

## Spiritual well-being, life satisfaction and psychopathological symptoms in pregnant women: a cross-sectional study

*Bem-estar espiritual, satisfação com a vida e sintomas psicopatológicos em mulheres grávidas: estudo transversal*

*Bienestar espiritual, satisfacción con la vida y síntomas psicopatológicos en mujeres embarazadas: estudio transversal*

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### ABSTRACT

**Objective:** to analyze the correlation between the level of spiritual well-being and satisfaction with life and the presence of psychopathological symptoms in pregnant women. **Method:** this is a cross-sectional study of 307 pregnant women in Juazeiro do Norte, Ceará, Brazil. Data was collected between January and October 2019, using the Spiritual Health and Life-Orientation Measure, Brief Multidimensional Life Satisfaction Scale and Brief Symptom Inventory. The data was analyzed using descriptive and inferential statistics, with Pearson's correlation test, respecting a significance level of  $p < 0.05$ . **Results:** spiritual well-being in the ideal (-0.501) and real (-0.496) dimensions showed a moderate negative correlation with the presence of psychopathological symptoms ( $p < 0.01$ ). There was a moderate negative correlation (-0.664) between satisfaction with life and the presence of psychopathological symptoms ( $p < 0.01$ ). **Conclusion:** the presence of psychopathological symptoms in pregnant women correlates with a decrease in spiritual well-being and satisfaction with life.

**Descriptors:** Women's Health; Pregnancy; Mental Health; Spirituality; Personal Satisfaction.

### RESUMO

**Objetivo:** analisar a correlação do nível de bem-estar espiritual e satisfação com a vida com a presença de sintomas psicopatológicos em mulheres grávidas. **Método:** estudo transversal desenvolvido com 307 mulheres grávidas de Juazeiro do Norte, Ceará, Brasil. A coleta de dados foi realizada entre janeiro e outubro de 2019, com aplicação dos instrumentos *Spiritual Health and Life-Orientation Measure*, *Brief Multidimensional Life Satisfaction Scale* e *Inventário Breve de Sintomas*. Os dados foram analisados utilizando estatística descritiva e inferencial, com teste de correlação de Pearson, respeitando nível de significância de  $p < 0,05$ . **Resultados:** o bem-estar espiritual nas dimensões ideal (-0,501) e real (-0,496) apresentaram moderada correlação negativa diante da presença de sintomas psicopatológicos ( $p < 0,01$ ). Houve moderada correlação negativa (-0,664) entre a satisfação com a vida e presença de sintomas psicopatológicos ( $p < 0,01$ ). **Conclusão:** a presença de sintomas psicopatológicos em mulheres grávidas correlaciona-se à diminuição do bem-estar espiritual e satisfação com a vida.

**Descritores:** Saúde da Mulher; Gravidez; Saúde Mental; Espiritualidade; Satisfação Pessoal.

### RESUMEN

**Objetivo:** analizar la correlación entre el nivel de bienestar espiritual y satisfacción con la vida y la presencia de síntomas psicopatológicos en mujeres embarazadas. **Método:** estudio transversal desarrollado con 307 gestantes de Juazeiro do Norte, Ceará, Brasil. La recolección de datos se realizó entre enero y octubre de 2019, utilizando los instrumentos *Spiritual Health and Life-Orientation Measure*, *Brief Multidimensional Life Satisfaction Scale* y el *Inventario Breve de Síntomas*. Los datos fueron analizados mediante estadística descriptiva e inferencial, con prueba de correlación de Pearson, respetando un nivel de significación de  $p < 0,05$ . **Resultados:** el bienestar espiritual en las dimensiones ideal (-0,501) y real (-0,496) mostró una correlación negativa moderada en presencia de síntomas psicopatológicos ( $p < 0,01$ ). Hubo una correlación negativa moderada (-0,664) entre la satisfacción con la vida y la presencia de síntomas psicopatológicos ( $p < 0,01$ ). **Conclusión:** la presencia de síntomas psicopatológicos en mujeres embarazadas se correlaciona con una disminución del bienestar espiritual y la satisfacción con la vida.

