ABSTRACT
Objective: To assess the association between perceived social support and sociodemographic and clinical characteristics. Method: A cross-sectional study was conducted in a maternity hospital northwest of Rio Grande do Sul/Brazil from November 2021 to April 2022. A sociodemographic and clinical characterization questionnaire and a social support scale were used. Descriptive and inferential analysis. Results: Puerperal women with higher education had higher mean scores for emotional support (p=0.015); white women had higher mean scores for material support (p=0.009); and those in stable unions had higher mean scores for emotional support (p=0.0016), emotional support (p=0.035), information (p=0.019) and positive interaction (p=0.032). There were significant differences between the variables in which the pregnancy was planned, in which puerperal women received more material support (p=0.001) and those with systemic arterial hypertension, who received more support and positive interaction (p=0.014). Conclusion: The puerperal women had high social support scores. However, higher scores were observed among those from higher socioeconomic levels, in union, who had a planned pregnancy and hypertension during pregnancy.

KEYWORDS: Social Support; Women’s Health; Postpartum Period; Pregnancy Complications; Integrality in Health.

HIGHLIGHTS
1. Sociodemographic and clinical characteristics influence perceived social support.
2. Puerperal in stable unions had higher average levels of support.
3. Planned pregnancy was associated with greater material support.

Fernanda Fernandes de Carvalho1
Ane Gabriele Poli Petersen2
Caroline Sissy Tronco3
Denise Casagrande2
Francini de Oliveira Rodrigues2
Rosane Harter Griep4
Adriane Cristina Bernat Kolankiewicz2

HOW TO REFERENCE THIS ARTICLE:
INTRODUCTION

Risk-puerperium is defined as complications in the health status of puerperal women due to pre-existing diseases or intercurrences generated by both unfavorable organic and socioeconomic factors¹. Many questions and uncertainties can mark these complications for the woman. In this sense, information during hospital discharge should be provided so that women understand that the birth of a newborn should not be seen as the end of maternal care, which must be effective and continuous to meet maternal needs and demands, which may or may not be associated with the newborn².

As this period requires attention, a social network is important. In this network, the baby’s family, friends, and father are present and act protectively, providing social support (SS) for the best development of bonds and favoring the mother’s affective availability to meet the baby’s demands³.

SS is considered a source of resources made available by the social network in situations of need and is measured by the individual’s perception of the degree to which interpersonal relationships correspond to certain functions⁴-⁵. This is practical support provided by family members, partners, and friends, which can be emotional, material, affective, or even information, making the individual feel valued and safe⁴.

Women, especially mothers, are a vulnerable group because, as well as being part of a section of the population that suffers from gender inequality and social inequality, they carry the weight and stigma of exercising maternity and reproductive rights, the latter being the focus of many disputes in the political, religious and economic spheres⁶. Faced with this, effective SS is needed because, with so many changes, new routines, postpartum care, and newborns, women can sometimes need help organizing their care. The effects of pregnancy, childbirth, and the puerperium can persist for up to a year after delivery, or indefinitely, depending on the actions taken to meet this need².

Based on this problem, the following question arose: Are sociodemographic and clinical characteristics associated with the perception of SS in high-risk puerperal women? Therefore, this article assesses the association between perceived social support and sociodemographic and clinical characteristics.

METHOD

This is a cross-sectional study carried out in a maternity ward of a hospital in southern Brazil with high-risk puerperal women. The hospital is philanthropic and serves 120 municipalities, totaling an estimated population of 1,282,927 people. Since 2014, it has provided care for high-risk pregnant women, a reference in the health region.

Inclusion criteria were a medical diagnosis of high-risk pregnancy and being postpartum for at least 12 hours. The following were excluded: puerperal women with language and/or cognitive deficits that made it impossible to answer or read the questions.

The sample was calculated assuming a significance level of 5%, a power of 90%, and a minimum sample size of 310 puerperal women at risk. The puerperal women were invited to participate in the study during their hospital stay. The study’s objectives were explained initially, and the invitation to participate in the research was made. After accepting, all the participants signed the Free and Informed Consent Form in two copies before starting the interview.
Data was collected through face-to-face interviews with two nurses, a scientific initiation scholarship holder, and two volunteer students from November 2021 to April 2022. To avoid observation bias, the interviewers participated in training to standardize how the interviews were conducted and how the questionnaires were applied before data collection. In addition, during the training, the interviewers were trained to apply the instruments, respecting ethical aspects throughout the data collection process.

