

**EVALUATION OF MEDICAL SCIENCE STAFF AWARENESS OF FACTORS  
CAUSING HIGH BLOOD PRESSURE AND ITS COMPLICATIONS IN YASOUJ  
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**ABSTRACT**

**Introduction:** Blood pressure is the force per unit area of the blood vessel wall is entered and measured in millimeters of mercury systolic and diastolic pressure, and is therefore expressed. Various risk factors that can be a precursor to hypertension, such as poor nutrition and high-calorie foods and salty, high blood pressure, family history, gender, age, BMI is increasing. Early symptoms include high blood pressure, dizziness, redness of the face, and headache, which, if not treated promptly, can damage the kidneys, eyes, or lead to stroke and stroke and ultimately cause death. The most important factors affecting high blood pressure are age, genetic background and food. In this study, we studied the factors affecting high blood pressure and its complications among staff members of Yasouj University of Medical Sciences.

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And given that employees Medical University under the supervision of the Ministry of Health and public health cover we expect recognition of the need to hypertension have the results of the investigation a significant role in preventing different levels and It will control the blood pressure and its complications.

**Methods:** In this descriptive cross-sectional study conducted in Yasuj city and medical university. The study was conducted on two educational and therapeutic educational departments. 400 people were enrolled in the study. The educational-therapeutic section of about 300 people from both Imam Sajjad and Shahid Beheshti hospitals and health centers and 100 students from the educational department was computed according to sample size and the number of people in different sectors accidentally entered Were studied. The questionnaire, which was provided by a reliable statistician with a reliability of 0.832 Cronbach's alpha, had an acceptable reliability of 9 general questions related to demographic information and 17 specific questions, 7 questions of complications of hypertension and 10 questions of factors influencing blood pressure Above), with three options yes, no, I do not know what was answered, was formed, and people responded to questions based on their level of consciousness, every correct answer is 1 and any wrong answer and I do not know, the zero point is considered and the degree of awareness According to the score, the questionnaire was ranked poorly, moderately and well. Data were analyzed using Chi-square test using SPSS 21 software and qualitative knowledge. Knowledge level (0-50) was considered as poor awareness, (50-75) average awareness, (75-100) good knowledge ranked.

**Results:** The general knowledge of the employees about the complications of hypertension and the factors affecting it in the good ranking was 60% and in the average ranking was 15% and in the poor ranking was 24%, the mean age of the participants was  $9.52 \pm 41$  ). There was no significant difference between knowledge and age (P value = 0.008) and in all age groups, knowledge was good. Women's knowledge was 53.1% higher than that of men with a value of 43.1 (P value = 0.005). (69%) were married and (31%) were single, 69% of married and 30.3% of single people had good knowledge. (0.008P value =). With increasing level of literacy, the level of awareness has also increased. People with a degree have higher awareness (value 0.000P). And this is while their number is lower than those with a bachelor's degree. 23.5% of non-medical sciences and 74.5% were in medical sciences, and the field of study had a higher level of awareness and knowledge of medical sciences than those with non medical sciences. (0.000P value =). 38.3% of participants had high blood pressure and good knowledge in patients with high blood pressure (38.6%) and high blood pressure (69.8%) (P = 0.277).

**Conclusion:** According to this study, the knowledge of people related to the factors influencing hypertension and its complications related to sex, education, university degree and hypertension are related and influenced by these factors but age, marriage, history of awareness Ineffective.

## INTRODUCTION

Increasing blood pressure is one of the major health problems in advanced countries and Western societies as well as our own country. Although it is without any sign, it is easily detected and treated, but if it is not detected at the right time, it can be accompanied by serious complications, as well as knowing its causes can help prevent it. [2]. The incidence of hypertension in the United States is about 29 percent and awareness is 80 percent [3] and the prevalence of high blood pressure in Iran is reported to be 12.5 percent lower than that of western societies. The prevalence in both the United States and Iran is higher in men than in women, while awareness of high blood pressure and complications It is low [4]. Blood pressure means the force that comes from the blood on the surface of the vessel wall and measured in millimeters of mercury and is expressed in terms of systolic and diastolic blood pressure.

