

## QUALITY OF LIFE OF NURSES FROM THE MOBILE EMERGENCY CARE SERVICE

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### ABSTRACT

**Objective:** to evaluate the quality of life of nurses from the Mobile Emergency Care Service of the Federal District (Brazil) and to identify the domains that influenced this assessment.

**Method:** an observational, descriptive, cross-sectional and quantitative study, with data obtained from 123 nurses who answered a questionnaire developed and structured in order to know sociodemographic and clinical variables and with the application of the World Health Organization Quality of Life Instrument Bref, to assess the quality of life. The data were submitted to descriptive statistics and inferential statistics.

**Results:** most of the nurses were women, aged between 20 and 40 years old, married, with a specialization degree and without any employment relation with another institution. Most (72.36%) considered their quality of life good or very good and were satisfied or very satisfied with their health (65.03%). The environment domain was the worst evaluated. A significant correlation was observed between the social relations ( $p=0.049$ ) and environment ( $p=0.035$ ) domains when correlated with the gender variable. The women rated their social relations and environment better than the men.

**Conclusion:** the knowledge produced by this investigation may support the design of strategies that enable reducing the difficulties related to the life and work of nurses of the Mobile Emergency Care Service. Actions in this direction may contribute to the improvement of health, well-being and quality of life of the professionals and will have positive effects on the quality of health care provided to the population.

**DESCRIPTORS:** Quality of life. World health organization. Nursing. Nurses. Emergency medical services.

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# QUALIDADE DE VIDA DE ENFERMEIROS DO SERVIÇO DE ATENDIMENTO MÓVEL DE URGÊNCIAS

## RESUMO

**Objetivo:** avaliar a qualidade de vida de enfermeiros do Serviço de Atendimento Móvel de Urgência do Distrito Federal (Brasil) e identificar os domínios que influenciaram nessa avaliação.

**Método:** estudo observacional, descritivo, transversal e quantitativo, com dados obtidos de 123 enfermeiros que responderam a um questionário desenvolvido e estruturado para conhecer variáveis sociodemográficas e clínicas e com aplicação do *World Health Organization Quality of Life Instrument Bref*, para avaliar a qualidade de vida. Os dados foram submetidos à estatística descritiva e inferencial.

**Resultados:** os enfermeiros eram em sua maioria mulheres, entre 20 a 40 anos, casadas, com nível acadêmico de especialização e sem vínculo empregatício com outra instituição. A maior parte (72,36%) considerou sua qualidade de vida boa ou muito boa e estava satisfeita ou muito satisfeita com a saúde (65,03%). O domínio meio ambiente foi o pior avaliado. Observou-se correlação significativa entre os domínios relações sociais ( $p=0,049$ ) e meio ambiente ( $p=0,035$ ) quando correlacionados à variável sexo. As mulheres avaliaram melhor suas relações sociais e o meio ambiente em relação aos homens.

**Conclusão:** o conhecimento produzido por essa investigação poderá subsidiar o delineamento de estratégias que permitam diminuir as dificuldades relacionadas à vida e ao trabalho de enfermeiros do Serviço de Atendimento Móvel de Urgência. Ações nesse sentido poderão contribuir para a melhoria da saúde, do bem-estar e da qualidade de vida dos profissionais e terão efeitos positivos sobre a qualidade da assistência à saúde prestada à população.

**DESCRITORES:** Qualidade de vida. Organização mundial da saúde. Enfermagem. Enfermeiros. Serviços médicos de emergência.

# CALIDAD DE VIDA DE LOS ENFERMEROS DEL SERVICIO DE ATENCIÓN MÓVIL DE EMERGENCIAS

## RESUMEN

**Objetivo:** evaluar la calidad de vida de los enfermeros del Servicio de Atención Móvil de Emergencias del Distrito Federal (Brasil) e identificar los dominios que influenciaron en esa evaluación.

**Método:** estudio de observación, descriptivo, transversal y cuantitativo, en el que se obtuvieron datos de 123 enfermeros que respondieron a un cuestionario desarrollado y estructurado para descubrir variables sociodemográficas y clínicas y en el que se aplicó el instrumento *World Health Organization Quality of Life Instrument Bref* para evaluar la calidad de vida. Los datos se sometieron a estadística descriptiva y inferencial.

