

FACTORS THAT INTERFERE IN THE QUALITY OF LIFE RELATED TO THE HEALTH OF WOMEN IN THE POSTPARTUM PERIOD IN NORTHEASTERN BRAZIL

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ABSTRACT

Objective: to analyze the sociodemographic, obstetric, type of delivery and professional factors that provided care that can influence the quality of life related to women's health in the immediate puerperium period.

Method: cross-sectional, correlational study conducted in a reference maternity hospital, with 272 women in the immediate puerperium period hospitalized in the rooming-in accommodation. A sociodemographic, clinical and obstetric questionnaire and the Short Form Health Survey-36 scale were used to assess health-related quality of life.

Results: regarding age, there was a significant association in the domains functional capacity and general status, with better scores for ages up to 29 years. Regarding education, significance was observed in the functional capacity domain with better scores for 9 to 11 years of schooling. The analysis of obstetric complications showed statistical significance in the general health status domain $p < 0.05$. By correlating the type of delivery and the attending professional, the mean scores showed that the domains limitation due to physical aspects, pain, vitality, social aspects, limitations due emotional aspects and mental health presented higher means for normal delivery performed by nurses, with statistical significance in the domains: pain ($p < 0.05$), vitality ($p < 0.05$) and mental health ($p = 0.05$).

Conclusion: these analyzed factors interfere in the quality of life of women in the postpartum period. Thus, considering these questions provides complementary information to the use of the Short Form Health Survey-36, highlighting areas that need greater attention and that can be worked on even in prenatal care.

DESCRIPTORS: Quality of life. Postpartum period. Childbirth. Rooming-in accommodation. Nursing.

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FATORES QUE INTERFEREM NA QUALIDADE DE VIDA RELACIONADA À SAÚDE DE PUÉRPERAS DO NORDESTE BRASILEIRO

RESUMO

Objetivo: analisar os fatores sociodemográficos, obstétricos, tipo de parto e de profissional que prestou assistência que podem influenciar na qualidade de vida relacionada à saúde das mulheres no puerpério imediato.

Método: estudo transversal, correlacional, realizado em uma maternidade de referência, com 272 mulheres no puerpério imediato internadas no alojamento conjunto. Foram utilizados um questionário sociodemográfico, clínico e obstétrico e a escala *Short Form Health Survey-36* para avaliar a qualidade de vida relacionada à saúde.

Resultados: quanto à faixa etária, houve associação significativa nos domínios capacidade funcional e estado geral, com melhores escores para idade até 29 anos. Referente à escolaridade, observou-se significância no domínio capacidade funcional com escores melhores para 9 a 11 anos de estudo. A análise das intercorrências obstétricas mostrou significância estatística no domínio estado geral de saúde $p < 0,05$. Ao correlacionar o tipo de parto e o profissional que o assistiu, a média dos escores mostrou que os domínios limitação por aspectos físicos, dor, vitalidade, aspectos sociais, limitações por aspectos emocionais e saúde mental apresentaram médias maiores para o parto normal realizado por enfermeiro, com significância estatística nos domínios: dor ($p < 0,05$), vitalidade ($p < 0,05$) e saúde mental ($p = 0,05$).

Conclusão: os fatores analisados interferem na qualidade de vida das puérperas. Desse modo, o reconhecimento dessas questões fornece informações complementares ao uso do *Short Form Health Survey-36*, apontando áreas que necessitam de uma maior atenção e que podem ser trabalhadas ainda na assistência pré-natal.

DESCRIPTORIOS: Qualidade de Vida. Período pós-parto. Parto. Alojamento conjunto. Enfermagem.

FACTORES QUE INTERFIEREN EN LA CALIDAD DE VIDA RELACIONADOS CON LA SALUD DE MUJERES EMBARAZADAS EN EL NORESTE DE BRASIL

RESUMEN

Objetivo: analizar los factores sociodemográficos, obstétricos, tipo de parto y el profesional que brindó la asistencia que puede influir en la calidad de vida relacionada con la salud de la mujer en el puerperio inmediato.