Systolic pressure (maximal): A pressure that is applied during the contraction of the ventricles to the wall of the vessels in the heart cycle and the blood is pumped to the arteries with all its power. Diastolic pressure: The blood pressure is applied to the vascular wall in the resting phase of the heart cycle and when the heart is again filled with blood. In a healthy and mature adult, the normal amount of maximum pressure or systolic pressure is 120 and the minimum pressure or diastolic pressure is about 80. [5] The report of the heart, lung, blood and blood tests carried out by it indicate the need for immediate measures to prevent Of hypertension. In this report, the normal blood pressure is 80/120 (12 by 8) and is more than this natural amount of hypertension, which is common to 3 species.

1. Between 80 / 120-89 / 139 are pre-hypertension.
2. First degree hypertension, which is between 159-140 / 90/159
3. Second degree oven, which is equal to and more than 100/160 [6].

Risk factors and factors that can cause hypertension:

1. Nutrition is very important; it is salt, high-grade fatty acids and fatty foods that can be effective in boosting blood pressure.
2. Hereditary background and family history also have a significant role in hypertension.

3. Sex is another factor that can be effective and hypertension is more common in men than in women.
4. As your age increases, the risk of hypertension increases.
5. Marital status also affects high blood pressure and married people have higher blood pressure than adults.
6. Increased BMI also increases blood pressure (BMI)
7. Blood vessel obstruction can cause hypertension due to various factors [8].

Other high risk factors for high blood pressure can include illiteracy and lack of awareness, high salt and calorie intake, low social relationships (higher levels of catecholamines at higher social levels, fewer stresses, and fewer blood pressure) Number of children, low job satisfaction and life satisfaction and weight gain. Also, the complications of high blood pressure can increase the risk of cardiovascular disease, heart attack, stroke, and people's awareness of these risk factors is not enough [9]. Side effects of high blood pressure: In the event of an infection, hypertension may not be associated with any symptoms, or the symptoms of the person are not worrisome in the person's own eyes. Primary symptoms during hypertension: dizziness and redness of the face and headache. If no treatment It can cause damage to the kidneys or damage to the eyes in a timely manner. Other serious complications include increased blood pressure and lack of treatment and control, which can lead to heart attacks and strokes and ultimately lead to death [10]. Some studies show that people with diastolic blood pressure at rest above 80 are at increased risk for cardiovascular and morbid conditions. And lowering diastolic pressure can reduce the risk of stroke [2]. There is a significant relationship between blood pressure, blood glucose, and venous blood pressure, and among people over 25, 12.5% had a systolic pressure of 140 mmHg and 8 / 9% had a fasting blood glucose greater than 140. [11] The severity of blood pressure in both Iran and the rest of the world was rising steadily, and awareness of high blood pressure and its complications led to a very important role in controlling and preventing It does.

In a study in Iran, the prevalence and prevalence of hypertension among people over the age of twenty years have been shown to be only 3.33 percent of the blood pressure in 8.68 percent of those with high blood pressure, whose blood pressure was one year before the study. Highly conscious of themselves, only 0.41% of them had control of blood pressure. Although hypertension was higher in women and older people, blood pressure control was lower in women than in the elderly, and with greater awareness Greece and China have less control over their blood pressure than Iran. [12] A study in Merimel showed that Shiou Blood pressure was high there, but awareness of high blood pressure and control of hypertension

was very low, and only 34.5 people with high blood pressure were aware of their blood pressure [13]. Another study found that the prevalence of hypertension from 1982 to 2010 increased by 12%. Additionally, blood pressure levels have increased over these 22 years, but the awareness of the prevalence of hypertension is still lower than that. [14] A study between Britain and Canada and the United States has found that the prevalence of hypertension in the UK is higher and awareness of hypertension in The United States has risen by 65 percent to 81 percent, with 83 percent higher than England. [3] Because of high blood pressure, One of the most common metabolic diseases is health education and the use of preventive methods have a major role in controlling it. Increasing the level of general information on high blood pressure The factors affecting it and its complications will have a direct relationship with the promotion of community health and the improvement of patients and reduce the complications of the disease. Available data and studies indicate an increasing increase in blood pressure in Iran We considered the medical staff of the study because they are expected to have a high level of awareness about chronic diseases, such as hypertension. Therefore, the aim of this study was to investigate the awareness of medical staff about the diagnosis of hypertension, its effective factors and its complications. To develop educational programs based on its findings, if necessary, and by raising awareness of this group Prevention or progression of high blood pressure.

