



COVID-19: Evaluation of Occupational Health Risk and Healthcare Workers

Jaiswal A^{1*} and Kooko R²

Department of Epidemiology and Public Health, Central University of Tamil Nadu, India

***Corresponding author:** Dr. Ajeet Jaiswal, Associate Professor, Department of Epidemiology and Public Health, Central University of Tamil Nadu, Thiruvarur, Tamilnadu, India, Email: rpgajeet@gmail.com

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Abstract

Corona virus disease (COVID-19) presents a significant occupational health risk and healthcare workers have remained at the receiving end of the burdens crippling the healthcare systems of different countries as a result of the pandemic; they face various threats to their occupational health ranging from those associated with direct exposure to the virus to those indicating the conflicts between work and family demands. Numerous HWs worldwide have reportedly been infected with corona virus disease raising an alarm for policymakers to priorities it as a public health concern to understand risk factors faced by health workers in order to stop occupational transmission. Research papers related to the research topic were searched from Google scholar and PubMed using the following key words; Occupation health and safety, health workers, and corona virus disease/ Covid-19. Exposure to COVID-19 patients, work overload, inadequate personal protective equipment (PPE) and poor infection control programmes as the risk factors to Covid-19 amongst healthcare workers jeopardizing OHS. Apparently, there is need for swift development of sustainable measures that protect healthcare workers from the pandemic.

Keywords: Occupational Health and Safety (OHS); COVID-19; Health workers (HWs); COVID-19

Abbreviations: OHA: Occupational Health and Safety; SARS-Cov-2: Severe Acute Respiratory Syndrome Corona Virus 2; PPE: Personal Protective Equipment; CDC: Centre for Disease Control and Prevention.

Introduction

The concept of occupational health and safety (OHS) has faced a reality check during the COVID-19 pandemic and provides a precise reminder of how relevant health workers' safety is during service delivery [1]. The Covid-19 pandemic caused by the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) has posed a great threat to all health systems globally and as of 15th October, 2020, 214 countries

had registered Covid-19 case with over 37 million cases, over 1million deaths and approximately 29 million recoveries affected [2-5].

Health professionals are at the greatest risk of corona virus infection due to increased level of exposure since they are at the forefront of the response team to Covid-19 outbreak [5]. It is appalling to learn that the Covid-19 transmission amongst health workers is accelerated and attributed to environmental contamination, lack of adequate personal Protective Equipment (PPE), inadequate isolation facilities and overcrowding in health centres [6]. The safety of health workers is critical in guaranteeing continued delivery, accessibility of effective and efficient health care services

[5]. With less than 3% and 2% of the general population in many developed and developing countries respectively, approximately 14% of Covid-19 cases reported to WHO are among health workers [5].

Globally, the healthcare workers account for 12% of the working population [7]. Despite of the knowledge about occupational health and safety, several organisations and governments continue to neglect its importance even during the times of Covid-19 pandemic [8]. Undoubtedly, healthcare professionals work from an environment that is regarded as one of the most hazardous in the occupational/workplace settings [9]. Besides the usual workplace related exposures, healthcare workers face numerous hazards owing to their work-related activities [10].

The COVID-19 pandemic just like any other outbreaks has spurred the notion of patient's safety being inclined on the health workers' safety [1]. From the previous outbreaks of severe acute respiratory syndrome and Ebola virus disease, lessons were learnt of how health workers' safety plays a significant role in the patient's safety and anchoring the resilience and stability of the health system [2,11].

Regardless of the economic status quo of different nations, many health workers have lost their lives to COVID-19 partly due to failure to provide health workers with adequate protective gears and many countries have revealed insufficient preparedness during this pandemic to protect their health workers [12].

Even if variations exist in risks posed to health workers from different settings, they are mostly categorised into physical, mental, security, environment and infrastructural risks [2,13,14]. These factors can limit the ability of health workers to complete necessary safety functions leading to injuries, mental distress, fatigue, general distress of health workers and detract the delivery of safe, high-quality care. In spite of 1949 Geneva Convention providing protection to workers against violence, the health workers safety and security swings in balance in various working environment [15,16].

Methods

This article is based on secondary literature available at different sources. Despite various research works on Covid-19, limited attention has been paid to the safety of health workers from different sectors. Therefore, the need for this article to explore and enlighten the occupational hazard and safety issues affecting health workers. This work was developed from research papers and articles related to the research topic searched from Google scholar and PubMed using the following key words; Occupation health and safety,

health workers, and corona virus disease/ Covid-19.

Results

Over fifteen articles were considered and included for data extraction and used in this write up. The occupational health risk factors amongst health workers include: high exposure to COVID-19 patients, work overload, inadequate personal protective equipment (PPE), poor infection control programmes.

Exposure to infected patients mainly through work in high-risk departments and contaminated fluid/aerosols were reported as another important Covid-19 risk factor among health workers [17,14]. The insufficient time to rest coupled with long time exposure to Covid-19 patients due to too much work, mounted pressure and consequently resulted in little time for rest amongst health workers [18,19]. Inadequate availability and complete lack of PPE for HWs at the forefront to combat the pandemic posed an important health risk factor for Covid-19 leaving their occupational health and safety at stake [20,21,14]. The similar article reviewed by Yu et al acknowledged that little knowledge on infection control against Covid-19 amongst health workers has put their safety at stake.

Discussion

This article highlights various research works on occupational health and safety of health workers during Covid-19 pandemic [22]. It reveals various risk factors that cast a pall on the safety of health workers during the difficult times of the pandemic and these included high exposure to COVID-19 patients, work overload, inadequate personal protective equipment (PPE), poor infection control programmes.

Work overload and prolonged exposure to covid-19 patients were revealed as the two most important Covid-19 risk factors amongst health workers jeopardising their Occupational health and safety [23]. This correlates with the Centre for Disease Control and Prevention (CDC) report estimating 55% of Covid-19 cases among health workers in USA was due to exposure within the healthcare setup (CDC, 2020). Globally, the Covid-19 pandemic has over stretched and strained almost all health systems of different countries due to overwhelming Covid-19 cases leading to prolonged working hours and increased workload for health workers [5].

Health workers' protection against the exposure to the virus using personal protective equipment is essential in the fight against the pandemic while the Occupation health and safety of health workers is given a keen attention [24].

Unfortunately, this has not been realised more especially in less developed countries due to limited resources available to make adequate procurement. Therefore, some of the PPE are reused which leaves the safety of the health workers hanging in the swing. There is a need to create the balance between use of limited resource and HWs safety while training them on proper use of the available personal protective equipment. Like any other piece of work, this article has strengths and weaknesses which need to be explored for much more comprehensive analysis in regard to Occupation health and safety [25,26].

This article provides the most recent overview of Occupation health and safety amongst HWs working within the healthcare setup battling with Covid-19. The limited evidence on risk factors most probably is due to underreporting and lack of adequate data from other parts of the globe mostly Africa and Antarctica cripple the strength the findings in this article. It is important to note that the findings in this review on occupational health and safety amongst health workers during Covid-19 can be of great help to policymakers in designing policies related to Occupation health and safety of health workers.

Conclusion

Healthcare workers continue to face several hazards in their workplaces. The factors associated with experiencing hazards include not wearing all necessary protective equipment, working overtime, experiencing work related pressures, and working in multiple facilities. Interventions should be instituted to mitigate the hazards. Specifically, PPE supply gaps, job related pressures, and complacency in adhering to mitigation measures should be addressed.

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