

# Effectiveness Evaluation of Drug Compliance Health Education for Hypertensive Patients in Qiqihar City

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**Keywords:** Health Education; Hypertension; Drug Compliance

**Abstract:** Objective: To explore the effect of health education on medication compliance of patients with hypertension. Methods: Patients with hypertension who can take care of themselves and have no complications of hypertension were randomly divided into the experimental group and the control group. After systematic and comprehensive health education was adopted in the experimental group, patients were given medication according to doctor's advice. After six months, the patient's medication compliance and blood pressure were compared. Result: The patients in the experimental group of health education had high medication compliance and good blood pressure control. The difference was statistically significant ( $P < 0.05$ ). Conclusion: Systematic health education for patients with hypertension can improve patient compliance and better control of blood pressure.

## 1. Introduction

Characterized by continuous elevation of arterial systolic and/or diastolic blood pressure. It is also the most important risk factor for cardiovascular and cerebrovascular complications [1]. Hypertension is one of the high-incidence epidemics in the world. With the improvement of people's living standards, the incidence of hypertension in China has been rising in a straight line. The survey shows that the rate of increase is 26% every 10 years [2]. The cause of the disease is related to heredity and diet. Its treatment is mainly to control blood pressure in a certain range by taking antihypertensive drugs regularly for a long time. The purpose of controlling hypertension is not to lower the blood pressure of patients! Instead, it is necessary to reduce the incidence and mortality of cardiovascular disease in an all-round way [3]. According to the survey, the proportion of patients receiving standardized treatment in China is not high, and the awareness rate, treatment rate and control rate of hypertension in the population are very low. Good medication compliance is the key to controlling blood pressure [4]. In this study, 100 patients with hypertension in Qiqihar City were selected as subjects to explore the effect of health education on improving medication compliance in patients with hypertension in the community.

## 2. Materials and Methods

The study selected 100 patients with hypertension in Qiqihar City, including 80 males and 20 females, aged 35-75 years. All patients met the diagnostic criteria of hypertension prevention and treatment guidelines. Both meet the criteria for diagnosis and grading of hypertension as defined in the Guidelines for the Prevention and Treatment of Hypertension: systolic blood pressure (SBP)  $\geq 140$  mmHg and/or diastolic blood pressure (DBP)  $\geq 90$  mmHg. Patients with diabetes mellitus, severe anemia, cardiomyopathy, heart valvular disease, hematological diseases, malignant tumors and hepatorenal insufficiency; those who cannot complete the follow-up. The selected cases were confirmed cases and all were primary hypertension. There were no significant differences in the general data of age, sex, and disease between the two groups ( $P > 0.05$ ).

### 2.1 Method

The control group received randomized health education, and the experimental group conducted

systematic health education during hospitalization. All patients were treated with different types of antihypertensive drugs except for dietary control after admission. Oral medication was used after the remission and after the follow-up period after discharge, and antihypertensive drugs were taken as needed when symptoms were present. On the basis of this, the control group conducted systematic health education intervention on the patients, and adopted the form of centralized lectures, and printed the lecture contents to the patients. Systematic and standardized health education for the education group and their families, and corresponding counseling for special individuals. Senior and experienced nurses were assigned to carry out health education for inpatients from the 2nd day after admission to the stable period of the patient's condition. Special lectures, promotional materials and wall newspapers were used in the education.