**Descriptores:** Salud de la Mujer; Embarazo; Salud Mental; Espiritualidad; Satisfacción Personal.

## INTRODUCTION

The pregnancy cycle is a physiological and dynamic phenomenon that mobilizes various areas of pregnant women's lives<sup>1</sup> and prenatal care should consider the integrality of care<sup>2</sup>. In this sense, we highlight the aspect of spiritual well-being, which is relevant to the health of pregnant women, but is little explored in prenatal consultation<sup>3</sup>.

Spiritual well-being is a dynamic concept in which the individual finds their purpose in life, giving it a unique meaning and is divided into two dimensions: vertical, when there is a sense of spiritual connection with something greater;

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and horizontal, when there is satisfaction with life, regardless of religious reference<sup>4</sup>. Life satisfaction relates to the overall assessment from a psychological point of view that considers individual subjective criteria of the level of satisfaction and quality of life including goals, values and circumstances<sup>5</sup>.

Some studies anchored in individual and situational processes and factors that increase people's spiritual well-being and satisfaction with their lives<sup>5,6</sup> indicate the difficulty of overcoming personal, professional or social challenges and health concerns in the face of global events<sup>7</sup>. In this context, pregnancy is a predisposing factor for the incidence of mental disorders, and anxiety and depression are common<sup>8-10</sup>, as organic changes affect mood and coping with stressful events can trigger the manifestation of psychopathological symptoms<sup>9,11</sup>. In the literature, the association between spiritual well-being and health indicates that spiritual involvement can contribute to mental health<sup>12</sup>.

This justifies the importance of spirituality for pregnant women's mental health and the need to broaden our understanding of the influence of this dimension on the presence of psychopathological symptoms and satisfaction with life<sup>12</sup>. This contributes to strengthening comprehensive care practices and the prevention and treatment of mental disorders during prenatal care.

Therefore, based on the link between spiritual well-being, life satisfaction and psychopathological symptoms and gestational health, the following guiding question arises: what is the correlation between spiritual well-being and life satisfaction and the presence of psychopathological symptoms in pregnant women?

The aim of this study was to analyse the correlation between the level of spiritual well-being and satisfaction with life and the presence of psychopathological symptoms in pregnant women.

## METHOD

This was an observational, quantitative, cross-sectional study, whose reporting was guided by the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) guide.

The research was carried out in the Family Health Strategy basic units of Juazeiro do Norte, located in Cariri Metropolitan Region, in the interior of the state of Ceará, Brazil. The study population consisted of 1,501 pregnant women treated by the 78 Family Health Strategy teams in the municipality's Primary Health Care Network.

The number of pregnant women was identified by checking with seven health district coordinators in the Primary Care Coordination sector, located in the Juazeiro do Norte Municipal Health Department. As a result, the sample was calculated using the formula for a finite population<sup>13</sup> and the sample consisted of 307 pregnant women selected for convenience and who spontaneously answered the data collection instruments.

Eligibility criteria included pregnant women who were registered and followed up during the usual risk prenatal care provided by the Juazeiro do Norte Family Health Strategy teams, with no restrictions on gestational period or the presence of comorbidities. Exclusion criteria included pregnant women under the age of 18 and those with hearing or speech impairment that made it impossible to answer the questions on the data collection instruments.

The data was collected between January and October 2019 through visits to the Family Health Strategy teams. Pregnant women were approached in the waiting room before their prenatal appointment and invited to take part in the research. During this process, they were given information about the study's objective and legal aspects.

After reading the Informed Consent Form and agreeing to participate voluntarily, the participant signed the document and the data was collected individually and in a private area of the health units, using the following data collection instruments: Sociodemographic characterization form, health status, lifestyle and self-care; Spiritual Health and Life-Orientation Measure; Brief Multidimensional Life Satisfaction Scale; and the Brief Symptom Inventory.

The characterization form contained a total of 16 research items distributed between sociodemographic variables (age, nationality, marital status, education, employment, profession, source of income, religion and religiosity) health status (health problem, time since diagnosis, clinical follow-up and use of regular medication) and lifestyle and self-care (smoking, alcohol consumption, recreational activity, physical activity, dependence on self-care, need and frequency of support from social and health services).