Método: estudio transversal, correlacional, realizado en una maternidad de referencia, con 272 mujeres en puerperio inmediato hospitalizadas en régimen de alojamiento conjunto. Se utilizó un cuestionario sociodemográfico, clínico y obstétrico y la escala *Short Form Health Survey-36* para evaluar la calidad de vida relacionada con la salud.

Resultados: en cuanto al grupo de edad, hubo asociación significativa en los dominios de capacidad funcional y estado general, con mejores puntuaciones para la edad hasta los 29 años. En cuanto a la educación, hubo significación en el dominio de capacidad funcional con mejores puntajes para los 9 a 11 años de estudio. El análisis de las complicaciones obstétricas mostró significación estadística en el dominio de salud general $p < 0,05$. Al correlacionar el tipo de parto y el profesional que lo atendió, el promedio de las puntuaciones mostró que los dominios limitación por aspectos físicos, dolor, vitalidad, aspectos sociales, limitaciones por aspectos emocionales y salud mental mostraron promedios más altos para el parto normal realizado por enfermeras, con significancia estadística en los dominios: dolor ($p < 0,05$), vitalidad ($p < 0,05$) y salud mental ($p = 0,05$).

Conclusión: los factores analizados interfieren en la calidad de vida de las madres. Así, el reconocimiento de estos temas aporta información complementaria al uso de la Encuesta de Salud Breve-36, señalando áreas que requieren mayor atención y que se pueden trabajar en la atención prenatal.

DESCRIPTORIOS: Calidad de vida. Período posparto. Parto. Alojamento conjunto. Enfermería.

INTRODUCTION

Motherhood is a personal experience which is experienced by each woman in a unique way.¹ The postpartum period is defined as the period after birth, after expulsion of the placenta, extends up to 42 days after delivery. This stage of the postpartum pregnancy cycle is divided didactically into three phases: initial postpartum (from the first to the tenth day after childbirth), subacute postpartum (from the eleventh to the forty-fifth day) and delayed postpartum (from the forty-fifth day to the return of ovulation or female reproductive function),² causing several transformations in women that can affect their emotional well-being and influence risk for postpartum anxiety and depression, ineffective social support and tense marital relationships, especially in the immediate puerperium.³⁻⁴

It is noteworthy that both physical and psychological stressors can affect the emotional conditions of the women in the postpartum period, triggering reactions of sadness, depression, fear, anxiety and helplessness, considered normal in this period, however, when prolonged, it becomes a clinical concern.⁵

In Brazil, research has showed a predominance of maternal deaths in the puerperal period, corresponding to 83% of the cases.⁶ The Northeast region has the second highest maternal mortality rate with 71.3 deaths/100,000 live births in Brazil and the state of Piauí is the fifth in the record of these rates with 69/1000 live births.⁷

In this context, the promotion of women's Health-Related Quality of Life (HRQOL) in the prenatal (PN) and postnatal period is one of the purposes of the delivery and birth care program in Brazil. Promoting quality of life means observing for functional distress, perceptions and social conditions that are altered by disease, injuries, treatments, in addition to the political and economic organization of the health care system.⁸ Several factors affect HRQOL and in the postpartum period these may be related to pregnancy and childbirth, the child's health and maternal age.⁹⁻¹²

HRQOL is an important indicator of health promotion actions. Therefore, relating it to the different personal and care factors may help health professionals as it will allow the recognition of conditions that can positively and negatively interfere with HRQOL in the postpartum period, in addition to guiding possible interventions that promote women's health in this phase.

The aim of this study was to analyze the sociodemographic, obstetric, and delivery type factors as well as the type of professional who provided assistance which can influence the HRQOL of women in the initial postpartum period from a state in northeastern Brazil.

METHOD

This is a cross-sectional, correlational study conducted in a reference maternity hospital in the state of Piauí, northeastern Brazil, linked to the public health network.

