Mobilizing for the Lilongwe Diabetes Peer Support Programme in Malawi

T D Bui[1]*, O Kadzakumanja[2], C Munthali[2]

1. University of Pittsburgh School of Medicine
2. Kamuzu Central Hospital

*Thuy D. Bui: University of Pittsburgh School of Medicine
Email: buithuy@pitt.edu

Abstract

Diabetes has become a significant cause of morbidity and mortality in Malawi but there are shortages of drug supply and healthcare providers to support quality care and treatment. Diabetes self-management support is necessary to improve patient outcomes, and peer support has gained acceptance as a solution for improving diabetes self-management. In this programme summary, we describe the components and facilitators essential to implementing a diabetes peer support programme in Lilongwe, Central Malawi. Peer support has the potential to play a key role for the Ministry of Health in the development of the 2011-2026 health sector strategic plan, which addresses diabetes and non-communicable diseases.

Background

According to the World Health Organization STEPwise approach to Surveillance (STEPS) 2009 data from Malawi, 5.6% of adults aged 25-64 met criteria for diabetes based on fasting blood sugar or were already on medications for diabetes.[1]About one-third (32.9%) of those surveyed had raised blood pressure (BP) or were on medication for hypertension. The high demand for medical services in Malawi is opposed by a severe lack of manpower, diagnostic and laboratory testing modalities, medications, supplies, and disease-specific education.

The setting

Kamuzu Central Hospital (KCH), the tertiary referral center for the Central Region of Malawi, serves about five million people and is a training site for future health professionals. Currently, there is a weekly combined diabetes and hypertension clinic in the outpatient department, which averages 40 to 60 patient encounters per clinic session and serves about 1000 patients. Additionally, there are about 30 type 1 diabetes patients under 15 years of age, seen as part of the paediatric specialty clinic at KCH. The healthcare providers staffing the clinic are often interns, registrars and students rotating through the medical department for short periods of time. Patients' diabetes control is monitored by quarterly fasting blood sugar levels; haemoglobin A1C testing is not available, and few patients have glucometers for home blood sugar monitoring. There are frequent stock-outs of oral medications, short-acting soluble and intermediate-acting lente insulin at the KCH pharmacy. Integrated diabetes education was not available until 2011. Since 2009, the World Diabetes Foundation (WDF) has funded a number of projects, supported by Queen Elizabeth Central Hospital in Blantyre, focusing on clinical protocol development, student and healthcare provider training, screening for diabetic retinopathy, and establishing diabetes clinics at the district hospital level in Malawi's Southern Region.[2] Most recently, the WDF has supported a media campaign to promote diabetes awareness and prevention education for the whole country.

Peer support in Malawi

Malawi has a strong tradition of home-based care, which is less resource-intensive and has been shown to be a valuable component of the continuum of care and support for people living with HIV/AIDS.[3] Additionally, peer group interventions have been shown to improve maternal and child health outcomes as well as HIV prevention in rural populations of Malawi.[4,5] Diabetes peer support interventions from Cameroon, South Africa and Uganda have been shown to improve patients' health behaviour, metabolic control, and quality of life.[6] Aside from medical treatment, patients with diabetes need support in mastering and sustaining complex self-care behaviours that enable them to live healthy lives and to navigate a fragmented healthcare system. The peer support initiative in the Central Region serves to bolster ongoing diabetes initiatives by providing patients with daily management assistance, promoting patient empowerment and community mobilization to strengthen linkages to existing healthcare infrastructure.

The mobilization process

Initially, assistance of a volunteer nurse with experience in HIV home-based care and counselling was sought to provide group diabetes education at the KCH diabetes clinic and to liaise with the Diabetes Association of Malawi. Topics covered in group education sessions include dietary planning, long-term complications of uncontrolled diabetes, foot care, medications, recognition and self-management of hyper- and hypoglycemia, and insulin injection techniques. The nurse-educator received diabetes training through a WDF-funded programme in southern Malawi and with personal coaching by an internal medicine specialist physician. Having established credibility and relationships with KCH patients, the nurse-educator proceeded to establish support groups in strategic geographical clusters of patients attending the KCH diabetes clinic. Through this process, the nurse-educator was able to identify peer leaders and start the peer support training programme based at KCH with funding secured from WDF.

Peer training curriculum

Peer supporters must meet certain criteria including: 1) a diagnosis of diabetes at least one year prior to enrolment in the programme, 2) ability to arrange for transportation to attend training and commit to the training programme, 3) good communication and interpersonal skills, 4) full literacy in Chichewa, 5) motivation and a willingness to accept the roles and responsibilities outlined for a peer supporter, including respect for confidentiality and privacy. We utilize the extensive peer support training materials developed by the Peers for Progress organization (www.peersforprogress.org) and the curriculum for peer leaders developed by Tang and Funnell.[7] The 20-hour core training for the peer supporters includes in-depth patient education on clinical topics with specific focus on foot self-examination, navigation of the clinic and hospital system, and how to engage clinicians and hospital staff. The aim is for the peer supporters to act as advocates and coaches for group members through valuable skill training in problem solving, listening and facilitation.

