USE AND EFFICACY OF PEER SUPPORT AND SOCIAL NETWORKING IN DIABETES MANAGEMENT IN KENYA AND UGANDA

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BIO

Habil Otanga is an early career researcher and lecturer in the Department of Psychology, University of Nairobi. He teaches and conducts research in aspects of social and health psychology, among others.

In “armchair mode”, he prefers Philosophy, Russian literature; and music from Armenian duduk to Tchaikovsky to DRC rumba. He is learning how to play the guitar without ever knowing how to ride a bicycle.

Introduction

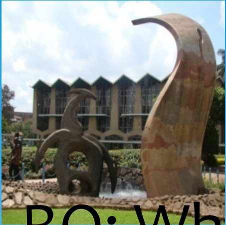
-The challenge of NCDs/T2DM in sub-Saharan Africa – 19.4 million adults from 20-79 years in 2019 (IDF, 2020)

-Cost of management and budget cuts put strain on healthcare

-NCDs are lifelong – require lifelong management

-Need for cost-effective approaches

-Study in 2 phases: scoping & qualitative



Scoping study

RQ: What is known from literature about the use of PS and SN interventions in T2DM management in Kenya and Uganda?

Databases: PubMed, ScienceDirect & Cochrane Library plus hand-searching current reference lists

Inclusion criteria: Published between 2001-2021, in English, any methodology, described interventions and/or outcomes, Kenya/Uganda

Data Extraction: By type of intervention, who delivered the intervention, outcomes and challenges

Sample: 13 of 624 articles met inclusion criteria (Kenya = 11; Uganda = 2; RCTs/pre-post design = 4, retrospective comparisons = 4, mixed methods = 1, cross-sec = 1, qual = 3

Findings

1. Studies conducted between 2013-2021
2. Interventions varied from 3-12 months
3. Care provision: diabetes clinics in PHC facilities (8), community settings (5); urban (2), rural (7), peri-urban & rural (4)
4. Who delivered? Nurses, peer supporters/educators, peer leaders, CHWs, multidisciplinary teams
5. Training for non-healthcare professionals lasted from 1 day-4 weeks
6. Interventions: Medication Adherence Clubs (2), Microfinance & Group Medical Visits (2), DSME/DSMS (7+)

Outcomes (indicators)

1. Learning: diabetes knowledge of patients (*n* = 1) – no differences after 6 months
2. Behavioral: Medication adherence (*n* = 1: high), eating behaviors (*n* = 3-1), physical activity (*n* = 2), acceptability and loss to follow up (LFTU) (*n* = 10-2): mixed findings skewed towards positive outcomes
3. Clinical: sugar levels (*n* = 4), BP (*n* = 5-1), BMI (*n* = 3-2): significant reduction reported in majority of studies
4. Efficacy: assistance in daily management, social and emotional support, and linkage to clinical care

Challenges

1. Recruitment: clinician and not patient-driven (esp. MACs) and/or conceptualized by health professionals. Implications for feasibility and acceptability
2. Lack of physical space to hold meetings (privacy)
3. Lack of homogeneity in methods of delivery, duration, frequency, training and content of interventions
4. Poverty limits ability of SNs – microfinance models seek to solve that

Qualitative study

Locations: 4 PHC facilities in Kenya (Mombasa, Kilifi and Kwale) and 3 in Uganda (Mpigi, Kampala and Wakiso)

Measures: In-depth interviews with persons living with diabetes and healthcare workers (N = 20)

Analysis: Themes

Findings

-T2DM management at primary healthcare (PHC) facilities

-Medical and lifestyle interventions – diet, exercise, education

-Almost non-existent peer support interventions - one facility (Mariakani SCH) reported the existence of an **informal** peer support group

-Social networks (SNs) reported: healthcare workers (doctors, nurses, social workers, CHWs), friends-family.

-SNs' support: informational (health education), emotional, instrumental (reminders, money for medicine, dietary needs)

-SNs especially friends also responsible for medical pluralism

Main themes

1. Role of peer and social networks (both +ve and –ve)

2. Medical pluralism (linkages with poverty, feelings of helplessness in use of modern medicine, distance/access, beliefs, SNs)

3. Structural and economic factors – access, cost, physical space/privacy, poverty, unavailability of PS and SN, availability vs desirability – "What is the use of having sons who are jobless and who cannot help me?" (Elderly female, Mariakani)

4. Adherence to medication (pill burden) and lifestyle changes

5. Stigma as a hurdle to T2DM management: from family, friends, (due to lack of knowledge, sex-related implications, beliefs e.g., witchcraft)

- “it is for the rich who can afford sugar”
- due to weight loss

-Associations with poor/lack of disclosure and implications for management

Implications for practice

1. Need for PS and SN in diabetes management - looping effects - T2DM intersects with poverty & well-being
2. Structural:

a. Link PS groups and healthcare workers to ensure reach and adherence

b. Strengthen waiver system – available SNs

c. Address high turnover of CHWs – stipend, recognition

d. Broaden services that NHIF card takes care of e.g., HBA1C (blood sugar) test (that costs USD 180)

e. Increase access - reduce/waive/subsidize cost of NCD management in PHC facilities

Implications for Research

1. Microfinance in rural public health e.g., small-holder farming, table banking/chamas etc to finance treatment sustainably

*Required: Mechanisms, initial cost, feasibility, acceptability & outcomes

2. T1DM in children and PS

3. Medical pluralism (data on prevalence, causality, control)

4. The Psychology of living with T2DM – burden of disease

Most importantly,

*Focus on the intersecting nature of T2DM (and other NCDs)

> "Diabetes weakens patients and makes them unable to work… this increases poverty and makes it difficult to manage diabetes"
>
> Elderly female respondent, Mariakani

Output

1. Journal article publications

a. Scoping study article accepted and paid for in PLoS ONE. To be published September 2022 Open Access

b. Qualitative findings not published - funds for Open Access publishing

2. Conference presentation

Part of qualitative findings presented at the 2022 International Conference (PAC University/Nasarawa State University, Nigeria/Hindustan College of Arts & Science, India) 19-20 May

Gratitude to ARUA NCD-COE & Participants

END OF PRESENTATION