

Association of home hygienic practice and diarrhoeal presence in low-cost housing in Cape Town, South Africa

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Background: Good home hygiene in key high-risk areas shows potential to be a simple and cost-effective intervention for preventing infectious disease transmission in low-income homes. Knowledge of good home hygiene does not, however, always translate to practice due to complex factors which hinder translation. The objective of the study was to investigate whether an association between cleanliness and diarrhoeal disease exists, and to understand the factors which impede knowledge translation.

Method: This cross-sectional study in low-income areas in Cape Town, South Africa took the format of an administered questionnaire focusing on health, and hygienic behaviour. Interviewer-assessed cleanliness was also recorded for each home.

Results: Gastro-intestinal symptoms were significantly associated with unclean kitchens and toilets (odds ratio (OR)=5.93 (1.98 – 19.78)

and OR=17.67 (5.20 – 63.90), respectively).

The presence of diarrhoea was significantly associated with dirty toilet areas (OR=8.94 (2.34 – 40.96)), despite its relatively low prevalence (17% (11 – 25%)). While knowledge of home hygiene and health was high, a lack of association between knowledge and observed cleanliness indicated a gap in the translation of knowledge to practice. Proposed emotional drivers of this process could not be substantiated, but evidence suggested that lack of understanding of underlying reasons plays an important role, but it may be effectively overcome by education.

Conclusions: Good home hygiene shows potential for preventing infectious disease risk in low-income areas, but knowledge does not translate to effective practice. This is likely attributable to a lack of understanding of underlying principles, specifically among persons with low levels of formal schooling.