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Roberta Carolina Ferreira[I]

Rosane Härter Griep[II]

Maria de Jesus Mendes da Fonseca[III]

Lúcia Rotenberg[II]

A multifactorial approach to sickness absenteeism among nursing staff

ABSTRACT

OBJECTIVE: To analyze factors associated with self-reported sickness absenteeism among nursing workers.

METHODS: Cross-sectional study with 1,509 workers from three public hospitals in the city of Rio de Janeiro (Southeastern Brazil) in 2006. Absenteeism was classified in three levels: no day, a few days (1-9 days) and many days (≥ 10 days), based on the answer to a question of the work ability index questionnaire. The logistic regression analysis considered a conceptual model based on distal (socioeconomic status), intermediate I (occupational characteristics), intermediate II (lifestyle characteristics), and proximal (diseases and health conditions) determinants.

RESULTS: The frequencies of sickness absenteeism were 20.3% and 16.6% for a few days and many days, respectively. Those who reported more than one job, musculoskeletal diseases and rated their health as poor or regular had higher odds of absenteeism. Compared to nurses, nursing assistants were less likely to mention a few days, and technicians were more likely to have many days of absence. Higher odds of mentioning many days of absence were observed among public servants, compared to contract workers (OR = 3.12; 95%CI 1.86;5.22), and among married (OR = 1.73; 95%CI 1.14;2.63) and separated, divorced and widowed individuals (OR = 2.06, 95%CI 1.27;3.35), compared to singles.

CONCLUSIONS: Different variables were associated with the two forms of absenteeism, which suggests its multiple and complex determination related to factors from different levels that cannot be exclusively explained by health problems.

DESCRIPTORS: Absenteeism. Nursing, Team. Occupational Diseases. Working Conditions. Socioeconomic Factors. Cross-Sectional Studies.

INTRODUCTION

Sickness absenteeism reflects workers' health status, has important economic impacts and generates high costs to companies and the social security.[7,10] Besides aspects directly related to health, diverse factors determine work absences, such as the organizational culture, lack of employee appreciation strategies, burnout and stress, unfavorable psychosocial environment, dissatisfaction with work, workers' socioeconomic status, lack of control over work and low social support at work.[3,5,7,11]

Absenteeism is a complex phenomenon whose predictors vary according to the frequency – related to workers' tasks, aspects of leadership and work shift, to the company's organization and to lack of measures to control absences – and the

[I] Programa de Pós-Graduação em Enfermagem. Escola de Enfermagem Anna Nery. Universidade Federal do Rio de Janeiro. Rio de Janeiro, RJ, Brasil

[II] Laboratório de Educação em Ambiente e Saúde. Instituto Oswaldo Cruz. Fundação Oswaldo Cruz (Fiocruz). Rio de Janeiro, RJ, Brasil

[III] Departamento de Epidemiologia e Métodos Quantitativos em Saúde. Escola Nacional de Saúde Pública. Fiocruz. Rio de Janeiro, RJ, Brasil

Correspondence:
Roberta Carolina Ferreira
R. Mirataia, 350
Bloco 2 Apto 402 – Pechincha
22770-190 Rio de Janeiro, RJ, Brasil
E-mail: rocarolf@yahoo.com.br

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duration of the periods of absences[1,11,18,24] (influenced by age, working conditions, benefits and access to medical care).[1] A few days of absence are mainly associated with organizational culture, which allows absences, or with workers' (dis)satisfaction at their jobs,[11] i.e., more related to labor structure and process than to health problems. Long-term absenteeism is considered a reflex of health conditions and family problems.[1] Sick leaves might be better explained by the influence of complex interrelation mechanisms between individual-related factors and factors related to the physical and social environment.[13]

In the hospital context, nursing represents the largest workforce; the absence of these workers affects the service's organization, generates dissatisfaction and overload among the workers who are present and negatively affects the quality of the care that is provided for the patient.[3,15] The majority of the Brazilian studies about absenteeism among nursing professionals describes the frequency and the main involved diseases, without considering the complexity of factors that influence absences from work.[15,21]

The present paper aimed to analyze factors associated with self-reported sickness absenteeism among nursing staff.

