Moreira PSV, Silvino ZR, Cortez EA. Worker's health: care subsidized by the...



WORKER'S HEALTH: CARE SUBSIDIZED BY THE ABILITY TO WORK INDEX SAÚDE DO TRABALHADOR: ATENÇÃO SUBSIDIADA PELO ÍNDICE DE CAPACIDADE PARA O TRABALHO

SALUD DEL TRABAJADOR: ATENCIÓN SUBSIDIADA POR EL ÍNDICE DE CAPACIDAD PARA EL TRABAJO

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ABSTRACT

Objective: to correlate the length of service with the Ability to Work Index (ICT) of the nursing staff at a university hospital in the city of Niterói-RJ. **Method**: observational, descriptive study with 131 nursing workers in the period from February to April 2013 using the ICT questionnaire to collect data. The research project was approved by the Research Ethics Committee, CAAE 11069612.1.0000.5243. **Results**: the correlation with the ICT service time was negative, moderate and significant. The Spearman test showed inverse correlation, where if the service time increases, the ability to work decreases. **Conclusion**: ICT analyzed as subsidies generator is configured as a helper protocol in maintaining the good ability to work from admission to retirement, providing the employee a chronological aging and functional healthy. **Descriptors**: Occupational Health; Nursing Staff; Assessment of Work Ability.

RESUMO

Objetivo: correlacionar o tempo de serviço com o Índice de Capacidade para o Trabalho (ICT) da equipe de enfermagem de um hospital universitário no município de Niterói-RJ. *Método*: estudo observacional, descritivo, com 131 trabalhadores de enfermagem, no período de fevereiro a abril de 2013, utilizando-se o questionário ICT para coleta de dados. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE 11069612.1.0000.5243. *Resultados*: a correlação do ICT com tempo de serviço foi negativa, moderada e significativa. O teste de Spearman mostrou a correlação inversamente proporcional, onde se o tempo de serviço aumenta a capacidade para o trabalho diminui. *Conclusão*: o ICT analisado como gerador de subsídios configura-se como um protocolo auxiliador na manutenção da boa capacidade para o trabalho desde a admissão até a aposentadoria, proporcionando ao trabalhador um envelhecimento cronológico e funcional saudável. *Descritores*: Saúde do trabalhador; Equipe de Enfermagem; Avaliação da Capacidade de Trabalho.

RESUMEN

Objetivo: correlacionar el tiempo de servicio con el Índice de Capacidad para el Trabajo (ICT) del equipo de enfermería de un hospital universitario en el municipio de Niterói-RJ. *Método*: estudio observacional, descriptivo con 131 trabajadores de enfermería en el período de febrero a abril de 2013 utilizando el cuestionario ICT para recolección de datos. El proyecto de investigación fue aprobado por el Comité de Ética en Investigación, CAAE 11069612.1.0000.5243. *Resultados*: la correlación del ICT con tiempo de servicio fue negativa, moderada y significativa. El test de Spearman mostró la correlación inversamente proporcional, donde si el tiempo de servicio aumenta, la capacidad para el trabajo disminuye. *Conclusión*: el ICT analizado como generador de subsidios se configura como un protocolo auxiliador en el mantenimiento de la buena capacidad para el trabajo desde la admisión hasta la jubilación, proporcionando al trabajador un envejecimiento cronológico y funcional saludable. *Descriptores*: Salud del Trabajador; Equipo de Enfermería; Evaluación de la Capacidad de Trabajo.

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Moreira PSV, Silvino ZR, Cortez EA.

INTRODUCTION

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According to statistical projections of the World Health Organization (WHO) in 1950-2025, the group of elderly in the country is expected to increase by fifteen times, while the total population by five times. Thus, Brazil will occupy sixth place as the number of elderly.¹

In Brazil, chronic non-communicable diseases (NCDs) are responsible for 72% of deaths.² The injuries resulting from NCDs have been the main causes of death in the elderly population, following a worldwide trend. When the specific causes are analyzed, cerebrovascular disease is the first in mortality in the country, both in the elderly as in the general population, and cardiovascular disease, the second place.²

Aging can be understood as a natural process of gradual reduction in the functional reserve of individuals - senescence - that in under normal conditions, it does not usually cause any problems. However, under overload conditions such as diseases, accidents, and emotional stress, it can cause a pathological condition requiring assistance - senility.³

professional the Considering biopsicosociocultural and productive human being, it is worth remembering that they met their needs also, through their production and if it is not adequate, lead them to seek more than one job. With working ties and performing direct actions of patient care, the professional can distance from their care, having to move from one job to another through the traffic chaos, household chores, appointments with their children, among other responsibilities. Performing routine consultations are not always possible, leading workers to seek care when they are in apparent signs and symptoms.

