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DIMENSIONING OF NURSING PERSONNEL FOR INTENSIVE THERAPY: CONTRADICTIONS BETWEEN THE REGULATED AND WHAT IS DONE

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ABSTRACT
Descriptive study, with a cross-sectional design, carried in three adult intensive care units of a municipal public hospital, in Cuiabá - MT. The objective of this study was to analyze the quantitative and qualitative composition of the nursing staff assigned to intensive care, compared to the specific precepts of the Federal Nursing Council. The data collection was from February to April 2016. It was observed, when compared to the calculation made from Resolution COFEN 543/2017, that there is a distancing and qualiquantitative mismatch between the empirical reality and what determines the resolution regarding the dimensioning of personnel for intensive care. Regarding the professional practice, the inadequate participation of nursing assistants in patient care requiring technical care and greater complexity was also evidenced. In view of the evidence, it is suggested the low institutionality of the Brazilian nursing technical standards in the process of nursing work organization for intensive care patients.

Keywords: Nursing Staff. Dimensioning. Hospital.

INTRODUCTION

The nursing practice consists of different work processes that can be particularized from its specific elements (purpose, object, instruments, agent and product), and may or may not be developed concomitantly, the following: to care/assist, to manage/administer, to teach, to research, and to participate politically[1].

In addition to the identification of the different work processes that constitute the practice of nursing, another characteristic that identifies it is in the technical and social division in the production of its services, where agents with distinct levels of training and skills, as defined by the law that regulates the professional exercise of the category in Brazil (LEPE)[1-3].

Considering the architecture that the work of the nursing assumes, among its different agents, the nurse was taken here, as responsible, exclusively, for the organization, planning and evaluation of nursing care, besides the assumption of more complex care. From the definition of the individual plan of care, the nurse should delegate tasks to the technician-level agents - respecting the levels of training and competence - and control their efficiency through direct supervision[2-3].

Still according to LEPE, it is the responsibility of the nurse to manage/administer the work process, in order to organize and guarantee the conditions for performing qualified care[1-3].

In order to standardize the nursing work, the Federal Nursing Council (COFEN) has published the Resolutions that, in the condition of Technical Norms (NT), fulfill the objective of orienting, from the organization of the work to its effectiveness, through intervention actions to attend or anticipate the needs of clients/patients who demand nursing care[3-4].

In this sense, this research takes as reference the Resolution COFEN-543/2017, which updates and establishes parameters for the dimensioning of

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nursing professionals in the services /places where their activities are carried out[4].

The dimensioning of nursing personnel is understood as a systematic process that should guide the quantitative and qualitative planning of personnel, considering the nature and the workability and the organizational aspects of the institution, from the perspective of quality and continuity of nursing car[5].

In this sense, the dimensioning has been referred to as an important instrument of the management work of the nurse and, therefore, considered as one of the greatest challenges of the managerial of the most varied nursing services[4-12].

Given the centrality that nursing work assumes in the organization and effectiveness of the health care process, in the context of the hospital clinical model, the present study defined as its object the quantiqualitative dimensioning of nursing personnel, considering it as a powerful instrument/tool of the nurses manage/administer work process[1, 3-12].

The present study had aimed to analyze the design of personnel addressed to the assistance in intensive care, comparatively, to the Specific Technical Norm of the Federal Nursing Council*(4)*.

METHODOLOGY

This is a descriptive study, with a cross-sectional design and quantitative approach, from a matrix research entitled "Analysis of the nursing work organization in Intensive Care of a municipal public hospital in Cuiabá - MT, from the perspective of the Technical Norms of Federal Nursing Council ".

In this sense, we sought to analyze the nursing staff dimensioning for intensive care assistance at a Municipal Public Hospital in Cuiabá - MT, according to the NT defined by COFEN Resolution No. 543/2017[4].

According to the Ministry of Health Unit of Intensive Care Unit (ICU) is the "critical area for the hospitalization of severe patients, requiring specialized professional attention in a continuous way, specific materials and technologies necessary for diagnosis, monitoring and therapy"[13].

