

# Psychological Exhaustion and Problematic Use of Drugs in The Nursing Team in A Hospital Environment

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## ABSTRACT

**Objective:** The objective of this study was to verify the relationship between problematic drug use and the occurrence of Burnout Syndrome among nursing professionals in a hospital environment. **Methods:** This is a study with a quantitative and exploratory approach. 416 professionals participated in the research. The data collection instrument was Sociodemographic and professional information; Alcohol, Smoking and Substance Involvement Screening Test; Alcohol Use Disorders Identification Test - Consumption; Maslach Burnout Inventory. The level of significance (*p* value) was set at 0.05. **Results:** The consumption of tobacco and alcohol among workers was evidenced, being common to the practice of using alcohol in binge. There was a positive correlation between the use of alcohol and the occurrence of depersonalization and between the use of sedatives and depersonalization. **Conclusion:** It is essential that there are actions to minimize the occurrence of mental disorders in nursing workers.

**Keywords:** Professional Burnout, Quality of Life, Team Nursing, Substance-Related Disorders, Mental Disorders

## **INTRODUCTION**

The work routine is directly related to the health of workers, especially regarding the emergence of occupational diseases. In several studies, health professionals are indicated as a group potentially vulnerable to physical and mental illness <sup>(1)</sup>.

Physical, emotional and mental wear and tear caused by work activity can cause apathy, discouragement, emotional hypersensitivity, anger, irritability, anxiety, depersonalization and inertia. As a consequence, there may be a drop in productivity, performance and worker satisfaction <sup>(2)</sup>.

In this context, the need of workers and organizational goals suffer from conflicts arising from the reduction of the workforce, the intensified pace of work and its precariousness. Consequently, labor activity becomes stressful and triggers illness. <sup>(3)</sup>

The nursing professional category forms the largest individual professional group in the health workforce when assistants, technicians and nurses are considered, providing high risk for the development of stress and common mental disorders characterized by depressive symptoms and anxiety states. Substance abuse, aggression in the workplace and Burnout Syndrome are also commonly reported in the nursing occupational health literature <sup>(4)</sup>.

Burnout Syndrome (BS) is an extreme mental clinical picture related to occupational stress and characterizes an important personal suffering manifested through psychosocial signs. <sup>(5)</sup>

Because of its characteristics, BS can lead health professionals to overuse psychotropic substances in general, but mainly due to the greater possibility of self-administration, since they have free access to these substances in the work environment <sup>(6)</sup>.

Health professionals face several types of difficulties and use medications as a possibility to facilitate the conduct of their daily lives. Thus, it is perceived, the trivialization of consumption, since professionals know the harm to health, family and work. Thus, it is necessary to discuss the use of medication by the nursing professional as a worker's health problem. <sup>(6)</sup>

In this context, investigating the occurrence of Burnout Syndrome in nursing professionals in the hospital environment is relevant because of the vulnerability in which these workers are exposed. Thus, it is expected that with the identification of professional burnout and its repercussions, it will help in the reflection about better working conditions and health, promoting debates about interventions in order to improve the health of the professionals and consequently benefit the quality of the assistance provided. And considering the influence of professional burnout on substance abuse can help to prevent consequences generated by excessive drug use.

## **OBJECTIVE**

To verify the relationship between problematic drug use and the occurrence of Burnout Syndrome among nursing professionals in a hospital environment.

## **METHODS**

### **Ethical aspects**

The entire project follows CNS Resolution 466/12 regarding the ethical criteria for research involving human beings. The project was submitted for analysis by the UFU Ethics Committee.

### **Study design, period and location**

It is a quantitative and exploratory approach study. The data collection was performed at the Hospital de Clínicas of the Federal University of Uberlândia between March and August 2016. This study followed the guidelines available in the STROBE instrument for observational studies.