The study population consisted of 272 women in the initial postpartum period who were hospitalized in the rooming-in accommodation of the institution. Probabilistic sampling for convenience was used. Inclusion criteria were: women in the initial postpartum period, hospitalized in the rooming-in accommodation who were literate. Exclusion criteria were: women in the postpartum period, those who had complications during childbirth and in the current postpartum period; women in the postpartum period who had a stillborn; hearing-impaired women in the postpartum period.

It is important to state that HRQOL in the postpartum period can be influenced by several clinical and obstetric factors,^{5,8} therefore the postpartum period is an opportune period for evaluations to be made in order to develop appropriate health interventions.¹³

Data were collected from February to June 2015 by the researcher herself and by volunteer collaborators who were trained to apply the instruments. Regarding data collection, all participants were approached/interviewed in the hospitalization bed and received guidance on the research. It is emphasized that some complementary data were collected in the medical records and in the women's prenatal record book.

The following data collection instruments were used: an adapted sociodemographic, clinical and obstetric questionnaire¹⁴ and the Short Form Survey Scale (SF-36) used to assess HRQOL.

The SF-36 enables a multidimensional analysis of HRQOL, has 36 questions and encompasses eight domains (functional capacity, physical aspects, pain, general health status, vitality, social aspects, emotional aspects and mental health). Although the SF-36 scale does not present a cut-off point, values range from 0 to 100, in which those closest to 100 report a good HRQOL.

The data were compiled and analyzed using version 20.0 of the *Statistical Package for the Social Sciences* (SPSS), statistical program. Means and standard deviations of quantitative variables were calculated. Levene tests were performed *a priori* to verify the homogeneity of variances and the Kolmogorov-Smirnov test to test the normality of the variables. After, the means of the scale were analyzed using the student *t* tests, *Mann-Whitney*, *Wilcoxon*, if two groups; if three or more groups, *by the Snedecor F* test (multiple comparisons using the Tukey test), *Friedman or Kruskal-Wallis* (*multiple comparisons* using the Conover test). The associations between the HRQOL variables and the types of delivery with the sociodemographic and obstetric variables were done using the χ^2 test.

RESULTS

It was identified that 147 (54%) women in the postpartum period were between 20 and 29 years old, with a mean of 25 years and standard deviation of 6.45, minimum of 14 and maximum of 44 years; 209 (76.8 %) had a stable companion; 164 (60.3%) worked at home; 109 (40.1%) had 12 years of schooling, while 78 (35.5%) of the companions had completed a maximum of 8 years of schooling; 202 (74.3%) had no paid occupation and 125 (69.1%) had a family income of between 1 and 3 minimum wages. In relation to race, it was observed that 201 (73.9%) self-reported to be brown.

Regarding obstetric data, 162 (59.6%) were multiparous; 211 (77.6%) didn't have an abortion. Regarding the type of delivery variable, the last delivery was considered, with cesarean delivery being the most prevalent, 145 (53.3%). While 127 (46.7%) women had vaginal births, 58 (21.3%) of these women were assisted by a nurse. When asked about complications during pregnancy, 171 (62.8%) presented at least one obstetric complication. Regarding the number of prenatal visits, 85 (31.3%) conducted less than 6 consultations and a total of 131 (48.2%) of the sample started prenatal care after the 12th week of gestation, 177 (65.1%) women did not plan the pregnancy.

In the HRQOL analysis, the total score of the scale presented an average of 69.94 with a standard deviation of ± 12.29 . The lowest HRQOL domains were in the following dimensions: limitation by physical aspects (36.0), vitality (55.9), limitation by emotional aspects (58.6) and pain (59.2).

Higher scores were obtained in the following domains: functional capacity (69.3), mental health (69.5) and social aspects (70.7). The domain with the highest score was general health status (73.0). The results also showed that all averages differ from each other ($p < 0.001$).

Table 1 shows the association of sociodemographic variables with the SF-36 domains

The functional capacity and general health status domains were significantly associated with the age group. Regarding marital status, no statistical significance was found in any of the SF-36 domains.

