

Paper No. 172

Correlation between the results of the three methods of RULA, REBA and QEC in assessing the safety and physical health of the employees of a cable manufacturing industry

Reza Hekmatshoar^{a,*}, Ebrahim Taban^a, Abareshi Fateme^b, Azmon Tahereh^c

^a Department of Occupational Health Engineering, Collage of Health, Sabzevar University of Medical Sciences, Sabzevar, Iran.

^b Department of Occupational Health Engineering, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran.

^c Master of Science in Persian Literature at Sabzevar Education Directorate, Sabzevar, Iran.

Abstract:

Background: This study is focused safety and physical health on posture analysis of tools RULA, REBA and QEC were used a cable manufacturing company workers.

Methods: The study was conducted on 40 workers engaged in different process of manufacturing. The different activities of the workers were recorded by video and still photography, and these images were used for analysis. Posture analysis tools RULA, REBA and QEC were used.

Results: The results of RULA showed that about 30% of the workers were under high risk level and needed a necessary action immediately. About 37.5% of the workers were under medium risk levels and about 25% of the workers were at lower risk levels. The results of REBA have shown that about 27.5% of the workers were under very high risk levels and required immediate change. About 35% of the workers were at high risk levels and a change is necessary soon, and 32.5% of the workers were at medium risk levels. According to the QEC method of assessment, it was found that 7.5 of the workers needed no corrective measures. About 35% of the workers needed additional examination and 32.5% of the workers were at high risk and required immediate change. It can be concluded that there are ergonomic deficiencies in the planning and work approaches. A significant proportion of the workers are working in high risk postures. Therefore, the workers are under moderate to high risk of WMSDs.

Conclusion: The current study suggested a suitable implementation of ergonomics interventions program with awareness and training among workers to reduce the risks of WMSD.

Keywords:

Posture analysis, WMSD, Cable factory

*** Corresponding Author at:**

Reza Hekmatshoar: Department of Occupational Health Engineering, Collage of Health, Sabzevar University of Medical Sciences, Sabzevar, Iran.
Email: rezahekmatshoar@yahoo.com (Hekmatshoar R.).