



Training in the Context of Occupational Nursing

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Abstract

Introduction: In a textile company in Portugal, with approximately 750 workers, after risk analysis, noise was identified as one of the major problems present, and a low support was seen in the use of personal protective equipment (PPE). As such, this was a priority problem to be sorted out by the nursing group at work, through the training of its workers.

Objective: Demonstrate the results obtained after the training of the workers of a textile company on the risks associated with noise.

Methodology: Population intervention study, reported in the first half of 2019, in a sample of 288 workers.

Results: In view of the strategies defined, we obtained a 70% increase in the number of workers who proved knowledge about the risks of noise and a 60% increase in the number of workers who started using PPE correctly.

Conclusion: Training in the work context is fundamental in the prevention of occupational disease.

Keywords: Noise; Training; Occupational Nursing; PPE

Abbreviations: PPE: Personal Protective Equipment; VLE: Exposure Limit Values.

Introduction

In Portugal, the number of workers identified with occupational diseases is quite high, and deafness is one of the most frequent occupational diseases. In the European Union this is also one of the most important occupational diseases, being slow development, and often not perceived by the worker, because it does not cause pain and is only found in advanced states. In addition to irreversible deafness, exposure to noise can also result in other adverse effects on human health, such as stress, hypertension, reduced concentration, reaction speed and memory, as well as other

less obvious symptoms such as discomfort and mood [1].

Deafness resulting from exposure to high sound levels in workplaces currently accounts for about one third of all diagnosed occupational diseases [2].

When the sounds are too strong, and especially if the exposure to noise is prolonged and the necessary protection is not used, the sensory cells that are constituent scans of the inner ear may suffer damage that will result in irreversible deafness. The danger presents itself in the face of exposure to noises exceeding 87 dB (A) [3].

It is possible that the first symptom of hearing loss consists in the appearance of ringing in the ear (acufens), and

temporary hearing loss may occur after exposure to noise, which may have a progressive recovery from the moment exposure ceases, or permanent hearing loss, which is one of the most serious consequences of noise exposure, resulting from a continuous process of exposure to noise levels and exposure times that exceed the limits to which the body is able to withstand without significant damage. Exposure to industrial noise can be controlled many times with minimal costs and without technical difficulties. The purpose of controlling industrial noise is to eliminate or reduce noise at its source [4,5].

In Europe it is estimated that more than a third of workers are exposed to potentially dangerous noise levels for at least a quarter of their working time.

In Portugal, Decree-Law No. 182/2006 of 6 September on minimum safety and health requirements for exposure of workers to risks due to physical agents (noise) applies to all activities of the private, cooperative, and social sectors, central, regional and local public administration, public institutes and other legal persons under public law, as well as self-employed workers.

This decree defines that, under any situation, the daily or weekly personal exposure of workers at noise levels equal to or greater than 87 dB (A) or at peak values equal to or greater than 140 dB(C) is not allowed, and these values are defined as the Exposure Limit Values (VLE) to noise, in which the attenuation of hearing protectors is considered.

By the general principles of risk prevention, the employer should use all available means to be able to cut the risks associated with noise in the workplace to the minimum possible.

In all situations where it isn't possible to reduce exposure to noise at source, the employer shall ensure the availability of individual hearing protection equipment, whenever one of the lower action values is exceeded, and ensure its effective use, whenever the level of exposure to noise reaches or exceeds the higher action values.

According to the labor code in Portugal, Law n^o93/2019, Article 131, the employer must:

- Promote the development and adequacy of the worker's qualification, with a view to improving his employability and increasing the productivity and competitiveness of the company.
- Guarantee the individual right to training to each worker, through a minimum annual number of training hours, through actions developed in the company or the granting of time for training at the employee's initiative.

- Organize training in the company by structuring annual or multiannual training plans and, in relation to them, ensuring the right to information and consultation of workers and their representatives.
- Recognize and value the qualification acquired by the worker.

The worker is entitled "in each year to a minimum number of forty hours of continuing education or, being hired on a fixed term for a period equal to or greater than three months, a minimum number of hours proportional to the duration of the contract in that year." And that "the employer must provide, each year, continuous training to at least 10 % of the employees of the company." It should be noted that the provisions of the continuing education law may be adapted by a collective agreement considering the characteristics of the sector of activity, the qualification of workers and the size of the undertaking.

Methodology

Conducted a population intervention study, reported in the first half of 2019, in a sample of 288 workers, whose results allowed us to confirm the importance of the intervention of the nursing group working with this population. Intervention strategies were applied according to the risk:

- Training on the risks associated with noise and its effects.
- Training on the correct use of PPE.
- Delivering flyers.
- Monitoring the use of PPE in the workplace.

All ethical requirements were fulfilled, and the data collected were processed using the Excel database.

Results

In view of the strategies that have been defined, we have obtained the following:

- Increase in the number of workers who prove knowledge about the risks of noise to health, corresponding to an increase of 70%.
- Increase in the number of workers who use PPE correctly, corresponding to an increase of 60%.

Conclusion

The intervention of the nursing team at work has a high importance in the prevention of the disease associated with work and the promotion of good health practices in the work context, as was possible through the results obtained.

Hearing loss caused by the noise is, according to the European Agency for Safety and Health at Work (OSHA), the most common work disorder in European countries, and is definitive and irreversible.

Noise is one of the main causes of the degradation of the quality of life of populations. The effect of excessive noise exposure can harm human health with consequences ranging from sleep disorders, mood swings, decreased concentration ability, decreased work performance, behavior changes, *stress*, tiredness, headaches, and hypertension.

Continuing vocational training is a way for workers to improve their productivity, but also to increase their professional skills and reduce professional risk and can be a strategic option for the development of workers and the very work processes in which the business culture is oriented towards the development of current and future skills.

More important than following the requirements of Law No. 93/2019, in relation to vocational training, what matters are the results and impact of training at the level of work and organization, easing workers with the capacity to solve problems and autonomy necessary to turn problems into opportunities.

“The occupational nurse has a role in the teaching of workers. This could be in the context of existing training programs or programs that are specifically developed

by occupational nurses to, for example, inform, educate, and train workers on how to protect themselves from occupational, non-occupational but preventable diseases in the workplace or to improve awareness of the importance of good environmental health management practices.” (OE, 2014).

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