

Oral and Poster Abstract Sessions

10 UNDER-REPORTING OF OCCUPATIONAL NOISE-INDUCED HEARING LOSS, CURRENT SITUATION, AND POSSIBLE SOLUTIONS IN THAILAND AND OTHER DEVELOPING COUNTRIES

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Introduction In 2015, Thai Workmen's Compensation Fund (TWCF) reported only 3 cases of Occupational Noise-induced Hearing Loss (ONIHL) among nearly 10 millions workers. Thai labour laws stated that hearing conservative programs (HCPs) was mandatory for noisy work stations. Baseline audiometric analysis must be performed using NIOSH criteria (SigTS). However, retest and referral to occupational physicians (OPs) for work-related assessment were usually not performed for Thai workers with 1st 15 dB shift. Baseline audiometric analysis was not properly performed in many industries. For example, not all the previous test were considered in baseline revision or baseline may never be revised. All these led to under-reporting of ONIHL in Thailand.

Methods For remedy the situation, pilot study was conducted on 2539 workers among 17 chemical industries in eastern region of Thailand. 10 years audiometric results (2007–2016) were collected and analysed using SigTS and OSHA criteria (STS). Baseline revisions for each criteria were performed by OPs. The results were compared with those without baseline revision.

Result Without baseline revision, the accumulation, increasing of abnormalities over years could be the cause of unnecessary investigations. With proper baseline revisions, the incidence of SigTS, STS, and age corrected STS were only 19.27%, 10.21%, and 4.05% respectively. After age correction, only 2.61% had to visit OPs for work-related assessment each year. **Discussion** STS with age correction and proper baseline revisions dramatically reduced total cost of investigations. This should be acceptable for industries in Thailand and other developing countries. Recommendation for Thai Ministry of Labour to revise HCPs regulations were:

- Baseline revision performed properly by OPs should be mandatory,
- Age corrected STS was the most cost-effective and practicable,
- All workers with worsening hearing must be referred to OPs and then TWCF, and
- Annually, HCPs installed industries must quantitatively evaluated ONIHL (diagnosed by OPs), SigTS, STS, and age corrected STS.

1181 VALIDATION OF THAI-NORDIC SAFETY CLIMATE QUESTIONNAIRE AND SAFETY CLIMATE IN THAI EMPLOYEES

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Introduction To prevent workers' injury and illness during their working life, the occupational health and safety

management system is worldwide implemented in manufacturing. The safety climate can be identified the currently situation of occupational health and safety management system in organisation. The Nordic safety climate questionnaire (NOSACQ-50) is a tool that can be measure the safety climate in both low and high risk level manufacturing. Therefore, this questionnaire will be used in this study.

Objective To validate the NOSACQ-Thai questionnaire using exploratory analysis and to assess the situation of safety climate condition in Thailand

Material and method After forward and backward translation of the NOSACQ-Thai questionnaire were performed, 3 expertise in occupational health and safety were examined the content validity and revised questionnaire to easy language for worker. There were 1141 of workers and hospital personnel, from 6 manufacturing and one university hospital, voluntary participated to test the questionnaire in this study.

Results The NOSACQ-Thai questionnaire included 5 dimensions with 42 items and 45% of variance. The Cronbach's alpha values of the safety climate dimension of 'management's engagement and empowerment', 'management safety priority and justice', 'employees' engagement to safety', 'employees' risk acceptance', and 'safety activity and efficacy' were 0.86, 0.76, 0.89, 0.70, and 0.74, respectively. The highest safety climate score was the dimension of 'employees' engagement to safety' (3.30±0.40) while the lowest score was the dimension of 'employees' risk acceptance' (2.80±0.50). The safety climate score were significantly difference between leaders' and workers' group and also among all enterprises.

Conclusion The NOSACQ-Thai show a well validated and predictable the safety climate in all enterprises.

1340 INTEGRATED APPROACH TO AN OCCUPATIONAL HEALTH IN SOUTH AFRICA

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Introduction South Africa is a developing, resource constrained country with a quadruple burden of disease. The health delivery model is based in primary health care of which the nurses are the cornerstone. Occupational Health Nursing (OHN) has had to evolve in this ever changing health service environment. This has created a need for an integrated approach to the Occupational Health program within the work place. The work environment in the 21st Century will pose significant challenges to Occupational Health.

Methods Careful consideration is therefore required with respect to the selection, monitoring and evaluation of specialised occupational health services. Critical to the selection of integrated OH services is the scope of practice and competencies of the OHN need clearly defined.

Results The success of OHN providing an OH service is a matrix model of applied activities which is totally integrated into an Occupational health program. Within the multi professional team the OHN is best equipped to identify the needs and advise on the optimum utilisation for all. This will enable a more productive workforce.

Discussion The challenge for OHN is the evolving dynamic work environment in which the OHN finds herself, one which has increasing use of technology, emerging global threats to health and evolving risks to health of workers. The