Regarding the educational level, the relationship was significant in the functional capacity domain. When performing the multivariate comparison in the functional capacity domain, the test revealed a difference between the range of "9 to 11 years of schooling" with "12 years of schooling" ($p < 0.045$) and "higher education" with ($p < 0.041$), indicating that the lowest and highest schooling influence HRQOL.

Regarding the fact that the pregnant woman had a paid occupation, there was significance in the functional capacity domain with better averages for those who had paid occupation. In the analysis of family income, no statistical significance was demonstrated in any of the domains, however HRQOL was better evaluated in six domains among those with higher income, evidencing that financial aspects can interfere in the HRQOL of postpartum women. In the race variable, there was a statistical association with the limitation due to physical aspects domain of the scale with better means for the white race, that is, white women have less quality of life in this aspect.

Table 1 – Association of sociodemographic variables according to the means of the SF-36 domains. Teresina, PI, Brazil, 2015. (n=272)

Sociodemographic Variables	Domains							
	Functional capacity	Limitation due to physical aspects	Pain	General health status	Vitality	Social Aspects	Limitation due to emotional aspects	Mental Health
	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*
Age group								
≤19 years old	74.8 ± 29.4	31.9 ± 37.6	56.5 ± 25.2	73.6 ± 17.1	58.5 ± 24.3	73.7 ± 27.0	58.4 ± 43.3	72.3 ± 21.5
20 to 29 years old	71.0 ± 30.4	38.9 ± 38.8	60.2 ± 26.7	74.5 ± 16.3	56.5 ± 23.8	72.3 ± 26.6	57.8 ± 42.4	70.4 ± 20.9
≥30 years	60.1 ± 33.2	33.2 ± 40.1	59.6 ± 26.3	68.6 ± 15.9	52.0 ± 22.6	63.8 ± 29.8	60.4 ± 44.3	64.5 ± 21.2
P value	0.019	0.402	0.659	0.05	0.278	0.075	0.922	0.089
Marital status								
No partner	68.6 ± 31.9	39.3 ± 41.8	58.6 ± 28	73.9 ± 16.7	59.9 ± 25.1	74.6 ± 28.6	55 ± 41.5	73.5 ± 19.7
With partner	69.6 ± 31.1	35 ± 38	59.4 ± 25.8	72.7 ± 16.6	54.7 ± 23.2	69.5 ± 27.4	59.6 ± 43.4	68.3 ± 21.6
P value	0.825	0.449	0.831	0.593	0.128	0.2	0.455	0.09
Schooling level								
≤ 8 years	66.7 ± 32.1	38.0 ± 41.1	62.0 ± 25.9	71.8 ± 16.3	55.4 ± 22.0	70.2 ± 25.5	59.6 ± 43.9	70.4 ± 21.2
9 to 11 years	78.7 ± 26.4	33.7 ± 37.5	56.6 ± 25.2	75.3 ± 15.8	55.2 ± 24.0	75.5 ± 26.2	63.9 ± 40.4	69.4 ± 22.5
12 years complete	66.6 ± 32.2	36.2 ± 38.2	58.4 ± 27.0	71.8 ± 17.1	55.0 ± 24.7	66.8 ± 29.2	54.4 ± 43.8	68.5 ± 20.8
≥ 13 years	57.2 ± 33.3	36.1 ± 41.3	63.9 ± 26.8	74.3 ± 17.0	65.8 ± 21.6	75.6 ± 30.4	57.4 ± 43.9	72.0 ± 19.3
P value	0.012	0.933	0.531	0.464	0.339	0.177	0.528	0.893
Partner educational level								
≤ 8 years	60.4 ± 31.4	33.0 ± 38.3	56.9 ± 27.8	71.5 ± 17.0	54.7 ± 21.8	67.4 ± 27.8	49.5 ± 44.8	67.3 ± 21.7
9 to 11 years	72.1 ± 30.0	40.3 ± 37.7	61.7 ± 28.7	72.4 ± 18.1	57.4 ± 25.1	72.1 ± 28.6	68.4 ± 40.5	69.0 ± 22.3

Table 1 – Cont.