## **MATERIALS AND METHODS**

This descriptive cross-sectional study was conducted in Yasuj city and medical university. A study was conducted on 2 educational and therapeutic educational and therapeutic departments. 400 people were enrolled in the study. From the educational-therapeutic section of about 300 individuals who were randomly selected from both Imam Sajjad and Shahid Beheshti hospitals and health centers, Various hospitals (administrative department, security department, laboratory, internal ward, surgical department, women's ward, etc.) were randomly assigned to the study.

Similarly, from the educational section, 100 people were randomly enrolled in the study. People from different parts of the hospital, such as administrative and non-administrative sections of the hospital, include 70 administrative departments and 200 from the internal, laboratory, and women's departments. . were chosen. 30 health centers were also selected from the different departments of the predecessor (5 people), transportation (5 people), security staff (60) and professors (25 people).

Demographic data were recorded in their information form. The age was based on the year of birth and by self-questionnaire. The questionnaire, which was provided by a reliable statistician with an acceptable reliability of Cronbach's alpha (0.832), out of 9 general questions related to Demographic data and 17 specific questions, 7 questions from high blood pressure complications and 10 questions of factors affecting high blood pressure (with three options, yes, no, I do not know what was answered, were made, and people based on their awareness. The questions answered, every correct answer was rated 1, and every wrong answer and I do not know the score was zero. The level on the questionnaire score low, medium, and well rated.

The subjects were of both sexes, married and single, four age groups (21-30), (31 to 40), (41 to 50), (51 to 60), a variety of educational levels (undergraduate, bachelor, master's, and doctorate) and ... Were formed.

Data were analyzed using Chi-square test using SPSS 21 software and qualitative knowledge. Knowledge level (0-50) was considered as poor awareness, (50-75) average awareness, (75-100) good knowledge ranked. The level of awareness as a qualitative feature in this study has been studied in such a way that awareness (50-50) is considered as poor knowledge, (50-75), moderate awareness (100-175), good knowledge Has been. In the study, the mean age ( $41 \pm 9.52$ ) and the age distribution of participants aged 21-30 years, 18.5% at the age range (40-31), 29%, (41-50), 37.8%, (51-60) Is 14.8% (Table 1).

According to chi-square test, there was no significant relationship between age and knowledge (P value = 0.008). Of the 400 participants in the study (47.5%) were women and (52.5%) were men, men 46.1% and women 53.1% had good knowledge (Table 1).

According to Chi-square test, there is a significant relationship between gender and awareness and awareness of women is higher than that of men (0.005P value =). (69%) were married and (31%) were single, and 69% of married and 30.3% of single people had good knowledge (Table 1). According to Chi-square test, there is no significant relationship between knowledge and attitude (0.008P value =).

Among the participants, 256 had a bachelor's degree, 17 had a master's degree, and 127 had degrees with a doctorate degree, and a good level of knowledge in subjects with a degree of 50.6% higher than the level of knowledge in those with a degree in undergraduate and postgraduate degrees 44.4%, and those with a master's degree of 5% (Table 1). According to Chi-square test, there is a significant relationship between the degree of education and the level of awareness, and those with a degree have a higher level of awareness (0.000P value =) And while the number of people with a bachelor's degree is lower.

