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dos Santos Rodrigues, Andréa Maria; Rosa Silvino, Zenith
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EVALUATION RESEARCH

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HEARING CONSERVATION PROGRAM IN BUS TRANSPORTATION COMPANY: EVALUATION RESEARCH

Andréa Maria dos Santos Rodrigues¹, Zenith Rosa Silvino².

1,2 Federal Fluminense University

ABSTRACT

Aim: This is an observational, longitudinal, retrospective study, using quantitative approach, which aims at examining the effectiveness of the hearing conservation program of a bus transportation company in the city of Rio de Janeiro. The subjects of the sample will be bus drivers admitted in the years 2007, 2008 and 2009. Data will be collected by a questionnaire and audiological records from the database. Data analysis will be done by Analysis of Variance for repeated measures and the Bonferroni multiple comparison test processed by the *software* SAS 6.11. The project was approved by the Ethics Committee in Research of Universidade Federal Fluminense, No. CAAE 6141.0.000.258-10.

Descriptors: Effects of Noise; Threshold of Hearing; Hearing Loss Caused by Noise.

Problem Situation and its significance: Exposure to loud noise has become a frequent agent in the workplace. Some professionals, due to their work process, are susceptible to changes in their hearing pattern and might develop hearing loss generated by high sound pressure levels (PAINPSE). The set of activities aiming at preventing hearing loss and that could be defined as a dynamic process, which develop planned and coordinated activities for the areas involved in an organization, are called Hearing Conservation Program (HCP)⁽¹⁾. Although the exposure to noise is known as a harmful factor to health, since the development of urbanization and industrialization, the problems caused by this agent have become object of attention of public health⁽²⁾. But interest, knowledge and development of preventive actions are still poor in the road sector.

Objectives: General - analyze the effectiveness of the hearing conservation program of a bus transportation company in relation to hearing loss by high sound pressure levels (PAINPSE).

Specific - describe the Hearing Conservation Program of the Public Transportation Company; identify the occurrence of changes in the urban bus drivers' hearing thresholds through audiometric registration of the occupational examinations so as to verify the urban bus drivers' awareness of the risks of noise exposure and hearing healthcare.

Theoretical-methodological way: This is an observational, longitudinal, retrospective study, using quantitative approach. It will be carried out in a bus transportation company located in the city of Rio de Janeiro. The subjects of the sample are 120 bus drivers. Inclusion criteria: drivers admitted in the years 2007, 2008 and 2009; drivers who only drive the vehicle and don't perform the payment collection; male and those under 60 years old. Exclusion criteria: drivers turned away by the INSS and those who were

dismissed. Data collection will be carried out by a form, which follows the minimum recommendations for the preparation of a Hearing Conservation Program (HCP) of the National Committee on Noise and Hearing Conservation, Bulletin No. 6⁽³⁾, a questionnaire with questions related to noise exposure and hearing healthcare, and by the bus drivers' audiological records in the database along three consecutive years, from the date of admission. Data analysis will be done by Analysis of Variance (ANOVA) for repeated measures and the Bonferroni multiple comparisons test to assess the behavior of hearing thresholds in decibels (dB). The ANOVA will be used for repeated measures with one factor (interaction effect time*subgroup) and the criterion for determining the level of significance will be 5%. Statistical analysis will be processed by the software SAS 6.11 (SAS Institute Inc., Cary, NC).

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Contact address: Rua Gal Savaget nº136. – Marechal Hermes – RJ. CEP: 21610-390.
Electronic address: andrearodriguesfono@hotmail.com

Mentor: Profª Drª Zenith Rosa Silvino.

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