



## Health Education in Self-Care in Patients with High Blood Pressure

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DOI: 10.24896/jrmds.20186227

### ABSTRACT

Hypertension is one of the most important health problems in the world, which is still preventable and controllable. Control of this dangerous disease is one of the goals of the World Health Organization in the international community. The purpose of this article is to investigate educational interventions to improve self-care behaviors in patients with high blood pressure based on the use of health education frameworks in order to evaluate the impact of these interventions on promoting self-care behaviors in these patients. In this systematic review, Search using Persian and English keywords in hypertension, education interventions on blood pressure, Hypertension Educational models in specific and popular Persian and English databases, such as the Iran medex database, SID, , Pup med, Scopus, Elsevier. The above mentioned database was searched from January 2017 to March 2018. Articles were reviewed based on the title and abstract. 215 articles (96 articles from Persian sources and 119 articles from English sources) were investigated, out of which 92 articles were excluded due to lack of educational intervention. 123 articles were examined more precisely. Also, 94 articles did not consider educational intervention as the main intervention in the study. Finally, 29 articles were reviewed in this review. Teaching based education and health education models have a greater impact on reducing the risk factors for high blood pressure. The time, place, duration of interventions, the characteristics of individuals, and the use of new educational methods for some audiences in the effectiveness of training to reduce Risk factors are important.

**Keywords:** Hypertension, Educational Intervention, Self-care Patient

**HOW TO CITE THIS ARTICLE:** Kalvandi Narges, Vanda Razieh, Maghsoudi Zahra, Bafahm Fatemeh, Health Education in Self-Care in Patients with High Blood Pressure, J Res Med Dent Sci, 2018, 6 (2):, DOI: 10.24896/jrmds.20186227

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**Received:** 15/06/2017

**Accepted:** 10/10/2017

### INTRODUCTION

Hypertension is one of the most common health problems in the world that has been described as the "silent killer" of mankind [1]. hypertension is defined as the blood pressure over 140 mmhg or diastolic pressure greater than 90 mmhg; both metabolic syndrome [2]. Cardiac events, stroke, Early death and Renal failer is a complication of

this disease, inadequate lifestyle and insufficient knowledge can be effective in developing the mortality of this fatal disease and its complications. The highest prevalence of hypertension was in Africa (46%) and the lowest prevalence of hypertension in the United States (35%). The prevalence of hypertension in the Eastern Mediterranean region (18 and over) was 27.5% and 26.4% in men in the Middle East. This prevalence in Iran was 24.1% and in the Tehran in the age group of 25 to 34 years old, 17.6% were in the women and 14.7% in the men [3, 4]. A survey of their statistics suggests that a large number of people with high blood pressure in Iran do not

know their disease and that known and well-known cases do not have adequate control over their illness; in fact, the lack of knowledge of ways to prevent high blood pressure and unpredictability It is one of the major problems of today's societies, which can be somewhat overcome by educating people [5, 6]. The use of health education programs to increase public awareness of high blood pressure and its consequences can be very effective in reducing its complications [7, 8]. Promotion of self-care efficacy in high-blood pressure patients at a wider social level is only achieved through the adoption of appropriate policies at all levels of society, and suitable educational interventions can be used to achieve this goal [9,10]. Health education programs can empower people to change their environment and their community through influence on beliefs, skills and decision making skills [11]. The purpose of this article is to investigate educational interventions to improve self-care behaviors in patients with high blood pressure based on the use of health education frameworks in order to evaluate the impact of these interventions on promoting self-care behaviors in these patients.

**MATERIALS AND METHODS**

In this review, in order to identify interventional interventions in which education was a major intervention for self-care behaviors in hypertensive patients, electronic search databases were searched using hypertension keywords, hypertension, education interventions on blood pressure, Educational models were conducted from January 2017 to March 2018. The electronic search of databases was done using Persian and English keywords. The studied bases included Iran Medex, Magiran, Science Database (SID), Elsevier, Pubmed, Scopus.

Inclusion criteria were:

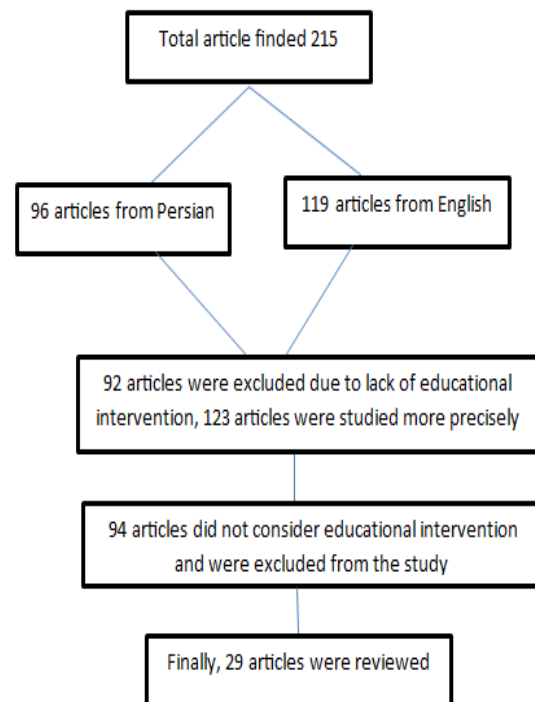
Intervention studies that have been published as the main intervention for the self-management of self-care departments in individuals, and published between the years 2005-2017. Also, the criteria for the withdrawal of descriptive studies and studies that were conducted on non-teaching interventions.

