

## Arterial Hypertension - Prevention and Quality of Life

Diana Paskaleva<sup>1\*</sup>, Stoilka Tufkova<sup>2</sup> and Margarita Borisova<sup>3</sup>

<sup>1</sup>Department of Nursing care, Medical University of Plovdiv, Plovdiv, Bulgaria

<sup>2</sup>Medical Training Simulation Center, Medical University of Plovdiv, Plovdiv, Bulgaria

<sup>3</sup>Department of Health care, Medical University of Varna, Varna, Bulgaria

Correspondence should be addressed to Diana Paskaleva, [paskaleva\\_1975@abv.bg](mailto:paskaleva_1975@abv.bg)

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### ABSTRACT

#### **BACKGROUND**

Lifestyle diseases are determined as diseases resulting from the modern lifestyle, and are the main cause of morbidity and mortality in countries across the world.

#### **AIM**

The aim of the present study is to research the opinion of a group of respondents regarding their awareness of hypertension, as a condition affecting society which is on the rise in Bulgaria.

#### **MATERIALS AND METHOD**

A survey studied the opinion of 160 citizens (34 men and 126 women) from the cities of Plovdiv and Veliko Tarnovo town. The poll covers the May-June 2018 period. Documentary, survey, and statistical methods have been used.

#### **RESULTS**

The highest percentage (54%) is among pensioners, followed by workers (40%), students (4%). Only 2% of the respondents are unemployed. 59% of the polled know that they have hypertension, know the risk factors triggering it and measure their blood pressure at home (65%). The percentage of those who believe that smoking and alcohol have no impact on the onset of hypertension is relatively low.

#### **CONCLUSION**

It is necessary to strengthen the educational and scientific program in the system of training of medical professionals by giving them the opportunity to actively participate in various forms of health promotion.

#### **KEYWORDS**

Arterial hypertension; Prevention; Risk factors

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## 1. INTRODUCTION

Socially significant diseases are defined as diseases of modern life and are the main causes of morbidity and mortality among the population in all countries [1]. Besides the economic and psychological burden to people and their families, they often lead to partial or complete disability of the individual. Moreover, we can define them as diseases that determine the profile and structure of mortality and morbidity in a particular region [2].

In order to classify a disease as socially significant, it must take into account the high mortality and morbidity among populations that defines unfavorable dynamics; to cover large parts of the working-age population; to represent a high proportion of the causes of mortality among the population; to represent a high proportion of the costs for treatment and rehabilitation; to force the necessity of specialized medical assistance; to require complex therapy with the imperative use of expensive drugs and high-tech equipment; to cause high social, economic and psychological harm to the population; to engage various public funds and social service due to prolonged disability [3-5].

One of the main socially significant diseases of the cardiovascular system is "Arterial hypertension", which is a trigger factor for cardiovascular diseases of any age and gender [6,7].

## 2. PURPOSE

The study aims to investigate the views of a group of respondents regarding their awareness of "arterial hypertension" and the most common causes of its occurrence and prevention.

## 3. METHODS

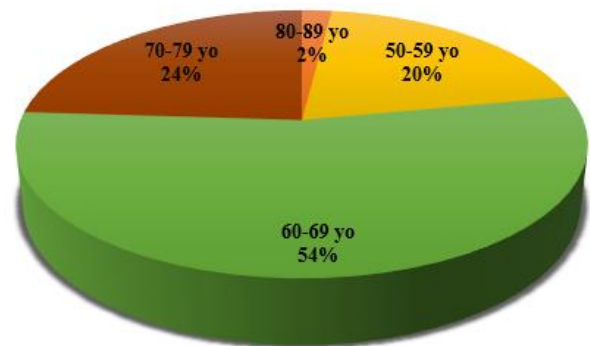
A survey studied the opinion of 160 citizens (34 men and 126 women) from the cities of Plovdiv and Veliko Tarnovo. The principles of voluntary and anonymity were

respected. The study covers the period May-June 2018. Each survey contains 12 questions, 2 of which are open.

Documentary method, survey and statistical methods were used for the purposes of the study.

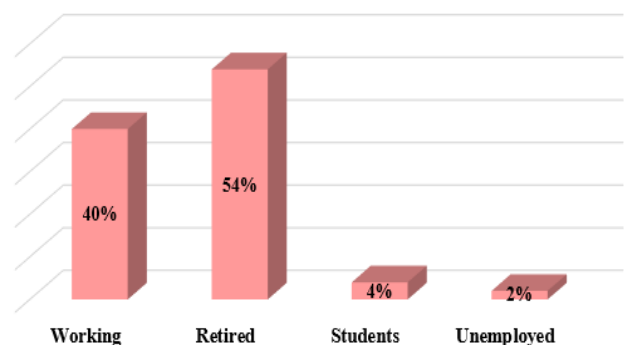
## 4. RESULTS

Participants in this study are people of different age groups. The distribution by age groups is as follows: The largest share is taken by the pensioners and the smallest - by the unemployed geriatric respondents (Figure 1). During the survey an evaluation of BMI was performed, and it was discovered that about a third (29%) of respondents are with normal body weight, 22% are overweight and 49% of the participants are obese.



