

# Sexual dysfunction and associated factors reported in the postpartum period

Disfunção sexual e fatores associados relatados no período pós-parto

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## Keywords

Sexual behavior; Obstetrical nursing; Nursing research; Physiological sexual dysfunction; Postpartum period; Questionnaires

## Descritores

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## Abstract

**Objective:** To estimate the prevalence and factors associated with sexual dysfunction in the postpartum period. **Methods:** Cross-sectional study of 200 postpartum women in their resumption to sexual activity. Data were collected in a private place, through interviews and recorded in forms, containing information regarding sexual life of postpartum women.

**Results:** Among the women studied, it was found that 33.5%, 76.0% and 43.5% had sexual dysfunction before pregnancy, during and after delivery, respectively. The types of dysfunction most frequently identified were dyspareunia, vaginismus, dysfunction of desire, orgasmic and arousal. The significantly associated factors were Catholic or protestant religions, vaginal delivery with suture, dyspareunia during pregnancy, vaginismus before pregnancy and working hours over 8 hours/daily.

**Conclusion:** The prevalence of sexual dysfunction was high and associated factors were religion, working hours, previous history of dysfunction and type of delivery.

## Resumo

**Objetivo:** Estimar a prevalência e os fatores associados à disfunção sexual no período pós-parto.

**Métodos:** Estudo transversal com 200 puérperas que retomaram a vida sexual ativa. Os dados foram coletados, em local privado, por meio de entrevista e registrados em formulário contendo informações pertinentes a vida sexual das puerperas.

**Resultados:** Dentre as mulheres pesquisadas verificou-se que 33,5%, 76,0% e 43,5% apresentavam disfunções sexuais antes da gravidez, durante e após o parto, respectivamente. Os tipos de disfunção identificados com maior frequência foram a dispareunia, seguida do vaginismo, disfunção do desejo, orgásmica e excitação. Os fatores significativamente associados foram as religiões católica ou evangélica, o parto vaginal com sutura, a dispareunia durante a gravidez, o vaginismo antes da gravidez e uma jornada de trabalho além de 8 horas/diárias.

**Conclusão:** A prevalência das disfunções sexuais foi alta e os fatores associados foram: religião, jornada de trabalho, história prévia de disfunção e tipo de parto.

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## Introduction

Sexual dysfunction prevalence varies between 20-73% in women. It is a behavior resulting from a combination of biological, psychological, social and cultural factors, which makes a total or partial blockage of the sexual response of subjects related to desire, arousal and orgasm.<sup>(1,2)</sup> In this sense, it is a public health problem and thus deserve the attention of health professionals.

Although the difficulties in sexual activity could affect various stages of an individual's life, the pregnancy-puerperal cycle, especially the postpartum period, deserves a closer analysis, as it promotes significant changes in women's, partner's and family lives.<sup>(3)</sup>

The need to adapt to the demands of the newborn and the parental role may adversely affect the intimacy of the couple, as well as changes in body image and the desexualized figure of woman, cultivated by society. These features, plus the fear of pain in the intercourse and/or becoming pregnant again may cause distress difficulties and limitations in the sexual female sexuality.<sup>(1,4)</sup>

The difficulties in returning to sexual activity, which usually occurs around the 6<sup>th</sup> week postpartum and encouragement of partner, are common in most of women. Early diagnosis of female sexual dysfunction, in this period, has been little discussed in the scientific literature, despite the direct impact on quality of life and woman's health. Early identification is critical for the detection of emotional and relational conflicts, in addition to medical referrals.<sup>(3,5-7)</sup>

The dyspareunia appears in most studies as major sexual dysfunctions in the postpartum, compromising the desire, sexual satisfaction and frequency of sex. Presumably related to normal delivery, the presence of episiotomy and/or lacerations and breastfeeding, dyspareunia is not the only sexual dysfunction that affects women in this period of their lives, deserving an expansion of the studies on this theme.<sup>(4,7,8)</sup>

Research shows that the integrality of care in women is neglected, since most of the orientations of healthcare team about sexuality postpar-

tum are limited to recommend the resumption period of sexual activity, without addressing the aspects of the quality and the strategies to deal with the changes resulting from pregnancy-puerperal cycle.<sup>(1,9,10)</sup>

Knowing the epidemiology of sexual dysfunctions may contribute to the address actions in the care process. The aim of this study was to estimate the prevalence and factors associated with sexual dysfunction in the postpartum period.

