Sexuality patterns of mothers with high-risk infants*

Leda Maria Belentani¹, Sônia Silva Marcon², Sandra Marisa Pelloso²

ABSTRACT
Objective: To identify possible changes in the sexuality patterns of women who have high-risk infants in the first six months postpartum. Methods: A cohort study of 193 mothers of high-risk infants born between May and October of 2008, who were included in the Newborn Risk Surveillance Program in Maringá (Paraná, Brasil). Data were collected through semi-structured interviews during two home visits (at 45 days and six months postpartum). Results: Among these participants, 45.8% and 26.3% indicated that their sexuality patterns were worse than before pregnancy at 45 days and six months after delivery, respectively. There was no association between sexuality patterns and any variable at 45 days; at six months post-delivery, associations with complications in pregnancy (p = 0.0259) and living with a partner (p = 0.0093) were identified. Conclusion: Mothers of high-risk infants, especially those who experienced complications during pregnancy, require multidisciplinary, long-term monitoring of sexuality patterns. Keywords: Sexuality; Postpartum period; Women's health; Libido

RESUMO
Objetivo: Identificar possíveis alterações na sexualidade de mulheres que experimentaram o puerpério com bebês de risco. Métodos: Estudo do tipo coorte realizado com 193 puérperas que tiveram filhos nascidos entre maio e outubro de 2008 e incluídos no Programa de Vigilância ao Recém-nascido de Risco de Maringá-PR. Os dados foram coletados por meio de entrevista semi-estruturada em duas visitas domiciliares, aos 45 dias e seis meses pós-parto. Resultados: Entre as puérperas participantes 45,8% e 26,3% afirmaram que sua sexualidade estava pior do que antes da gravidez, respectivamente, aos 45 dias e seis meses após o parto. Não foi observada associação estatística entre sexualidade e qualquer variável aos 45 dias, mas o foi aos seis meses, após o parto em relação às intercorrências na gravidez (p=0,0259) e convivência com o companheiro (p=0,0093). Conclusão: Mães de recém-nascidos de risco, em especial, as que apresentaram intercorrência gestacional, necessitam de acompanhamento multidisciplinar e a longo prazo. Descritores: Sexualidade; Período pós-parto; Saúde da mulher; Libido

RESUMEN
Objetivo: Identificar posibles alteraciones en la sexualidad de mujeres que experimentaron el puerperio con bebés de riesgo. Métodos: Estudio de tipo cohorte realizado con 193 puérperas que tuvieron hijos nacidos entre mayo y octubre del 2008 e incluidos en el Programa de Vigilancia al Recién nacido de Riesgo de Maringá-PR. Los datos fueron recolectados por medio de una entrevista semi-estructurada en dos visitas domiciliarias, a los 45 días y seis meses post parto. Resultados: Entre las puérperas participantes el 45,8% y el 26,3% afirmaron que su sexualidad estaba peor que antes del embarazo, a los 45 días y seis meses después del parto, respectivamente. No fue observada la asociación estadística entre sexualidad y cualquier variable a los 45 días, mas sí a los seis meses, después del parto en relación a las intercurrencias en el embarazo (p=0,0259) y convivencia con el compañero (p=0,0093). Conclusión: Madres de recién nacidos de riesgo, en especial, las que presentaron intercurrencia gestacional, necesitan de acompañamiento multidisciplinario y a largo plazo. Descriptores: Sexualidad; Periodo de posparto; Salud de la mujer.; Libido

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¹ Faculdade Ingá – UNINGA - Maringá (PR), Brazil.
² Universidade Estadual de Maringá – UEM – Maringá (PR), Brazil.
INTRODUCTION

The pregnancy-postpartum cycle is a period of changes for women. The postpartum period is marked by resignification of oneself, one's own body, family and social relations\(^\text{10}\).

