

## Health Self-Perception and Associated Factors Among Nursing Professional Team

Autopercepção da Saúde e Fatores Associados Entre Profissionais da Equipe de Enfermagem

La Auto-Percepción de Salud y Factores Asociados en los Profesionales del Equipo de Enfermería

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### ABSTRACT

**Objective:** The study's goal has been to verify the self-perception of health and its associated factors among the professionals of the nursing team of a university hospital. **Methods:** It is a cohort study with a quantitative approach, which has been performed among nursing professionals from a university hospital in Montes Claros city, Minas Gerais State, Brazil. Data were collected through a structured questionnaire in the second half of 2012. They were analyzed in the statistical software Predictive Analytics Software (PASW/SPSS®) version 18.0 for Windows®. **Results:** The professionals have demonstrated satisfaction with their health, since the majority has declared positive health self-perception. It was observed that health has been better evaluated by those who had a work partner, were day shift workers and reported satisfaction with their work ( $p < 0.05$ ). **Conclusion:** There is a need for creating strategies that can provide better health and work conditions for the nursing professional team, especially for professionals who presented characteristics associated with a negative self-perception of health.

**Descriptors:** Work, Occupational health, Nursing.

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## RESUMO

**Objetivo:** Verificar a autopercepção da saúde e os fatores associados entre os profissionais da equipe de enfermagem de um hospital universitário.

**Métodos:** Trata-se de um estudo com abordagem quantitativa, de caráter transversal, realizado entre profissionais da enfermagem de hospital universitário de Montes Claros - Minas Gerais, Brasil. Os dados foram coletados através de um questionário estruturado no segundo semestre de 2012. Foram analisados no software estatístico Predictive Analytics Software (PASW/SPSS)<sup>®</sup> versão 18.0 para Windows<sup>®</sup>. **Resultados:** Os profissionais demonstraram satisfação com a sua saúde, visto que a maioria declarou autopercepção positiva da saúde. Observou-se que a saúde foi mais bem avaliada por aqueles que tinham companheiro, atuavam no turno diurno e relataram satisfação com o trabalho ( $p < 0,05$ ). **Conclusão:** São necessárias estratégias que proporcionem melhores condições de saúde e trabalho para a equipe de enfermagem, sobretudo para os profissionais que apresentaram características associadas a uma autopercepção negativa da saúde.

**Descritores:** Trabalho, Saúde do trabalhador, Enfermagem.

## RESUMEN

**Objetivo:** Investigar la percepción subjetiva de la salud y los factores asociados entre el personal profesional de enfermería de un hospital universitario. **Métodos:** Se trata de un estudio con un enfoque cuantitativo de corte transversal, realizado entre los profesionales de enfermería del hospital universitario Montes Claros - Minas Gerais, Brasil. Los datos fueron recolectados a través de un cuestionario estructurado en la segunda mitad de 2012. Se analizó el software estadístico software de análisis predictivo (PASW / SPSS) versión 18.0 para Windows<sup>®</sup>. **Resultados:** Los profesionales expresaron su satisfacción con su salud, ya que la mayoría dijo positivos para la salud autopercebida. Se observó que la salud fue mejor evaluado por los que tenían una pareja, que trabajaba en el turno de día y reportaron satisfacción en el trabajo ( $p < 0,05$ ). **Conclusión:** Se necesitan estrategias para proporcionar una mejor salud y de trabajo para el personal de enfermería, especialmente para los profesionales que tenían características asociadas con una percepción negativa de la salud.

**Descriptores:** Trabajo, Salud laboral, Enfermería.

## INTRODUCTION

The work impresses on human life meanings that go beyond the economic, pass through the social, family and cultural spheres, providing man with an understanding of himself and his way of influencing society. However, the transformations caused in the world of work, starting from the industrial revolution, favored the development of a disharmony in the relation between man and work.<sup>1,2</sup>

In Brazil, work-related injuries account for approximately 25% of injuries due to external causes treated in emergency services and more than 70% of Social Security's accidental benefits.<sup>3</sup>

Because of this disharmony, the study of the health/illness process of the professional takes into account three basic factors of this process, as follows: the working conditions, the work process itself and the general living conditions.<sup>4</sup> In many situations, the professional lives in a double journey in order to improve its financial situation. However, this is detrimental to social life, since

it makes difficult to get along with friends, family and lead to self-care negligence, which implies suffering and illness. Because of the activities accumulation, one does not find neither conditions or time to exercise and have leisure moments. Frequently, the worker either takes care of the house or is engaged in another work during day off periods from the first job, exposing itself to the risk of the psychic, physical overload and other aggravations.<sup>5</sup>

