

Improving Community Health Worker's (CHWs) Capacity to Prevent and Manage Hypertension and Diabetes in Capricorn District, Limpopo province

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Background

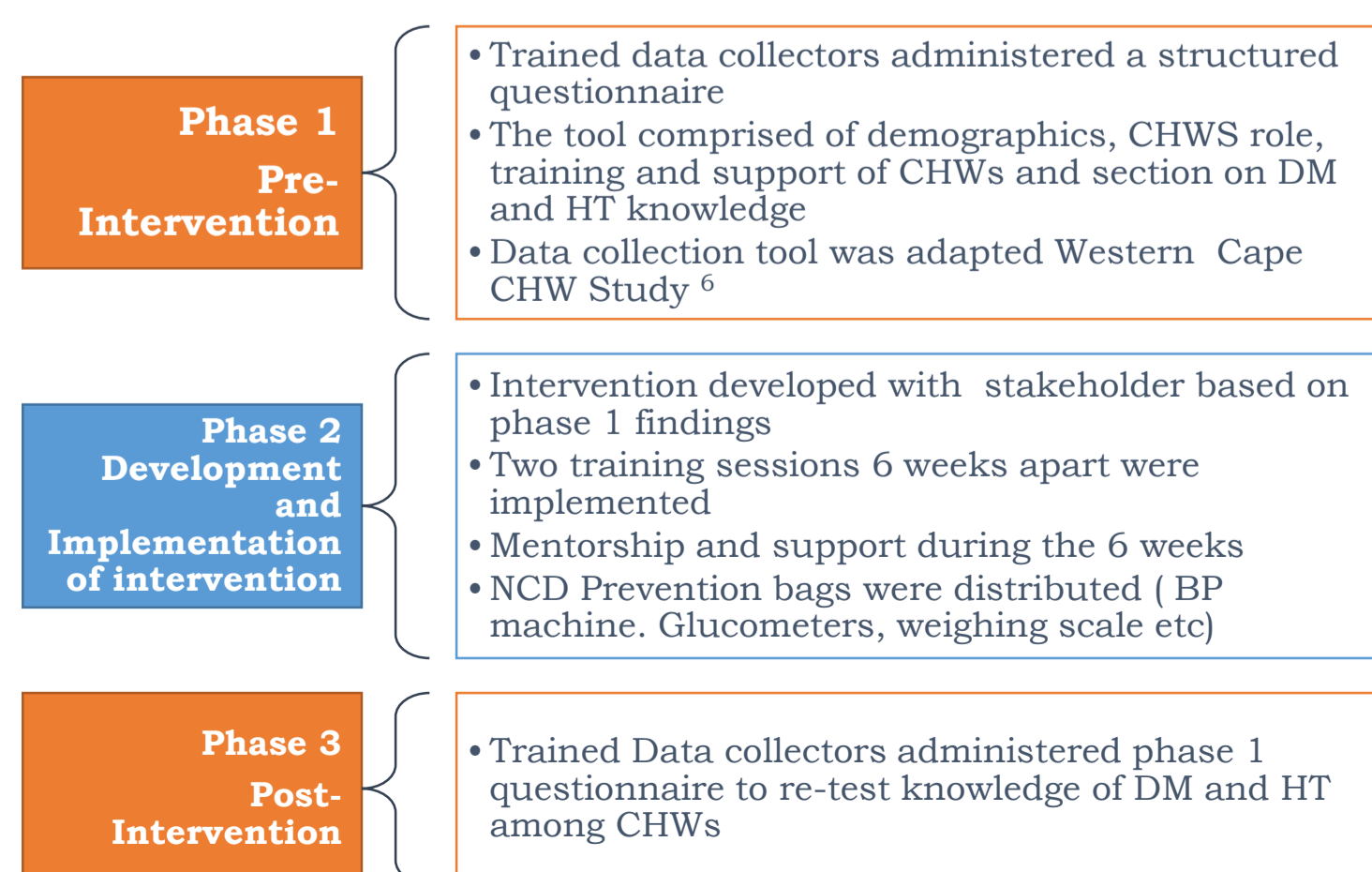
- An estimated 10% and 42% of South Africans are affected by diabetes (DM) and hypertension (HT) respectively¹. Diabetes, strokes and heart diseases are among the top 10 leading causes of deaths in Limpopo
- Community Health Workers (CHWs) play a crucial role in NCD prevention and management at Primary health care and community level³
- Research on CHWs capacity to manage and prevent HT and DM is limited. Published studies on the effectiveness of interventions to improve CHWs HT and DM capacity are scarce in our setting⁵

