



## CORRELATION BETWEEN QUALITY OF LIFE AND DEPRESSION DURING THE WORK OF NURSES IN PUBLIC HOSPITALS IN THE STATE OF SERGIPE

### ORIGINAL ARTICLE

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### ABSTRACT

Depression can influence the quality of work life (QWL) of nurses and the quality of care provided, in view of this, it is salutary to understand the situation of depression, the quality of work life of nurses. **Objective:** To verify the correlation between quality of work life and depressive symptoms, during the activities carried out by nurses in public hospitals in the State of Sergipe. **Methods:** A questionnaire was prepared by the researchers to obtain the sociodemographic characteristics of the nurses, as well as the Hospital Anxiety and Depression Scale (HADS) and the Quality of Work Life Assessment Instrument (QWL) were applied to a sample of 221 nurses. **Results:** Among those surveyed, 32.1% had symptoms of mild to moderate depression. The mean QWL was 8.70. The mean scores for the QWL dimensions were 8.92 for institutional appreciation and recognition, 6.14 for working conditions, safety and remuneration, 11.75 for identity and professional image, and 10.66 for integration with the team. A negative correlation was also observed between depression and global QWL and in its dimensions, through Spearman's linear correlation test. **Conclusion:** Depression symptoms negatively interfere with nurses' quality of work life in general and in all dimensions.

Keywords: Depression, Nurses, Quality of work life.



## 1. INTRODUCTION

Nursing is one of the vital work components of the health system, and for this reason, it constitutes, due to the characteristics inherent to its professional performance, one of the most demanded categories, physically and emotionally, making it, in this way, more conducive to the development of depression<sup>1</sup>.

For the existence of quality of work life and quality of services provided by nursing, it is important that the mental health of these professionals is not compromised<sup>2,3</sup>. Rios, Barbosa and Belasco<sup>4</sup> stated that the higher the depression scores, the lower the quality of life indices.

The assessment of the Quality of Work Life (QWL) of nurses, as well as the causes that lead to the emotional exhaustion of these workers, can lead to the elaboration of actions and practices that lead to the improvement of their health situation and working conditions<sup>5</sup>. Zavala Klijin<sup>6</sup>, reported that knowing the QWL indices and the intervening factors, it will be possible to integrate the needs of the professional and the objectives of the health institutions, adapting them, so that there is no burden for any of the parties.

In this way, the quality of work life is essential in any work area, to attract and maintain an integrated team, as well as to reduce turnover, since it is perceived that QWL affects the worker in his social, executive, managerial and cultural context, and consequently the organization of which he is a part of<sup>7</sup>.

The present study aimed to verify the correlation between quality of work life and depressive symptoms, during the activities carried out by nurses, in public hospitals in the State of Sergipe.

## 2. MATERIAL AND METHODS

This is a descriptive, correlational, cross-sectional study with a quantitative approach and approved by the Research Ethics Committee (REC) of the Federal University of Sergipe (UFS) in accordance with the guidelines of Resolution 466/2012 of the National Health Council/Ministry of Health, with ZIP code number - 875.559.



Nurses who were active in the institution, who worked in direct patient care, agreed to participate in the research voluntarily by signing the Free and Informed Consent Form were included and those nurses who were on vacation and away from work at the time of data collection were excluded. , those who reported a history of depression before entering the job market or were undergoing treatment for depression; held a management position or did not participate in direct patient care; or did not accept to participate in the research. The questionnaires were distributed at the end of each shift and collected on the following shift. There were five declared refusals, which were justified because the questions were considered quite personal, and, even though they were clarified and given guarantees of the confidentiality of the answers, they still maintained their refusals, in addition to these, 51 forms were not returned. It was also found that 16 of the total returned were incomplete to the point of being unfeasible to generate the scores necessary to obtain reliable results. Obtaining a total of 221 clinical nurses belonging to the four institutions that authorized data collection.

The study sample consisted of 221 nurses working in the morning, afternoon and night shifts who work in 4 public hospitals in the State of Sergipe. Data were collected from November 2015 to April 2016, through three self-administered questionnaires that addressed sociodemographic and professional data of nurses (age, gender, professional development, service time, number of employment relationships, shift, weekly workload, satisfaction with remuneration, length of service in the hospital area and in the institution where they work). The Hospital Anxiety and Depression Scale (HADS)<sup>8</sup> was used, in its translated and validated version for Portuguese, by Botegal *et al.*,<sup>9</sup>. This scale has 14 items, of which seven are aimed at assessing anxiety (HADS-A) and seven for depression (HADS-D). Each of the items on the scale can be scored from zero to three, on a Likert-type scale, whose global score on each subscale ranges from 0 (zero) to 21 points, in which the higher the score, the greater the probability of developing a depression disorder. The score 8 is used as cutoff points for the interpretation and categorization of scores, where it is considered: 0-7 normal, 8-10 mild symptoms, 11-15 moderate symptoms and  $\geq 16$  severe symptoms of depression

The QWL Assessment was carried out using the instrument created and validated by Kimura, Carandina<sup>10</sup>, which consists of two parts, in which the first part evaluates the



level of satisfaction and the second the level of importance, through 31 items, contained in each of the parts of the instrument, to which numerical values from 1 to 5 points are assigned, on a Likert-type scale, in which 1 corresponds to very dissatisfied and not at all important, and 5 corresponds to very satisfied and very important. By weighting the combined results (satisfaction x importance), the average QWL scores are obtained, globally and for the 4 dimensions that make up the quality of work life index (QWLI), which are: appreciation and institutional recognition; working conditions, security and remuneration; professional identity and image and integration with the team.