### **Population or sample; inclusion and exclusion criteria**

The population consisted of the nursing team at HCU-UFU, which was composed of 1,152 professionals. According to the stratified probabilistic sampling (considering a 95% confidence interval), the sample required for the study is 289 participants. 416 professionals participated in the research, the percentage obtained being 30.6% higher than the required sample.

To carry out this study were invited all nursing professionals in exercise at the University Clinic Federal Hospital of Uberlândia - MG, currently composed of 1,152 nursing professionals, 189 nurses and 963 nursing technicians and assistants. The study included subjects over 18 years of age who agreed to participate in the research, excluding subjects who did not respond to any item of the data collection instrument and professionals who were away from the service and / or on vacation.

### **Study protocol**

The data collection instrument consisted the following questionnaires: Sociodemographic and professional information: this questionnaire included information on age, gender, marital status, religion, education and occupational situation with the purpose of characterizing the professionals participating in the survey.

The ASSIST (Alcohol, Smoking and Substance Involvement Screening Test) - WHO was also used, and the questionnaire for tracking the use of alcohol, tobacco and other substances, recommended by the WHO, validated in Brazil.<sup>(7)</sup> The instrument was developed by researchers from different countries under the coordination of WHO and tested for reliability. ASSIST allows healthcare professionals to actively seek out problems arising from drug use. Its structure contains eight questions - on the use of nine classes of psychoactive substances (tobacco, alcohol, marijuana, cocaine, stimulants, sedatives, inhalants, hallucinogens and opiates) - that generate responses corresponding to scores. They also address the frequency of use, in life and in the last three months and various problems arising from use.<sup>(7)</sup>

As well as the AUDIT -C (Alcohol Use Disorders Identification Test - Consumption): an instrument for screening alcohol use and associated problems, validated in Brazil<sup>(8)</sup>. This resource is used exclusively for the evaluation of alcohol use, evaluating several levels of consumption from non-use to probable dependence, besides the consumption in the last 12 months. It is composed by ten questions. AUDIT-C is a simpler version of AUDIT which consists of three questions to help in the identification of the pattern of

alcohol consumption in abusive or dependent.<sup>(9)</sup>

And finally the MBI (Maslach Burnout Inventory) was used to evaluate the syndrome itself. This instrument was first validated in Brazil in 1997.<sup>(10)</sup> It is a multifactorial instrument that has three versions, being that the versions MBI - Human Services Surveye MBI - Educators Survey (destined to the professionals of the areas of health and education respectively) are constituted by 22 items each, distributed among the factors emotional exhaustion (9 items), depersonalization (5 items) and professional accomplishment (8 items). Each item follows a response scale that evaluates the occurrence of burnout related feelings. For each frequency of responses values are assigned, thus determining a score for each dimension of the syndrome. Burnout is identified when high values are obtained for emotional exhaustion and depersonalization, and low values for professional achievement.<sup>(11)</sup>

The collection instrument was delivered for self-filling and later returned to the team of researchers in an unidentified envelope, on an agreed upon date, together with the informed consent form.

### Analysis of results and statistics

For the data analysis, a database was developed in the program Statistical Program of Social Science - SPSS - version 18 for Windows. The descriptive analysis of the data was presented in numbers, percentages, minimum and maximum values, means and standard deviation. The significance level (p value) was set at 0.05 for all variables. For the bivariate analysis of the data, the following non-parametric statistical tests were used: Wilcoxon test - to compare variables from two dependent samples, obtained through the pairing scheme; U Mann-Whitne test - to compare variables from two independent samples, obtained through the pairing scheme; Spearman post correlation coefficient - to evaluate the correlation between variables from two dependent samples.

## RESULTS

A total of 416 nursing professionals from the HCU-UFU participated in the study, the majority of whom were female (85.2%), aged 50 years or older (39.7%). It is also noted that the predominant marital status is married/ living together (69.5%). The most frequent religion is Catholic (44.1%). In relation to schooling, the largest portion of the workers have a degree course (63.8%), followed by 34.2% who studied until high school and 2% who studied until elementary school (Table 1).