Besides physical, social and emotional alterations, sexuality patterns can be altered in the postpartum period, often generating disharmony in the marital relationship. Despite the lack of a single and absolute definition for sexuality, one may say that it is human beings' most intimate trait, manifested differently among subjects, according to their reality and experiences. It can be understood as the search for pleasure and satisfaction of desires, the discovery of feelings deriving from contact or touch and attraction by other people\(^\text{2}\).

Alterations in sexually patterns occur because during pregnancy as well as the postpartum period, women experience significant hormonal changes, making her feel indisposed for sex. During pregnancy, for example, a study carried out in Campinas-SP showed a possible decrease by 60%, 50% and 60.7% during the three terms, respectively, in the frequency of women's sexual relations due to the loss of libido\(^\text{3}\). In the postpartum period, this frequency can be affected even more, because of vaginal problems, loss of sleep due to child care, emotional problems, requirements involving the infant, low self-esteem, physical changes characteristic of postpartum, awaiting the doctor’s appointment and breastfeeding\(^\text{4,5}\). A literature review shows that only 12%-14% of couples deny having sexual problems postpartum. In comparison with pre-pregnancy sexuality, approximately 97% of women present significantly less sexual desire during the first year after birth\(^\text{6}\).

In the public health context, people’s sexuality is not a priority in Brazil, and its approach is limited to the diagnosis and treatment of gynecological problems. Women are attended individually, that is, without the presence of their partner\(^\text{7}\), probably because health professionals do not value sexuality as a basic human need. Therefore, this theme should be further discussed and addressed in nursing education, contributing to minimize taboos, favoring a holistic view of human beings and increasing the valuation of people’s sexual life\(^\text{8}\).

The baby’s arrival is greatly expected, which is why its experience is accompanied by anxiety and alterations in emotions and experiences. When newborns (NI) differ from ideal standards (preterm, low weight, congenital anomaly, among others), these feelings are enhanced, altering the family adaptation process\(^\text{9}\).

At-risk NI’s require greater parental care, as they are prone to illness and need further attention in terms of growth and development. This dedication strongly influences the couple’s routine and, consequently, sexuality patterns.

Therefore, the postpartum period is a critical phase for the start and increase of sexual problems, as libido, sexual interest and activity decrease. This factor, associated with emotional weakness and stress due to the arrival of an infant at risk, represents a significant impact in women’s lives.

As sexuality contributes to individuals’ physical and mental wellbeing, hence constituting an inseparable dimension of people at all times, manifested through emotions, fantasies, feelings and desires\(^\text{3}\), it needs to be taken into account when one intends to deliver comprehensive care. In view of the above, the goal of this study was to identify alterations in the sexuality of women who experienced the postpartum period with infants at risk.

METHODS

A cohort study was carried out, involving postpartum women living in Maringá (PR), whose children were born between May 1\(^\text{st}\) and October 31\(^\text{st}\) 2008 and included in the city’s At-Risk Infant Surveillance Program. It is part of the project “Living and Health Conditions of At-Risk Infants and their Mothers in Maringá-PR across the first year of life”, funded by CNPq, accomplished by faculty and students at the Nursing Department of Universidade Estadual de Maringá (UEM).

The criteria for inclusion in the city’s At-Risk Infant Surveillonce Program are: birth weight ≤2,500g, gestational age ≤36 weeks, Apgar at 5\(^\text{th}\) minute of life ≤7, maternal age ≤17 years, presence of congenital anomaly and other factors, such as mother’s disease or very bad socioeconomic condition.

During the study period, 348 mothers’ children were included in the Program, 193 of whom took part in the study. Forty-five mothers did not accept to participate in the study, 44 did not live in the city and omitted this fact to facilitate attendance at the hospital, 49 moved without informing an address, and infants died in 17 cases.

Nurses and undergraduate Nursing students collected the project data, under the supervision of Nursing faculty or Master’s students, during six home visits at 15 and 45 days, three, six, nine and twelve months of life, through an interview and physical examination of the child. For the present study, data collected during the second and third visits were used, i.e. 45 days and six months after birth.

The instrument used for data collection was a mixed six-part questionnaire. Part three is related to woman’s health and contains data regarding socio-demographic characteristics, obstetric and postpartum history, including
sexuality.