Aim

- To evaluate the effectiveness of an intervention package aimed at improving CHW's Diabetes (DM) and Hypertension (HT) knowledge and skills

Methods

- A pre and post intervention study was implemented over a period of 6 months (January to June 2019). The study was conducted in four Primary healthcare clinics in Polokwane east sub-district of Capricorn District. All CHWs attached to the four PHC clinics participated in the study
- The data was captured using Microsoft excel and analysed using EPI info Ver 7.2.3.1
- Knowledge questions were scored zero for wrong responses, and one for correct answers. A total score of **50 percent** was considered as good knowledge for both DM and HT knowledge.
- Simple descriptive statistics were used to summarise categorical and numerical data. The knowledge score pre and post intervention were compared using paired t test. A p value of 0.05 was considered significant
- The study was approved by the Limpopo Province Research Ethics Committee and Limpopo Provincial Department of Health



Results

Demographics

	Pre-intervention (n=58)		Post-Intervention (n=53)		p-value
	No	%	No	%	
Gender					
Female	53	91	50	94	0.719
Male	5	9	3	6	
Age(year)					
30-39	19	33	18	34	0.938
40-49	28	48	24	45	
50+	11	19	11	21	
Level of education					
<Matric	30	52	23	43	0.448
Matric	28	48	30	57	
Year of experience (years)					
<5	2	4	2	4	0.827
5-10	21	36	16	30	
>10	35	60	35	66	

