http://jmscr.igmpublication.org/home/
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v11i6.01

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Occupational Health among Paramedics

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Abstract

Background: *Lower back pain is reported as a major contributor to work-related sick leaves among paramedical staff, there has been an increase in the number of published papers investigating the prevalence of lower back pain among various categories of health workers in different parts of Saudi Arabia with a wide variation ranging from 46.5% to 92.6%.*

Aim: *To review current knowledge relating to the occurrence of lower back pain and its associated risk factors in the healthcare sector in Saudi Arabia*

Materials and Methods: *A search of the literature was conducted in PubMed for relevant publications using*

Results: *Recommended strategies that may decrease the risk of LBP such as shorter working hours and improved ergonomics.*

Conclusion: *The findings of the current study suggest a high prevalence of lower back pain among paramedics that requires future studies to focus on identifying the biomechanical and ergonomic risk factors of LBP and on designing prevention programs to reduce the incidence of LBP*

Keywords: *Back pain, Paramedic, Management of pain, Occupational Diseases, epidemiology.*

Background

The World Health Organization defines occupational health as any work environment-related illness caused or increased in severity by workplace factors and conditions ("Occupational health", 2022). Lower back pain (LBP) is the most common work-related musculoskeletal disorder related to the physical demands among health care providers throughout the medical system. Abolftouh (2021) reported that backache wasa common cause of increased sick leaves. Alamer (2020) reported in his review that previous studies showed that up to 54% of health workers had taken sick leaves due to back pain. Due to the demand and nature of work, The nurses and paramedic health care professionals, especially those working in the transportation department (EMS) are more prone to developing lower back pain. Especially ambulance workers are more vulnerable to musculoskeletal disorders that cause lower back pain due to their work under abnormal circumstances such as confined space in the ambulance. Limited studies are available regarding the prevalence of lower back pain

among paramedics. Therefore, this review is aimed to investigate the previously reported contributory factors for lower back pain among ambulance paramedics who worked in the field.

Methods and Materials

A process to search for the keywords in the topic A narrative review of occupational health among paramedics: Back pain, Paramedic, Management of pain, Occupational Diseases , epidemiology, Low Back Pain* /Keywords was done using the National Library of medicine's Medical subject heading "MeSH",

A screening process was applied to all articles which were searched on PubMed The relevant chosen articles were re-examined to evaluate the validity of the inclusion and exclusion criteria. APA was the selected method for referencing. A total of 71 articles were obtained, however, only 6 matched the inclusion criteria

Inclusion criteria	**Exclusion Criteria:**
Articles that have been published in PubMed English language Published within the last 8 years	Articles that have been published in any other language than English Case reports and case series Articles that are not found in PubMed

Results

Authors	Design	Country	Year	Occupation	Sample
Al Amer H. S. (2020)	Systemic review	Saudi Arabia	2020	Healthcare professional	18
(Abolfotouh et al, 2021)	Cross-Sectional survey	Saudi Arabia	2021	Nursing in rehabilitation professionals	259
Rezaei, B., et al (2021)	A systematic review	N/A	2021	Healthcare professional	154
Zhang, Q., et al. (2019).	a cross-sectional study	China	2019	Paramedic	1560
Hegewald, et al (2018)	A systematic review	N/A	2018	Healthcare professional	97
Pek, E., et al. (2015)	Cross-sectional survey	Hungary	2015	Paramedic	810

Contributing Factors

While Zhang et al (2019) listed contributing factors to LBP among ambulance nurses related to the physical burden of bending and lifting in addition to psychological fatigue, older age, and obesity.

Al Amer et al.(2020) in his review of health workers in Saudi Arabia found a higher prevalence when compared with international rates.

Management

A review of the selected articles has concluded that lower back pain is prevalent among health care providers Abolfotouh et al.(2021) recommended strategies that may decrease the risk of LBP such as shorter working hours and improved ergonomics.

Discussion

In this narrative review, the present literature identified 6 eligible studies examining the prevalence of LBP or musculoskeletal disorders including LBP and the associated risk factors among paramedics. All of these studies were conducted within the last 8 years. An increased interest in that topic in recent years indicates the importance of prevention in the problem and the current interest in investigating the main issues of health workers in relation to the development of LBP. The purpose is to provide awareness in the healthcare field about the issue of LBP & stress among paramedics. Both personal and professional risk factors were found in accordance with those in the literature found that Lower back pain may be controlled by adopting certain hospital strategies, which promote physical activity such as shorter shifts, emphasizing physical activity practices, educating regarding proper ergonomics, and improving psychological health in the workplace.

Conclusion

Lower back pain is prevalent among emergency personnel mainly paramedics. Both personal and professional risk factors were found in accordance with those in the literature found that Lower back pain may be controlled. Conducting periodic assessments may be necessary for the early detection of LBP. A need for future studies to evaluate the most effective methods for lower back pain prevention is required.

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