## **2.2 Health education at admission**

Every Friday afternoon, senior nurses gather patients to conduct collective health education in multimedia classrooms. The contents include: basic knowledge of hypertension to guide patients and their families to understand the causes, diagnosis, symptoms, hazards, prognosis, disease control methods, and teach patients to self-test blood pressure. To guide patients and their families to adopt correct methods to measure blood pressure, and to inform them of the importance of self-measurement of blood pressure, so as to provide objective basis for doctors to regulate antihypertensive drugs. According to the patient's personal situation, such as the level of education, the corresponding methods are adopted. Establish health knowledge propaganda board, focus on education of key knowledge points, and strengthen patients' attention to diseases. The topic of the lecture is mainly about the patients who care about and need to master some things, such as how to correctly measure blood pressure, the harm of high blood pressure, and the benefits of adhering to medication. According to the individual circumstances, reasonable long-term medication should not be arbitrarily reduced or discontinued, so as to avoid withdrawal syndrome. Pay attention to self-testing, such as blood pressure fluctuations should be promptly followed by doctors to adjust medication. Compliance with medication: Introduce the types of medications and methods of administration to patients and their families. Understand the common adverse reactions and emergency treatment methods. If symptoms such as dizziness, nausea, or vomiting occur after taking the medicine, they should immediately lie down and seek medical advice immediately.

## **2.3 Individualized Education**

Responsible nurses should implement individualized health education according to the physiological and psychological characteristics of different patients. In order to achieve the effect, they can adopt rich and colorful forms of education, distribute health education knowledge manual pictures, broadcast audio-based education content, and encourage family members to accompany patients to study together. Strengthen communication with patients to grasp the psychological state of patients, so as to maintain a good optimistic attitude, eliminate depression, anxiety and other negative emotions to actively cooperate with treatment. Print a warm reminder card, print the precautions on the card in a concise manner, and avoid using medical terminology to make it easy for patients and their families to understand. In order to achieve the goal of intensive education, patients can master the basic knowledge of disease treatment through individualized education.

## **2.4 Discharge guidance**

When the patient is discharged from the hospital, the responsible nurse should systematically discharge the patient and family members to re-evaluate the patient's blood pressure control knowledge and the self-test blood pressure method. The blood pressure is monitored regularly and recorded, regular follow-up, regular medication, and good living habits. Explain the knowledge of its common complications and prevent the occurrence of this phenomenon. Dietary education: Low-salt, low-fat diets, avoid eating high-protein, high-fat foods. The patients were ordered to return to the hospital on schedule, monitor blood pressure for a long time, follow up by telephone and home visits, twice a month, and statistics after 5 months.

## 2.5 evaluating indicator

Patients were investigated with self-designed questionnaires when they were admitted to hospital. The contents of the questionnaires included general information of patients, illness, medication compliance and living habits. Morisky's Compliance Scale was used to evaluate the compliance of patients with essential hypertension, and to observe the compliance and blood pressure control. Use 4 small questions to determine the subject's medication adherence: Do you have the experience of forgetting to take the medicine; do you sometimes take the medicine; when you have improved symptoms, you can stop taking the medicine; when you take the medicine, the symptoms become worse. Can I stop taking the medicine? When all four questions are negative, the medication compliance is the best or the compliance is poor. Evaluate patient compliance and blood pressure control after treatment.

## 2.6 Statistical methods

SPSS19.0 statistical software was used for data analysis. The measurement data were expressed as mean $\pm$ standard deviation ( $\bar{x}\pm s$ ). The two samples were compared by t test. The count data were expressed as percentages. The ratios were compared by  $\chi^2$  test. The difference was statistically significant at  $P<0.05$ .

## 3. Result

Comparing the drug compliance of the two groups after intervention, 55 patients in the experimental group had good drug compliance, accounting for 55% (5/100), while 45 patients in the control group (39/64), accounting for 45%. The drug compliance of the observation group was significantly better than that of the control group. The difference was statistically significant ( $\chi^2=3.12$ ,  $P<0.05$ ). See Table 1 and Table 2 for details.

