

## Impact of an Educational Intervention on Knowledge, Attitude and Practices of Community Members on Schistosomiasis in Nelson Mandela Bay

**Authors :** Prince S. Campbell, Janine B. Adams, Melusi Thwala, Opeoluwa Oyedele, Paula E. Melariri

**Abstract :** Schistosomiasis, often known as bilharzia, is a parasitic water-borne disease caused by trematode flatworms of the genus *Schistosoma*. Schistosomiasis infection and prevention have been found to be influenced by a range of socio-cultural risk factors, including human characteristics (e.g., gender, age, education, knowledge, attitude, and practices), as well as environmental and economic elements. Lack of awareness of the disease may also contribute to an individual's tendency to participate in behaviours or activities that heighten their susceptibility to infection. The current study assessed the community knowledge, attitude and practices (KAP) on schistosomiasis and implemented an educational intervention following pre-test interviews. A cross-sectional quasi-experimental research design was used in this quantitative study. Pre- and post-intervention interview format surveys were conducted using a structured questionnaire, targeting individuals aged 18-65 years residing within 5 km of select water bodies. The questionnaire contained 54 close-ended questions about schistosomiasis causes, transmission, and clinical symptoms and the participants were interviewed face-to-face in their homes. Data was captured on Question Pro and analyzed using Microsoft Office Excel 365 (2019) and R (version 4.3.1) software. Overall, 380 individuals completed the pre and post-intervention assessments; 194 and 185 were males (51.1%) and females (48.7%), respectively. A notable 91.3% of participants did not know about schistosomiasis in the pre-intervention phase; however, the mean post-intervention test score ( $9.4 \pm 1.4$ ) for knowledge among participants was higher than the pre-intervention test score ( $2.2 \pm 2.1$ ) indicating a good and improved knowledge of schistosomiasis among the participants. Furthermore, the paired samples t-test results demonstrated that the increase in knowledge levels was statistically significant ( $p < 0.001$ ). Also, the post-intervention improvement of both practice ( $p < 0.001$ ) and attitude ( $p < 0.001$ ) levels was statistically significant. A positive correlation ( $r = 0.23$ ,  $p < 0.001$ ) was found between knowledge and attitude in the pre-intervention stage. Knowledgeable participants had a more positive attitude towards obtaining medical assistance and disease prevention. Moreover, attitudes and practices correlated negatively ( $r = -0.13$ ,  $p = 0.013$ ) post-intervention; hence, those with positive attitudes did not engage in risky water-related practices, which was the desired outcome. The educational intervention had a favourable impact on the KAP of the study population as the majority were able to recall the disease aetiology, symptoms, transmission pattern, and preventative measures three months post-intervention. Nevertheless, previous research has suggested that participants were unable to recall information about the disease following the intervention. Consequently, research should prioritize behavioural modification strategies that may result in a more persistent outcome in terms of the participants' knowledge, which could ultimately contribute to the development of long-term positive attitudes and practices.

**Keywords :** educational intervention, knowledge, attitudes and practices, schistosomiasis

**Conference Title :** ICMHS 2025 : International Conference on Medicine and Health Sciences

**Conference Location :** Helsinki, Finland

**Conference Dates :** July 19-20, 2025