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Absences of nursing workers at a teaching hospital*

AUSÊNCIAS DOS TRABALHADORES DE ENFERMAGEM EM UM HOSPITAL ESCOLA AUSENCIAS DE TRABAJADORES DE ENFERMERÍA EN UN HOSPITAL-ESCUELA

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ABSTRACT

Absenteeism in the nursing team worries the institutions' managers, because they reflect on the human resources quantitative aspects, interfering in the quality of healthcare provided to the clientele. This descriptive, retrospective study identified the percentage and the types of expected and non-expected absences of nursing workers in a school hospital, between April, 2001 and March, 2002. Data were collected by consultating the schedules and the monthly attendance reports in the Human Resources Center. Expected absences reached 40% for weekly days off, 3.9% for holidays and 9% for vacations. The percentage of non-expected absences for the nursing category varied from 0 to 46.3%, predominantly due to maternity leaves and occupational accidents. For nursing technicians and auxiliaries, percentages varied from 0.5% to 11.6%. In this case, the absences were due to sick and medical leaves approved by the National Institute of Social Security.

KEY WORDS

Nursing staff, hospital. Absenteeism. Personnel administration, hospital.

RESUMO

As ausências da equipe de enfermagem preocupam os gerentes das instituições, uma vez que repercutem no quantitativo de recursos humanos, interferindo assim na qualidade da assistência prestada à clientela. Este estudo, descritivo e retrospectivo, identificou o percentual e os tipos de ausências previstas e não-previstas de trabalhadores de enfermagem em um hospital-escola, entre abril de 2001 e marco de 2002. Os dados foram coletados a partir de consulta às escalas e relatórios de fregüência mensal junto ao Centro de Recursos Humanos. As ausências previstas alcançaram valores de 40% para folgas semanais, 3,9% para feriados e 9% para férias. Os percentuais de ausências não-previstas para a categoria enfermeiro variaram de 0 a 46,3%, com predominância de ausências por licenças-gestante e acidentes de trabalho. Para técnicos/auxiliares de enfermagem, os valores variaram de 0,5% a 11,6% e os tipos foram licenças-saúde e licenças médicas pelo Instituto Nacional de Seguridade Social.

DESCRITORES

Recursos humanos de enfermagem no hospital.

Absenteísmo.

Administração de recursos humanos em hospitais.

RESUMEN

Las ausencias del equipo de enfermería preocupan a los gerentes institucionales, una vez que repercuten en la cantidad de recursos humanos, interfiriendo con la calidad de la asistencia ofrecida al cliente. Estudio, descriptivo y retrospectivo, identificó el porcentaje y los tipos de ausencias previstas y no previstas en trabajadores de enfermería de un hospital-escuela, entre abril del 2001 a marzo del 2002. Los datos recolectados a través de la consulta de los roles de trabajo e informes de presencia mensual en Recursos Humanos. Las ausencias previstas alcanzaron valores de 40% para descansos semanales, 3.9% para feriados y 9% para vacaciones. Los porcentajes de ausencias no previstas para la categoría enfermero variaron de 0 a 46.3% predominando las ausencias por licencia-gestante y accidentes de trabajo. Para técnicos/auxiliares de enfermería, los valores variaron de 0.5% a 11.6% y los tipos fueron licencia-salud y licencia médica según el Instituto Nacional de Seguro Social.

DESCRIPTORES

Personal de enfermería en hospital. Absentismo. Administración de personal en hospitales.

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INTRODUCTION

Technological advances encourage competition and awareness about efficiency in hospital institutions. Quality, productivity and attention to clients are dominant topics in the search for the progress and survival of the institution and, in particular, human resources become strategically relevant to develop work.

The nursing staff represents, in quantitative terms, a significant share of the human resources allocated in healthcare institutions, especially hospitals, markedly influencing the global costs of the organization⁽¹⁾.

Assuring an adequate staff for the goals and purposes of the hospital constitutes a permanent challenge in the framework of qualified healthcare processes. Thus, since the 1940s, both researchers and nursing service managers have looked at the dimensioning of nursing staff, an important management action developed by nurses.