**Resultados:** en su mayoría, los enfermeros eran mujeres de 20 a 40 años de edad, casadas, con un nivel académico de especialización y sin ningún vínculo de empleo con otras instituciones. La mayor parte (72,36%) consideraron que su calidad de vida era buena o muy buena y se mostraron satisfechas o muy satisfechas con su salud (65,03%). El dominio del medio ambiente fue el peor evaluado. Se observó una correlación significativa entre los dominios de las relaciones sociales ( $p=0,049$ ) y del medio ambiente ( $p=0,035$ ) al correlacionarlos con la variable del sexo. Las mujeres evaluaron mejor que los hombres sus relaciones sociales y el medio ambiente.

**Conclusión:** los conocimientos obtenidos gracias a esta investigación podrán ayudar a delinear estrategias que permitan reducir las dificultades relacionadas con la vida y el trabajo de los enfermeros del Servicio de Atención Móvil de Emergencias. Implementar acciones en este sentido podrá contribuir a mejorar la salud, el bienestar y la calidad de vida de los profesionales y tendrá efectos positivos sobre la calidad de la atención a la salud que se presta a la población.

**DESCRIPTORES:** Calidad de vida. Organización mundial de la salud. Enfermería. Enfermeros. Servicios médicos de emergencia.

## INTRODUCTION

The Mobile Emergency Care Service (*Serviço de Atendimento Móvel de Urgência*, SAMU) is the mobile assistance component of the Emergency Care Network and aims to enable immediate response to the health demands of the population. Regulated by Ordinance No. 1010/GM, the main function of the SAMU is to order assistance as a form of rapid response to urgent demands, whether at home, at work or on public roads.<sup>1-2</sup>

According to Resolution No. 375/2011 (Brazil), the presence of nurses in pre-hospital care (PHC) and inter-hospital care in situations of known or unknown risk is indispensable. In this context, the professional assumed nursing responsibilities and coordination, continuing education and service management activities, as established by the SAMU statute and the Professional Exercise Law and Code of Ethics of the Nursing Professionals.<sup>3-5</sup>

High productivity is required from the nurse, associated with complex tasks to be performed in a short time, due to the care of victims in imminent danger of death.<sup>6-7</sup> In addition to these difficulties, there are the adversities resulting from acting in PHC, which include emotional tensions, inadequate working conditions, exposure to infections, contaminated biological material and chemicals, stress, hard to reach places and violence.<sup>8-10</sup> These factors may be responsible for situations of psychological, physical and emotional distress, and work-related stress.<sup>8-10</sup> Such conditions influence negatively the quality of life (QoL) of the health professionals, as the difficulties they face may have stressful effects on the health and the care provided.<sup>9-10</sup>

From this perspective, having work as one of the determinants of health,<sup>9</sup> the nurses included in PHC may present different perceptions about their QoL, since this assessment is obtained from multiple factors, including the following: family, environment, culture, leisure, education, government policies, and one's own conditions, such as health and work conditions, as stress.<sup>11</sup>

The World Health Organization (WHO) group of scholars, The World Health Organization Quality of Life – WHOQOL Group (1994) defined QoL as: “an individual's perception of his or her position in life in the context of the culture they live in, and in relation to their goals, expectations, standards and concerns”.<sup>11</sup> A subjective, multidimensional concept that addresses positive and negative elements in the assessment.<sup>11</sup>

From the definition of QoL, it was possible to build assessment instruments applicable to various populations, with different sociocultural realities. The first tool created was (WHOQOL 100). Subsequently, the abbreviated version of this instrument emerged, the *World Health Organization Quality of Life Instrument Bref* (WHOQOL-BREF). This instrument was translated and validated for use in Brazil by a group of researchers from the Federal University of Rio Grande do Sul<sup>12</sup> and has been widely used in various areas of knowledge,<sup>13</sup> including research studies with nurses.<sup>14-15</sup>

There are some studies in the literature<sup>16-17</sup> that assess the QoL of nurses working in PHC. However, few use the WHOQOL-BREF as an evaluation tool, which demonstrates the importance of this investigation. In this context, the objective of this research was to evaluate the QoL of nurses of the Federal District's Mobile Emergency Care Service (*Serviço de Atendimento Móvel de Urgências do Distrito Federal*, SAMU DF) and to identify the domains that positively and negatively influence this assessment.

