

## TIME USE AND COMMON MENTAL DISORDER IN NURSING PROFESSIONALS AT A UNIVERSITARY HOSPITAL

### USO DO TEMPO E TRANSTORNO MENTAL COMUM EM PROFISSIONAIS DE ENFERMAGEM DE UM HOSPITAL UNIVERSITÁRIO

### USO DEL TIEMPO Y TRASTORNOS MENTALES COMUNES EN PROFESIONALES DE ENFERMERÍA EN UN HOSPITAL UNIVERSITARIO

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#### ABSTRACT

**Objective:** To compare the involvement in occupations of nurses and nursing technicians with and without Common Mental Disorder (CMD). **Method:** Cross-sectional study with 172 nurses and nursing technicians from a university hospital in Minas Gerais, Brazil. Descriptive analysis and chi-square and t-Student tests were applied for comparisons. **Results:** There was a prevalence of CMD in 9.88% of the professionals, with a significantly higher prevalence among the younger ones, with less training time, less time working in the hospital and in the sector, greater number of diagnosed and self-reported diseases and worse perception of health, smokers and with less engagement in study activities, self-care and practice of physical activity. **Conclusion:** Professionals with CMD dedicate less time to engaging in meaningful occupations, mainly in self-care activities and physical exercise. Investments in health promotion and engagement in these activities are recommended for potential prevention of damage to mental health.

**Descriptors:** Nursing; Mental Disorder; Activities of Daily Living.

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## RESUMO

**Objetivo:** Comparar o envolvimento em ocupações de enfermeiros e técnicos de enfermagem com e sem Transtorno Mental Comum (TMC). **Método:** Estudo transversal com 172 enfermeiros e técnicos de enfermagem de um hospital universitário de Minas Gerais, Brasil. Aplicou-se análise descritiva e testes Qui-quadrado e t-Student para comparações. **Resultados:** Houve prevalência de TMC em 9,88% dos profissionais, com prevalência significativamente maior entre os mais jovens, com menos tempo de formação, menos tempo de trabalho no hospital e no setor, maior número de doenças diagnosticadas e autorrelatadas e pior percepção de saúde, tabagistas e com menor envolvimento em atividades de estudo, autocuidado e prática de atividade física. **Conclusão:** Os profissionais com TMC dedicam menor uso do tempo no envolvimento com ocupações significativas, principalmente em atividades de autocuidado e exercício físico. Preconiza-se investimentos na promoção de saúde e de envolvimento nestas atividades para potencial prevenção de danos à saúde mental.

**Descritores:** Enfermagem; Transtorno Mental; Atividades Cotidianas.

## RESUMEN

**Objetivo:** Comparar la participación en las ocupaciones de enfermeros y técnicos de enfermería con y sin Trastorno Mental Común (TMC). **Método:** Estudio transversal con 172 enfermeros y técnicos de un hospital universitario de Minas Gerais, Brasil. Se aplicaron análisis descriptivos y pruebas de chi-cuadrado y t-Student. **Resultados:** Hubo prevalencia de TMC en 9,88% de los profesionales, con prevalencia mayor entre los más jóvenes, con menor tiempo de formación, menos tiempo de trabajo en el hospital y el sector, mayor número de enfermedades diagnosticadas y autoreportadas y peor percepción de la salud, fumadores y con menor implicación en actividades de estudio, autocuidado y práctica de actividad física. **Conclusión:** Los profesionales con TMC dedican menos tiempo a realizar ocupaciones significativas, principalmente en actividades de autocuidado y ejercicio físico. Se recomiendan inversiones en promoción de la salud y la participación en estas actividades para la prevención potencial de daños a la salud mental.

