

Implementing Hand Hygiene Programs into the K-12 Education Curriculum to Decrease the Incidence of Respiratory Illnesses

A Theoretical Research Proposal by Sophia Brat, Riley Bennett, Jewels Haley, Dahlia Thomas, and Hallie Winters



Abstract

Abstract: Pediatric patients are hospitalized for a variety of reasons, one of the most common reasons for hospitalization is to assess, monitor, and treat communicable diseases. The most common communicable diseases that are seen among the pediatric population are respiratory illnesses including influenza, respiratory syncytial virus, coronavirus, and streptococcal pharyngitis. From October of 2022 to April of 2023, 2,762 children were hospitalized for influenza alone. In addition, research has shown that these illnesses play a large role in chronic absenteeism among school-aged children. Approximately 5 to 7.5 million children are chronically absent from school, which indicates that they miss at least 15 school days each year. There is a direct relationship between school-aged children’s health and school attendance. The number of children impacted is highly alarming, presenting a public health call to action. There is a need for healthcare professionals to educate children on the importance of proper hand hygiene. When hand hygiene is done effectively, it is the primary preventative measure of disease control. The most opportune setting for hand hygiene education is the classroom. There is a pressing call to action to make children aware of the significance of germ transmission, alongside proper handwashing. Answering this call will decrease respiratory illness outbreaks and chronic absenteeism among school-aged children.

Research Question and Purpose Statement

Research question: Will there be a decrease in respiratory illness outbreaks among school-aged children after hand hygiene programs are implemented in the classroom setting?

Purpose Statement: The purpose of this research proposal is to determine whether hand hygiene programs are an effective measure of disease control among school-aged children.

Theoretical Framework

Theoretical Framework: Florence Nightingale’s Environmental Theory has greatly influenced contemporary infection control (Martini et al., 2020). Florence Nightingale found that a healthy environment promotes healing. During the Crimean War, Florence Nightingale determined that unsanitary conditions were a major cause of death among soldiers, which encouraged her to implement hand-washing practices. After handwashing practices were implemented, death rates among soldiers decreased from 42% to 2%. Florence Nightingale’s Environmental theory is highly applicable as a guiding framework for this research proposal because her theory is centered around basic sanitation practices, like hand hygiene. Florence Nightingale focused on primary disease prevention, which is the number one way to combat communicable diseases.

Common Themes in the Literature & Analysis

Theme 1

The first theme found in the literature found that most children do not have a fundamental understanding of effective hand hygiene techniques and need proper hand hygiene education (Younie et al., 2020). Although many children have been taught how to wash their hands, most children are not washing their hands properly. An institution-based cross-sectional study found that only one-third of students demonstrated proper hand hygiene techniques (Berhanu et al., 2022). In addition, a school-based cross-sectional study found that 53.3% of children wash their hands with water alone (Admasie et al., 2022). Furthermore, a cluster randomized control study found that after children were given informational books, websites, songs, online games, and glo-gel activities that educated them on proper hand hygiene practices, there was a decrease in disease transmission in the classroom setting.

Theme 2

The second theme found in the literature revealed that many children are unaware that effective handwashing removes germs. A cross-sectional survey found that 69% of children did not believe that handwashing kills germs (Almoslem, 2021). In addition, some parents do not believe that hand hygiene plays a large role in disease prevention. According to Khalid Khan et al., a baseline survey revealed that only 60% of parents believe that handwashing can prevent gastrointestinal and respiratory illnesses (Khan et al., 2021).

Analysis: When comparing the journal articles, it was clear that a variety of research designs were implemented. The authors implemented cross-sectional studies, randomized control studies, cross-sectional surveys, and baseline surveys. In addition, the authors primarily focused on the pediatric population, due to the lack of knowledge surrounding hand hygiene practices and the prevalence of communicable diseases among children. Furthermore, many authors provided creative educational resources for children, including online games and interactive activities.

Gap in the Literature

Gap in the Literature: Many authors encouraged future researchers to involve the participant’s parents in hand hygiene programs to promote disease prevention at school and at home. Research has found that children are more likely to engage in activities that they see their parents participating in. Promoting parental involvement in hand hygiene programs is highly applicable in the proposed study because it will encourage children to have conversations with their parents about proper hygiene and decrease the number of communicable diseases in the community.

Worldview Statement

Worldview Statement: The primary obligation of healthcare professionals is to achieve the greatest good for the greatest number of people. The goal of implementing hand hygiene programs into the K-12 education curriculum is to decrease the incidence of respiratory illnesses, which promotes achieving the greatest good for the community at large. Although this research presentation is pediatric-focused, when hand hygiene programs are implemented in the classroom setting, there will be a decrease in the spread of communicable diseases throughout the entire community. In addition, implementing hand hygiene programs in K-12 education motivates school-aged children to take accountability for their health at a young age, which will have a positive effect on their physical and mental health. Scripture highlights the importance of educating children on the importance of creating habits that will make a positive impact on their lives. Proverbs 22:6 states “Train up a child in the way he should go; even when he is old, he will not depart from it” (Proverbs 22:6, *English Standard Version*). When looking at Scripture, the call to care for the community is also undeniably present. Philippians 2:4 states “Not looking to your own interests but each of you to the interests of the others” (Philippians 2:4, *New International Version*). Implementing hand hygiene programs into the K-12 education curriculum to decrease the incidence of respiratory illnesses is a much-needed intervention, as we seek to serve and grow His kingdom. Furthermore, adopting a Christian worldview as the framework for this research proposal will provide a holistic approach to reaching the culture at large in an impactful way.

References

