Factors influencing the wearing of facemasks to prevent the severe acute respiratory syndrome among adult Chinese in Hong Kong

Catherine So-kum Tang, Ph.D.* and Chi-yan Wong, M.S.Sc.
Department of Psychology, The Chinese University of Hong Kong, Hong Kong SAR, China
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Abstract

**Background.** The global outbreak of the severe acute respiratory syndrome (SARS) in 2003 has been an international public health threat. Quick diagnostic tests and specific treatments for SARS are not yet available; thus, prevention is of paramount importance to contain its global spread. This study aimed to determine factors associating with individuals’ practice of the target SARS preventive behavior (facemask wearing).

**Methods.** A total of 1329 adult Chinese residing in Hong Kong were surveyed. The survey instrument included demographic data, measures on the five components of the Health Belief Model, and the practice of the target SARS preventive behavior. Logistic regression analyses were conducted to determine rates and predictors of facemask wearing.

**Results.** Overall, 61.2% of the respondents reported consistent use of facemasks to prevent SARS. Women, the 50–59 age group, and married respondents were more likely to wear facemasks. Three of the five components of the Health Belief Model, namely, perceived susceptibility, cues to action, and perceived benefits, were significant predictors of facemask-wearing even after considering effects of demographic characteristics.

**Conclusions.** The Health Belief Model is useful in identifying determinants of facemask wearing. Findings have significant implications in enhancing the effectiveness of SARS prevention programs.

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Keywords: Health behavior; Prevention and control; Infection; Asian

Introduction

A new and highly infectious disease in humans, the severe acute respiratory disease syndrome (SARS), has created a major public health threat in many countries. Within 2 months since its first appearance in Asia in mid-February of 2003, the World Health Organization (WHO) has already received reports of the outbreak of SARS in 26 countries on all five continents [1]. The clinical symptoms of SARS are nonspecific, including high fever, dry cough, breathing difficulties, muscle pain, and generalized weakness. The incubation period can last from 2 to 10 days, thus enables symptomless individuals to transmit the disease through either close person-to-person contact or travel from one city to another city in the world. The mortality rate of SARS is about 3–10%. Only recently has the causative agent of this disease been found. The latest multicountry laboratory findings have confirmed that a new pathogen, a member of the coronavirus family never been seen in humans, is the cause of SARS [2]. However, the exact transmission route of the disease is still unknown, and quick diagnostic tests as well as specific treatments are also not yet available. Under these unknown circumstances, prevention is of particular importance in containing the global spread of this new infectious disease. This study aimed to examine factors affecting Hong Kong people’s practice of preventive behaviors against SARS. Findings from this study would provide pertinent information in designing and implementing SARS prevention programs not only for Hong Kong, but for other countries as well.

Hong Kong was one of the hardest hit area during the global outbreak of SARS in 2003 and has accounted for almost 40% of the probable cases and deaths of SARS. At the beginning of the local outbreak of this disease in early March of 2003, mainly health care workers who treated the...