RESEARCH

MANAGEMENT OF HUMAN RESOURCES IN NURSING: STUDY OF THE INTERFACE AGE – ABSENTEEISM

GERENCIAMENTO DE RECURSOS HUMANOS EM ENFERMAGEM: ESTUDO DA INTERFACE IDADE – ABSENTEÍSMO

GESTIÓN DE RECURSOS HUMANOS EN ENFERMERÍA: ESTUDIO DE LA INTERFAZ EDAD-ABSENTISMO

Ângela Silveira Gagliardo Calil ¹ Marli de Carvalho Jericó ² Márcia Galan Perroca ² ¹ RN. MS in Health Sciences. Professor of the Nursing Specialties Department of the College of Medicine of Sao Jose do Rio Preto – FAMERP – Sao Jose do Rio Preto, SP – Brazil.
² RN. PhD in Nursing. Associate Professor of FAMERP. Sao Jose do Rio Preto, SP – Brazil.

Corresponding Author: Ângela Silveira Gagliardo Calil. E-mail: angela@famerp.br Submitted on: 2014/08/28 Approved on: 2015/06/01

ABSTRACT

This retrospective study aimed at investigating the relationship between the variable age and the occurrence of unplanned absences in the nursing team. It was conducted with 652 staff members in eight inpatient units of a teaching hospital in the countryside of Sao Paulo state. Human Resources Department, Worker Supporting Center (WSC) and Hospital Management System databases were the sources of information used regarding the unexpected absences and demographic data of the Nursing team, as well as the monthly shifts provided by the nursing management. The prevailing absences were: medical leave - 45.5% to 55.3% in the age group of 20-40 years. Medical reports represented 28.961 (71.1%) of the 40.744 days out of work. Higher frequency of disorders were observed in the musculoskeletal system in all age groups - 12.6% to 38.9% and respiratory system - 11.1% - 20 - 30 years. Mental disorders had a higher mean duration - 23(187) and 7.354 days out of work (72.5%) - 31 to 50 years. Age was not a factor influencing the occurrence of unplanned absences. Mapping absenteeism and its causes allow reflection on the working conditions and the development of policies and strategies for managing the staff.

Keywords: Nursing Staff; Working-Age Population; Absenteeism.

RESUMO

Esta pesquisa retrospectiva teve por objetivo investigar a relação entre a variável idade e a ocorrência de ausências não previstas da equipe de enfermagem. Foi conduzida junto a 652 colaboradores lotados em oito unidades de internação de um hospital de ensino no interior do estado de São Paulo. Constituíram-se em fontes de informações as bases de dados do Departamento de Pessoal, Centro de Atendimento ao Trabalhador (CEAT) e Sistema de Gestão Hospitalar, referentes às ausências não previstas, e dados demográficos da equipe de enfermagem, assim como escalas mensais disponibilizadas pela gerência de enfermagem. As ausências predominantes constituíram-se em licenças médicas - 45,5 a 55,3% na faixa etária de 20-40 anos. Os atestados médicos representaram 28.961 (71,1%) dos 40.744 dias não trabalhados. Houve mais frequência de agravos do sistema osteomuscular em todas as faixas etárias - 12,6 a 38,9% e aparelho respiratório - 11,1% - 20-30 anos. Os transtornos mentais apresentaram mais duração média – 23 (187) e 7.354 dias perdidos (72,5%) - 31 a 50 anos. A idade não se constituiu em fator que influencia a ocorrência de ausências não previstas. O mapeamento do absenteísmo e suas causas permitem refletir sobre as condições laborais e a elaboração de políticas e estratégias de gestão de pessoas.

Palavras-chave: Recursos Humanos de Enfermagem; População em Idade de Trabalhar; Absenteísmo.

RESUMEN

Este estudio retrospectivo tuvo como objetivo investigar la relación entre la variable edad y la incidencia de ausencias al trabajo no previstas del equipo de enfermería. La investigación se realizó con 652 profesionales en ocho unidades de internación de un hospital universitario del estado de São Paulo. Las fuentes de información fueron las bases de datos del Departamento de Personal, del Centro de Atención al Trabajador (CEAT) y del Sistema de Gestión Hospitalaria, relativos a las ausencias no previstas, y los datos demográficos del equipo de Enfermería, así como las planillas de relevos mensuales suministradas por la gestión de enfermería. Las ausencias predominantes fueron las bajas por enfermedad - 45,5% a 55,3% en la franja etaria de 20 a 40 años. Los partes médicos representaron 28.961 (71,1%) de los 40.744 días no trabajados. Hubo una incidencia más grande de dolencias del sistema óseo-muscular en todos los grupos de edad y del aparato respiratorio (11,1%) - 20 a 30 años. Los trastornos mentales tuvieron mayor media de duración – 23 (187) y 7.354 días no trabajados (72,5%) - 31 a 50 años. Se observó que la edad no es un factor que incide en las ausencias no previstas. El mapeo del absentismo y sus causas permite reflexionar sobre las condiciones laborales y sobre la elaboración de políticas y estrategias de gestión de personas. **Palabras clave**: Personal de Enfermería; Población en Edad de Trabajar; Absentismo.