The questionnaire included sociodemographic characteristics (age, schooling, self-reported color, marital status) and clinical characteristics (planned pregnancy, previous illness, use of continuous medication). It also contained the Medical Outcomes Study Social Support Scale (MOS-SSS) adapted for Brazilian Portuguese. The MOS-SSS consists of 19 questions and covers five dimensions: material (4 questions - provision of practical resources and material help); affective (3 questions - physical displays of love and affection); emotional (4 questions - expressions of positive affection, understanding and feelings of trust); information (4 questions - availability of people for advice or guidance); and positive social interaction (4 questions - availability of people for fun and relaxation). As answer options, the puerperal woman selected the frequency she considered available for each type of support in case of need: never (1), rarely (2), sometimes (3), almost always (4), or always (5).

The data was statistically processed using the Statistical Package for Social Sciences version 25.0 (SPSS Inc., Chicago, IL, USA, 2018). The results were presented using descriptive statistics involving absolute and relative distributions (n - %), as well as measures of central tendency (mean and median) and variability (standard deviation and interquartile range). The Mann-Witney and Kruskal-Wallis tests were used to compare the means of SS and the independent variables. Pearson’s correlation was used to assess correlations between quantitative variables and social support. Associations were considered significant if p<0.05. Cronbach’s Alpha Coefficient assesses internal consistency.

The research respected the ethical aspects of Resolution 466/2012 and was approved under the Consubstantiated Opinion No. 5.076.515, dated November 3, 2021.

RESULTS

A total of 316 puerperal women who were at risk of developing complications participated in the study. They ranged in age from 14 to 46, with an estimated average of 27.9 (± 6.5) years; for self-reported color, most declared themselves white/yellow (72.4%). The most prevalent level of schooling was completed high school (42.5%), and the marital status married (living together/stable union) was observed in most of the sample (89.5%).

Concerning clinical characteristics, gestational age above 37 weeks was confirmed by 85.9% of the women investigated. More than six visits prevailed in the group studied (92.7%), and 42.7% had a confirmed planned pregnancy. Finally, regarding diseases during pregnancy, the most frequently cited were Diabetes Mellitus (DM) (20.9%), Systemic Arterial Hypertension (SAH) (13%), as well as the combination DM/SAH, observed in 10.1%.

In the five dimensions of SS, “Always” was the option with the highest percentage of responses. The average scores ranged from 90.7±14.2 (positive interaction SS), 85.9±17.0 (information SS), 85.9±18.2 (emotional SS), 88.8±15.1 (material SS), and 94.8±11.4 (affective SS).

The overall Cronbach’s alpha of the SS scale was 0.839, with the smallest variation in the material SS dimension at 0.749 and the largest variation in the positive interaction SS dimension at 0.885. These results can be seen in Table 1.
Table 1 - Measures of central tendency and variability for the dimensions of the MOS-SSS, postpartum women in a maternity hospital. Ijuí, RS, Brazil, 2022.

<table>
<thead>
<tr>
<th>MOS-SSS</th>
<th>M</th>
<th>DP</th>
<th>Min</th>
<th>Max</th>
<th>Perc 25o.</th>
<th>50th (Median)</th>
<th>75º</th>
<th>αC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS material</td>
<td>88,8</td>
<td>15,1</td>
<td>25,0</td>
<td>100,0</td>
<td>81,3</td>
<td>95,0</td>
<td>100,0</td>
<td>0,749</td>
</tr>
<tr>
<td>Affective SS</td>
<td>94,8</td>
<td>11,4</td>
<td>20,0</td>
<td>100,0</td>
<td>93,3</td>
<td>100,0</td>
<td>100,0</td>
<td>0,849</td>
</tr>
<tr>
<td>Emotional SS</td>
<td>85,9</td>
<td>18,2</td>
<td>15,0</td>
<td>100,0</td>
<td>76,3</td>
<td>95,0</td>
<td>100,0</td>
<td>0,876</td>
</tr>
<tr>
<td>SS information</td>
<td>83,9</td>
<td>17,0</td>
<td>15,0</td>
<td>100,0</td>
<td>75,0</td>
<td>90,0</td>
<td>100,0</td>
<td>0,836</td>
</tr>
<tr>
<td>SS Positive social interaction</td>
<td>90,7</td>
<td>14,2</td>
<td>40,0</td>
<td>100,0</td>
<td>80,0</td>
<td>100,0</td>
<td>100,0</td>
<td>0,885</td>
</tr>
</tbody>
</table>

αC: Cronbach’s Alpha
Source: Authors (2022).