**Table 1.** Relationship between knowledge level of effective factors on high Von pressure and its complications based on the variables studied

P value*	Total	Good level of awareness (76 to 100) Number Percent	Moderate level of awareness (51 to 75) Number Percent	Poor level of awareness (0 to 50) Number Percent	Variable
0.008	(%18.5)74	15.4 37	34.9 22	15.6 15	(age)
	(%29)116				30-21
	(%37.8)151	31.1 75	23.8 15	27.1 26	40-31
	(%14.8)59	36.1 87	33.3 21	48.8 43	50-41
	Total (%100)400	17.4 43	7.9 5	12.5 12	60-51
0.005	(%47.5)190	128 53.1	47.6 30	33.3 32	)sex( female
	(%52.5)210	113	54.4 33	66.7 64	Man
		46.9			

0.008	124 (%31) 276 (%69)	73 30.3 168 69	29 46 34 54	22.9 22 77.1 74	Married )Single Married
0.000	(%64)256 17 (%4.3) 127 (%31.8)	107 44.4 12 5 122 50.6	57 90.5 2 3.2 4 6.3	92 95.8 3 3.1 1	(education) Undergradu ate and Bachelor Masters P.H.D

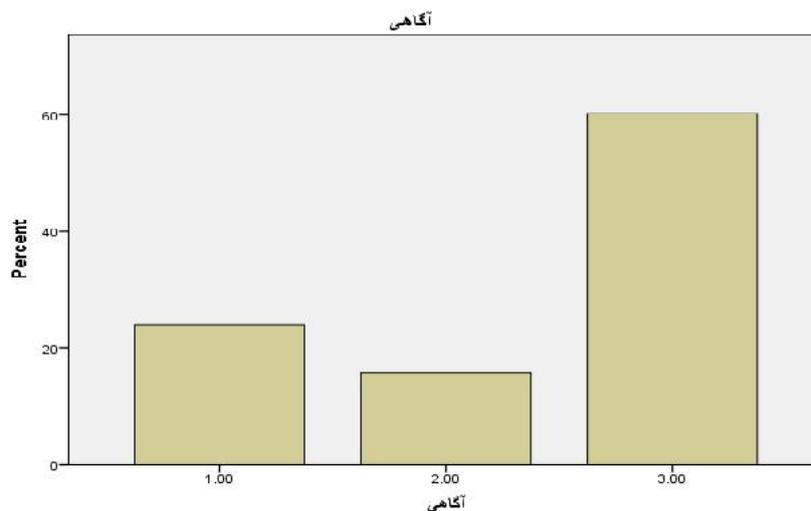
Chi-square test. Among the participants, 58 were doctors, 81 nurses, 167 other medical sciences (laboratory, anesthesia, operating room, etc.) and 94 non-medical sciences students, who had 24.1% Physicians, 33.6% of nurses, 37.8% of other medical sciences and 4.6% of non-medical sciences had good knowledge. According to Chi-square Chi-square test, there was a significant relationship between academic degree and knowledge and there was a significant relationship between individuals with medical sciences People with non-medical sciences. (0.000P value =). 38.3% of participants had high blood pressure and good knowledge in patients with high blood pressure (38.6%) and high blood pressure (69.8%), which according to chi-square test There is no meaningful relationship between family and level of awareness of people. (0.277.P value =).

**Table 2.** Relationship between knowledge level of factors affecting high blood pressure and its complications based on the variables studied

P value	Total	Good level of awareness 76)to 100( Number of percentages	Moderate level of awareness 51)to 75( Number of percentages	Poor level of awareness 0)to 50( Number of percentages	Variable
0.000	58 (%14.5)	58 24.1 81 33.6	0 0	0 0	)Academic discipline (
	81 (%20.3)	91 37.8	65.1 41	35 36.5	medical Nursing
	167 (%41.8)	8 4.6	34.9 22	61 63.5	Other medical sciences
					Non-

	94 (%23.5)					medical discipline s
0.277	153 (%38.3) 247 (%61.8)	93 38.6 148 69.8	30.2 19 69.8 44	42.7 41 57.3 55		)family history( has it does not have

In this study, the employees' awareness about the factors influencing hypertension and its complications is 60.3% good, 15.8% moderate and 24% poor.