Thus, with regard to the nursing team, it is essential to consider that the work developed by this category, in general, presents some peculiarities inherent in the profession, such as working constantly with critical illness situations, which place the individual at the limit between life and the death; constant contact with biological materials; besides the exercise of the profession in the nocturnal period, developing an inversion of the circadian cycle of the worker. Therefore, these characteristics lead to professional susceptibility to stress and consequent illness.<sup>6</sup>

Assessing the health of those working in the health sector is important in the workforce around the world. There is growing recognition that precarious injuries, disabilities and working conditions among health workers compromise their quality of life and may affect the quality of health care provided to the population.<sup>7,8</sup>

Self-assessment of health is another parameter that is increasingly used in national and international epidemiological research as a 'proxy' for either the real state or health objective, effectively predicting mortality and the decline in the individual's functional health.<sup>8</sup> The more severe the suffering or the disease, the more objective the self-assessment becomes, despite being a subjective measure. It expresses the experience of exposure to the disease and knowledge about its causes and consequences, and is related to psychological factors such as well-being, satisfaction, physical sufficiency, and control over life quality.<sup>9</sup>

In health work it is also necessary to think about the care of the caretaker, since the worker, when satisfied, performs his work with pleasure, positively affecting those who need it. Likewise, when one is not satisfied, it may have difficulty exercising its activities, having a negative impact on health care. Accordingly, it is understood that the work expresses individual interests and desires of the worker. Institutions should seek strategies that promote pleasure in the work place, favoring listening and exchange actions that may have repercussions in the construction of a favorable climate in the work environment, and also in the worker health as a whole.<sup>10</sup>

Given the above, when considering the injuries to which the nursing professional team is constantly exposed and its possible impact in the life of this professional category, we sought to know the perception of these workers regarding their own health and how they practice self-care.

## OBJECTIVE

The present study had the aim of verifying the self-perception of health and its associated factors among the professionals of the nursing team of a university hospital.

## METHODS

It is a cohort study with a quantitative approach. The scenario was the Hospital Universitário Clemente de Faria (HUCF), located in *Montes Claros - Minas Gerais*, Brazil. To determine the sample size, the following formula was used:

$$n = Z^2 \cdot p \cdot q \cdot N \\ E^2(N-1) + Z^2 \cdot p \cdot q$$

Where:

n: is the total sample size

z: standard normal variable score (for the confidence level of 95%,  $z = 1.96$ )

p: proportion of the phenomenon occurring in the population = 0.5

q: complementary of p (proportion of the phenomenon not occurring in the population) = 0.5

N: population size = 572

E: maximum error allowed (estimation error) = 0.025

After the sample calculation, we obtained a total of 418 nursing professionals, considered independent of the working time in the institution or in another one that is working concomitantly to the hospital researched, or even has already worked. For participation in the study, these 418 professionals were randomly drawn from the service scales and lists available in the human resources sector.

Nursing professionals who did not consent to participate in the study were excluded from the study; who were absent from the workplace after the third attempt to apply the questionnaire; who were on maternity and/or medical leave and vacation; and those professionals exonerated from the nursing function or in function deviation.

Data were collected in the second half of 2012 over four months. Structured questionnaires were applied during visits to hospital sectors. The instrument of data collection was submitted to the pre-test, with nursing professionals from another hospital.

Data were analyzed in the statistical software Predictive Analytics Software (PASW/SPSS®) version 18.0 for Windows®. Subsequently, they were submitted to specific statistical treatments. Initially, a descriptive analysis and characterization of the dependent variable was made. Then, a bivariate analysis was performed between the dependent variable (health self-perception) and sociodemographic, occupational and behavioral variables. To verify the existence of an association between the dependent variable and the covariates, the Pearson chi-square test was performed, assuming a level and significance of  $p \leq 0.05$ .

The study followed the ethical standards for research involving human subjects. It was authorized by the institution and the research project approved by the Research Ethics Committee of the Universidade Estadual de Montes Claros, by means of Legal Opinion No. 2882/2011. The professionals read and signed the Informed Consent Term.

