

Know your Numbers: Older Persons Grant queues as an innovative strategy for managing hypertension in persons 60+ in rural South Africa

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Background

South Africa has a high prevalence of hypertension in persons ≥ 60 years. Queues to collect Older Persons Grants (OPGs) present a unique opportunity to deliver an intervention for Blood Pressure (BP) reduction.

Objective

To determine if regular measurement and feedback of BP in grant queues, together with promotion of hypertension knowledge and referral to care, will reduce BP among those measured.

Methodology

Monthly BP measurements at 6 grant payment points in Bushbuckridge sub-district, Mpumalanga Province. In the three-month baseline period we measured BP, reported results to participants and referred to care if hypertensive. In our 12-month intervention, we measured BP, promoted hypertension knowledge, introduced a BP Report Card and referred into care if hypertensive. Hypertension was defined as Systolic BP (SBP) ≥ 140 mmHg or Diastolic BP (DBP) ≥ 90 mmHg, or on hypertension medication. Linear quantile regression models were used to estimate the median intervention effect for SBP and DBP with robust variance estimates. Contrast between pooled baseline and pooled intervention months is reported as the overall intervention effect. Binomial regression models were used to estimate the intervention effect on measured hypertensive status and knowledge of hypertension status using the difference between baseline and first three months of intervention.

Results

During the intervention, we performed 7066 measurements, 73% in women, average age 71.4 years, and 39% of contacts being hypertensive. SBP dropped by 3.6 mmHg [95%CI -4.5; -2.7] throughout the overall intervention ($p < 0.001$): 4.9 mmHg [95%CI -7.5; -2.3] in men, and 3.5 mm/Hg [95%CI -4.4; -2.6] in women. DBP dropped by 0.83 mmHg [95%CI -1.53; -0.13] ($p = 0.020$) overall; 3.3 mmHg [95% CI -6.9; -1.0] ($p = 0.630$) in men, and 1 mmHg [95% CI -1.8; -0.2] ($p = 0.016$) in women. Overall, there was a 17.9% reduction in measured hypertension over the intervention [95% CI -24.7; -11.0] ($p < 0.001$), adjusted for time, age and sex.

Conclusions

Measuring BP in grant queues together with hypertension knowledge and awareness is effective in reducing BP in older populations.

Advocacy

Interventions to reduce BP using grant queues could be an effective approach to lower BP and reach older persons in rural communities.

Key words

Hypertension, Older Persons Grants, South Africa