**Descriptor:** Enfermería; Transtorno Mental; Actividades Cotidianas.

## INTRODUCTION

The World Health Organization (WHO) points out that mental health conditions are highly prevalent in all countries. Approximately one in eight people live with a mental disorder that varies with sex and age, with anxiety and depression disorders being the most prevalent.<sup>1</sup> Common mental disorders (CMD), or minor mental disorders, refer to a set of non-psychotic symptoms, represented by difficulty concentrating,

irritability, fatigue, insomnia and somatic complaints, often related to subclinical conditions of stress, anxiety and depression.<sup>2,3</sup> Such symptoms trigger impairments in the individual's performance and productivity, constituting a public health problem.<sup>3</sup>

Recent studies indicate that Brazilian nursing professionals have a prevalence of CMD that varies from 17% to 46.9%<sup>4,5</sup>, with the lowest prevalence (17%) referring to primary care nursing

professionals in situations of low demand and high social support.<sup>4</sup> The highest prevalence of CMD (46.9%) refers to nursing technicians at a university hospital.<sup>5</sup> Work-related mental disorders can be influenced by several factors, including overload and excessive working hours, low pay, more than one employment relationship, altered sleep and wake patterns, staff shortages and patient dependency. In addition to these factors, the development of musculoskeletal pain associated with CMDs can be added when nursing professionals are subjected to ergonomic risks and poor physical conditions in the work environment.<sup>6</sup>

Time use surveys are used by several countries to formulate indicators of living conditions. At the national level, Brazil relies on data from the Brazilian Institute of Geography and Statistics (IBGE) that indicate the time spent on work activities, household chores and commuting.<sup>7</sup> Time use surveys are important because they collect information on how individuals allocate their time outside of work, in education, leisure and other routine activities.<sup>7</sup> The methodology of time use includes a set of diverse occupations that are unique and fundamental to the health, identity and sense of competence of a person, group or population, with particular meaning and values. These occupations

involve work, food, leisure, health management, education, sleep and social participation<sup>8</sup>, and the lack of time to perform these occupations has been associated with symptoms of physical and mental illness.<sup>7</sup>

The use of time and involvement in occupations is dynamic and complex, with a great influence on health conditions. Inadequate use of time can generate stress and negative emotions and, associated with the imbalance between occupations, negatively affects subjective feelings about health and life.<sup>9</sup> Thus, occupational balance and a quality use of time and a diversified repertoire are essential elements for health and quality of life.<sup>9</sup> Meaningful occupations involve everything necessary for survival; occupations that allow the use and development of the person's skills and competencies; in addition to activities that provide personal development.<sup>8</sup>

However, different mental symptoms and psychological disorders impact participation in meaningful daily activities. Among nursing professionals, there is a high number of workers with CMD; however, studies have not yet been conducted to observe the relationship between time use in meaningful activities and the presence of minor psychological disorders. Understanding which meaningful activities are part of the routine of nursing

workers and which are associated with CMD may help to direct intervention strategies that promote a more balanced and healthy use of time, in addition to CMD prevention programs in this group of workers.

This study is based on the following problematizing question: In what significant occupations do nursing professionals with CMD engage? Does this involvement in occupations differ between nursing professionals with and without CMD? To this end, the objective was to compare the involvement in occupations of nurses and nursing technicians with and without common mental disorders.

## **METHOD**

This is an exploratory, observational study with a cross-sectional design and a quantitative research approach, carried out with nurses and nursing technicians from the inpatient sectors of a public university hospital in the interior of Minas Gerais, Brazil. Data were collected between January and March 2020. According to the Hospital's Nursing Division, during the period in which this research was conducted, the hospital's inpatient sectors had 141 nurses and 392 nursing technicians/assistants, totaling 533 workers.

The sample consisted of 172 nursing professionals (nurses, nursing technicians

and assistants) selected by convenience. The inclusion criteria for the study were age equal to or greater than 18 years of age; undergraduate degree in nursing or nursing technician/auxiliary; active in the position and assigned to the hospital's inpatient wards. Workers who performed only administrative functions; those on leave, sick leave or retired; undergraduate and postgraduate interns were excluded.

Data collection was performed in three stages. Initially, nursing professionals answered a self-administered questionnaire, developed specifically for this study, with sociodemographic, work-related, lifestyle and health information. The prevalence of TCM was calculated based on the diagnosed diseases self-reported by the participants in this questionnaire. Then, each participant received two time-use diaries to list the activities performed over 24 hours, one diary for a weekday and the other for a weekend day.<sup>10</sup> The weekday and the weekend day were chosen by drawing lots at the time of delivery of the diary. Finally, a date was scheduled, according to the worker's availability, to clarify any doubts about filling out the diaries and handing in the completed diaries, in addition to a brief interview with questions about satisfaction with occupational balance.