## Methods

Observational study with cross-sectional design conducted in an outpatient pediatric clinic in the State of Alagoas, northeastern Brazil. The population consisted of women with partners during the data collection period, which had already returned to sexual intercourse and were between the third and sixth month postpartum. It was considered as exclusion criteria: pregnant women and/or any pathology that could not recommend sexual intercourse for women. The sample size calculation considered: the proportion of 50% in the population, absolute precision of 7% and a significance level of 5%; the final sample was set at 200 postpartum women.

Data collection was performed by one of the researchers, through interviews with eligible women, in a private location, preserving the individuality.

The data collected were recorded on a specific form developed specifically for the study; and the variables studied were related to data regarding identification, obstetric history and sex life, including sexual dysfunction, before and during pregnancy and after delivery.

The storage of the data was performed on the electronic spreadsheet (Microsoft Excel® 2003), in which each row corresponded to a form of data collection. Two entries were performed independently and blindly. Disagreements were resolved through form consultation.

Regarding statistical analysis, qualitative variables, absolute (n) and relative (%) frequencies

were used. For quantitative variables, we used measures of central-tendency: mean, median and standard deviation (minimum and maximum) to present variability. In the comparisons of the categories of the qualitative variables the chi-square or Fisher's exact test were used when necessary. Comparing mean between two groups of interest, the Student t test was used. All tests had a significance level of 5%.

A logistic regression analysis was used to determine which characteristics influenced together sexual dysfunction. For this analysis, the initial model, the variables that had a significance level of <0.10 in the univariate comparisons between patients with and without sexual dysfunction were included. In this analysis, using the stepwise forward method, variables analyzed together that did not present statistical significance were not included in the final model. Thus, from the variables initially included in the model, only entered the final model, those with statistical significance (p <0.05); the others were not part of the model. For all tests, we considered a significance level of 5%.

The development of the study met national and international standards of ethics in research involving human beings.

## Results

A total of 200 postpartum women with the following sociodemographic characteristics were included: mean age of 24 years, with an average of 7.8 years of education and family income of one or more minimum wages. Among the postpartum women, 184 (92%) lived with their partners, 172 (86%) worked only at home, averaging 8.5 hours of work per day, and 101 (50.5%) were Catholic. On average, 4.6 people lived in the house.

As for obstetric data, we found that 44.5% women were primiparous. The majority 55.5% had undergone vaginal delivery and from these, 33.5% were in their 3<sup>rd</sup> month postpartum, 21.5% were in the 4<sup>th</sup> month, 20% at 5<sup>th</sup> month and 20% at their

6<sup>th</sup> month postpartum. The resumption to sexual activities occurred, usually between 6 and 7 weeks postpartum and, in most cases 70%, initiated by the partner.

The prevalence of sexual dysfunction identified before pregnancy was 33.5%, increasing to 76.0% during pregnancy, declining to 43.5% in the postpartum period.

Data on table 1 show the distribution of types of sexual dysfunction presented in postpartum women.

**Table 1.** Types of sexual dysfunction identified in the postpartum period

Types of sexual dysfunction*	n(%)
Dysfunction of desire	25(12.5)
Dysfunction in the arousal stage	16(8.0)
Dyspareunia	57(28.5)
Orgasmic dysfunction	21(10.5)
Vaginismus	32(16.0)

\*Some women had more than one disorder; n=87

Data on table 2 show the logistic regression analysis as the aggregate interference of the variables for the presence of sexual dysfunction in the postpartum period.

**Table 2.** Interference of the variables for the presence of sexual dysfunction in the postpartum period (n=200)

Variables	Coefficient	p-value	Odds ratio	Confidence Interval
Religion				
None		0.027		
Catholic	1.03	0.010	2.81	(1.28-6.16)
Protestant	0.99	0.036	2.69	(1.06-6.82)
Delivery				
Cesarean		0.014		
Vaginal with suture	1.11	0.004	3.04	(1.41-6.54)
Vaginal without suture	0.22	0.575	1.25	(0.57-2.73)
Dyspareunia		0.004		
During pregnancy	0.94		2.57	(1.34-4.92)
Vaginismus		0.000		
Before pregnancy	2.14		8.53	(2.60-28.00)
Workload		0.024		
Above 8 hours/day	0.11		1.12	(1.02-1.24)

CI – Confidence Interval

## Discussion

As an observational study with cross-sectional design, we could not establish cause and effect relation, thus limiting the results of the research.