According to Article 2 of Decree 6856, of May 25, 2009, the performance of periodic examinations aims primarily to preserve the health of servers, depending on the risks in the workplace and occupational and professionals diseases. 4

The implementation and monitoring of periodic examinations can contribute to an active and healthy aging of workers. The nursing category that works directly with pain and disease, with wear and investigated and dealt carefully peculiarity, can modify their condition using instruments that take them to the guided self-care, for example, by the Ability to Work Index (ICT) describing the worker's assessment of their ability to work.

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The ability to work is the basis for human well-being and remains unsatisfactory throughout life unless we take care. It is affected by many factors and can influence several of them through our own activity.⁵

The ability to work can be considered as the result of a dynamic process of individual features, such as health condition and physical and mental ability to their work according to their perception.⁶

The length of employment or profession is related to the ability to work, because the longer the time the worker is exposed to the demands of the job, the greater the functional aging, in addition to working time be related to chronological aging.⁷

In this context, this research is justified aiming to:

• Correlate the length of service with the Ability to work Index of the nursing staff at a university hospital in the city of Niterói-RJ.

METHODOLOGY

Observational, descriptive study with a quantitative approach, with 131 nursing staff of the University Hospital Antônio Pedro (HUAP) belonging to the Federal Fluminense University (UFF), carried out from February to April 2013.

Inclusion criteria were workers with up to 05 years in service in the HUAP; from 06 to 14 years old and 15-24 years of work and those over 25 years of service in the HUAP. Being away for sick leave or maternity leave; vacation or transferred were exclusion criteria.

The self-administered questionnaire of Ability to Work Index (ICT) was used as data collection technique.

The ICT is determined by the answers to several questions, considering the physical and mental demands of work, health status and capabilities. It is a self-administered questionnaire consisting of ten items, synthesized in seven dimensions; its score ranges from 7 (worst rate) to 49 points (best rate).⁸

An Excel® 2010 spreadsheet program was used to enter and categorize the data collected. For descriptive analysis and statistical tests of data, the software SAS® 9.1(9.01.01M3P020206) was used, licensed to Dankook University, site 0038249001.

The Shapiro-Wilk normality test was held to correlate ICT with service time. It has been found that these variables were not normal, so the non-parametric Spearman correlation test was applied. It was considered p-value of 0.05, 95% confidence.

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Moreira PSV, Silvino ZR, Cortez EA.

Worker's health: care subsidized by the...

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RESULTS AND DISCUSSION

The research shows that 71.0% of professionals are female; 50.4% are married or living with a partner; 55.7% were nursing technicians; 45.1% have higher education; 32.5% have 06-15 years of service; 76.3% have a permanent contract; 63.4% are 36-50 years old and 62.6% of workers are from the day shift.

The study followed the precepts of the National Health Council Resolution 466/12, being held after approval by the Ethics Committee of HUAP/UFF under number

In this research, the independent variable

(X) is the length of service that supposedly has

an effect on the ICT that is the dependent

variable (y). Correlation measures the degree of relationship between variables. On the

positive correlation x and y variables increase

or x and y decrease. The correlation is

negative if the increase of variable decreases

Table 1. Nursing worker's characterization of HUAP. Niterói, Brazil, 2013.

