



Online Brazilian Journal of Nursing

E-ISSN: 1676-4285

objn@enf.uff.br

Universidade Federal Fluminense
Brasil

Oliveira Batista, Wagner; Dutra Pereira, Fabio; Ferreira Santana, Rosimere; Imbiriba
Silva, Luis Aureliano; Lirio Gurgel, Jonas; de Drummond Alves Junior, Edmundo
Risk of falls among institutionalized elderly: a descriptive and correlational study
Online Brazilian Journal of Nursing, vol. 11, núm. 2, 2012, pp. 457-461
Universidade Federal Fluminense
Rio de Janeiro, Brasil

Available in: <http://www.redalyc.org/articulo.oa?id=361441678010>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative



OBJN
Online Brazilian Journal of Nursing

ENGLISH

Federal Fluminense University

AURORA DE AFONSO COSTA
NURSING SCHOOL



Preview Notes



Risk of falls among institutionalized elderly: a descriptive and correlational study

Wagner Oliveira Batista¹, Fabio Dutra Pereira², Rosimere Ferreira Santana¹, Luis Aureliano Imbiriba Silva³, Jonas Lirio Gurgel¹, Edmundo de Drummond Alves Junior¹

¹Fluminense Federal University

²Castelo Branco University

³Federal University of Rio de Janeiro

ABSTRACT

Aim: To describe and analyze the association between institutionalization time in Homes for the Aged and the postural balance and risk of falls of this population.

Methods: This is a descriptive correlational study. The dependent variables will be measured through the use of scales of postural balance and stabilometry. The census consists of all population institutionalized at Homes for the Aged in the city of Três Rios (RJ), between September 2011 and March 2012. Data processing includes the Kolmogorov-Smirnov test to verify the distribution. The data presented will be submitted to a Pearson correlation test and the analysis of variance for one factor, to allow comparisons between inter-groups and intra-subgroups. In the event that a Gaussian distribution is not presented, non-parametric tests will be used. The significance level used will be 5%. For statistical analysis BioEstat 5.0 software will be adopted.

Keywords: accidental falls; postural balance; Homes for the Aged.

INTRODUCTION

The phenomenon of an aging population receives the most diverse influences such as a decreased fertility rate, increased life expectancy, and the substitution of infectious diseases for chronic degenerative diseases. These factors contribute to the change in the demographic and epidemiological scenarios in Brazil⁽¹⁾. The physiological and functional decline, even when considered within the normal range in the process of aging, brings a new challenge to the public health services and should be aimed at preserving the quality of life of the elderly⁽¹⁾. Among the characteristics of the decline in physiological capacities with age is postural balance, which is based on the interaction of sensory inputs and motor responses. The literature suggests that in the elderly, posture control is less efficient, consequently leading to a higher probability of falls⁽²⁾. In the contemporary context, it is necessary that the knowledge about the needs of this aging population is tailored to their demands. In terms of this expectation, the increase in the number of Homes for the Aged is noticeable⁽¹⁾. With the possibility of institutionalization, a decrease in the cognitive, physical and functional capacities of the elderly compared to those living in the community has been observed. It has been observed that many of these elderly are institutionalized but still with good levels of autonomy, and this causes them to decline faster than the non-institutionalized elderly, raising the incidence of falls.

OBJECTIVES

General: to describe and analyze the association between institutionalization time and the risk of falls, by measuring the postural balance of elderly residents in Homes for the Aged.

Specific objective 1: correlate institutionalization time with the postural balance and risk of falls on the part of the elderly.

Specific objective 2: compare the postural balance and risk of falls of the elderly intra and inter subgroups.