Table 1 - Sociodemographic characterization of nursing professionals at the University Clinic Federal Hospital of Uberlândia - MG, 2016 (n = 416)

Sociodemographic characteristics	N	%
SEX		
Female	350	85,2
Male	61	14,8
Did not answer	5	1,2
AGE RENGE		

20 to 29 years	36	8,7
30 to 39 years	131	31,5
40 to 49 yars	83	20,0
50 years or more	165	39,7
Did not answer	1	0,2
<b>RELIGION</b>		
Catholic	177	44,1
Evangelical	120	29,9
Spiritist	66	16,5
Others	38	9,5
Did not answer	15	3,6
<b>MARITAL STATUS</b>		
Married/living togheter	282	69,5
Single	114	28,1
Widower	10	2,5
Did not answer	10	2,4

N: total number of professionals

#: valid percentage, considering N as 100%

Table 2 indicates that the nursing team is composed of 49.3% nursing technicians, 28.5% nursing auxiliaries and 22.3% nurses. The sector with the greatest number of employees participating in the survey was the Maternal-infant (25.4%), followed by Surgical Hospitalization (14.7%) and Emergency Room (10.8%). It is identified that 40,6% work in the morning shift and 81,1% have only an employment bond. In relation to the time of exercise in nursing, 22.8% are employed in the area between 1 to 5 years, 19% between 11 to 15 years and 18% between 6 to 10 years.

Table 2 - Professional characteristics of nursing workers professionals at the University Clinic Federal Hospital of Uberlândia, Uberlândia - MG, 2016 (n = 416)

Professional characteristics		N
	%	
<b>FUNTION</b>		
Nursing assistant	115	28,5
Nursing Technician	199	49,3
Nurse	90	22,3
Did not answer	12	2,9
<b>WORK SECTOR</b>		
Maternal-child	104	25,4

Emergency Room	44	10,8
Ambulatory	36	8,8
Surgical Center	17	4,2
Adult and Coronary ICU	16	3,9
Clinical Hospitalization	37	9,0
Surgical Hospitalization	60	14,7
WORK SECTOR		
Materials and Sterilization	32	7,8
CEPEPE	4	1,0
Board of Directors	1	0,2
Others	58	14,2
Did not answer	7	1,7
WORK SHIFT		
Morning	169	40,6
Afternoon	123	29,6
Night	101	24,3
Did not answer	23	5,5
NUMBER OF EMPLOYMENT TIES		
1	227	81,1
2	48	17,1
3	3	1,1
4	2	0,7
Did not answer	136	32,7
EXERCISE TIME IN NURSING		
1 to 5 years	95	22,8
6 to 10 years	75	18,0
11 to 15 years	79	19,0
16 to 20 years	41	9,9
21 to 25 years	51	12,3
26 years or more	55	13,2
Did not answer	20	4,8

Table 3 shows that 6.7% of professionals have moderate risk of alcohol use or dependence. 36.1% ingest alcoholic beverages in binges. In relation to tobacco, 5.3% make moderate or dependent use and 5.7% use the other drugs mentioned. There was a considerable average of 19.53% of interviewees who did not present answers.

Table 3 - Risk of dependence on alcohol, tobacco and other drugs by nursing professionals at the University Clinic Federal Hospital of Uberlândia, Uberlândia - MG, 2016 (n = 416)

	None or low risk		Moderate risk of use Dependency		Did not answer	
	N	%	N	%	N%	
Alcohol	327	7,86	27	6,7	61	14,7
Alcohol use in Binge	266	63,9	150	36,1	-	-
Tobacco	316	7,6	22	5,3	78	18,8
Sedative	324	7,9	7	1,7	85	20,4
Cannabis	327	7,86	8	1,9	81	19,5
Cocaine, crack	333	8,0	2	0,5	81	19,5
Amphetamines	334	8,03	1	0,2	81	19,5
Inhalants	332	7,98	-	-	84	20,2
Hallucinogens	331	7,96	-	-	85	20,4
Opium	328	7,88	3	0,7	85	20,4
Others	322	7,74	3	0,7	91	21,9

Table 4 informs that 20.7% of the surveyed have a high level of emotional exhaustion, as well as 17.8% have a high level of depersonalization. Most professionals (63.9%) have a low or moderate level of professional achievement. The data show that 4.3% of the workers have Burnout Syndrome.