Over the past years, methodological proposals for nursing staff dimensioning have evolved and started to contemplate a higher number of variables, making them more complex and demanding expanded knowledge from the nurses about the specificities that compose them⁽²⁻⁴⁾.

The absence of employees at times when they should be working normally is defined in literature as absenteeism⁽⁵⁻⁷⁾ and represents one of the most influencing variables in the organization of nursing services. Particularly, in hospital units, where nursing work occurs continually and uninterruptedly, this event affects the quality of the healthcare provided

directly. Planned absences are defined as days off (paid weekly rest and holidays) and vacations; unplanned absences, in turn, are defined as missed days (justified or not), leaves (medical, maternity, long paid leave, labor accidents and by the National Institute of Social Security - *Instituto Nacional de Seguridade Social – INSS*, among others) and suspensions. Unplanned absences effectively constitute what is generically named absenteeism⁽²⁾.

Therefore, knowledge of this variable in a given reality can be understood as a supporting instrument for nursing managers, both in the adoption of evaluation strategies of the number of workers at an institution and the planning of these resources, aiming for the qualification of the nursing healthcare process.

To cover these absences, either planned or unplanned, according to what is established (or not) by Law, a percentile value named Technical Safety Index (TSI), which, added to the final result of the dimensioning equation, makes it possible to define the necessary staff⁽⁸⁻⁹⁾.

High absenteeism rates can unbalance the staff size, since they can increase the workload, wearing out the work-

ers who are present and, consequently, increasing the number of leaves, significantly harming the clientele.

The Federal Nursing Council - Conselho Federal de Enfermagem (COFEN) resolution $189/96^{(6)}$ established that the TSI to be applied in the nursing staff dimensioning process should not be lower than 30%. However, the Resolution does not specify the equations used to calculate the aforementioned coverage percentage and, therefore, this value could be considered an arbitrary value, which will not always represent the necessary percentage to cover absences at a given institution.

In 2004, correcting the previous Resolution, COFEN, in Resolution 293/04⁽⁹⁾, established that the TSI should not be lower than 15%, with 8.33% for the coverage of vacations and the remaining 6.67% (empiric/arbitrary value) to cover the absenteeism rate⁽⁹⁾. It also determined that the aforementioned index could be raised by 10% when at least 60% of the institution's nursing staff is 50 years or older⁽⁹⁾; and, the healthcare unit that presented absenteeism rates and benefits (vacations, prize licenses, etc) of more 15% jointly could also have its coverage increased according to the following equation (8.33% + X% > 15%)⁽⁹⁾. Similar to what oc-

curred with the previous Resolution, the equations used by COFEN to define the TSI in Resolution 293/04 were not made available.

Studies about nursing staff dimensioning, developed by several authors^(5,7,10-15) in different institutional realities, found variable Technical Safety Indexes (TSI), such as: between 6.9% and 76% for the nurse category, and between 10.38% and 62% for nursing technicians and auxiliaries, which shows the influence of institutional specificities on absenteeism per-

centages. These results point to the need for further studies about this theme so as to represent the particularities of each institution⁽⁵⁾.

Considering that the TSI predicted by COFEN is an arbitrary figure and therefore not very representative for hospital institutions, and that few studies about this theme were performed, particularly at the authors' institution, this research aims to identify the percentage and type of planned and unplanned absences of nursing workers at Hospital das Clínicas of the Faculdade de Medicina de Ribeirão Preto-University of São Paulo (HCFMRP-USP), based on literature and professional experience in the nursing management area. Thus, this study intends to contribute to the establishment of basic knowledge about this variable, to develop future studies for comparative analysis as well as to enhance the nursing human resource management area at the study institution.

METHOD

Since the 1940s, both

researchers and

nursing service

managers have looked

at the dimensioning of

nursing staff.

This is a quantitative, descriptive and retrospective study. This type of study seeks to analyze the phenomenon,



describing its result and attempting to comprehend the important variables of the problem⁽¹⁶⁾.