Sociodemographic Variables	Domains										
	Functional capacity	Limitation due to physical aspects		Pain	General health status		Vitality	Social Aspects	Limitation due to emotional aspects		Mental Health
	Mean ± SD*	Mean ± SD*	SD*	Mean ± SD*	Mean ± SD*	SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	SD*	Mean ± SD*
12 years complete	66.8±31.87	34.1±37.6		54.8±21.4	75.5±14.4		55.2±24.8	72.1±27.8	62.1±41.0		71.7±22,0
≥ 13 years	65.9±29.7	36.3±37.6		53.8±25.8	74.0±14.1		55.4±20.0	72.7±23.5	63.6±45.8		68.3±19,8
P value	0.788	0.712		0.477	0.496		0.925	0.696	0.070		0.665
Paid occupation											
No	62.9±33.7	33.5±37.8		55.8±23.8	71.4±16.8		57.2±25.5	70.57±28.5	50.9±43.4		66.8±20,9
Yes	71.5±30.1	36.8±39.2		60.4±26.9	73.4±16.4		55.4±23.0	70.7±27.4	61.2±42.5		70.4±21.3
P value	0.046	0.540		0.210	0.390		0.602	0.960	0.085		0.221
Family Income											
Up to 1.5	69.7 ±30.7	33.7 ±39.1		59.3 ±25.8	74.8 ±15.5		55 ±20.7	70.8 ±25.1	57.9 ±43		70.7 ±19.9
> 1.5	68.2 ±34.3	35 ±37.5		62.3 ±25.9	75.5 ±15.9		57.3 ±24.8	69.4 ±29.4	58.9 ±44.8		71 ±21.2
P value	0.76	0.828		0.462	0.787		0.506	0.741	0.88		0.928
Race											
Non-white	69.5 ±31.4	34.5 ±38.3		59.1 ±26.4	73 ±16.5		55.5 ±23.6	70 ±28.1	58.4 ±42.7		69 ±21.6
White	67.2 ±30.4	52.2 ±42.6		61.1 ±24.6	72.3 ±17.7		60.7 ±24.8	78.3 ±21.7	60.9 ±46.8		74.3 ±17.3
P value	0.729	0.037		0.719	0.854		0.32	0.17	0.79		0.261

*Standard deviation

Table 2 reports on the association of clinical and obstetric history with the SF-36 domains.

The analysis of obstetric complications showed statistical significance in the general health status domain. Thus, the higher the number of complications in pregnancy or childbirth, the more negative the HRQOL will be in women in the postpartum period.

Regarding the factors associated with the quality of life of women in the postpartum period, Table 3 shows the evaluation of the means of the SF-36 domains, according to the type of delivery and the professional who performed it.

The domains limitation due to physical aspects (41.37), pain (67.53), vitality (62.75), social aspects (74.78), limitations due to emotional aspects (58.05) and mental health (75.86) presented higher averages for normal delivery performed by nurses, which within the following domains were statistically significant: pain ($p < 0.05$), vitality ($p < 0.05$) and mental health ($p = 0.05$). Regarding the general health status domain (73.58), cesarean delivery presented higher average than the other, but without statistical significance ($p = 0.417$).

DISCUSSION

Regarding the complexity of factors that influence the HRQOL of women in the postpartum period due to the various changes that occur in the postpartum pregnancy cycle, there is a need for health professionals to be committed to a careful evaluation during the care provided to the mother, the child and the family, promoting quality care.¹⁵

When comparing the mean scores of the women in the present study in each domain with the mean scores of the SF-36 of the study conducted with 119 women from Iran,¹⁶ it was found that the means of Brazilian women in the postpartum period were higher in the functional capacity, mental health, pain and general health status domains.

