



The aim of the present study was to use a systematic approach for predicting and reducing these injuries” Akbari et al (2018).

Abstract:

PURPOSE: Recent studies have shown that the rate of needlestick and sharp injuries (NSIs) are unacceptably high in Iranian hospitals. The aim of the present study was to use a systematic approach for predicting and reducing these injuries.

METHODS: The study was conducted in five hospitals in Tehran, Iran. Eleven variables supposed to affect NSIs were categorized based on Human Factors Analysis and Classification System (HFACS) framework and modelled using Bayesian network. A self-administered validated questionnaire was used for collecting the required data. In total, 343 cases were used for training the model and 50 cases were for testing the model. The model performance was assessed using various indices. Finally, using predictive reasoning several intervention strategies for reducing NSIs were recommended.

RESULTS: The BN-HFACS model was able to predict 86% of new cases correctly. The analyses showed that safety motivation and fatigue were the most important precondition for NSIs. Supervisor’s attitude toward safety and working hours per week were the most important factors in the unsafe supervision level. Finally, management commitment and staffing were the most important organizational factors affecting NSIs. Finally, the intervention strategies useful in reducing NSIs were discussed.

CONCLUSION: For reducing NSIs, both management commitment and sufficient staffing are necessary. The behavior of supervisors should be in the way that encourage nurses to engage in safe behavior. Too high working hours results in fatigue and increase the risk of NSIs.

You may also be interested in...

Reporting sharps and needlestick injuries

Frequency, causes and prevention of needlestick injuries

Systematic review of needlestick and sharps injuries

Reference:

Akbari, H., Ghasemi, F., Akbari, H. and Adibzadeh, A. (2018) Predicting needlestick and sharp injuries and determining preventive strategies using Bayesian network approach, Iran. *Epidemiology and Health*. August 20th. .

doi: 10.4178/epih.e2018042.