It was performed at HCFMRP-USP, a general government hospital with education and research purposes, which plays an important role in tertiary-level healthcare within the Single Health System – Sistema Único de Saúde – SUS. The hospital functions in two distinct buildings: One in the urban area, seeing to urgencies and emergencies, named Emergency Unit Unidade de Emergência (UE). The other, located at the University Campus, near the urban area, maintains hospitalization units and specialized outpatient clinics. It has 165 beds at the UE and 635 at HC-Campus⁽¹⁷⁾. The investigation was performed at HC-Campus, since it is a unit that performs elective care, well-defined in terms of adequacy, medical specialties and clientele characteristics.

The population consisted of nursing workers (nurses, nursing technicians and nursing auxiliaries) at the medical and surgical units of the institution. Although a small number of nursing attendants continue working in the nursing staff, these were excluded from the study since, according to Law, these do not provide healthcare to the patients.

The selected medical hospitalization units were: Medical Clinic (5th A and B, 6th A and B), Neurology (4th B), Dermatology (4th A) and Special Unit for Infectious Disease Treatment – Unidade Especial de Tratamento de Doenças Infecto-Contagiosas (UETDI).

The selected surgical hospitalization units were: Otorhinolaryngology (ORL – 12th B), Ophthalmology (12th B), Neck and Head Surgery (12th A), Orthopedics (11th A and B), Surgical Clinic (9th and 10th A and B) and Gynecology (8th B).

Information was collected at the Human Resource Center of the institution. Data referring to unplanned absences were obtained through a retrospective search in the monthly work schedules from April 2001 to March 2002, as well as the employees' monthly attendance reports, identifying the number of days, type of absence and professional category in each investigated hospitalization unit.

The following criteria were adopted to analyze all absences(15):

- Amount of nursing personnel: Number of workers in the monthly schedules, according to their professional category.
- Layoffs: Number of workers who worked until the 25th day of the month
- Admissions: number of workers admitted until the 5th day
- Absences: All types of absences, including justified and non-justified.
 - **Leaves:** Number of days the worker did not work.

Medical leaves are isolated days, or an uninterrupted sequence of up to 15 days away from work. When there is the need to extend the leave, after a medical examination, the leave happens through the National Institute of Social Security, and these are considered INSS leaves.

Days off, vacations and non-Sunday holidays were used to calculate the planned absences⁽²⁾.

Regarding the nursing team's weekly days off, the work routine at the institution consists of 30 hours per week, distributed in 6-hour daily day shifts with two days off and 12hour night shifts, with a 36-hour rest period between them.

The nursing services working with rotating shifts, without fixed days off, are entitled to the number of days off corresponding to the number of non-Sunday holidays. This number varies according to the number of days in the year. Therefore, in order to calculate the average value and the standard deviation, this variable should be equal to 12.8 ± 0.98 days⁽²⁾.

The planned holidays through the year are applicable to the whole country according to federal, state and city laws, with the latter two differing among states and cities. In the studied period, the institution granted 14 non-Sunday holidays.

As for planned absences due to vacations, article 128 and 130 of the Labor Laws - Consolidação das Leis do Trabalho – establish that all workers are entitled to a 30day yearly rest period for those with up to five missed days in a year; 24 vacation days for those with 6 to 14 missed days, 18 vacation days for those with 15 to 23 missed days and 12 days for those with 24 to 32 missed days. There is also the possibility of converting 1/3 of the vacation period into a pecuniary bonus⁽²⁾.

Given the difficulties to obtain these data at the institution, in order to individualize the number of vacation days per worker, the maximum number established by law was adopted, i.e. 30 days per year per worker of any professional category.

Regarding unplanned absences, the number of days differs among professional categories and hospitalization units. All of these absence types behave as random variables, and can occur on any day of the year.

To establish the annual average of unplanned absences for each professional category, first, the nursing staff existent at each hospitalization unit in each month of the studied period had to be identified, according to what was stated in the equation of the adopted method⁽²⁾; then, the average number of workers per professional category; next, the number and type of unplanned absences at the different units, and later, the average absenteeism rate for the period, per unit and professional category.