Table 4 - Characteristics of Burnout Syndrome among Nursing Professionals at the University Clinic Federal Hospital of Uberlândia, Uberlândia - MG, 2016 (n = 416)

	Emotional exhaustion		Depersonalization		Professional achievement	
	N	%	N	%	N%	
Low / moderate	24	5,8	288	69,2	266	63,9
High	86	20,7	74	17,8	75	18,0
Did not answer	88	21,2	54	13,0	75	18,0

The data present correlations between two drugs and a Burnout domain (Table 5). A positive correlation between alcohol use and depersonalization is identified ( $p=0.021$ ) indicating that the higher the alcohol consumption the higher the depersonalization level. Similarly, there is a positive correlation between sedation and depersonalization ( $p=0.005$ ) exposing that in larger amounts of sedation use a higher level of depersonalization is reported.

Table 5– Correlation between Burnout Syndrome and drug use among nursing professionals at the University Clinic Federal Hospital of Uberlândia, Uberlândia - MG, 2016 (n = 416)

		Emotion	Depersonalizatio	Profession
		al Exhaustion	n	al achievement
Tobacco	Correlatio	,057	,078	-,014
	n coefficient			
	P value	,343	,177	,818
Alcohol	Correlatio	,093	,129	,057
	n coefficient			
	P value	,111	,021	,326
Sedativ	Correlatio	,113	,161	,024
	n coefficient			
e	P value	,062	,005	,683
Cannabi	Correlatio	,035	,048	,022
	n coefficient			
s	P value	,566	,403	,713

## DISCUSSION

Considering the results presented, the prevalence of women in the profession agrees with the literature since, nursing is a historically feminine profession being exercised exclusively by women until the middle of the 1970's, even the presence of men more and more frequent in the profession. However, in



the context of this study, considering the mental health of these professionals, studies show that women, besides facing the working day, also deal with the domestic day that has greater load for women than for men. This fact is related to inadequate health behaviors, making nursing teams vulnerable since they are composed mainly by women <sup>(12)</sup>.

The nursing work force, as well as the one found in this study, is predominantly young<sup>(12)</sup>. Other researches corroborate with the fact, since they point that the average age of these workers is around 35 years<sup>(13)</sup>.

A large part of the professionals are married (69.5%), similar to that observed in the literature <sup>(14)</sup>. Considering the research context, having a partner enables the sharing of work experiences, providing support for the confrontation of stressors and minimizing psychic suffering <sup>(15)</sup>.

It is noteworthy that the sample was composed of 90 nurses and 314 technicians and auxiliaries. The study identified that these professionals, in their majority, have higher education than necessary to act in their respective positions <sup>(16)</sup>. According to the authors, access to higher education has expanded, but the offer of more qualified jobs has not expanded equivalently <sup>(16)</sup>. Another scenario that should be considered is the search for better qualification for growth within one's own profession or the search for a new area of activity. The difference in the level of schooling in relation to the position held is worrying because it can contribute to low rates of professional achievement <sup>(16)</sup>.

The set in study presents 6.7% of risk or dependence of alcohol use. The excessive consumption of alcohol is a reality present in society since it is a legal psychoactive substance. In general it is not considered a drug by the population given the social acceptance and advertisements about the product. Thus, alcohol is used as an escape from the suffering experienced in the work environment and is often associated with the consumption of other drugs <sup>(17)</sup>.

A survey conducted with health professionals in a hospital environment shows that 35.4% are smokers, 38.2% consume alcoholic beverages regularly and 37.4% have already used other psychoactive substances <sup>(18)</sup>, results similar to those presented in this study.