METHODS

Sectional study with 1,509 nursing professionals (nurses, technicians and nursing assistants) from three public hospitals (one large general hospital, one hospital for infectious diseases research, teaching and assistance, and one maternal and child health reference center) of the city of Rio de Janeiro, Southeastern Brazil, from June 2005 to February 2006. Of 1,687 eligible participants, 89.4% adhered to the study. The losses referred to refusals and sick leaves.

Trained interviewers administered a multidimensional questionnaire based on three stages of pre-tests (n = 50) to improve the clarity of the items. The pilot study (n = 110) and the test-retest study (n = 80) were conducted at a federal institution that is similar to those of the main study.

Sickness absenteeism was measured by the question: "How many whole days were you absent from your work due to health problems, medical consultations or to undergo examinations during the last 12 months?". The question is part of the instrument *"Índice de Capacidade para Trabalho"* (ICT - Work Ability Index)[23] validated for Portuguese,[16] with substantial reliability for the present study (weighted kappa = 0.61; 95%CI 0.32;0.84). This variable was classified into three categories of work absences: "no day" (reference category), "a few days" (≤ 9 days) and "many days" (≥ 10 days).

The following variables were included: (i) sociodemographic: age (continuous), sex, marital status, level of schooling, children under 18 years, self-reported race/color and *per capita* income, according to the value of the minimum salary (R$ 350.00) at the time (< 1 salary, 1 ≤ 2 salaries, 2 ≤ 3 salaries, > 3 salaries); (ii) occupational: professional category (nurses, technicians and assistants), type of employment (servants/contract workers), number of hours of domestic work (continuous), night work (never worked at night, ex-night workers and current night workers), number of jobs in nursing; (iii) behaviors related to health and lifestyle: smoking, practice of physical activity (categorical variable: mean number of hours of physical activity), body mass index (BMI), obtained by self-reported weight and height (low/normal < 25; overweight: 25 to 29 and obese: ≥ 30), and consumption pattern of alcoholic beverages (low: up to 20g of alcohol/day; medium: from 20 to 40 g/day; and high > 40g/day); and (iv) diseases and symptoms: musculoskeletal diseases (number of self-diagnosed diseases from the list of diseases of the ICT evaluation questionnaire),[23] self-reported health and hypertension. Minor psychiatric disorders were classified according to the Brazilian version of the *Self-Reporting Questionnaire* (SRQ-20)[14] (affirmative answers to seven or more questions were classified as positive). Insomnia, considered an important predictor of sickness,[19] was measured through a three-item scale (i: had difficulty in falling asleep, ii: woke up during sleep and had difficulty in falling asleep again, and iii: woke up before the desired time and was not able to sleep again) and confirmed based on affirmative answers to any of the items.

The analyses were based on a hierarchical model that describes the relations among variables in the determination of the outcome. The independent variables were hierarchized in four levels of determination: 1) distal (sociodemographic factors: sex, age, level of schooling, marital status, children < 18 years, *per capita* income and self-reported race/color); 2) intermediate I (occupational factors: professional category, type of employment, number of jobs, night work and hours dedicated to domestic work); 3) intermediate II (health-related behaviors: smoking, categorical BMI, weekly physical activity and consumption of alcoholic beverage); and 4) proximal (health conditions/habits: musculoskeletal diseases, arterial hypertension, self-reported health, minor psychiatric disorder and insomnia).

The sociodemographic variables (distal level) were included in the model and the occupational (intermediate I level) and health-related behavior variables (intermediate II level) were adjusted for confounding. The same process was applied to the variables related to health and life habits (proximal level). The aggregation of variables' levels was performed taking into account conceptual aspects (epidemiological and clinical).

Table 1. Frequency and odds ratio of distal risk factors (not-adjusted) for sickness absenteeism among nursing professionals. Rio de Janeiro, Southeastern Brazil, 2006.