Characteristics	Specifications	N=131	%
Gender	Female	93	71
	Male	38	29
Age group	20-35	28	21.4
	36-50	83	63.4
	+ 51	20	15.2
Marital Status	Single	39	29.8
	Married/Live with a partner	66	50.4
	Separated/divorced	22	16.8
	Widow	4	3
Education	Elementary School	7	5.4
	High School	29	22.1
	Higher Education	59	45.1
	Post-graduation	36	27.4
Job	Nurse	36	27.5
	Technician	73	55.7
	Assistant	22	16.8
Tie	Permanent	100	76.3
	Temporary	31	23.7
Shift	Day	82	62.6
	Night	49	37.4

To perform the analysis, four services intervals were created: newly admitted professionals, that is, up to 05 years of service. This segment was comprised of 35 technicians and 04 nurses, being 25.3% of the sample; professionals with from 06 to 15 years of service amounted 32.5% of the sample, with 15 nurses, 24 technicians and 03 assistants. Professionals with 15 and 24 years of service consisted of 11 nurses, 08 technicians and 15 assistants, corresponding to 26.5% of the sample; and professionals with over 25 years of work corresponded to 15.7% of the sample with 06 nurses, 06 technicians and 04 assistants.

It was observed that 35 of the newly admitted workers are technicians, 04 are nurses, and there are no assistants in this range. In the range of 6 to 15, the difference

between the number of nurses and technicians decreases. In other periods, there was a balance in the personal was quantitative.

In this study, the service time is divided into four intervals. In the first interval, there are 25.3% of newly admitted, with up to 05 years of service, who presented the ICT average of 41.23 points.

In the second interval, there was 32.5% of professionals with 06-15 years of service, with ICT average score of 39.17 points. The third interval was composed of 26.5% with 15-24 years of service, ICT presented an average of 31.97 points. And for the fourth and final interval, there were workers over 25 years of service (15.7% of the sample) showing an ICT average of 33.50 points, indicating moderate ability, slightly higher work than the third interval

Worker's health: care subsidized by the...

Moreira PSV, Silvino ZR, Cortez EA.

Table 2. Average of the Ability to Work Index by length of service. Niterói, Brazil, 2013.

Time of service/ICT	N=131	Average
Up to 5 years	39	41.23
From 6 to 14 years	42	39.17
From 15 to 24 years	34	31.97
More than 25 years	16	33.50

A higher rate may be related to the antiquity, conferring the possibility of seeking less unfavorable conditions on the environment and carrying out the work.

The average of ICT was higher in the group of newly admitted with a score of 41.23, classifying them with good ability to work; and lower in the group of 15 to 24 years with a score of 31.97, scoring a moderate ability.

The group with over 25 years of service had a close and slightly higher score than the group of 15-24 years of work. The strategies articulated by this group keeping them with good rate can be indicators of health at work and quality of life for workers.

The Spearman correlation test indicated a negative correlation between ICT and length of service, as Table 3, with a coefficient of -

0.556 and p value=0.000, showing a moderate and significant correlation.

The ICT correlation with the length of service was negative, moderate and significant. It is numerically proved that in this sample, over the years of work, the ability is not the same. Thus, increasing the service time, monitoring the ability of work is required.

The correlation was inversely proportional, so it is proved that if the variable x (length of service) increases, the variable y (ability to work) may decrease if there is no "maintenance" of workers' health.

Table 3. Spearman correlation test of variables Ability to work index and length of service. Niterói, Brazil, 2013.

	Correlation coefficient	Significance
Length of service	-0,556	0.000
ICT	-0,556	0.000

These indications show a need for reevaluation of the relationships and working conditions of this professional category whose peculiar activity appears closely related to the worker's well-being.

It is worth remembering that in 1976, during the 61st OIT Conference, there was a discussion about the poor conditions of the nursing work related to factors such as long working hours; lack of rest periods; shifts on Sundays and holidays without compensation; periods of uncomfortable or tiring work and; the fact of the nursing staff not being heard in planning and making decisions about professional practice, teaching and working conditions.⁸

It is known that these problems remain today or were even aggravated by the socio-economic crisis and the recent change in work processes that are interfering directly and negatively on workers' health.⁸

One of the factors that can interfere with work is the tie, in the case of employment, where 74.8% of workers are permanent, and 25.2% have temporary jobs. The group of nursing technicians showed ICT average of 39.23. However, when analyzed separately, the average of those with a permanent tie of 38.14 and 40.71 was temporary. It was

observed that temporary workers had a higher ability rate for the job.

It is worth noting that temporary workers are hired by the selection process, featuring "technical" job outsourcing within public institutions. Such a situation can interfere with the reliability of the answers.