Located in the Capital of the State of Mato Grosso, the hospital under study has a capacity of 224 beds and responds as a reference of high complexity for trauma care in the great Cuiabá and interior of the State. In its structure, it has 38 beds for adult intensive care, organized in three units, with 10 beds of ICU-A I and ICU-A II and 18 beds in ICU-A III.

The study population consisted of the nursing work agents, who were employed in the three adult ICUs, which totaled 139 professionals, including nurse supervisors, nursing assistants, nursing technicians and nurse´s aides.

As inclusion criteria were considered only the professionals in effective activity, according to the schedules in the period of data collection and those who act directly in the care of the patients. Thus, two nurses who assume the supervision role, whose duties are exclusively administrative-bureaucratic, were excluded.

The data collection consisted in characterizing the effective framework of the agents of the nursing work, destined to the management of the care (nurses) and the care among them (nurses, technicians and nursing assistants). For this purpose, the documentary analysis technique was applied, applied to the study of the service scales and the pertinent legislation.

Thus, the schedules of the three units, corresponding to the period from February to April 2016, were considered. After the data collection, the data were digitized and stored with the software EPIDATA 3.1. After the constitution of the database, these were considered month by month, where it can be observed that the set of nursing workers did not vary numerically with respect to the quantitative and qualitative of the scales. Thus, it was decided, at random, by the schedule of April 2016 as a reference in the presentation of the results concerning the local reality.

Based on the quantitative evaluation of the nursing work agents allocated according to the April/2016 scale of the three adult ICUs, the following information was collected: (1) weekly workload (30 weekly hours Km = 0.263); (2) effective number of beds (38 beds) being, 10 UTI-I and II and 18 UTI-A III; (3) 100% occupancy rate for the three Units, considering the last six months.

For the classification of patients, according to the levels of required care, a specific instrument was developed based on the individual needs of adult patients[7,14]. This instrument contemplates 13 (thirteen) areas of care, being: mental state and level of consciousness, oxygenation, vital signs, nutrition and hydration, motility, locomotion, corporal care, eliminations, therapeutics, health education,

behavior, communication and skin integrity. Each prognosticator ranges from 1 (less complexity of care) to 5 (greater complexity of care). The minimum score is 13 and the maximum score is 65 points. Through the instrument, care can be classified into four levels: minimum (13-26 points), intermediate (27-39 points), semi-intensive (40-52 points) and intensive (53-65 points). After the application of the instrument, 100% (one hundred percent) of the patients were classified in the intensive care level, which requires 18 hours of nursing care in the 24 hours.

This classification is explained considering that the hospital under sutdy is a reference of high complexity for trauma care.

Data on the characteristics of adult ICUs were used to calculate personnel in the light of Resolution COFEN No. 543/2017(4). For this, the following formula was used:

(1) $Q_p = K_m \times THE$

(2) $K_m = \frac{DS}{JST} IST$

In which:

Q_p = Staffing Chart
K_m = Marinho Constant (0,2683 for 30 h/wk)
THE = Time in Hours for Nursing (18 hours)

In which:

DS = Days of the Week (7)
JST = Weekly hours (30 h)
IST = Technical Security Index (15%)

(3) $THE = (PCM \times 4) + (PCI \times 6) + (PCAD \times 10) + (PCSI \times 10) + (PCIt \times 18)$

In which:

THE = Time in Hours for Nursing.
PCM = Minimum Care Patient
PCI = Intermediary Care Patient.
PCSI = Semi Intensive Care Patient
PCAD = High Dependency Care Patients.
PCIt= Intensive Care Patinets.

(1) Formula for the calculation of the number of personnel for nursing services (Qp), proposed by Marinho (COFEN, 2017).
(2) Formula for the calculation of Marinho Constant (Km), applied in the calculation of the number of staff for nursing services.
(3) Formula for the calculation of Time in Hours for Nursing (THE), applied in the calculation formula of quantity of staff for nursing services.