Variable	Sickness absenteeism[a]									
	≤ 9 days					≥ 10 days				
	n	%	OR Crude	95%CI	p	n	%	OR Crude	95%CI	p
Sex										
Male	33	18.8	1			22	13.3	1		
Female	273	25.7	1.5	1.00;2.24	0.049	225	22.5	1.85	1.15;2.97	0.011
Age	-	-	0.98	0.97;0.99	<0.001	-	-	1.03	1.02;0.04	<0.001
Level of schooling										
Higher education	193	27.1	1			132	20.3	1		
Secondary	99	22.4	0.52	0.29;0.95		88	20.4	1.01	0.74;1.36	
Primary	14	16.3	0.77	0.59;1.02	0.035	26	26.5	1.42	0.87;2.30	0.354
Marital status										
Single	108	23	1			57	13.6	1		
Married	134	25	1.11	0.83;1.49		122	23.3	1.92	1.36;2.71	
Separated and widowed	63	27.3	1.25	0.87;1.80	0.46	67	28.5	2.52	1.69;3.76	<0.001
Children < 18 years										
No	163	23.8	1			123	19	1		
Yes	143	26.1	1.13	0.87;1.47	0.346	122	23.1	1.28	0.97;1.70	0.085
Per capita income										
> 3 salaries	107	27.1	1			74	20.4	1		
2 ≤ 3 salaries	64	25	0.68	0.44;1.05		54	22	1.07	0.69;1.65	
1 ≤ 2 salaries	96	24	0.85	0.62;1.17		74	19.6	0.95	0.66;1.36	
< 1 salary	36	20.2	0.9	0.63;1.28	0.357	39	21.5	1.09	0.74;1.63	0.505
Self-reported race/color										
White	127	26.5	1			78	18.1	1		
Mixed ethnicity	121	24.6	0.9	0.68;1.21		97	20.7	1.18	0.85;1.65	
Black	57	21.8	0.77	0.54;1.10	0.365	71	25.7	1.57	1.09;2.26	0.051

[a] Reference category: No day

Bivariate logistic regression analysis was performed between the independent variables of each level of determination and sickness absenteeism. The adjusted odds ratio (OR) and their respective 95% confidence intervals were presented in the multiple model. Reference category was defined as that with the lowest expected risk of sickness absenteeism.

A hierarchized approach to variables entry was adopted for OR adjustment, according to the four determination levels that had been previously defined by the theoretical model, using the "enter" method. The variables that presented statistical significance with $p \leq 0.20$ in the bivariate analyses were previously selected for the multiple logistic regression analysis.

Distal level variables were included in the regression model to be adjusted among themselves; those that presented $p \leq 0.05$ were maintained in the model, even if they lost statistical significance with the inclusion of variables from the other levels. This strategy was maintained with the introduction of the variables of the intermediate I and II levels and of the proximal level, adjusted among themselves and by the variables of the distal and intermediate I and II levels.

The statistical analyses were performed with the statistical package SPSS (version 18).

The research was approved by the Ethics Committees of the hospitals and by the National Research Ethics Commission (Process no. 10.228/2004), as part of the funding involves a foreign institution.

RESULTS

The prevalences of sickness absenteeism in the 12 previous months were 20.3% and 16.6%, considering a few and many days of absence, respectively.

Being absent from work for a few days was associated with sex (higher among women), younger age and level

Table 2. Frequency and odds ratio of intermediate I and intermediate II risk factors for sickness absenteeism among nursing professionals. Rio de Janeiro, Southeastern Brazil, 2006.