Data analysis was performed using IBM SPSS® software, version 26.0. The independent variables were sociodemographic characteristics (age, gender, marital status, number of children, and education); occupational characteristics (work sector, function, income, length of service in the sector, professional training, additional work, and work shifts); health characteristics (physical activity, smoking habits, alcohol intake, hours of sleep, diagnosed disease, self-reported perception of disease, and self-assessment of health status); and use of time in activities. The categorization of activities verified in the Time Use Diary followed the criteria of the International Classification of Activities for Time Use Statistics 2016.<sup>10</sup> The diagnosis of Common Mental Disorder (yes or no) was considered the dependent variable.

Descriptive analysis was performed for all variables. To obtain the strength of association between the dependent variable (common mental disorder) and the individual independent variables (sociodemographic, occupational, health and time use in activities), the Chi-Square statistical tests were used ( $\chi^2$ ) Pearson's

test, for categorical variables, and the Student's t-test, for numerical variables.

The study was approved by the Research Ethics Committee of the Universidade Federal do Triângulo Mineiro in Minas Gerais, Brazil (CAAE: 17007219.2.0000.5154; Opinion No. 3,496,748). Participants were informed about the objectives and procedures of the research, and those who agreed to participate signed the consent form. The collected data were treated confidentially.

## RESULTS

172 nursing team professionals were evaluated, of which 17 (9.88%) had a diagnosis of Common Mental Disorder. Essentially female sample (89.5%), with average age of 38.74 years (SD=9.034) and degree of education up to complete higher education (66.3%) or postgraduate studies (33.1%). More than half had children (67.4%) and lived in a stable union/married (52.9%). Regarding care for other people, 29.7% took care of a family member (children, parents, grandparents, in-laws, siblings, grandchildren or spouses). Table 1 presents the complete sociodemographic characteristics of the participants.

**Table 1.** Sociodemographic characteristics of the nursing team and comparison with the categories of Mental Disorder. N=172. 2022.

<i>Categorical Variables N (%)</i>	Total	Common Mental Disorder		Chi-square	p-value <sup>1</sup>
	N (%)	No	Yes		
Gender					
Female	154 (89.5%)	140 (90.3%)	14 (82.4%)	1,032	0.393
Male	18 (10.5%)	15 (9.7%)	3 (17.6%)		
Education					
Until higher education is completed	114 (66.3%)	102 (65.8%)	12 (75%)	0.548	0.583
Postgraduate <sup>2</sup>	57 (33.1%)	53 (34.2%)	4 (25%)		
Children					
No	56 (32.6%)	50 (32.3%)	6 (35.3%)	0.064	0.790
Yes	116 (67.4%)	105 (67.7%)	11 (64.7%)		
Marital status					
Single	60 (34.9%)	52 (33.5%)	8 (47.1%)	0.712	0.399
Married / Stable Union	91 (52.9%)	84 (54.2%)	7 (41.20%)		
Separated/divorced	21 (12.2%)	19 (12.3%)	2 (11.8%)		
Marital status					
Lives without a partner	81 (47.1%)	71 (45.8%)	10 (58.8%)	1,042	0.321
Lives with a partner	91 (52.9%)	84 (54.2%)	7 (41.2%)		
Lives alone					
No	158 (91.9%)	143 (92.3%)	15 (88.2%)	0.330	0.633
Yes	14 (8.1%)	12 (7.7%)	2 (11.8%)		
Take care of other people					
No	121 (70.3%)	111 (71.6%)	10 (58.8%)	1,201	0.276
Yes	51 (29.7%)	44 (28.4%)	7 (41.2%)		
<i>Numerical variables (mean; SD)<sup>3</sup></i>	<i>Total</i>				<i>p-value<sup>4</sup></i>
Age	38.74 (9.03)	39.14 (9.31)	35.12 (4.77)		<b>0.006</b>
Number of children	1.19 (1.05)	1.21 (1.05)	1.00 (1.00)		0.437
Number of people living in the same household	3.06 (1.18)	3.09 (1.18)	2.82 (1.13)		0.376
Education (years)	16.05 (3.70)	16.07 (3.82)	15.94 (2.49)		0.895

Source: Survey data, 2022.

