Nursing care time in a teaching hospital*

TEMPO DE ASSISTÊNCIA DE ENFERMAGEM EM INSTITUIÇÃO HOSPITALAR DE ENSINO

TIEMPO DE ATENCIÓN DE ENFERMERÍA EN INSTITUCIÓN HOSPITALARIA DE ENSEÑANZA

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ABSTRACT

This is a quantitative exploratory, descriptive study performed with the objective to identify and analyze the performance of the average time of nursing care delivered to patients of the Inpatient Units of the University Hospital at University of São Paulo (UH-USP), from 2001 to2005. The average nursing care time delivered to patients of the referred units was identified by applying of a mathematical equation proposed in the literature, after surveying data from the Medical and Statistical Service and based on the monthly working shifts of the nursing professionals. Data analysis was performed using descriptive statistics. The average nursing care time observed in most units, despite some variations, remained stable during the analyzed period. Based on this observed stability, it is concluded that the nursing staff in the referred HU-USP units has been continuously evaluated with the purposes of maintaining the average time of assistance and, thus, the quality of the care being delivered.

KEY WORDS
Nursing care.
Time management.
Personnel management.
Hospitals, teaching.

RESUMO

Estudo de abordagem quantitativa, exploratório-descritivo, elaborado com o objetivo de identificar e analisar o comportamento do tempo médio de assistência de enfermagem dispensado aos pacientes das Unidades de Internação do HU-USP, no período de 2001 a 2005. A identificação do tempo médio de assistência de enfermagem dispensado aos pacientes dessas Unidades foi efetivada por meio da aplicação de uma equação matemática proposta na literatura, após levantamento dos dados junto ao Serviço de Arquivo Médico e Estatístico (SAME) e às escalas mensais dos profissionais de enfermagem. Os dados foram analisados por meio de estatística descritiva. O tempo médio de assistência de enfermagem observado na maioria das Unidades, apesar de algumas variações, manteve-se equilibrado durante o período analisado. Pelo equilíbrio observado, pode-se concluir que o quadro de pessoal de enfermagem das Unidades de Internação do HU-USP tem sido avaliado continuamente, de forma a possibilitar a manutenção do tempo médio de assistência e, conseqüentemente, da qualidade da assistência prestada.

DESCRITORES
Cuidados de enfermagem.
Gerenciamento do tempo.
Administração de recursos humanos.
Hospitais de ensino.

RESUMEN

Estudio de abordaje cuantitativa, exploratorio-descriptivo, elaborado con el objetivo de identificar y analizar el comportamiento del tiempo medio de atención de enfermería dispensado a los pacientes de las Unidades de Internación del HU-USP, en el período de 2001 a 2005. La identificación del tiempo medio de atención de enfermería dispensado a los pacientes de esas Unidades se efectivizó a través de la aplicación de una ecuación matemática propuesta en la literatura, posterior a la colecta de datos en conjunto con el SAME y las escalas mensuales de los profesionales de enfermería. Los datos fueron analizados a través de estadística descriptiva. El tiempo medio de atención de enfermería observado en la mayoría de las Unidades, a pesar de algunas variaciones, se mantuvo equilibrado durante el período analizado. Por el equilibrio observado, se puede concluir en que el cuadro de personal de enfermería de las Unidades de Internación del HU-USP ha sido evaluado continuamente, de manera de posibilitar el mantenimiento del tiempo medio de atención y, consecuentemente, de la calidad de la atención brindada.

DESCRIPTORES
Atención de enfermería.
Administración del tiempo.
Administración de personal.
Hospitales escuela.

INTRODUCTION

Health organizations, including hospitals, have invested in the search for new administration strategies that allow to conciliate the reduction of costs, the improvement of the quality in the services offered and the satisfaction of their clients[1].

Nevertheless, one of the greatest difficulties found in the daily work routine of hospital institutions refers to the insufficient number of professionals to assist the increasingly complex care demand of the clients[2].

The numerical and qualitative inadequacy of personnel not only influences, directly, the results of the care provided to the patients but also interferes in the health of nursing professionals, increasing the risk of emotional exhaustion, stress, dissatisfaction at work and burnout, with consequent reflection in the indexes of absenteeism and turnover[3-4].

In this perspective, the administration of the nursing service needs to evaluate continuously the workload of their team, using knowledge and instruments that allow them to perform a better planning, staffing, distribution and control of the nursing board under their responsibility[5].

