels of stress, social interactions, and workloads that may impact their sexual lives. This study aims to analyze sexual function based on the type of work of female teachers and nurses in Indonesia. This study used a cross sectional study 82 people consisting of 41 nurses at Ryacudu Hospital and 41 teachers at SMK 01 Kotabumi, SMK YPIB Kotabumi, SMK Muhammadiyah Abung Timur, North Lampung, Indonesia. The sample were selected by purposive sampling from July to December 2024. Data were collected through a questionnaire that measured aspects of sexual function such as sexual satisfaction, sexual desire, and sexual disorders experienced. Data analysis using Mann-Whitney test to determine the differences in sexual function in nurses and teachers. The results show that there is no difference in sexual function in female nurses at HM Ryacudu Hospital Kotabumi and female teachers at SMK 01 Kotabumi, SMK YPIB Kotabumi, SMK Muhammadiyah Abung Timur (p -value = 0.745). Female teachers and nurses are expected to pay more attention to their sexual function so that it does not affect their performance at work.

KEYWORDS: Cross-sectional study, Nurse, Sexual function, Teacher, Indonesia.

INTRODUCTION

One of the important and fundamental dimensions of health for women is sexual health, which is considered the core of mental well-being and the quality of life in society (Hamidi et al, 2023). Sexual health plays an important role in ensuring the well-being and health of individuals and public health (Hamidi et al, 2023). Sexual health is generally defined as "a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity." Sexual health requires a positive and respectful attitude towards sexuality and sexual relationships, as well as the ability to obtain pleasurable and safe sexual experiences without coercion, discrimination, and violence (World Health Organization, 2025).

Sexual function is one of the important dimensions of quality of life and is closely related to a person's personality, making it impossible to discuss it as a standalone phenomenon. Female sexual dysfunction is a general term for four different disorders recognized in the DSM 5: Female Orgasmic Disorder, Female Sexual Interest/Arousal Disorder (FSIAD, which includes what was previously called Hypoactive Sexual Desire Disorder and Female Sexual Dysfunction) (Adebisi OY, et al, 2024). Women's sexual function can be measured using the Female Sexual Function Index (FSFI) questionnaire. The prevalence of sexual dysfunction in women is 53.3% (Nwagha, 2014). The highest prevalence occurs in the age group of 41-50 years, those who are married and living together, and those with higher education. The prevalence of sexual dysfunction in women in Indonesia is 15.2%, with the most common causes being pain disorders at 54.5%, followed by sexual desire disorders at 45.4%, lubrication disorders at 18.2%, and orgasm disorders at 12.1% (Angelina, 2010). the conception of normative or ideal sexual function in elderly women.

The incidence of sexual dysfunction in women can vary from country to country. In Indonesia, using the FSFI instrument, it was found that the cases of sexual dysfunction among women in Bandar Lampung reached 66.2% (Imronah, 2011). If the figures for female sexual dysfunction in Turkey (48.3%), Ghana (72.8%), Nigeria (63%), and Indonesia (66.2%) are averaged, the prevalence would be 58.04%. That means more than half of the women in a country are potentially experiencing sexual dysfunction. With such a high prevalence, it is reasonable that female sexual dysfunction cannot be taken lightly, as it concerns the quality of life



of more than half of the female population. In addition, Differences in careers of married women of reproductive age do not significantly differentiate the sexual dysfunction they suffer from (Sutyarso et al, 2025).

Research on the impact of gender dysfunction on teacher effectiveness in Bandar Lampung, Indonesia found that 54% of teachers experience sexual dysfunction. Teachers who experience sexual dysfunction show less diligence, less preparedness for teaching, and less understanding of their students. Additionally, it was found that up to 10% of teachers experience dissatisfaction with their sex life and relationships. The frequency of women experiencing anorgasmia is 40%, women with lubrication disorders 30%, women with dyspareunia 12%, erectile dysfunction, premature ejaculation, and orgasmic disorders 23% (Kanedi and Sutyarso, 2014). Based on the above explanation, it can be stated that the quality of an individual's sexual function, including women, can be a determining component of their social behavior in society. Nowadays, the role of women, especially in democratic countries like Indonesia, is very extensive, to the point that there is almost no profession that has not been or is considered taboo for women to pursue. One of the professions in Indonesia that is widely pursued by women is teaching and nursing. The professions of teachers and nurses have quite a high workload, so research is needed to analyze the differences in sexual dysfunction between these two professions. This study aims to analyze sexual function based on the type of work of female teachers and nurses in North Lampung, Indonesia.