The Spiritual Health and Life-Orientation Measure (SHALOM) was developed by Fisher and has been translated, cross-culturally adapted and its psychometric properties analyzed for the Brazilian context<sup>14</sup>. It analyzes 22 items with answers on a likert scale of one to five points, distributed in the personal (5, 9, 14, 16 and

18), community (1, 3, 8, 17 and 19), environmental (4, 7, 10, 12 and 20) and transcendental (2, 6, 11, 13, 15, 20a and 20b) dimensions, which cover the rational and inspirational aspects of personal experience in the last six months<sup>15</sup>.

SHALOM considers three measures with organizational parameters arranged in two columns for each analysis item. The first column evaluates the “ideal spiritual health” measure in terms of a value or goal; the second column evaluates the “current state of spiritual health” measure of actual achievements and attitudes. The third measure evaluates “spiritual well-being” and is determined by the discrepancy/congruence rating between the two previous measures. The rating is divided into global level (with the global means of the two scales) or individual level (with the measures of the four dimensions). The values obtained are converted into the categories “spiritual harmony (<1)” or “spiritual dissonance ( $\geq 1$ )”<sup>15</sup>.

The Brief Multidimensional Life Satisfaction Scale has been validated and consists of an instrument made up of 20 items subdivided into intrinsic, social, external and perspective analysis dimensions. These are subdivided into five typified items to which the participants answer a Likert-type scale from very dissatisfied to very satisfied and a maximum score of 120 points, which is equivalent to 100%. Therefore, scores above 50% indicate high satisfaction with life and scores below 50% indicate low satisfaction<sup>16</sup>.

The Brief Symptom Inventory has been adapted for Brazilian Portuguese. It consists of 53 self-response items on a five-point Likert scale (never to very often) and aims to assess psychopathological symptoms in nine dimensions: somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism<sup>17</sup>.

In addition, the instrument evaluates three global indices obtained by the items of the dimensions that are important elements of psychopathologies: the General Symptom Index obtained by summing the scores of all the items in the Brief Symptom Inventory and then dividing by the total number of responses; the Total Positive Symptoms obtained by counting the items marked with positive indicators; and the Positive Symptom Index obtained by dividing the sum of all the items by the Total Positive Symptoms<sup>18</sup>.

The data collected was double-checked into a database built using Microsoft Office Excell version 2010 spreadsheets and then imported into version 25.0 of the Statistical Package for the Social Sciences (SPSS) software.

Frequency descriptive statistical analysis was carried out, with measures of central tendency (maximum and minimum values, mean, mode and median), standard deviation and correlation of variables using inferential statistics, and bivariate analysis between the independent variables (spiritual well-being and life satisfaction) and the dependent variable (psychopathological symptoms) using Pearson's correlation test. Values of  $p < 0.05$  were considered to be statistically significant.

The data was presented descriptively and in tables using Microsoft Office Word version 2010. The results were discussed analytically and interpretatively based on current literature.

The research protocol was approved after analysis of the project entitled “Level of spiritual well-being related to religion, chronic health condition and socioeconomic characteristics”. Ethical precepts were followed with the voluntary participation of the pregnant women by reading and signing the Free and Informed Consent and Post-Informed Consent forms.

## RESULTS

The pregnant women ( $n=307$ ) ranged in age from 18 to 41 years ( $26.9 \pm 5.6$  years). The majority were Brazilian, married/stable ( $n=199$ ; 64.8%), with a high school education ( $n=182$ ; 59.3%), unemployed ( $n=191$ ; 62.2%), with casual pay ( $n=137$ ; 44.6%), Catholic ( $n=248$ ; 80.8%) and considered themselves religious ( $n=154$ ; 50.2%).

The main characteristics of health status, lifestyle and self-care were: has a health problem ( $n=282$ ; 91.9%), does not consume tobacco ( $n=304$ ; 99%), does not consume alcohol ( $n=299$ ; 97.4%), does not participate in recreational activity 246 (80.1%); does not do physical activity ( $n=254$ ; 82.7%), has no dependency for self-care ( $n=294$ ; 95.8%), does not need support from social services ( $n=302$ ; 98.4%) and they need assistance from a physician and nurse ( $n=271$ ; 88.3%).

The measurement of the spiritual well-being level was categorized as harmonious in all the items assessed and distributed in the SHALOM dimensions. The quotation rate was distributed as follows: personal, 0.79; community, 0.60; environmental, 0.80; and transcendental, 0.66.

