

Clothing Comfort of Medical Personal Protective Equipment during COVID-19

Prof. Bahira G. M. Gabr

Professor, Faculty of Applied Arts, 6.October University

bahiragabr@yahoo.com

Assist. Prof. Dr. Ghada I. M. Algamal

Assistant Professor, Apparel Department, Faculty of Applied Arts, Helwan University

gimamr2004@hotmail.com

Dr. Rasha A. H. Bayomi

Lecturer, Apparel Department, Faculty of Applied Arts, Helwan University

rasha.bayomi@a-arts.helwan.edu.eg

Abstract

Personal protective equipment (PPE) for healthcare workers is crucial, especially when dealing with infectious disease like the pandemic COVID-19. PPE levels, design characteristics and materials should be considered. Purpose of this study is to highlight difficulties facing frontline healthcare PPE usage in the Arab region during this pandemic. In this paper, methodology included online interview and questionnaire to understand the needs of healthcare workers regarding PPE. Resultant data directed this paper to review many aspects from different fields that helps having proper medical PPE configuration. In conclusion, the physiology of medical staff's PPE has been considered being the most important comfort aspect, since ~70% of the participants in the current survey encountered heat stress while doing their job, within a room temperature range of 20-30°C.

Keywords:

Personal protective equipment (PPE), COVID-19, Infection control, second contamination, medical clothing, material engineering, designing protective wear