Table 1 Patient characteristics pre and post intervention

Overall DM and HT knowledge Pre and Post Intervention

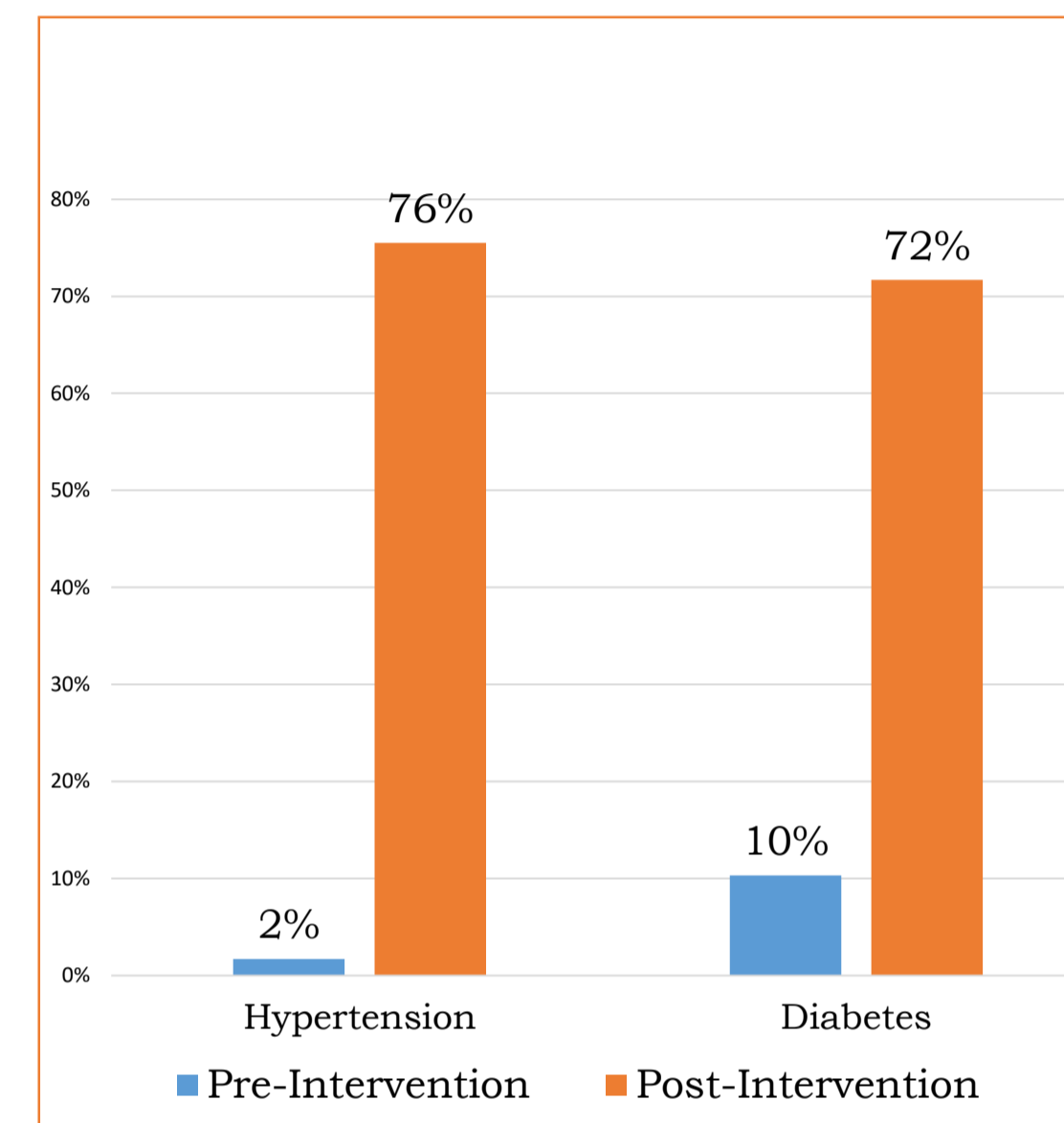


Figure 1 Percentage of CHWs who obtained >50% score for Diabetes and Hypertension knowledge

Components of Hypertension and Diabetes knowledge Pre and Post Intervention

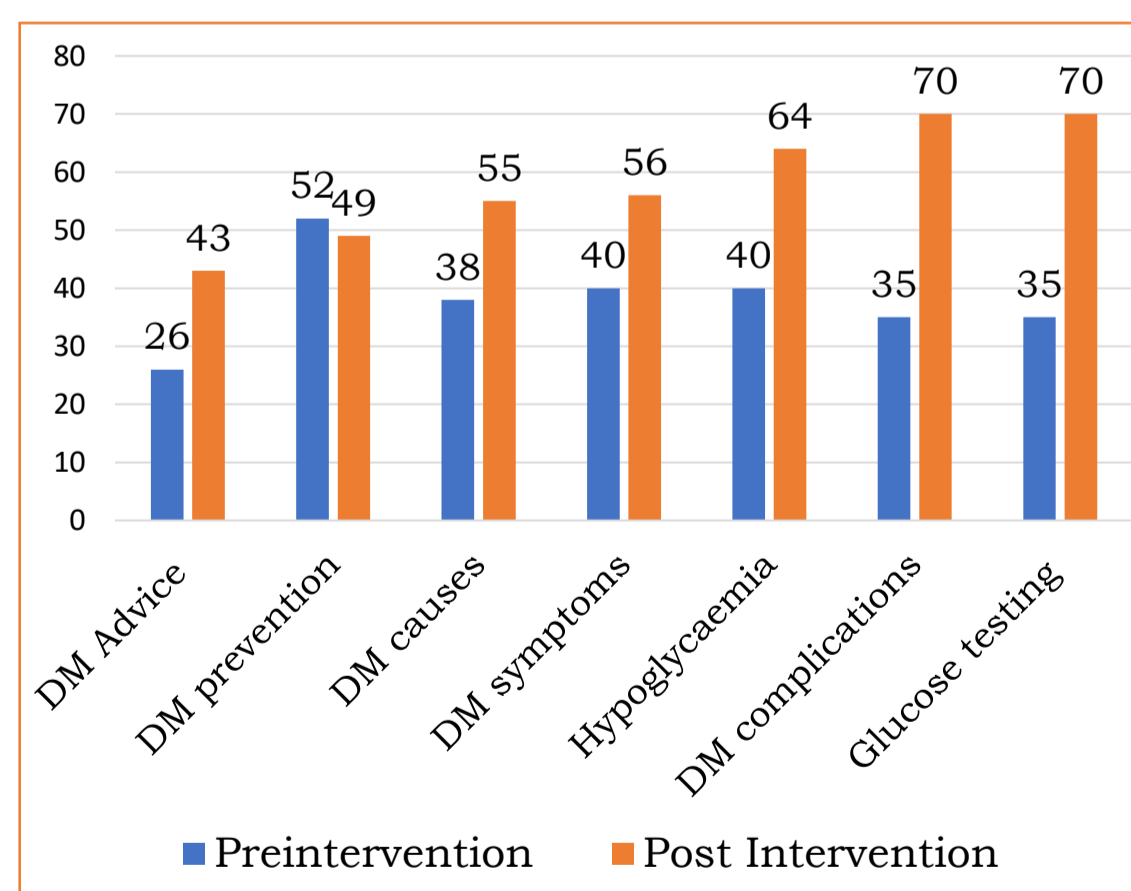


Figure 2 Percentage of CHWs obtained >50% score for Diabetes and Hypertension knowledge pre and post intervention