METHODS

This cross-sectional study recruited 82 respondents consisting of 41 nurses at Ryacudu Hospital and 41 teachers at SMK 01 Kotabumi, SMK YPIB Kotabumi, SMK Muhammadiyah Abung Timur, North Lampung, Indonesia. The sample were selected by purposive sampling from July to December 2024. Inclusion criteria include women who are still married and work as nurses or teachers. Meanwhile, the exclusion criteria are respondents who have been consuming antidepressants or medications for mental illnesses in the last 3 months, women who have undergone menopause, and/or have chronic diseases. Data were collected through a questionnaire that measured aspects of sexual function such as sexual satisfaction, sexual desire, and sexual disorders experienced.

The independent variables in this study are the jobs of nurses and teachers. Whereas the dependent variable is sexual function. Sexual function is defined as a person's ability to engage in or enjoy satisfaction in sexual intercourse and orgasm (Rosen, 2000). The assessment of sexual function uses the Female Sexual Function Index (FSFI) questionnaire with a score range of 2-36. Data analysis using Mann-Whitney test to determine the differences in sexual function in nurses and teachers. Ethical Clearance has been submitted to the Health Research Ethics Committee of Tanjung Karang Health Polytechnic with No.508/KEPK-TJK/VII/2024.

RESULTS

1. Characteristic of respondents

Table 1. Characteristics of respondents (n = 82)

Variable	Category	n	Percentage
Age	26-34 years	32	39
	35-44 years	50	61
Profession	Nurse	41	50
	Teacher	41	50
Education level	Diploma III	21	25.6
	Bachelor	55	67.1
	Master	6	7.3
Sexual disfunction	Yes	32	39
	No	50	61

Table 1 shows that out of 82 respondents, the majority are aged 35-44 years (61.0%), have a bachelor's degree (67.1%), and do not have sexual dysfunction (61%). Meanwhile, the respondents with sexual dysfunction numbered 32 people (39%).



Table 2. Distribution of Sexual Function Frequency by Occupation for Ages 26-34 (n=30)

Profession	Sexual disfunction				Total	%
	Yes		No			
	n	%	n	%		
Nurse	5	45.5	6	54.4	11	100
Teacher	6	31.6	13	68.4	19	100
Total	11	36.7	19	63.3	30	100

Based on Table 2, it is known that out of a total of 30 respondents aged 26-34 years who work as nurses, 5 people (45.5%) experienced sexual dysfunction, whereas among respondents who work as teachers in the same age group, 6 people (31.6%) experienced sexual dysfunction. Then, the respondents who work as nurses aged 26-34 years and do not experience sexual dysfunction amount to 6 people (54.4%), whereas the respondents who work as teachers aged 26-34 years and do not experience sexual dysfunction amount to 13 people (68.4%).

Table 3. Distribution of Sexual Function Frequency by Occupation for Ages 36-44 (n=52)

Profession	Sexual disfunction				Total	%
	Yes		Yes			
	n	%	n	%		
Nurse	12	40.0	18	60.0	30	100
Teacher	9	40.9	13	59.1	22	100
Total	21	40.4	31	59.6	52	100

Table 3 shows that out of a total of 52 respondents aged 35-44 years who work as nurses, 12 people (40.0%) experience sexual dysfunction, whereas among respondents who work as teachers in the same age group, 9 people (40.9%) experience sexual dysfunction. Then, the respondents who worked as nurses aged 35-44 years and did not experience sexual dysfunction numbered 18 people (60.0%), while the respondents who worked as teachers aged 35-44 years and did not experience sexual dysfunction numbered 13 people (59.1%).

2. Bivariate Analysis

Table 4. Mann-Whitney U test (n=82)

FSFI scores	Median	Inter Quartile Range (IQR)	p-value
Nurse	30.30	11.70	0.745
Teacher	30.30	13.65	

Based on Table 4, it is known that there is no difference in sexual function among female nurses at Ryacudu Hospital Kotabumi and teachers at SMK 01 Kotabumi, SMK YPIB Kotabumi, SMK Muhammadiyah Abung Timur (p=0.745).