The workload of the nursing care unit is obtained through the product of the daily average quantity of assisted patients/clients, according to the level of dependence on the nursing team, by the average time of used nursing care, by the client, according to the level of dependence[6].

Therefore, the average time of nursing care, according to the type of care, constitutes an objective measure for the evaluation and monitoring of the quantitative and qualitative board of nursing professionals of the inpatient units of hospital institutions, since it allows to evaluate the conditions of existing human resources in face of the quality and safety of the nursing care offered.

In face of the exposed and considering the importance of analyzing the average time of nursing care delivered to patients at the different inpatient units, as an administrative strategy that allows to optimize the available human resources, this study had the objective to: identify and analyze the behavior of the average time of nursing care delivered to the patients at the Inpatient Units of the University Hospital at University of São Paulo (UH-USP), from 2001 to 2005.

METHOD

This quantitative exploratory descriptive study was approved by the Committee of Ethics in Research of the UH-USP (protocol number 582/05), and developed at the following Inpatient Units of the institution: Intensive and Semi-Intensive Adult Therapy (AICU), Surgical Clinic (SCL), General Clinic (GCL), Rooming-in Complex (RIC), Pediatric Clinic (PCL), Nursery (NUR) and Pediatric Intensive Care (PICU).

The AICU has 20 beds, from which 12 are dedicated to patients who need intensive care and eight to semi-intensive care patients.

The SCL has 44 beds, eight dedicated to orthopedics and 36 to general surgery. The GCL also offers 44 beds, organized and distributed according to the System of Patient Classification that was implemented in 1990, comprehending: 14 beds for the care to high dependence on nursing, 22 for intermediate care and eight for minimum care.

The RIC has 52 beds, from which five are dedicated to gynecology. The PCL has 36 beds dedicated to the care of clinical and surgical cases.

The NUR has 24 beds dedicated to pathological newborns and the PICU has 16 beds, comprehending five dedicated to neonatal intensive care and 11 to pediatric intensive care.

Data collection procedures

In order to identify the average time of nursing care delivered to patients at the Inpatient Units, in the period from 2001 to 2005, this study used the equation proposed in Gaidzinski's[7] nursing staff dimensioning method, which allows to determine the average working time used by the nursing team to meet the needs of the patients, in the period of 24 hours:

$$h_k = \frac{q_k \cdot t_k}{n.(1+IST_k)}$$

in which:

h_k = daily average time of nursing care, by patient, delivered by the staff of the professional category k;

q_k = average quantity of nursing staff of the category K;

k = professional category;

t_k = daily working journey of the professional category k;

n = daily average quantity of assisted patients;

IST_k = Technical Safety Index of the category k.

The stages below were followed in order to identify the variables intervening in this model:

Identification of the daily average quantity of patients at the Inpatient Units (n)

In order to identify this variable, a survey was developed on the number of beds and the monthly occupancy rate of

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the Inpatient Units of the UH-USP, in the period from 2001 to 2005, together with the Service of Statistical and Medical Archive (SSMA). Based on the identification of these variables, the authors could establish the average quantity of patients in each Unit, according to each month and year of the study period through the application of the following equation:

$$n = \frac{\text{number of beds } \times OT}{100}$$

Identification of the daily working journey (t_k)

The identification of this variable considered the daily working time of the nursing team, determined by the Institution (6 hours).

Identification of the average quantity of nursing staff, as to the professional category (q_k)

In order to identify the q_k, a monthly survey was developed on the number of workers in the different categories (nurses, nursing technicians/assistants) that compose the nursing team of the Inpatient Units, through the monthly working shifts, establishing the year average per category.

After verifying that, in the professional practice, there is no difference between the activities performed by nursing technicians and assistants, it was decided to group both categories in order to establish a single quantitative of medium level professionals.