Due to the characteristics found in the service, in the quantitative definition of the professionals, no increases were made regarding the minimum technical safety index since it was not justified considering that the age range of the workers was lower than what is recommended in the specific Technical Standard(4).

In the qualitative definition of the team, by professional level, after being defined as 100% of the beds for intensive care patients, 52% (fifty-two and eight percent) were nurses and 48% (forty-eight percent) nursing technicians(4).

Regarding to the results of the actual service scales and the COFEN standardized design calculation, a comparison can be made between the empirical reality and the ideal for the nursing service of the studied ICUs (4).

During all stages of the study, the devices included in Resolution CNS 466/2012 were considered. The main project of the study was submitted to the Committee of Ethics in Research with human beings of the University Hospital Júlio Muller/UFMT and approved under the Opinion no. 749.388, of 08/13/2014.

RESULTS

The three adult ICUs have 137 nursing workers for direct patient care, of which 21 (15.32%) are nurses, 111 (81.02%) are nursing technicians and 5 (3.64%) are nursing assistants.

Of the nursing workers, 37 (27%) are allocated to the ICU-A I, 37 (27%) are allocated to the ICU-A II and 63 (46%) in the ICU-A III. It was observed that the number of nurses is identical for units I and II and that these are distributed in the ratio of one for every 10 beds or fraction per team/work shift. What varies is the number of mid-level professionals, which includes the nursing assistant.

Regarding the data of the scales, considering each service unit, Table 1 summarizes, in a comparative way, the findings, when considering the empirical reality in relation to the regulations downloaded by Resolution COFEN 543/2017, including what establishes RDC 07/2010 MS/ANVISA(4,13).

Table 1 –Comparison of the distribution of nursing human resources carried out in Intensive Care Units I, II and III, in accordance with RDC 07/2010 MS/ANVISA and Resolution COFEN 543/2017. Cuiabá. 2016

Professional Category	HEALTH MINISTRY		COFEN/2017		HOSPITAL REALITY	
	N	%	N	%	N	%
ICU I						
Nurse	10	28.57	25	52	5	13.6
Nursing Technician	25	71.43	23	48	29	78.3
Nursing Assistant	0	0	0	0	3	8.1
Total	**35**	**100**	**48**	**100**	**37**	**100**
ICU II						
Nurse	10	28.57	25	52	5	13.6
Nursing Technician	25	71.43	23	48	30	81
Nursing Assistant	0	0	0	0	2	5.4
Total	**35**	**100**	**48**	**100**	**37**	**100**
ICU III						
Nurse	15	25	45	52	11	17.5
Nursing Technician	45	75	42	48	52	82.5
Nursing Assistant	0	0	0	0	0	0
Total	**60**	**100**	**87**	**100**	**63**	**100**

Source:. Scale files provided by the Hospital Nursing Service Coordination. Cuiabá - MT. 2016.

DISCUSSÃO

Contemporary of the advent of scientific management, the so-called Modern Nursing, historically, organized the way of producing its services reflecting the form of work organization in the capitalist model of production, separating the moment of conception from the moment of execution of the work[3]. This results in the persistence of different agents of nursing work, which differ in the level of education and training and, therefore, in the legal competences attributed by the legislation that regulates the professional practice of Brazilian nursing[2].

Thus, planning human resources for allocation in the different services that require nursing care has been a challenge for nursing leaders in the technical, ethical, legal or political field[5-11]. In this sense, the issue of RHE design "has permeated the various spheres of service complexity, among them the quality of care, care results, customer satisfaction, workload, hours of nursing care, as well as lowering of cost"[5-11].

The results of the study corroborate previous and current studies on the subject, pointing to extremely relevant issues in the context of the investigated reality. These included: 1) the quantitative inadequacy of the RHE to meet the demand[5-11]; 2) the qualitative inadequacy of the RHE against the demands of the care demanded[5-11]; 3) the qualitative inadequacy of the RHE in response to the demands of the care required and failure to comply with the basic legislation that regulates the practice of Brazilian nursing[2,4,15-16].

