

Evaluating the Impact of a Culturally Adapted Palliative Care Training Module for Community Health Workers on Pain Management Outcomes for Terminal Cancer Patients in Rural Rwanda: A Research Protocol

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| Abstract

Cancer incidence is rising in Rwanda, with many patients presenting with advanced disease. Specialist palliative care access is severely limited in rural regions. Community health workers (CHWs) are a frontline resource but typically lack specific training in managing pain for terminal cancer patients, a challenge compounded by cultural perceptions of pain and analgesia. This protocol outlines a study to develop and assess a culturally adapted palliative care training module for CHWs in Rwanda's Southern Province. The primary objective is to evaluate its impact on pain management outcomes for terminal cancer patients. Secondary objectives are to measure changes in CHW knowledge, attitudes, and confidence, and to explore patient and family satisfaction with care. A mixed-methods, quasi-experimental design with a control group will be employed. CHWs in intervention sectors will receive the adapted training. Data will be collected from CHWs via pre- and post-training surveys and focus groups, and from patients and families using validated pain assessment tools and semi-structured interviews. Quantitative data will be analysed for statistical significance; qualitative data will undergo thematic analysis. This is a study protocol; no empirical findings are presented. The anticipated outcome is a significant improvement in patient-reported pain scores within the intervention group compared to the control. We hypothesise a clinically meaningful reduction in pain intensity for a substantial proportion of

patients following CHW involvement. The study will provide evidence on the feasibility and potential effect of a culturally contextualised training model to equip CHWs in palliative care. It aims to inform scalable strategies for improving pain relief in resource-limited rural African settings. Subsequent research should examine the long-term sustainability of this training and its integration into national community health programmes. Policy development should consider formalising CHW roles in palliative care with suitable support and supervision structures.

palliative care, community health workers, pain management, cancer, Rwanda, cultural adaptation, training, rural health. This protocol contributes a structured approach to evaluating a context-specific intervention designed to strengthen palliative care delivery by community health workers in a low-resource, rural African setting.