## METHOD

This was an observational, exploratory, descriptive, and cross-sectional study with a quantitative approach, conducted with nurses from the SAMU DF (Brazil) in 2016.

The nurses of the SAMU DF, as professionals working in the PHC, have an operational base in the Prehospital Support Centers (*Núcleos de Apoio Pré-Hospitalar*, NAPHs), distributed in the

administrative regions of the DF, in the Teaching and Research Center (*Núcleo de Ensino e Pesquisa*, NEP), in the Trauma Center and in the Neurocardiovascular Center (*Hospital de Base do Distrito Federal*, HBDF), in emergency hospital care and network support, at the Emergency Center of Guar ( *Hospital Regional do Guar*, HRG) and in the specialized care in psychiatric emergencies at the Mental Health Center (*Núcleo de Sade Mental*, NUSAM).

The study included nurses who were effective members of the service, enrolled at the Health Secretariat of the Federal District (*Secretaria de Estado de Sade do Distrito Federal*, SES/DF) and registered at the Regional Nursing Council of the Federal District (*Conselho Regional de Enfermagem do Distrito Federal*, COREN/DF) as higher education professionals. Thus, the study population had 160 invited professionals, among which: nine were on maternity or health leave, two were no longer working at the SAMU DF, five refused to participate in the survey and 16 were not found, totaling 128 respondents. Of these, five had the questionnaires invalidated (missing values), leaving 123 nurses in the sample studied.

The professionals were invited to participate in the study during a course offered by the SAMU DF, in which the researchers had the opportunity to talk about the investigation along with an e-mail individually sent. Data collection was performed in a reserved place, during a day and time scheduled with the professionals, taking into consideration the scale and availability, aiming at not interfering in the dynamics and routine of the service. The completion of the instrument was followed by the researcher and performed only after proper research guidelines and signing of the Free and Informed Consent Form (FICF).

In order to know the sociodemographic and clinical aspects, a specific instrument was created with data regarding the following: gender, age, place of birth, origin, marital status, number of children, working time at the SAMU/DF, PHC Center in which he/she works, other employment (or two enrollments at the SES/DF), time of graduation, postgraduate completion, presence of chronic disease and continuous use of medication.

In order to assess QoL, WHOQOL-BREF was used. The instrument contains 26 questions, of which 24 are distributed in four domains: physical, psychological, social relations and environment. The other two questions relate to quality of life and health in general.<sup>18</sup>

The domains are represented by facets referring to each question. The questions were formulated for a Likert type response scale, assessed by the following response categories: 1) intensity, represented by the range - nothing to extremely, 2) ability, nothing to completely, 3) frequency, never to always and 4) rating, very dissatisfied to very satisfied or very bad to very good.<sup>13</sup> This instrument assesses different social and cultural backgrounds and has gained special prominence in the health field due to the need for broader group and community assessments.<sup>14</sup>

Data was analyzed using the *Statistical Package for Social Sciences* (SPSS) statistical program, version 24.0. The statistical analyses performed included descriptive analyses of frequency, central tendency and dispersion, inferential analyses, comparison among domains and correlations.

From the values found for each of the 24 facets that make up the domains, the mean values of the answers were obtained. The values indicate 1 as the worst answer and 5 as the best answer, which made it possible to verify which facets received positive and negative evaluations. For uniformity and comparison purposes, the mean values presented in the facets related to pain and discomfort, dependence on treatments or medications and negative feelings were analyzed in an inverted manner, according to the guidance from the WHO.<sup>11</sup> The calculations of the QoL assessment scores were made separately for each of the four domains, since a global QoL score is not conceptually provided in the instrument. The raw score was transformed to a scale of 4 to 20, according to the SPSS syntax proposed by the WHO.<sup>11</sup> Thus, the minimum score for each domain was 4 and the maximum was 20, so that the higher the score, the more positive the assessment of the domain.

