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(Research) Article

Risk Factors for Sexual Dysfunction in Postpartum Mothers in Makassar City

(Cross Sectional Study)

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Abstract: Postpartum sexual dysfunction remains an under-recognized problem despite its high global prevalence, ranging from 41% to 83% within the first six months after delivery. In Makassar, Indonesia, sociocultural taboos and the exclusive focus of primary postpartum care on uterine involution, wound healing, lactation, and immunization have left sexual function screening largely unaddressed. This study aimed to identify the risk factors associated with sexual dysfunction among postpartum mothers in Makassar City. An analytical observational study with a cross-sectional design was conducted among 117 postpartum mothers selected through consecutive sampling. Sexual function was measured using the Female Sexual Function Index (FSFI), and data were analyzed using Chi-Square followed by multiple logistic regression. The results showed that 82.9% of respondents experienced sexual dysfunction. Pregnancy complications were the only variable significantly associated with sexual dysfunction (p = 0.001; Adjusted OR = 52.63; 95% CI 4.78–500.00), indicating markedly higher odds of sexual dysfunction among mothers with pregnancy complications, while age, parity, education, occupation, income, and residence showed no significant associations. These findings highlight the need for structured sexual function screening and integrated biopsychosocial education in primary postpartum care services.

Keywords: Female Sexual Function Index (FSFI); Postpartum; Pregnancy Complications; Risk Factors; Sexual Dysfunction.

1. Introduction

Sexual health is an integral part of reproductive health that includes overall physical, emotional, mental, and social well-being, and is not just disease-free (Suharmi, 2025). In the postpartum period, health services generally focus on the physical recovery of the mother and the well-being of the neonates, while aspects of sexual function are often overlooked. In fact, the postpartum period is colored by dynamic physiological and psychological transitions(Jamila Kasim,Hasifah, 2022). Postpartum Sexual Dysfunction describes ongoing disruptions in the sexual response cycle including desire, arousal, lubrication, orgasm, satisfaction, and pain (dyspareunia) that triggers personal and interpersonal distress(Ravindran & Govender, 2020; Rezaei et al., 2018; Salamon et al., 2020). Globally, the prevalence of Postpartum Sexual Dysfunction is very high, ranging from 41% to 83% in the first six months postpartum(Kasim & Muchtar, 2019).

In Indonesia, especially in Makassar City, the issue of postpartum sexual health is often hit by sociocultural barriers. Especially regarding women's sexual satisfaction and function is still considered taboo and very private due to the thick patriarchal culture. This social construction makes many mothers reluctant to consult about their sexual complaints. On the other hand, postpartum services in primary health facilities still focus exclusively on monitoring uterine involution, wound healing, lactation, and immunization. The absence of structured sexual function screening causes Postpartum Sexual Dysfunction to be neglected and untreated, until it turns into a hidden health problem. The long-term impact of

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Postpartum Sexual Dysfunction not only decreases the quality of life of the mother, but also triggers marital conflict and increases the risk of postpartum depression(Ana Isabel Arcos-Romero 1, 2023; Blanc, 2024; Munyuzangabo et al., 2020; Ozerdogan et al., 2022).

The etiology of Postpartum Sexual Dysfunction is multifactorial. Demographic and socioeconomic factors such as maternal age, parity, education level, occupation, and economic status contribute to the mother's adaptation capacity and daily stress levels. However, the literature on the influence of these variables still shows inconsistencies. Some studies reported no significant association between parity or education and Postpartum Sexual Dysfunction, while other studies found primiparity and low education as major risk factors(Eggel et al., 2021; Graziottin et al., 2024a; Gutzeit et al., 2020a; Rezaei et al., 2018; Salamon et al., 2020; Zaky et al., 2025). The existence of this knowledge gap emphasizes the need for a more in-depth empirical study of urban populations in Indonesia that have unique cultural characteristics.

Physiologically, the method of childbirth plays a central role. Vaginal delivery accompanied by perineal trauma, both high-degree laceration and episiotomy, significantly increases the incidence of dyspareunia. Damage to the pelvic floor muscles as well as pudendal innervation can interfere with vaginal tone, sensitivity, and sexual satisfaction. In contrast, although cesarean section delivery is often thought to preserve the pelvic floor structure, this major surgical procedure still carries the risk of postoperative abdominal pain and mobility restrictions that trigger fears of pain during intercourse (Jamila Kasim, 2019).

