



# Effectiveness of Digital Therapeutics to Improve Blood Pressure Control among Patients with Hypertension and Diabetes in India

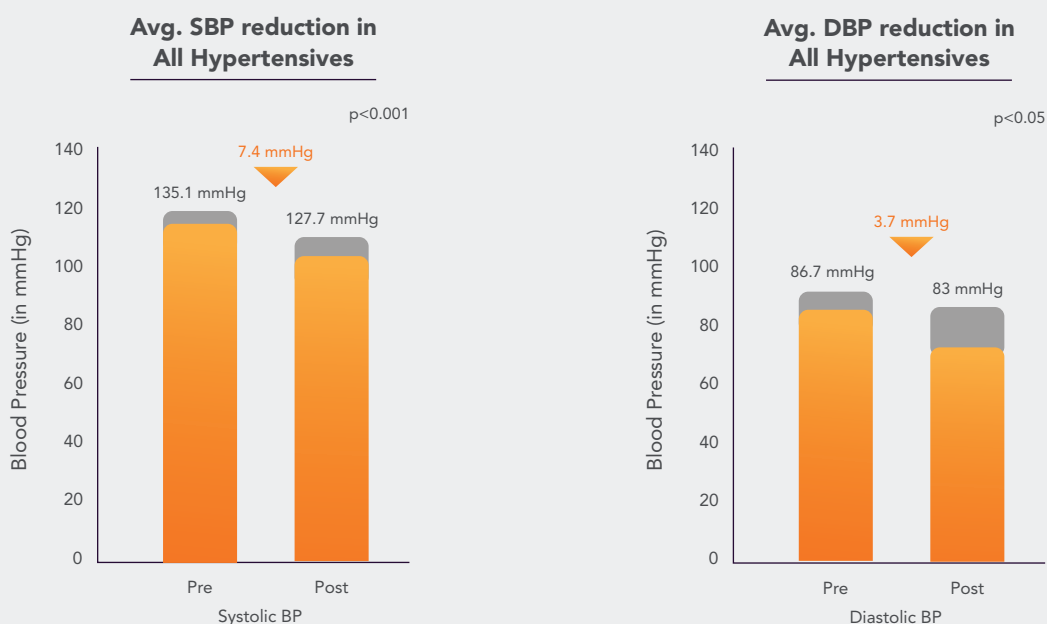
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## BACKGROUND

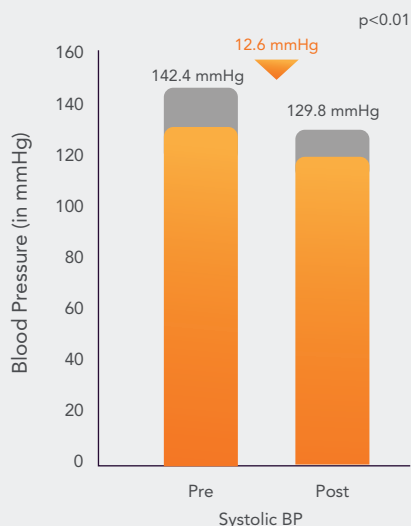
In India, the increasing prevalence of hypertension and diabetes is a major threat to public health. Digital therapeutics (DTx) is an effective platform to deliver evidence-based lifestyle interventions while saving clinicians' time. We assessed the impact of a mobile app-based DTx platform to improve blood pressure (BP) control in patients with hypertension and diabetes.

## METHODS

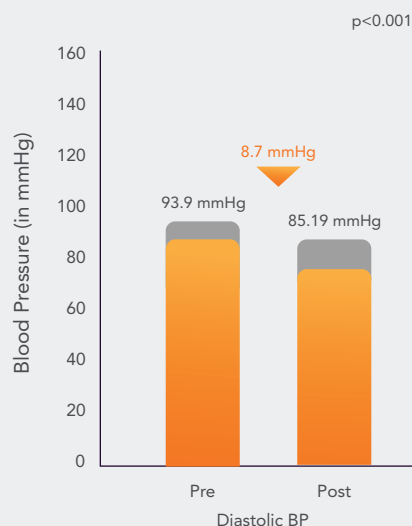
- The study included 66 participants with blood pressure  $\geq 130/80$  mmHg (ACC/AHA guidelines 2017) who had diabetes and had spent at least 3 months on the Wellthy Care™ DTx.
- The participants had also logged at least 2 BP readings with a minimum interval of 1 month.
- The DTx platform consisted of hypertension self-management education, self-reported BP and blood sugar logs, artificial intelligence-powered evidence-backed feedback, and coaching from a remote health coach.



### Avg. SBP reduction in Stage 2 Hypertensives



### Avg. DBP reduction in Stage 2 Hypertensives



## RESULTS

The participants had a mean age of 45.9 years [Standard Deviation (SD)=12.5 years] and consisted of 10 (12.2%) females. The baseline mean systolic blood pressure (SBP) was 135.1 mmHg (SD=12 mmHg) while the mean diastolic blood pressure (DBP) was 86.7 mmHg (SD=11 mmHg). There was a significant mean reduction in SBP to 127.7 mmHg (SD=16 mmHg, p-value<0.001) and in DBP to 83.0 mmHg (SD=11 mmHg, p-value<0.05). Thirty-one patients (47%) who had stage 2 hypertension achieved a significant mean reduction of 12.6 mmHg in SBP and of 8.7 mmHg in DBP (p-value<0.01). Nineteen patients (28.8%) achieved the ACC/AHA recommended goal of target BP (130/80 mmHg).

## CONCLUSION

The Wellthy Care™ DTx platform facilitated self-reporting, patient education and health coaching in patients with hypertension and diabetes while achieving significant reduction in BP. In a resource constrained setting like India, a digital therapeutic could serve as a useful tool for the management of hypertension.