METHOD

This is a descriptive – analytical – correlational research using a cross-sectional design⁽³⁾ into the influence of institutionalization time in Homes for the Aged regarding postural balance and the risk of falls, measured using postural balance scales and stabilometry, in the elderly. In addition, it is a comparison of intra-subgroups and inter-groups of elderly residents in Homes for the Aged in the city of Três Rios/RJ. The sample is selected in a non-probabilistic basis, using those who meet the eligibility criteria. After being selected, the elderly will be submitted to a postural balance assessment through the Berg Balance Scale method and stabilometric analysis, measured through variations in the center of pressure on a force platform. This project was approved by the Research Ethics Committee of the University Hospital Antonio Pedro under Opinion nº. CAAE: 0375.0.258.000-11. The sample will be homogenized and stratified by gender, age and length of institutionalization as demonstrated in Tables 1 and 2.

Table 1 – Stratification and homogenization of groups of institutionalized elderly (female). * For long period of institutionalization; ** for average period of institutionalization; *** for a short period of institutionalization.

Female institutionalized Group (FIG)	Age	Subgroup (institutionalization time)
FIG1 from 60 to 64 years		FIG1L * FIG1A ** FIG1S ***
FIG2 from 65 to 69 years		FIG2L * FIG2A ** FIG2S ***
FIG3 from 70 to 74 years		FIG3L * FIG3A ** FIG3S ***
FIG4 from 75 to 79 years		FIG4L * FIG4A ** FIG4S ***
FIG5, > 80 years		FIG5L * FIG5A ** FIG5S ***

Table 2 – Stratification and homogenization of groups of institutionalized elderly (male). * For long period of institutionalization; ** for average period of institutionalization; *** for a short period of institutionalization.

Male institutionalized Group (MIG)	Age	Subgroup (institutionalization time)
MIG1 from 60 to 64 years		MIG1L* MIG1A** MIG1S***
MIG2 from 65 to 69 years		MIG2L* MIG2A** MIG2S***
MIG3 from 70 to 74 years		MIG3L* MIG3A** MIG3S***
MIG4 from 75 to 79 years		MIG4L* MIG4A** MIG4S***
MIG5, > 80 years.		MIG5L* GMI5M** GMI5C***

DATA PROCESSING

The data will be tabulated and stored using Office Excel 2010 software. The statistical analysis will be done using BioEstat 5.0 software. The distribution analysis will be done through the Kolmogorov-Smirnov test; if the data have a Gaussian distribution, the Pearson correlation test will be used for the dependent and independent variables, and ANOVA will be used to compare intra and inter subgroups. In the event that they do not present a distribution close to normal, non-parametric tests will be used. We will adopt a level of significance of $\alpha = 0.05$.

EXPECTED RESULTS

It is expected that the theoretical hypotheses will be confirmed, showing that the time of institutionalization in Homes for the Aged is a factor of great importance for the postural balance associated with the chronological age of this population.

REFERENCES

1. Chaimowicz F. A saúde dos idosos brasileiros às vésperas do século XXI: problemas, projeções e alternativas. Rev. Saúde Pública [serial on the Internet]. 1997 Apr [cited 2011 Mar 02] 31(2): 184-200. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-89101997000200014&lng=en. <http://dx.doi.org/10.1590/S0034-89101997000200014>
2. Berg KO, Wood-Dauphinée S, Williams JI e Maki B. Measuring balance in the elderly: validation of an instrument. Canadian Journal of Public Health, 83 (Suppl 2):S7-S11,1992.
3. Lima DVM. Desenhos de pesquisa: uma contribuição ao autor. Online braz. J. nurs. (Online);10(2) abr-ago. 2011. Citado em 10 de março de 2012. Disponível em <http://www.objnursing.uff.br/index.php/nursing/article/view/3648>

Project data: Dissertation Project of the Academic Masters in Sciences for Health Care of the Nursing School Aurora de Afonso Costa/Fluminense Federal University; approved on 25th October, 2011 by a board composed of the following academic staff: Edmundo de Drummond Alves Junior/Fluminense Federal University (advisor-president); Luis Aureliano Imbiriba Silva/Federal University of Rio de Janeiro (1st examiner); Rosimere Ferreira Santana/Fluminense Federal University (2nd examiner).

Received:11/04/2012
Approved:11/09/2012