

Precautions Compliance Among Respiratory Therapist, Radiology, Laboratory, Pharmacist And Nursing Teams, During COVID-19 Pandemic

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Abstract

Standard precautions effectively mitigate the transmission of pathogens inside hospital environments. Noncompliance with infection control measures among healthcare workers (HCWs) can heighten their susceptibility to infectious diseases, particularly during pandemics. The objective of this study was to evaluate the extent to which healthcare workers (HCWs) in various healthcare settings adhere to infection prevention and control methods, and to examine how their perspectives on workplace infection control measures during the COVID-19 pandemic are related to their level of compliance. The adherence to routine precautions by respiratory therapists, radiologists, laboratory personnel, pharmacists, and nursing teams during the COVID-19 pandemic was excellent. The average adherence ratings to the standard precautions may be linked to age and professional category. It is recommended to implement a continuous training program for healthcare personnel to improve their adherence to conventional precautions. This program should include ongoing monitoring and assessment.

Keywords: *healthcare workers, COVID-19.*

Introduction

The concept of standard precautions, which were established and implemented in the early days of healthcare, aims to guarantee the implementation of essential infection prevention measures in hospital settings. In order to enhance the well-being of healthcare workers (HCWs) and patients, the standard precautions have been adjusted and updated to address the various hazards of exposure faced by HCWs [1]. This ensures that the precautions are adequate and implemented in a timely manner. Healthcare workers (HCWs), particularly nurses, face a higher risk of getting infected through their work compared to the general population. This risk exists in various healthcare settings, not just in the community. Adhering to standard precautions in all situations is considered one of the most effective ways to reduce the transmission of infections, regardless of whether the patients are suspected or confirmed to have an infection [2]. Although healthcare workers (HCWs) have made tremendous efforts to increase their readiness and learn from prior epidemics, overall compliance with best practices is still inadequate. Additionally, the rates of compliance vary across different aspects of standard precautions.

The COVID-19 pandemic has developed as a worldwide menace, impacting over 94 million individuals and resulting in around 2 million fatalities as of January 2021. During the ongoing COVID-19 epidemic, healthcare workers (HCWs) play a crucial role as the primary caregivers for patients on the frontlines of the fight against the disease. Nevertheless, they are also more susceptible to contracting the infection themselves, which could present a significant obstacle for epidemic management and result in the breakdown of the healthcare system [4]. A study revealed that the incidence rate of COVID-19 among healthcare workers (HCWs) was approximately 10%. Furthermore, it was shown that 29% of these infections occurred as a result of accidental exposure to a patient at a non-COVID-19 facility. Recent evidence indicates that there is a risk of COVID-19 spreading to healthcare workers (HCWs) without them showing any symptoms. In

addition to the standard precautions, the World Health Organization (WHO) has recommended a set of infection control measures for both individuals and organizations to protect HCWs and enhance the healthcare system's response to COVID-19. While workplace infection precautions are crucial for protecting the health of healthcare workers, their effectiveness is compromised if individual HCWs fail to adhere to them [6]. Therefore, it is imperative to enforce workplace infection control rules and methods that are agreeable and acceptable in healthcare settings during an infectious pandemic. This is crucial for safeguarding the health of healthcare workers (HCWs) and minimizing the likelihood of cross-transmission and infection in the workplace. Nevertheless, there is a scarcity of research on the perspectives of healthcare workers regarding infection control policies and methods in hospital settings [7]. Additionally, the correlation between compliance levels during the pandemic remains uncertain.

The study aimed to evaluate the extent to which healthcare workers (HCWs) adhere to infection prevention and control measures in various healthcare settings. Additionally, it sought to investigate the relationship between compliance and HCWs' including respiratory therapist, radiology, laboratory, pharmacist and nursing teams perspectives on infection prevention and control practices, as well as their individual characteristics. The findings are crucial for guiding the development of strategies and interventions necessary to enhance workplace policies in healthcare settings and retain the capacity of a healthcare system to effectively respond to a pandemic while also ensuring the provision of key health services.

Review:

As a result of the COVID-19 outbreak, a significant number of healthcare workers (HCWs) all over the world, primarily in China, have become infected with the virus. As a result of the nature of their profession, healthcare workers are exposed to polluted settings and in close proximity to sick patients during examinations [8]. This is the reason why this

transmission occurs among healthcare workers. As a result of the fact that radiographic examinations play an important role in the diagnosis and management of patients who are suspected of having COVID-19 or who have been confirmed by laboratory testing, it is anticipated that healthcare workers working in radiology departments will be at a higher risk of becoming infected. In Jeddah hospital units that treated infected patients, it was reported that radiologic technologists had the highest infection incidence during the previous MERS-CoV outbreak in Saudi Arabia. This was the case in the hospital units that were responsible for treating patients. The most significant factors contributing to this high rate were the fact that they had direct contact with infected patients while taking portable chest radiographs and that they lacked information regarding infection control. For this reason, healthcare workers working in radiology departments ought to be aware of infection control methods and trained in the utilization of personal protective equipment (PPE) in order to effectively prevent the transmission of infections [9].