For analysis purposes, data were processed in an Excel worksheet and submitted to statistical analysis. The Chi-square test for Independence and Fisher's Exact test were used, with significance set at 5%.

The study complied with Ministry of Health Resolution No 196/96 and approval was obtained from the Institutional Review Board at UEM (Opinion No 451/2008). All women who participated in the study signed two copies of the Informed Consent Term.

RESULTS

Data in Table 1 show the postpartum women's socio-demographic characteristics. The mean age was 24.4 years, standard deviation 7 years, ranging between 14 and 41 years. Hence, all women were of what is considered fertile age. Most of the puerperal women were white and had a good education level (52.6%), i.e. between 11 and 15 years.

Regarding marital status, most women (85.9%) had a partner, and more than half was married. Among single women, 8.3% had no kind of partner at the time the research was carried out.

Data related to sexuality alterations and return to sexual activity are described in Table 2, showing a higher frequency of sexuality alterations 45 days than six days after birth.

Data in Table 3 display the relation between obstetric and postpartum variables and postpartum sexuality. A positive association was observed between pregnancy problems and contact with the partners on the one hand and sexuality six months postpartum only.

The pregnancy problems 45.6% of the women mentioned were mainly pregnancy induced hypertension, urinary tract infections, placenta problems, among others.

Table 1 – Socio-demographic characteristics of postpartum women regarding sexuality 45 days and six months postpartum. Maringá-PR, May-October 2008.

| Variables                          | n   | %     | Sexuality 45 days | Sexuality 6 months |
|-----------------------------------|-----|-------|-------------------|--------------------|
| Age (n=193)                       |     |       | 0.232             | 0.308              |
| < 17 years                        | 52  | 26.9  |                   |                    |
| 18 to 35                          | 127 | 65.8  |                   |                    |
| > 35 years                        | 14  | 7.3   |                   |                    |
| Education (n=192)                 |     |       |                   |                    |
| Unfinished primary                | 39  | 20.3  |                   |                    |
| Finished primary                  | 13  | 6.8   |                   |                    |
| Unfinished secondary              | 39  | 20.3  |                   |                    |
| Finished secondary                | 70  | 36.5  |                   |                    |
| Unfinished higher                 | 5   | 2.6   |                   |                    |
| Finished higher                   | 26  | 13.5  |                   |                    |
| Color/ethnic origin (n=192)       |     |       | 0.302             | 0.075              |
| Yellow                            | 4   | 2.1   |                   |                    |
| White                             | 124 | 64.6  |                   |                    |
| Black                             | 18  | 9.4   |                   |                    |
| Mulatto                           | 46  | 23.9  |                   |                    |
| Marital status (n=193)            |     |       | 0.925             | 0.624              |
| Married                           | 113 | 58.6  |                   |                    |
| Single                            | 28  | 14.5  |                   |                    |
| Stable union                      | 52  | 26.9  |                   |                    |

Table 2 – Postpartum women according to return to sexual activity and sexuality 45 days and six months postpartum. Maringá-PR, May-October 2008.

| Variables                           | n   | %     | Sexuality 45 days | Sexuality 6 months |
|-------------------------------------|-----|-------|-------------------|--------------------|
| Return to sexual activity (n=192)   |     |       | 0.674             | 0.602              |
| < 10 days                           | 2   | 1.0   |                   |                    |
| 10 – 30 days                        | 19  | 9.9   |                   |                    |
| 30 – 42 days                        | 45  | 23.5  |                   |                    |
| > 42 days                           | 126 | 65.6  |                   |                    |
| Sexuality at 45 days (n=179)        |     |       |                   |                    |
| Improved or is improving            | 13  | 7.3   |                   |                    |
| Normal                              | 80  | 44.7  |                   |                    |
| Afraid                              | 04  | 2.2   |                   |                    |
| Worse than before                   | 82  | 45.8  |                   |                    |
| Sexuality at 6 months (n=167)       |     |       |                   |                    |
| Improved or is improving            | 15  | 9.0   |                   |                    |
| Normal                              | 108 | 64.7  |                   |                    |
| Worse than before                   | 44  | 26.3  |                   |                    |
More than half of the women reported some kind of bodily discomfort, affecting self-esteem during both visits. At 45 days, 48.3% were not satisfied with their abdomen; striae bothered 23.3%, weight 18.1% and breasts 9.5%. At six months, the 109 mothers under analysis were dissatisfied with the same items, with frequencies close to those observed at 45 days, (abdomen – 43.1%, striae – 20.2%, weight – 19.3% and breasts – 8.3%). Nevertheless, no association was observed between sexuality and discomfort with physical appearance, neither at 45 days nor at six months postpartum.

