DISASTER RISK RESILIENCE OF WORKPLACES: A LITERATURE REVIEW

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Introduction

Driven by climate change, more extreme weather and other risk factors, disasters are rising and becoming more severe. Disaster resilience is a key to reduce the impact of severe or catastrophic events on people and property. It is determined by the degree to which individuals, communities, and organizations can adapt to and recover from hazards, shocks, or stresses without compromising long-term development. According to the Sendai Framework for Disaster Risk Reduction (SFDRR), the disaster risk resilience of workplaces should also be promoted.

It is important to reduce the effects of disasters at workplaces, providing safety for all employees, as well as minimizing economic losses. This can be particular critical in some sectors of activity, such as construction, where workers can be exposed to extreme environmental conditions (e.g., hot waves, excessive precipitation).

Objectives

This study aims to conduct a systematic literature review on this topic, in order to provide recommendations for assessing disaster resilience at workplace level and provide appropriate recommendations. In this work, the preliminary results are presented.

Study area

Climate change, environmental risks and social vulnerability.

Methodology

A systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [1]. The search was conducted using the ScienceDirect, Web of Sciences and PubMed databases. The keywords used for the search are described in Table 1. Only original research articles written in English were included.

Table 1: Keywords used for the search

General	Specific search terms
Disaster	"disater" OR "catastrophic events" OR "climate change" OR "Extreme weather"
Resilience	"Resilience"
Workplace	"workplace" OR "workers" OR "employees" OR "occupational"
Safety and Health	"health" or "safety" or "accident" or "disease" or "hazard"

The search results were exported to the bibliographic software package EndNote, and duplicates were eliminated. Articles underwent eligibility screening based on specified inclusion and exclusion criteria. Initially, titles were assessed for relevance. Next, abstracts were reviewed, with a focus on study aims and methodology. Finally, full-text articles were retrieved for studies that appeared to meet the eligibility criteria and for those where title and abstract information was insufficient for exclusion.

Results and discussion

This literature review research is still ongoing. However, some selected studies have already been analysed. A total of 484 articles were obtained, out of which 86 were duplicates. During the screening phase, only a few were included for analysis.

Concerns about disaster and climate change resilience in the field of OSH are increasing. Emphasis was placed on extreme weather events, such as heatwaves and heavy precipitation [1-3]. The appropriateness of incorporating OSH legislation to consider control measures for the impact of disaster and climate change in the workplace, as well as preparedness in this field, was identified as a matter of concern [4]. Previous studies also focused on examining the relationship between extreme weather, occupational injuries, and worker health [5]. Specific sectors, such as construction, were emphasized. The particular risks that construction workers can be exposed to during post-disaster reconstruction tasks were also noted. Other studies focused on vulnerable workers and other risks related to disaster in occupational settings, including psychosocial risks.

Conclusion

Overall, this study denoted that companied should increase their resilience to reduce the effect of disasters at workplaces, in particular in what regards to preparedness, vulnerability consideration and adaptation.

References

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