Variable	Sickness absenteeism[a]									
	≤ 9 days					≥ 10 days				
	n	%	crude OR	95%CI	p	n	%	crude OR	95%CI	p
Intermediate I										
Profession										
Nurses	101	28.2	1			56	17.9	1		
Technicians	79	33.2	1.26	0.89;1.80		62	28.1	1.79	1.18;2.70	
Assistants	126	19.6	0.62	0.46;0.84	<0.001	129	20	1.14	1.14;1.62	0.012
Type of employment										
Contract worker	179	26	1			73	12.5	1		
Servant	126	23.1	0.85	0.66;1.11	0.24	174	29.3	2.89	2.14;3.92	<0.001
No. of jobs										
One	167	21.6	1			144	19.2	1		
Two or more	139	29.9	1.55	1.19;2.01	<0.001	103	24	1.33	1.00;1.77	0.05
Night work										
Never worked at night	10	18.2	1			10	18.2	1		
Ex-night worker	62	26.4	1.61	0.77;3.39		72	29.4	1.87	0.89;3.92	
Current night worker	234	24.7	1.47	0.73;2.97	0.45	165	18.8	1.04	1.04;2.10	0.01
No. of hours of domestic work	-	-	1	0.99;1.01	0.903	-	-	1.02	1.01-1.02	<0.001
Intermediate II										
Smoking										
Never smoked	224	25.7	1			161	19.9	1		
Ex-smoker	39	20.3	0.74	0.50;1.08		48	23.9	1.26	0.88;1.83	
Current smoker	42	24.4	0.94	0.64;1.37	0.299	38	22.6	1.18	0.79;1.76	0.39
Body Mass Index										
Low/normal	175	25.8	1			109	17.8	1		
Overweight	79	22.3	0.82	0.61;1.12		81	22.7	1.36	0.98;1.87	
Obese	46	26.7	1.05	0.72;1.54	0.384	50	28.4	1.83	1.24;2.70	0.006
Physical activity										
4 or more h/week	24	17.1	1			24	17.1	1		
1 to 3 h/week	57	23.3	1.73	1.09;2.75		51	21.3	1.32	0.82;2.12	
Does not practice	225	26.3	1.46	0.86;2.49	0.057	172	21.5	1.31	0.77;2.24	0.503
Alcohol consumption										
Low	190	23.8	1			162	21.1	1		
Medium	73	24.8	1.05	0.77;1.44		60	21.4	1.02	0.73;1.42	
High	43	29.1	1.31	0.88;1.93	0.402	25	19.2	0.89	0.89;1.43	0.876

[a] Reference category: No day

of schooling (lower among individuals of secondary level). Female sex, age, marital status (higher among married and among separated and divorced individuals, compared to singles) and self-reported race/color (higher among those who reported being black) were associated with many days of absenteeism (Table 1).

A few days of absence was associated with professional category (lower among nursing assistants) and with number of jobs in nursing (higher among those with more than one job). Professional category (higher among nursing technicians), type of employment (higher among public servants) and number of jobs in nursing (higher among those who have more than one job) presented association with many days of absence. Practice of physical activity (one to three hours per week) was associated with a few days of absenteeism; BMI (obese) was associated with many

Table 3. Frequency and odds ratio of proximal risk factors (health conditions) for sickness absenteeism among nursing professionals. Rio de Janeiro, Southeastern Brazil, 2006.

Variable	Sickness absenteeism[a]									
	≤ 9 days					≥ 10 days				
	n	%	crude OR	95%CI	p	n	%	crude OR	95%CI	p
Musculoskeletal diseases										
None	101	19.3	1			50	10.6	1		
1 and 2	92	22.8	1.24	0.90;1.70		84	21.3	2.28	1.56;3.33	
More than 2	113	36.1	2.36	1.72;3.24	<0.001	113	36.1	4.77	3.28;6.92	<0.001
Arterial hypertension										
No	233	24.3	1			154	17.5	1		
Yes	73	26.2	1.11	0.81;1.50	0.519	93	31.1	2.13	1.58;2.88	<0.001
SRHS										
Good/very good	233	22.3	1			162	16.7	1		
Regular/poor	70	36.3	1.98	1.43;2.74	<0.001	84	40.6	3.41	2.47;4.72	<0.001
MPD										
No	190	21.6	1			140	16.9	1		
Yes	116	32.2	1.72	1.31;2.27	<0.001	107	30.5	2.16	1.61;2.89	<0.001
Insomnia complaint										
No	62	23.3	1			44	17.7	1		
Yes	42	34.7	1.27	0.95;1.70	0.105	24	23.3	1.59	1.17;2.16	0.003

SRHS: self-reported health situation; MPD: minor psychiatric disorder
[a] Reference category: No day

days of absence. Type of employment was strongly related to many days of absence and to almost three times higher odds of being absent from work among public servants (Table 2).