**DISCUSSION**

The proportion of adolescent mothers whose children were included in the city’s At-Risk Infant Surveillance Program was relatively high (26.9%), probably due to the fact that adolescent maternity is one of the criteria for inclusion in the Program. For society, adolescents generally have an underestimated capacity to assume the responsibilities and demands of motherhood(10), due to their reduced care experience and emotional instability(11).

Table 3 – Obstetric and postpartum variables regarding sexuality 45 days and six months postpartum. Maringá-PR, May-October 2008.

| Variables                                      | n   | %   | 45 days | 6 months |
|-----------------------------------------------|-----|-----|---------|----------|
| Number of children (n=192)                    |     |     | 0.320   | 0.211    |
| One                                           | 124 | 64.6|         |          |
| Two                                           | 49  | 25.5|         |          |
| Three or more                                 | 19  | 9.9 |         |          |
| Gestational problems (n=193)                  |     |     | 0.576   | 0.026    |
| Yes                                           | 88  | 45.6|         |          |
| No                                            | 105 | 54.4|         |          |
| Body weight six months postpartum (n=130)     |     |     | 0.376   | 0.590    |
| Equal to pre-pregnancy period                 | 14  | 7.3 |         |          |
| More than pre-pregnancy period                | 84  | 43.5|         |          |
| Less than pre-pregnancy period                | 32  | 16.6|         |          |
| Bodily discomfort                             |     |     | 0.389   | 0.115    |
| Present at 45 days (n=178)                    | 116 | 65.2|         |          |
| Present at 6 months (n=165)                   | 109 | 66.1|         |          |
| Breastfeeding                                 |     |     | 0.676   | 0.923    |
| Present at 45 days (n=187)                    | 162 | 86.6|         |          |
| Present at 6 months (n=180)                   | 111 | 61.7|         |          |
| Contact with partner 45 days postpartum (n=183)|     |     | 0.051   | 0.009*   |
| Excellent                                     | 112 | 58.0|         |          |
| Good                                          | 61  | 31.7|         |          |
| Bad/very bad                                  | 4   | 2.0 |         |          |
| Does not apply                                | 16  | 8.3 |         |          |
| Type of delivery (n=193)                      |     |     | 0.054   | 0.673    |
| Vaginal                                       | 55  | 28.5|         |          |
| C-section                                     | 138 | 71.5|         |          |
| Postpartum consultations up to 42 days (n=189)|     |     | 0.089   | 0.583    |
| Yes                                           | 119 | 63.0|         |          |
| Emotional condition 45 days (n=171)           |     |     | 0.096   | 0.085    |
| Emotional balance (45 d.)                     | 135 | 79.0|         |          |
| Indecisive/imprecise (45 d.)                  | 6   | 3.5 |         |          |
| Emotionally shaken (45 d.)                    | 30  | 17.5|         |          |
| Six months (n=171)                            |     |     | 0.089   | 0.583    |
| Emotional balance (6 m.)                      | 141 | 82.5|         |          |
| Indecisive/imprecise (6 m.)                   | 4   | 2.3 |         |          |
| Emotionally shaken (6 m.)                     | 26  | 15.2|         |          |
The mothers’ education level in this study was similar to that of mothers of 4,177 live infants born in Maringá-PR in 2007, where 60.7% had studied between (45.8%) than six months after birth (26.3%), which 8 and 11 years. The proportion of mothers with 12 or more years of study was smaller (24.9%) though, and that of mothers with unfinished primary education was greater (13.7%). These factors may indicate a worse level of education among mothers with at-risk NI in comparison with mothers living in the city who gave birth a year earlier.