INTRODUCTION

Providing care depends on people and they represent the intellectual sphere of the organizations. Thus, changes in the amount of personnel may influence the results.

Dimensioning of the adequate ratio of nursing staff in health institutions was of concern of the Resolution 293/041¹ from the Federal Council of Nursing (COFEN). Within this resolution, among other aspects, it is recommended to implement a Technical Safety Index (IST) not less than 15% for absences coverage, and also the increase of 10% on this index in case that more than 60% of the staff members are over 50 years old.

However, there were no findings in the literature that support this recommendation or imply that nursing professionals older than 50 years could be less productive or present a higher level of absenteeism. Therefore, this study aimed at answering the following questions: is age a factor that influences the occurrence of unplanned absences among team members? Are employees aged over 50 years more frequently absent from work and for longer periods?

Although different studies address the absenteeism issue and have age as one of the demographic data, the present study was designed in order to stratify the variable age in groups, associating it to diverse aspects of absenteeism (type, frequency, duration, medical leave and the International Classification of Diseases - ICD). This stratification of the data allows a more comprehensive and in-depth view of the relationship age-absences in the different groups under analysis.

Absenteeism is a problem of major concern for health managers due to its impact on the patient, compromising its safety and quality of care.^{2,3} In relation to the worker, it sets up a ripple effect, causing burden^{4,5} and dissatisfaction with work and the institution.⁶⁻⁷ Costs have been reported as relevant.⁸⁻⁹ Apparently, an increased workload in the short term may generate more productivity. However, over time it becomes more costly due to absence related to health problems.⁵

Some countries have identified unplanned absences as one of the main issued that affect the nursing workforce. The World Health Organization (WHO) highlights the importance of absenteeism among these professionals, and investigates its rates.⁵⁻⁶ In Brazil, the "Commitment to Hospital Quality" (CQH)¹⁰ program recommends indicators providing information to guide the management.

Concurrently with the issue of absenteeism, there is the aging of the workforce, which brings the need for restructuring organizations to support the professionals with higher age.¹¹ Between 2004 and 2009, data show an increase from 38.7% to 42% of the number of jobs filled by people over 40 years old.¹² According to estimates, in 2040, the Brazilian working population will consist of approximately 57% of people over 45 years old.¹³

In Brazil, the nursing workers are between 26 and 55 years old. There is a higher concentration of BSN nurses (65.3%) and associate degree nurses (71.6%) aged between 26 and 35 years. As for licensed practical nurses, the predominant age occurs between 36 and 45 years (56.9%). The professionals aged over 55 years sum up for 26.9%.¹⁴

Internationally, a study conducted with 18,676 nursing professionals⁵ identified 1,264 (34.7%) nurses aged 45-54 years, and 499 (13.7%) over the age of 55 years. Therefore, this study aimed to investigate the relationship between the variable age and the occurrence of unplanned absences of the nursing team.

METHODS

This descriptive-exploratory and retrospective study (2007-2009) was conducted in a teaching hospital located at the countryside of Sao Paulo state. The selected settings were eight inpatient units, four medical-surgical and four specialized units (Adult Intensive Care Unit, Adult Coronary Care Unit, Pediatric Cardiology Unit and Pediatric Intensive Care Unit), representing 652 nursing professionals.

Data collection was performed according to the following steps:

- search for information: it was conducted in the databases Human Resources Department, Worker Supporting Center (WSC) and Hospital Management System, in which unplanned absences and demographic data of the nursing staff were collected, along with monthly shifts provided by the nursing management;
- organization of the data in Microsoft Excel spreadsheets;
- classification of absences by types: 1. medical leave (up to 15 days, INSS, occupational accident, pregnancy); 2. absences (unjustified and with permission); 3. other absences: suspension, event (marriage), death. Absences with permission were described as: court hearing, taking underage child, father or wife to a physician's appointment, participation in trainings, events, elections, university entrance exams, participation in lato and stricto sensu graduate courses and blood donation. Health problems were classified according to ICD-10.¹⁵

Consent was requested from the hospital board of directors, nursing management and managers of the medical-surgical and specialized units, from which the data was retrieved. The research was approved by the Ethics in Research Committee - report n° 095/2010.