According to the criteria for entry and the study design, the papers were reviewed and the articles that did not have the required quality were

excluded from the study in light of the objective of the study. Below is a summary of the details of the studies studied. All ethical issues regarding the correct use of extracted articles and the standards for publishing the work were observed.

**RESULTS**

Having searched the databases and extracted a large number of articles by title and abstract, 215 articles (96 articles from Persian sources and 119 articles from English sources) were investigated, out of which 92 articles were excluded due to lack of educational intervention. 123 articles were studied more precisely, of which 94 articles did not consider educational intervention as the main intervention in the study. Finally, 29 articles were reviewed in this review.



**Figure 1: Assessment articles process**

In total, all the papers examined were divided into two main groups.

- 1) Studies that used the model and educational theories as the basis for intervention (12-25).
- 2) Studies that had educational interventions without the use of health education models and theories of education (26-44). 14 pre and post study studies, 16 experimental studies and 3 experimental studies.

## DISCUSSION

The studies that the model and educational theories were based on were interventions:

In a study that Hosseini described as the effect of a curriculum based on the theory of planned behavior on self-care behaviors in hypertension, an experimental study was conducted on 110 hypertensive patients. The data gathering tool was a questionnaire. Data analysis showed that before the intervention, the two groups of the case and control groups were similar in terms of the mean score of the theoretical constructs of planned behavior, but after the intervention, the mean scores of the theoretical constructs increased significantly and systolic and diastolic blood pressure was decreased from 14.5 to 10.7 in the intervention group and from 11.4 to 81 in the intervention group [12].

Two studies aimed to investigate the effect of educational intervention based on follow-up care model in patients with hypertension, in which the samples were subjected to intervention for three months. The intervention included ten sessions of two-hour group self-care training, and the blood pressure of patients at these intervals was measured repeatedly. The results of this study showed that systolic and diastolic blood pressure in the intervention group after intervention significantly decreased ( $p < 0.001$ ) [13, 14].

Three studies have been done to investigate the effect of educational intervention based on the health belief model. The effect of this model on the promotion of self-care deprivation in people with hypertension has been studied. The data collection tool was based on a questionnaire in all three studies. Data analysis showed that the mean score of the constructs of the health belief model increased significantly after the intervention in the test group ( $p < 0/001$ ) [15- 17].

In five studies aimed at investigating the effect of educational intervention based on the BASNEF model on the promotion of self-care behaviors in hypertensive patients, several educational sessions aimed at assessing the effect of these structures on acquiring self-care behaviors were given to the test group. The data collection method was a questionnaire. Data analysis showed that the mean scores of the BASNEF model before training in the two intervention and

test groups did not have a significant difference, but after the training, the mean scores of the experimental group were significant and significant ( $P < 0.05$ ).  $p < 0/001$ ) [18-22].

Three studies aimed to investigate the effect of educational intervention based on PRECEDEED PROCEDE model on self-care transfusion in patients with high blood pressure, which was given to intervention group during educational sessions. A tool for collecting questionnaires that examined the impact of the constructs of this model on self-care behaviors. Data analysis showed that the mean scores of the constructs of this model before training in the two intervention and test groups did not show a significant difference, but after the training, the mean scores of the experimental group were significantly increased ( $p < 0.001$ ) [23-25].

Five studies have examined educational intervention in individuals to promote self-care behaviors in people with high blood pressure without using a specific educational framework. Educational intervention included the introduction of the circulatory system, the definition and classification of high blood pressure and its control methods by controlling and improving the diet style, managing stress and relaxing the mind. Data collection tool in all of these studies was a questionnaire and data related to the regular measurement of blood pressure after interventional interventions. Data analysis showed that before the intervention, the mean scores of knowledge, attitude and self-care behaviors were not significantly different between the intervention and control groups. After intervention, the mean scores of all the above variables increased significantly in the intervention group and educational intervention also had a significant effect on the reduction of systolic and diastolic blood pressure in the experimental group ( $p < 0.001$ ) [30-26].

In 14 studies, educational interventions were conducted solely to teach stretching exercises to reduce risk in people with hypertension. Studies were done before and after. The main educational interventions based on training were tensile exercises during a series of sessions on specimens that measured the blood pressure of these individuals regularly and daily, which ultimately analyzed their information that educational interventions reduced the blood pressure of

individuals significantly in samples after training intervention [31-44].

### CONCLUSION

In sum, health education has a significant effect on increasing self-care behaviors in patients with hypertension and preventing complications. Prevention is also a powerful leverage for healthy lifestyles and prevention of the complications of this fatal disease. It seems that despite the long history of model and educational frameworks in world health systems and despite the choice of these methods as superior educational tools by reference, the use of these methods in teaching self-care behaviors in patients with hypertension is less important than training Traditional has. The provided trainings are not effective without using educational models and logical procedure to change behavior in this regard, although the variables of knowledge and attitude and its impact on behavior are important, but in the process of treatment and compliance Patients from treatment Diet and other factors, such as individual skills and environmental factors, that affect patients' behavior. Therefore, it can be concluded that the use of theoretical frameworks and health education models to achieve better results can be much more effective.

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