Regarding color/ethnic origin, among the mothers (postpartum) in this study, the proportion of black mothers was almost four times higher (9.4%) than in the medical release and fatigu due to care for the NI can female population of Paraná State, which is 2.4%.

With respect to sexuality, although most postpartum women (65.6%) awaited the sixth week (42 days) to restart their sexual activity, a significant part restarted between bodily discomfort and sexuality, it is known before the recommended period, which is necessary for that a very important factor in libido loss is low bodily uterine involution and women’s return to their pre-self-esteem. After the child’s birth, one of the first conditions (14-15), especially when considering conclusions the mother reaches is that her body is no that these are mothers of at-risk NI, who demand more time and availability for care.

Sex before the sixth week can be positive though, if natural and can be transitory, they can influence and women feel mental and physically prepared, as it lead to an alteration in sexuality. Literature has appointed that, in the postpartum period, the most bothersome bodily changes are large there is no physiological reason to postpone vaginal and heavy breasts, flaccid abdomen, above-normal penetration. Fear of pain, pain itself and lack of weight and presence of striae, in line with the present orientation, however, prevent pleasure and sexual activity study results. For women, often, as they do not from returning to normal. Therefore, couples should correspond to the desired pattern of physical beauty, it and privilege other forms of sexual satisfaction instead as a source of great dissatisfaction. However, not only the postpartum period, adopting alternatives to vaginal intercourse may include postpartum women who feel bothered want to return coitus, such as oral and anal sex and intimate caresses to their pre-pregnancy weight. Besides esthetic aspects, it is interesting to observe that the number of women losing weight aims for the promotion of wellbeing, who returned to sexual activity after 42 days is event health and even the desire to please one’s partner.

In an Australian study that involved partners of postpartum women in the sixth week after birth, 53.3% of them indicated partial return to sexual activity and 34.0% total absence of this activity.

Return to sexual activity largely depends on postpartum women and their partners need for the relation with the partner, besides reflecting the to receive, with a view to reducing taboos and beliefs leading expressions of being a mother and being a regarding postpartum sexuality. Literature has woman, respectively. The main factors favoring sexual appointed, however, that only about 20% to 30% of problems in breastfeeding women are related to the these women affirm that they received orientations on physical and hormonal alterations that are characteristic postpartum sexuality. When these orientations are of breastfeeding; dyspareunia caused by vaginal dryness provided, they are related to the fact that they do not and narrowing, increased nipple sensitivity, milk leakage need to have sexual intercourse before 40-42 days after birth, during sexual intercourse, decreased libido and the birth, and also to the possibility of pain and the importance of using lubricants for relief.

In this study, it was identified that sexuality among postpartum women was more compromised 45 days after giving birth between the third and sixth month of pregnancy condition (14-15), especially when considering conclusions the mother reaches is that her body is no that these are mothers of at-risk NI, who demand more time and availability for care.
partner’s jealousy towards the mother-child relationship. 

The relation between sexuality and breastfeeding is important in different societies. During interviews with French and Brazilian women, it was detected that the determination of motherhood as sacred, the sexualization the breast represented, the incest taboo (women feel guilty about feeling pleasure when breastfeeding), the connection between the mother and the baby, shared sleep (the baby represents a physical barrier between the parents) and the drop in female libido due to hormonal alterations (prolactin production) are connected with decreased sexuality, which can compromise the couple’s relationship. 

Although the delivery type showed no association with postpartum sexuality, the indiscriminate use of episiotomy among women with a normal delivery can generate discomfort and pain during sexual relations, altering female sexuality patterns. 