Considering these aspects, the literature reports that nurses use tobacco as a stimulant to improve mood, provide pleasure, improve service performance and relax in order to face the suffering they experience in hospitals, as well as consider it as an escape or forgetfulness from work <sup>(13)</sup>.

The negative effects resulting from the consumption of substances affect the individual, his family and society. The damages include problems for the physical and mental health of the worker such as difficulty in memory and risk for chronic non-communicable diseases, besides causing work disorders such as absenteeism, conflict with colleagues, attention difficulties, impaired decision making and generating risk to the patient's safety <sup>(17)</sup>.

In comparison with other studies, the data for the EE and DE dimensions are similar, a sample of 95 nursing technicians and 57 nurses revealing that the values of low professional achievement for each category were 25.5% and 24.6% respectively<sup>(19)</sup>.

A large portion of nursing professionals are not professionally "accomplished". The lack of professional recognition, low salaries and the excess of work that many times is not executed as predicted cause sentiments of impotence, discomfort and anxiety. The professionals start to carry out their work activities with less effort and to carry out an assistance with less quality. Dissatisfaction is pointed out as

the main cause for the professional to give up his job <sup>(14)</sup>.

As for the occurrence of Burnout Syndrome, the literature found similar data, with 19% and 28% of exhaustion in nurses <sup>(13-14)</sup>.

Professional exhaustion is the result of a negative interaction with the workplace, the work team and the clients. Because it is the environment in which the worker spends most of his time, it is essential to be healthy in this area. The quality of life of the professional is directly related to the well-being and satisfaction at work <sup>(13)</sup>.

The nursing professionals who work in the hospital context present symptoms of physical and mental exhaustion due to poor management of human resources and inputs for quality care<sup>(2)</sup>. The stressful daily life of this environment requires psychological and emotional adaptation capacity, leading to professional exhaustion. Thus, the professionals make use of psychoactive substances to alleviate or deny the perception of suffering experienced in the work environment. <sup>(6)</sup>.

Depersonalization is a way for workers to face discomfort and crisis situations<sup>(14)</sup>. The demonstration of cold and detached attitudes stems from the need to ensure emotional balance. There are few studies that relate depersonalization to drug use in professionals. Depersonalization or cynicism is a strategy to deal with labor demands and relates to alcohol abuse as a means to reduce stress<sup>(2)</sup>.

Sedatives are also used as an artifice to improve work stress. The consumption of these substances results from the lack of autonomy, organizational support and fragile relationship of nurses with other colleagues at work<sup>(17)</sup>. The use is commonly performed without medical prescription due to the ease of access to these drugs by nursing professionals. Even if they know the risks of self-medication, they practice this habit to support the intense work day<sup>(20)</sup>.

### **Contributions to the area of Nursing, Health or Public Policy**

Thus, in view of the above, the results found and the discussions exposed in the literature, it is possible to notice that the main characteristics of the Burnout Syndrome are predictors for suicide risk, and the relationship between mental disorders and drug abuse increases such risk <sup>(4)</sup>. In view of this, it is perceived the importance of investigating the psychic health of professionals in order to avoid aggravation.

### **Study limitation**

One limitation of this study was the little interest in worker participation when answering the research questionnaire. It is considered that the excuse is due to the great frequency in which professionals receive research questionnaires, for working in a university hospital, and to the fear of professional implications in face of the result of this study.

## **CONCLUSION**

This research achieved its objectives by verifying the relationships between problematic drug use and the occurrence of Burnout Syndrome among nursing professionals. It was evidenced the consumption mainly of tobacco and alcohol among the workers, being common to the practice of alcohol use in binge.

The percentage found for high emotional exhaustion resembles the value obtained for high depersonalization. The high rate of low professional accomplishment was shown to be worrying. Most of the professionals are not satisfied with their positions.

In this study there was a positive correlation between alcohol use and depersonalization occurrence and between sedative use and depersonalization. More studies are needed to identify such relationships and their characteristics.

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