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Review

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Abstract

Background: Workplace violence is a serious threat to healthcare workers worldwide.

Aim: We aimed to determine the prevalence of physical and verbal violence against healthcare workers in the WHO Eastern Mediterranean Region and Türkiye.

Methods: We searched the Medline (via PubMed), Cochrane Library, Scopus, Science Direct, Web of Science and ProQuest databases along with reference lists from selected articles. Studies of health workers exposed to verbal and/or physical violence by patients or their relatives conducted in the WHO Eastern Mediterranean Region and Türkiye among staff working in hospitals and primary health care services were included. Seventy-five of the 3513 articles identified of studies conducted during 1999–2021 were eligible. The data were analysed using MetaXL version 5.3 and STATA version 16.

Results: This study covered 69 024 healthcare workers from 22 countries. Meta-analysis showed that 63.0% (95% CI: 46.7–79.2) of them had experienced verbal violence and 17.0% (95.0% CI: 14.0–21.0) experienced physical violence. There was no significant difference for sample size, professional group, quality score, or response rate. The frequency of physical and verbal violence in the subgroup analysis was statistically significantly different for countries and years.
Conclusion: Findings from this study provide useful information for policymaking regarding

interventions to prevent or minimize violence against healthcare workers in the Eastern Mediterranean Region and Türkiye.

Keywords: verbal violence, physical violence, health care workers, Eastern Mediterranean Region, systematic review, meta-analysis

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Introduction

Workplace violence is a serious public health problem that threatens healthcare workers worldwide. Health care workers are an occupational group at high risk of workplace violence (1). The World Health Organization has reported that at least 3 out of every 5 healthcare workers had been exposed to violence over the previous year (2,3). Violence negatively affects the health of all employees working in health institutions, from cleaning staff to doctors. Workplace violence includes threats, abuse and attacks that occur in work-related conditions and may affect the health of employees (4). All kinds of behaviours, from threats and insults to murder, are considered within the scope of workplace violence (5).

Violence in the workplace is examined under 2 main headings: physical and psychological. Physical violence is defined as the use of physical force, causing physical, psychological or sexual problems in the victim. Many situations, such as pushing, kicking, hitting, slapping and injuring with an object, are examples (4). According to WHO, health workers are exposed to physical violence at rates ranging from 8% to 38% throughout their careers (1). It has been reported that 24.4% of healthcare workers have been exposed to physical violence in the previous year (3).

Psychological violence is any behaviour that negatively affects the individual psychologically (4). Verbal violence, such as insulting, shouting, threatening, swearing, etc., is the most common subdimension of psychological violence (6–9). According to WHO, negatively affected workers are exposed to verbal violence at a much higher rate than physical violence (2). A recent meta-analysis in China found that 61.2% of healthcare workers were exposed to verbal violence in the last year (10).

Violence has a negative mental, physical and social impact. Violence against healthcare workers is known to cause a number of health issues, including psychological harm, injuries and death. Decreased job satisfaction and staff quitting their positions are also among the consequences (11). Therefore, violence in the health sector is a significant issue that has a direct impact on the health of employees and an indirect impact on the health of patients.

Determining the frequency of the violence that healthcare workers are exposed to is important for protecting the health of employees and the society. Studies have been conducted on the prevalence of violence among healthcare workers in different regions, however, we did not find any systematic review or meta-analysis that reported the frequency of violence (physical or verbal) among healthcare workers in the Eastern Mediterranean Region and compared different subgroups (country, occupation, time interval, sample size, study year, quality score, response rate). One meta-analysis conducted worldwide on this subject examined a specific subgroup and the prevalence of physical violence experienced in the previous year only (12). Detailed examination of health violence in the Eastern Mediterranean Region, as in our study, will reveal the regional dimensions of the problem.

In this study, we aimed to determine the prevalence of physical and verbal violence experienced by healthcare workers in the Eastern Mediterranean Region during one year and throughout their careers.

Methods

Study design

This study was conducted in accordance with the Preferred Reporting Elements for Systematic Reviews and Meta-analyses (PRISMA) (13) and was registered in the International Prospective Systematic Review Registry (PROSPERO) under the code CRD42022314256. It is a meta-analysis that used the checklist of the Meta-Analysis of Observational Studies in Epidemiology guidelines design. The specified guideline includes recommendations on reporting background, search strategy, methods, results, discussion and conclusions (14).

Search strategy

We searched 6 academic databases, MEDLINE (via PubMed), Cochrane Library, Scopus, Science Direct, Web of Science and ProQuest, with words arranged in accordance with MeSH terms. Search strategies for each database are shown in Table 1 . The following search terms were used: “physical violence”, “verbal violence”, “workplace violence”, “nurse”, ”doctor”, “health care professional”, “prevalence” and “incidence”.

Study selection and selection criteria

We reviewed and selected studies based on the following previously defined inclusion criteria: conducted in the countries of the WHO Eastern Mediterranean Region and Türkiye due to their sociocultural proximity; participants working in hospitals and primary health care services; and studies conducted on health workers exposed to verbal and/or physical violence by patients and their relatives. Only observational studies reporting prevalence of violence were included in the systematic review and meta-analysis, and only studies published in English were selected.

Studies were excluded based on the following exclusion criteria: randomized controlled trials and systematic reviews; studies whose main research topic was mobbing and burnout; studies in which the cause of violence was conflict and chaos in the country; and studies dealing with only sexual violence among healthcare professionals.

All the data collected through literature search were transferred to Excel, and duplicates were removed. Scanning of titles and abstracts for these studies was done by referees. Unclear titles/summaries were scanned by another reviewer and discussed by the reviewers until approval for inclusion or exclusion was obtained. All reviewers independently scanned full-text articles using a standardized search tool and the eligibility criteria such as country of study, study design, type of publication and sample studied. Studies meeting all criteria were included in the review. Conflicts regarding inclusion or exclusion of studies were discussed and resolved.

We used PRISMA for the systematic review and selection of studies to be included in the meta-analysis.

Quality assessment

Loney criteria (8 items) were used for the quality scoring of studies evaluated in this review (15). The criteria were: sampling method (random sample or whole population), sampling frame

(defining the study population), sample size (**Statistical analysis**

Data were analysed using MetaXL, version 5.3, and STATA, version 16. Small-study effects and publication bias were examined using the Luis Furuya-Kanamori (LFK) index, the Doi plot and the funnel plot (16). The Doi plot has been reported to be more intuitive and the LFK index more robust than the traditionally used Egger's regression-intercept test (17). An LFK index value > 1 or 2 or