The finding that 63.0% (119) of these women had attended the postpartum consultation shows that an adequate target was not reached and that there still exists a taboo or lack of orientation by health professionals. NI health is often the main focus of concerns at that time, while mothers forget about themselves. 

The postpartum consultation is fundamental in care delivery during the pregnancy-postpartum cycle, as it is the time when the postpartum woman’s health can be detached from that of the infant, with health care returning to woman’s health instead of mother’s health. Besides constituting a good time to avoid and detect physical and emotional complications, the postpartum consultation also represents a favorable moment for orientations on contraception, breastfeeding, mental health and sexuality, among other aspects. 

Regarding the interface between pregnancy problems, birth of at-risk babies and sexuality, no studies were found in literature to support these associations. In the present study context, however, a statistical association was observed between sexuality and pregnancy problem at six months (p=0.009). 

With respect to statistical associations found six months after birth between sexuality and pregnancy problem (p=0.026) and sexuality and contact with the partner (p=0.009), it should be highlighted that no studies were found in literature to support these results. As the study sample comprises women who are mothers of children born in risk conditions, however, it can be inferred that these associations are related with psychic processes, experienced due to the fear of complications, of the postpartum women’s physical limitations, of concerns with the threshold between life and death and difficulties regarding care for the NI. 

In this context, bad contact with the partner emerges as yet another consequence of this experience, as the transition to motherhood and fatherhood induces or enhances tension in the couple, including alterations in sexual activity. Fatigue and lack of time, in turn, arouse physical and emotional malaise for sexual activity and even for the couple’s harmonious life. 

**FINAL CONSIDERATIONS** 

Despite some methodological limitations, such as the fact that neither the pregnancy alterations the mothers experienced, nor the risk factors involved in those cases where sexuality alterations were observed, it can be affirmed that mothers of at-risk newborns perceived alterations in their sexuality during the postpartum period and that this is more frequent at 45 days than at six months after delivery, demonstrating that most of the women experienced adaptation to the situation, which is probably related to the mothers’ skill development and security to take care of the baby, and also derives from the finding, for most of these women, that their baby’s growth and development are satisfactory. 

On the other hand, the fact that an association was identified between sexuality and the presence of pregnancy problems and sexuality and contact with the partner at six months after birth points to the need for mothers of at-risk infants, especially those who experienced some type of pregnancy problem, to be followed by a multidisciplinary team, during a period beyond the postpartum. That is the case because, soon after birth, women may not be concerned with the return of sexual activity, as their priority in this phase is to take care of the baby, who is often weakened. 

Hence, monitoring during a period beyond the postpartum and by professionals who are concerned with offering comprehensive care to women, and not just to mothers, can permit the disclosure and adequate handling of sexuality alterations. In this sense, one cannot ignore than female sexuality is generally fed by explicit demonstrations of love, kindness, companionship, and not just physical attraction. Hence, if the relationship/contact with the partner is not able to attend to the woman’s emotional needs, which are exacerbated in the postpartum period, it is probable that she will not feel sexually attracted by her partner. 

Therefore, the presence of pregnancy problems and the birth of who is considered an infant at risk indicate the fundamental nature of concern and of joining efforts, so that these women receive distinctive care after birth. Hence, nurses and other health professionals’ activity in providing orientations about aspects that influence the couple’s sexuality and relationship during this period are highly relevant, helping women to overcome moments of weakness, mainly when they are mothers of infants who demand more intensive care, including at-risk
infants. In this sense, health professionals and particularly nurses’ approach of sexuality should not only focus on the prevention of sexually transmitted diseases and family planning, but also cover bodily perceptions, pleasure and the emotional aspect involving sexuality, among others.

Finally, it needs to be taken into account that research whose results grant health professionals a better understanding about the interface between the pregnancy/birth process of a child at risk and the woman/mother’s sexuality remains scarce, thus indicating fertile grounds for further studies. Its results can support health professionals’ activity with a view to care delivery that values and enhances women’s integration with their partners, infants and the family and social circle, affecting their behavior and wellbeing, including their sexuality.

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