<sup>1</sup>Chi-Square Test.

<sup>2</sup>Postgraduate studies = frequency of participants with specialization (lato sensu postgraduate studies) and/or master's and doctorate (stricto sensu postgraduate studies)

<sup>3</sup>SD = Standard deviation.

<sup>4</sup>Student's t-test.

Table 2 presents the occupational and health characteristics. Regarding work characteristics, most participants held the position of nursing technician/auxiliary (80.8%) and worked the day shift (79.7%).

The work schedule of 6 to 8 daily shifts was predominant among the interviewees (67.4%). In addition to working at the hospital, only 9.9% of the participants had additional work. Regarding professional experience, the participants had, on

average, 13.42 years (SD=7.17) of training; 8.12 years (SD=8.00) of work at the analyzed hospital and 5.75 years (SD=6.19) of work in the current sector. The average income was 4.5 salaries (mean=R\$4,955.50; SD=2,218.42), and in 2021, the year of data collection, the minimum wage was R\$1,100.00.

Regarding lifestyle habits, 51.7% reported sleeping up to 6 hours per night; 61.6% declared themselves to be sedentary; only 6.4% declared themselves to be smokers, consuming, on average, 6.14

cigarettes per day (SD=6.788); and regular consumption of alcoholic beverages was reported by 40.1%, with a frequency of 1.35 times per week (SD=0.75) and an average of 1,341.43 ml of doses per event (SD=1,094.22).

Regarding health conditions, 39.2% of participants had at least one disease diagnosed by a doctor (mean=0.48; SD=0.70); 29.7% self-reported some undiagnosed health condition (mean=0.36; SD=0.65); and 79.1% self-assessed their health status as positive.

**Table 2.** Occupational and health characteristics of the nursing team and comparison with the categories of Mental Disorder. N=172. 2022.

<i>Categorical variables N (%)</i>	Total N (%)	Common Mental Disorder		Chi- square	p- value <sup>1</sup>
		No	Yes		
<b>Job Characteristics</b>					
Position					
Nursing assistant	33 (19.2%)	27 (17.4%)	6 (35.3%)	3,157	0.101
Nursing technicians/assistants	139 (80.8%)	128 (82.6%)	11 (64.7%)		
Working period					
12 for 36 hours	56 (32.6%)	52 (33.5%)	4 (23.5%)	0.696	0.587
6 to 8 hours (daily)	116 (67.4%)	103 (66.5%)	13 (76.5%)		
Work shift					
Daytime	137 (79.7%)	122 (78.7%)	15 (88.2%)	0.853	0.529
Nocturnal	35 (20.3%)	33 (21.3%)	2 (11.8%)		
Complementary work					
No	155 (90.1%)	138 (89.0%)	17 (100%)	2,057	0.225
Yes	17 (9.9%)	17 (11.0%)	0.00 (0.00%)		
Period of complementary work					
12 for 36 hours	6 (42.9%)	6 (42.9%)	0.00 (%)	--	--
6 to 8 hours (daily)	8 (57.1%)	8 (57.1%)	0.00 (%)		
Complementary work shift					
Daytime	8 (50%)	8(50%)	0.00(%)	--	--
Nocturnal	8 (50%)	8(50%)	0.00(%)		
<b>Lifestyle Habits</b>					
Sleeping hours					