**Figure 1:** Respondents' age group.

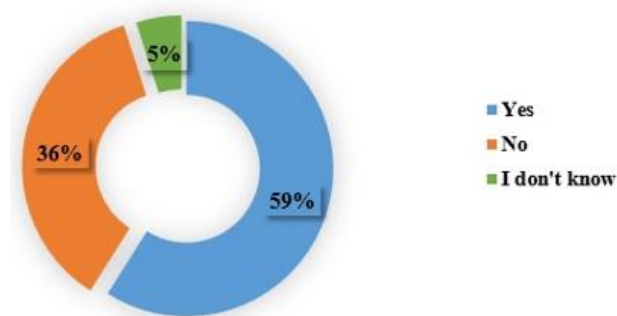
The social group of respondents is diverse, with the largest share being retired - 54%, followed by working - 40%, students - 4%. Only 2% of respondents are unemployed (Figure 2).



**Figure 2:** Respondents' social group.

According to Prof. Ivaylo Daskalov, statistics show that the morbidity of arterial hypertension in the European Union is between 30% - 45%. In Bulgaria, according to data from the National Statistical Institute from a European health survey carried out for the period 2008 - 2017, the morbidity of hypertension in people over the age of 15 is about 30% [8]. Basically, there are two negative trends: a general increase in cases registered with hypertension and increased morbidity of hypertension in younger age 45 - 65, i.e. rejuvenation of the disease [9].

To the question "Do you have high blood pressure?" 59% of the respondents answered positively; 36% answered "No", and only 5% responded with "I do not know" (Figure 3).

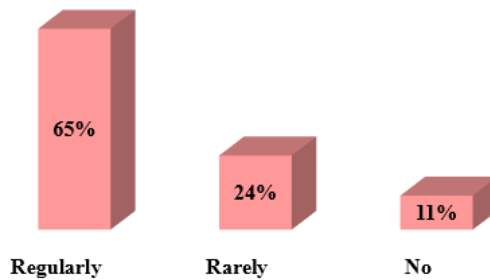


**Figure 3:** Presence of high blood pressure in respondents.

Arterial hypertension can occur without any signs. In these cases of prolonged lack of symptoms, high blood pressure initially leads to functional, and consequently to irreversible disease changes in all organs and systems [10,11]. Respondents gave different answers to the question whether they measure their blood pressure at home - 65% of them regularly measure it, a quarter - 24% rarely measure it, and 11% do not measure it at all, which is an extremely worrying fact.

Early prevention of such a socially significant disease as the arterial hypertension, should begin at a young age with regular checkups, with more attention being paid to

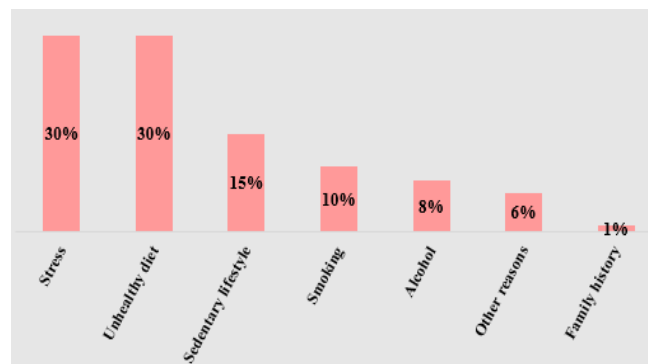
individuals who are genetically predisposed to it (Figure 4).



**Figure 4:** Measurement of blood pressure at home by the respondents.

Respondents were asked the question: "In your opinion, what are the risk factors for arterial hypertension". On the first two places they put stress (30%) and unhealthy diet (30%), sedentary lifestyle takes 15%. Smoking has an immediate adverse effect on blood pressure, heart rate and on the amount of blood that the heart pumps. Narrowing of the blood vessels is a negative effect of tobacco use. Smoking causes increased platelet aggregation, resulting in serious damage of the blood vessel structure and has a direct correlation to high blood pressure.

Another risk factor - smoking - is mentioned by only 10%, and alcohol use - by 8%. Only 6% of the respondents mentioned other reasons such as the presence of other heart disease, self-medication and indiscriminate drug use (Figure 5).



**Figure 5:** Risk factors for the occurrence of arterial hypertension.

An alarming fact is that only 1% of respondents mention the correlation between family history and arterial hypertension - there is a tendency for the transmission of high blood pressure in the family [12].

## **5. DISCUSSION**

The negative tendency for increased number of diseased with arterial hypertension is associated with certain risk factors such as obesity, use of alcohol, smoking, stress, genetic transmission, indiscriminate consumption of drugs and others. The significantly higher number of diseased young people is already an established negative fact. They do not seek medical attention and are increasingly inclined to treat themselves, without consulting with a doctor.

In the spectrum of all socially significant diseases, the cardiovascular diseases rank first as a cause of death and disability over the age of 65, which requires their early prevention especially of vulnerable groups. This would significantly reduce the number of diseased [13].

Participation in health promotion, organization of health talks, lectures and other would increase health awareness of the community and, in particular, would lower the incidence of arterial hypertension, because as a socially

significant disease, it requires large investments and a lot of resources of highly qualified medical professionals [14].

## **6. CONCLUSION**

The main forms and approaches in the education and prevention of socially significant diseases could be combined in several directions. Participation in: scientific conferences, seminars and symposia; discussions, lectures, quizzes; participation in the development of projects related to health prevention and building of training rooms; competitions and roundtables; exhibitions and information displays; video and multimedia products.

All of them aim to activate and engage people's attention on the set of problems.

It is necessary to strengthen the educational and scientific program in the system of training of medical professionals by giving them the opportunity to actively participate in various forms of health promotion.

## **7. CONFLICT OF INTEREST**

The author stated that they have no conflict of interest.

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