## RESULTS

In this study, 395 nursing professionals have participated from the following categories: Nurses, Nursing Technician and Nursing Auxiliary. Among the study participants, 209 (52.3%) were over 34 years old, 290 (72.7%) were female, 225 (56.4%) had a partner, 190 (52.4%) had up to 14 years of study and 216 (54.8%) said they received more than two minimum salaries. Regarding job satisfaction, 319 (81.4%) professionals considered themselves satisfied.

In the population of this research, 301 (76.2%) were nursing technicians, 208 (53.4%) had up to eight years of nursing service time. Considering the working time in the hospital under study, 215 (54.0%) had up to four years of work. The professionals reported working in an effective regime (394, 28.7%). 201 (61.5%) professionals work having a weekly workload of up to 39 hours, and on the day shift there are 197 (50.6%) in service.

Another question analyzed was whether updates are made on subjects in their area of work, where 208 (53.3%) interviewees answered that they did not do update. The contact with sharps tools was also analyzed: 388 (97.5%) professionals reported positively.

Participants were asked whether they were vaccinated against hepatitis B, and 284 (71%) were vaccinated, 249 (67.1%) said they had not been tested for post-vaccination immunization against hepatitis B. They were invited to vaccinate when they entered the hospital 324 (88%) professionals. Regarding participation in discussions on vaccination against hepatitis B, 159 (54.3%) reported participating, and 180 (48.8%) reported participation in the discussion of worker health on prevention of occupational diseases.

Regarding condom use, 235 (62.8%) did not use it. Regarding syringe sharing, 359 (99.4%) reported never having shared. Among the professionals in the nursing team, 330 (82.9%) reported having a smoking habit, 198 (55.2%) reported drinking alcoholic beverages, 188 (47.5%) responded negatively to the practice of physical activity.

Among the participants, the majority (86.5%) classified their health as good. The self-perception of health as good has presented a statistically significant association with the marital status, being better evaluated by professionals who have intimate partner (Table 1).

**Table 1.** Characterization of the sample of nursing workers according to sociodemographic variables associated with their health self-perception, *Montes Claros, Minas Gerais, Brazil, 2012.*

Sociodemographic variables	Health self-perception				Value of <i>p</i> X <sup>2</sup> Pearson
	Good N	%	Bad N	%	
<b>Age</b>					
Less than 33 years old	176	89.0	31	11.0	0.014
More than 34 years old	170	85.0	21	15.0	
<b>Sex</b>					
Male	93	85.3	16	14.7	0.33
Female	252	87.5	36	12.5	
<b>Marital status</b>					
With partner	207	92.0	18	8.0	0.001
Without partner	138	80.2	34	19.8	
<b>Schooling in years of study</b>					
Up to 14 years	160	84.7	29	15.3	0.21
More than 14 years	155	89.1	19	10.9	
<b>Monthly income</b>					
More than 02 minimum wages	186	86.5	29	13.5	0.75
Up to 02 minimum wages	185	87.2	22	12.4	

Considering the occupational aspects, it was obtained an association between good self-perception of health and working during the day shift (Table 2).

**Table 2.** Characterization of the sample of nursing workers according to occupational variables associated with their health self-perception, *Montes Claros, Minas Gerais, Brazil, 2012.*

Occupational variables	Health self-perception				Value of <i>p</i> X <sup>2</sup> Pearson
	Good N	%	Bad N	%	
<b>Job position</b>					
Nurses	72	87.8	10	12.2	0.90
Nursing Technician	259	86.6	40	13.4	
Nursing Auxiliary	10	83.3	2	1.7	
<b>Time of profession</b>					
Up to 08 years	189	89.2	23	10.8	0.14
More than 08 years	154	83.7	30	16.3	
<b>Working time in the hospital</b>					
Up to 04 years	192	89.7	22	10.3	0.069
More than 04 years	152	83.5	29	15.8	
<b>Job regime</b>					
Stable	340	86.5	52	13.5	0.38
Hired	5	100.0	0	0.0	
<b>Weekly workload</b>					
Up to 39 hours	173	86.5	27	13.5	0.85
40 hours or more	109	87.2	16	12.8	
<b>Work shift</b>					
Daytime	117	89.8	20	10.2	0.02
Nighttime	100	88.5	13	11.5	
Daytime and nighttime	60	77.9	17	22.1	
<b>Update Course</b>					
Yes	152	84	29	16	0.08
No	186	89.9	21	10.1	
<b>Contact with sharps tools</b>					
No	08	80.0	02	20.0	0.51
Yes	336	87.0	50	13.0	

The Table 3 shows an association between the health self-perception and the following variables: smoking habits and job satisfaction.

