

Effect of a Digital Intervention on Depressive Symptoms in Patients With Comorbid Hypertension or Diabetes in Brazil and Peru

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Introduction

Depression is a leading contributor to disease burden globally [1,2]. Digital mental health interventions can address the treatment gap in low- and middle-income countries [3], but the effectiveness in these countries is unknown. We aimed to investigate the effectiveness of a digital intervention in reducing depressive symptoms among people with diabetes and/or hypertension.

Research question

What is the effect of a 6-week digital intervention on depressive symptoms among patients with hypertension and/or diabetes in Peru and Brazil?

Methods

Sample

Adults with significant depressive symptoms as measured by the Patient Health Questionnaire (PHQ-9 ≥ 10) and receiving treatment for hypertension and/or diabetes.

Sites

7 health centers in Lima
20 health centers in Sao Paulo



Design

432 participants were individually randomized in Peru and 880 participants from 20 health units were cluster randomized in Brazil.

Intervention

Digital intervention CONEMO

CONEMO is a smartphone app based on behavioral activation. It has 18 sessions combining text and video and it is delivered over 6 weeks and monitored by a nurse. 217 and 440 participants received the CONEMO intervention in Peru and Brazil, respectively.

CONEMO app

Home section of the CONEMO app.



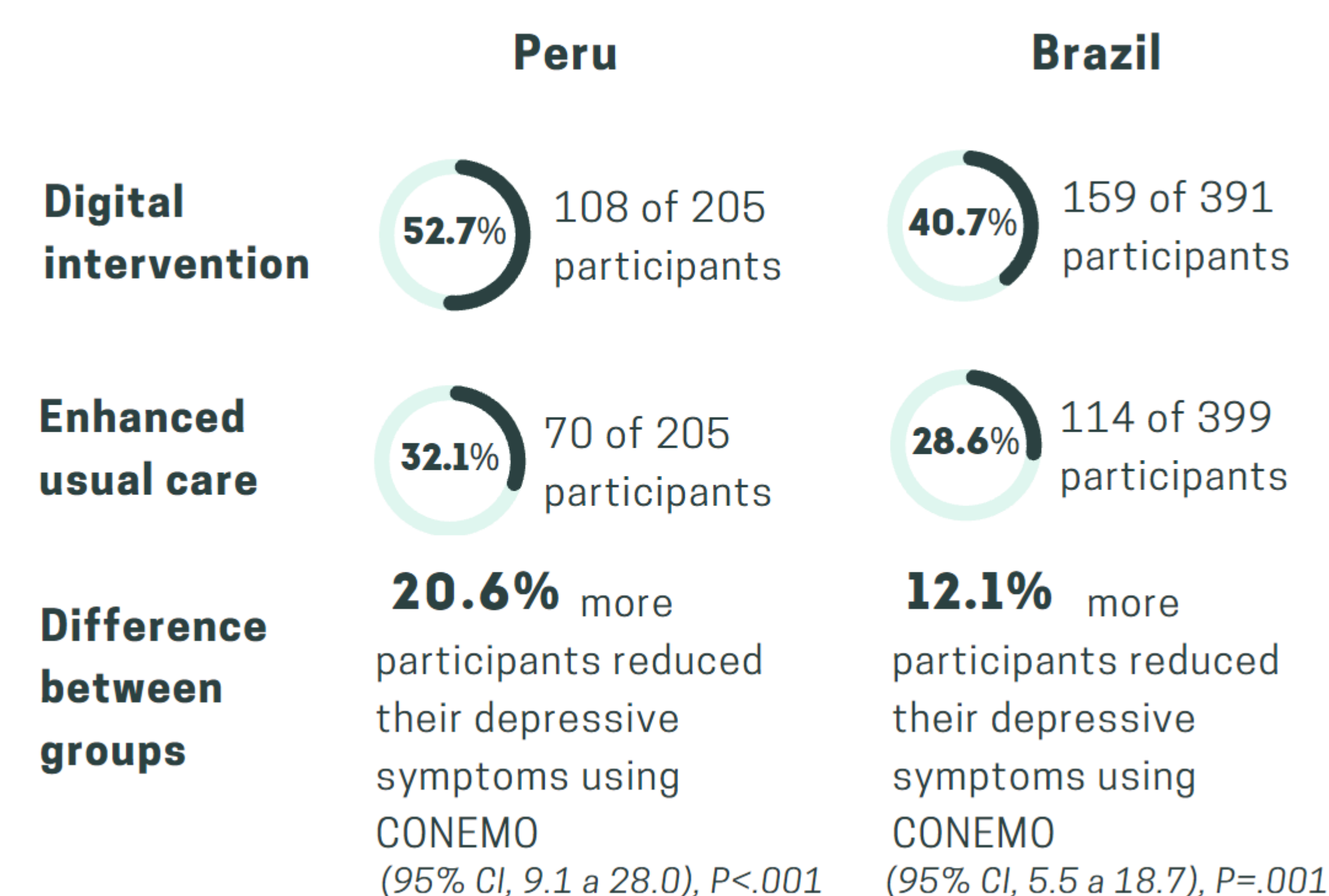
Enhanced usual care

Patients are referred to mental health services and receive the usual treatment. 215 and 440 participants received the CONEMO intervention in Peru and Brazil, respectively.

Results

Patients with at least a 50% reduction on the PHQ-9 score at 3 months:

Differences between the digital intervention and enhanced usual care in Peru and Brazil



At 6-month follow-up, differences across groups were no longer statistically significant.

Conclusions

In 2 RCTs of patients with hypertension or diabetes and depressive symptoms in Brazil and Peru, a digital intervention delivered over a 6-week period significantly improved depressive symptoms at 3 months when compared with enhanced usual care. However, the magnitude of the effect was small in the trial from Brazil and the effects were not sustained at 6 months.

Reference / Bibliography

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