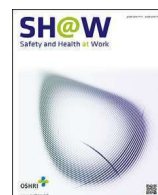




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Original Article

Psychosocial Risks Assessment in Cryopreservation Laboratories

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ABSTRACT

Background: Psychosocial risks are increasingly a type of risk analyzed in organizations beyond chemical, physical, and biological risks. To this type of risk, a greater attention has been given following the update of ISO 9001: 2015, more precisely the requirement 7.1.4 for the process operation environment. The update of this normative reference was intended to approximate OHSAS 18001: 2007 reference updated in 2018 with the publication of ISO 45001. Thus, the organizations are increasingly committed to achieving and demonstrating good occupational health and safety performance.

Methods: The aim of this study was to characterize the psychosocial risks in a cryopreservation laboratory and to develop a predictive model for psychosocial risk management. The methodology followed to collect the information was the inquiry by questionnaire that was applied to a sample comprising 200 employees.

Results: The results show that most of the respondents are aware of the psychosocial risks, identifying interpersonal relationships and emotional feelings as the main factors that lead to this type of risks. Furthermore, terms such as lack of resources, working hours, lab equipment, stress, and precariousness show strong correlation with psychosocial risks. The model presented in this study, based on artificial neural networks, exhibited good performance in the prediction of the psychosocial risks.

Conclusion: This work presents the development of an intelligent system that allows identifying the weaknesses of the organization and contributing to the enhancement of the psychosocial risks management.

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