It was also observed that in the initial postpartum women have some physical limitations, which may be associated with the type of delivery, it is emphasized that most of them had cesarean delivery. Such limitations may prevent them from performing their daily activities as they normally did, which is evidenced in the domains that presented lower SF-36 averages.

In this context, the findings of this research are in agreement with a study conducted with 120 women in the initial postpartum period, conducted in Southern Taiwan, who observed that those submitted to cesarean section had higher scores of fatigue and postpartum tiredness than those who had vaginal delivery, presenting greater difficulty to perform care activities for the baby.¹⁷

Postpartum HRQOL is potentially influenced by sociodemographic, clinical and obstetric parameters.¹⁸ In the present study, it was identified that women aged up to 29 years were related to the best scores in the HRQOL assessment when compared with older women. According to population-based study findings of 19,291 in Norway, women aged 32 and over had a higher risk of developing psychological distress during pregnancy and in the first 18 months of postpartum compared to women aged 25-31 years.¹⁹ In contrast to this result, a study conducted with Spanish women in the postpartum period highlighted that the age of the mother greater than or equal to 35 years was not a factor related to quality of life.²⁰

A significant relationship between schooling and the functional capacity domain was also proven. One study highlighted that women with higher education had better quality of life in the postpartum period.²⁰ The explanation can be given by the fact that higher education implies a better perception of health by women.²¹

The fact that the pregnant women had or did not have a paid occupation presented significance in the functional capacity domain, evidencing better averages, especially for those who had paid occupation, denoting a better HRQOL for women with income. In the present study, most women had low incomes. A systematic review indicated that low income and low schooling appear as factors associated with fetal death.²²

Table 2 – Association of clinical and obstetric history according to the means of the SF-36 domains. Teresina, PI, Brazil, 2015. (n=272)

Clinical and obstetric variables	Domains									
	Functional capacity	Limitation due to physical aspects	Pain	General health status	Vitality	Social Aspects	Limitation due to emotional aspects	Mental Health		
	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*	Mean ± SD*
Parity										
Primiparous	70.9 ±31.7	40.2 ±38.9	57 ±25.6	74.6 ±16.3	56 ±23.7	72.4 ±27.9	58.5 ±43.4	71.7 ±21.5		
Multiparous	68.3 ±31	33.2 ±38.7	60.7 ±26.7	71.9 ±16.7	55.9 ±23.8	69.5 ±27.6	58.6 ±42.8	68 ±21		
P value	0.508	0.142	0.253	0.19	0.971	0.403	0.976	0.162		
Previous abortion										
No	69.8 ±31.2	37.4 ±39.1	58.4 ±25.8	72.9 ±16.3	57.3 ±23.7	72 ±27.9	58.3 ±42.8	70.7 ±20.8		
Yes	67.8 ±31.7	31.1 ±37.8	62.1 ±27.8	73.1 ±17.5	51.2 ±23.4	66.2 ±26.6	59.6 ±43.9	65.1 ±22.5		
P value	0.661	0.266	0.332	0.919	0.078	0.151	0.839	0.068		
Number of complications in pregnancy										
0	68.3 ±32.4	39.8 ±39.3	60.4 ±27	77.2 ±14.9	58.8 ±23.3	71.8 ±26.1	64 ±42.8	68.8 ±20.8		
1	68.2 ±31.4	36.3 ±38.7	58.1 ±27.1	71.5 ±17.8	54.5 ±24.1	70.8 ±27.8	56.9 ±42.4	70.2 ±20.2		
2 to 4	74 ±28.6	28.4 ±38	59.7 ±23.1	68.2 ±15.1	53.8 ±23.4	68.3 ±30.6	51.9 ±44	69.1 ±24.7		
P value	0.485	0.23	0.815	0.003	0.323	0.762	0.222	0.874		
Number of consultations										
< 6	67.3 ±29.9	37.6 ±40.6	61.5 ±27.8	73.5 ±16.6	56.8 ±23.8	72.5 ±28.3	56.5 ±43	69.9 ±22.3		
6 or more	70.3 ±31.9	35.3 ±38.2	58.2 ±25.5	72.7 ±16.6	55.5 ±23.7	69.9 ±27.5	59.5 ±43	69.3 ±20.8		
P value	0.468	0.644	0.338	0.713	0.678	0.466	0.586	0.836		
Start of prenatal care										
until the 12th week	70.2 ±32.1	36.8 ±37.5	61.5 ±26.8	73.4 ±16.5	55.4 ±23.9	69.9 ±29.5	60.7 ±42.7	69.1 ±21.3		
from the 13th week	68.6 ±30.5	34.9 ±40.4	57.2 ±25.2	72.4 ±16.7	56.8 ±23.5	71.7 ±25.7	56.2 ±43.4	70.1 ±21.2		
P value	0.684	0.694	0.169	0.629	0.637	0.604	0.393	0.684		
Planned pregnancy										
No	70.1 ±32.3	36.6 ±39.5	62.6 ±26.9	73.3 ±16.9	57.1 ±24.2	71.2 ±27.8	59.9 ±43.3	70.3 ±21.2		
Yes	67.9 ±29.2	35 ±37.8	52.9 ±24	72.4 ±16	53.7 ±22.8	69.7 ±27.7	56.1 ±42.5	68 ±21.4		
P value	0.578	0.75	0.004	0.686	0.263	0.681	0.494	0.386		