Identification of the Technical Safety Index (IST$_k$)

The IST (acronym for Índice de Segurança Técnica, in Portuguese) refers to an increase in the staff quantity, per professional category, in order to cover both expected absences (remunerated weekly time off, holidays and vacation) and unexpected (authorized, justified and unjustified absences, sick leaves, maternity leaves, leaves due to work accident, INSS leaves and others such as bereavement leave, marriage leave, paternity leave and suspensions). The following equa-

tion[7] was used to calculate the IST of nursing professionals from each Inpatient Unit, in the period from 2001 to 2005.

$$IST_k \% = \left\{ \left[\left(1 + \frac{R_k\%}{100} \right) \cdot \left(1 + \frac{V_k\%}{100} \right) \cdot \left(1 + \frac{A_k\%}{100} \right) \right] - 1 \right\} \cdot 100$$

In which:

$R_k\%$ = percentage of absenteeism due to weekly time off and holidays, of the professional category $_k$;

$V_k\%$ = percentage of absenteeism due to year vacation, as to the professional category $_k$;

$A_k\%$ = percentage of unexpected absenteeism, as to the professional category $_k$.

The percentages of each type of absenteeism, regarding the different units and professional categories, were obtained through the Nursing Department (ND) of the UH-USP.

Application of the equation to determine the average time of nursing care, according to the professional category

After the identification of the variables previously described, the equation was applied in order to identify the average time of nursing care delivered to patients at the Inpatient Units of the UH-USP, in the period from 2001 to 2005.

RESULTS AND DISCUSSION

Identification of the average quantity of patients at the Units (n)

The identification of the number of beds and the monthly occupancy rate (OR) of the Inpatient Units of the UH-USP allowed to identify the average quantity of patients assisted in each unit, in the period from 2001 to 2005, as Table 1 shows:

Table 1 - Average quantity of patients assisted at the Inpatient Units of the UH-USP, period from 2001 to 2005 - São Paulo - 2006

Year	UNIT						
	AICU	PICU	GCL	SCL	RIC	NUR	PCL
	N	N	N	N	N	N	N
2001	17.5	12.4	37.9	40.7	35.0	15.5	29.8
2002	18.0	10.7	43.3	39.4	35.7	14.0	31.1
2003	18.1	9.6	40.2	37.5	33.7	14.3	30.3
2004	17.6	9.8	38.3	33.2	34.7	14.7	28.7
2005	18.6	9.1	37.6	35.1	40.0	18.2	28.1
Mean	18.0	10.3	39.5	37.2	35.8	15.3	29.6
SD	0.4	1.3	2.37	3.07	2.4	1.7	1.21
CV%	2.5	12.6	6.01	8.24	6.8	11.1	4.08

n = average number of patients

According to Table 1, it is possible to observe that the average quantity of patients at the PICU decreased over

the years, presenting the lowest quantity in the year of 2005, differently from the NUR and the RIC, which had a

significant increase in the average number of patients in this period.

It is also possible to observe that the average quantity of patients at the AICU and the PCL had a lower coefficient of variation, that is, there were no significant changes in the average quantity of patients assisted in these units in the period.

Identification of the average quantity of nursing staff in each category k (q_k)

The identification of the monthly number of workers in the different categories of the nursing team at the Inpatient Units of the UH-USP allowed to identify the year average quantity of professionals, in the period from 2001 to 2005. Table 2 shows the year average quantities, by professional category, in each Inpatient Unit.

Table 2 - Year average quantity of Nurses and Nursing Assistant/Technicians at the Inpatient Units of the HU-USP, period from 2001 to 2005 - São Paulo - 2006

| Year | UNIT | | | | | | | | | | | | | |
| | AICU | | PICU | | GCL | | SCL | | RIC | | NUR | | PCL | |
	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A
2001	17,0	41,0	14,0	31,6	11,4	41,0	11,3	45,6	11,8	27,4	10,8	29,8	11,3	41,0
2002	19,5	41,9	12,9	33,0	11,8	42,8	11,4	44,9	11,4	29,3	11,6	31,3	11,8	41,0
2003	19,2	43,7	14,8	32,7	11,2	43,5	11,8	42,8	11,2	31,8	11,0	30,9	11,8	40,1
2004	19,8	44,2	14,0	31,1	11,8	44,1	12,8	42,7	11,7	33,1	8,3	24,9	12,8	40,3
2005	19,5	42,3	13,1	30,5	13,0	46,7	12,3	44,0	10,6	33,1	8,0	24,1	12,0	39,0
Mean	19,0	42,6	13,8	31,8	11,8	43,6	12,0	44,0	11,3	31,2	10,0	28,2	12,0	40,3
SD	1,13	1,29	0,75	1,05	0,71	2,06	0,63	1,27	0,47	31,2	1,66	3,44	0,57	0,76
CV%	5,94	3,03	5,47	3,32	5,97	4,73	5,30	2,89	4,15	8,8	16,64	12,2	4,74	1,89

NUR = Nurse   T/A = Nursing Technician/Assistant

Table 2 evidences that the average number of nurses at the Inpatient Units of the UH-USP did not present significant variations, remaining balanced during the entire analyzed period. Nevertheless, it is possible to observe a decrease in the average number of nurses at the NUR in the year of 2004, possibly due to an adjustment in the staff board in face of the number of assisted patients.