At the study institution, there is no difference between the actions executed by nursing auxiliaries and technicians. Thus, both categories were grouped for the calculations. It is important to note, however, that nursing technicians are



assigned to areas with a clientele that demands more complex healthcare, according to criteria defined by the Nursing division.

The percentages of each type of absence were calculated with the following equations⁽³⁻⁴⁾:

Planned absences due to weekly days off

The following equation indicates the percentage of this type of absence, which corresponds to the weekly paid rest.

$$E\% = \begin{pmatrix} e \\ \hline d - e \end{pmatrix} .100$$

where:

E% = percentage of days off;

e = number of weekly days off, resulting from the weekly workload in hours adopted at the Institution

d = number of working days per week at the unit.

Planned absences due to holidays

Considering that the nursing service is uninterrupted at the hospitalization units and that days off are not fixed, the employees are entitled to as many days off as the number of non-Sunday holidays. Thus, the calculation is as follows:

$$F\% = \left(\frac{f}{D-f}\right).100$$

where:

F% = percentage of holidays;

f = annual average of the non-Sunday holidays observed by the institution;

D = days of the year.

Planned absences due to vacations

Labor laws determine that workers are entitled to 30 days of vacation per year. The following equation was used for this calculation:

$$V\% = \begin{pmatrix} V \\ \hline D - V \end{pmatrix} \cdot 100$$

where:

V% = vacation percentage, according to the professional category;

v = average number of yearly vacation days;

D = days of the year.

Unplanned absences

The sum of these previously-defined absences establishes a percentage that differs among units and professional categories. It was calculated as follows:

$$A_{K}\% = \left(\frac{a_{k}}{D - a_{k}}\right). 100$$

where:

 A_{κ} % = Percentage of unplanned absences, according to professional category;

k = index indicating the professional category;

a_k = yearly average number of unplanned absences of a professional category k;

D = days of the year.

With the values found, referring to the planned and unplanned absences, the Technical Safety Index (TSI) was determined, calculated with the following representative equation⁽³⁻⁴⁾:

$$IST_{K}\% = \left\{ \left[\left(1 + \frac{E\%}{100} \right) \cdot \left(1 + \frac{F\%}{100} \right) \cdot \left(1 + \frac{V_{k}}{100} \right) \cdot \left(1 + \frac{A_{k}}{100} \right) \right] - 1 \right\} - 100$$

This investigation is included in the riskless research category and was approved by the Review Board of HCFMRP-USP and Faculdade de Medicina de Ribeirão Preto - University of São Paulo, according to Resolution 196/96 of the National Health Council/Ministry of Health.

RESULTS AND DISCUSSION

The coverage percentage obtained for *planned absences* due to weekly days off (paid weekly resting period) was 40%, i.e. this is the percentage that should be added to the existing staff.

The result found for the coverage percentage obtained for *planned absence due to holidays* was approximately 4%.

When applying the equation, the necessary coverage percentage for *planned absences due to vacations* was approximately 9%.

Studies developed in different institutional realities showed that planned absences (days off and vacation) represent the highest percentages for staff coverage. Among these absences, the absences due to days off predominate^(2,5,12-13).

Regarding *unplanned absences*, the necessary coverage percentages at the studied units are presented in Table 1, per professional category and respective hospitalization unit.



Table 1 – General percentage of unplanned absences of the nursing team at the Medical and Surgical units per Professional category, HCFMRP-USP – Ribeirão Preto – April 2001 to March 2002.

Hospitalization Unit	Medical Units							Surgical Units								
	UETDI	4 th A e B	5 th A	5 th	6 th A	6 th В	8 th B	9 th	9 th	10 th	10 th B	11 th	11 th	12 th A e B		
Nurse	12.39	1.82	46.30	0	0	2.17	0	1.87	5.32	9.52	0.92	0	0	6.26		
Nursing Technician / Auxiliary	10.91	5.23	0.96	8.26	11.60	4.04	1.29	8.68	0.47	3.32	1.29	3.55	9.10	5.66		

It can be observed that Medical Clinic 5th A presented the highest percentage of unplanned absences among all studied units for the nurse category, while the most expressive indexes for the nursing technicians/auxiliaries were found at Medical Clinic 6th A.