To verify if there were differences among the domains, the Friedman ANOVA test was adopted. When proceeding with the correlations among the WHOQOL-BREF domains and the sociodemographic and clinical variables, the Mann-Whitney U test was used in the analyses with two independent samples and the Kruskal-Wallis test in the analyses with more than two independent samples.

## RESULTS

### Sociodemographic and clinical profile

The characterization of the studied sample demonstrated that the SAMU/DF team of nurses was composed mostly of women (74%) aged between 20 and 40 years old, married (63.4%), working at least for 4 years (41.5%) at the SAMU and without any other employment relation (65.9%).

Regarding the workplace, 43.9% worked in the mobile services, 38.2% in fixed emergencies like the Trauma center and the Neurocardiovascular Center (HBDF) and the Emergency Center of Guar (HRG) and 17.9% in the regulation, management or education areas.

With regard to academic training, a large part of the studied population (90.2%) had graduated more than 5 years ago. Most (70%) had a specialization degree, while few had a residency (5.7%), a master (5.7%) and a doctorate (0.8%).

Regarding health, it was observed that 15.4% had some chronic disease and 30.1% used some type of medication continuously.

### QoL assessment

The WHOQOL-BREF instrument has two general questions. The first addresses quality of life and highlighted that 72.36% of the nurses consider it good or very good. The second assesses satisfaction with the health conditions, and showed that 65.03% of the respondents were satisfied or very satisfied with their health. Table 1 summarizes the WHOQOL-BREF domain and facet scores.

**Table 1** – Distribution of the mean values, standard deviations, minimum and maximum values and amplitude of the domains and facets of the WHOQOL-BREF of the nurses working in the SAMU DF. Brasilia, DF, Brazil. 2016. (n=123)

Domains/Facets	Mean	Standard deviation	Minimum value	Maximum value	Amplitude
Quality of life perception (Q1)	3.73	0.82	1	5	4
Satisfaction with health (Q2)	3.60	0.88	1	5	4
Physical domain	15.20	2.4	9.1	20.0	10.9
Pain and discomfort (Q3)	1.94	0.2	1	4	3
Dependence on treatments or medications (Q4)	1.88	0.88	1	4	3
Energy and fatigue (Q10)	3.40	0.74	2	5	3
Locomotion capacity (Q15)	4.37	0.70	2	5	3
Sleep and rest (Q16)	3.18	1.07	1	5	4
Capacity for activities of daily life (Q17)	3.66	0.76	2	5	3
Capacity for work (Q18)	3.83	0.77	1	5	4
Psychological domain	15.04	2.39	9.33	19.33	10.00
Positive feelings (Q5)	3.44	0.81	1	5	4

**Table 1 – Cont.**

<b>Domains/Facets</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Minimum value</b>	<b>Maximum value</b>	<b>Amplitude</b>
Spirituality/religion/personal beliefs (Q6)	4.23	0.83	1	5	4
Thinking, learning, memory and concentration (Q7)	3.51	0.80	1	5	4
Body image and appearance (Q11)	3.82	0.90	1	5	4
Self-esteem (Q19)	3.80	0.87	2	5	3
Negative feelings (bad mood, despair, anxiety and depression) (Q26)	2.27	0.90	1	5	4
<b>Social relations domain</b>	<b>14.60</b>	<b>2.83</b>	<b>8.00</b>	<b>20.00</b>	<b>12.00</b>
Personal relations (Q20)	3.74	0.81	2	5	3
Sexual activity (Q21)	3.57	1.02	1	5	4
Social support (Q22)	3.61	0.80	2	5	3
<b>Environment domain</b>	<b>13.88</b>	<b>2.20</b>	<b>9.00</b>	<b>19.00</b>	<b>10.00</b>
Physical security and protection (Q8)	3.72	0.78	2	5	3
Physical environment (climate, noise, pollution, traffic and attractions) (Q9)	2.92	0.84	1	5	4
Financial resources (Q12)	3.31	0.79	2	5	3
Opportunities of acquiring new information and skills (Q13)	3.46	0.77	2	5	3
Recreation and leisure opportunities (Q14)	3.15	0.90	1	5	4
Home environment (living conditions) (Q23)	4.03	0.84	1	5	4
Health and social care: availability and quality (Q24)	3.16	1.14	1	5	4
Transportation (Q25)	3.97	0.84	2	5	3