The quantitative inadequacy of the RHE to meet the demand

It was flagrant that the Nursing Service considers the specific NT of COFEN[4] in the allocation of personnel, however, it can be noticed that the composition of the team observes, in part, Resolution-RDC no. 7/2010[13], which establishes the minimum requirements for the operation of Intensive Care Units. This norm provides at least one nurse for every eight beds and one nursing technician for every two beds, considering their fractions, respectively.

From this determination two considerations remain. The first one, as evidenced empirically, that the hospital maintains the relationship of a nursing technician for every two beds, in strict compliance with the minimum established in the RDC-MS, but in the allocation of nurses, does not consider the fraction, remaining one professional for each ten beds in units I and II and one professional for each 9 beds in unit III. The second refers to the RDC-MS itself when it states that "a legally qualified multiprofessional team must be appointed, which must be dimensioned, quantitatively and

qualitatively, according to the care profile, the demand of the unit and current legislation"[13], but in the sequence establishes the minimum necessary what is contrary to the same legislation to which it refers[4].

It is known that public health services in Brazil suffer from the chronic contingency of financial resources, which poses as a challenge to managers the operational costs of services. This raises the justification for the minimal compliance of NT specific to the design of the RHE[5-6,8,10-11]. Some authors consider that "there is a tendency to attribute high health costs to staff costs" and that "cost reduction, which tends to fall on the nursing staff, which has an impact on the quality of care provided"[11].

The global context of sociocultural, political and economic transformations, determining the traits that organizational policies assume in the field of health service delivery, directly determine the organization of nursing work, since it represents the largest work force in health services. health, implying a reduction in operating costs from the capitalist logic of increasing production to a lower operating cost, often to the detriment of quality of care[5,10].

It is precisely in this context that we can see the low institutionality of the NTs in the nursing category, since in all of its laws (which includes from LEPE to the technical norms by COFEN), there is a forecast and definition of a way of organization and production of care that are disregarded, including by the official organs of the Brazilian State[3-4,9,15-16].

The qualitative inadequacy of the RHE in relation to the demands of the care demanded and failure to observe the basic legislation that regulates the Brazilian nursing practice

Due to the quantitative inadequacy of the EHR, the issue of disability in its qualitative was also evidenced, when compared to what determines the specific NT of the nursing category[4,9]. In this, the determination is that, for patients requiring intensive care, the nursing staff must have 52% of nurses and the rest must be nursing technicians.

The data showed the ratio of one nurse per ten/nine beds and the percentage of 15.32% of nurses in relation to the total number of nursing staff in the three units. In addition to the numerical insufficiency of the nursing professionals, it is suggested that the nursing work/nurses be secondarily assisted in intensive care[15].

In this perspective, nursing care planning, as established by the legal norms, may be compromised, considering the numerical insufficiency of nurses for intensive care. As a result, the care provided by the professional level can hardly go beyond the routine and compliance with medical prescriptions. In this sense, the practice of care is far from being considered systematized and individualized, according to the characteristics that intensive care patients require[2-4,9-15].

Facing what was evidenced, it is still possible to affirm the noncompliance with the basic legislation of the nursing category when the hospital maintains in its staff for intensive care the presence of nursing assistants. In all the legal and infra-legal mandates of Brazilian nursing, there is explicitly a prohibition of nursing assistants in the care of the seriously ill patients[2,4,15].

To guarantee the quality of nursing care, it is imperative to comply with the legislation in order to ensure the allocation of human resources in quantity and quality, as well as investment in the continued qualification of the team, as well as the provision of working conditions that enable the exercise appropriate functions in meeting the needs and expectations of patients/clients[3,5,10].

Especially in the context of the hospital under study, it can be considered that nursing management, when it does not observe its own legislation in the allocation of personnel, contributes to the low institutionality of the legal norms that guide the Brazilian nursing practice, given that the solution of the case in particularly the presence of nursing auxiliaries in intensive care would only require the re-assignment of technical personnel from other sectors and the redistribution of these to minimum or intermediate care units[4,9,15-16].