When comparing the dimensions with sociodemographic characteristics, there was a statistical difference between puerperal women with higher education, who had the highest mean scores for emotional support (p=0.015). Puerperal women who reported being white received significantly more SS material (p=0.009). In relation to marital status, married women living together in a stable union received, with greater statistical differences, affective SS (p=0.0016), emotional SS (p=0.035), information SS (p=0.019), and positive interaction SS (p=0.032), as shown in Table 2.

Table 2 - Comparison of the dimensions of social support, according to the sociodemographic characteristics of puerperal women in a maternity hospital. Ijuí, RS, Brazil, 2022.

<table>
<thead>
<tr>
<th>SS dimensions</th>
<th>Material</th>
<th>Affective</th>
<th>Emotional</th>
<th>Information</th>
<th>Positive Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M</td>
<td>DP</td>
<td>M</td>
<td>DP</td>
<td>M</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete primary education</td>
<td>87,9</td>
<td>14,8</td>
<td>92,6</td>
<td>12,7</td>
<td>79,3</td>
</tr>
<tr>
<td>Complete primary education</td>
<td>87,9</td>
<td>15,6</td>
<td>94,2</td>
<td>12,0</td>
<td>85,1</td>
</tr>
<tr>
<td>Completed high school</td>
<td>89,5</td>
<td>15,2</td>
<td>95,6</td>
<td>11,1</td>
<td>87,8</td>
</tr>
<tr>
<td>Higher education</td>
<td>90,2</td>
<td>12,9</td>
<td>96,7</td>
<td>6,7</td>
<td>91,2</td>
</tr>
<tr>
<td>p-value</td>
<td>0,792</td>
<td>0,323</td>
<td>0,015</td>
<td>0,241</td>
<td>0,119</td>
</tr>
<tr>
<td>Skin color</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous, brown and black</td>
<td>85,0</td>
<td>18,2</td>
<td>94,5</td>
<td>12,9</td>
<td>84,0</td>
</tr>
<tr>
<td>white/yellow</td>
<td>90,0</td>
<td>13,6</td>
<td>95,0</td>
<td>10,6</td>
<td>86,4</td>
</tr>
<tr>
<td>p-value</td>
<td>0,009</td>
<td>0,756</td>
<td>0,311</td>
<td>0,230</td>
<td>0,756</td>
</tr>
</tbody>
</table>
Table 3 shows comparisons of mean SS scores according to clinical characteristics. Of the clinical variables, there were no statistically significant differences when compared by number of consultations and gestational age, except for the variables in which the pregnancy was planned, in which they received significantly more material SS (p= 0.015); and puerperal women with SAH during pregnancy received statistically significantly more positive interaction SS (p=0.014).

Table 3 - Compares the dimensions of social support according to the clinical characteristics of puerperal women in a maternity hospital. Ijuí, RS, Brazil, 2022.

<table>
<thead>
<tr>
<th>Marital status</th>
<th>M</th>
<th>DP</th>
<th>M</th>
<th>DP</th>
<th>M</th>
<th>DP</th>
<th>M</th>
<th>DP</th>
<th>M</th>
<th>DP</th>
<th>M</th>
<th>DP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married/ stable union</td>
<td>88,8</td>
<td>15,3</td>
<td>95,3</td>
<td>10,3</td>
<td>86,6</td>
<td>17,5</td>
<td>84,3</td>
<td>16,5</td>
<td>91,3</td>
<td>13,5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single/widowed/divorced</td>
<td>89,3</td>
<td>12,7</td>
<td>90,3</td>
<td>17,8</td>
<td>79,5</td>
<td>22,8</td>
<td>80,3</td>
<td>20,0</td>
<td>85,7</td>
<td>18,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td>0,849</td>
<td>0,016</td>
<td>0,035</td>
<td>0,019</td>
<td>0,032</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors (2022).
DISCUSSION

This research found that puerperal at risk perceived high levels of SS in all dimensions. However, women with a higher level of education had higher scores for emotional SS, white/yellow women for material SS, and married/partnered women reported higher levels of affective, emotional, information, and positive interaction SS. In addition, higher levels of SS material were reported by women with a planned pregnancy and SS positive interaction by women with a previous illness or continuous medication use.