It is also possible to observe that the number of nursing technicians/assistants at the Inpatient Units did not present significant variations either, even though it has suffered more variations in the analyzed period. There was

a slight increase in the number of medium level professionals at the GCL in the year of 2005 and at the RIC in 2003. At the NUR, similarly to what happened to the average number of nurses, there was also a reduction in the average number of nursing technicians/assistants in the year of 2004.

Identification of the Technical Safety Index

The IST, according to the professional category and the Inpatient Unit, in the period from 2001 to 2005, is synthesized in Table 3:

Table 3 - Technical Safety Index, according to professional category and Inpatient Unit of the UH-USP, period from 2001 to 2005 - São Paulo - 2006

| UNIt | Year | | | | | | | | | |
| | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | |
	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A	NUR	T/A
AICU	33.9	33.7	37.7	34.0	41.0	35.7	33.2	29.9	32.6	30.8
PICU	37.1	43.2	36.6	49.8	44.4	47.0	49.4	50.5	37.1	47.5
GCL	30.9	33.6	34.5	33.1	49.6	38.1	47.2	45.3	37.4	52.4
SCL	38.2	37.8	37.6	34.8	36.5	44.2	41.8	45.6	48.9	42.7
RIC	34.2	32.6	33.8	37.8	40.3	49.6	40.6	37.7	34.9	41.3
NUR	33.9	33.7	33.7	42.5	46.2	45.4	38.9	39.2	38.9	36.3
PCL	27.4	32.2	37.5	31.8	37.0	39.8	44.7	38.5	41.3	40.4

NUR = Nurse   T/A = Nursing Technician/Assistant

The lowest IST was found at the PCL Unit in the year of 2001(27.4%), related to the category nurse, whereas the highest IST was observed at the PICU in 2004, in the categories nurse (49.4%) and nursing technician/assistant (50.5%).

Application of the equation to determine the average time of nursing care delivered at the Inpatient Units according to the professional category (h)

After the survey, identification and analysis of the variables intervening in the nursing staff dimensioning method, the authors calculated the average time of nursing care delivered to patients at the Inpatient Units of the UH-USP, through the application of the equation previously presented.

Table 4 - Average time in hours of nursing care delivered to patients at the Inpatient Units of the UH-USP, period from 2001 to 2005 - São Paulo - 2006

Unit	Year				
	2001	2002	2003	2004	2005
AICU	14.7	15.3	15.2	16.7	15.2
PICU	22.5	24.0	20.0	20.1	21.1
GCL	6.3	5.7	5.9	6.0	6.4
SCL	6.1	6.4	6.3	7.0	6.7
RIC	8.1	7.7	7.5	8.0	8.0
NUR	5.1	5.0	5.2	5.8	4.0
PCL	12.4	13.7	13.0	9.9	7.8

At all Inpatient Units, it was possible to observe that the average time of nursing care, despite of presenting some variations, remained practically balanced during the analyzed period, with exception to the average time of care delivered to patients at the PICU and at the NUR, which suffered a significant decrease in 2003 and 2004, respectively.

In face of the results found and aimed at verifying whether the variation of the average time of nursing care found between the months and years of the study period, at each Inpatient Unit, was significant, the statistic tests Analysis of Variance (ANOVA) and Least Significant Difference (LSD) were applied.

The test ANOVA allows to verify the hypothesis that the year averages of nursing care time are similar and whether the differences found are attributed at random. For the application of this test, the error possibility of 1% was accepted.

The test LSD was applied for the Unit where this hypothesis was rejected, that is, where the differences found were not attributed at random, aimed at identifying the periods in which the differences were significant, increasing the tolerance to error from zero to 2.5%, which allowed to eliminate the marginal differences.

The results found with the application of the test ANOVA evidenced that the hypothesis was not rejected at the Units of PICU, SCL and PCL, in other words, the differences between the year averages of nursing care time were attributed at random. At the AICU, GCL, RIC and NUR, the formulated hypothesis was rejected, indicating that these differences were not random.

