

# Psychological Effects of Quarantine During the Spread of Contagious Diseases on the Mental Health of Healthcare Workers: A Systematic Review and Meta-Analysis

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## ABSTRACT

**Introduction:** Quarantine is one of the oldest and most effective ways to control epidemic diseases. Isolation and quarantine help protect the public by preventing exposure to people infected with or who may be infected with a contagious disease. The purpose of this study was to evaluate the psychological effects of quarantine on the mental health status of medical staff during the spread of infectious diseases.

**Search Strategy:** This systematic research was conducted based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement. Data were obtained by searching varying databases (PubMed, Science Direct, Scopus, Web of Science, Cochrane, and Embase) between 2006 and 2020. Three authors conducted individual searches. They independently monitored and assessed the articles' abstracts, and the articles which did not have the related criteria were excluded. All the included articles were evaluated using the Newcastle-Ottawa Scale. Stata statistical package (version 10.0) was used for the meta-analysis, using two-sided *p* values.

**Results:** The study design in all articles was cross-sectional. All studies were published in English. Among five studies, three were conducted in China, one in Canada, and one in Taiwan—modern scales for psychological problems of hair people. CES-D and IES-R were used to measure stress in stressful events. In most of the selected studies, the stress of the treatment staff was investigated. In total, five studies with 2,103 individuals were selected for meta-analysis. The risk of people facing quarantine was extracted in the selected studies as the leading indicator. The odds ratio in the whole study was OR (95%) = 1.69 (1.23-2.16), indicating that the probability of developing mental illness after quarantine in the treatment staff during quarantine is 1.63 times higher than others.

**Conclusion and Discussion:** Due to the worldwide prevalence of COVID-19, healthcare workers are more likely to be exposed to psychological disorders and anxiety since they are working at the front line. It seems that continuous and proper mental health is as essential as dealing with COVID-19 in medical care workers who are working with infectious patients.

**Keywords:** Health personnel, Systematic review, Quarantine