For statistical analysis purpose, in order to avoid duplication of the absences over one year, the year 2007 was considered the output of the data. Absences of employees, which begin or enduring the investigation period were accounted for analysis. In cases in which the absence had more than one ICD documented, the first one was chosen.

The programs Rx64 version 2.13.0 and The R Foundation for Statistical Computing 2011 were used for statistical analysis. The results are presented as absolute and relative frequencies, median and variability measure - interquartile ranges (IQR).

RESULTS

From the 652 participants, 560 (85.9%) presented some type of absence between 2007 and 2009. 4,217 absences were identified, accounting for 40,744 days not worked. Medical leaves (49.1 to 55.5%) and not showing up (26.9 to 30.4%) were the most frequent types of absences.

In relation to duration, maternity absences presented median 134 (17.7) – variation 20-134 days, followed by INSS absences, with median of 61 (52.5) to 77.5 (244.3) – variation 16 to 1,095 days. In the years studied, 23,163 (56.8%) not worked days were observed related to INSS absences and 7,022 (17.2%) days of medical absences.

Table 1 - Distribution of types of unplanned absences according to frequency and duration – 2007 to 2009 (N=560). Sao Jose do Rio Preto, SP – Brazil, 2012

Types of	Frequ	lency	Duration		
Absences	N(%)	Md(IQR)	Days Lost	Md(IQR)	
2007	1.257	(29.8)	21.467		
O.Accid.	99 (7.9)	1.0(-)	1.0(-) 396		
M. Leave.	18(1.4)	1.0(-)	2.270	134.0(14.0)	
L. INSS	72(5.7)	1.0(-)	16.149	77.5(244.3)	
L. Med.	672(53.5)	2.0(2.0)	2.146	4.0(9.0)	
Absences	338(26.9)	1.0(2.0)	372	1.0(2.0)	
Others	58(4.6)	1.0(-)	134	2.0(4.0)	
2008	1.640	(38.9)	9.857		
O.Accid.	92(5.6)	1.0(-)	168	1.0(1.0)	
M. Leave.	24(1.5)	1.0(-)	3.017	134.0(14.0)	
L. INSS	38(2.3)	1.0(-)	2.972	61.0(52.5)	
L. Med.	910(55.5)	2.0(2.0)	2.811	4.5(10.0)	
Absences	498(30.4)	2.0(2.0)	718	4.5(10.0)	
Others	78(4.7)	1.0(-)	171 1.0(3.0)		
2009	1.320	(31.3)	9.420		
O.Accid.	68(5.1)	1.0(-)	116	1.0(-)	
M. Leave.	20(1.5)	1.0(-)	2.382	134.0(17.7)	
L. INSS	59(4.5)	1.0(-)	4.042	62.0(61.0)	
L. Med.	648(49.1)	2.0(2.0)	2.065	4.0(9.0)	
Absences	378(28.6)	1.0(1.0)	477	2.0(2.0)	
Others	147(11.2)	1.0(-)	338	2.0(4.0)	
Total	4.2	217	40.744		

Legend: O.Accid. – Occupational accident; M. Leave. – Maternity Leave; L. INSS – INSS Leave; L. Med. – Medical Leave; Absences – Unjustified and With Permission; Others – Suspension, Event and Death. It was identified that 23(4.1%) employees were over 50 years old. Table 2 shows the higher frequency of absences among the participants in the age range 20 to 30 years – 1,677 and 31 to 40 years – 1,666, accounting for 79.3% of the total absences. The most frequent absences among the age range swere medical absences (variation 45.5 to 55.3%) in the age range 20-40 years; and the unjustified and with permission absences (variation 25.6 to 34.1%) between 31 and 40 years.