Examining more carefully the analysis of the average time of nursing care delivered to the patients of these Units, the test of the Least Significant Difference (LSD) identified the periods that presented significant differences.

A Trend Analysis was also performed through the Non-linear Regression Method aimed at verifying the behavior of the variables average time of nursing care, nursing team in activity and average number of patients. The line adjusted to his method allowed to analyze, through the coefficients (angular and linear), the behavior trend of these variables, during the period of the study.

The analysis of the obtained results showed that the significant differences evidenced in the periods indicated through the LSD test, at the Units of AICU, GCL, RIC and NUR were related to a higher variation in the average quantity of professionals and/or the quantity of assisted patients.

The average time of nursing care delivered to the patients assisted at the Inpatient Units of the UH-USP, corresponding to the period from 2001 to 2005, is presented in Figure 1:
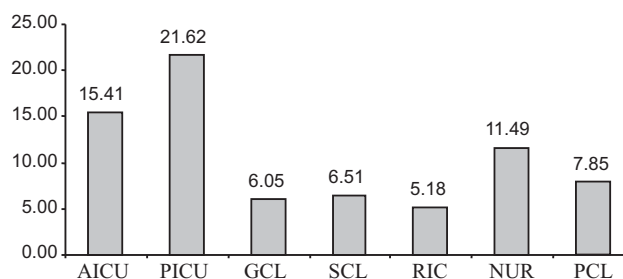

Figure 1 - Average time of nursing care delivered to the patients assisted at the Inpatient Units of the UH-USP, period from 2001 to 2005 - São Paulo - 2006

The comparison of the average time of nursing care at the AICU (15.4 hours) to the average time found in other studies and to the period of time recommended for care by the official organs indicates that the average time of care used to assist the patients of the AICU, in the period from 2001 to 2005, was lower than that indicated by American (22.2 hours)[8] and Brazilian[9-11] researchers (18.0 hours; 16.4 and 18.6 hours; 16.4 hours, respectively), as well as that recommended by the Federal Council of Nursing (FCN)[12], which corresponds to 17.9 hours.

The resolution of the Ministry of Health no. 3432, from August 12 of 1998, established that ICU type II would require 14.4 hours of nursing care, and the ICU type III, 16.8 hours of nursing care[13]. Therefore, the hours found in the present study agree with the average of the parameters indicated by the Ministry of Health (15.6 hours).

Nevertheless, considering that the AICU assists also patients in semi-intensive care, it was observed a need to establish a more appropriate parameter to compare the hours found to those recommended by the FCN. Therefore, the study identified, through the weighted average, the average time of nursing care of the AICU, according to the parameters of the Resolution no. 293/2004[12], observing the distribution of beds established by this Unit:

$$\text{Weighted mean} = \frac{\left(\begin{array}{c}\text{8 beds}\\\text{semi-intensive care}\\\times 9{,}4h\end{array}\right) + \left(\begin{array}{c}\text{12 beds}\\\text{intensive care}\\\times 17{,}9h\end{array}\right)}{20}$$

Weighted mean = 14.5 hours

By comparing the average found (14.5), according to the parameters of the FCN, to the average time verified at the AICU (15.4), it was observed that the average time of nursing care delivered to the patients of this Unit was higher than the ideal, according to the Resolution no. 293/04[12].

The application of this same procedure to the parameters indicated by other authors[8-9] indicates that the average time of nursing care delivered to patients of the AICU, in the period from 2001 to 2005, remained lower than that found according to the parameters of American researchers[8] (17.8 hours), however, it was higher than that found through the weighted average of the hours recommended by Brazilian researchers[9] (14.8 hours).

At the PICU, the average time of nursing care (21.62 hours) was higher than that indicated in the studies that pointed out, as parameter for the intensive care of the pediatric patient, the average time of 18[9] and 11 hours[14], as well as it was higher than the hours recommended by the FCN[12] for this care category (17.9 hours).

The average time of nursing care delivered to patients hospitalized at the GCL, in the period from 2001 to 2005, when compared to the hours of care identified or recommended by other authors, was equivalent to the hours indicated by American researchers[8], for the category of intermediate care (6.1 hours) and higher than the values pointed out by Brazilian researchers[9-10] and by the Resolution of the FCN no. 293/04[12], for this care category (4.5, 4.2 and 5.6 hours, respectively).