In Table 1, it is important to highlight the facets that negatively influenced the evaluation. Pain and discomfort, and dependence on treatments and medications, presented scores with mean values of 1.94 and 1.88, respectively. The negative feeling facet had a mean value of 2.27, while the physical environment (climate, noise, pollution, traffic and attractions) scored a mean value of 2.92.

Data normality was tested using the Shapiro-Wilk and Kolmogorov-Smirnov tests (Table 2). In this analysis, a p-value >0.05 was expected for the null hypothesis to be maintained, as it would mean that data distribution was not different from a normal curve. However, it was observed that all the significance values of the Shapiro-Wilk test were below 0.05 and, in the Kolmogorov-Smirnov test, only the environment domain showed a distribution adherent to the normal curve (p-value=0.052). Thus, as they did not meet the normality assumption, non-parametric tests were used to compare the domains and to the groups established by the sample characterization data.

**Table 2** – Analysis of the Kolmogorov-Smirnov and Shapiro Wilk normality assumption of the domains that compose the WHOQOL-BREF. Brasilia, DF, Brazil. 2016. (n=123)

Domains	Kolmogorov- Smirnov			Shapiro Wilk		
	Statistic*	Df.†	Sig. ‡	Statistic*	Df.†	Sig.‡
Physical domain	0.117	123	0.001	0.974	123	0.190
Psychological domain	0.121	123	0.001	0.967	123	0.004
Social relations domain	0.129	123	0.001	0.969	123	0.006
Environment domain	0.112	123	0.001	0.979	123	0.052
Global	0.241	123	0.000	0.908	123	0.000

\*Statistic: significance level; †DF.: total sample field; ‡Sig.: significance value.

To verify if there was any difference among the domains, the Friedman ANOVA test was adopted, which confirmed the hypothesis (p-value <0.001). To verify how this difference occurred, the Post-hoc test was performed with a verification of each of the comparison pairs, which means that each of the dimensions was compared with the others, using p-value adjustment (dividing the value of 0.05 by the number of comparisons): (0.05/6=0.008) in order to avoid inflating the Type I error (Table 3).

**Table 3** – Post-hoc comparison among the WHOQOL-BREF domains. Brasilia, DF, Brazil. 2016. (n=123)

Sample 1	Sample 2	Test Statistic	Sig.*	Sig. Difference† (1-2)
Environment domain	Social relations domain	0.532	0.001	0.007
Environment domain	Psychological domain	0.883	0.001	0.001
Environment domain	Physical domain	0.923	0.001	0.001
Social relations domain	Psychological domain	0.351	0.032	0.194
Social relations domain	Physical domain	0.391	0.017	0.102
Psychological domain	Physical domain	0.400	0.806	1.000

\*Sig.: significance value; †Sig. Difference: significance value when comparing the domains.

Table 3 shows that the environment domain was the worst evaluated. The attributed score was significantly lower than the physical (p-value < 0.001), psychological (p-value < 0.001) and social relations (p-value=0.007) domains. However, there was no statistically significant difference among the other dimensions (physical, psychological and social relations).

The correlation analysis was performed among the WHOQOL-BREF domains and the sociodemographic and clinical profile variables of the nurses. Ten different correlations were made (gender, age, marital status, academic level, time since graduation, place of work, length of service, other employment, presence of chronic disease and continuous use of medication) using the Mann-Whitney U test in the analyses with two independent samples and the Kruskal-Wallis test in the analyses with more than two independent samples. A significant correlation was observed (Table 4) only in the social relations (p=0.049) and environment (p=0.035) domains when comparing men and women, that is, when the independent variable was the participant's gender. There was no statistical significance in the other correlations.

