

Preservation and Handling Practices of Household Drinking Water in Ahmedabad city with special reference to Bacterial Contamination and Diarrheal Episode in Children: A Cross Sectional Study

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ABSTRACT

Background: Safe drinking water is essential for healthy human life. Presence of coliform organism, E. coli in particular, has been found to be the most specific bacteriological indicator of faecal contamination. Studying their preservation and handling practices of household drinking water, its contamination and diarrheal episodes in children is very necessary for hygiene promotion intervention. **Methods:** This cross-sectional study was conducted at urban field practice area of community medicine department B.J.M.C, Ahmedabad in year 2020-2021. Total 168 Drinking water samples were collected from each household and tested at microbiology department. Information regarding household characteristics, preservation and handling practices of drinking water were gathered from mother using pre-tested and pre-designed proforma. Data were entered in Microsoft excel and analysed using Epi-info Software. **Result:** Out of 168 households studied, 165(98.2%) households used matka / earthen pot and 161(95.8%) used narrow necked covered container to preserve drinking water. Only in 10 (5.8%) households' water was filtered with folded cotton cloth at the time of collection. 101 (60%) water containers did have tap while 67 (39.8%) didn't have it. 4/168 (2.3%) samples were bacteriologically not acceptable for drinking purpose. **Conclusion:** Narrow necked coveredmatka (earthen pot) was the most commonly used container to preserve drinking water. Though prevalence of bacterial contamination and ADD episodes in under five child were low due to pre-treated piped water supply, diarrhoeal morbidity is more in household where broad necked, non tapped containers used. Education of mother has positive impact on preservation and handling practices of drinking water.

Keywords: Preservation, Handling, Drinking water, Coliform, Diarrheal episode, Under 5 children