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# Quality of life related to the occupational environment of the state of Maranhão penitentiary offices

**ABSTRACT** | Objective: to identify the level of quality of life according to the occupational environment of the Prison Units. Method: Cross-sectional, qualitative, non-probabilistic research, with 104 participants, in the State of Maranhão, between June 2019 and July 2020. Results: Most participants are 84% male, where 63% have higher education. The quality of life domain had a better average of 54,7. While the occupational environment domain had the worst average of 35,8. When comparing the genders with the best scores in the 5 domains, there was equality between the two genders. Conclusion: The results demonstrate that prison officers have a good level of quality of life in all domains of the QVS-80. However, the occupational environment domain had the worst scores, proving to be a point that needs improvement, since these servers spend a good part of their lives in these places.

**Keywords:** Quality of Life; Penitentiary; Public health.

**RESUMEN** | Objetivo: Identificar el nivel de calidad de vida acorde al ambiente ocupacional de las unidades penitenciarias. Método: Investigación transversal, cualitativa, no probabilística, con 104 participantes, en el estado de Maranhão, entre junio de 2019 y julio de 2020. Resultados: La mayoría de los participantes son 84% hombres, donde el 63% tiene educación superior. El dominio de la calidad de vida tuvo un mejor promedio de 54,7. Mientras que el dominio del entorno ocupacional tuvo el peor promedio de 35,8. Al comparar qué géneros obtuvieron las mejores puntuaciones en los 5 dominios, hubo igualdad entre los dos géneros. Conclusión: Los resultados demuestran que los funcionarios de prisiones tienen un buen nivel de calidad de vida en todos los dominios del QVS-80. Sin embargo, el dominio de ambiente ocupacional tuvo las peores puntuaciones, demostrando ser un punto que necesita mejora, ya que estos servidores pasan buena parte de su vida en estos lugares.

**Palabras claves:** Calidad de vida; Penitenciario; Salud Pública.

**RESUMO** | Objetivo: identificar o nível de qualidade de vida segundo o ambiente ocupacional das Unidades Prisionais. Método: Pesquisa transversal, qualitativa, não-probabilista, com 104 participantes, no Estado do Maranhão, entre junho de 2019 a julho de 2020. Resultados: A maioria dos participantes são do sexo masculino 84%, onde 63%, possuem ensino superior. O domínio qualidade de vida apresentou melhor média 54,7. Enquanto o domínio ambiente ocupacional apresentou a pior média 35,8. Quando realizada a comparação entre quais gêneros apresentaram os melhores escores nos 5 domínios, houve igualdades entre os dois gêneros. Conclusão: Os resultados demonstram que os agentes penitenciários possuem bom nível de qualidade de vida em todos os domínios do QVS-80. Porém, o domínio ambiente ocupacional, apresentou os piores escores, demonstrando ser um ponto que necessita de melhorias, uma vez que estes servidores passam boa parte do tempo de suas vidas nestes locais.

**Palavras-chaves:** Qualidade de Vida; Penitenciária; Saúde Pública.

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## INTRODUCTION

Quality of life is a multi-dimensional entity that includes repercussions in the most varied physical, psychological, social and environmental dimensions, not paying attention to the absence of illnesses. Therefore, instruments for the assessment of this entity are needed, such as the Quality of Life and Health Assessment Questionnaire (QVS-80), which is an instrument that seeks to assess the quality of life and health of workers in the most diverse occupational environments.<sup>1</sup>

Considered one of the greatest scholars on the theme Quality Work Life (QWL), Walton defines it as being

based on the humanization of work and the social responsibility of the institution, involving the understanding of the individual's needs and aspirations, through restructuring the design of positions and new ways of organizing work, combined with the formation of work teams with greater autonomy and improvement in the organizational environment. Thus, the difficulty of workers in reconciling QoL and work activities is highlighted, especially when the work scenario is the Brazilian penitentiaries.<sup>2</sup>

The prison guard is the professional who performs a high-risk public service through the criminal treatment, custody and surveillance of the person arrested in the prison system.