Data were analyzed descriptively and analytically. Numerical variables were observed for normality distribution using the Shapiro-Wilk test. In cases where the assumptions were met, the findings were presented using a mean ( $\bar{x}$ ) and standard deviation, otherwise through median (Md) and its quartiles ( $1^{\circ}$ - $3^{\circ}$ ).

Categorical variables were presented using absolute and relative frequency. Correlation analyzes were performed using Spearman's Linear Correlation test, where an  $r$  from 0 to 0.39 was considered weak, from 0.40 to 0.69 moderate and from 0.70 to 1.00 strong.

For unanswered items on the HADS scale, questionnaires with 1 or more unanswered items were excluded, as recommended by authors who claim that a single unanswered item interferes with the result found. Lost data were not accepted for the QWL instrument, since obtaining the final score and its domains were accounted for by crossing the responses of the two parts of the questionnaire (satisfaction x importance), and thus obtaining a reliable result.

### 3. RESULTS

320 questionnaires were distributed among a population of nurses from four public hospitals in the State of Sergipe. Of these nurses: five refused to answer; 16 questionnaires were incomplete; 51 were not returned; and 27 nurses carried out their activities in two of the researched hospitals. This resulted in a sample of 221 (69.06%) nurses, with an average age of 32 years (28-38), most of them female, with



professional training of the *lato sensu* type, working the night shift, with more than 36 hours a week, having two or more employment relationships and being dissatisfied with the perceived remuneration (**Table 1**).

Table 1 – Sociodemographic characteristics of nurses working in four public hospitals in the State of Sergipe

Variables	n (%)	Mean (sd*)	Variation
<b>Sex</b>	26 (11.8)		
Male	195 (88.2)		
Female			
<b>Age</b>		33.71±5.73	22-58
<b>Professional development</b>			
Lato senso	76 (34.4)		
Stricto senso	2 (0.9)		
Graduation	143 (64.7)		
<b>Work shift</b>			
Morning	76 (34.4)		
Afternoon	60 (27.1)		
Night	85 (38.5)		
<b>Number of employment relationships</b>			
One	99 (44.8)		
Two or more	122 (55.2)		
<b>Satisfaction with remuneration</b>			
Satisfied	22 (9.9)		
Unsatisfied	199 (90.1)		
<b>Working hours (hours)</b>		37.33±4.74	20-60
<b>Service time in the hospital area (years)</b>		7.93±4.8	0.08-35
<b>Service time at the institution where you work (years)</b>		4.63±4.0	0.08-29

\*sd = standard deviation

Fonte: Autores (2023).

It was found that among these nurses, 67.4% did not have symptoms of depression, while 32.6% showed symptoms of the disease. As for the degree of severity, of those

who had signs of depression, after reclassification of points according to HADS, it was found that depression was mostly mild (**Table 2**).

Table 2 – Degree of severity of depression symptoms among nurses in four public hospitals in the State of Sergipe

Degree of Severity	n (%)	Gap
Leve	49 (22.5)	8-10
Moderada	21 (9.6)	11-15
Severa	1 (0.5)	≥16

Fonte: Autores (2023).

**Table 3** shows the values of the global QWL assessment scores and their dimensions. It can be observed that the lowest scores were found in the dimensions of appreciation and institutional recognition, working conditions, security and remuneration. The latter had the worst score.

Table 3 - QWL assessment scores and its dimensions in nurses

QWL and its dimensions	Mean (dp*)	Variation
<b>Global QWL</b>	8.70±2.20	1.77-17.84
<b>Institutional Appreciation and Recognition</b>	8.92±2.63	0.5-18.00
<b>Working Conditions, Safety and Remuneration</b>	6.14±2.63	0-20
<b>Professional Identity and Image</b>	11.75±2.85	0-20
<b>Integration with the Team</b>	10.66±2.54	1.25-18.75

\*sd = standard deviation

Fonte: Autores (2023).

The **table 4** shows the correlation obtained through Spearman's linear correlation test. It can be noted that there was a negative correlation between the depression score and the QWL dimensions.

Table 4. Correlation of depression measures with QWL and its dimensions among nurses in four public hospitals in the State of Sergipe

	QWL	D1	D2	D3	D4
<b>Depression</b>	-0.341	-0.355	-0.219	-0.277	-0.364

Fonte: Autores (2023).

