POLICY BRIEF

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Community Health Workers and the management of hypertension

Introduction

In South Africa, clinical management of non-communicable diseases such as hypertension and diabetes is often poor. Community health workers (CHWs) have played an important role in providing effective HIV and TB care, immunisation and uptake of breast feeding in low- and middle income settings. Home visits by CHW can improve healthcare access, acceptability and affordability, health literacy and patient adherence, and strengthen referral systems between communities and health facilities. There is little evidence on the effectiveness of their role in managing hypertension and diabetes, although their contribution suggests they could improve access to care for chronic disease patients.

In 2008, the Gauteng Provincial Department of Health launched a pilot progamme at one clinic in Emfuleni sub-district with a non-governmental organisation, Hands of Hope and their CHWs. The 'Kgatelopele' ('progress') programme aimed to improve hypertension and diabetes management by home delivery of medication and assessment of clinical indicators. CHWs, mostly home-based carers, were trained on on hypertension and diabetes.

One CHW visited each patient in the programme monthly to deliver a month's supply of medication. Patients returned to the clinic every six months for a doctor's examination and a repeat prescription.

The programme expected to result in fewer clinic visits for elderly patients, reduce transport costs, and provide opportunities for CHWs to refer other family members needing health care.

Conclusions and recommendations

- This study provides evidence suggesting that CHW management of hypertension through home delivery of medication and monitoring by CHWs can lead to better hypertension control.
- However, the same was not true for diabetes, where patients were better managed at the clinic. Reasons for this are unclear but may be related to ineffective procurement processes and insufficient CHW training and skills.
- Inadequate communication between the NGO and the health system contributed to poor management of patients with uncontrolled conditions, aggravated by insufficient doctor visits to the clinic.
- Lessons from SA's antiretroviral programme on adherence, tracing defaulters and enabling patient participation through improved literacy and support groups should be translated to the management of other chronic conditions such as diabetes and hypertension.
- CHWs can contribute to managing chronic conditions, but more effort is needed around procurement, communication and clinical supervision.

Source: This policy brief was based on an article: "A rapid assessment of a community health worker pilot programme to improve the management of hypertension and diabetes in Emfuleni sub-district of Gauteng Province, South Africa," *Global Health Action* 2013, **6:** 19228 – http://dx.doi.org/10.3402/gha.v6i0.19228

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Methods

This study was a rapid evaluation using a retrospective case study of both qualitative and quantitative methods. The Kgatelopele programme registered 56 patients and was contrasted with 168 clinic patients matched as far as possible for condition, age and gender as the control group. Researchers held interviews with 20 Kgatelopele patients on their experience of the programme, while 7 key informant interviews with clinic, NGO and district staff elicited information on CHW training, supervision, procurement and referral processes. Two focus group discussions were held with CHWs about their daily functioning and challenges.

A record review of data for the year prior to the study was undertaken which included age, sex, number of home visits, monthly measures of BP and glucose, doctor reviews and clinic attendance. For this study, 110/60-130/85 mmHg was regarded as an acceptable range for controlled hypertension, and 3.6-5.8 mmol/l as an acceptable range for controlled diabetes.

Results

There were important differences between the programme and the control. The mean age of those on the programme was 75 years (range 54-96) and 69 years (range 51-92) in the control group. Nearly 40% of those on the programme had hypertension and diabetes, compared to 25% in the clinic group. The mean number of months on treatment for the programme patients was 9 months compared to 6 months for clinic patients.

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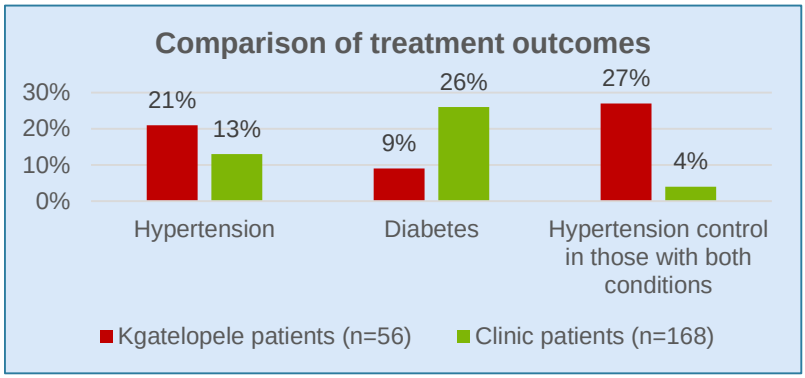
Comparison of treatment outcomes

A higher proportion of patients on the Kgatelopele programme (12/56) had controlled hypertension at more than 40% of health checks in comparison with clinic patients (11/168). However, clinic patients had better diabetes control (11/42) at more than 40% of health checks compared to the programme patients (2/22)). For those with both conditions, a considerably higher proportion of Kgatelopele patients had controlled hypertension (6/22) compared with clinic patients (2/42).



Operational challenges

International evidence shows that CHW programmes often do not yield expected outcomes because of insufficient training and skills and inadequate support from the health system. Despite patient satisfaction with the programme in terms of access to care and CHW counselling, elderly respondents had difficulty attending the 6-monthly doctor's review, citing inability to walk to public transport and lack of transport funds as challenges. Doctors were unavailable in 14% of cases which led to missed treatments and repeat visits to renew a prescription. Insufficient doctor visits limited the clinical supervision available for nurses.

The interview data did not provide a clear explanation for the difference between hypertension and diabetes control. It may be due to insufficient training of CHWs in assisting patients to manage diabetes, or the irregular supply of glucose strips for monthly monitoring of blood sugar levels. Shortages of these were due to a lack of dedicated funding and unclear procurement processes as to who was responsible between the NGO and government to finance and procure the replacement strips. No meetings were held between the NGO, clinic staff and district staff to discuss shortages of equipment or funding constraints. Also, while CHWs reported patient information to their NGO supervisors, the NGO staff did not intervene if patients had poor clinical outcomes, and clinic nurses did not regularly examine the CHW records.

Study limitations

Differences in age and co-morbidity limited comparison between the programme and control patients. CHWs rather than nurses measured blood pressure, the range for controlled hypertension was lower than the internationally acceptable range, and random glucose estimation was used for assessing control of diabetes rather than a fasting or HbA1C test.