Recently, the majority of radiology departments have been concentrating their efforts on getting ready for COVID-19. This is done in order to enable them to play a role in the diagnosis of patients who are infected with the virus, to maintain the highest possible utilization of radiological services for the hospital, and to guarantee the safety of healthcare workers, patients, and the general community. In this regard, the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) have issued guidelines for healthcare workers (HCWs) for the prevention and control of COVID-19 infections. For the purpose of ensuring the safety of personnel, patients, and the general community, the Ministry of Health in Saudi Arabia has also specified the standard operating procedure for radiological investigations in the process of diagnosing and/or following up on COVID-19 patients. It is still unclear to what extent this knowledge can be put into clinical practice to reduce the spread of COVID-19 infections in radiology departments [10], despite the fact that the World Health Organization (WHO) has

made available online materials and a number of training courses in order to raise awareness among healthcare workers (HCWs) about preventive strategies.

Despite the fact that the infrastructure of the healthcare system, infection control policy, and training in Hong Kong have been enhanced as a result of the experiences of SARS, MERS, and Swine Flu, our research has revealed that the level of satisfaction that healthcare workers have with the infection control and prevention policy in the workplace is not as high as first anticipated. There were a significant number of divergent points of view regarding the workplace infection and prevention policy in terms of its comprehensiveness, clarity, timeliness, and transparency. For nurses working in high-risk environments, the percentage of dissatisfied patients was much greater than for other nurses. There was a greater desire among the nurses working in high-risk settings for additional policy support. It is possible that this is a reflection of their insufficient ability to cope with the situation, given that the protocols for infection control were constantly updated due to the growing understanding of the COVID-19 pandemic. The findings advised health organizations to develop workplace infection control standards and methods that are both comprehensive and realistic in healthcare settings during an infectious pandemic. This is important in order to protect the health of healthcare workers and limit the danger of cross-transmission and infection in the workplace. Aside from the conventional precaution that has been mentioned, the organization ought to also investigate and put into practice additional significant precautions, such as training or workshops, in order to provide assistance to healthcare workers who are responsible for conducting high-risk procedures for medical care during pandemics. [11] [11]

According to the findings of an early survey, the majority of respondents acquired their information on COVID-19 and preventive measures via official media channels such as television, radio, and newspapers, as well as from their own hospitals and the websites of the Ministry of Health. This outcome is in line with

the findings of earlier research that evaluated the knowledge and views of COVID-19 held by healthcare workers. Despite the fact that there is a large amount of information that is readily accessible on the internet, one of the most significant concerns during this pandemic is the widespread dissemination of false information that is inciting xenophobia [12]. In order to guarantee that healthcare workers receive accurate information, it is imperative that the information on the websites of the Ministry of Health and hospitals regarding COVID-19 and prevention initiatives be updated on a consistent basis. When it comes to efficiently controlling the spread of the disease across the nation, it is imperative that educational training programs be made available to all healthcare workers working in hospitals in order to enhance their existing expertise.

The findings of the one study reveal that healthcare workers (HCWs) possess crucial knowledge during this epidemic and illustrate that the key infection control methods are followed in radiology departments in Saudi Arabia. This is the most significant strength of the study. The inclusion of participants who are now employed in radiology departments across Saudi Arabia during this epidemic is another strength of this study. These individuals are located in various locations of the country. Nevertheless, there are a few restrictions that must be taken into account when interpreting the findings of this study. One of these restrictions is that there has been a limited amount of research conducted on COVID-19 infection control for comparison. Regarding the number of healthcare workers who have been infected with COVID-19 in radiology departments, it is still unknown. In order to gain a better understanding of the unique condition of healthcare workers who have become infected while on the job [13], additional analyses and data are required.

According to the findings of another study, a considerably greater proportion of healthcare workers (HCWs) were found to always comply with hand washing, environmental cleaning and disinfection, adopting respiratory hygiene and cough etiquette rules, and having adequate handling of textiles and laundry. Despite this,

the nurses have a terrible performance record, particularly when it comes to carrying out invasive procedures and handling patients in the appropriate manner. In another local study conducted during pandemics, a finding that is generally comparable to this one was reported in terms of hand hygiene compliance among healthcare workers. Additionally, the findings were in agreement with the findings of earlier studies, which indicated that the compliance with infection prevention and control guidelines was not as good as it could be [14]. During the second wave of the COVID-19 pandemic, the same study revealed areas in which nurses' knowledge of high-risk procedures might be improved, namely in relation to the performance of invasive procedures and the appropriate care of patients [14].

Conclusion:

The implementation of standard precautions and infection control guidelines is crucial in minimizing cross-transmission between healthcare staff and patients. A general lack of adherence and negative attitudes towards infection prevention and control standards serve as a cautionary indication for the healthcare system, particularly during pandemics. Urgent measures must be taken to enhance the infection control and prevention policy and training for younger nurses. Healthcare professionals worldwide are courageously placing themselves at the forefront of the fight against diseases during pandemics. Their discontentment and insufficient assistance from their employment will significantly impact their welfare and could potentially lead to a healthcare capacity problem in the near future. Therefore, advocating for workplace policies is crucial in safeguarding the well-being of healthcare professionals. The organization should develop innovative methods and interventions to enhance workplace policies in healthcare settings and ensure the long-term viability of the healthcare system in addressing the emerging problems posed by the pandemic and the continued requirements of healthcare system users. The respiratory therapist, radiology, laboratory, pharmacy, and nursing teams have demonstrated adherence to infection

control measures and precautionary policies both before to and following each examination conducted in their respective departments.

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