Up to 6 hours	89 (51.7%)	79 (51.0%)	10 (58.8%)	0.379	0.615
> 6 hours	83 (48.3%)	76 (49.0%)	7 (41.2%)		
Cigarette use					
No	161 (93.6%)	148 (95.5%)	13 (76.5%)	9,198	<b>0.014</b>
Yes	11 (6.4%)	7(4.5%)	4 (23.5%)		
Use of alcoholic beverages					
No	103 (59.9%)	95 (61.3%)	8 (47.1%)	1,292	0.301
Yes	69 (40.1%)	60 (38.7%)	9 (52.9%)		
Physical activity according to the WHO					
Sedentary	106 (61.6%)	96 (63.6%)	10 (58.8%)	0.148	0.792
Physically active	62 (36.0%)	55 (36.4%)	7 (41.2%)		
<b>Health-related characteristics</b>					
Self-declared health condition					
No	121 (70.3%)	119 (76.8%)	2 (11.8%)	30,858	<b>0.000</b>
Yes	51 (29.7%)	36 (23.2%)	15 (88.2%)		
Health condition diagnosed by a doctor					
No	104 (60.8%)	98 (63.6%)	6 (35.3%)	5,161	<b>0.034</b>
Yes	67 (39.2%)	56 (36.4%)	11 (64.7%)		
Satisfaction with occupational balance					
Negative	56 (32.6%)	52 (52.5%)	4 (50%)	0.19	1,000
Positive	51 (29.7%)	47 (47.5%)	4 (50%)		
Self-assessment of health status					
Positive	136 (79.1%)	129 (83.8%)	7 (41.20%)	17,060	<b>0.000</b>
Negative	35 (20.3%)	25 (16.2%)	10 (58.8%)		
<i>Numerical variables (mean; SD)<sup>2</sup></i>		Total		p-value <sup>2</sup>	
<b>Job characteristics</b>					
Training time (years)	13.42 (7.17)	13.84 (7.27)	9.59 (4.76)		<b>0.020</b>
Time working at HC-UFTM (years)	8.12 (8.00)	8.46 (8.33)	5.03 (2.19)		<b>0.000</b>
Length of time working in the current sector (years)	5.75 (6.19)	6.00 (6.44)	3.49 (1.99)		<b>0.001</b>
Income	4955.50 (2218.42)	4999.42 (2283.00)	4623.38 (1670.55)		0.526
<b>Lifestyle Habits</b>					
Sleeping hours	6.76 (1.36)	6.80 (1.37)	6.40 (1.24)		0.285
Frequency of physical activity per week	1.62 (1.84)	1.58 (1.850)	2.00 (1.84)		0.375
Duration of physical activity in minutes	32.83 (40.58)	32.48 (41.23)	35.88 (35.19)		0.744
Duration Physical activity WHO	116.46 (176.32)	115.00 (178.97)	129.4118 (154.94)		0.750
Amount of cigarettes per day	0.26 (1.78)	0.18 (1.68)	0.94 (2.49)		0.235
Frequency of alcohol consumption	0.50 (0.80)	0.46 (0.75)	0.82 (1.074)		0.077
Alcohol intake (ml)	432.43 (881.07)	386.52 (829.64)	797.06 (1184.33)		0.182
<b>Health-related characteristics</b>					
Sum of health conditions diagnosed by a doctor	0.48 (0.70)	0.45 (0.69)	0.76 (0.66)		0.072
Sum of self-reported health conditions	0.36 (0.65)	0.26 (0.54)	1.29 (0.77)		<b>0.000</b>
Satisfaction with occupational balance	7.04 (1.75)	7.13 (1.60)	5.88 (2.99)		0.278



Source: Survey data, 2022.

<sup>1</sup>Chi-Square Test.

<sup>2</sup>SD = Standard deviation.

<sup>3</sup>Student's t-test.

Table 3 presents the time spent by the interviewees on main and secondary daily activities during a weekday and a weekend day. In the reports of the main activities carried out on weekends, the categories of activity that required the greatest use of time were: rest/sleep (mean=564.96 minutes; SD=212.88; corresponding to 9.42 hours); and work (mean=266.24 minutes; SD=271.29; corresponding to 4.44 hours). The use of television/cell phone/radio was indicated as the main secondary activity on weekends (mean=41.97 minutes; SD=89.33).

Among the main activities performed during a weekday, greater use of time was observed for sleep (mean=500.50 minutes; SD=155.88; corresponding to 8.34 hours); work (mean=386.46 minutes; SD=234.93; corresponding to 6.44 hours) and domestic care/meal management (mean=122.90 minutes; SD=130.25; corresponding to 2.04 hours). The activities with less involvement, that is, less use of time, were self-care (mean=12.33 minutes; SD=76.61); study (mean=25.96 minutes, SD=76.36); physical activity (mean=23.17 minutes; SD=46.88) and leisure (mean=6.37 minutes; SD=26.80).