Facing this observation, considering the provisions of article 12 of the Code of Ethics of Nursing Professionals, on the responsibilities and duties, it remains to be considered that the nurse managers, and those others who act directly in the studied ICUs, when they maintain personnel without legal qualification that could potentially generate damages due to malpractice, negligence or recklessness to the client/patient[16].

Although nursing auxiliaries have accumulated experience, this condition does not authorize

noncompliance of the legal norm, since the acquisition of technical competence through experience can not dispense with legal competences[2,4,15-16].

The low institutionality of Brazilian nursing legal norms

Failure to comply with the technical and legal norms of Brazilian nursing evidenced, either in the quantitative or qualitative of the staff allocated to the ICUs of the hospital studied, suggests the fragility of the social status of the category, here understood as the set of legal norms and which regulate and regulate professional practice in the country[2,4,15-16].

The management of the nursing service is attributed to the nurse who must exercise it with autonomy through the planning, coordination and evaluation of nursing practices[2,14]. In this sense, it should guide its actions in the legal commandments, considering that these do not exist by themselves, but to order the professional exercise. Such planning is based on the protection of the client/patient and the agent of the nursing work itself. Therefore, the nurse manager is not allowed to maintain a service that is not ruled by legal norms, under penalty of guilt for non-compliance with the law.

Another aspect to be considered in the face of the evidence of the low institutionality of Brazilian nursing legal norms is that this condition compromises the professionalism of the nursing category[3,9].

CONCLUSION

The study made it possible to verify that the nursing service is organized in the absence of the Technical Norms that make up the social status of the nursing category, despite the presence of the nurse, as manager or Technical Manager.

Intensive Care Units are special spaces that require technology, which includes the specialized knowledge of nursing and the conduction of the care process by nurses. These, in addition to bureaucratic activities, should assume the leading role in the planning, execution, supervision and evaluation of nursing care, which demands the allocation of personnel quantitatively adequate for this purpose.

Given the limitation of the study, which sought to know the appropriateness of the RHE allocation considering what the specific NT of COFEN sends, it was not possible to observe what characteristics nursing care assumes in that scenario. It was only by suggestion that the difficulties of fulfilling the role of nurses in the planning, execution, supervision and evaluation of nursing care were considered as potential, in a perspective of individualization of care in relation to what each patient/client requires.

This condition suggests a care process in which the main reference is focused on medical prescription and routines, such as hygiene, dressings, feeding and control of eliminations. In this scenario, the participation of the nurse seems to fulfill only the minimum requirement, which demonstrates the secondarization of the knowledge and practices, specific to the nursing/nurses.

Another condition found that compromises nursing care is in the presence of the nursing assistant in the ICU. This professional should respond for care of a simple nature and do not demand immediate decision making. Certainly, the care required by patients in need of ICU is far from being considered simple in nature.

In view of the evidence, it is suggested that all agents of nursing work, which includes from the nurse to the nurse´s aid, violate the Professional Exercise Law and its Code of Ethics, which puts at risk the very meaning of professionalism of the Brazilian nursing, in the perspective of the sociology of the professions.

To consider, there remains the suggestion that further studies should be carried out, including other dimensions on the theme that relate more directly to the characteristics that nursing care/assistance assume in the circumstances.

DIMENSIONAMENTO DE PESSOAL DE ENFERMAGEM PARA TERAPIA INTENSIVA: CONTRADIÇÕES ENTRE O REGULAMENTADO E O FEITO

RESUMO

Estudo descritivo, com delineamento transversal, realizado junto a três unidades de terapia intensiva adulta de um hospital público municipal, em Cuiabá – MT. Teve como objetivo analisar a composição quantitativa e qualitativa do quadro de pessoal de enfermagem destinado à assistência em terapia intensiva, comparativamente às normas específicas do Conselho Federal de Enfermagem. Os dados foram levantados a partir das escalas dos meses de fevereiro a abril de 2016. De posse do material coletado, quando comparados com o cálculo realizado a partir da Resolução COFEN 543/2017, pode-se

observar que há um distanciamento e inadequação qualiquantitativa entre a realidade empírica e o que determina a referida resolução relativa ao dimensionamento de pessoal para a assistência em terapia intensiva. No que diz respeito ao exercício profissional, evidenciou-se ainda a inadequada participação de auxiliares de enfermagem na assistência ao paciente que requer cuidados técnicos e de maior complexidade. Frente ao evidenciado, sugere-se a baixa institucionalidade das normas técnicas da enfermagem brasileira no processo de organização do trabalho da enfermagem destinado à pacientes em terapia intensiva.

