

A Systematic Review: Prevalence and Risk Factors of Low Back Pain among Waste Collection Workers

Authors : Benedicta Asante, Brenna Bath, Olugbenga Adebayo, Catherine Trask

Abstract : Background: Waste Collection Workers' (WCWs) activities contribute greatly to the recycling sector and are an important component of the waste management industry. As the recycling sector evolves, reports of injuries and fatal accidents in the industry demand notice particularly common and debilitating musculoskeletal disorders such as low back pain (LBP). WCWs are likely exposed to diverse work-related hazards that could contribute to LBP. However, to our knowledge there has never been a systematic review or other synthesis of LBP findings within this workforce. The aim of this systematic review was to determine the prevalence and risk factors of LBP among WCWs. Method: A comprehensive search was conducted in Ovid Medline, EMBASE, and Global Health e-publications with search term categories 'low back pain' and 'waste collection workers'. Articles were screened at title, abstract, and full-text stages by two reviewers. Data were extracted on study design, sampling strategy, socio-demographic, geographical region, and exposure definition, definition of LBP, risk factors, response rate, statistical techniques, and LBP prevalence. Risk of bias (ROB) was assessed based on Hoy Damien's ROB scale. Results: The search of three databases generated 79 studies. Thirty-two studies met the study inclusion criteria for both title and abstract; thirteen full-text articles met the study criteria at the full-text stage. Seven articles (54%) reported prevalence within 12 months of LBP between 42-82% among WCW. The major risk factors for LBP among WCW included: awkward posture; lifting; pulling; pushing; repetitive motions; work duration; and physical loads. Summary data and syntheses of findings was presented in trend-lines and tables to establish the several prevalence periods based on age and region distribution. Public health implications: LBP is a major occupational hazard among WCWs. In light of these risks and future growth in this industry, further research should focus on more detail ergonomic exposure assessment and LBP prevention efforts.

Keywords : low back pain, scavenger, waste collection workers, waste pickers

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