

## **Abstract**

**Background and objectives:** hypertension is one of the most common chronic diseases in old age; And it is one of the most important health threatening factors. It seems that community-based interventions, as one of the available services, can have positive effects in controlling blood pressure and improving the lifestyle of patients with hypertension. Therefore, the purpose of this study was to determine the effect of community-based interventions on the lifestyle of the elderly with hypertension based on the health belief model .

**Materials and methods:** This study was a controlled clinical trial, which was conducted on 90 elderly people with high blood pressure who referred to comprehensive health centers in Khorram Abad city with a multi-stage simple stratified cluster random sampling method. It was done in 1399-1400. Data collection tools were demographic information questionnaires, treatment adherence scale (Hill-Bono), nutritional perceptions, physical activity of the elderly (PASE). The data is collected by SPSS-19 statistical software and using descriptive and inferential statistics and using statistical tests such as Chi-Scholar, Smirnov's Kumulograf, independent t-test, Mann-Whitney test, paired t-test, analysis of variance test, generalized estimation equation model. (GEE) was analyzed.

**Findings:** In order to compare the changes in the average systolic blood pressure score of the elderly in the two study groups at different times, the result of repeated measure variance analysis showed that there was a significant decrease in the average systolic and diastolic blood pressure score of the elderly in the two groups during the study ( $0.001 < p$ ). Regarding the variable of body mass index and abdomen, the result of analysis of variance showed that the body mass index and abdomen of the elderly in the intervention group decreased significantly over time ( $p < 0.001$ ). In order to compare the average changes of the different variables of the two groups of patients studied at different times, the result of the analysis of variance of repeated measures showed that there is a difference between the average score of adherence to treatment, the average score of awareness, the average score of self-efficacy, the average score of commitment to the implementation of the program and the average score of follow-up. There were statistically significant differences between patients at different times ( $P < 0.05$ ).

**Conclusion:** The findings of this study showed that community-based interventions can help control blood pressure by improving some clinical indicators and laboratory variables of patients

with blood pressure, along with modifying some lifestyle variables. . Therefore, it is suggested to develop community-based care in the country to help control the blood pressure of patients.

**Keywords:** community-based interventions; health belief model; life style; High blood pressure; the elderly