Table 2 - Distribution of types of absences by age groups according to frequency - 2007 to 2009 (N=560). Sao Jose do Rio Preto, SP - Brazil, 2012

Types of	20 – 30	31 – 40	40 – 50	51 – 60	
Absences	N(%)	N(%)	N(%)	N(%)	
2007	561(33.5)	454(27.2)	193(27.3)	49(29.3)	
O.Accid.	51(9.1)	36(7.9)	10(5.2)	2(4.1)	
M. Leave.	10(1.8)	7(1.5)	1(0.5)	-	
L. INSS	23(4.1)	24(5.3)	19(9.8)	6(12.2)	
L. Med.	293(52.2)	247(54.4)	101(52.4)	31(63.3)	
Absences	156(27.8)	116(25.6)	56(29.0)	10(20.4)	
Others	28(5.0)	24(5.3)	6(3.1)	-	
2008	630(37.6)	678(40.7)	267(37.7)	65(38.9)	
O.Accid.	46(7.3)	30(4.4)	14(5.2)	2(3.1)	
M. Leave.	14(2.2)	10(1.5)	-	-	
L. INSS	10(1.6)	12(1.8)	15(5.6)	1(1.5)	
L. Med.	337(53.5)	375(55.3)	159(59.6)	39(60.0)	
Absences	191(30.3)	218(32.1)	67(25.1)	22(33.9)	
Others	32(5.1)	33(4.9)	12(4.5)	1(1.5)	
2009	486(28.9)	534(32.1)	247(35.0)	53(31.8)	
O.Accid.	27(5.6)	28(5.2)	11(4.4)	2(3.8)	
M. Leave.	9(1.8)	11(2.1)	-	-	
L. INSS	19(3.9)	24(4.5)	14(5.7)	2(3.8)	
L. Med.	242(49.8)	243(45.5)	132(53.4)	31(58.5)	
Absences	128(26.3)	182(34.1)	55(22.3)	13(24.5)	
Others	61(12.6)	46(8.6)	35(14.2)	5(9.4)	
Total	1677	1666	707	167	

Legend: O.Accid. – Occupational accident; M. Leave. – Maternity Leave; L. INSS – INSS Leave; L. Med. – Medical Leave; Absences – Unjustified and With Permission; Others – Suspension, Event and Death.

From the total of 40,744 not worked days due to the different types of absences, 21,467(52.7%) occurred in 2007; 9,857(24.2%) in 2008; and 9,420 (23.1%) in 2009. The age group 31 to 40 years accounted for 14,645 (36.0%) not worked days. INSS leave represented 16,281 (39.9%) days of absences, with 8,753 days related to the age group 41 to 50 years, and 7,528 days in the age group 31 to 40 years.

Among the 560 nursing participants who were absent, 506 (90%) presented medical leaves , totaling 2,367 events and

28,961not worked days. It was identified that there was a higher frequency of health problems related to the musculoskeletal system 381 (16.1%) and respiratory system 235 (9.9%). Mental and behavior disorders - median 23 (187), pregnancy, childbirth and postpartum - 16 (41), and neoplasms 15 (41.7) were the events with the highest average duration. It was also identified that 10,149 (35%) days were not worked due to mental disorders; 6,843 (23.6%) due to musculoskeletal system diseases and 2,003 (6.9%) due to infection and parasitic diseases. It is emphasized that there was a high frequency of clinical and laboratory tests, with 272 (11.5%) and 492 not worked days.

Table 3 - Distribution of types of absences by age groups according to duration - 2007 to 2009 (N=560). Sao Jose do Rio Preto, SP - Brazil, 2012

Types of		31 – 40		51 – 60
Absences	Days Lost	Days Lost	Days Lost	Days Lost
2007	4.643	6.751	7.725	2.348
O.Accid.	85	65	244	2
M. Leave.	1.254	896	120	-
L. INSS	2.149	4.911	6.946	2.143
L. Med.	908	699	346	193
Absences	168	136	58	10
Others	79	44	11	-
2008	3.778	3.698	1.489	892
O.Accid.	78	62	26	2
M. Leave.	1.779	1.238	-	-
L. INSS	557	889	844	682
L. Med.	977	1.122	532	180
Absences	319	300	73	26
Others	68	87	14	2
2009	3.321	4.196	1.628	275
O.Accid.	59	36	19	2
M. Leave.	985	1.397	-	-
L. INSS	1.200	1.728	963	151
L. Med.	751	726	494 94	
Absences	176	204	78 19	
Others	150	105	74	9
Total	11.742	14.645	10.842	3.515

Legend: O.Accid. – Occupational accident; M. Leave. – Maternity Leave; L. INSS – INSS Leave; L. Med. – Medical Leave; Absences – Unjustified and With Permission; Others – Suspension, Event and Death.