Recognizing sexual dysfunctions as a public health problem, which affects most women during pregnancy-puerperal cycle, especially during pregnancy. In the postpartum period, although showing improvement, a significant level of dysfunction is maintained which shows its importance for health professionals. Caring for women integrally means being concerned with their sexual health, requiring nurses to search for theoretical and practical approaches on the strategies that enable confrontation of this reality.<sup>(1,3,4,11)</sup>

Similar results were identified in a study of women in the first 3 months of postpartum, in which it was identified that 83% of them experienced sexual problems, decreasing to 64% at 6 months - although not reaching pre-pregnancy levels of 38%.<sup>(12)</sup> In this sense, the fact is that health professionals need to be aware of issues related to sexuality of women/couples.

The satisfactory exercise of sexuality, including sexual activity during pregnancy and postpartum is a concern not only of women, but present among couples, reinforcing the need for care in the difficulties by specialists, main professionals in the promotion of sexual health through clarification about the normal fluctuations that occur during pregnancy and after childbirth, with respect to the function and sexual interest.<sup>(4,6,13)</sup>

In this sense, although sexual dysfunctions are well known, they are not diagnosed, because of inhibition of the woman who does not have a complaint, or the physician, who is uncomfortable to investigate. The diagnosis is relevant, since this problem interferes with quality of life, besides being associated with health issues in general. Studies show that although many couples present sexual difficulties, especially after the first birth, few are those who, in fact, seek professional help.<sup>(1,3,4,14)</sup>

Regarding types of sexual dysfunctions identified in this study, we recognized more frequently, dyspareunia, vaginismus, dysfunction of desire

and orgasmic, and finally, dysfunction of arousal stage. The factors associated with these dysfunctions were women belonging to the Catholic or Protestant religion; working over 8 hours/daily; vaginal delivery with suture; the presence of dyspareunia during pregnancy; and the presence of vaginismus before pregnancy.

The fact that Catholic and Protestant women present nearly three times higher risk for sexual dysfunction than those without religion invites us to reflect about maintenance of the century ideal worshiped woman/mother immaculate and submissive as one that is fully dedicated to her child and should not or can experience the pleasures arising from sexual activity.<sup>(13,15)</sup>

Trying to combine maternal functions with other conducted in society, for example, working, some women end up putting their needs as a last plan, running out of time, disposition and physical and/or emotional conditions for satisfactory performance of their sexuality.<sup>(13,15)</sup> The results confirm this fact by highlighting working hours over 8 hours/daily, boosted by 12% with each additional hour work daily journey, which contributes to the presence of female sexual dysfunction.

The results also highlighted as a factor associated with the development of dysfunction in the postpartum period, type of delivery, i.e. vaginal with suture represented a threefold higher risk for sexual dysfunction when compared to the cesarean birth. Study conducted in 2010, comparing women with intact perineum after delivery, those undergoing episiotomy or who suffered lacerations to second degree perineal, reveals that these complaints had lower levels of libido, orgasm, satisfaction and pain during sexual intercourse.<sup>(11)</sup>

However, as mentioned, the literature is inconclusive on the indication of cesarean delivery as a practical protection to female sexual function and promote early recovery of sexual activity during this period; instead, the studies diverge about the published results.<sup>(4,5,12)</sup>

The ignorance of one's own body, as well as the physical and emotional changes, characteristics of pregnancy, may increase the development of sex-

ual dysfunction in some women and/or couples.<sup>(9,13)</sup> The high prevalence of sexual dysfunction in pregnancy and childbirth cycle, particularly dyspareunia, found in this study and reinforced by the literature, seems to be justified by these conditions, and other factors such as perineal trauma, fatigue, physical discomfort, fear of infection, pain in the breasts, impaired of self-image and body image, and depression.<sup>(1,3,4,11)</sup>