**Table 4** – Mann-Whitney U test, Wilcoxon W, Z, Asymp. Sig. tests of correlation among gender and the WHOQOL-BREF domains. Brasilia, DF, Brazil. 2016. (n=123)

Tests	Physical domain	Psychological domain	Social relations domain	Environment domain	General
Mann-Whitney U test	1347.000	1204.000	1183.500	1143.000	1216.500
Wilcoxon W Test	1908.000	1765.000	1744.500	1704.000	1777.500
Z test	-.961	-1.843	-1.967	-2.106	-1.765
Asymp. Sig. (2-tailed) *	.336	.065	.049	.035	.078

\*Asymp. Sig. (2-tailed): correlation significance among the domains.

With the data from Tables 4 and 5, it is possible to state that women (14.88; 8.00-20.00) better evaluated their social relations ( $p = 0.049$ ) compared to men (13.78; 8.00-18.67). Similarly, women (14.17; 10.50-19.00) also had a better environment domain assessment ( $p=0.035$ ) compared to men (13.07; 9.00-17.50).

**Table 5** – Correlation between gender and the social relations and environment domains of WHOQOL-BREF. Brasília, DF, 2016. (n=123)

Domain	Gender	Values	Statistics
Social relations	Male	Significance	13.78
		Minimum value	8.00
		Maximum value	18.67
	Female	Significance	14.89
		Minimum value	8.00
		Maximum value	20.00
Environment	Male	Significance	13.07
		Minimum value	9.00
		Maximum value	17.50
	Female	Significance	14.17
		Minimum value	10.50
		Maximum value	19.00

## DISCUSSION

The sociodemographic profile of the nurses working in the SAMU DF corroborated other studies<sup>3,19–20</sup> in which the majority of the nursing workforce is female. A survey conducted by the Oswaldo Cruz Foundation and by the Federal Nursing Council<sup>21</sup> showed that, of the 11,354 nurses in the DF, 85.6% are women.

The number of male nurses found at the SAMU DF (26.0%), however, was above the percentage of men in the profession registered at the COREN/DF (14.1%). This fact may be related to the growing number of men in the profession.<sup>3</sup> A study<sup>20</sup> asserted the significant and tending entry of men in the nursing workforce in Brazil, representing 14.4% of all the registered professionals in Brazil.

The results regarding the participants' age are similar to those found in the literature,<sup>4,19,20–22</sup> signaling nursing as a mostly young profession, whose majority of workers are under 40 years old.<sup>22</sup>

Regarding the level of education, the research on the profile of the nurses from the SAMU in the state of Santa Catarina showed less significant data than those found in this study, since 3.2% of the evaluated population had a master's degree and no one had a doctorate.<sup>3</sup>

The participants' perception of quality of life and health showed positive values of 72.36% and 65.03%, respectively. This is contrary to the findings of a study<sup>9</sup> that evaluated the health and disease process of urgency and emergency public service professionals. This expressed the difficulty of nursing in dealing with work and the physical and psychological distress experienced in this environment. Of those evaluated, 24.2% were nurses and half of them, reflecting on the relation between work and health, reported that work weakens health. These nurses evaluated their QoL negatively and related this measurement to occupational stress.<sup>8-9</sup>

Although the respondents assessed health satisfactorily, low scores were observed in the facets of pain and discomfort and dependence on treatments and medications. Research studies that discuss the daily life, lifestyle and occupational stress of emergency service workers<sup>6,8,23-24</sup> showed that, in addition to the constant pain and discomfort resulting from work distress, these professionals face difficulties regarding maintenance of their own health,<sup>6,23-24</sup> the lack of physical and psychological support being evident,<sup>6</sup> and the workers themselves having the responsibility to adopt measures that minimize the negative impacts on their quality of life.<sup>24</sup>

In the psychological domain, the negative feelings facet showed that 84.53% of the nurses reported episodes of bad mood, despair, anxiety and depression. These symptoms may be related to the work environment and to the activities performed in the SAMU<sup>6</sup>. A study<sup>25</sup> that reported on risk situations in the context of the SAMU showed that 92.9% of the nursing professionals investigated suffered some kind of psychological aggression, in contact with relatives of victims in imminent danger of death.