Also, concerning the status of temporary workers, it is seen as an unstable situation to change in work processes, such as the possible deployment of the Brazilian Hospital Services (EBSERH) and not resolving Hospital Duty Additional (APH), political strategies that lead to unpredictability and uncertainty for workers.

For permanent workers, the correlation of ICT, age, and length of service is negative and significant. Temporary workers show a negative correlation, however, weak and not significant.

A research suggested the need for preventive measures aimed at maintaining the ability to work on an organizational and individual level. The organizational level should include the provision of a sufficient number of staff and financial resources to work, fair wages and less bureaucracy. The individual level should include the individual 's

Moreira PSV, Silvino ZR, Cortez EA.

sensitivity rating on night work and training in stress management techniques. ¹⁰

From the ICT initial measurement of nursing staff with guidance to perform physical activity and stress management, it is possible to check in future studies the behavior of ICT, especially the group showing reduced ability for work.¹¹

In a study, investigating the test-retest reliability of ICT in a sample of 80 nurses concluded that the ICT, translated and adapted to Portuguese, had adequate psychometric properties and gave additional support for research in healthcare occupational.¹²

A research indicated that as Brazilian workers are exposed to different working and living conditions of those existing in Finland, possibly they are subject to an earlier functional aging. Therefore, it is advisable that the results of ICT are used in the form of score until there is possibility to carry out a study to validate the cutoff points for our national reality.¹³

A study conducted in Croatia with nurses working in teaching hospitals identified occupational stressors and concluded that hospital managers should develop strategies for improving the quality of work conditions. Thus, it is relevant a study on the ability to work, while originated had the concept of "stress-wear", where the resulting wear of mental and physical burdens of work, can generate decreased ability to work and the emergence of workers diseases in aging. 15

It is emphasized that the interpretation of the measurement carried out by ICT should be based on the instrument, which analyzed how subsidies generator is configured as a helper protocol in maintaining a good ability to work during the aging process.

It is noteworthy that the study pointed out the importance of active and collective participation of worker claiming for a change in working conditions, to create more flexible conditions of the labor process, and not in employment contracts.¹⁶

FINAL REMARKS

The objective was attended to correlate the ICT among newly admitted, intermediaries and workers at the end of a career at HUAP. The correlation found was negative, that is, inversely proportional, indicating that as service time increases, in some cases, the lower may be the ability to work.

The ICT analyzed as subsidies generator favors maintaining a good ability to work from admission to retirement, providing the

Worker's health: care subsidized by the...

employee a chronological aging and functional healthy.

The dispersed logistics of health care places may hamper the mobility of workers to the service centers, so it is necessary to implement health actions in daily work and the ordinary pursuits of nursing.

Such actions require changes in work processes that quantify the ability to work to be a concrete way to show the managers about the need for different forms of attention to the worker, according to the peculiarity of the function.

REFERENCES

- 1. Brasil. Ministério da Saúde [Internet]. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas e Estratégicas. Atenção à Saúde da Pessoa Idosa e Envelhecimento. Série Pactos pela Saúde 2006, v. 12. Brasília (DF); 2010 [cited 2013 Oct 15]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_saude_pessoa_idosa_envelhecimento_v12.pdf
- 2. Brasil. Ministério da Saúde [Internet]. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. Plano de Ações estratégicas para o enfrentamento das Doenças Crônicas Não Transmissíveis (DCNT) no Brasil. Brasília (DF); 2011 [cited 2013 Oct 15]. Available from: http://portal.saude.gov.br/portal/arquivos/pdf/cartilha_plano.pdf
- 3. Brasil. Ministério da Saúde [Internet]. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Envelhecimento e Saúde da Pessoa Idosa. 1st ed. 1st reimp. Série A. Normas e Manuais Técnicos Cadernos de Atenção Básica, n. 19. Brasília (DF); 2007 [cited 2013 Oct 15]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/abcad19.pdf
- 4. Brasil. Decreto n. 6.856, de 25 de maio de 2009. Regulamenta o art. 206-A da Lei n. 8.112, de 11 de dezembro de 1990 Regime Jurídico Único, dispondo sobre os exames médicos periódicos dos servidores. *Diário Oficial da União*, 26 mai 2009, Brasília (DF): 2009.
- 5. Tuomi K, Ilmarinen J, Jahkola A, Katajarinne L, Tulkki A. Índice de capacidade para o trabalho. Traduzido por Frida Marina Fischer (coord), São Carlos: EdUFSCAR; 2010. 59p.
- 6. Martinez MC, Latorre MRDO. Saúde e capacidade para o trabalho em trabalhadores de área administrativa. *Rev Saúde Pública*. [Internet] 2006 [cited 2013 Nov 24];

Moreira PSV, Silvino ZR, Cortez EA.