DISCUSSION

The Mann-Whitney Test shows that there is no significant difference in women's sexual function between the two different groups, namely nurses at Ryacudu Hospital Kotabumi and teachers at vocational schools. Statistically, this means that the factor of occupation or profession does not have a significant impact on women's sexual function in both groups within the context of this study. This finding is in line with the previous study that found the differences in careers of married women of reproductive age do not significantly differentiate the sexual dysfunction they suffer from (Sutyarso, 2025). There is no theory that specifically compares the level of sexual dysfunction between nurses and teachers, because the factors affecting sexual dysfunction are individual and contextual, not merely professional. According to the National Safety Council (2003), there is a list of jobs that are more likely to cause stress, which can be a factor influencing sexual dysfunction. Most research related to sexual dysfunction focuses more on



individual factors (age, health, relationship status, hormones) rather than profession. Some studies show that chronic stress and work fatigue are strong predictors of sexual dysfunction in both professions. There is no definite answer regarding who is more vulnerable to sexual dysfunction between nurses and teachers. However, professions with higher stress levels, irregular working hours, and greater exposure to physical risks (such as nurses) may have a slightly higher risk, depending on individual conditions and their work environment. The results of this study are not in line with previous research, which stated that the FSFI score for the teaching profession showed the highest percentage at a score of 20 (9.75%) (Rosen R, et al, 2000). In the FSFI scores, the nursing profession showed the highest percentage in the 20-26 score range (58.54%) and the lowest in the >26 score range (14.63%). Bivariate analysis shows that the teacher group has an average age of 36.73 ± 1.147 and an average FSFI score of 20.742 ± 0.571 , while nurses have an average age of 36.66 ± 1.121 and an average FSFI score of 22.356 ± 0.573 . Bivariate analysis shows the influence of job type (teacher-nurse) on women's sexual function ($p = 0.049$).

Women's sexual interest/arousal disorder is defined as a significant lack or decrease in sexual interest/arousal with at least three of the following: no/reduced interest in sexual activity, no/reduced sexual/erotic thoughts or fantasies, no/reduced initiation of sexual activity, and usually not accepting the partner's attempts to initiate; no/reduced sexual excitement/enjoyment during sexual activity in almost all or all (75-100%) sexual encounters (in identified situational contexts or, if generalized, in all contexts); no/reduced sexual interest/arousal in response to internal or external sexual/erotic cues (e.g., written, verbal, visual); no/reduced genital or non-genital sensations during sexual activity in almost all or all (75-100%) sexual encounters (in identified situational contexts or, if generalized, in all contexts) (Boa, 2014).

Traditionally, female sexual dysfunction has been classified into four categories by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), namely as disorders of sexual desire, sexual arousal, orgasm, or sexual pain disorders. However, the definition of normal female sexual function has been critically examined, and the accepted definitions and classifications of female sexual dysfunction have been revised. Women's sexual dysfunction can be further defined as lifelong (primary) or acquired (secondary) and as situational (occurring only in certain circumstances or with certain partners) or generalized (occurring in all situations and with all partners). A number of potential causes and contributing factors to female sexual dysfunction have been identified, reflecting the complex interactions between physiological, psychological, emotional, and relational components. Normal sexual function is partly dependent on the effects of sex hormones and neurotransmitters on the central and peripheral nervous systems (Frank et al., 2008).

Sexual dysfunction can have a significant impact on a woman's quality of life. Sexual dysfunction can have a damaging effect on a woman's self-esteem, sense of integrity, and interpersonal relationships. Often emotionally distressing. If a woman's sexuality is disrupted, the potential consequences include family disputes and divorce, and reproduction is also affected. FSD is a very common issue in 38% to 63% of women. Based on research conducted by the National Health and Social Life Survey, out of 1,749 women, 43% reported sexual dysfunction complaints (Jaafarpour et al., 2013). In the study conducted by Jaafarpour et al. (2013), it was found that the risk factors that can increase the incidence of sexual dysfunction in women are education level, contraception, parity, partner/husband's age, duration of marriage, occupation, medical history (Diabetes Mellitus/Hypertension), and income. Women's sexual dysfunction is significantly higher in women who have more than 4 children ($p = 0.02$), husbands aged over 40 years ($p = 0.002$), married for more than 10 years ($p = 0.02$), husbands aged over 40 years ($p = 0.002$), married for more than 10 years ($p = 0.02$), not working ($p = 0.02$), having medical issues such as hypertension, diabetes mellitus ($p = 0.02$), medications used ($p = 0.006$), and not using contraception ($p < 0.05$) (Maaita et al., 2018).

