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Prevalence of musculoskeletal disorder and associated factors among the weaving workers in Bangladesh

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Statement of the Problem: Handloom is an important cottage industry in Bangladesh and of largest economic sector after agriculture. About more than 1.5 million people are directly and indirectly involved for their livelihood. Handloom is a device, which is made of wood and of iron (some portion) and used to produce woven fabric run by hand and foot combination. During the weaving operation handloom workers adopt awkward postures, which is one of the most important factor of their poor working efficiency and prevalence of musculoskeletal disorders. The aim of this cross-sectional study was to find out the prevalence of musculoskeletal disorders and associated factors among weaving workers in Bangladesh. A total of 196 workers participated in this study. A modified Nordic questionnaire was used for data collection. All the respondents were male with mean age 34.68 ± 9.24 years. The respondents were found working on an average 6.10 ± 1.12 hours a day. Their average monthly income was BDT 4938.77 ± 1247.16 . Majority (23.5%) of the respondents had mean professional experience 15.73 ± 9.31 years. All the participants (100%) were suffered from different types of musculoskeletal disorder on their different body parts. The musculoskeletal disorder was more common in neck (18.4%), wrist (39.3%), upper back (1.5%), lower back (8.7%), hip (54.1%), knee (6.6%) and ankle (18.9%). Beyond the working time suffered pain in neck (100%), wrist (100%), lower back (100%), knee (100%), ankle (100%), upper back (33.3%) and hip (98.1%). Severity of pain was reported moderate type by 94.4% in neck, 92.3% in knee, 88.2% in lower back, 75.3% in wrist and severe in hip by 47.1% respondents. About 99.5% of total respondents should work in sitting posture (mean 4.71 ± 0.66 hours) with repetitive movements with hands.

Conclusion: Weaving workers couldn't maintain proper ergonomics posture and most of them were found to suffer from musculoskeletal disorder. Practice of range-of-motion exercises and stretching and using seat with adjustable back rest are recommended.

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