

FACIAL PROTECTION – FACTORS THAT INFLUENCE COMPLIANCE

Kathryn Nichol, BScN, MHSc, CRSP
MSc/PhD Student, University of Toronto
OSACH Consultant
4950 Yonge St., Suite 1505
Toronto, ON M2N 6K1
knichol@osach.ca

Introduction

This poster will illustrate the results of a pilot study done to examine the organizational, environmental and individual factors that influence nurses' decisions to use facial protection to prevent occupational transmission of infectious respiratory illness in acute care hospitals.

Background

Recent literature states that failure to implement appropriate barrier precautions is one of the key reasons for occupational transmission of infectious respiratory disease. Compliance with safe work practices to protect against transmission of blood borne disease (universal precautions) has been well studied and found to be substandard. Safety climate dimensions and other organizational factors have been shown to be the main influence on nurses' decisions to follow universal precautions. Compliance with safe work practices to prevent the spread of infectious respiratory disease, such as immunization, have also been found to be poor. Facial protection is identified as the personal protective equipment that is least complied with by health care workers yet it is an important barrier precaution against respiratory illness. Understanding why health care workers fail to appropriately use facial protection has not been well researched.

Purpose

This pilot study will examine the factors that influence nurses' decisions to use facial protection against occupationally-acquired infectious respiratory illness. Those that are most influential will be identified. Results from this pilot study will be used to inform a larger study that will encompass a revised questionnaire, a larger sample population and an observational measure of compliance.

Hypothesis

Safety climate dimensions and other organizational factors will be the main influence on nurses' decisions to use facial protection.

Methods

The study used a cross-sectional survey design. For the most part, the 5-page, 61-item survey was developed based on well-tested scales and questionnaire items from established instruments. Two focus groups were held to test the survey tool. Feedback on the survey was also sought from nursing management, occupational health and infection control experts and one local of the Ontario Nurses Association. Study participants included 177 critical care nurses who regularly use respirators, surgical masks and eye protection at two downtown Toronto hospitals. Ethics approval was sought from the Research Ethics Boards at the two hospitals. Data analysis was done using SAS v.8.

Results

Self-reported compliance among respondents with the use of facial protection was measured to be 42% with compliance with recommended use of eye protection being the most problematic. Results of univariate analysis show that several environmental and organizational factors are influential on nurses' decisions to use facial protection. Using the univariate results, multivariate logistic regression was conducted. Results showed that nurses who strongly agreed or agreed that their organization supported health and safety were 2.34x more likely to be compliant with the recommended use of facial protection than those who were undecided, disagreed or strongly disagreed. These results provide justification to move forward with the larger study.