Spearman's linear correlation test of the variables depression with quality of work life (QWL) and the dimensions: D1- Institutional appreciation and recognition, D2 - Working Conditions, security and remuneration, D3 - Identity and professional image, D4 - Integration with the team.



## 4. DISCUSSION

The working conditions of nursing professionals have been widely discussed for several years. According to Silva *et al.*<sup>11</sup> and Miranda *et al.*<sup>12</sup>, excessive exposure to stress, work overload, unhealthy working conditions, absence of professional autonomy, requirements from colleagues, intimate conflicts, insecurity in the elaboration of their tasks, institution requirements and wages incompatible with the demands exerted, has brought an increase in depression among these health professionals.

In our study, the frequency of depression symptoms among nurses was 32.6%. Similar findings were also found by Yoon, Kim<sup>13</sup>, Gong *et al.*<sup>14</sup>, who reported values of 37.7% and 38% respectively. Gao *et al.*<sup>15</sup> and Li *et al.*<sup>16</sup>, found a frequency of 58.82% and 61.7%. To Schmidt, Dantas, Marziale<sup>17</sup>; Letvak, Ruhm, McCoy<sup>18</sup>; Haseli, Ghahramani, Nazari<sup>19</sup>; Eldevik *et al.*<sup>20</sup>; Mealer *et al.*<sup>21</sup>; Mejri *et al.*<sup>22</sup>; Ribeiro *et al.*<sup>23</sup>; Okechukwu *et al.*<sup>24</sup> these depression frequencies ranged from 6.3% to 29.6%.

The assessment of global QWL, in the present study, had a score of 8.70. Kimura, Carandina<sup>10</sup>, using the same research instrument to assess QWL, found an average QWL score of 15.81. We believe that this difference in the mean scores may have occurred due to the fact that these authors carried out their work in private institutions. Bragard *et al.*<sup>25</sup>, reported that the QWL score obtained by the Quality of Work Life Systemic Inventory (QWLSI) among nurses and physicians working in rural areas was 19.6 on average. We assume that this finding differs from those found in this current study, either due to the type of instrument used in the evaluation and/or because it was applied in a work environment different from the environment experienced by our nurses.

In the present study, the dimensions: appreciation and institutional recognition; working conditions, safety and remuneration, the average scores of quality of life were 8.92 and 6.14 respectively, that is, much lower when compared to the studies by Kimura, Carandina<sup>10</sup>, which found scores of 15.2 and 14.2. However, in the image and professional identity domain, both authors reported the highest QWL averages. This conclusion leads us to assume that the nurses in the present investigation would be



aware of the role they play in society and the importance and contribution of their work to the population. Lee *et al.*<sup>26</sup> evaluating Chinese nurses with a QWL scale, similar to the one used in the present study, found low average scores for QWL in 3 out of 6 dimensions, of which two were related to working conditions, security and remuneration, and integration with the team. Dissatisfaction with important areas of work, the low prospect of improvement in these areas, which often do not depend only on the nurse to be achieved, such as recognition and appreciation of their actions, improvement in remuneration and the conditions in which they carry out their activities, seem to reflect dissatisfaction with QWL.

In the correlation between depression and QWL in nurses, a negative correlation was found. This finding was noticed when the correlation between depression and the dimensions of appreciation and institutional recognition was particularly analyzed; working conditions, safety and remuneration; integration with the team and professional identity and image. These findings were similar to those reported by Jho<sup>27</sup>; Rusli, Edimamsyah, Naing<sup>28</sup>; Rios, Barbosa, Belasco<sup>4</sup> and Schmidt *et al.*<sup>29</sup>, when assessing depression and quality of life in nursing technicians and assistants, also found a negative correlation between depression and QWL, which allowed deducing that the lower the depression scores, the better the quality of life. Mohammadi *et al.*<sup>7</sup>, while studying nurses in an intensive care unit, found no correlation between depression and quality of life.

## 5. CONCLUSION

There is a negative correlation between symptoms of depression and quality of life at work for nurses in general and in all its dimensions. Symptoms of anxiety and depression contribute to a decrease in quality of life at work, as the presence of symptoms in nurses negatively reflects on their performance at work and perception of the aspects that involve it. Furthermore, we understand that some sociodemographic and professional characteristics, such as age, number of employment relationships, satisfaction with remuneration and work shift are factors that influence quality of life at work for better or worse. The results presented here are very relevant for the development of preventive measures, especially within the hospital environment,



which is a stressful place full of factors that predispose to depression and anxiety. The recognition of the agents involved in QWL, associated with resources and actions appropriate to the needs of each hospital, can develop quality of life at work and reduce the emergence of illnesses or their worsening in workers. It is hoped that this study can contribute to the development of actions that prioritize measures to promote quality of life at work and prevent the emergence of depression symptoms.

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## NOTE

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