Analyzing the occurrence of medical leaves by age group (Table 5), it is possible to observe that the participants aged between 31 and 40 years presented a higher frequency of medical leaves (n= 914) and duration of those (9,816 days), while the participants aged between 51 and 60 years presented a lower frequency (n= 108) and duration (3,410 days). The health problems related to more absenteeism were mental and behavior disorders - 4,438 (45.3%) days, 41-50 years; musculoskeletal system diseases - 2,855 (29.1%), 41-50 years, and infection and parasitic diseases 1,369 (23.1%) - 20-30 years.

Table 4 - Medical leaves grouped following ICD-10, according to
frequency and duration – 2007 to 2009 (N=560). Sao Jose do Rio
Preto, SP – Brazil, 2012

C	Frequ	iency	Duration		
Group ICD-10	N(%)	Md(IQR)	Days Lost	Md(IQR)	
Circulatory Sys.	109(4.6)	1.0(1.0)	1.678	3.0(14.0)	
Digestive Sys.	213(9.0)	1.0(1.0)	925	2.0(3.0)	
Genitourinary Sys.	175(7.4)	1.0(1.0)	1.000	2.5(6.0)	
Respiratory Sys.	235(9.9)	1.0(1.0)	513	2.0(2.2)	
DIP*	168(7.1)	1.0(1.0)	2.003	5.0(13.0)	
Nutritional D.	3(0.1)	1.0(-)	73	11.0(60.0)	
Blood D.	16(0.7)	1.0(1.0)	235	10.5(50.2)	
Clinical/lab tests	272(11.5)	1.0(1.0)	492	1.0(2.0)	
Health Factors*	69(2.9)	1.0(1.0)	247	1.0(7.0)	
Preg/deliv/postp.	133(5.6)	2.0(3.0)	1.848	16.0(41.0)	
Injur/pois/others*	194(8.2)	1.0(1.0)	1.149	2.0(3.0)	
Malf./anomalies*	1(0.1)	1.0(-)	2	2.0(-)	
Neoplasms	16(0.7)	1.0(-)	403	15.0(41.7)	
Eye and annexes	173(7.3)	1.0(-)	943	7.0(4.0)	
Ear/mastoid	27(1.1)	1.0(1.0)	43	1.0(1.0)	
Skin/Subc. tissue	37(1.6)	1.0(0.5)	258	3.0(3.5)	
Musculosk. Sys.	381(16.1)	1.0(2.0)	6.843	5.0(13.5)	
Nervous Sys.	44(1.8)	1.0(-)	157	1.0(1.5)	
Mental Disor.	101(4.3)	1.0(1.0)	10.149	23.0(187.0)	
Total	2.3	67	28.961		

Legend: DIP – Some infections and parasitic diseases; Factors that influence that health status and contact with health services; Injury, poisoning and other consequences of external causes; Malform./anomalies – Congenital malformations, deformations and chromosomal abnormalities.

DISCUSSION

The findings show that 85.9% of the participants presented some sort of absence (absenteeism), corroborating other studies that took place in university hospitals - $87\%^{15}$ e 92,9%.¹⁶ In 1999, it was found that at the same institution the absenteeism percentage was of $47,6\%^{17}$, however, the current research had more involved participants (N=652) than the previous one (N=333).

The 7.6% reductions of absences were investigated between 2008 and 2009, possibly owing to the evaluation by Specialized Service in Security Engineering in Labor Medicine (SES-MT) regarding the number of participants that made use of medical leave for more than three days from 2008 on.

	20 - 30		31 – 40		41 – 50		51 – 60	
Group ICD-10	N(%)	Days Lost	N(%)	Days Lost	N(%)	Days Lost	N(%)	Days Lost
Circulatory Sys.	33(3.7)	131	43(4.7)	537	26(5.9)	201	7(6.5)	809
Digestive Sys.	93(10.3)	282	81(8.9)	321	32(7.3)	298	7(6.5)	24
Genitourinary Sys.	54(6.0)	225	80(8.8)	387	32(7.3)	343	9(8.4)	45
Respiratory Sys.	100(11.1)	229	89(9.7)	159	35(8.0)	99	11(10.2)	26
DIP*	76(8.4)	1369	61(6.7)	449	25(5.7)	168	6(5.5)	17
Nutritional D.	-	-	2(0.2)	62	1(0.2)	11	-	-
Blood D.	2(0.2)	31	6(0.7)	87	8(1.8)	117	-	-
Clinical/lab tests	113(12.5)	269	110(12.0)	154	40(9.1)	57	9(8.4)	12
Health Factors*	34(3.7)	82	31(3.4)	146	4(0.9)	19	-	-
Preg/deliv/postp.	82(9.0)	772	50(5.5)	1075	1(0.2)	1	-	-
Injur/pois/others*	77(8.5)	314	76(8.3)	146	40(9.1)	678	1(0.9)	11
Malf./anomalies*	-	-	1(0.1)	2	-	-	-	-
Neoplasms	2(0.2)	16	7(0.8)	184	6(1.4)	196	1(0.9)	7
Eye and annexes	73(8.0)	411	51(5.6)	245	44(10.0)	264	5(4.6)	23
Ear/mastoid	7(0.7)	8	8(0.9)	8	8(1.8)	21	4(3.7)	6
Skin/Subc. tissue	13(1.5)	35	19(2.0)	205	5(1.2)	18	-	-
Musculosk. Sys.	114(12.6)	477	144(15.8)	2620	81(18.5)	2855	42(38.9)	891
Sist. Nervoso	18(1.9)	23	18(1.9)	113	7(1.6)	20	1(0.9)	1
Transt. Mentais	15(1.7)	1257	37(4.0)	2916	44(10.0)	4438	5(4.6)	1538
Total	906	5931	914	9816	439	9804	108	3410

