TOPIC

The Effect of a Theory-based Guideline Dissemination Intervention on Health Care Worker Adherence to Hypertension Screening and Prevention Guidelines for Adolescents Living with HIV in the Greater Accra Region

ABSTRACT

Background: Cardiovascular diseases are a growing concern among persons living with HIV (PLHIV), and hypertension plays a significant role. Children and adolescents living with HIV (ADLHIV) face a heightened risk of developing hypertension due to prolonged exposure to the virus and antiretroviral drugs. The National AIDS/STI Control Programme implemented WHO's recommendation to integrate hypertension screening into HIV services, requiring blood pressure (BP) checks for PLHIV aged 3years and above at every clinical visit. Programmatic data, however, revealed that BPs of ADLHIV were not being routinely checked. This study designed and tested a Theory of Planned Behaviour (TPB)-based guideline dissemination package to improve health worker (HCW) adherence to hypertension screening and prevention recommendations for ADLHIV.

Methods: The study was conducted in three phases across 20 high-burden antiretroviral therapy sites in the Greater Accra Region. Phase 1 used an elicitation study to identify beliefs influencing HCWs' BP-checking behaviour towards ADLHIV (n=46 HCWs). Phase 2 developed the TPB-based intervention package, which was informed by findings from a TPB-based survey among HCWs (n=234) and a cross-sectional assessment of hypertension prevalence among ADLHIV (n=419). Phase 3 tested the intervention through a parallel 2-arm cluster-randomised controlled trial (n=468 ADLHIV). The control facilities received the standard national dissemination package alone. In addition to the standard package, the intervention facilities received the TPB-based package comprising targeted HCW orientation, mentorship by an opinion leader, and the provision of adolescent-friendly sphygmomanometers.

Results: Hypertension prevalence among ADLHIV was 29.8%, influenced by age, treatment duration, family history of hypertension, vegetable intake, and physical activity. All three TPB constructs — attitude (OR=3.72), subjective norms (OR=1.96), and perceived behavioural control (OR=1.26) — significantly predicted HCW intention to check the BPs of ADLHIV. The intervention significantly improved BP screening rates (DID = 34.9%, $p<0.001$), outpatient education on hypertension prevention (DID = 27.3%, $p<0.001$), and physical activity (DID = 12.1%, $p=0.049$) among ADLHIV. There was no significant improvement in ADLHIV dietary behaviours.

Conclusion: The theory-based guideline dissemination package improved HCW adherence to hypertension screening and prevention recommendations for ADLHIV. The National AIDS Control Programme should adopt structured dissemination strategies that incorporate evidence, mentorship, and resource provision to strengthen adherence to guidelines.