- To see which media and factors (radio, television, books and magazines, friends and acquaintances) are effective in informing:

**Table 3.** Relationship between the level of awareness of the factors affecting high blood pressure and the side effects and media impact

P value	Good level of awareness )76to 100( Number of percentages	Moderate level of awareness )51to 75( Number of percentages	Poor level of awareness )0to 50( Number of percentages	Variable
0.216	29.9 72 70.1 169	20 31.7 43 68.3	68 70.8 29.2 28	Radio television Yes No
0.117	124 51.5 117 48.5	15 23.8 23.8 48 76.2	73 76 23 24	Friends and relatives Yes No

0.000	98	30	50	Books and magazines
0.000	40.7	47.6	52.1	Yes
	143	33	47	No
	59.3	52.4	47.9	

According to the study, Chi-square test did not show a significant relationship between knowledge and the effect of radio and television (meaningful level = 0.216). There was also no significant correlation between the effect of friend and familiarity on the level of awareness (significant level = 0.117) and observed There was a significant correlation between chi-square test and knowledge of hypertensive patients and the factors affecting it and the effect of books and magazines.

(A significant level = 0.000). (Table 3)

## DISCUSSION AND CONCLUSION

In this study, employees 'awareness of the complications of high blood pressure and its effective factors is 60% and acceptable, but employees' information and awareness about the complications and signs of the disease should be increased. In the study, the mean age was  $41 \pm 9.52$  and in the age range of 41 to 50, the awareness of other ages was higher. As the age increases, the risk of hypertension rises, and people's knowledge is also based on experience and a sense of danger There is no significant relationship between age and knowledge level (P value = 0.008). The reason for this is that all individuals in an educated study and more studied population from the hospital and related disciplines With medical sciences, people are better off for this. As our study, the study of referee and colleagues showed that as age grows, awareness is also increased and older people are more aware of it (11). This is due to the fact that due to age, the risk of hypertension is higher The level of consciousness will increase the same proportion. There is a significant relationship between sex and awareness and knowledge in women is higher than men (P value = 0.008). In the study of arbitration and colleagues, it has been observed that awareness of women is higher than that of men (11), and this result is similar to our study, which can be attributed to the role of women at home as mothers and the health of their children. Increasing the awareness of various diseases, and moreover, women are more concerned about their health than men. (69%) were married and

(31%) were single. Despite the higher awareness of married people, there was no significant relationship between knowledge and age. (0.008P value =). This is due to the fact that they are studying for their subjects and their field of study, and the number of these people is higher because of the fact that married people are higher than single people.

There is a significant relationship between the degree of education and the level of awareness, and the level of awareness of the subjects with a degree is higher (0.000P value =). And while their number is lower than those with a bachelor's degree, the reason is that some of these people are physicians and the fields of study of these people, as well as older people.

Sadrinia and colleagues found that literacy and educational qualifications lead to increased awareness (10), and this is similar to our result, which can be attributed to the high prevalence of this disease in society and to increased awareness of individuals during education.

There is a significant relationship between academic level and knowledge, and those with medical sciences have a higher awareness of non-medical subjects. (0.000P value =). The reason is that they are in their field of study.

The level of awareness in people without family history of hypertension is higher than those without family history and there is no meaningful relationship between family history and knowledge of people. (Value = 0.277) .The cause of this is an increase in the number of people without a history of high blood pressure, as well as high awareness of high blood pressure in their fields of study that affects the family history of poor knowledge.

Sadrinia and colleagues in their study found that familial history of blood pressure factors and these individuals are also higher (10). The result of this study was inconsistent with our study, which can be attributed to the study fields of individuals in our study and the workplace. These people are the result of their high awareness. The level of awareness of people in the study is 60% good, this awareness is acceptable, but it is necessary to raise awareness in order to improve the health of the community. According to the study, there was no significant relationship between awareness and effect of radio and television (meaningful level = 0.216). There was also no significant relationship between the effect of friend and familiarity on the level of awareness (significant level = 0.117), and it was seen by squat test There is a significant relationship between the knowledge of people about hypertension and the factors affecting it, and the effect of books and magazines. Because of the effect of books on the field of study and textbooks of these individuals and the more use of these people from this media, it is known to other media.

## CONCLUSION

There is a relationship between age, gender, education, university degree and awareness while there is no relationship between marriage and family history and level of awareness.

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