The percentage of absences for nurses varied from 0% to 12.39% at the medical clinic units, and from 0% to 6.26% at the surgical units; for the group of nursing technicians/auxiliaries, the percentage varied from 0.96% to 11.60% at the medical units and from 0.47% to 9.10% at the surgical units.

Studies performed at hospitalization units of university hospitals, using the same method as the present study to calculate coverage percentages for this type of absence, obtained the same results: at two heart recovery units, the percentage of unplanned absences for the whole nursing team varied from 0.79% to 12.55%⁽¹²⁾; at HU-USP, these percentages varied from 1,26% to 8.11% for the nurse cat-

egory and from 1.55% to 12.06% for the technician/auxiliary category⁽⁵⁾. At the same institution, in a five-year period, the percentages varied from 0.2% to 13.5% for nurses, and from 0.9% to 21.9% for technicians/auxiliaries⁽¹⁴⁾. At medical and surgical hospitalization units of a hospital in western Paraná, the percentage of these absences varied from 6.9% to 9.7% for nurses and from 6.2% to 11.4% for technicians/auxiliaries⁽¹⁰⁾; At Hospital São Paulo, located in the city of São Paulo, the variation of these percentages in 40 hospitalization units ranged from 0.5% to 15.7% for nurses, and 0.7% to 12.4% for technicians/auxiliaries⁽¹¹⁾.

The percentages of unplanned absences found in the aforementioned studies are comparable to the results found in the present investigation.

Tables 2 and 3 show the percentages of unplanned absences per professional category, reasons for absences and hospitalization units.

Table 2 – Percentage distribution of unplanned absences for the **category nurse**, per type of unplanned absence and hospitalization unit, HCFMRP-USP - Ribeirão Preto – April 2001 to March 2002.

Type of unplanned absence			Medical	Units			Surgical Units								
	UETDI	4 th A e B	5 th A	5 th B	6 th	6 th	8 th B	9 th	9 th B	10 th	10 th B	11 th A	11 th B	12 th A e B	
Missed day	0.038	0	0	0	0	0.04	0	0.15	0	0	0	0	0	0	
Medical leave	0	0	0	0	0	2.08	0	1.71	0	0.72	0.92	0	0	0	
Maternal leave	12.12	0	0	0	0	0	0	0	5.32	8.65	0	0	0	5.82	
Work-related accident	0	1.75	46.2	0	0	0	0	0	0	0	0	0	0	0	
Other leaves	0.23	0.07	0	0	0	0.04	0	0	0	0.14	0	0	0	0.44	
INSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Suspensions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	12.39	1.82	46.3	0	0	2.17	0	1.87	5.32	9.52	0.92	0	0	6.26	

For the nurse category, maternal and work-related accident leaves were the most frequent unplanned types of absence. However, it can be observed that, in five investigated units, there was no record of unplanned absences during the 12 studied months. Also, it is interesting to ob-

serve the inexistence of INSS-related absences and suspensions in this professional category.

The results in this investigation are similar to other studies^(5,11), which appoint maternal leaves as responsible for a high percentage of unplanned absences for nurses.



Table 3 – Percentage distribution of unplanned absences for the **category nursing technician/auxiliary**, per type of unplanned absence and internment unit, HCFMRP-USP - Ribeirão Preto – April 2001 to March 2002.