In addition to mechanical factors, endocrinological dynamics during lactation also affect sexual function. Exclusive breastfeeding stimulates the secretion of high prolactin that suppresses the hypothalamic-pituitary-ovarian axis, causing a temporary condition of hypoestrogenism. The implication is the occurrence of atrophy of the vaginal mucosa, decreased elasticity, and reduced natural lubrication. This physiological condition is aggravated by psychological burdens, such as chronic fatigue due to changes in sleep patterns, caregiving burden, changes in body image, and emotional anxiety. When physical and emotional fitness declines, sexual desire naturally shifts to the lowest priority(Firawati, 2023).

Psychosocial dynamics and marital harmony are also crucial determinants. The couple's lack of understanding of the mother's recovery period and the fading of emotional intimacy often trigger conflicts. Cultural perceptions of a wife's sexual obligation often cause a moral burden, forcing women to have sex before recovering physically and psychologically. These forced adjustments exacerbate physical trauma as well as reinforce the vicious cycle of performance anxiety-based sexual dysfunction(Montessori, 2020).

Seeing the high complexity and the discovery of data gaps, research on risk factors for Postpartum Sexual Dysfunction in Makassar City is very urgent. The use of an analytical observational study design with a cross-sectional approach was chosen because of its efficiency in mapping the proportion of occurrence of Postpartum Sexual Dysfunction using the standard Female Sexual Function Index (FSFI) instrument, as well as analyzing the multivariate associative relationship between risk variables simultaneously at a single point in time. This multivariate approach allows researchers to control the disruptive variables so that an accurate and comprehensive picture of the determinants is obtained(Asmara et al., 2019).

Overall, the results of this study are expected to provide evidence-based evidence that is crucial for the development of obstetrics, maternal nursing, and public health. For health practitioners in Makassar City, this empirical data is the basic foothold in designing holistic and gender-sensitive postpartum care guidelines, going beyond physical recovery alone by including the restoration of the mother's psychosexual function. In addition, these findings are of strategic value to support public education, erode social taboos, and encourage more adaptive and responsive maternal health service policies.

2. Literature Review

The Concept of the Postpartum Period (Postpartum Period)

The postpartum period is a postpartum period of recovery of the female reproductive organs (uterine involution) that lasts about 6 weeks (42 days), although psychosocial recovery can continue for up to a year. This period is marked by hormonal fluctuations, changes in pelvic biomechanics, maternal role transition, and adjustment in relationship dynamics with partners(Jamila Kasim,Hasifah, 2022).

The Concept of Sexual Dysfunction in Postpartum Mothers

Postpartum sexual dysfunction is a persistent disorder in a woman's sexual response cycle that triggers emotional discomfort (personal distress) and postpartum interpersonal distress. The evaluation of sexual function is standardized using the Female Sexual Function Index (FSFI) instrument which assesses six main domains, namely desire as an impulse of sexual interest, arousal in the form of a sensation of physical and emotional awakening, lubrication or natural lubrication ability of the vagina, orgasm as the achievement of peak pleasure, overall emotional and sexual satisfaction, and the level of pain (pain/dyspareunia) felt during or after penetration(Suharmi, 2025).

Determinants and Risk Factors

Postpartum sexual dysfunction is multidimensional and is influenced by three main risk factor domains, namely biological/medical, hormonal/reproductive, and psychological and sociodemographic domains. On the biological and medical aspects, this condition is greatly influenced by the method of delivery (vaginal versus Sectio Caesarea), the degree of perineal trauma or episiotomy, and the weakness of the pelvic floor muscles. Meanwhile, in the hormonal and reproductive domains, exclusive lactation that increases the hormone prolactin and suppresses estrogen often triggers vaginal dryness, which is also aggravated by the side effects of hormonal contraceptive use. Finally, psychological and sociodemographic factors such as age, parity, physical fatigue, stress of caring for the baby, postpartum depression, and the quality of communication and partner support are important determinants that affect the sexual function of postpartum mothers(Mosca et al., 2022; Ng et al., 2023; Salamon et al., 2020).

3. Materials and Method

This study is an analytical observational research using a cross-sectional design, namely the measurement of independent and dependent variables is carried out at the same time. The study was carried out in Makassar City in 2026 on postpartum mothers who met the research criteria.

The study population was all postpartum mothers who were in the study area during the data collection period. The research sample totaled 117 respondents who were selected using the consecutive sampling technique, namely all respondents who met the inclusion criteria were recruited sequentially until the number of samples was met. The inclusion criteria include postpartum mothers who have actively re-engaged in sexual intercourse, are able to communicate in Indonesian, are willing to be respondents, and sign an informed consent sheet. The exclusion criteria are mothers who have cognitive impairments or mental disorders that can hinder the interview process and fill out the questionnaire incompletely.