A study carried out in an Assis Chateaubriand Maternity School, a reference in the capital and the entire state of Ceará, consisting of 120 puerperal women with a premature newborn admitted to the Neonatal Inpatient Unit, obtained similar results to this study in terms of characterization. The mothers’ ages ranged from 14 to 46, averaging 25.7 years. Regarding schooling, the majority had more than nine years, and, finally, in terms of marital status, 75% were married. Most of the puerperal women had prenatal care. In our study, the most prevalent level of education was completed high school (42.5%), most of the sample was married (89.5%), and age ranged from 14 to 46 years, with an average of 27.9.

Similar to this study, according to the average age of the participants, another cross-sectional study, with a quantitative approach, in a large tertiary hospital located in the interior of the state of São Paulo had a sample made up of 36 mothers of children with continuous and complex care needs, with an average age of 32.17 years. According to the findings, there was a statistically significant negative correlation between maternal age and the dimensions of information and emotional support, i.e., younger mothers perceived more people to talk to, vent to, and confide in (emotional support) and fewer people to provide guidance and advice (information support).

This result corroborates a study that applied the MOS-SSS scale to 75 mothers of premature children, revealing an overall perceived SS score of 79.24 (SD=17.24). However, according to the researchers, they believe that this positive perception of SS may be due to the age and marital status of the participating mothers, most of whom were young and had a partner. The perception of social support decreases with age, as changes and losses of network components and available social support are common. This study is also based on this reason since the average age of the mothers was 27.9 years.

In a study conducted in a public maternity hospital in the municipality of Cariacica, in Espírito Santo, the SS assessment tool was applied in the postpartum period with 330 puerperal women, and identified different results to this study. About the assessment of the MOSS scale score, the survey found that the sample had low material SS (p=0.003), affective SS (p=<0.001), emotional SS (p=<0.001), information SS and positive social interaction (p=<0.001).

The women’s ages ranged from 14 to 24, with divergent characteristics in the sample used in this research. Regarding the differences in the results of this study, it can be seen that the mean scores in the dimensions of support are lower in these puerperal women than in the sample of this study. Perhaps this discrepancy can be explained by the fact that the sample has a lower average age than the study in question. Possibly, these differences mean that young mothers feel a lower perception of SS.

In response to this and as a manifestation of a social problem, teenage pregnancy occurs daily and, therefore, needs to be part of the debate and permanent reflection of health and social care professionals so that they can develop effective responses.

The results in Table 3 show that the statistically significant correlations were schooling, ethnicity, and marital status. Regarding schooling, the study also showed a negative correlation when related to SS, and, according to its discussion, education is a component
that influences and helps in the effective management of problems. Also, it highlights that low schooling interferes with the puerperal woman's ability to act in the face of the problems imposed by motherhood. This shows that puerperals with a higher level of schooling feel safer and more self-sufficient, consequently promoting better self-esteem and a greater perception of SS.

**Skin color** showed a significant result when associated with social support. A literature review on this association is still being developed, especially in quantitative research. Unlike the other sociodemographic variables used in this research, very few studies have discussed the influence of color on the perception of SS. In a study on the epidemiological profile of maternal death cases in the state of Sergipe between 1996 and 2020, it was found that the predominant race was brown (47.07%). Even if there is a deeper understanding of why these racial inequalities exist, a recognition of the historical and current contributions can inspire real changes throughout the complex health system, given that the absence of a social support network is an important risk factor related to illness and death.

In response to this recognition, this research showed that puerperal women who self-reported as indigenous/brown/black perceived less material support. The scenario described suggests investing in proposing policies aimed at reducing health inequalities, with the hope of reducing the historically constructed racial segregation of the population and effectively reducing its effects on health, given that Brazil has intense racial miscegenation.

For participants in this study, the marital status variable associated with SS was associated with the affective, emotional, information, and positive interaction dimensions. A study carried out at the Ana Bezerra University Hospital, located in the city of Santa Cruz, in Rio Grande do Norte, found that marital status was associated with the material dimension ($p = 0.015$); in addition, about adolescents, the data showed an association between marital status and the emotional dimension ($p = 0.005$). The research indicates that, for these women, a support network is available for practical, everyday services, such as people preparing their meals, and that taking them to the doctor comes from their partner.

When paternal support is ineffective or non-existent, the disruption to women's functioning is significant, as they start to dedicate themselves entirely to the care and development of the child. However, when the SS is created together with other subjects in the puerperal woman's life, new strategies, and adaptations emerge in the face of the difficulties created by the absence of the father figure. This highlights the importance of support from other family members and friends/neighbors, who facilitate mobility, self-care, relationships, life activities, and social participation, compared to groups without support.