Table 5 - Medical leaves grouped following	g ICD-10, according to duration –	- 2007 to 2009. Sao Jose do Rio Preto, SP	– Brazil, 2012

Legend: DIP - Some infections and parasitic diseases; Factors that influence that health status and contact with health services; Injury, poisoning and other consequences of external causes; Malform./anomalies - Congenital malformations, deformations and chromosomal abnormalities.

4,217 unforeseen absences were found (1,405/year), totaling 40,744 days of no work (13,581/year), making it 2.5 absences per contributor per year, corresponding to 24.2 days of no work. Annually, this means a loss of about a month of work per participant, compromising the safety and quality of the patient care, the productivity, leading to an overload of work to the nursing team as well as higher operational costs to the institution itself. Other findings in the literature reveal a loss of 1,491 days/year¹⁵ and 10,452 days in a period of six months.²

Considering all types of absences, contributors ranging from 31 to 40 years old were the ones who showed the highest numbers of non working days in a period of three years (14,645).

Medical leaves -52.9% - and the absences -28,8% were the most frequent causes, making a total of 81.7\%.

Studies in university hospitals show percentages of excused leaves of $62.2\%^{18}$, $72.6\%^{15}$ e $80.3\%^2$; and absences of $24.5\%^{15}$ e $33.6\%^{18}$

It comes into attention that among the participants, 506 (90%) made use of some sort of medical leave, making 2,367 occurrences and totaling 28,961 days of no work; hence, 1.6 occurrences/contributor/year and 19 days of no work/contributor/year. A Canadian study found an average of absence caused by health problems of 1.7 a week (12.9 days) for nurses and 2.4 weeks (16.8 days) for licensed practical nurses.⁴

Medical absences represented 56.1% of the unforeseen absences (789 absences/year), a lower value from the ones found in public hospitals – 82%.⁸ It The significant loss of work days is highlighted among those between 31 and 50 years old: 19,620 (67.7%); and among the participants between 51 and 60 years old, the loss was of 3,410 (11.8%) days.

Analyzing the absences by age group, it was found that the higher frequency of events was between the ages of 20 and 40 (79.2%). Other studies have also highlighted the predominance of absences in the same age group varying between $51.9\%^{19}$, $52.1\%^{18}$ a $78.3\%^{17}$ However, considering the duration of the leave, there were more days of no work – 14,645 (35.9%) in the same age group of 31-40 years.

In face of the results found, it was possible to show that age is not a factor that influences unforeseen absence among the nursing team members. The Canadian study⁴ did not come up with a significant relationship between age and absenteeism caused by illness.

Participants ranging from 20 to 40 years old showed a higher number of absences with less duration and more number of no working days. Contributors of 50 years or older showed a lesser number of events, of longer duration and less workdays lost. These findings do not sustain, for now, that contributors of 50 years or more are those that will be absent more frequently from work. It is important to consider, however, the reduced number of workers above 50 years old (n=23, 4.1%) who took part in this study. Thus, it is recommended to perform further research in different scenarios of healthcare to thoroughly evaluate the repercussions in the demographic changes of the population regarding healthcare services in Brazil.