*Standard deviation

Table 3 – Association of the type of delivery and professional who performed the delivery according to the SF-36 domains. Teresina, PI, Brazil, 2015. (n= 272)

Domains Sf-36	Normal doctor		Normal nurse		Cesarean section		p
	N	Mean± SD*	N	Mean± SD*	N	Mean± SD*	
Functional capacity	69	76.01±35.63	58	71.72±27.79	145	68.31±39.46	0.340 [†]
Limitations due to physical aspects	69	39.85±40.97	58	41.37±56.10	145	34.13±39.28	0.325 [†]
Pain	69	62.23±25.64	58	67.53±24.74	145	54.49±25.26	0.002 [†]
General health status	69	71.93±14.53	58	72.60±16.05	145	73.58±17.71	0.417 [†]
Vitality	69	56.30±23.11	58	62.75±25.18	145	53.03±22.94	0.016 [†]
Social aspects	69	74.09±23.90	58	74.78±28.33	145	67.58±29.03	0.150 [†]
Limitations due to emotional aspects	69	55.55±51.34	58	58.05±51.32	145	56.32±60.28	0.787 [†]
Mental health	69	71.53±18.90	58	75.86±20.64	145	65.96±21.92	0.005 [†]

*Standard deviation; [†] Kruskal-Wallis followed by Conover-Inman Test

In this study, the presence of the partner did not influence HRQOL scores, diverging from the findings of other authors who indicated that mothers who had a partner, during this period, had higher levels of satisfaction, positively affecting their quality of life, due to the support of their partner and family.²³

A systematic review conducted in 2015, with the objective of summarizing the evidence on the influence of male follow-up on results during the pregnancy-puerperal cycle found that during labor and delivery the male presence was associated with high quality of delivery, in addition, during the early postnatal period, male prenatal follow-up was associated with greater acceptance of services and guidance in the initial postpartum period.²⁴

Regarding complications, in the general health status domain, there was an association with the absence of complications, denoting a relevant aspect for HRQOL. Thus, it is possible to reflect on the importance, even in prenatal care, of improving care with appropriate actions for the prevention and monitoring of possible complications, identifying those women with the potential of developing more serious future complications,²⁵ directly interfering in their quality of care life.

Pregnancy planning demonstrated a different result than expected, in which women who did not plan pregnancy had better HRQOL scores among postpartum women, meaning that those who had not planned the pregnancy reported less pain, with statistical significance in this domain.