Type of unplanned absence			Medica	Units			Surgical Units								
	UETDI	4 th A e B	5 th A	5 th B	6 th A	6 th B	8 th B	9 th A	9 th B	10 th A	10 th B	11 th A	11 th B	12 th A e B	
Missed day	0.03	0.08	0.08	0.07	0.01	0.04	0	0.13	0	0.02	0	0.13	0.16	0.16	
Medical leave	0.75	1.18	0.63	0.72	1.55	1.2	1.03	0.07	0.34	0.73	0.32	2.52	2.01	1.57	
Maternal leave	3.79	1.37	0	0	2.9	1.58	0	0	0	2.18	0	0	0	0	
Work-related accident	1.12	0	0	0	0.08	0.09	0.26	0	0	0	0	0.09	0	3.9	
Other leaves	0.17	0.08	0.09	0.09	0.08	0.11	0	0.14	0.13	0	0.08	0.06	0	0.03	
INSS	4.84	2.51	0.16	7.31	7.0	1.02	0	8.33	0	0.38	0.89	0.76	6.92	0	
Suspensions	0.21	0.01	0	0.07	0	0	0	0	0	0.02	0	0	0	0	
Total	10.91	5.23	0.96	8.26	1 1.6	4.04	1.29	8.68	0.47	3.32	1.29	3.55	9.1	5.66	

Regarding the nursing technician/auxiliary categories, the percentages related to INSS-related absences and medical leaves are worth noting, which shows the need for further research at the institution to elucidate the reasons for these leaves, to support the analysis of the indexes. These results are different from both the HU-USP⁽⁵⁾ and Hospital São Paulo⁽¹¹⁾ studies, where there was no overall predominant type of absence for this group of workers at the studied units. However, a later investigation performed at HU-USP⁽¹⁴⁾ verified that the percentage of unplanned absences due to INSS-related leaves for this category was very significant, which shows the importance of monitoring this variable at the institutions.

It is also worth noting that, because of an administrative decision of the nursing department at the studied institution, the nursing staff is fixed in each unit, without the rearrangement of workplaces. Therefore, when prolonged unplanned absences happen at the unit, the nursing team itself assumes the consequences of this situation, with an evident increase in workload and implications for the group in terms of physical and emotional exhaustion.

It is also important to consider that this professional category represents the largest contingent of Nursing workers at the institution and, as such, absences due to INSS-related leaves and work-related accidents cause a strong impact on the development of work at the units, since it is not possible to predict and plan the return dates of all these employees in most situations. When they do return, they often have medical recommendations about functional restrictions and readaptations for the actions they will be able to perform. These facts also increase the degree of commitment of workload distribution for other employees at the unit.

Another aspect that is very peculiar at the research institution is the program proposed by the Superintendence and approved by the Foundation of Educational, Research and Healthcare Support at HCFMRP-USP, active since Sep-

tember 1996, named attendance prize. This proposal created a prize system for the hospital employees who did not present any type of absence during a 12-month period, consisting in granting extra food vouchers for the vacation period. However, with the authorization of the unit's direction, the Superintendence allowed the negotiation to exchange missed days for extra hours the employees would perform, so that they would not be harmed for the aforementioned prize. Since there are no restrictions regarding the number of days to be negotiated, the criteria at the units are rather diversified. This situation may have somewhat compromised the truthfulness of the research data on unplanned absences, and the value found may therefore be underestimated.

Some considerations are due about the reasons that lead employees to be away from work due to disease, such as medical, INSS-related or LAT leaves. Undoubtedly, factors connected to the work organization need be considered, such as lots of physical effort, work conditions, multiplicity of functions, excessive rhythm, exhaustive shifts, holding another job, etc. The characteristics of nursing work and its consequent stress can be sources related to possible healthcare problems and, consequently, cause absences at work⁽¹⁸⁾.

In Canada, an investigation⁽¹⁹⁾ involving 2000 registered nurses performing their professional activity identified, as absenteeism causes, from small indispositions to fatigue caused by work overload. High absenteeism rates were found to be associated to low satisfaction at work, long shifts, working in critical care and working full-time. A share of the investigated nurses reported the desire to abandon the profession, appointing work overload and stress as the primary causes.

A study about factors related to absenteeism due to disease in nursing professionals appoints that research about the disease profile of these workers in Brazil is



scarce⁽²⁰⁾, and, as such, not much is known about the morbidity profile associated to being away from work.

