

ERGONOMIC ASSESSMENT OF WOMEN LABOURERS IN HEAD LOAD CARRYING ACTIVITY AT CONSTRUCTION SITES IN HARYANA

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ABSTRACT

In India women labour constitute a major role in the construction industry and it was found that most of the female were engaged in head load carrying activity. So a study was conducted to assess the ergonomic parameter for their WMSDs among 30 female labourers involved in carrying cement mixture on their head. They belonged to age group of 20-40 years with 8-10 years of work experience. It was found that after carrying the head load, highly significant increase was observed in pulse rate (27.9 b.min^{-1}), HR (32.7 b.min^{-1}), EE (6.4 kJ.min^{-1}). Oxygen uptake volumes of respondents were found to be decreased after the work. On the basis of RPE, load carrying was perceived as moderately heavy activity (3.7) Grip strength of right hand (19.7%) as well as left hand (15.4%) was reduced after performing the activity. Deviation in spinal angle in terms of lumbar region was 2.7 percent (exterior posterior) and cervical region by 3.1 percent (anterior posterior) was observed during carrying the load on head. This study also revealed that women workers had to work in a very high temperature, humid weather, dirt etc. so that they suffered many health problems due to unsuitable work place environmental parameters.

KEYWORDS: Construction Female Labourers, Head Load, Heart Rate, Working Environment