

## Attitudes and beliefs, not just knowledge, influence the effectiveness of environmental cleaning by environmental service workers (AJIC 2012;40:260-262)

#### Abstract

Environmental cleaning has been shown in numerous studies to have a direct impact in reducing Healthcare Associated Infections (HAIs). The importance of the Environmental Service Worker (ESW) in directly interrupting the chain of infection cannot be overlooked. Interventions for improving environmental cleaning often focus on education; however, little effort is given to understanding ESWs' attitudes and beliefs towards their role and how understanding these attitudes and beliefs may help to develop strategies that further improve environmental cleaning.

#### Background

This study highlights not only the importance of educating ESWs on how to use cleaning chemicals and disinfectants and how their role directly impacts the wellbeing of patients or residents in the facilities they work but also how such training programs need to factor in the attitudes and beliefs ESWs have in how they approach and feel about the work they do.

#### Study

Attitudes and beliefs of ESWs regarding their work and their impact on the effectiveness of cleaning have not previously been explored. Using the theory of planned behavior as a framework, questionnaires and focus groups were utilized to determine if a person's attitudes and beliefs might influence the effectiveness of their cleaning.

To summarize, the theory of planned behavior provides a framework for understanding what drives behavior. An individual's behavior is driven by behavioral intentions (an individual's readiness to perform a given behavior) which in turn are influenced by three enabling variables:

- Attitude which is driven by the attitude toward the behavior. Attitude is based on individual's positive or negative evaluation of self-performance of the particular behavior and encompasses behavioral belief which is an individual's belief about consequences of particular behavior.
- 2. Subjective Norm which is driven by expectations of others. It is the individual's perception of social normative pressures, or relevant others' beliefs that he or she should or should not perform such behavior. Normative belief is defined as an individual's perception about the particular behavior, which is influenced by the judgment of significant others (e.g., parents, spouse, friends, teachers, colleagues, employers).

 Perceived Behavioral Control which refers to people's perceptions of their ability to perform a given behavior and reflects an individuals' Perceived behavioral control regarding the extent to which they are able to control or influence outcomes.

The questionnaire was administered to the ESWs which included 20 statements that were rated using a Likert scale where 1 was defined as completely disagree and 5 as completely agree. Focus groups were facilitated pre and post the educational intervention. The educational intervention was designed as a 2hour education session which covered basic infection prevention and control issues and addressed issues raised through the survey and focus groups including time pressures and personal motivating factors. Microbial contamination of 10 standardized high-touch surfaces (computer keyboard, space bar and mouse, monitor silence button, thermometer, intravenous pump buttons, intercom buttons, room light switch and plate, patient lamp switch and parent chair) was determined before and after the educational intervention. Surfaces were classified as adequately cleaned (ACC<2.5/cm<sup>2</sup>) or inadequately cleaned (ACC  $\geq 2.5/cm^2$ ).

#### Results

The questionnaire had a 53% response rate (16/30) and highlighted that the ESW's intentions were consistent at approximately 4.5 out of 5. Normative beliefs (as an individual's perception about the particular behavior) carried the strongest relation to intent versus behavioral beliefs (an individual's belief about consequences of particular behavior) and control beliefs (an individual's beliefs about the presence of factors that may facilitate or impede performance of the behavior). The data elicited from the focus groups highlighted that ESWs intend to do a good job; they take pride in their work and are committed to patient and families. However, they perceived little behavioral control in how they are able to control or influence outcomes. Positive feedback may help to lessen their frustration and perceived helplessness.

#### Conclusion

As stated in the study, hospital housekeeping is a complex task and understanding the behavioral determinants of cleaning by ESWs is essential to informing the development of interventions that can influence ESWs' beliefs and attitudes, which in turn may improve the effectiveness of environmental cleaning in a sustained way.





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#### Implications for AHP

#### AHP Disinfectants are One-Step Disinfectant Cleaners

• AHP has proven cleaning efficiency resulting in lower costs and faster results as well as added confidence that disinfection can occur

# AHP Disinfectants provide the perfect balance between safety and efficacy

•AHP is designed to be easier on employees and occupants resulting in protocol compliance

•AHP provides a HMIS rating of "0", meaning it has been proven to be non-toxic, non-irritating to eyes and skin and non-skin sensitizing and does not require the use of personal protective equipment to handle

#### AHP Disinfectants are environmentally sustainable

•AHP's active ingredient, hydrogen peroxide, breaks down into water and oxygen leaving no active residues •AHP is formulated to ensure that it will not negatively impact indoor air quality and has been approved as an asthma-safe product

#### AHP Disinfectants have realistic contact times

•Short contact times ensure surfaces remain wet for the required contact time, providing comfort and confidence that disinfection has occurred

•AHP has been proven through peer reviewed studies to reduce HAIs

#### **AHP Disinfectants are compatible**

•AHP formulations are tested to ensure compatibility that preserve your investments in equipment, furniture and building surfaces by reducing corrosion and wear



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