

# An educational booklet for patient-centred health education about a non-communicable disease in low-income and middle-income countries



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## Abstract

**Background** Of all deaths from non-communicable diseases (NCDs), 80% occur in low-income and middle-income countries (LMIC), which makes these countries a key focus for prevention and management of chronic disease. Patient-centred education empowers patients to participate in medical decision making and has been shown to improve health outcomes and quality of life for patients with chronic diseases. However, little is known about its effectiveness in LMICs. In this study, we aimed to implement and measure the effect of a patient-centred intervention in people with heart failure in Kampala, Uganda.

**Methods** We recruited patients with heart failure from the outpatient department of Mulago Hospital, Kampala, Uganda. Participants received a 28-page educational booklet, *PocketDoktor*, which described the pathophysiology, diagnosis, and management of heart failure. The booklets contained interactive prompts for patients to ask questions at each level of discussion and a trained health educator reviewed the booklets with participants. We administered a Likert-scale questionnaire to measure patients' satisfaction, knowledge of their condition, and confidence in self-management (using the Patient Activation Measure, PAM-13) at baseline, as well as qualitative interviews to assess patient's perception of their disease process and quality of care. At 3 months' follow-up we repeated the quantitative and qualitative surveys. We used paired *t* tests and Wilcoxon signed rank tests to compare pre-intervention and post-intervention quantitative information. We transcribed qualitative interviews and generated code lists.

**Findings** We interviewed 105 patients between November, 2014, and April, 2015, of whom 95 were included in analysis. The proportion of patients who strongly agreed that they were satisfied with their medical care at Mulago Hospital rose from 16% at baseline to 79% ( $n=73$ ) after the intervention ( $p<0\cdot001$ ). Perceived knowledge also increased: from the PAM-13, 76 patients (80%) reported improvements in their understanding of their medical condition ( $p<0\cdot0001$ ), 76 (80%) had sustained improvement in knowledge of treatment options ( $p<0\cdot0001$ ), and 78 (83%) had improvement in their knowledge of how to prevent problems with their health ( $p<0\cdot0001$ ). In interviews, participants reported that materials were easy to read, that they had improved knowledge of disease, and improved communication with physicians.

**Interpretation** Patient-centred medical education can improve overall satisfaction and sustained disease-specific knowledge in patients in Uganda. Our results show that printed booklets are accepted by patients and feasible to implement in a LMIC outpatient setting.

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## Declaration of interests

We declare no competing interests.

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