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Research article

Sexual Function and Its Relationship to Quality of Life Among Married Women

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Abstract

Sexual function is one of the key elements of women's quality of life, reflecting their biological, emotional, and social well-being. This cross-sectional study aims to identify the relationship between sexual function and women's quality of life. Sampling used proportions according to the inclusion criteria with 305 female participant of productive age in DKI Jakarta Province. Significant relationships between sexual desire p = 0.00 and r = -.19, lubrication p = 0.00 and r = 0.17 and physical health domains, all with weak relationship strength. A significant relationship is also observed between sexual satisfaction p = 0.01 and r = 0.14 and the psychological domain, with weak relationship strength. Additionally, there is a significant relationship between sexual arousal p = 0.00 and r = 0.30, lubrication p = 0.00 and r = 0.27, and social relationship domains, with moderate relationship strength. A significant relationship exists between orgasm p = 0.00 and r = 0.19, sexual satisfaction p = 0.00 and r = 0.34 and the social relationship domain, with weak relationship strength. Considering the critical impact of sexual function on the health of couples, it is important to pay attention to sexual function in women. Therefore, there is a need for sexual health assessments and the design of educational programs to improve their quality of life.

Keywords: Married woman, quality of life, sexuality, sexual dysfunction, sexual function

Introduction

Sexual activity is one of the most important aspects of the human life cycle, which can be influenced by various factors, including personal characteristics, interpersonal relationships, family dynamics, socio-cultural influences, the surrounding environment, and the history of sexual activity between partners, in addition to physical, mental, and hormonal health status [1]. Quality of life refers to how individuals perceive their lives within society, which can be influenced by culture and values. It involves aspects such as goals, expectations, standards, and concerns related to life. The concept of quality of life encompasses many factors and is influenced by physical conditions, psychological well-being, levels of independence, and individual relationships with the environment [2]. Additionally, several factors that influence quality of life include age, education, employment, marital status, relationships with others, and physical health [3].

Sexual function in women refers to the ability to achieve sexual arousal, orgasm, and satisfaction, which promotes good health and enhances quality of life. Sexual function is also considered an essential aspect of health and an integral part of life, contributing to sexual pleasure, better health, and improved quality of life. One of the critical physical and psychological dimensions of women's quality of life is how they engage in sexual life, which is influenced by various factors [1]. Sexual function is one of the key elements of women's quality of life, reflecting their biological, emotional, and social well-being. Disorders that cause dissatisfaction with sex can lead to sexual dysfunction in women. Sexual dysfunction is defined as a disorder of sexual desire, arousal, orgasm, or pain resulting from various anatomical,

physiological, medical, and psychological factors, which can cause discomfort and affect both quality of life and interpersonal communication [4].

Sexual dysfunction is a common problem experienced by nearly 40-45% of women. According to a study conducted in Australia, 36% of women reported at least one new sexual function problem within 12 months. A similar figure (31.5%) was reported in a study of Iranian women aged 20-60 years. In another study, 20-40% of women of reproductive age reported disturbances in sexual desire, arousal, lubrication, and organism.

A study of 821 women in Iran found that 39% of the participants experienced an absence of sexual pleasure, while 10.5% reported an absence of orgasm. Another study estimated the prevalence of anorgasmia in Iranian women at 27% [5]. Sexual dysfunction conditions experienced by women have a significant impact on quality of life and cause personal distress, anxiety, and interpersonal difficulties [6]. Sexual function is integrated into every woman's life. Sexual health affects overall life satisfaction and quality of life. Women's sexual function issues are multidimensional, related to general health, influenced by medication use or substance abuse, but also inseparable from relationship characteristics, cultural influences, socioeconomic status, and religious beliefs. In addition, sexual problems have a serious impact on mood, self-esteem, and quality of life. These issues can lead to emotional stress, relationship problems, divorce, or even affect reproduction [7].

Methods

This study is an analytic observational quantitative study using a cross-sectional research design. This study is an analytic observational quantitative study using a cross-sectional research design. The population in this study consisted of all healthy women of productive age in the DKI Jakarta Province. The research areas include 5 district such as Kemayoran (Central Jakarta), Cilincing (North Jakarta), Cengkareng (West Jakarta), Jagakarsa (South Jakarta), and Cakung (East Jakarta). The sample size was calculated as 305 women based on the variable of quality of life according to the results of a study [8] : SD = 0.77, d = 0.1, $Z\alpha^2 = 1.96$, which resulted in a minimum quantitative sample of 277 participants. Finally, considering a probable dropout rate of 10%, 305 participants were estimated for this study.