The dependent variables in this study were postpartum sexual dysfunction, while independent variables included age, parity, education level, occupation, family income, residence, and history of pregnancy complications.

Data collection was carried out using a questionnaire of respondent characteristics and the Female Sexual Function Index (FSFI) instrument which consisted of 19 questions to assess six domains of sexual function, namely desire, arousal, lubrication, orgasm, satisfaction, and pain. The total FSFI score was calculated according to the instrument guidelines, then categorized into normal sexual function and sexual dysfunction based on the validated cut-off values.

Data analysis is done in stages using statistical software. Univariate analysis is used to describe the distribution of respondent characteristics in the form of frequency, percentage, average, and standard deviation according to the type of data. Bivariate analysis uses the Chi-Square test or Fisher's Exact Test when the Chi-Square test requirements are not met, to determine the relationship between each risk factor and the incidence of sexual dysfunction. Variables that met the multivariate analysis criteria $p < 0.25$ were then incorporated into multiple logistic regression models using the enter method to determine the most dominant factors associated with postpartum sexual dysfunction. The magnitude of the relationship was expressed in the form of an Odds Ratio (OR) along with a 95% Confidence Interval (95% CI), with the level of statistical significance set at $p < 0.05$.

4. Results and Discussion

This study was conducted in Makassar City with 117 postpartum mothers as respondents. Data collection was carried out to analyze the risk factors for sexual dysfunction, and the results are presented in the following tables:

Figures and Tables

Table 1. Characteristics of respondents based on age, parity, education level, job, family income, residence, pregnancy complications, and sexual function in postpartum mothers in Makassar City.

Variabel	Frequency (n)	Percentage (%)
Age		
≤ 19 years old	47	40,2
20–35 years old	62	53,0
≥ 35 years old	8	6,8
Parity (number of children)		
1 child	53	45,3
2 children	44	37,6
3 children	8	6,8
4 children	10	8,5
5 children	2	1,7
Education		
SD	25	21,4
SMP	20	17,1
SMA	47	40,2
College	25	21,4
Jobs		
IRT	99	84,6
Private	4	3,4
PNS	11	9,4
Self-employed	3	2,6
Family income		
≥ UMR (IDR 3,643,321)	55	47,0
< UMR (IDR 3,643,321)	62	53,0
Residence		
Own home	39	33,3
Parents' home	47	40,2
In-laws' house	12	10,3
Contract/lease	19	16,2
Pregnancy complications		
Ada	111	94,9
None	6	5,1
Sexual function		
Sexual dysfunction	97	82,9
Normal sexual function	20	17,1

Karakteristik responden menunjukkan populasi didominasi oleh ibu usia reproduksi optimal (20–35 tahun), primipara, berpendidikan menengah (SMA), dan tidak bekerja (ibu rumah tangga). Yang paling menonjol adalah proporsi riwayat komplikasi kehamilan yang sangat tinggi (94,9%) serta prevalensi disfungsi seksual pascapersalinan yang mencapai 82,9%, jauh melampaui titik tengah rentang prevalensi global (41–83%). Tingginya angka ini menegaskan bahwa disfungsi seksual pascapersalinan merupakan masalah kesehatan reproduksi yang signifikan namun masih kurang mendapat perhatian dalam layanan nifas rutin di Kota Makassar, sehingga skrining fungsi seksual perlu diintegrasikan secara terstruktur ke dalam asuhan pascapersalinan

Table 2. The relationship of age, parity, education level, job, family income, residence, and pregnancy complications with postpartum maternal sexual dysfunction in Makassar City.

Variabel	Category	Dysfunction n (%)	Normal n (%)	Total	OR (95% CI)	P
Age	At Risk (≤19/≥35 yrs)	44 (80,0)	11 (20,0)	55	0,68 (0,26–1,79)	0,589
	No risk (20–35 yrs)	53 (85,5)	9 (14,5)	62		

