A Novel and Simple Tool to Improve Patient-centered Health Education in Low- and Middle Income Countries

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Acknowledgements

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The Problem

Probability of dying from a non-communicable disease
Between the ages of 30 and 70, 2008, %

Source: WHO

UGANDA
Patient–Doctor Communication

- Patient–centered care is an essential component of chronic disease management
  - Fosters communication\(^1\)
  - Improves medication adherence\(^2\)
  - Decreases rehospitalization\(^2\)
  - Affects positive changes in health habits\(^3,4\)

- Care rooted in **respect** and **dignity** leads to enhanced information sharing between all members of a treatment team

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\(^1\) Stelfson M et al. Prev Chronic Disease 2013
\(^2\) Brian JW et al. Ann Internal Med 2009
\(^3\) Lorig KR, Medical Care 1999
\(^4\) Ratanawongs N Arch ntern Med. 2012
The Problem

• Limited data on patient–doctor communication in LMIC settings, single–center studies showing low levels of satisfaction\(^1\)

• Studies on doctor–patient communication have demonstrated patient discontent even when doctors considered the communication adequate\(^2\)

• Poor doctor–patient communication is associated with adverse health outcomes\(^3\)

\(^1\)Nabbuye et al. Intl Qlty Healthcare 2011
\(^2\)Beck RS et al. J Am Board Prac 2002
\(^3\)Insitute of Medicine, National Academy 2001
PocketDoktor Model

- Asthma
- Chronic Kidney Disease
- Diverticulitis
- Kidney Stones
- Pneumonia
- High Blood Pressure
- Heart Failure
- Diabetes
- Hemodialysis
A Picture is Worth a Thousand Words
PocketDoktor in Uganda

- Mixed-methods, prospective study
  - Is patient-centered care acceptable and feasible?
  - Does implementation improve overall patient satisfaction?

- November 2014–April 2015

- 105 Participants recruited from public and private outpatient Cardiology clinics
Formative Research

• In-depth interviews with patients and physicians to determine locally relevant terms
  - Medical Terms
  - Risk Factors

• Booklets piloted on inpatient medical floors to assess feasibility and acceptability prior to implementing trial
Outcome Measures

- **Quantitative Outcomes**: Patient Activation Measure (PAM–13, Satisfaction (Likert–Scale))

- **Qualitative Outcomes**: Semi-structured in-depth interviews with key informants
Outcomes

- Patient Activated Measure (PAM-13)

Level 1
Disengaged and overwhelmed
Individuals are passive and lack confidence. Knowledge is low, goal-orientation is weak, and adherence is poor. Their perspective: “My doctor is in charge of my health.”

Level 2
Becoming aware, but still struggling
Individuals have some knowledge, but large gaps remain. They believe health is largely out of their control, but can set simple goals. Their perspective: “I could be doing more.”

Level 3
Taking action
Individuals have the key facts and are building self-management skills. They strive for best practice behaviors, and are goal-oriented. Their perspective: “I’m part of my health care team.”

Level 4
Maintaining behaviors and pushing further
Individuals have adopted new behaviors, but may struggle in times of stress or change. Maintaining a healthy lifestyle is a key focus. Their perspective: “I’m my own advocate.”

Increasing Level of Activation

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Outcomes

Question 1
I understand the nature and causes of my health condition.

Question 2
I know the different medical treatment options available for my health condition.

Question 3
I know how to prevent further problems with my health condition.
Outcomes

Baseline

- PAM13_1
- PAM13_2
- PAM13_3
- Overall

- Strongly Agree
- Agree
- Neither
- Disagree
- Strongly Disagree
Outcomes

Follow-up

- PAM13_1
- PAM13_2
- PAM13_3
- Overall

- Strongly Agree
- Agree
- Neither
- Disagree
- Strongly Disagree
Patient Satisfaction
Acceptability

“It shed light on the signs when to go to the doctor, how to diet, how to prevent worsening. It has **helped me to know where I am headed.** It has helped a lot.”

“When talking to my doctor I tell him/her the symptoms that I got when I was away. **It is easier now**”
Feasibility

Enablers
- Limited resource burden
  - Booklets inexpensive to print
- Easy to administer
  - 15 – 20 minutes
- Easily incorporated into existing clinic visits

Barriers
- Integration with physician consultation
  - Physicians overburdened - limited time for extended patient interaction
Further Direction

• Population–based studies assessing implementation
  – Fidelity
  – Scalability
  – Sustainability

• Integration with community health worker model

• Action plans for chronic diseases self-management
Thank You