**Table 3.** Use of time in activities and comparison with the categories of Mental Disorder. N=172. 2022.

<i>Numerical variables</i>	Total (mean; SD)	Common Mental Disorder		p-value <sup>1</sup>
		No	Yes	
<b>Main activities during a weekend day</b>				
Paid work	266.24 (271.29)	257.39 (267.46)	356.17 (305.47)	0.230
Home-work commute	21.27 (37.35)	21.27 (36.48)	21.25 (47.20)	0.999
Volunteering	2.46 (20.83)	2.70 (21.82)	0.00 (0.00)	0.669
Study	26.51 (95.64)	26.06 (94.83)	31.17 (107.96)	0.861
Family/friends interaction	109.43 (165.39)	113.31 (169.47)	70.00 (113.76)	0.389
Religious practice	6.15 (28.38)	6.75 (29.69)	0.00 (0.00)	0.434
Leisure	12.31 (43.72)	12.30 (43.93)	12.50 (43.31)	0.988
Physical activity	12.43 (39.60)	13.03 (40.95)	6.25 (21.65)	0.573
Home care/meal management	107.69 (123.10)	107.70 (125.51)	107.50 (99.67)	0.996

Caring for other people	27.87 (72.71)	26.55 (72.40)	41.25 (77.84)	0.506
Use of television/cell phone/radio	41.97(89.33)	43.27 (92.18)	28.75 (52.92)	0.593
Rest/sleep	564.96 (212.88)	565.04 (218.90)	564.17 (144.45)	0.989
Self-care	113.62 (77.26)	114.34 (77.48)	106.25 (77.93)	0.731
<b>Secondary activities during a weekend day</b>				
Home care	1.46 (11.17)	1.60 (11.70)	0.00 (0.00)	0.638
Child care	7.50 (54.96)	6.64 (54.99)	16.25 (56.29)	0.656
Family/friends interaction	6.04 (28.94)	6.64 (30.31)	0.00 (0.00)	0.451
Leisure	4.14 (28.81)	4.55 (30.18)	0.00 (0.00)	0.604
Rest	2.57 (21.42)	2.82 (22.44)	0.00 (0.00)	0.665
Use of television/cell phone/radio	41.97 (89.33)	43.27 (92.18)	28.75 (52.92)	0.593
Self-care	5.26 (16.17)	4.67 (14.82)	11.25 (26.47)	0.414
<b>Main activities during the week</b>				
Paid work	386.46 (234.93)	379.72 (241.89)	455 (134.52)	0.291
Home-work commute	32.80 (39.16)	30.61 (33.70)	55.00 (73.85)	0.281
Volunteering	4.03 (34.66)	4.43 (36.32)	0.00 (0.00)	0.675
Study	25.96 (76.36)	28.51 (79.59)	0.00 (0.00)	<b>0.000</b>
Family/friends interaction	35.90 (87.42)	37.84 (89.84)	16, 25 (56.29)	0.416
Religious practice	7.94 (33.97)	8.72 (35.52)	0 (0.00)	0.398
Leisure	6.37 (26.80)	6.38 (27.33)	6.25 (21.65)	0.988
Physical activity	23.17 (46.88)	24.84 (48.39)	6.25 (21.65)	<b>0.023</b>
Home care/meal management	122.90 (130.25)	126.51 (134.16)	86.25 (74.35)	0.309
Caring for other people	43.54 (90.26)	42.30 (56.25)	56.25 (121.54)	0.611
TV/cell phone/radio	88.95 (102.86)	86.16 (101.96)	117.33 (112.24)	0.318
Rest/sleep	500.50 (155.88)	501.74 (487.92)	487.92 (118.49)	0.771
Self-care	120.33 (76.61)	119.75 (74.54)	126.25 (98.97)	0.780
<b>Secondary activities during a weekday</b>				
Child care	4.03 (22.16)	4.18 (23.08)	2.50 (8.66)	0.803
Family/friends interaction	4.70 (22.93)	5.16 (23.99)	0.00 (0.00)	0.459
Religious practice	0.11 (1.30)	0.12 (1.36)	0.00 (0.00)	0.755
Leisure	0.67 (5.48)	0.74 (5.74)	0.00 (0.00)	0.658
Rest	0.78 (9.07)	0.86 (9.51)	0.00 (0.00)	0.755
Home care/meal management	4.48 (19.90)	4.18 (20.07)	7.50 (18.65)	0.583
Use of television/cell phone/radio	42.54 (100.85)	44.5 (104.88)	22.50 (38.64)	0.473
Self-care	5.49 (17.01)	6.02 (17.74)	0.00 (0.00)	<b>0.000</b>

Source: Survey data, 2022.

