

# **A significant decrease in blood pressure through a family-based nutrition health education programme among community residents in Taiwan.**

連立明

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摘要

## **Abstract**

**Objective** To evaluate the effect on decrease in blood pressure of modifying risk factors for stroke, such as blood lipid profiles, diet habits and indices of body weight, through a family-based nutrition health education programme among hypertensive patients and pre-hypertensive subjects without taking any antihypertensive drugs.

**Design and setting** This was a community-based prospective study. The study population was randomly selected from communities in Taipei; potential subjects were invited by telephone to participate.

**Subjects** After excluding subjects whose blood pressure was normal and those using antihypertensive drugs, there were 390 participants included in the study. Subjects in the intervention group (n 293) received nutrition health education on blood pressure control and stroke-related risk factor modification at each visit. Non-intervention subjects (n 97) only acquired a general education sheet available in clinics. The blood pressure of study subjects was measured at baseline and 6-month follow-up to evaluate the intervention's effect on decrease in blood pressure.

**Results** Significant decreases of 2.0 mmHg and 5.9 mmHg in systolic blood pressure were observed both in pre-hypertensive and hypertensive subjects in the intervention group. Additionally, intervention subjects with improvement of total cholesterol and LDL cholesterol, decrease in indices of body weight and increase in consumption of fruit and

vegetables also had significant lowering of blood pressure.

**Conclusions** The present study provided evidence that the blood pressure of pre-hypertensive and hypertensive subjects could decrease significantly, without taking antihypertensive drugs, after modifying blood lipid profiles and waist by dietary habits changed through a family-based nutrition health education programme, resulting in a significant effect on stroke risk reduction.