Sexual function is dynamic and changes throughout life with transitions such as the first sexual relationship, pregnancy, having children, and the availability of partners. Age ultimately affects women's sexual function through processes such as menopause and declining health as they grow older. During adolescence, changes in sexual behavior occur due to the emergence of sexual signs, one of which is menstruation. The first menstruation (menarche) occurs at the age of 12 – 16 years. These changes will also affect a person's sexual activity due to the increased activity of reproductive hormones. Women aged 26-40 have been reported to have slightly lower sexual desire and fewer pain issues compared to women aged 18-25, but overall, age does not seem to have a significant effect on premenopausal women, even if the findings are somewhat inconsistent. The most reliable finding is a slight decrease in sexual desire and pain issues with age (Maclaran & Panay, 2011).

The prevalence of sexual problems is 44.2% (low desire, 38.7%; low arousal, 26.1%; and difficulty achieving orgasm, 20.5%), while sexual dysfunction related to sexual activity is observed in only 22.8% of respondents. It should be noted that there



is a sharp age-dependent increase in the prevalence of the three sexual problems, with 27.2% of women aged 18-44 experiencing one of the three problems, compared to 44.6% of middle-aged women (45-64 years) and 80.1% of elderly women (65 years or older). On the other hand, personal pressure related to sexuality is lowest among elderly women (12.6%), compared to 25.5% and 24.4% of middle-aged and young women, respectively. The prevalence of one of the three sexual problems related to personal sexual pressure is 12.0%, and that is much lower than that related to personal sexual pressure. Additionally, age stratification shows that the prevalence of sexual problems is highest among women aged 45-64 years (14.8%), lowest among women aged 65 years or older (8.9%), and intermediate among women aged 18-44 years (10.8%). The correlation of sexual health problems, self-rated as poor, with low education levels, depression, anxiety, thyroid conditions, and urinary incontinence. Collectively, these results indicate that existing sexual symptoms signify aging and become increasingly difficult during the menopausal transition and beyond, likely due to underlying medical conditions that support these occurrences (Nadhikari, D & Bhurtyal, A, 2022). Interrelated biological determinants include menopausal status and menarche status (Sara & Juulia, 2021). The neuroendocrine environment is a major determinant of female sexual function, as evidenced by key reproductive milestones (menarche, pregnancy, menopause) and endocrine manipulations (e.g., hormonal contraception, hormone chemotherapy, other hormone therapies), which are associated with significant variations in sexual response at various levels (central nervous system and urogenital organs). There are many hormonal and non-hormonal targets for female sexual dysfunction and its treatment due to the neuroendocrine contribution that regulates excitatory and inhibitory neurochemistry, which is crucial for sexual desire and arousal, orgasm, and satisfaction. Sexual inhibition involves neurochemicals such as serotonin (5-HT), endocannabinoids, and opioids, whereas sexual excitation involves other neurochemicals such as oxytocin (OXT), norepinephrine, dopamine, and the melanocortin system (Calabrò et al., 2019).

Age factor has a confounding factor in the form of relationship length and number of children, with the increasing likelihood of longer relationships and more children as age increases. After 10 years of marriage, 63% of couples have sex at least once a week. Higher frequency of sexual intercourse has been found to be associated with greater sexual and life satisfaction, but once the frequency reaches 3-5 times per month, further increases in frequency are not associated with additional positive effects. It is likely that these three factors are also influenced by compatibility with one's partner and the partner's sexual issues. Compatibility in sexual preferences, the ability to communicate one's needs, and the sharing and understanding of emotions and cognition have all been found to be related to women's sexual satisfaction, motivation, and dysfunction. Having children may also correlate with sexual function directly through its relationship with relationship satisfaction (Botros et al, 2006).

CONCLUSION

There is no difference in sexual function in female nurses and female teachers in our study area. Female teachers and nurses are expected to pay more attention to their sexual function so that it does not affect their performance at work.

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