

Effect of interventions on hand washing and oral health procedures among preschool children

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High under-five mortality rate is a concern for India, which has shown decreasing trend from about 2.5 million in 2001 to 1.5 million in 2012. Millennium Development Goal (MDG) for India for under-five mortality is 38 deaths per 1000 live births by 2015 [1]. If the current trend continues, India will achieve MDG 4 by around 2020. The poorer states will meet the goal by 2023. Dedicated and strengthened efforts are needed to reduce mortality during the neonatal period and at ages 1–59 months, as worldwide achievement of the UN MDG for under-five mortality will depend on the progress of India.

Diarrhea and lower respiratory infections are two biggest global pediatric determinants responsible for the death of >3.5 million children under the age of 5 years annually [2]. Recent evidences suggest that proper hand washing can prevent respiratory infections, as it halts the spread of infection from hands to nose and mouth. Role of hand hygiene in containing the spread of diarrheal diseases through fecal-oral route is already well established. Recent meta-analyses of trials of hand washing interventions in the community to improve individual hand washing behaviors have shown reductions in gastrointestinal infections ranging from about 30–47%, respiratory illness by 16–21% and overall risk of infection by >20% [3,4]. Hand washing is simple, cheap and effective measure to stop the spread of infection through feces, body fluids and inanimate objects, especially in children due to their more susceptibility to infections acquired from unwashed hands. To emphasize the importance of hand washing, October 15 has been declared as the Global Hand Washing Day by UNICEF since 2008.

Good oral hygiene is an important determinant of health. It also affects the growth of children. Infants with dental caries are shorter in comparison to their caries free counterparts [5]. Poor oral health not only produces difficulties in eating and sleep but also affects the learning ability of the child. Compromised oral health further increases the risk of diabetes, pneumonia, peptic ulcers, and cardiovascular disease in later life [6]. Thus, oral health and hygiene are important for good quality of life, nutrition and social and economic well-being.

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The present study, “Implementation of oral hygiene and hand washing procedures among preschoolers: pre- and post-intervention study” concluded that hand washing (hand hygiene) scores improved after the intervention with a significant increase in the average and good scores categories in the preschool children [7]. Overall, the poor score decreased from 52% to 33% and the good score improved from 8% to 21% ($P < 0.05$). The scores for both the male and female students and knowledge of health behaviors improved significantly, and there also was a significant difference in the study ($P < 0.05$) between pre- and post-intervention (after 1 month). The knowledge of oral hygiene improved after the health education intervention. Poor scores decreased from 30% to 19% ($P < 0.05$) and the good scores improved from 20% to 21% ($P > 0.05$).

School-based hygiene education can play a crucial role in the reduction of incidence of transmissible diseases. Education on oral health and hand hygiene is important as healthy oral habits are developed early in life, and as children spend a considerable amount of time in school, the importance of imparting knowledge on oral hygiene to children (infants or preschool or schoolchildren) should be accepted. Children are better learners than adults are and can spread the knowledge in the family and community. They can be agents of change by questioning existing practices and taboos at home and may change behaviors of the community. Preprimary and primary schools can be an effective platform for interventions of health-promoting behaviors as they reach over 1 billion children worldwide.

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COMMENTARY

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Competing Interests

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