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Musculoskeletal disorder among baggage handler

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Abstract
Background: Globally in 2018, Musculoskeletal disorders (MSD) are the second largest contributor to disability with Low Back Pain (LBP) being the single leading case of disability. One of three people live with painful musculoskeletal condition and one of five people disabled from musculoskeletal condition. Musculoskeletal disorders lead to early retirement form work and reduce the ability of social roles participation through decreasing motility and dexterity. Musculoskeletal conditions represent one third to one half of multi-morbidity presentation and commonly linked to depression.
Methods: A systematic literature search was conducted using ProQuest LLC, Medscape and NCBI. The articles were independently screened based on inclusion and exclusion criteria, followed by a quality assessment of all included articles.
Results: The systematic search identified ten articles for inclusion in the review. These consisted of ten research articles. The review focused specifically on musculoskeletal disorder among baggage handler. In the research articles addressed in the current review, study populations included airport baggage handler only. The studies examined the relationship between the musculoskeletal disorders and the baggage handler job. Interestingly, 3 of the 10 research articles addressed the musculoskeletal is higher in the airport baggage handlers.
Conclusions: Results of the current review suggest that airport baggage handlers could be at higher risk of developing musculoskeletal conditions due to heavy weight lifting, the awkward posture and repetitive movement. Further research is needed in this area to determine if the airport baggage handlers are a high risk group occupation for musculoskeletal disorders.

Keywords: globally, musculoskeletal disorders, proquest, baggage handlers

Introduction

Background

Globally in 2018, Musculoskeletal disorders (MSD) are the second largest contributor to disability with Low Back Pain (LBP) being the single leading case of disability. One of three people live with painful musculoskeletal condition and one of five people disabled from musculoskeletal condition. Musculoskeletal disorders lead to early retirement form work and reduce the ability of social roles participation through decreasing motility and dexterity. Musculoskeletal conditions represent one third to one half of multi-morbidity presentation and commonly linked to depression. Musculoskeletal conditions comprise more than 150 diagnoses that affect muscles "sarcopenia", bones "osteoporosis, osteopenia and associated fragility fractures and traumatic fractures", the spine "back and neck pain", joints "osteoarthritis, rheumatoid arthritis, psoriatic arthritis, gout", tendons and ligaments. They could be acute such as fractures, sprains and strains; and chronic such as pain and disability. Pain and movement limitation are the typical character of musculoskeletal conditions which affect the people's ability to work and participate in social roles. There are associated impacts on mental wellbeing as will.

The most common and disabling musculoskeletal conditions are osteoarthritis, back and neck pain, fractures associated with bone fragility, injuries and systemic inflammatory conditions such as rheumatoid arthritis. Musculoskeletal disorders most commonly affect people from adolescence through to older age. The prevalence and impact of musculoskeletal conditions is predicted to rise particularly in low- and middle-income settings [1].

Burden of the disease

The Global Burden of Disease (GBD), in the 2016 GBD study, musculoskeletal conditions were the second highest contributor to global disability, and lower back pain remained the single leading cause of disability since it was first measured in 1990. In United States of America one in two adult Americans live with a musculoskeletal condition which is the same number as those with cardiovascular or chronic respiratory diseases combined [2].

Signs and symptoms

Pain which is typically persistent for long-term conditions, and movement limitation are the unifying features of the range of musculoskeletal conditions. Joint deformity may occur if the musculoskeletal condition not treated.

Prevention and management

Inadequate physical activity, obesity, smoking and poor nutrition are the risk factors of musculoskeletal conditions. The treatment include the changing of lifestyle, psychological and pharmaceutical treatment regarding most of the musculoskeletal disorder which could be managed in the primary healthcare centers.

WHO response

WHO is responding through the Integrated Care for Older People (ICOPE) approach, which identifies the need to improve musculoskeletal function through a range of interventions, with multimodal exercise as a key component. WHO's Global Program of Work in rehabilitation, in order to improve peoples' performance. Prevention of

musculoskeletal trauma is addressed in WHO's Global Program of Work on road traffic injuries [1]. In 2013 retrospective study conducted in Denmark concluded that the baggage handler at Copenhagen Airport had significantly higher risk of musculoskeletal symptoms than the less heavy work [3]. In 2016 a study was carried out at a large Swedish airport about Trunk and upper arm postures measured using inclinometers during three full work shifts the Result was Trunk and upper arm postures and movements among flight baggage handlers were similar to those found in other jobs comprising manual material handling, known to be associated with increased risks for musculoskeletal disorders [4]. In 2017 a cohort study conducted among 44 baggage handlers operating at one of the six participating airports in Sweden using self-reported shoulder pain (on an 0-100 mm VAS scale) Pain was significantly related to the number of completed aircraft, both for the right and left shoulder also the number of completed aircraft was significantly related to daily pain in both shoulders. More "experienced influence" was related to less daily shoulder pain, while somewhat more unexpectedly "social support from colleagues" was related to more shoulder pain [5].