Regarding pregnancy planning, a study conducted with 357 women proved that non-acceptance of pregnancy was associated with lower HRQOL scores.²⁶ In the present study, it can be inferred that, when women were interviewed, although many did not plan to become pregnant, there was already an acceptance process, and that this may influence HRQOL more than pregnancy planning itself.

It was evidenced in this study that the women in the postpartum period who started prenatal care until the 12th week of gestation presented higher means of HRQOL in almost all domains, except in vitality and social and emotional aspects, thus pointing to the importance of starting prenatal care earlier.

Research shows that starting prenatal care early only affects three-quarters of women, being lower for younger, black women and the North and Northeast regions of the country.²⁷

Regarding the analysis of the professional who performed the delivery, it was found that, for the most part, the vaginal delivery performed by a nurse obtained better averages than that performed by a physician, with statistical significance in three domains (pain, vitality and mental health). On the other hand, the functional capacity domain obtained a higher mean in the normal delivery assisted by a physician (76.01), evidencing a better HRQOL, when compared to the others, but without statistical significance.

In the present study, higher scores related to vaginal delivery have already been evidenced in the initial postpartum period. The evaluation of this domain made it possible to recognize the willingness of patients to perform daily activities, however women assisted by nurses had better means, demonstrating more vitality.

One study highlighted that cesarean delivery was associated with a worse overall HRQOL score, six weeks after delivery, in a large sample of Spanish women. Demonstrating that the potential effects of a cesarean delivery after delivery on HRQOL can be taken into consideration when deciding on cesarean section.²⁰

Therefore, women should be able to rescue their role in the birth process, allowing them to decide on the type of delivery based on consistent information and scientific evidence, making it important, at this moment, to participate for the nurse to participate in the care of the postpartum pregnancy cycle, as this professional plays a strategic role in the educational process, in addition to providing quality humanized care to the woman.²⁸

In a cross-sectional study conducted with 361 puerperal women, the preference for vaginal delivery by 77.6% of women was verified, being one of the main reasons for better postpartum recovery when compared to cesarean delivery.²⁹

Finally, the mental health domain also presented better means for vaginal delivery performed by nurses, evidenced by statistical significance.

Hormonal changes, mood fluctuations and changes in routine may explain the sadness or difficulty in dealing with feelings, characteristic of the postpartum period, but when these changes remain and begin to interfere in the routine and interaction with the baby, the need for care to this dyad is observed.³⁰

In this context, it is necessary that health professionals are committed in the care they provide to women in the postpartum period, with the objective of improving the quality of life of women in this phase.

CONCLUSION

There are several factors that can influence HRQOL in the postpartum period and recognizing them helps the direction of health promotion actions aimed at conducting care according to the inherent specificities of this phase.

In this context, it is necessary to conduct future research that addresses the care directed to these women during this period, with a view to improving HRQOL in the postpartum period.

HRQOL was well evaluated in this study among postpartum women, as higher scores were obtained in the following domains: functional capacity, mental health and social aspects. The domain with the highest score was "general health status".

Regarding age, there was a significant association in the functional capacity and general status domains, with better scores for ages up to 29 years. Regarding education, significance was observed in the functional capacity domain with better scores for 9 to 11 years of schooling. The analysis of obstetric complications showed statistical significance in the general health status domain $p < 0.05$. By correlating the type of delivery and the professional who performed the delivery, the mean scores of

the SF-36 showed that the domains limitation due to physical aspects, pain, vitality, social aspects, limitations due to emotional aspects and mental health presented higher means for normal delivery performed by nurses, with statistical significance in the domains: pain, vitality and mental health.

Thus, the recognition of these areas, such as the type of delivery and with which professional, provides important information, highlighting areas of the women in the postpartum period who need greater attention, such as limitation due to physical and emotional aspects, mental health, pain, vitality, social aspects, which can be better managed with information and targeted care, even during prenatal care, with the objective of improving those which benefit women's HRQOL.

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NOTES

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CONTRIBUTION OF AUTHORITY

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CONFLICT OF INTEREST

There is no conflict of interest.

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