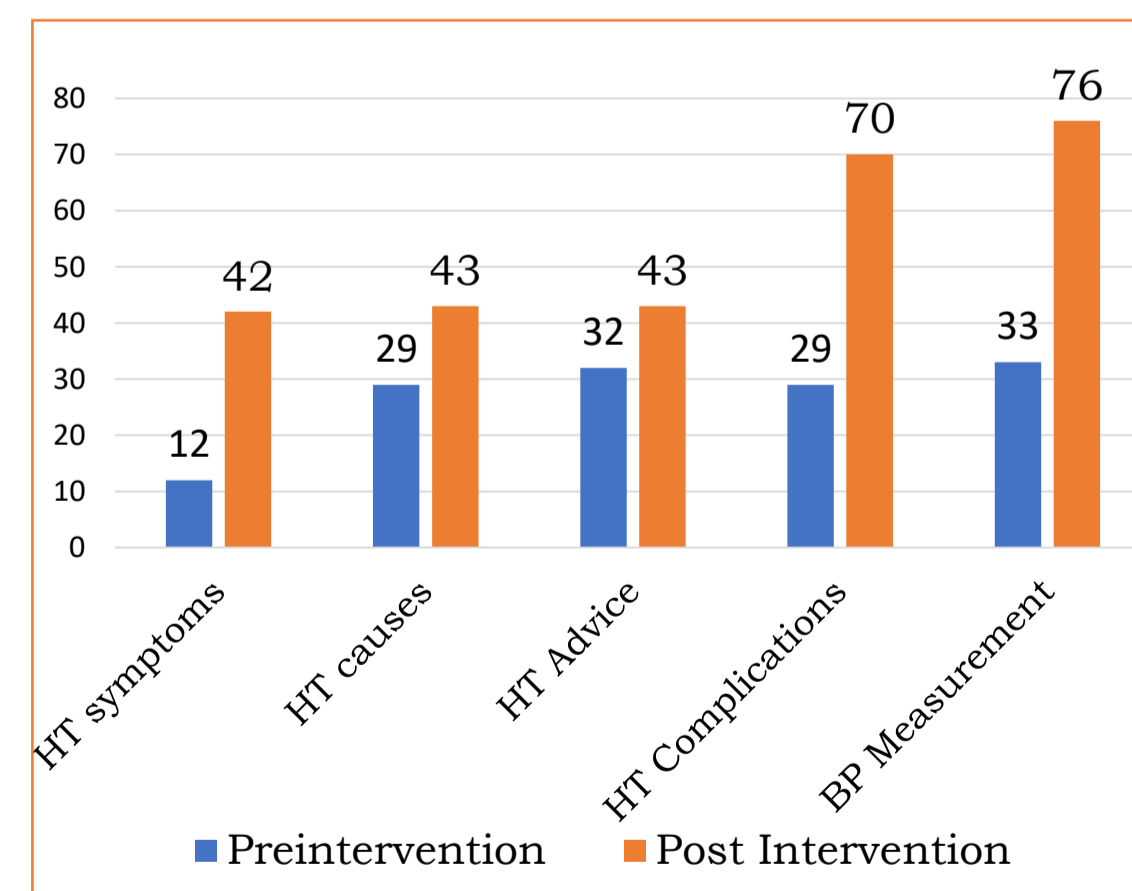


Figure 3 Percentage of CHWs obtained >50% score for Diabetes and Hypertension knowledge pre and post intervention

Discussion

- Pre-intervention DM and HT mean knowledge were low (Mean DM score of 34% and Mean HT 25%) Post intervention scores for both DM and HT knowledge improved significantly. Similar study in the Western Cape reported significant gaps in CHWs NCD knowledge and skills⁶
- A total of 72% and 76% of CHWs scored more than 50% for DM and HT respectively. However, a quarter of the CHWs had knowledge scores below 50 percent post intervention
- For Diabetes knowledge, statistically significant improvement was reported for hypoglycaemia Diabetes testing and diabetes complication
- For Hypertension knowledge, statistically significant improvement was reported for HT complications and BP measurement

Conclusions

- The research highlights the gaps in CHWs DM and HT knowledge and skills
- The research shows that with adequate support, training and minimal resources CHWs can significantly improve DM and HT knowledge and skills
- We recommend a regular in-service NCD training program for CHWs at primary health care
- Because there was a lack of control group in the study, we cannot decisively conclude that the change in knowledge are entirely from the intervention alone.
- The project was implemented over a relatively short period; therefore, we were not able to assess the knowledge retention and knowledge translation into practice. Further study is needed to measure knowledge retention and impact on patient outcomes

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