

OCCUPATIONAL FACTORS AFFECTING HEMOGLOBIN LEVEL AMONG PRINTING INDUSTRY WORKERS IN MEDAN, NORTH SUMATERA

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ABSTRACT

Background: Use of organic compound such as hydrocarbon benzene in printing process may cause air pollution in the workplace and thereby affect the health and safety of workers. Benzene may damage blood formation and reduce hemoglobin level. This study aimed to analyze the effect of occupational factors on hemoglobin level among printing industry workers in Medan, North Sumatera.

Subjects and Methods: This was a cross sectional study carried out at a printing industry in Medan, North Sumatera. A sample of 50 printing industry workers were selected for this study. The dependent variable was hemoglobin level. The independent variables were length of exposure and years of service. Hemoglobin level was measured by a portable hemoglobin meter. The other data were collected by questionnaire. The data were analyzed by a multiple linear regression.

Results: Hemoglobin level reduced with length of exposure ($b= 0.27$; $p= 0.001$) and years of service ($b= 0.15$; $p= 0.022$) among printing industry workers.

Conclusion: Hemoglobin level is affected by length of exposure and years of service among printing industry workers.

Keywords: hemoglobin level, length of exposure, years of service

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