As it was verified that the beds at the GCL are organized and distributed according to the System of Patient Classification (SPC), implemented since 1990, there was also the possibility to establish more appropriate parameters to compare the hours of this Unit to those that would be found by using the parameters proposed by the FCN or the ones indicated by other researchers, like what happened at the AICU.

Therefore, the weighted average allowed to identify the time of nursing care of the GCL according to the parameters of the Resolution no. 293/2004[12], observing the distribution of beds established for this Unit, using the same parameters recommended for the semi-intensive care as reference for the hours of the category of high dependence on nursing, not authenticated by the FCN[12]:

$$\text{Weighted mean} = \frac{\left(\begin{array}{c}\text{8 beds}\\\text{minimum}\\\text{care}\\\times 3{,}8h\end{array}\right) + \left(\begin{array}{c}\text{22 beds}\\\text{intermediate}\\\text{care}\\\times 5{,}6h\end{array}\right) + \left(\begin{array}{c}\text{14 beds}\\\text{semi-intensive}\\\text{care}\\\times 9{,}4h\end{array}\right)}{44}$$

Weighted mean = 6.48 hours

By comparing the average found through the parameters of the FCN[12] (6.48 hours) to the average time verified at the GCL (6.05 hours), it is possible to observe that the average time of nursing care delivered to patients at this Unit was practically equivalent to what would be appropriate, according to the Resolution of the FCN no. 293/2004[12].

The application of this procedure to the parameters indicated by other studies[8-9] allows to verify that the average time of nursing care delivered to patients at the GCL, in the period from 2001 to 2005, was lower than the value found according to the parameters established by American authors[8], of 7.2 hours and higher to that found with the application of the weighted average of the hours recommended by a study developed in the national scenario[9] (5.9 hours).

The average time of nursing care delivered to patients at the SCL (6.51 hours) was higher than that pointed out for the category of intermediate care in the studies available in the literature[8-10], which correspond to 6.1 hours, 4.5 hours and 4.2 hours, respectively, and higher than that established by the Resolution of the FCN no. 293/2004 (5.6 hours)[12].

The average time of nursing care delivered to the patients of the RIC (5.18 hours) was higher than that indicated by the Ministry of Health for the Rooming-in Complex (3.8 hours)[15] and compatible to the hours indicated by the Resolution of the FCN for the category of intermediate care (5,6 hours)[12].

The average time of nursing care identified in this study for the Units of NUR and PCL was 11.49 hours and 7.85 hours, respectively.

Therefore, it is observed that the time of nursing care delivered to the patients hospitalized at the NUR was higher that the average time recommended by the FCN[12], for the category of semi-intensive care (9.4 hours).

At the PCL, the average time of nursing care was higher than the hours found in studies that indicate nursing care time for pediatric patients, corresponding to 5.5 hours[9] and 4.8 hours in care[10], as well as it exceeded the hours of care recommended by the Resolution of the FCN[12], that establishes *at pediatric inpatient units, in case there is no companion, children under six years old must be classified as in need for intermediate care*, that is, 5.6 hours.

CONCLUSION

The development of this study allowed to identify and analyze, in the period from 2001 to 2005, the behavior of the average time of nursing care delivered to the patients assisted at the Inpatient Units of the UH-USP.

The study verified that the average time of care presented variations according to the changes observed in

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the average quantity of staff and in the average number of hospitalized patients, remaining balanced at most of the Units.

According to the observed balance, it is possible to conclude that the nursing staff at the Inpatient Units of the UH-USP has been continuously evaluated in order to enable the maintenance of the average time of care and, consequently, the quality of the provided care.

The average time of nursing care delivered to patients at the Inpatient Units of the UH-USP, in the period from 2001 to 2005, corresponded to the following averages: 15.41 hours at the AICU; 21.62 hours at the PICU; 6.05 hours at the GCL; 6.51 hours at the SCL; 5.18 hours at the RIC; 11.49 hours at the NUR and 7,85 hours at the PCL.

Although it was possible to compare the average time of nursing care to that indicated in other studies and to the hours recommended by the FCN, the authors consider that the lack of data regarding the classification of the patients, according to the level of dependence on the nursing team, constituted a limitation of the present study, and is certainly going to be a limitation also for the development of other studies that aim at identifying or analyzing the hours of nursing care in a retrospective way, since Brazilian health institutions do not classify their patients systematically and do not register the level of dependence presented by their clients.

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