The following inclusion criteria were adopted: being female, married, aged 15-64 years, without a history of serious illnesses (diabetes mellitus, heart disease, asthma, hypertension), sexually active in the last 4 weeks, understanding Indonesia language, and willing to participate as respondents, as indicated by signing a consent form after obtaining informed consent.

The exclusion criterion was participants who declined to participate. Initially, after obtaining research permission, we hired up to five data collection assistants for each region. Data collection was conducted during integrated service activities and through direct visits to residents' homes. After identifying women who met the inclusion criteria, they were invited to read a letter requesting their participation and consent to be respondents. If they agreed, they signed the consent form and proceeded to fill out the provided questionnaire. The collected data were processed and analyzed.

The Female Sexual Function Index (FSFI) was used to assess women's sexual function, consisting of 19 questions covering the domains of sexual desire, sexual arousal, lubrication, orgasm, sexual satisfaction, and pain, with a cutoff value of < 26.55 indicating a risk of sexual dysfunction and ≥ 26.55 indicating no sexual dysfunction [9]. The WHOQOL-Bref questionnaire consists of 26 questions. These questions concern overall self-assessment of quality of life and general health. The remaining 24 questions assess four domains: physical health (7 questions), psychological well-being (6 questions), social relationships (3 questions), and environment (8 questions).

The questionnaire uses a five-point rating scale from 1 to 5 points, with higher scores indicating better quality of life. The domain scores are expressed as mean values, calculated according to the key and guidelines [10][11]. This study obtained ethical approval from the Faculty of Nursing Sciences, University of Indonesia, with number 0384UN2.F12.D/HKP.02.04/2016.

Data analysis

We used IBM SPSS Statistics version 25 for data analysis. Univariate analysis was conducted to determine respondent characteristics, sexual function, and quality of life. Categorical data, including employment, education level, contraceptive use, income, parity status, smoking status, and sexual function, were analyzed using percentage or proportion measures.

Meanwhile, numerical data, such as length of marriage and quality of life, were analyzed using measures of central tendency (mean, median, mode, and standard deviation). Bivariate analysis was performed using the Spearman correlation test because we tested categorical and numerical data with 95% confidence level.

Results and Discussion

Demographic characteristic

Table 1 describes the characteristics of the participants. It is known that the majority of women of productive age in this study are mothers who are multiparous (73.1%). Most women do not smoke (87.5%) and their daily activities primarily involve being housewives (83.3%). The majority of participants have completed elementary to secondary school education (53.1%). Family income tends to be below the regional minimum wage (63.3%), and many participants have a history of using hormonal contraceptives (64.6%). There are 143 women of productive age, with an age range of 31-46 years (46.9%).

Table 1. Characteristic of the participant

Variable	Frequency (n)	Percentage (%)
Parity status		
Primiparous	82	26.9
Multiparous	223	73.1
Smoking status		
No	267	87.5
Yes	2	0.7
Former smoker	36	11.8
Occupation		
Housewife	254	83.3
Employee	51	16.7
Level education		
Junior high school	162	53.1
Senior high school	121	39.7
Bachelor degree	22	7.2
Income		
Lower (≤ Rp.3.100.000/month)	193	63.3
High (≥ Rp.3.100.000/month)	112	36.7
Use of contraception		
Hormonal	197	64.6
Non Hormonal	46	15.1
Do not use	62	20.3
Age (year)		
15-30	78	25.6
31-46	143	46.9
47-64	84	27.5

Sexual function

Based on Table 2, it is known that the sexual desire domain has a median value of 3.60, the sexual arousal domain has a median value of 3.90, the lubrication domain has a median value of 4.60, and the orgasm domain has a median value of 4.80. The sexual satisfaction domain has a mean score of 4.51, and the pain domain has a mean score of 4.68."

Table 2. Sexual function (FSFI)

Domain	Mean	Median	SD	Min- Max	95% CI
Sexual desire	3.86	3.60	0.89	1.20-6.00	3.76-3.97
Sexual arousal	4.02	3.90	0.85	1.20-6.00	3.93-4.12
Lubrication	4.60	4.80	0.79	2.40-6.00	4.51-4.69
Orgasmic	4.67	4.80	0.80	1.20-6.00	4.58-4.76
Sexual satisfaction	4.51	4.40	0.83	1.20-6.00	4.42-4.61
Pain	4.68	4.80	0.86	2.00-6.00	4.58-4.77

Quality of life

Based on Table 3, the mean value of general quality of life is 3.00, and the mean value of satisfaction with general health is also 3.00. The scores for the physical health domain, psychological domain, social relationship domain, and environmental domain are 50.00, 56.00, 56.00, and 56.00, respectively. It can be observed that three domains have higher scores: the psychological domain, the social relationship domain, and the environmental domain.