Hospital institution managers are wrong when they attribute the main cause of nursing team absences to absenteeism since, as a rule, this is an arbitrary judgment based on subjective data. Hence, it is recommended that the institutions review and develop the coverage indexes for this type of absence with an individualized and systematized analysis, according to the characteristics of the organization⁽²⁾.

Knowledge about the workers' behavior in relation to the variable unplanned absence and the establishment of indexes that are compatible with each reality determine the amount of workers that need to be added to the total number of employees in a given professional category to cover these absences, as well as the measures needed to restrain the indexes found⁽⁵⁾.

In view of the results obtained for planned and unplanned absences, the total percentage of added personnel (Technical Safety Index) to cover these absences was calculated for each internment unit of HCFMRP-USP (Table 4).

Table 4 – Percentage of added personnel to cover planned and unplanned absences of the nursing team at the Medical and Surgical Units, per professional category, HCFMRP-USP - Ribeirão Preto April 2001 to March 2002.

Hospitalization Unit		N	Iedical 1	Units			Surgical Units								
	UETDI	4 th A e B	5 th A	5 th B	6 th A	6 th B	8 th	9 th	9 th B	10 th A	10 th B	11 th A	11 th B	12 th A e B	
Nurse	78	62	132	59	55	62	59	62	67	73	60	59	59	68	
Nursing Technician / Auxiliary	74,5	67	60,3	71,4	79,3	65	61	73	59	63,5	61	64,2	73	68	

The TSI percentages varied from 55% to 132% for the nurse category, and from 59% to 79.3% for the nursing technician/auxiliary category.

These values were higher than the data found in other studies performed at teaching hospitals using the same methodology for TSI calculation: at hospitalization units of HU-USP, the percentages varied from 36% to 46% for the nurse category and from 37% to 51% for technicians/auxiliaries⁽¹⁵⁾; at the same institution, in a later study, this indicator varied from 27.4% to 49.6% for nurses and from 29.9% to 52.4% for technicians/auxiliaries⁽¹⁴⁾; for the hospitalization units of Hospital São Paulo, these percentages varied from 45% to 76% for nurses and from 45% to 62% for technicians/auxiliaries⁽¹¹⁾.

Comparing the TSI values found in this investigation and the previously mentioned studies with those established by COFEN, either in Resolution 189/96 $^{(8)}$, no lower than 30%, or in Resolution 293/04 $^{(9)}$, no lower than 15%, divergences are found. Therefore, the adoption of the indexes arbitrated by the Council does not fulfill the need for coverage of nursing worker absences, particularly for the studied institutions, with important repercussions for the human resources dimensioning process.

On the other hand, with the determination of their TSI, the healthcare services will be able to further the analysis of the reasons for obtaining these indexes, so that adequate intervention strategies can be designed, avoiding the application of under- or overestimated coverage levels for absences.

FINAL CONSIDERATIONS

The quality of healthcare services is intrinsically linked to the safety aspects of care delivery to the clientele. Safe and qualified healthcare depends, among other factors, on a nursing staff size adjusted to the patients' healthcare demands, i.e. the available nursing hours should be adequate to those required by the patient.

This study about the absences of the nursing workers at the medical and surgical hospitalization units made it possible to establish a diagnosis about the main reasons for unplanned absences, which consist of pregnancy leaves and medical leaves (healthcare leaves, INSS-related leaves and LAT).

The publication of the obtained results allowed the direction of the nursing service at the researched institution to verify the absenteeism indexes systematically, using them as indexes for performance evaluation in each area, and incorporating the results of the research into nursing management practice.

There are few studies about the theme that allow for comparisons of results at different institutions. Therefore, it is important that other studies be developed, since they can constitute valuable instruments for managing nursing services, as they will permit the analysis of the amount and type of worker absences. It is not enough for institutions to merely calculate the coverage percentages if there is no joint identification of the causes for these absences, so that specific intervention strategies can be adopted. Having elements that will assure a precise and faithful calculation of absences will contribute to establish a satisfactory and adequate number of workers, important elements for human resources planning and management.



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