Palavras-chave: Recursos Humanos de Enfermagem. Dimensionamento. Hospital.

DIMENSIONAMIENTO DE PERSONAL DE ENFERMERÍA PARA TERAPIA INTENSIVA: CONTRADICCIONES ENTRE LO REGLAMENTADO Y LO HECHO

RESUMEN

Estudio descriptivo, con delineamiento transversal, realizado junto a tres unidades de terapia intensiva adulta de un hospital público municipal, en Cuiabá - MT. Tuvo como objetivo analizar la composición cuantitativa y cualitativa del cuadro de personal de enfermería destinado a la asistencia en terapia intensiva, en comparación con las normas específicas del Consejo Federal de Enfermería. Los datos fueron recogidos a partir de las escalas de los meses de febrero a abril de 2016. De posesión del material recolectado, cuando comparados con el cálculo realizado a partir de la Resolución COFEN 543/2017, se puede observar que hay un distanciamiento y una inadecuación cuali-cuantitativa entre la realidad empírica y lo que determina la referida resolución relativa al dimensionamiento de personal para la asistencia en terapia intensiva. En lo que se refiere al ejercicio profesional, se evidenció la inadecuada participación de auxiliares de enfermería en la asistencia al paciente que requiere cuidados técnicos y de mayor complejidad. Frente a lo evidenciado, se sugiere la baja institucionalidad de las normas técnicas de la enfermería brasileña en el proceso de organización del trabajo de la enfermería destinado a pacientes en terapia intensiva.

Palabras clave: Recursos Humanos de Enfermería. Dimensionamiento. Hospital.

REFERENCES

1. Sanna MC. Os processos de trabalho em Enfermagem. Rev Bras Enferm [on line]. 2007 abr-nov. [citado 2017 fev 28]; 60(2): 221-4]. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672007000200018&lng=en.

2. Brasil. Lei nº 7.498, de 25 de junho de 1986. Dispõe sobre a regulamentação do exercício da enfermagem, e dá outras providências. Diário Oficial da União. 26 jun 1986 [citado 2017 fev 25]. Disponível em: http://novo.portalcofen.gov.br/lei-n-749886-de-25-de-junho-de-1986_4161.html.

3. Ribeiro AC. O trabalho do enfermeiro: a relação entre o regulamentado, o dito e o feito, no cotidiano do hospital. 2009 [tese]. São Paulo (SP). Programa de Pós-graduação em Enfermagem. Departamento de Enfermagem Universidade Federal de São Paulo – UNIFESP. 2009.

4. Conselho Federal de Enfermagem. Resolução n.543/2017. Atualiza e estabelece parâmetros para o Dimensionamento do Quadro de Profissionais de Enfermagem nos serviços/locais em que são realizadas atividades de enfermagem. [Internet] Brasília(DF): COFEN; 2017 [citado 2017 nov 5]. Disponível: http://www.cofen.gov.br/resolucao-cofen-5432017_51440.html.

5. Lorenzini E. Deckmann LR. Costa TC. Dimensionamento de pessoal de enfermagem: revisão integrativa. Cienc Cuid Saúde [on line]. 2014 jan-mar [citado 2017 nov 5] 2017];13(1):166-72]. Disponível em: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/15959/pdf_136.

6. Borges F, Bohrer CD, Bugs TV, Nicola AL, Tonini NS, Oliveira JLC. Dimensionamento de pessoal de enfermagem na UTI-adulto de hospital universitário público. Cogitare Enferm [internet] 2017 abr-jun;[citado 2017 nov 22]; 22(2):1-8. Disponível em: http://revistas.ufpr.br/cogitare/article/view/50306.