Table 1 Comparison of medication compliance between two groups of hypertensive patients

Group	Number of cases	Medication compliance	
		Good	Difference
Control group	45	68	4
Test group	55	44	63
$\chi^2$		20.13	
P		<0.05	

Table 2 Comparison of blood pressure control between two groups of hypertensive patients

Group	Number of cases	Good blood pressure control	Poor blood pressure control
Control group	45	78	6
Test group	55	50	39
$\chi^2$		24.47	
P		<0.05	

## 4. Discussion

Hypertension is a chronic disease with complex etiology and long course. It is very important for blood pressure control that some patients even need lifelong medication. Improving the compliance of patients with medication is the key to promote the rehabilitation of patients with hypertension, prevent recurrence and prevent complications. At present, the pathogenesis of hypertension is not clear, genetic, neuroendocrine and other factors are involved in the occurrence and progress of the disease. According to the statistics of hypertension patients, there are more patients with family history. Drug compliance requires high requirements. Antihypertensive drugs can effectively reduce the morbidity and mortality of cardiovascular complications and prevent the occurrence and development of stroke, coronary heart disease, heart failure and renal failure. Therefore, it is of

great significance to guide patients to adhere to medication strictly according to doctor's orders. The children whose parents are both hypertensive are more likely to have hypertension. It can be seen that there is a certain correlation between genetic changes and hypertension. Nowadays, antihypertensive drugs have been able to reduce blood pressure to normal in more than 91% of hypertensive patients, while the control rate of blood pressure in natural population is low, which is mainly related to the compliance of patients taking antihypertensive drugs [5]. However, studies have shown that as long as the standard treatment is adhered to, the vast majority of patients can be controlled for a long time, living, studying and working like normal people. With the change of medical model, health education has become the fundamental task of nursing staff, which can help people form correct behaviors and concepts to capture physical and mental health. However, in fact, the patient's blood pressure compliance rate is not ideal. The reason is that the compliance of hypertension medication is poor, that is, the patient cannot follow the doctor's advice to take antihypertensive drugs on time, according to the amount and long-term. Therefore, it is of great significance to guide patients with hypertension, especially moderate to severe patients, to adhere to the medication strictly according to the doctor's advice.

At present, there is no cure for hypertension. It is necessary to take drugs for a long time, lowering blood pressure and maintaining it within a certain range so as not to cause excessive fluctuations. As a chronic disease that requires lifelong medication control, hypertension has high requirements for drug compliance. Antihypertensive drugs can effectively reduce the incidence and mortality of cardiovascular complications, prevent stroke, coronary heart disease, The occurrence and development of heart failure and kidney failure. The results of this study showed that the pre-health education patients' knowledge of hypertension prevention knowledge test was very low, and all patients could not correctly grasp the blood pressure measurement method. It can be seen that patients have little knowledge about hypertension prevention and treatment [6]. Therefore, while actively treating hypertension patients, we should actively carry out health education, strive to improve people's self-care ability, consciously change behavioral risk factors, and strive to improve the awareness rate, treatment rate and control rate of hypertension. Some studies also suggest that effective telephone return visit health education is an effective measure to control hypertension in elderly hypertensive patients while taking medication. To enable patients to understand the nature and prognosis of disease and drug treatment, to understand possible adverse drug reactions and general treatment measures, to master the correct drug use methods, and to improve the consciousness of rational drug use in accordance with doctor's orders. The final results show that health education not only improves the unhealthy lifestyle of patients, but also improves the compliance of drug treatment, effectively controls blood pressure, improves the treatment effect, and improves the quality of life.

## **5. Conclusion**

To sum up, health education can significantly improve patients' knowledge of hypertension prevention and treatment and compliance with drug treatment, correctly grasp the method of blood pressure measurement, reasonably adjust diet and life, so as to achieve better therapeutic effect and quality of life. In the future, efforts should be made both objectively and subjectively to improve patients' compliance with medication and to promote their physical rehabilitation. Health education is an economic and effective intervention, which has a great impact on patients with hypertension and can enhance the compliance of patients with medication to a certain extent. It should be advocated and implemented in depth. Therefore, through health education, patients can further understand disease knowledge, enhance self-care awareness, and at the same time change the phenomenon of not taking medication, irregular medication and not adhering to medication, can effectively improve the control rate of blood pressure. Health education for patients with hypertension can significantly improve the patient's medication compliance, thereby improving the quality of life of patients, which is worthy of clinical recommendation.

## Acknowledgement

Hospital Fund Project of Qiqihar Medical College (QY2013Q-11).

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