Understanding the association of primiparity factor with female sexual dysfunction seems to be in both religion and familiarity of these women, with regard to their corporeality, their rights and their duties in functions within society. Education based on traditional precepts, veiled in a sexist male society, especially with regard to education and women's sexual health, also seems to be present in this association.<sup>(13)</sup>

Most postpartum dyspareunia are related to local aspects of the genitalia, such as suturing, vaginal dryness, inflammation or infection. Studies confirm these findings claiming that perineal trauma, with or without suture, episiotomy and/or forceps are factors associated with insufficient lubrication and/or persistent dyspareunia in the postpartum.<sup>(1,4,7,16)</sup>

Vaginismus corresponded to the second leading cause of sexual dysfunction. When present before pregnancy, it represented a greater risk of 8.5 times for sexual dysfunction in the postpartum. Among postpartum women investigated, the causes referred to this dysfunction were the same as dyspareunia, strengthening the hypothesis previously mentioned, the little knowledge of them in their own bodies and their manifestations confusing pain and difficulty or unconscious inability to intercourse.<sup>(7,15)</sup>

Deficiency or absence of sexual fantasies and desire for sexual activity, defined as desire dysfunction, represented the third highest prevalence of sexual dysfunction in this population, which may be related to change in self-image and maternity.<sup>(7,15,16)</sup> Studies have shown that half of women experience changes in their libido in the first trimester with a significant deterioration in the last trimester, reaching 90% prevalence.<sup>(1,3,4,6)</sup>

In this study, the most frequent causes reported by the women were decreased desire to stress, fa-

tigue and the presence of pain during intercourse. A similar result was found in another study, in which tiredness and fatigue, in addition to dyspareunia, depression and breastfeeding, contributed to the reduction of sexual desire.<sup>(1,3,4,15)</sup>

The orgasmic dysfunction was present in 10.5% of women interviewed. Much higher frequency, in the same period was identified in another study, with 41% in the first six weeks, decreasing to 27% at the 3<sup>rd</sup> month and 15% at the 6<sup>th</sup> month after delivery.<sup>(6)</sup>

Research conducted during pregnancy and after birth was conducted in English and nulliparous women. In the 3<sup>rd</sup> trimester of pregnancy, 67% reported lack of orgasm during sexual intercourse. In the postpartum period, these percentages were lower, ranging from 61%, 40% and 39% in the period between the 6<sup>th</sup>, 12<sup>th</sup> and 24<sup>th</sup> week, respectively. The orgasmic function was reported by most women at 12 weeks postpartum, similar to the period before pregnancy.<sup>(17)</sup>

Regarding the change in the arousal stage, the impairment was smaller in a number of women (8%). Pain was one of the most cited causes for the development of the deficit or lack of lubrication during intercourse, probably explained by the feeling of not being able to be all in the intercourse, being divided between the roles of woman, mother and wife.<sup>(15,16)</sup>

Studies are in agreement with the above hypothesis to unveil the reduction in rates of this disorder, as postpartum time increases, that is, as woman adapts to motherhood and the demands of the new situation. Among these index, one can cite the lack of lubrication present in 51% of women in the first 6 weeks postpartum, decreasing to 29% and 13% at 3 and 6 months postpartum, respectively.<sup>(4,17)</sup>

The fact that Catholic and protestant women present a nearly three times higher risk for sexual dysfunction than those without religion invites us to reflect on the maintenance of castrating and repressive functions of religion, perpetuating the century worshiped of the ideal of woman/mother immaculate and submissive, as one that is fully dedicated to her child, which should not feel and freely enjoy sexual and erotic pleasures.<sup>(15)</sup>



Trying to combine the maternal role to other roles they play in society, for example, work, make some women end up putting their needs last plan, running out of time, disposition and physical and/or emotional conditions for satisfactory exercise of their sexuality.<sup>(15)</sup>

The results confirm this fact by highlighting the working hours over 8 hours/daily as a factor associated with the presence of female sexual dysfunction, which was aggravated in 12% every 1 hour added to the daily working time.

Although frequent, sexual dysfunction, especially postpartum, may be missed if health professionals are not aware and do not investigate the types and factors associated with their presence. It is important that there is integrality of care in assisting women, whatever stage of life in which they are.

