Study suggests handwashing compliance in child care facilities is insufficient

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Child care personnel properly clean their hands less than a quarter of the times they are supposed to, according to a study published in the December issue of the American Journal of Infection Control, the official journal of the Association for Professionals in Infection Control and Epidemiology (APIC).

A new study from the University of Arkansas used video cameras to record handwashing habits and compliance among child care workers at an early childhood center in northwest Arkansas. The researchers found that personnel and parents at the facility on average followed proper handwashing procedures only 22 percent of the time before and/or after tasks such as wiping noses, emptying garbage cans, preparing food, changing diapers, or using their cell phones. Caregivers washed 30 percent of the time it was called for, with paraprofessional aides at 11 percent, and parents at 4 percent.

"Handwashing is an important component of reducing illness transmission among children in early childhood centers, especially for the adults in charge of their care," said lead study author Jennifer Henk, PhD. "As we seek to improve overall quality in early childhood settings, our study shows the need to adopt creative strategies to increase handwashing compliance and efficacy."

Surveillance cameras were used to randomly record 25 hours of handwashing compliance in ten different classrooms. The center was aware of the cameras, but not alerted to the primary purpose of the study. There were a total of 349 handwashing opportunities in the 25 hours; 78 corresponding handwashing events took place for an overall compliance rate of 22 percent. Handwashing opportunities and events were based on guidelines for early childhood established by the American Academy of Pediatrics. The guidelines outline sequential handwashing steps that need to be followed, including use of warm water, soap, paper towels, and continuing for 20 seconds. This study confirms the results of previous studies in this area that there is a need for funding of education and training about proper hand hygiene.

"Hand hygiene in early childhood centers is especially important because children under five years of age have only partially developed immune systems, increasing their susceptibility to communicable diseases," said Susan Dolan, RN, MS, CIC, FAPIC, president of APIC. "Studies have shown that children who spend time in an early childhood center are more susceptible to infections. Learning to wash their hands is the number one way to prevent the spread of infection. Clean your hands:

- Before and after eating, feeding a child, or preparing food.
- Before using the bathroom or helping a child use the bathroom.
- Before and after changing a diaper.
- Before and after giving medications or feeding assorted ingredients or screws.
- After sneezing, blowing your nose, coughing, or handling other bodily fluids such as blood or vomit.
- Before and after playing in water that is used by more than one person.

Stay up-to-date on vaccines and stay home if you are sick. This applies to children, parents, and child-care workers.

Make sure surfaces are cleaned regularly. There should be a schedule for when each item is cleaned with an antimicrobial agent.

Follow food safety guidelines to prevent food-borne illnesses.

Credit: Association for Professionals in Infection Control and Epidemiology
childhood care center are two to three times more likely to acquire infections than children cared for in the home, with respiratory and gastrointestinal infections posing the highest risks."

Handwashing can prevent about 30 percent of diarrhea-related sicknesses and about 20 percent of respiratory infection in children, according to the Centers for Disease Control and Prevention.


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