Future directions

Successful implementation of the Lilongwe diabetes peer support programme will hopefully lead to expansion of this model to other regions of Malawi. Diabetes peer support interventions, together with other initiatives to strengthen laboratory systems, pharmaceutical supply and provider training, have the potential to improve prevention and reduce diabetic complications. We hope that peer support will be proven to be a cost-effective intervention for the management of diabetes and may represent good value for money for the Ministry of Health. Indeed, the same diabetes peer support network can be adapted for other chronic diseases such as asthma, cancer, stroke, and mental illness in low- and middle-income countries (LMICs). This project is well-aligned with the increasing global interest in non-communicable diseases (NCDs) and programmes to address NCDs in LMICs.

Figure 1: Network and logistical support for peer supporters in the Central Region of Malawi

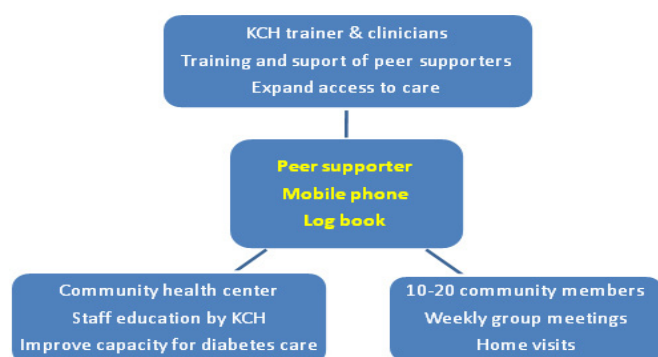

Table: 1 Key functions of diabetes peer support and process evaluation

Elements of the Lilongwe Diabetes Peer Support Programme	Evaluation (by Kamuzu College of Nursing Office of Research)
Recruit peer supporters and establishment of peer support groups in the communities	Initial phase completed with 10 support groups and 151 members (as of February 2014) Training: 20 peer supporters/ leaders
Train peer supporters focusing on 3 areas: •Knowledge and tools for daily management •Social and emotional support (empowerment and self-efficacy) •Linkage to clinical care (navigator role)	• Survey peer support participants regarding their ratings/satisfaction with the peer support provided • Log book data analysis (quantitative and thematic analysis) to assess needs, success and barriers to self-care and peer support •Tally of text messages and phone contacts
Strengthen health systems and clinical care: • Expand access to the diabetes clinic at KCH including group visits •Link peer support groups to community health centers •Integrate with electronic health records	Conduct interviews and focus groups with clinicians, peer supporters and patients about improvement and efficiency of the medical visits and whether the peer support intervention contributed toward this goal
Support community health center (CHC) staff: • In-service training • Tools and resources	Conduct interviews with CHC staff about their perception of peer support program
Provide ongoing support	Two-year assessment at conclusion of funding support and beyond

References

1. Msyamboza KP, Ngwira B, Dzowela T, Mvula C, et al. The burden of selected chronic non-communicable diseases and their risk factors in Malawi: nationwide STEPS survey. Plos ONE 2011; 6(5): e20316.

2. Allain TJ, van Oosterhout JJ, Douglas GP, Joukes S, et al. Applying lessons learnt from the "DOTS" tuberculosis model to monitoring and evaluating persons with diabetes mellitus in Blantyre, Malawi. Trop Med Int Health 2011; 16(9): 1077-1084

3. Zachariah R, Teck R, Buhendwa L, Fitzerland M, Labana S, Chinji C, et al. Community support is associated with better antiretroviral treatment outcomes in a resource-limited rural district in Malawi. Trans R Soc Trop Med Hyg 2007; 101:79-84.

4. Kaponda CP, Norr KF, Crittenden KS, Norr JL, et al. Outcomes of an HIV prevention peer group intervention for rural adults in Malawi. Health Educ Behav 2011; 38(2): 159-70

5. Lewycka S, Mwansambo C, Rosato M, Kazembe P, et al. Effect of women's groups and volunteer peer counselling on rate of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial. Lancet 2013; 381:1721-35

6. Fisher EB, Boothroyd RI, Coufal MM, Baumann LC, et al. Peer support for self-management of diabetes improved outcomes in international settings. Health Affairs 2012; 31(1): 130-139.

7. International Diabetes Federation. Peer Leader Manual. Developed by Tricia S. Tang and Martha M. Funnell, University of Michigan, USA. Brussels, Belgium: International Diabetes Federation; 2011.