7. Trettene AS, Luiz AG, Razera APR, Maximiano TO, Cintra FMRN, Monteiro LM. Carga de trabalho de enfermagem em Unidade de Terapia Semiintensiva especializada: critérios para dimensionamento de pessoal. Rev Esc Enferm USP. [Internet] 2015; [citado 2017 nov 25]; 49(6):960-6. Disponível em: http://www.scielo.br/pdf/reeusp/v49n6/pt_0080-6234-reeusp-49-06-0960.pdf.

8. Pias C, Mascolo NP, da Silva ERR, Linch GFC, de Souza EM. Complexidade da assistência em unidade de terapia intensiva: subsídios para dimensionamento de pessoal de enfermagem. Cogitare Enferm. [Internet] 2015 jul-set;[citado 2016 dez 28]; 20(3) : 533-9. Disponível em: http://dx.doi.org/10.5380/ce.v20i3.41083.

9. Garcia PC, Fugulin FMT. Tempo de assistência de Enfermagem em unidade de terapia intensiva adulto e indicadores de qualidade assistencial: análise correlacional. Rev Latino-Am Enfermagem [Internet] 2012 jul-ago. [citado 2017 nov 25]; 20(4):[09 telas]. Disponível: http://www.scielo.br/scielo.php?pid=S0104-11692012000400004&script=sci_abstract&tlng=pt.

10. Menegueti MG, Nicolussi AC, Scarparo AF, Campos LF, Chaves LDP, Laus AM. Dimensionamento de pessoal de enfermagem nos serviços hospitalares: revisão integrativa da literatura. Rev Eletr Enf. [Internet]. 2013 abr-jun; [citado 2017 nov 5]; 15(2):551-63. Disponível em: https://www.fen.ufg.br/fen_revista/v15/n2/pdf/v15n2a30.pdf.

11. Araújo TR, Menegueti MG, Auxiliadora-Martins M, Castilho V, Chaves LDP, Laus AM. Impacto financeiro do quadro de profissionais de enfermagem requerido em Unidade de Terapia Intensiva. Rev Latino-Am Enfermagem [Internet] 2016[citado 2017 out 3 out]; 24(n. esp) Disponível em: http://www.redalyc.org/pdf/2814/281449727045.pdf.

12. Araújo MT. Henriques AVB. Velloso C. Dimensionamento de pessoal de uma unidade de internação cirúrgica. Rev Gest Saúde. 2016 jan-mar; 7 (2):650-69.

13. Brasil. Resolução-RDC nº 7, de 24 de fevereiro de 2010. Dispõe sobre os requisitos mínimos para funcionamento de Unidades de Terapia Intensiva e dá outras providências. Imprensa Oficial. Diário Oficial da União. 2010 fev; 25:48-52.

14. Perroca MG. Desenvolvimento e validação de conteúdo da nova versão de um instrumento para classificação de pacientes. Rev Latino-Am Enfermagem. 2011 jan-fev [citado 2017 nov 5];19(1):[09 telas]. Disponível em: http://www.scielo.br/pdf/rlae/v19n1/pt_09.pdf.

15. Soares MI, Terra FS, Oliveira LS, Resck ZMR, Esteves AMSD, Moura CC. Processo de enfermagem e sua aplicação em unidade de terapia intensiva: revisão integrativa. Rev Enferm UFPE [Internet].

2013 [citado 2017 nov 5];7 Esp:4183-91. Disponível em: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewFile/3242/pdf_2617.

16. Conselho Federal de Enfermagem. Resolução nº 311 do Conselho Federal de Enfermagem, de 08 de fevereiro de 2007 (BR). Aprova a reformulação do Código de Ética dos Profissionais de Enfermagem [citado 2017 fev 25]. Disponível em: http://novo.portalcofen.gov.br/resoluo-cofen-3112007_4345.html.

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