The problems and difficulties may be minimized with appropriate orientation and encouragement to women to the presence of their partners in times of service, which will strengthen investigation and a better understanding of female sexual dimension.

## Conclusion

The prevalence of sexual dysfunction was high and associated factors were religion, working hours, previous history of sexual dysfunction and type of delivery.

## Collaborations

Holanda JBL; Abuchaim ESV; Coca KP and Abrão ACFV declare that contributed to the project design, analysis and interpretation of data; manuscript drafting, critical revision of intellectual content and final approval of the version to be published.

## References

1. Vettorazzi J, Marques F, Hentschel H, Ramos JGL, Martins-Costa SH, Badalotti M. [Sexuality and the postpartum period: a literature review]. *Rev HCPA*. 2012; 32(4):473-9. Portuguese.
2. Prado DS, Mota VP, Lima TI. [Prevalence of sexual dysfunction in two women groups of different socioeconomic status]. *Rev Bras Ginecol Obstet*. 2010; 32(3):139-43. Portuguese.
3. Acele EO, Karaçam Z. Sexual problems in women during the first postpartum year and related conditions. *J Clin Nurs*. 2012; 21(7-8):929-37.
4. Leeman LM, Rogers RG. Sex after childbirth: postpartum sexual function. *Obstet Gynecol*. 2012; 119(3):647-55.
5. Klein K, Worda C, Leipold H, Gruber C, Husslein P, Wenzl R. Does the mode of delivery influence sexual function after childbirth? *J Womens Health (Larchmt)*. 2009; 18(8):1227-31.
6. Abdool Z, Thakar R, Sultan AH. Postpartum female sexual function. *Eur J Obstet Gynecol Reprod Biol*. 2009; 145(2):133-7.
7. Rogers RG, Borders N, Leeman LM, Albers LL. Does spontaneous genital tract trauma impact postpartum sexual function? *J Midwifery Womens Health*. 2009; 54(2):98-103.
8. Kennedy CM, Turcea AM, Bradley CS. Prevalence of vulvar and vaginal symptoms during pregnancy and the puerperium. *Int J of Gynecol Obstet*. 2009; 105(1):236-9.
9. Pancholy AB, Goldenhar L, Fellner AN, Crisp C, Kleeman S, Pauls R. Resident education and training in female sexuality: results of a national survey. *J Sex Med*. 2011; 8(2):361-6.
10. Shindel AW, Ando KA, Nelson CJ, Breyer BN, Lue TF, Smith JF. Medical student sexuality: how sexual experience and sexuality training impact U.S. and Canadian medical students comfort in dealing with patient's sexuality in clinical practice. *Acad Med*. 2010; 85(8):1321-30.
11. Ribeiro MC, Nakamura MU, Abdo CHN, Torloni MR, Scanavino MT, et al. [Pregnancy and Gestational Diabetes: a prejudicial combination to female sexual function?] *Rev Bras Ginecol Obstet*. 2011; 33(5):219-24. Portuguese.
12. Belentani LM, Marcon SS, Pelloso SM. [Sexuality patterns of mothers with high-risk infants]. *Acta Paul Enferm*. 2011; 24(1):107-13. Portuguese.
13. Salim NR, Gualda DM. Sexuality in the puerperium: the experience of a group of women. *Rev Esc Enferm USP*. 2010; 44(4):888-95.
14. Pauls RN, Occhino JA, Dryfhout VL. Effects of pregnancy on female sexual function and body image: a prospective study. *J Sex Med*. 2008; 5:1915-22.
15. Abuchaim ES, Silva IA. Vivenciando a amamentação e a sexualidade na maternidade: "Dividindo-se entre ser mãe e mulher". *Ciência Cuidado e Saúde*. 2006; 5(2):220-8.
16. Ejegård H, Ryding EL, Sjögren B. Sexuality after delivery with episiotomy: a long-term follow-up. *Gynecol Obstet Invest*. 2008; 66(2):1-7.
17. Connolly A, Thorp J, Pahel L. Effects of pregnancy and childbirth on postpartum sexual function: a longitudinal prospective study. *Int Urogynecol J Pelvic Floor Dysfunct*. 2005; 16(1):263-7.