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Given that there is an adequate profile to exercise this profession, such as having aptitude, responsibility, initiative, honesty, loyalty, discipline, emotional balance, leadership, empathy, among others.<sup>3</sup>

Although the profession of Prison Agents is directly linked to the preservation of public order, the stigma involved in the work institution, in addition to the high level of stress to which they are subjected, affects the social interaction of these professionals, which leads to the development of diseases. As it is considered the second most dangerous profession in the world, as it presents, at the same time, risk of dangerousness and unhealthy conditions, PAs experience high loads of stress and risk, thus these factors cause the physical and mental impairment of these individuals.<sup>4</sup>

It is understood that, when professionals are exposed to minimum working conditions to deal with people without freedom, where they have their basic needs reduced, they are more vulnerable to unhealthy repercussions on their physical and mental health. Which consequently leads to an aggravation in their quality of life and professional life.<sup>5</sup>

Therefore, this work aims to identify the level of quality of life according to the occupational environment of the Prison Units in the state of Maranhão, according to the vision of the Penitentiary Agents who work in these places.

## METHODS

A cross-sectional survey with a qualitative approach was carried out, as it sought to familiarize the researcher with the object of interest and application of knowledge. A quantitative approach was used in relation to classification.

The study took place with a total of 104 prison officers in the state of Maranhão, a state located in the Northe-

ast region of Brazil. The sample was defined using non-probabilistic elements, based on predefined inclusion and exclusion criteria. The inclusion criteria were to be a prison officer and to work directly in the prison environment. For exclusion, the following criteria were used: Prison Agents Prison Agents who do not have an email, to send the questionnaire online, those who for some reason are unable to respond to the survey or who do not agree to participate in it, not signing the Informed Consent Form (ICF).

Data collection took place between June 2019 and July 2020, after approval by the Research Ethics Committee (CEP) of the State University of Maranhão (UEMA), according to CAAE: 21016619.0.0000.5554/no. opinion: 3.628.072, as deliberated by the National Health Council, in CNS resolution 466/12. For data collection, a questionnaire called the Quality of Life and Health Assessment Questionnaire (QVS-80) was used. The questionnaire was sent to respondents via a link through their email, through an online platform called Google Forms.

This questionnaire was applied online, through a platform called Google Forms. Where, the QVS-80 was made available through a link, and consequently sent through WhatsApp, to all directors of the Prison Units of Maranhão, who sent it to the groups of agents in each unit where they work.

To characterize the environment in which they work, the Quality of Life and Health Assessment Questionnaire (QVS-80) was used. This instrument consists of eighty questions, 67 of which were structured on the Likert scale and divided into four domains, which are: Health domain (Health); Domain of physical activity (PA), Domain of the occupational environment (OA) and Domain of perception of Quality of Life (QL).

Data were tabulated and analyzed using Microsoft Excel, where descrip-

tive analyzes of central tendency were used, such as mean and median, in addition to measures of dispersion such as standard deviation (SD), variance, maximum, minimum, frequency and percentage values. Only after these analyses, the findings were discussed based on the literature produced on the subject.

To give reliability to the study, a data analysis was performed using Cronbach's Alpha. In addition, aiming at equalizing the steps of calibration of the study evaluators and standardizing the process of assessing agreement, the calculation of the Intraclass Correlation Coefficient (ICC) was performed.

Since each QVS-80 question is on a 5-point Likert scale, with the numbers given in ascending order. After completing the questionnaire, the values were added and normalized to a scale of 0-100 points for each domain. Where the score of this instrument classified the instrument as: excellent ( $\geq 75$  points); good ( $\geq 50$  and  $< 75$  points); regular ( $\geq 25$  and  $< 50$  points); bad ( $\leq 25$  points).<sup>6</sup>

## RESULTS

When carrying out the description of the items, the researchers obtained a total of 104 participants, of which 101 (97,1%) were valid, and only 3 (2,9%) were excluded. This demonstrates an excellent reliability result, since a validity index above 95% was obtained. Taking into account Cronbach's Alpha based on standardized items, the result reaches 0.903, in a total of 80 items evaluated, that is, the 80 questions of QVS-80. Considering that an index of 0,81 to 1,0 is almost perfect, it is understood that the questionnaire had a good reliability index. In addition, aiming at equalizing the steps of calibration of the study evaluators and standardizing the process of assessing agreement, the intraclass correlation

**Table 1 – Characterization of Prison Agents participating in the study, according to gender, marital status and educational level. Caxias, MA, Brazil, 2020.**

Characterization	Maranhão	
	N = 104	%
<b>Sex</b>		
Male	87	84
Female	17	16
<b>Marital Status</b>		
Single	60	59
Stable Union	40	39
Divorced	2	3
Widow (er)	2	3
<b>Education level</b>		
Elementary school	4	5
Incomplete High School	1	2
Complete High School	8	9
Graduation	65	63
Post-graduation	26	25

Source: Authors, 2021.

