'Glowing hands' in the waiting room improves kids' handwashing

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Use of a glowing gel that shows kids how well they wash their hands by illustrating bacteria they missed while washing and may significantly improve hand hygiene, according to a study published in the July issue of *Infection Control and Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America. What makes this particular intervention unique is where it was performed: a children's hospital emergency department waiting room.

"Waiting for the doctor is usually a tiresome and unproductive experience, but we were able to turn the waiting room into an interactive education center to help kids improve their hand hygiene," said Dr. Anna Fishbein, a physician and researcher at Northwestern University's Children's Memorial Hospital in Chicago, and the study's lead author.

The researchers recruited 60 pediatric patients waiting to be seen by a doctor to participate in the study, which involved the application of Glo Germ Gel to the kids' hands. Under a black light, the gel creates a yellow glow in areas where dirt and germs are present. After seeing the dirty spots, the participants were asked to wash their hands with soap and water as they normally would. After washing, the researchers put the black light over the kids' hands again, revealing the spots they had missed when washing. The hands were rated both before and after washing on a four-point cleanliness scale from "very dirty" to "very clean."

Following the test, about half the children were given a brief lesson in handwashing technique, while the others received no additional education. All the kids were then asked to return two to four weeks later to repeat the test.

During the follow up appointment, 77 percent of the original participants returned to have their hand washing re-evaluted. Researchers found that every child who returned scored significantly better on the cleanliness scale, regardless of whether they received handwashing education.

Proper handwashing technique includes the duration of washing lasting at least 20 seconds, cleaning each hand completely, including between fingers and washing finger nails.

"We found that using the gel alone to illustrate the areas of hands that may not be getting clean, even without verbal education, improves children's hand hygiene," said Dr. Mary Groll, also of Children's Memorial and the study's principal investigator. "Considering the importance of hand hygiene in disease prevention, the implications of this study will have lasting impact in this community's effort to decrease the spread of illness."

"This intervention is effective for improving children's handwashing ability, even without specific hand hygiene education," Dr. Groll added.

The study was supported by the American Academy of Pediatrics CATCH Grant and the Children's Memorial Advocacy Fund. Follow up studies are now underway at three Chicago area community clinics, and the researchers are hopeful for similar results in the clinic setting.

More information: Anna B. Fishbein, Itza Tellez, Henry Lin, Christine Sullivan, and Mary E. Groll, "Glow Gel Handwashing in the Waiting Room: A Novel Approach to Improving Hand Hygiene Education." Infection Control and Hospital Epidemiology 32:7 (July 2011).

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