Methodology

Literature search

A systematic literature search was conducted using ProQuest LLC, Medscape and NCBI. The articles were independently screened based on inclusion and exclusion criteria.

Eligibility criteria

Only English studies were eligible for the review. Studies were screened on the basis of the presence of musculoskeletal disorders symptoms and the baggage handlers were working in the airport. Studies were excluded if the musculoskeletal disorders was related to psychological factors such as stress, and if the working population were not working at the airport. Titles been screened at the beginning, relevant abstracts were independently retrieved and screened for the same criteria. Finally, full-text articles were evaluated based on the inclusion and exclusion criteria (fig.1).

Results

The systematic search identified ten articles for inclusion in the review. These consisted of ten research articles. The review focused specifically on musculoskeletal disorder among baggage handler. In the research articles addressed in the current review, study populations included airport baggage handler only. The studies examined the relationship between the musculoskeletal disorders and the baggage handler job.

Interestingly, 3 of the 10 research articles addressed the musculoskeletal is higher in the airport baggage handlers with pain as common presentation.

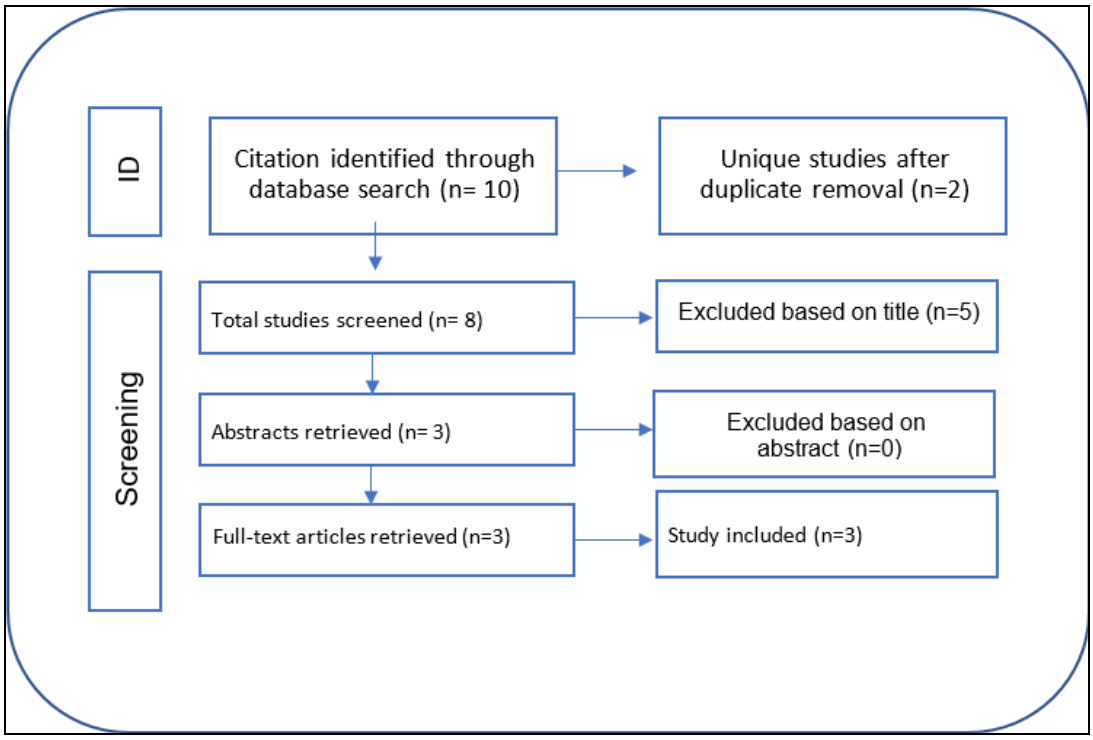

Fig 1: Flowchart of literature search results and inclusion/exclusions.

Discussion

Musculoskeletal disorders is the second largest contributor to disability with Low Back Pain (LBP) being the single leading case of disability. One of three people live with painful musculoskeletal condition and one of five people disabled from musculoskeletal condition. Musculoskeletal disorders lead to early retirement form work and reduce the ability of social roles participation through decreasing motility and dexterity. Musculoskeletal conditions represent one third to one half of multi-morbidity presentation and commonly linked to depression.

As we found here that airport baggage handlers had high risk of musculoskeletal disorders which increased with the length of employment and this is could be explained by increasing the exposure to the heavy weight lifting, the awkward posture and repetitive movement.

The common presentation was pain and mainly in the shoulder and trunk.

Conclusion

Results of the current review suggest that airport baggage handlers could be at higher risk of developing musculoskeletal conditions due to heavy weight lifting, the awkward posture and repetitive movement. Further research is needed in this area to determine if the airport baggage handlers are a high risk group occupation for musculoskeletal disorders.

Search Terms

Musculoskeletal, airport baggage handler.

Funding

Self-funding.

Competing interests

Authors declare that there is no conflict of interest

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