

**EFFECTIVENESS OF COMMUNITY-BASED
PARTICIPATORY APPROACH IN
CONTROLLING BLOOD PRESSURE IN
A RURAL COMMUNITY OF MAGWAY REGION**

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ABSTRACT

With socio-economic changes in Myanmar, there is a significant emergence of non-communicable diseases (NCDs) including hypertension. The objective of this research is to study the effectiveness of community-based participatory approach in controlling blood pressure in a rural community of Magway Region. Intervention period took one year from July, 2015 to July, 2016. A quasi-experimental study design with non-equivalent control group was used through a community-based participatory approach from January, 2014 to December, 2017. Study population was community members aged forty years and above residing in rural areas of Magway and Natmawk Townships. These townships were randomly assigned as intervention and control areas. Exactly 271 and 270 participants were selected from intervention and control areas respectively. Ten members of Local Volunteer Group (LVG) were also invited to take part in lifestyle intervention activities. Face to face interview was done by using questionnaires. Blood pressure, weight, height and waist circumference were measured through standard procedures. The participants in intervention area were given health education sessions and advice on healthy diet. They were also encouraged to take regular physical activity and helped for meditation. Intervention group and control group were more or less the same in socio-demographic characteristics and blood pressure status at baseline. The proportion of hypertensive and pre-hypertensive cases were noted to be more than 33% and 41% respectively in study area. Age, physical activity, BMI, family history of hypertension and history of diabetes mellitus were found to be associated with hypertension status at baseline ($p < 0.05$). Blood pressure levels were obviously reduced in intervention group ($p < 0.05$) after intervention activities of 12 months' duration, while only minor changes were observed in control group. The net changes between the two groups for systolic and diastolic BPs were also significant at 6 months ($p < 0.016$) and 12 months after intervention ($p < 0.001$). Intervention group is about three times (aOR=3.257, 95%CI: 2.080-5.102) more likely than comparison group to control systolic blood pressure and about two times (aOR=2.280, 95%CI: 1.454-3.573) to control diastolic blood pressure after intervention activities. Post-intervention mean knowledge scores (\pm SD) were 14.36 ± 2.19 in intervention group and 13.68 ± 1.74 in control group ($p < 0.001$). The community-based participatory approach was found to be effective in controlling blood pressure. So, the present study will be a great support to develop a new model for control of blood pressure in Myanmar, especially in rural areas.