**Table 02 – Description of the quality of life (QVS-80) of prison officers, according to the mean, standard deviation, minimum and maximum. Caxias, MA, Brazil, 2020.**

Domains (QVS-80)	Maranhão				
	Mean	Standard Deviation	Minimum	Maximum	Median
Health	36,4	7,9	19	60	36
Physical activity	45,6	9,1	28	67	43,5
Environment Occupational	35,8	7,4	13	67	36
Quality of Life	54,7	13,9	28	96	53,5

Source: Authors, 2021. Caption: A value of zero corresponds to the most negative result (worst quality of life) and 100 corresponds to the most positive result (best quality of life).

**Table 03 – Distribution of the mean quality of life scores (QVS-80) of prison officers in the state of Maranhão, according to gender and marital status. Caxias, MA, Brazil, 2020.**

Variáveis	Domains				General quality of life
	Health	PA	OE	QL	
<b>Sex</b>					
Male	36,3	45,8	35,6	54,2	64
Female	37,2	44,7	34	56,9	64
<b>Marital Status</b>					
Single	36,3	44,7	35,2	53,3	68
Stable Union	36,2	47,3	36,4	55,5	65
Divorced	33,5	43,5	37	54	62

coefficient was calculated, which had an excellent result (0,874).

The data in table 01 show that most participants are male (84%), this is due to the fact that most prison officers belong to this gender. Regarding marital status, most PAs are single, this number corresponded to 59%.

When asked what the level of education of the same 63%, of these have higher education, and only 5% have primary education, these participants who have primary education are also the agents with the longest service time, since the first competitions for this category did not require higher education. It is also noticed that 25% of the members of the study have a postgraduate degree, which reveals that despite being in a stable job, they are still concerned about qualifying.

In the second table, the four domains of the questionnaire were evaluated in five different variables: mean, standard deviation, minimum, maximum and median. Given the data, it is clear that the participants obtained better numbers in the quality of life domain, which is the main domain assessed by the QVS-80, where it was obtained: an average of (54,7); standard deviation of (13,9); minimum of (28); maximum of (96) and median of (53,5).

The occupational environment domain, among all the others, presented the variables with the lowest values, which were successively: mean (35,8); standard deviation (7,4); minimum (28); maximum (67) and median (36).

In the table above, a survey was carried out which sought to assess which sex and which marital status had the best quality of life score in the four domains of the QVS-80. The data reveal that in the general quality of life, which is the sum of the four domains, both males and females had the same score, that is, 64 points, which on the Likter scale, means a good quality score of life.

Widow (er)	46	47,5	39,5	87	66
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Source: Authors, 2021. Caption: A value of zero corresponds to the most negative result (worst quality of life) and 100 corresponds to the most positive result (best quality of life). Physical Activity (PA); Occupational Environment (OE); Quality of Life (QL).

When analyzing the marital status, singles demonstrate a better QoL of life with 68 points. The divorced (a), in turn, showed a worse score, but still considered good, taking into account the scale and Likter.

## DISCUSSION

Regarding the data in table 01, referring to gender, these numbers are similar to a study carried out in João Pessoa, state of Paraíba, where the number of male Prison Officers is greater than that of females. In the survey in question conducted in 2010, the number of male agents was 80,8%. These numbers are given for two reasons, the fact that it is a work aimed at the male population, since the intimate searches of the inmates include the removal of their clothing and especially the limitation in some competitions, where the public notice has the limit number of women to enter certain competitions.<sup>7</sup>

Another similarity is in relation to marital status, where in the same survey mentioned in the previous paragraph 48,1% declare to be single and only 9,6% divorced. Similar numbers to this study, where 59% are single and only 3% divorced. These data are of great relevance, since marital status directly influences the quality of life, which directly affects the way professionals work, especially when it comes to the second most dangerous profession in the world.<sup>8</sup>