**Table 3.** Characterization of the sample of nursing workers according to self-care variables associated with their health self-perception, *Montes Claros, Minas Gerais, Brazil, 2012.*

Self-care variables	Health self-perception				Value Pearson
	Good N	%	Bad N	%	
<b>Vaccinated against hepatitis B</b>					
Yes	224	86.5	38	13.5	0.7
No	102	87.9	14	12.1	
<b>Reason for non-vaccination</b>					
Justifiable reason	93	86.1	15	13.9	1.0
Unjustifiable reason	31	86.1	5	19.9	
<b>Underwent blood tests to see if he/she has become immune to hepatitis B</b>					
Yes	104	86.7	16	13.3	0.81
No	218	87.6	31	12.4	
<b>Condom use</b>					
Yes	117	84.8	15	15.2	0.30
No	207	88.5	27	11.5	
<b>Syringe sharing</b>					
Never	314	88.0	43	12.0	0.6
Rarely	0	100	0	0	
Yes	283	89.1	36	10.9	0.00
No	28	73.7	10	26.3	
<b>Drink alcohol</b>					
Yes	174	88.8	22	11.2	0.38
No	138	85.7	23	14.3	
<b>Physical Activity</b>					
Yes	151	88.8	19	11.2	0.34
No	159	85.5	27	14.5	
<b>Invited to vaccinate when admitted to hospital</b>					
Yes	281	87.3	41	12.7	0.49
No	40	90.9	4	9.1	
<b>Participates in discussions about worker health on occupational disease prevention</b>					
Yes	154	86.0	25	14.0	0.41
No	167	88.8	21	11.2	
<b>Participates in discussions about worker health on hepatitis B vaccination</b>					
Yes	136	86.1	22	13.9	0.90
No	116	86.6	18	13.4	
<b>Work satisfaction</b>					
Satisfied	290	91.2	28	8.8	0.0
Unsatisfied	48	66.7	24	33.3	

## DISCUSSION

The present study allowed the knowledge of the self-assessment of health among the nursing professionals of a university hospital and the factors associated with such perception.

The sociodemographic characteristics are similar to those observed in a study conducted in the city of *Campo Grande (Mato Grosso do Sul, Brazil)*, with 134 participants, which revealed a predominance of nursing technicians with 101 (75.4%) of the sample. Regarding the characteristics of the study population, the female gender (69.9%), the age group under 35 (40.2%) and those with a per capita family income of less than 1.5 minimum wages prevailed, 69 (53.9%). A predominance of workers with up to 14 years of schooling was observed, 96 (71.6%), and satisfaction was predominant among the interviewees, 104 (77.6%).<sup>8</sup>

A study developed with 592 nursing professionals from the Hospital Universitário de Santa Maria (Rio Grande do Sul, Brazil) showed that 222 (44.6%) were nursing technicians. As for the shift and the weekly workload, 199 (40%) worked at night, 311 (62.4%) had a workload of 36 hours per week, 111 (46.8%) had more than 14 years in the job.<sup>6</sup>

The information evidenced may be associated with the fact that nursing is mostly developed by the female sex, the study public is relatively young with a relatively little time of exposure to the physically and mentally demanding factors that influence job satisfaction, besides the fact that the work be predominantly diurnal.

A study performed at the *Hospital das Clínicas de Botucatu* from the *Universidade Estadual Paulista (São Paulo, Brazil)* having 149 subjects, ratifies the findings of this research: 139 patients (93.3%) had contact with sharps tools, 77.48 (52%) have stated that they do not update.<sup>11</sup> It is presumed that workers with lower knowledge and professional qualifications would be subject to more accidents, especially in contact with sharps, then causing health damage.

Regarding the immunization against hepatitis B, a similar situation was described in a study carried out in the Emergency Unit of the *Hospital Universitário de Vitória (Espírito Santo, Brazil)*, which had 42 professionals, and 30 (71.4%) stated that they had immunized and were not immunized. Immunological status was verified in 26 (61.9%).