Musculoskeletal diseases, self-rated health and minor psychiatric disorders presented statistical significance with a few days of absence. All the variables of the proximal level presented statistical significance with many days of absence (Table 3). There was a strong association of musculoskeletal diseases and self-rated health with absenteeism. The subjects who reported more than two musculoskeletal diseases presented odds that were almost five times higher compared to those who did not report any diseases. Among those who rated their health as regular/poor, the odds were 3.41 times higher when compared to those who reported good/very good health condition (Table 3).

Age, professional category, number of jobs, musculoskeletal diseases and self-reported health presented significance for a few days and for many days of absence in the hierarchized model. In the final model, age presented a borderline association in the two levels of absenteeism. Lower odds of a few absences were identified among nursing assistants, and higher odds of many absences, among technicians. Higher odds of a few and of many absences were identified among those who referred two or more jobs in nursing. Among individuals who reported more than two musculoskeletal diseases, the odds of reporting a few days of absence were approximately two times higher and of reporting many days of absence were approximately three times higher. In addition, the odds were 94% higher (OR = 1.94; 95%CI 1.28;2.95) for the individuals who reported "from one to two" musculoskeletal diseases, and also higher among those who rated their health as "regular/poor".

Type of employment, minor psychiatric disorders and marital status remained associated exclusively with many days of absence. Higher odds were identified among separated, divorced and widowed individuals (OR = 2.06), followed by married individuals (OR = 1.73). Three times higher odds (OR = 3.12) were observed among public servants. There was a borderline association in the final model with individuals classified as having minor psychiatric disorders (Tables 4 and 5).

DISCUSSION

Variables from different prediction levels were associated with the two forms of absenteeism, showing the complexity of the determination of this event among nursing workers. Sickness absenteeism is inserted in a context of different, overlapping aspects that include health, work environment, individual characteristics and socioeconomic aspects. Higher odds of a few and many days of absence were observed among those who reported more than one job, musculoskeletal

Table 4. Logistic regression analysis of the factors associated with a few days of absenteeism (≤ 9 days) among nursing professionals. Rio de Janeiro, Southeastern Brazil, 2006.

Variable	Absenteeism ≤ 9 days[a]				
	Crude OR (95%CI)	Distal Level Adjusted OR(95%CI)	Intermediate I Level Adjusted OR (95%CI)	Intermediate II Level Adjusted OR (95%CI)	Proximal Level Adjusted OR (95%CI)
Sex					
Male	1	1	1	1	1
Female	1.50(1;2.24)	1.62(1.07;2.47)	1.73(1.13;2.65)	1.64(1.07;2.53)	1.42(0.91;2.21)
Age	0.98(0.97;0.99)	0.98(0.97;0.99)	0.99(0.97;1.00)	0.99(0.98;1.00)	0.98(0.97;1.00)
Category					
Nurse	1		1	1	1
Technician	1.26(0.89;1.80)		1.33(0.92;1.91)	1.32(0.92;1.90)	1.38(0.95;2.00)
Assistant	0.62(0.46;0.84)		0.73(0.53;1.00)	0.72(0.52;0.99)	0.71(0.52;0.98)
No. of jobs					
One	1		1	1	1
Two or more	1.55(1.19;2.01)		1.53(1.17;2.01)	1.51(1.15;1.99)	1.49(1.13;1.97)
Physical activity					
4 or + h/ week	1			1	1
1 to 3 h/ week	1.73(1.09;2.75)			1.51(0.94;2.44)	1.49(0.92;1.42)
Does not practice	1.46(0.86;2.49)			1.43(0.83;2.43)	1.51(0.87;2.62)
Musculoskeletal diseases					
None	1				1
One and two	1.24(0.90;1.70)				1.13(0.81;1.58)
More than two	2.36(1.72;3.24)				2.13(1.50;3.01)
Self-reported health					
Good/very good	1				1
Regular/poor	1.98(1.43;2.74)				1.72(1.19;2.50)
MPD					1
No	1				1.06(0.77;1.47)
Yes	1.72(1.31;2.27)				

MPD: minor psychiatric disorder
[a] Reference category: No day

diseases and poor/regular self-rated health. Compared to nurses, assistants had lower odds of a few days of absenteeism and technicians had higher odds of many days of absence. Age, although borderline, was negatively associated with a few days of absence; public servants, married and separated, divorced and widowed individuals presented high odds of many days of absence.