40(5):851-8. Available from: http://www.scielo.br/pdf/rsp/v40n5/15.pdf

- 7. World Health Organization WHO. Aging and work capacity: report of a WHO Study Group. Geneva: 1993. (WHO Theorical Reports Series: 835).
- 8. Silva Junior HAS, Vasconcelos AGG, Griep RH, Rotenberg L. Validade e confiabilidade do índice de capacidade para o trabalho (ICT) em trabalhadores de enfermagem. Cad. Saúde Pública [Internet]. 2011 [cited 2014 Jan 02];27(6):1077-87. Available from: http://dx.doi.org/10.1590/S0102-311X2011000600005
- 9. Barbetta PA. Estatística aplicada às Ciências Sociais. 7 ed. Florianópolis: Editora da UFSC; 2010.
- 10. Gould R, Ilmarinen J, Jarvisalo J, Koskinen S. Dimensions of Work Ability: Results of the Health 2000 Survey [Internet]. Vaasa, Helsink: Waasa Graphics Oy; 2008 [cited 2013 Nov 21]. Available from: http://www.etk.fi/fi/gateway/PTARGS_0_271
 2_459_440_3034_43/http%3B/content.etk.fi%3
 B7087/publishedcontent/publish/etkfi/fi/julk
 aisut/tutkimusjulkaisut/erillisjulkaisut/dimens
 ions_of_work_ability_7.pdf
- 11. Raffone AM, Hennington EA. Avaliação da capacidade funcional dos trabalhadores de enfermagem. Rev Saúde Públ [Internet]. 2005 [cited 2014 Apr 21];39(4):669-76. Available from: http://dx.doi.org/10.1590/S0034-89102005000400023
- 12. Silva Junior HAS, Vasconcelos AGG, Griep RH, Rotenberg L. Validade e confiabilidade do índice de capacidade para o trabalho (ICT) em trabalhadores de enfermagem. Cad. Saúde Pública [Internet]. 2011 [cited 2014 Jan 02];27(6):1077-87. Available from: http://dx.doi.org/10.1590/S0102-311X2011000600005
- 13. Martinez MC, Latorre MRDO, Fischer FM. Capacidade para o trabalho: revisão de literatura. *Ciênc. saúde coletiva* [Internet] 2010. [Cited 2014 Mar 24];15(Suppl1):1553-61. Available from: http://dx.doi.org/10.1590/S1413-
- 14. Golubic R, Milosevic M, Knezevic B, Mustajbegovic J. Work-related stress, education and work ability among hospital nurses. J Adv Nurs [Internet]. 2009 [cited 2014 Jan 02];65(10):2056-66. Available from: http://www.ncbi.nlm.nih.gov/pubmed/19627386
- 15. Helbig R, Rohmert W. Fatigue and Recovery [Internet]. In: Laurig W, Wolfgang V. (Ed). Physical and Physiological Aspects. Encyclopedia of Occupational Health and

Worker's health: care subsidized by the...

Safety. International Labor Organization, Geneva, 2011 [cited 2013 Oct 14]. Available from: http://www.ilo.org/oshenc/partiv/ergo nomics/physicalandhysiologicalspects/item/49 1-fatigue-and-recovery

16. Lima ACS de, Magnago TSBS, Prochnow A et al. Prevalência e características da (in) capacidade para o trabalho de trabalhadores de enfermagem. J Nurs UFPE on [Internet]. 2013 [cited Aug 2014 Aug 23];7(8):5143-9. **Available** from: http://www.revista.ufpe.br/revistaenfermage m/index.php/revista/article/view/2974/pdf_ <u>3175</u>

Submission: 2015/06/04 Accepted: 2015/08/14 Publishing: 2016/01/01

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