Paritas	Multipara (≥2 children)	50 (78,1)	14 (21,9)	64	0,46 (0,16–1,28)	0,207
	Primipara (1 child)	47 (88,7)	6 (11,3)	53		
Education	Low (Elementary/Junior High)	34 (75,6)	11 (24,4)	45	0,44 (0,17–1,17)	0,156
	High (SMA/PT)	63 (87,5)	9 (12,5)	72		
Jobs	Not working/IRT	80 (80,8)	19 (19,2)	99	0,25 (0,03–1,98)	0.304
	Work	17 (94,4)	1 (5,6)	18		
Revenue	< UMR	53 (85,5)	9 (14,5)	62	1,47 (0,56–3,87)	0,589
	≥ UMR	44 (80,0)	11 (20,0)	55		
Residence	Not home alone	65 (83,3)	13 (16,7)	78	1,09 (0,40–3,01)	1,000
	Own home	32 (82,1)	7 (17,9)	39		
Pregnancy complications	Ada	96 (86,5)	15 (13,5)	111	32,0 (3,49–293,0)	0,001*
	None	1 (16,7)	5 (83,3)	6		

Hasil uji bivariat menunjukkan bahwa dari tujuh variabel yang diuji, hanya komplikasi kehamilan yang berhubungan signifikan dengan disfungsi seksual ($p = 0,001$). Usia, paritas, pendidikan, pekerjaan, pendapatan keluarga, dan tempat tinggal tidak menunjukkan hubungan bermakna ($p > 0,05$), meskipun paritas dan pendidikan memiliki nilai $p < 0,25$ sehingga tetap layak dimasukkan ke tahap analisis multivariat. Pola ini konsisten dengan sejumlah studi terdahulu yang melaporkan inkonsistensi peran faktor demografi terhadap disfungsi seksual pascapersalinan, sementara faktor klinis seperti komplikasi kehamilan cenderung lebih konsisten berhubungan dengan gangguan fungsi seksual karena dampaknya terhadap kondisi fisik, hormonal, dan psikologis ibu(Graziottin et al., 2024b; Gutzeit et al., 2020a, 2020b; Tal et al., 2021; Wassenaar et al., 2024).

Table 3. Results of multiple logistic regression analysis of parity, education level, and pregnancy complications related to postpartum maternal sexual dysfunction in Makassar City.

Variabel	Koef. B	OR Adjusted	95% CI	p
Paritas (multipara)	-0,950	0,387	0,115–1,301	0,125
Education (primary)	-0,981	0,375	0,123–1,145	0,085
Pregnancy complications (exist)	3,974	52,63	4,78–500,00	0,001*
Konstanta	2,933	–	–	0,000

Analisis regresi logistik ganda menegaskan bahwa komplikasi kehamilan merupakan satu-satunya prediktor independen yang signifikan terhadap disfungsi seksual pascapersalinan ($p = 0,001$; Adjusted OR = 52,63; 95% CI 4,78–500,00), bahkan setelah dikontrol oleh paritas dan tingkat pendidikan. Artinya, ibu dengan riwayat komplikasi kehamilan memiliki kecenderungan hubungan yang jauh lebih kuat dengan disfungsi seksual dibandingkan ibu tanpa komplikasi. Namun demikian, rentang kepercayaan yang lebar mengindikasikan ketidakpastian estimasi akibat jumlah responden tanpa komplikasi yang relatif sedikit ($n = 6$), sehingga hasil ini perlu dikonfirmasi melalui penelitian dengan desain kohort prospektif dan jumlah sampel yang lebih besar dan seimbang antar kelompok. Temuan ini memperkuat pentingnya identifikasi dini komplikasi kehamilan sebagai bagian dari upaya pencegahan dan deteksi risiko disfungsi seksual pascapersalinan

5. Conclusion

Penelitian ini menunjukkan bahwa kejadian disfungsi seksual pada ibu postpartum di Kota Makassar tergolong tinggi (82,9%). Komplikasi kehamilan merupakan satu-satunya faktor yang berhubungan signifikan dengan disfungsi seksual (p = 0,001), sedangkan usia, paritas, pendidikan, pekerjaan, pendapatan, dan tempat tinggal tidak menunjukkan hubungan bermakna. Namun, hasil terkait komplikasi kehamilan perlu ditafsirkan secara hati-hati karena jumlah responden tanpa komplikasi kehamilan sebagai kelompok pembanding sangat sedikit (n = 6 dari 117), sehingga estimasi Adjusted OR memiliki interval kepercayaan yang lebar (95% CI 4,78–500,00) dan perlu dikonfirmasi pada penelitian dengan jumlah sampel yang lebih besar dan seimbang antar kelompok. Oleh karena itu, fasilitas kesehatan dan tenaga keperawatan/kebidanan disarankan mengintegrasikan skrining fungsi seksual serta edukasi biopsikososial sejak masa nifas. Penelitian selanjutnya perlu menggunakan desain kohort prospektif dengan menambahkan variabel klinis dan psikologis agar determinan disfungsi seksual postpartum dapat dianalisis secara lebih komprehensif.

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