Table 3. Quality of life

Dependent Variable	Mean	Median	SD	Min-Max	95% CI
General quality of life	3.37	3.00	0.60	2-5	3.30-3.44
Satisfaction with general health	3.54	3.00	0.75	2-5	3.46-3.63
Physical Health	49.65	50.00	10.00	19.00-81.00	48.52-50.77
Psychological	56.70	56.00	10.94	55.46-57.93	25.00-81.00
Social relationship	61.55	56.00	13.24	19.00-100.00	60.06-63.04
Environmental	58.10	56.00	11.34	25.00-94.00	56.82-59.37

The relationship between sexual function and quality of life

Table 4 shows significant relationships between sexual desire p=0.00 and r= -.19, lubrication p=0.00 and r=0.17 and physical health domains, all with weak relationship strength. A significant relationship is also observed between sexual satisfaction p=0.01 and r=0.14 and the psychological domain, with weak relationship strength. Additionally, there is a significant relationship between sexual arousal p=0.00 and r=0.30, lubrication p=0.00 and r=0.27, and social relationship domains, with moderate relationship strength. A significant relationship exists between orgasm p=0.00 and r=0.19, sexual satisfaction p=0.00 and r=0.34 and the social relationship domain, with weak relationship strength. Moreover, a significant relationship is found between sexual desire and the environmental domain, with negative relationship strength. Lastly, there is a significant relationship between sexual satisfaction and the environmental domain, with positive relationship strength.

Table 4. The relationship between sexual function and quality of life

Variable	Domain							
	Physical Health		Psychological		Social Relationship		Environmental	
	r	*p value*	r	*p value*	r	*p value*	r	*p value*
Sexual desire	-.19	0.00*	-.07	0.17	0.09	0.10	-.10	0.00*
Sexual arousal	-.03	0.52	0.09	0.11	0.30	0.00*	-.01	0.82
Lubrication	0.17	0.00*	0.09	0.15	0.27	0.00*	0.03	0.51
Orgasmic	0.05	0.34	0.02	0.63	0.19	0.00*	0.05	0.30
Sexual satisfaction	0.09	0.10	0.14	0.01*	0.34	0.00*	0.14	0.01*
Pain	0.03	0.50	0.03	0.58	0.08	0.13	0.05	0.35

Discussion

The results of this study indicate that all aspects of the sexual function domain are related to the domain of quality of life. The average depiction of women's sexual function in this study shows that sexual desire and arousal are lower compared to lubrication, orgasm, and sexual satisfaction, while the general description of quality of life and satisfaction with health in this study falls into the moderate category, which is good. Among the four aspects of quality of life, the values are nearly identical, indicating that no aspect is significantly higher or lower, meaning that women's quality of life in terms of physical health, psychological well-being, social relationships, and environment is relatively balanced.

In this study, the results showed a significant relationship between sexual desire and lubrication with physical health. This is supported by the following statement that the quality of sexual life is a major issue in the field of reproductive health, particularly sexual health. Sexual function for women refers to their ability to experience arousal, orgasm, and sexual satisfaction, which are closely related to improved health and overall quality of life. Sexual dysfunction is one of the key indicators used to assess an individual's perceived quality of life. Therefore, evaluating sexual function is essential in measuring quality of life. A consensus result highlights the relationship between the quality of sexual life, satisfaction level, and overall quality of life. A lower quality of sexual life correlates with a lower general quality of life [1].

Based on the results of this study, it was found that there is a significant relationship between sexual desire and the environmental domain. This is supported by research that states that recent research conducted post-COVID-19 pandemic states that sexual function remains a factor influencing the quality of life of married women, in addition to other factors such as marital satisfaction, mental health, depression, and anxiety related to the coronavirus [12]. Many aspects of life have changed following the pandemic, including sexual behavior and frequency. Several studies suggest that regular sexual activity can reduce the risk of physical illness, enhance psychological well-being, improve quality of life, and increase life satisfaction. Additionally, unemployed women are more likely to experience increased stress related to sexual relationships, decreased frequency of sexual activity, reduced sexual desire, and lower FSFI scores [13]. Increasing the frequency of sexual activity can enhance sexual satisfaction and maintain sexual intimacy between partners by improving sexual communication [14].