The hazards that generate the majority of non working days were mental and behavioral disorders, 4,438 (45.3%) days, and diseases of the musculoskeletal system, 2,855 (29.1%) days in the age group 41-50 years old; infection and parasitic diseases, 1,369 (23.1%) days in the age group of 20-30 years old. The high occurrence of medical absences caused by diseases of the musculoskeletal system and by mental disorders has been referred to in other surveys. It was found the predominance of mental disorders among those between 50 and 59 years old²⁰ and aggravations of the musculoskeletal system among those between 40 and 49 years old.¹⁶

The nursing team has been exposed to the rising occurrence of musculoskeletal injuries that develop gradually, leading to functional incapability and permanent or temporary absenteeism.²¹ Some authors warn to the importance of a correct body posture and for the use of ergonomic instruments and equipment of the labor activities as a way to minimize these kinds of injuries.²⁰

Absences motivated by mental and behavioral disorders found in this study are worrying. There was an increase in the number of absences, as the participant grown older. Considering days not worked, there was an increase of 56.9% in the group age of 20-30 years old for the group age of 31-40 years old; and an increase of 34.3% in the group age of 31-40 years old to the group age of 41-50 years old. It was found a reduction in the group age of 51-60 years old, perhaps because of the lower number of active professionals. Depression was identified as important factor of absenteeism among nurses.⁴

The Ministry of Health, through the Pan-American Organization of Health in Brazil,²² estimates that 30% percent of workers show light mental disease symptoms and 5% to 10% severe mental health problems, making it the second most important cause of retirement for incapacity. Hence the importance of managing the stress factors of the work environment, among them interrelationship issues, emotional distresses and lack of motivation.

The findings of this study represent the reality of about 80% of the participants allocated in units destined to patients of the Unified Health System (SUS) of an educational institution and can differ from other hospitals. Also, absenteeism is treated in many ways in each case, what makes it difficult to compare this study with others. Nevertheless, for it has been investigated more thoroughly, the relationship age/worker/absenteeism gives ammunition to the managers of human resources regarding interventions in different levels. Among them, it is highlighted: development of strategies of human resources focusing on older working people (strategic level); investments in ergonomic design at the work environment as well as more integration of the contributor on improvement actions (tactic level); and adoption of practices towards promotion of health and well-being of the contributors (operational level).

CONCLUSION

Absenteeism represents yet a challenge for all the nursing working force, which is susceptible to a variety of risks intrinsic to the type of work they execute, with chance of aggravation. In face of the results found, it was possible to conclude that age is not a constituting factor that influences unforeseen absences among the team members, and also, participants over 50 years old do not absence from work more frequently.

In face of the ageing of the work force, it becomes fundamental the comprehension of the relationship of age and absence, as well as its impact on the professional practice, in order to elaborate policies and management strategies consistent with the current reality.

REFERENCES

- Conselho Federal de Enfermagem –COFEN. Resolução nº 293/2004, de 21 de Setembro de 2004. Fixa e estabelece parâmetros para dimensionamento do quadro de profissionais de enfermagem nas unidades assistenciais das instituições de saúde e assemelhados [Internet]. Rio de Janeiro; 2004. [Cited 2007 Feb 15]. Available from: http://novo.portalcofen.gov.br/wp-content/ uploads/2012/03/RESOLUCAO2932004.PDF.
- Unruh L, Joseph L, Strickland M. Nurse absenteeism and workload: negative effect on restraint use, incident reports and mortality. J Adv Nurs.2007; 60(6):673-81.
- Sancinetti TR, Soares AVN, Lima AFC, Santos NC, Melleiro MM, Fugulin FMT, et al. Taxa de absenteísmo da equipe de enfermagem como indicador de gestão de pessoas. Rev Esc Enferm USP. 2011; 45(4):1007-12.
- Campos EC, Juliani CMCM, Palhares VC. O absenteísmo da equipe de enfermagem em unidade de pronto socorro de um hospital universitário. Rev Eletr Enferm [online]. 2009; 11(2):295-302. [Cited 2013 Aug 04]. Available from: http://www.fen.ufg.br/revista/v11/n2/v11n2a09.htm
- Rajbhandary S, Basu K. Working conditions of nurses and absenteeism: is there relationship? An empirical analysis using National Survey of the Work and Health of Nurses. Health Policy. 2010; 97:2-3. [Cited 2013 Oct 10]. Available from: http://ac.els-cdn.com/S0168851010001120/1s2.0-S0168851010001120-main.pdf?_tid=328102d4-949c-11e3-97f6-00000aacb35d&acdnat=1392288613_b30bd19743336f6f3b183508dce3ebf6
- Moret L, Anthoine E, Paillé C, Tricaud-Vialle S, Gerbaud L, Giraud-Roufast A, et al. Relationship between inpatient satisfaction and nurse absenteeism: an exploratory study using WHOPATH performance indicators in France. BMC Res Notes. 2012; 5:83. [Cited 2013 Oct 10]. Available from: http://www.ncbi. nlm.nih.gov/pmc/articles/PMC3305420/