Hepatitis B vaccination is recommended for healthcare professionals and students. It is important that healthcare institutions direct professionals to become aware of the hepatitis B vaccine and are also aware of the risk of contamination arising from possible accidental exposure. In a study carried out with employees of a university hospital in a city of *São Paulo*, 77.2% of the interviewees reported vaccination.<sup>13</sup> Another study performed in the city of *Belo Horizonte (Minas Gerais, Brazil)* found a prevalence of 85.6% of health workers vaccinated against hepatitis B.<sup>14</sup>

The encouragement to the knowledge of the hospital worker in relation to their health, specifically in the approach of occupational accidents, occupational diseases and prevention, should be part of the behaviors employed in the teaching and health institutions, especially when the low adherence to the test is observed post-vaccination, a method capable of demonstrating the immunity acquired by immunization.

The updated both care and knowledge in sharps tools is critical to avoiding accidents. Thus, the institution is responsible for the applicability of biosafety in the activities of nursing professionals, through the adaptation of human and material resources, provision of personal protection equipment, incentive to permanent education, and adoption of hygiene and safety measures in the workplace. A study shows that health institutions that offer refresher courses offer their collaborators a positive self-assessment of health.<sup>11</sup>

This study showed a worrying reality, since the habit of smoking, having unprotected sex and not practicing physical activity, which predominated among professionals, are situations that are harmful to health. This rea-

lity can be explained by a low knowledge, since a great majority is not updated about the health of the worker. Additionally, having an intimate partner leads to trust in the partner and consequently can lead to the non-use of condoms. Also, long and strenuous workdays may be responsible for the low practice of physical activity.<sup>15,16</sup> There is a great protective effect of physical activity on the occurrence of health disorders. Physical activity has a positive impact on health, preventing diseases such as hypertension, dyslipidemias, diabetes, among others.<sup>7</sup>

A research conducted in the South triangle of Minas Gerais State highlighted that being a young adult and having a stable relationship is associated with a better perception of quality of life, similarly to that identified in the present research. Maintaining a stable relationship can usually mean a bonus in life. The affection between the couple generates positive feelings and thoughts, better self-esteem and, in general, the problems of life are often better managed if they are shared with the partner.<sup>17</sup>

Corroborating the results of this research, in an investigation carried out in the hospital of the city of *Araxá (Minas Gerais, Brazil)* it was observed that nocturnal nursing workers pointed out that there is a need for time to take self-care, for leisure and for family life, which is currently deficient. It was attributed mainly due to the difficulties in reorganizing the routine, where these factors are responsible for lifestyles that scarcely recognize the human needs of these professionals, resulting in poor self-perception of health.<sup>18</sup> Similar findings were also revealed in a hospital in *São Paulo*, where nighttime work was associated with dysphoria and depression.<sup>19</sup>

Nocturnal work is a risk factor for developing depression. Furthermore, nighttime workers have inadequate eating habits, ingestion of frozen foods, caffeinated beverages, and heartburn, constipation, and cardiovascular problems.<sup>19</sup> Night shifts can also lead to psychosomatic disorders. However, the day shift concentrates the greater occurrence of occupational accidents, due to the greater volume of procedures and care, which differs from the night.<sup>20</sup>

In a study conducted in the city of *Campo Grande (Mato Grosso do Sul, Brazil)*, professionals with smoking habits self-rated their health as poor, since tobacco has deleterious effects on health. The study also revealed that work satisfaction is among the factors considered as reducing occupational stress, being determinant for the worker's permanence in the job, lower turnover of personnel, less institutional expenses, also guaranteeing better performance in the activities.<sup>8</sup>

Among the main motivational factors in nurses' work that influence satisfaction, it is important to like what they do, offer quality care, have a good multiprofessional relationship, the possibility of professional growth, resilience and working conditions. Satisfaction is a factor that favors motivation and professional productivity,

stimulating dedication to work and service quality, also directly reflecting the health of the worker.<sup>21</sup>

As can be seen, in different situations and depending on the complexity of the work unit, the pace and the exposure to occupational risks is a worrying situation and deserves the attention of the managers, targeting to make it possible to work safely. Therefore, it is necessary to invest in permanent health education and in the accident prevention commissions. Such strategies aiming to promote individual and collective health favor the construction of healthy environments for the worker, likewise providing a better life quality.<sup>5</sup>

## CONCLUSION

The evaluated workers showed satisfaction with their health, since the majority has declared positive health self-perception. It was observed that health has been better evaluated by those who had a work partner, were day shift workers and reported satisfaction with their work. Therefore, it is necessary creating and implementing strategies that can provide better health and work conditions for the nursing professional team, particularly for professionals who presented characteristics associated with a negative self-perception of health.

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