The environment domain was the worst evaluated, with a mean value of 13.88. The physical environment facet (climate, noise, pollution, traffic and attractions) accumulated the lowest mean value (2.92). A study,<sup>26</sup> using the WHOQOL-BREF, conducted with nurses in urgent and intensive care settings, showed a similar result: a mean value of 13.97, the lowest among the analyzed dimensions.

Another research<sup>27</sup> that compared the QoL of nurses in different places of work and levels of care complexity in a university hospital, regarding urgencies, revealed similar values to this study in the environment dimension, with a mean value of 10.31. Comparing to the other sectors of the institution, intensive care unit and ward, with mean values of 10.47 and 10.44 respectively, this domain was also the worst evaluated. A survey<sup>28</sup> conducted with nurses from the emergency department of a private hospital, showed the physical domain as worst evaluated, with a mean value of 12.00.

By correlating the sociodemographic and clinical variables with the WHOQOL-BREF domains, a statistical significance was obtained in relation to gender in the social relations and environment domains. The women rated these domains better when compared to the men. This is in line with a study that revealed a better mean value attributed by women in all domains of the WHOQOL-BREF evaluation.<sup>28</sup> Regarding the social relations, the positive measurement may be related to the management, communication and conflict resolution skills necessarily developed by female nurses.<sup>29</sup>

The use of a generic QoL assessment tool allowed us to know the multiple dimensions involved in the assessment and to verify positively and negatively evaluated facets. However, this methodology was unable to detect specific conditions, such as the influence of training and continuing education, as well as the adequacy or satisfaction with the career chosen as influencing nurses' QoL.

## CONCLUSION

The facets of pain and discomfort, dependence on treatments and medications and physical environment (climate, noise, pollution, traffic and attractions) were negative influences on the QoL of the nurses from the SAMU/DF, as they had worse scores. These are linked to the social and working life and together can trigger negative feelings, which have a direct influence on the degree of satisfaction/dissatisfaction showed by nurses with their QoL.

The improvement of the QoL of these professionals can have a positive influence on the humanization process of care, as the well-being of the nurses is reflected in their way of caring. The participants need support to cope with the various situations that interfere with their QoL, especially those that are linked to the work process, and to the proximity to suffering and death. This need is evidenced by the presence of negative feelings that permeated the daily lives of the nurses from the SAMU/DF.

When considering the work environment of these professionals, with often inadequate physical space, service on public roads or at the patient's home, with insufficient resources, facing the crisis that affects the Unified Health System (*Sistema Único de Saúde*, SUS), with poor security and a retribution considered unsatisfactory by the category, it is possible to understand some of the reasons that justify the environment domain being the worst evaluated. There is a need for better management, structuring and adequacy plans for the insertion and working conditions of these workers.

The knowledge produced by this research may support the design of strategies that enable to reduce the difficulties related to life and work of the nurses from the SAMU. Actions in this direction may contribute to the improvement of health, well-being and QoL of the professionals and will have positive effects on the quality of the health care provided to the population.

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## NOTES

### ORIGIN OF THE ARTICLE

Extracted from the graduation work - Quality of life of the nurses from the mobile emergency service of the Federal District (*Serviço de Atendimento Móvel de Urgências do Distrito Federal, SAMU/DF*): a study with WHOQOL-BREF, presented to the Nursing School of the Health Sciences School of the *Universidade de Brasília*, in 2017.

### CONTRIBUTION OF AUTHORSHIP

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Discussion of the results: Cabral CCO, Bampi LNS, Araújo AF, Queiroz RS.

Writing and/or critical review of content: Cabral CCO, Bampi LNS.

Review and final approval of the final version: Cabral CCO, Bampi LNS, Vaz TS.

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### APPROVAL OF RESEARCH ETHICS COMMITTEE

Approved by the Research Ethics Committee of the Health Sciences School of the *Universidade de Brasília* and the Foundation of Teaching and Research in Health Sciences of the State Secretariat of the Federal District, under Certificate of Presentation for Ethical Approval No. 35712814.6.0000.0030.

### CONFLICT OF INTERESTS

There is no conflict of interest.

### HISTORICAL

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