<sup>1</sup>Student's t-test.

The comparison of 2 and 3. Nursing staff workers with a sociodemographic, occupational, health and time use characteristics in daily activities between participants with and without a diagnosis of CMD is presented in Tables 1, diagnosis of CMD had a lower mean age ( $p=0.006$ ); less time since graduation ( $p=0.020$ ), less time working at the hospital ( $p=0.000$ ) and working in the current sector

( $p=0.001$ ), when compared to workers without a diagnosis of CMD. Professionals with CMD had a higher percentage of smokers ( $p=0.014$ ); and a higher prevalence of diagnosed diseases ( $p=0.034$ ), in addition to a greater number of self-reported health conditions ( $p=0.000$ ). This group of workers also presented significantly worse self-rated health status than the group of professionals without CMD ( $p=0.000$ ). Regarding involvement in daily activities, among the main activities, professionals with CMD had less time dedicated to studying ( $p=0.000$ ) and less time for physical activity ( $p=0.023$ ). As a secondary activity during the week, participants with CMD did not engage in self-care activities ( $p=0.000$ ) when compared to participants without a CMD diagnosis.

## DISCUSSION

This study sought to identify and compare sociodemographic data, lifestyle habits, health and occupational characteristics, satisfaction with work-life balance, and time use of nursing professionals with and without a diagnosis of CMD. Younger professionals, with less time since graduation, and shorter working time in the hospital and in the sector had a higher prevalence of CMD. Regarding health characteristics, a higher number of diagnoses, self-reported perception of

illness, and worse health perception were also aspects significantly associated with a higher prevalence of CMD. Professionals diagnosed with CMD had a higher prevalence of smoking and lower involvement in study activities, self-care, and physical activity.

The occurrence of CMD in nursing professionals in this study (9.88%) was low when compared to national studies, which present prevalence rates of CMD ranging from 17 to 46.9%.<sup>2-5</sup> This result may be associated with the conditions and organization of work implemented in the university hospital analyzed. The quality of health care is directly affected by the health of the nursing team in the hospital context, which can lead to repercussions on organizational indicators, as well as on the production of care.<sup>5</sup> In this sense, although the findings of the present study indicate a lower prevalence of CMD, it is essential to investigate the presence of common mental disorders in nursing teams working in different work contexts, taking into account regional, social, economic, organizational and cultural diversities.<sup>5</sup>

The professionals with CMD in the present study are younger, graduated more recently, and had worked for less time in the hospital and in the current sector, in line with other studies that show that the age group with the highest rate of illness is

between 19 and 45 years old.<sup>6</sup> These findings corroborate the hypothesis that professionals with more experience, especially in shift work, are able to develop coping strategies for aspects of life and adversities encountered in the work context.<sup>11,12</sup> These strategies may be related to greater personal and professional experience, which allows the worker to adapt, inhibiting negative effects on health.<sup>11,12</sup> Longer working time in the institution may also be related to greater professional stability and, therefore, greater worker safety and a lower incidence of CMD.<sup>13</sup>

The sample of this study was essentially female, and it was not possible to confirm the hypothesis that women have a higher prevalence of CMD than men, as described in the literature.<sup>3,4,6,13</sup> The higher percentage of women in nursing is due to their greater number within the professional category itself<sup>3,4,6,13</sup> and to socio-historical factors related to the role of women as caregivers<sup>15</sup>, both in the professional environment and in their personal lives.

Cigarette smoking was significantly associated with CMD, regardless of the number of cigarettes smoked. A systematic review and global meta-analysis found that 21% of health professionals between 2000 and 2014 were smokers, with nursing being one of the most prominent occupational

groups, especially among professionals living in low- and middle-income countries.<sup>19</sup> This same study indicated that, although most professionals who make up hospital staff who smoke wanted to quit, there was little knowledge or little support from health promotion services for cessation.<sup>19</sup> These findings are cause for concern and should be included in strategies aimed at promoting mental health and reducing cases of CMD among nursing staff professionals.