Studies have shown a positive relationship between age group and number of work absences, [12,20,21,24] explained by the authors as a variable related to higher risks of chronic diseases and, therefore, higher possibility of absences. Marital status is a factor of great influence in the absenteeism levels, mainly when the worker has children and greater domestic responsibilities.[20] In the present study, the number of hours dedicated to domestic work did not maintain statistical significance in the multiple model after adjustment by the sociodemographic variables, which included marital status. We suggest that future studies deepen the evaluation of the influence of domestic work overload on the investigation of factors associated with absenteeism and professionals' sickness, mainly those in which the female sex predominates, as is the case of nursing.

The higher odds of many days of absence among nursing technicians compared to nurses are similar to the results of other studies[21] that attribute these findings to the reduced number of nurses, which might determine a greater obligation to remain working. Besides, nurses tend to play leading roles in the team, which require greater assiduousness, and present lower risk of contamination and diseases because they assume more administrative tasks in the hospital context.

The direct association between number of jobs and both forms of absenteeism may be explained by the

Table 5. Logistic regression analysis of the factors associated with long-term absenteeism among nursing professionals. Rio de Janeiro, Southeastern Brazil, 2006.

Variable	Long-term absenteeism[a]				
	Crude OR (95%CI)	Distal Level Adjusted OR (95%CI)	Intermediate I Level Adjusted OR (95%CI)	Intermediate II Level Adjusted OR (IC95%)	Proximal Level Adjusted OR (95%CI)
Sex					
Male	1	1	1	1	1
Female	1.85(1.15;2.97)	1.91(1.15;3.15)	2.10(1.24;3.56)	2.10(1.24;3.56)	1.48(0.86;2.56)
Age	1.03(1.02;1.04)	1.02(1.01;1.03)	0.98(0.96;1.01)	0.98(0.96;1.00)	0.98(0.96;1.01)
Marital status					
Single	1	1	1	1	1
Married	1.92(1.36;2.71)	1.68(1.16;2.44)	1.56(1.06;2.32)	1.53(1.03;2.27)	1.73(1.14;2.63)
Separated, divorced and widowed	2.52(1.69;3.76)	1.99(1.28;3.11)	1.93(1.22;3.05)	1.91(1.21;3.02)	2.06(1.27;3.35)
Category					
Nurse	1		1	1	1
Technician	1.79(1.18;2.70)		2.13(1.36;3.34)	2.09(1.33;3.28)	2.15(1.34;3.45)
Assistant	1.14(0.80;1.62)		1.09(0.74;1.59)	1.05(0.71;1.54)	1.00(0.67;1.49)
Type of Employment					
Contract Worker	1		1	1	1
Servant	2.89(2.14;3.92)		3.95(2.42;6.45)	4.00(2.45;6.53)	3.12(1.86;5.22)
No. of jobs					
One	1		1	1	1
Two or more	1.33(1.00;1.77)		1.69(1.23;2.33)	1.67(1.21;2.30)	1.64(1.16;2.30)
HDW	1.02(1.01;1.02)		1.00(0.99;1.02)	1.01(0.99;1.01)	1.00(0.99;1.01)
Body mass index					
Low/normal	1			1	1
Overweight	1.36(0.98;1.87)			1.11(0.78;1.58)	1.04(0.72;1.49)
Obese	1.83(1.24;2.70)			1.53(1.00;2.35)	1.07(0.67;1.72)
Musculoskeletal diseases					
None	1				1
One and two	2.28(1.56;3.33)				1.94(1.28;2.95)
More than two	4.77(3.28;6.92)				3.14(2.04;4.83)
Hypertension					
No	1				1
Yes	2.13(1.58;2.88)				1.19(0.81;1.75)
Self-reported health					
Good/very good	1				1
Regular/poor	3.41(2.47;4.72)				2.34(1.57;3.48)
MPD					
No	1				1
Yes	2.16(1.61;2.89)				1.44(1.00;2.07)