When analyzed individually, the highest ideal well-being scores were for the item “inner peace” (4.74), which refers to the personal dimension; and for real well-being, the item “respect for other people” (4.13), which refers to the community dimension. The items with the highest rate of divergence were: “inner peace” (0.92) and “feeling amazed by

nature” (0.89), the latter being part of the environmental dimension. In contrast, the lowest divergence rates were found in the community dimension items: “generosity to others” (0.47) and “respect for other people” (0.54).

The overall mean of the items relating to the four dimensions was: 4.42 in the ideal sphere; 3.71 in the real sphere; and the score was 0.71. Thus, the overall result of the Spiritual Health and Life-Orientation Measure instrument was <1. Therefore, considering the general indices of each dimension, there is congruence, indicating harmony in the spiritual well-being of pregnant women.

In relation to satisfaction with life, it was observed that the pregnant women obtained an overall score of 95 points, establishing a mean of 4.75 points. It can therefore be said that the pregnant women were satisfied with life. The overall score established a percentage of 79.16% satisfaction with life.

When analyzed individually by participant, it was noted that 299 (97.4%) participants were within the high satisfaction indicator, with only eight (2.6%) classified as low satisfaction. It should also be noted that among the pregnant women identified with low satisfaction, the intrinsic dimension predominated as a negative factor, followed by the social dimension.

In relation to psychopathological symptoms, the assessment carried out using the Brief Symptom Inventory enabled us to understand the nature of various disorders that can be aggravated or develop during pregnancy, as illustrated in Table 1.

**Table 1:** Psychopathological symptoms in pregnant women. Juazeiro do Norte, CE, Brazil, 2019.

Variable	Mean	Standard Deviation
Somatization	4.6059	+4.0330
Obsessive-compulsive behavior	5.6450	+4.5676
Interpersonal sensitivity	2.7134	+3.4540
Depression	3.9121	+4.5102
Anxiety	4.1042	+4.0336
Hostility	4.0749	+3.7035
Phobic anxiety	2.9381	+3.5377
Paranoid ideation	3.3322	+3.8865
Psychoticism	3.0684	+3.5980
General Symptom Index	3.8216	+2.9316
Total Positive Symptoms	38.4919	+15.5784
Positive Symptom Index	7.3628	+7.0154

It can be seen that the psychopathological symptom with the highest mean in pregnant women is linked to behavior, especially obsession and compulsion, while interpersonal sensitivity has the lowest mean.

Table 2 shows the correlation between the findings of the analysis of the independent variables of well-being and life satisfaction and the dependent variable of psychopathological symptoms.

**Table 2:** Pearson's correlation test of independent and dependent variables and dependent variables. Juazeiro do Norte, CE, Brazil, 2019.

Variables	Brief Symptom Inventory	
	Pearson test	p-value*
SHALOM-ideal	-0.501	<0.01
SHALOM-real	-0.496	<0.01
BMLSS	-0.664	<0.01

Caption: \* Pearson's correlation test; SHALOM: Spiritual Health and Life-Orientation Measure; BMLSS: Brief Multidimensional Life Satisfaction Scale.

In relation to spiritual wellbeing in its ideal dimension, there is a moderate negative correlation with the presence of psychopathological symptoms, meaning that an increase in symptoms is related to a decrease in wellbeing still in its idealistic realm. There is also an equal correlation with spiritual well-being in the real dimension.

Statistical significance is also present between the variables satisfaction with life and the presence of psychopathological symptoms, where the correlation was classified as negative and moderate, i.e. a higher satisfaction level is related to a lower psychological illness level.

The supplementary material for the research, as recommended by Open Science, can be found in the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior repository: [https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id\\_trabalho=10721860](https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id_trabalho=10721860).

## DISCUSSION

The spiritual well-being of the participants in this study was classified as harmonious and indicates that there is a similarity between the idealizations and experiences of pregnant women. It appears that achieving harmony between mind-body and desire-reality becomes habitual with the practice of health-related spirituality<sup>18</sup>. Thus, intrinsic harmony is the result of constant clashes based on the conceptualization of ideas that stimulate health<sup>19</sup>.

In relation to life satisfaction, the intrinsic and social dimensions contribute to pregnant women's low satisfaction. Specifically, it is pointed out that the support of a support network provides comfort in the face of challenging situations during pregnancy. However, there is still a lack of awareness of the importance of the participation of pregnant women and their peers in educational moments and care processes related to pregnancy<sup>20</sup>. This reality hinders the strengthening of the support network for the care of the maternal-fetal binomial during the pregnancy-puerperium cycle<sup>21</sup>.

