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The Prevalence of Musculoskeletal Disorders Among Garment Workers: A Systematic Review and Meta-analysis

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Abstract

Background: Due to the repetitive physical tasks, long hours, and variable workstations, garment workers are prone to musculoskeletal disorders (MSDs). At present, no epidemiological overview on MSDs among garment workers exists, hence this systematic review on the prevalence of MSDs among them.

Methods: A systematic review of the literature was conducted in accordance to the PRISMA guideline. Medline, Cumulative Index to Nursing and Allied Health Literature, PubMed, Scopus, and Web of Science electronic databases were searched using specifically developed search strategies to identify studies published in English up to November 2022. To determine the quality of the included studies, researchers use the Joanna Briggs Institute Critical Appraisal Checklist. Studies that reached up to 49% of questions scored as yes were classified as high risk of bias (RoB), from 50 to 69% as moderate RoB, and more than 70% as low RoB. Random-effects meta-analysis was used to estimate the prevalence.

Results: The search yielded 258 published studies, of which 14 were deemed relevant and were included in this review. The included studies reported prevalence from India (n = 3), Bangladesh (n = 2), Ethiopia (n = 2), Thailand (n = 2), Botswana (n = 1), Iran (n = 1), Sri Lanka (n = 1), Cambodia (n = 1) and Denmark (n = 1) and involved 15,029 garment workers. All the included studies were assessed to be methodologically sound (low risk of bias). The mean age of the participants ranged from 24.2 to 40 years. The prevalence of MSDs ranged from 29% to 92%. The prevalence of MSDs ranged from 29% to 92%. The pooled prevalence of MSDs from nine studies was 65.6% (95% confidence interval (CI), 44.5% - 51.9%). Low back pain and neck pain were reported as the common MSDs in the included studies.

Conclusion: MSDs are highly prevalent among garment workers, affecting mostly the low back and neck. It's prevalence represents significant impact on health service utilization. This finding can be used for planning and evaluating health services for this group of patients.