HDW: hours dedicated to domestic work; MPD: minor psychiatric disorder
[a]Reference category: No day

consequences of the high work demand, like physical and psychological distress, anxiety, stress and tension due to the activities of varied levels of complexity that are carried out at hospitals and the increased dissatisfaction of workers who have two or more jobs.[15]

Even adjusted by variables of different levels, type of employment constituted one of the variables that were most strongly associated with many days of absence, with almost three times higher odds among public servants when compared to contract workers. These

findings confirm those of other studies,[12,20,21] and are explained by the greater security these workers have concerning the maintenance of their job, as well as greater facility or right to obtain sick leaves each year, greater dissatisfaction with work and lower competitive pressure.[20] Authors discuss that adverse working conditions also contribute to the absences, mainly when there is an interaction with inadequate salaries and lack of employee appreciation in the work environment.[2] However, the possible survivorship bias should be considered, since contract workers are more likely to be dismissed after long absences. Time of activity in the contract function, possibly a variable of intermediate level in the hierarchy, may influence this process. This variable was not included in the multidimensional questionnaire, which prevented the analysis of its influence on the evaluated outcome. These aspects need to be further studied to clarify the factors involved in absenteeism among public servants.

As was expected, proximal predictors presented a strong association with absenteeism in relation to a few and many days of absence from work. Musculoskeletal diseases and minor psychiatric disorders were the most frequent reasons for sick leaves in Swedish public servants,[9] and were also relevant among nursing professionals in Brazil.[15] The activities of nursing teams in hospitals cause high physical distress with consequent musculoskeletal complaints. Transporting and moving patients and equipment and standing up for long periods during assistance, together with bad body posture and the inadequacy of the physical space and furniture, are pointed as ergonomic risk factors responsible for health damage, increasing absenteeism rates.[17] Our results agree with a prospective study conducted with health professionals from the United Kingdom, in which minor psychiatric disorders were found to be strong predictors of absenteeism, particularly in relation to many days of absence.[8] This relationship can be attributed to the connection of psychological suffering with the notion of sickness, which would give legitimacy to absence from work. The association between psychiatric disorders and absenteeism has been observed in studies with university workers[6] and Brazilian drivers and collectors.[22]

The identification of higher odds of a few and many days of absence among individuals who rated their health as regular/poor confirms the results of other studies.[7,10] Although this variable does not replace medical examination, its use may contribute to the first analysis of workers regarding their health and sick leave.

The sectional design of the study does not allow establishing causal relations among the observed associations. In addition, the inquiry encompassed workers at the work environment and, therefore, relatively healthy, which may lead to the underestimation of the identified associations. Sickness absenteeism was obtained through self-reported information; thus, subjected to memory bias or information bias, which would imply information overestimation or underestimation. However, the strong correlation between self-reported sickness absenteeism data and measures based on records make this be a measure that is considered valid for obtaining data on the theme.[4,25] The greatest advantage of this form of data collection is the capture of a few days of absence, which constitutes the majority of the work absences. These absences are not reported to Social Security. Not measuring the duration of each episode of sickness absence prevents a deeper analysis of absenteeism in the context of these workers, as some authors propose.[1,11,18,24]

Despite these limitations, the results reaffirm that sickness absenteeism in public hospitals is multifactorial and complex. It is a phenomenon that should be analyzed under the perspective of the work process, of the organizational culture and of aspects directly related to nursing workers' health. The multifactorial approach to absenteeism and to its reduction in hospitals is essential to decrease economic expenditures, increase workers satisfaction and improve the quality of nursing assistance.

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