- Aguiar GAS, Oliveira JR. Absenteísmo: suas principais causas e consequências em uma empresa do ramo de saúde. Rev Ciênc Gerenc. 2009;13(18):95-113.
- Pereira AA, Corso A, Meoti S, Camargo ME, Cruz MR. Absenteísmo: um estudo de caso em um hospital universitário. Scientia Plena. 2011; 7(10):1-9. [Cited 2012 Dec 11]; Available from: http://www.scientiaplena.org.br/ojs/ index.php/sp/article/viewFile/256/198
- Junkes MB, Pessoa VF. Gasto financeiro ocasionado pelos atestados médicos de profissionais da saúde em hospitais públicos no Estado de Rondônia, Brasil. Rev Latino-Am Enferm. 2010 Maio-Jun; 18(3):114-21. [Cited 2012 Feb 08]. Available from: http://www.scielo.br/pdf/rlae/v18n3/pt_16.pdf
- Duarte IG, Nagai MH, Peres da Mota NVV, Bittar OJN, Nishikuni YY. 3° Caderno de Indicadores CQH – 2009. Programa CQH - Compromisso com a Qualidade Hospitalar.São Paulo: APM/CREMESP; 2009. 92 p.
- Pricewaterhouse Coopers Brasil Ltda PwC. Envelhecimento da força de trabalho no Brasil. Pesquisa em parceria com EAESP-FGV. Apoio Fiesp, Sesi e Amcham. São Paulo: PwC; mar. 2013.
- Departamento Intersindical de Estatística e Estudos Socioeconômicos-DIESE. Anuário dos trabalhadores: 2009. 10ª ed. São Paulo: DIEESE; 2009.
- Instituto de Pesquisa Econômica Aplicada-IPEA. Comunicados do Ipea: Tendências demográficas. Nº64. Rio de Janeiro: IPEA; 2010.
- Comissão de Business Intelligence. Produto 2: Análise de dados dos profissionais de enfermagem existentes nos Conselhos. Brasília,DF: Conselho Federal de Enfermagem–Cofen Departamento de Tecnologia da Informação - DTI/Cofen Regionais; mar. 2011.

- Gaidzinski RR, Fugulin FMT, Castilho V. Dimensionamento de pessoal de enfermagem em instituições de saúde. Gerenciamento em enfermagem. In: Kurcgant P, coordenador. 2ª ed. Rio de Janeiro: Guanabara Koogan; 2012.
- Silva DMPP, Marziale MHP. Problemas de saúde responsáveis pelo absenteísmo de trabalhadores de enfermagem de um hospital universitário. Acta Sci Health Sci. 2003; 25(2):191-7.
- Magalhães NAC, Farias SNP, Mauro MYC, Donato MD e Domingos AM. O absenteísmo entre trabalhadores de enfermagem no contexto hospitalar. Rev Enferm UERJ. 2011 abr/jun; 19(2):224-30.
- Barboza DB, Soler ZASG. Afastamentos do trabalho na enfermagem: ocorrência com trabalhadores de um hospital de ensino. Rev Latino-Am Enferm. 2003; 11(2):177-83.
- Abreu RMD, Simões ALA. Ausências por adoecimento na equipe de Enfermagem de um hospital de ensino. Cienc Cuid Saude. 2009; 8(4):637-44.
- Silva LG, Correia KMF, Haddad MCL e Matsuda LM. Absenteísmo por doença de trabalhadores de enfermagem em um hospital público de média complexidade. Rev Terra Cult. 2012; 28(55):12-20.
- 21. Murofuse NT, Marziale MHP. Doenças do sistema osteomuscular em trabalhadores de enfermagem. Rev Latino-Am Enferm. 2005; 13(3):364-73.
- Damasceno DD, Santos AAA, Rocha AF, Rocha DD. Fatores que predispõem a equipe de enfermagem às lesões osteomusculares no exercício das atividades laborais. Rev Holos. 2011; 1(27):208-15.
- Brasil. Ministério da Saúde, Organização Pan-Americana da Saúde no Brasil. Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. Brasília, DF: Ministério da Saúde; 2001. Série A. Normas e Manuais Técnicos, 114.