According to the sample, the **planned pregnancy** variable indicated a lower perception of material support. In line with another study on pregnancy planning, 83% reported not having planned, and 17% indicated that they had planned their pregnancy. In their discussion, it was found that whether or not the pregnancy was planned was independent of the prevalence of psychopathological symptoms among the participants.

On the other hand, other authors suggest that non-planning is one of the reasons behind the number of abortions carried out and, consequently, increases the risk of morbidity and mortality linked to abortion. Given this, motherhood is considered to be a time when women have to make intense adjustments to their lives, and it is also the beginning of a woman's process of coping with her new experience, that of being a mother. In this sense, it is understood that nurses responsible for consultations and visits during the puerperal period should assess women in all dimensions, helping them care for their children and deal with the doubts and fears related to this new phase.

As for **illness during pregnancy**, the sample studied was characterized by low positive interaction. With this relationship, the integrality of nursing care in pregnancy is associated, characterizing it as an integration of actions, including health promotion and the prevention
of diseases (Gestational Diabetes and Gestational Hypertension) that affect pregnant women with family history and poor lifestyle habits. The study also points out that the family is an important support instrument in terms of the intrinsic and extrinsic context of women during pregnancy, childbirth, and the puerperium, making it important for professional nurses to consider this support network as a process of comprehensive care\textsuperscript{15}.

On the other hand, the number of consultations and gestational age did not correlate with the SS scale, which indicates a good perception of SS in all dimensions. Consequently, this aligns with another study that reinforces the importance of the health team helping mothers identify the support networks available to them from people, institutions, or communities that can help them manage stressful situations. Having someone to share and talk to about the situation makes it easier for mothers to cope. In addition, when the mother feels supported and belongs to a support network, her perception of support increases, and she therefore benefits from better control\textsuperscript{16}.

Among the contributions, we can say that investigating SS in the context of motherhood also contributes to understanding the existing tensions since SS plays a role in the social and personal environment, especially regarding perceived social support, since it encompasses collective, community, and family relationships. Therefore, the dimensions that make up social support should concern health professionals.

It is sometimes possible to identify that women's accessibility in their pregnancy and puerperal context is vulnerable and fragile. To this end, support is fundamental, given the psychological, physical, and social changes, and continuity of care between health services is essential\textsuperscript{17}. This is a period in which there are many demands for care, both from the puerperal woman and the newborn, which requires attention from professionals in the healthcare network\textsuperscript{18}.

In this sense, improving nursing educational practice by providing a listening ear beyond what is traditionally considered clinical, clarifying the care that the service provides to the community, especially in the area of women's health, and including emotional concerns in care planning can contribute to expanding access to puerperal care and enabling health approaches from a more comprehensive perspective.

**CONCLUSIONS**

SS from the perspective of the puerperal woman was considered satisfactory in all dimensions: emotional support (mean=94.8±11.4), positive social interaction (mean=90.7±14.2), material support (mean=88.8±15.1), emotional support (mean=85.9±18.2) and information support (mean=83.9±17.0).

There was a statistical difference when comparing sociodemographic and clinical characteristics, with higher SS scores among married puerperal (social interaction, information, emotional and affective), white/yellow ethnicity (material support), and, finally, puerperal with complete higher education (emotional support); and when checking the dimensions of support, according to clinical characteristics, when the pregnancy is planned (material support) and when there is no disease during pregnancy (positive social interaction support), where they had higher scores.

Limitations of the study: Data to support associations with sociodemographic and clinical variables and SS in at-risk puerperal were difficult to find.

Implications for professional practice: This data can help health professionals examine sociodemographic and clinical characteristics and plan care that meets basic human needs
comprehensively and continuously. It is important to pay attention to the sociodemographic and clinical characterization of puerperal women treated in health services.

REFERENCES


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Corresponding author:
Adriane Cristina Bernat Kolankiewicz
Universidade Regional do Noroeste do Estado do Rio Grande do Sul
Rua do Comércio, 3000, Bairro Universitário, CEP 98700000, Ijuí, RS
E-mail: adriane.bernat@unijui.edu.br

Role of Author:
Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - Carvalho FF de, Kolankiewicz ACB. Drafting the work or revising it critically for important intellectual content - Carvalho FF de, Tronco CS, Casagrande D, Rodrigues F de O, Griep RH, Kolankiewicz ACB. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - Carvalho FF de, Kolankiewicz ACB. All authors approved the final version of the text.

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