The variables related to health characteristics (number of diagnosed and self-reported diseases; and self-perceived health) showed a significant association with CMD. The manifestation of mental disorders together with somatic diseases is recurrent, and an increase in the prevalence of CMD is observed with a greater number of chronic diseases or reports of health problems.<sup>14,16</sup> In addition, self-perceived health was negative for 58.8% of the nursing team professionals interviewed. A national study that analyzed behavioral factors and morbidities related to common mental disorders in adult women also found a high prevalence of poor/very poor self-rated health.<sup>14</sup> The results of this study of the association of health characteristics with the higher prevalence of CMD indicate that proposals for intervention in occupational health aimed at improving well-being and

overall health can impact the mental health of the nursing team.<sup>18</sup>

Regarding time use, low involvement of professionals diagnosed with CMD in self-care activities was observed. This result was also found in a study with nursing workers at a psychiatric hospital.<sup>16</sup> As described in the literature, self-care practices are indicated as measures to prevent mental illness and cope with situations of vulnerability.<sup>17</sup> Thus, the periodicity, frequency and intensity of involvement in self-care activities are fundamental for the occupational balance, health and well-being of individuals.<sup>17</sup> Nursing professionals often give up self-care to dedicate themselves to the routine of caring for others, failing to take care of their own appearance, self-manage their health, diet or leisure activities.<sup>7</sup>

Professionals diagnosed with CMD showed less involvement in study activities and physical activity. No studies were found to compare the results that weighed the lower involvement in study activities with CMD. However, this variable can be supported by the understanding that access to education benefits mental health through the acquisition of cognitive skills<sup>14</sup> that favor decision-making and the development of strategies to deal with everyday situations. The sedentary lifestyle or lack of regular physical activity among nursing

professionals was repeated in other studies.<sup>18</sup> The World Health Organization recommends that adults perform at least 150 to 300 minutes of moderate physical activity or 75 to 150 minutes of vigorous physical activity per week to obtain significant health benefits.<sup>19</sup> Therefore, the adequacy of the repertoire of activities, especially in relation to greater involvement in physical activity and promotion of continuing education, should be part of the intervention goals of the occupational health and human resources management sectors.

The design of this cross-sectional study allowed us to identify a strong association between CMD and occupational involvement. Longitudinal studies may be useful and are indicated to analyze the impact of time use on the prevalence of CMD on an ongoing basis in this group of workers. Such information may have implications for remodeling the practice and health promotion programs of occupational health sectors. The essentially female sample, from a single hospital, leads to limited generalization of the results. Regional differences and work context should also be taken into account when generalizing these data. Although the results of this study do not indicate an association between gender and CMD, occupational health services should be

aware of the high prevalence of CMD cases in women. Data collection was carried out prior to the Covid-19 pandemic, a period in which nursing professionals who provided direct patient care were exposed to high levels of stress and anxiety. Therefore, a current analysis of the relationship between CMD and the new routine and time use arrangements of nursing professionals, post-pandemic, is suggested.

## CONCLUSION

The results of this study indicated lower involvement in meaningful occupations among nursing professionals with Common Mental Disorders, compared to nursing professionals without CMD, especially in relation to self-care activities, study and physical activity. Younger professionals, with less time since graduation, less work experience in the hospital and in the current sector, higher frequency of cigarette use, and less time dedicated to physical activity, study and self-care had a higher prevalence of CMD. The results of this study also indicate an association between minor psychological disorders, other diagnoses and more negative health characteristics, indicating the possible presence of multimorbidities among workers with CMD.

In this scenario, occupational health services should focus their efforts on

developing strategies to promote health and prevent injuries, providing nursing professionals with better working conditions and mental health support. These strategies should encourage involvement in meaningful activities, especially self-care and physical activity. Multisectoral and interdisciplinary programs, coordinating actions between people management and occupational health care, led by Occupational Therapists, should be included in the institutional routine. These programs can support the construction of a routine for workers permeated by meaningful activities focused on self-care and the construction of healthier life projects.

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