Handwashing Behavior in Public Restrooms When Prompted by a Visual Sign.

Nickolas A. Paniagua  
Behavioral Sciences Department, Andrews University  
Karl G. D. Bailey, Faculty Sponsor

BACKGROUND  
It is commonly known that many people do not wash their hands. This is not a result of a lack of knowledge that handwashing is beneficial, since most people know about germs and that they can cause illness or sickness. So you cannot help but ask yourself: Why don't people wash their hands? According to the Centers for Disease Control and Prevention (2006), “Handwashing is the main action we can take to prevent the spreading of illness.” We need to wash our hands and do it often to stop the spread of sickness and illness.

PREVIOUS RESEARCH

• Estimates have shown that about 88% of women and only 66% of men wash their hands after using the restroom (Lovinger, 2007).  
• Efforts to increase handwashing frequency usually end up failing because people simply won’t wash their hands (Larson, Early, Cloonan, Sugrue, and Parides, 2000).  
• Automatic toilets, sinks, and towel dispensers help promote handwashing behavior (Murphy, 2004).  
• When there is at least one other person in the bathroom, people are more likely to wash their hands (Munger and Harris, 1989).  
• Visual signs encouraged more people to wash their hands after using the restroom than when there was no visual sign. Their research used a plain sign with black and white letters that stated, “Please Wash Hands” (Johnson, Shlokosky, Gabello, Ragni, and Ogonosky, 2003).

CURRENT STUDY

In this study, signs were used to help encourage people to wash their hands. The presence or absence of the sign is the independent variable, while handwashing behavior is the dependent variable. The purpose of this study is to find out whether the presence of a visual sign in a public bathroom will influence people to wash their hands more often than when there is no sign present.

HYPOTHESIS

The presence of a colorful, visual sign in a public bathroom will influence people to wash their hands more often than when there is no sign present.

METHODOLOGY

• The dependent variable, handwashing behavior, was measured from observation by listening. The independent variable, the visual sign, was present in the experimental group and absent in the control group.  
• This research used a quantitative, observational type of research. For this study I hid in a public restroom and observed handwashing behavior by listening for it.  
• I used a men’s restroom that had no automated facilities, had more than two stalls, and one that was used fairly regularly.  
• I entered one of the stalls and propped my feet up on the door so that no one could possibly see that I was in there.  
• I listened for the presence or absence of handwashing behavior until I had results for 15 subjects.  
• I then posted the signs above the urinals, outside the door of two of the four stalls, as well as above the sink.  
• I then recorded my observations again after gathering results from 15 subjects.  
• This was publicly observable behavior, and thus I do not know the identity of any of the individuals as they were hidden from view.  
• In this study, I recorded data from anyone who used the public restroom during the duration I was in there making my observations. Thus, the subjects were not selected and they had no idea that their behavior was being recorded.  
• The data I collected was whether or not people washed their hands after they used the restroom before and after I posted a sign encouraging handwashing behavior.

FINDINGS

• In this study (n=30), 10 out of 15 males (67%) washed their hands without the presence of the sign. When I put the sign up, 15 out of 15 people (100%) washed their hands.  
• The chi-square test reveals that χ²= 6.00 (p<.05). So, there was a significant difference in how many males washed their hands after using the bathroom with the presence and absence of the sign.

IMPLICATIONS

With a significant increase in handwashing behavior with the presence of a sign, it seems as though my hypothesis is supported. Thus, colorful signs help to encourage handwashing behavior in public restrooms. It would seem as though one way to increase handwashing behavior is to put signs in the bathroom encouraging such behavior.

LIMITATIONS

• Relatively small sample size  
• Possibility that people would habituate to the sign if permanently posted and thus may no longer be affected by it  
• I only gathered data for males.

FUTURE PLANS

• Future plans for this research include adding data for women’s handwashing behavior. I will get a female research assistant to do the same exact procedure in the women’s bathroom.  
• Also, I would like to time how long people wash their hands with the presence and absence of the sign to see if the sign encourages longer handwashing.  
• Finally, I would like to test for a difference between black and white signs and colorful signs to encourage handwashing behavior.

REFERENCES


