An investigation of noise induced hearing loss (NIHL) among offshore workers in the Niger Delta area of Nigeria

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ABSTRACT

Background: Increasing industrialization of developing countries has necessitated the use of heavy equipment, capable of generating high noise levels. In Nigeria, there is little information regarding the overall incidence or prevalence of noise-induced hearing loss (NIHL), especially among offshore workers.

Aims: To assess NIHL prevalence and hearing protection use/compliance among offshore workers in the Niger Delta area of Nigeria.

Methods: A descriptive cross-sectional study was carried out among 420 male offshore workers in the Niger Delta area of Nigeria. Employees were recruited consecutively during periodic medicals from January 1 to December 31, 2013. Participants Data were extracted onto an anonymised database including audiometric surveillance results and medical questionnaires.

Results: The 420 male offshore workers were aged 21 to 61 years (mean 42.7 s.d.± 6.9).

Using the UK HSE definitions to define NIHL, 79 (18.8%) participants had evidence of NIHL showing audiometric categories 2-4.

Consideration of demographic and lifestyle factors showed a statistically significant relationship for employees with NIHL in terms of their having a relevant audiological history (p=0.044), but not for other factors such as age, smoking status, diabetic status, hypertensive status, noisy-hobby and ototoxic medication use.

When work-related factors were investigated, a self-declaration of noise exposure in previous employment was statistically significant in terms of NIHL (p=0.022). However, analysis of duration of current employment, current job title, use of (and attitudes towards) hearing protection, and work location in terms of rig age did not show statistically significant differences in this study.
**Conclusion:** Noise-induced hearing loss remains a health concern in the offshore oil and gas industry in Nigeria. This study identified information that would assist planning for future studies. In order to minimize avoidable detrimental effects of noise on workers, focused initiatives need to be channelled into workplace hearing conservation programmes, including lifestyle and work-related issues.