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Effect of community-based intervention on self-management of blood pressure among hypertensive adults: findings from the Communities for Healthy Hearts Quasi-experimental Study in Vietnam

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ABSTRACT

Background: Hypertension is one of the leading causes of cardiovascular diseases and deaths globally. Controlling blood pressure is the key factor to reduce clinical events. The current study aims to evaluate the effects of Communities for Healthy Hearts intervention in improving the self-management of blood pressure among hypertensive patients.

Methods: From October 2017 to September 2019 a quasi-experimental study was implemented in the intervention and control districts of Ho Chi Minh City, Vietnam. 2,701 hypertensive adults (1,315 in the intervention group and 1386 in the control group) were interviewed at the onset and for four rounds of follow-up after the intervention. Self-management of blood pressure was assessed via the utilization of self-management tools, including blood pressure monitors, diaries and practical guidelines. Random slope mixed-effects models with propensity matching method were employed to evaluate the effectiveness of the project and identified factors related to self-management.

Results: The percentage of hypertensive adults who self-managed blood pressure increased in both intervention and control groups, although the increase in the intervention group was 8.5% higher. Compared to the difference in self-management of blood pressure between the intervention and control group at baseline, significant increase in intervention effects was observed at round three and four of follow-up, with odds ratio (OR), 1.77 (95% confidence interval [CI], 1.24–2.52) and 1.48 (95% CI, 1.00–2.18), respectively. As compared to housewives and non-smokers, freelance workers and current smokers had a lower likelihood of self-management of blood pressure whereas, higher age, higher education, and being obese were protective factors.

Conclusion: The Communities for Healthy Hearts intervention improved the self-management of blood pressure among hypertensive adults via the utilization of blood