In table 02, the numbers show that the participants had good scores in all domains. However, in the "occupational environment" domain, these numbers were lower when compared to the others. This goes against what the authors Luxen et al. say, who in their research report that prison offi-

cers work in an environment that is vulnerable to situations of mental health risk due to the development of the most varied symptoms, and that this happens due to nature, they present themselves, that is, an environment of human suffering, hostilities, interpersonal conflicts and the impacts of institutional limits on professional practice.<sup>5</sup>

Perceivable to the findings found in the previous paragraph, in a study that analyzed the intervening factors in the quality of life of nursing workers on night shifts. The study authors reveal that working time at the institution and working time at night negatively influence the QoL of workers. This is similar to the long working hours of Prison Officers, where they work for long periods at night, sometimes without rest, due to the little effect and fear of some mutiny in the prisons.<sup>9</sup>

The occupational environment domain, on the other hand, had the lowest scores since it is composed of numerous facets that address physical safety, home environment, financial resources, in addition to social and health care. Since there is a stigma associated with the work institution and the high level of stress these workers are subjected to, it leads to the development of diseases.<sup>10-11</sup>

It is observed that in table 03, in the general quality of life, both genders showed a good quality of life, since both had 64 points, which in the Likert scale is considered good. When the marital status of the participants was taken into account, the result was also good, as they all scored above 62 points, which is also considered good, considering the same scale. A similar result was found in a study carried out in the city of Cajazeiras-PA, in which the authors obtained a score of 71.07

points, using the WHOQOL-Bref life assessment questionnaire. Where the data showed a good level of QoL, they attributed the result as satisfactory, when relating the importance attributed to the work of prison officers, which indicates job satisfaction, an occupational environment assessed by the study.<sup>12</sup>

It is understood that, although the general finding is considered good in all domains assessed by the questionnaire, it is important to adopt a QOL program at work, aimed exclusively at prison officers, which aims to improve the satisfaction and well-being of these servers. These measures will improve productivity and performance, as it is closely linked to the level of satisfaction in the work environment, thus achieving more organizational goals, which are conditioned to individual interests, especially when taking into account the competitive market that got up today.<sup>7</sup>

The occupational environment is psychologically demanding, since working conditions in prisons are precarious due to overcrowding, the unhealthy environment and lack of structure. Adding to this the lack of protective materials, handcuffs, uniforms, weapons and sufficient staff. Added to this is the negligence of tax agencies and society itself to offer better working conditions to prison officers.<sup>13-14</sup>

For greater reliability of the study, in addition to calculating Cronbach's Alpha, the authors equalized the stages of the study and standardization of agreement, through the ICC, which presented an excellent result. This coefficient is one of the most used tools for measuring the reliability of measures and can be used to measure the homogeneity of two or more measures, as in the case of this research, it is also interpreted as the measure of the proportion of total variability attributed to the measured object, since

it is based on a variance ratio, where classical methods are not always able to estimate these components.<sup>15</sup>

## CONCLUSION

The findings of this research conducted with prison officers in the state of Maranhão, indicated as positive in all domains involving the questionnaire applied to it. Thus, it is highlighted that the general objective of this study was achieved. Once it sought to identify the level of quality of life of these workers related to their occupational environment.

To give greater reliability to this research, the authors used two methods: Cronbach's Alpha, which inferred that the instrument used in the research was relevant, and finally, the Intra-class Correlation Coefficient, which aimed to standardize the entire process and evaluation of its agreement, thus guaranteeing an excellent degree of reliability to the study.

Referring to the quality of life of

the Prison Agents, it is clear that they have a good level of quality of life, even when they correlate the domains contained in the questionnaire, with gender, marital status or education le-

vel, where all of them have good scores, according to the Likert scale used in this research.

However, as it was to be expected, the domain "occupational environment", even though it presented itself as good, had the worst scores. Which suggests that interventions are made in order to promote an occupational environment that is safe and thus can promote the health of this class, with a view to further improving the living and working conditions and consequently the quality of life of prison officers.

The results of this study can contribute to the management of the penitentiary system, with a view to recognizing the scores with the lowest scores, by providing a basis for the management to adapt them, in order to ensure a better work infrastructure, thus, more efficient results, as regards the Prison Agents' QoL of life, they are expected to be achieved from the improvement of the occupational environment in which they are inserted. 🌱

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