In this study, it was found that there is a significant relationship between sexual satisfaction and psychological factors. This is in line with the results of the following study, which stated that satisfying sexuality in a life partner supports physical and mental health and can improve the quality of life [15]. Mutual pleasure and compatibility are the main components of sexual satisfaction, and development does not necessarily mean the absence of sexual dysfunction but rather a positive sexual experience. Sexual quality of life is strongly and positively correlated with compatibility and satisfaction between partners [9]. Psychological and sexual stress are other factors contributing to the decline in women's sexual quality of life. Consistent with previous research, it has been stated that psychological stress is directly associated with sexual disorders and is therefore inversely related to the quality of an individual's sexual life [16].

Negative emotions such as anxiety, worry, depression, and stress, along with personal feelings and psychological issues during the COVID-19 quarantine period, can negatively impact sexual desire, arousal, pleasure, and satisfaction [17]. The results of this study also indicate that there is a significant relationship between sexual satisfaction and social relationships. These findings are accompanied by another statement, namely the quality of life of middle-aged women, ranging from 45 to 60 years old, is also influenced by body image, depression, education level, sexual quality of life, and stressors. These factors can predict 42% of the quality of life [18]. Another study states that the quality of life of women of reproductive age is affected by sexual function and marital satisfaction. However, every marriage inevitably faces various issues. One common problem experienced by married couples is sexual issues. Couples who encounter sexual problems greatly need support, particularly from their partners. In reality, it has been found that social support from partners in dealing with sexual problems remains insufficient [19].

Sexuality is the integration of several aspects, including somatic, emotional, intellectual, and social aspects of sexuality, in a positive way that enriches and enhances personality, communication, and love. Sexual life is an inseparable part of human life, so the quality of one's sexual life also determines the quality of their overall life. Sexual function is one of the components of quality of life that must be fulfilled by humans, where a comfortable and satisfying sexual relationship for a couple is a crucial component in marital relationships. Moreover, sexual relationships are a biological need that cannot be compromised for married couples. It is undeniable that women's sexual function is an important component of quality of life and daily activities. The onset of an illness can disrupt a person's quality of life, with treatments causing pain and thoughts of an uncertain future. This condition has implications for health in relation to quality of life [20]. The higher the level of education, the better the sexual function of women. This can be influenced by the increasing level of education, which leads to a better understanding of how to control emotions and lifestyle. Women with higher education are also more aware of their sexual needs and are more courageous in expressing dissatisfaction. Another study suggests that women with higher education are more experienced in dealing with sexual dysfunction because they tend to be more disappointed with their marriage and sexual life [20]. From the perspective of quality of life, individuals with higher education tend to have a better quality of life compared to those with lower education. This is related to the fact that most job sectors require individuals with higher education, which allows those with higher education to more easily meet their life needs (higher quality of life) [21].

The limitations of this study include the sample size, which is considered insufficient to represent the vast area of the DKI Jakarta Province. The samples from each region are unevenly distributed. The characteristics of the population in each area vary, so it is necessary to differentiate between the administrative city regions in the discussion. The references and research articles on the issue of the quality of life of women of productive age are still limited, which results in the discussion of the research findings being less in-depth. The results of this study have implications for nursing services, particularly maternity nursing. Most women still consider discussing sexual issues as taboo and keep their problems to themselves. In addition, many women engage in sexual relations only at the request of their partners, giving the impression of fulfilling an obligation. One of the causes of marital disharmony is dissatisfaction with sexual relations. However, not many couples are open about their problems. This clearly can affect the quality of women's lives. The findings of this study provide an overview of the reality of women's sexual function in the DKI Jakarta Province and its connection with women's quality of life. The existence of a relationship between sexual function and women's quality of life further strengthens the notion that the quality of life for women also depends on their sexual function.

Conclusion

This study proves that there is a relationship between sexual function and women's quality of life. The bivariate test results show that there is a relationship between sexual desire and the physical health domain as well as the environmental domain of women's quality of life, a relationship between sexual arousal and the social relationship domain of women's quality of life, a relationship between lubrication and the physical health and social relationship domains of women's quality of life, a relationship between orgasm and the social relationship domain, and a relationship between sexual satisfaction and the psychological, social relationship, and environmental domains. Therefore, the

assessment of sexual needs and the provision of sexual education should be promoted, both in hospital services and community maternity services.

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Declarations

Author contribution	:	Silvia Mareti proposing the topic and research methodologies, Yati Afiyanti drafting the proposal and performing analysis, Tri Budiati presenting the data and discussion.
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Conflict of interest	:	We declare that there is no competing interests.
Ethics Declaration	:	As the authors, we confirm that this work has been written based on ethical research principles in compliance with our university's regulations and that the necessary permission was obtained from the relevant institution during data collection. We fully support CliPs commitment to upholding high standards of professional conduct and practicing honesty in all academic and professional activities.
Additional information	:	No additional information is available for this paper.

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