This study also showed a moderate negative correlation between spiritual well-being and the presence of psychopathological symptoms. Spiritual well-being has implications for mental health and protects against minor psychiatric disorders: non-psychotic psychiatric symptoms, insomnia, fatigue, irritability, depression, anxiety, forgetfulness, difficulty concentrating and somatic problems<sup>22</sup>. Furthermore, considering the spiritual dimension in the practice of mental health care for pregnant women points to the potential for improving autonomy, mental support and comfort, strengthening the maternal-fetal bond and favorable birth outcomes<sup>6</sup>.

In general, psychopathological symptoms are influenced by individual experiences and understanding the context of life is fundamental for mental health care management<sup>23</sup>. In this study, there was a greater representation of pregnant women with psychopathological symptoms of obsessive-compulsive behavior. However, The American College of Obstetricians and Gynecologists<sup>24</sup> recommends screening and diagnosing the following mental health conditions during pregnancy: depression, anxiety, bipolar disorder, acute postpartum psychosis and suicide symptom.

In the context of prenatal care, depression compromises maternal and child well-being and is a risk factor for postpartum depression<sup>25</sup>. It has also been pointed out that experiencing stress and anxiety in pregnant women is a risk factor for premature birth and low birth weight. In addition, intrauterine exposure of the fetus to maternal cortisol contributes to the development of behavioral, emotional and cognitive problems in childhood<sup>26,27</sup>. In view of this, spiritual well-being protects the pregnant woman and contributes to her coping positively with pregnancy<sup>3</sup>.

In relation to the negative and moderate correlation between satisfaction with life and the presence of psychopathological symptoms, a cross-sectional study carried out in Peru showed that sociodemographic factors and the perception of poor health are associated with lower satisfaction with life<sup>28</sup>. Thus, the feeling of satisfaction with life is also a determining factor for mental health<sup>29</sup> and is shown in the individual as a better performance in family and interpersonal relationships and the attainment of financial resources<sup>28</sup>.

This information corroborates the data from the study carried out on international labor legislation related to maternal health, which indicates the need for work, income and overcoming obstacles during pregnancy as important factors in establishing life satisfaction. In this respect, the barriers imposed by society on pregnant women make it difficult for them to access the job market, even though a pregnancy diagnosis does not prevent them from being hired or justify their dismissal<sup>30</sup>.

## Study limitations

The study's limitations lie in the lack of stratification of women by gestational trimester, which would allow for a better understanding of each pregnancy stage. Data was also collected in the public health service, which does not show the reality of pregnant women attending private institutions. The study also focused on the urban population, which is

justified by the fact that almost all of the municipality's population lives in this area. Furthermore, no causal relationships were established.

It is suggested that further studies be carried out using statistical analysis to explore the multidimensionality of the outcomes and to consider relevant mediating or moderating factors in the occurrence of mental disorders in pregnant women.

## CONCLUSION

The presence of psychopathological symptoms in pregnant women is correlated with a decrease in spiritual well-being and satisfaction with life. This highlights the need for interventions focused on promoting pregnant women's mental health and spiritual well-being. In addition, care strategies with subjective approaches can contribute to regulating life satisfaction in pregnant women and benefit their coping with pregnancy.

These findings represent advances in the field of nursing, with the presentation of results that support the importance of comprehensive care in prenatal care to promote pregnant women's mental health.

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Conceptualization, E.C.M. and G.S.Q.; methodology, E.C.M. and G.S.Q.; software, E.C.M. and G.S.Q.; validation, E.C.M., N.E.F.S. and G.S.Q.; formal analysis, E.C.M., N.E.F.S. and G.S.Q.; investigation, E.C.M.; resources, E.C.M.; data curation, E.C.M., N.E.F.S. and G.S.Q.; manuscript writing, E.C.M.; writing – review and editing, N.E.F.S. and G.S.Q.; visualization, E.C.M., N.E.F.S. and G.S.Q.; supervision, G.S.Q.; project administration, E.C.M. and G.S.Q. All authors read and agreed with the published version of the manuscript.

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