

Development Of A Physical Activity Program For Women With Arterial Hypertension

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Abstract: In this article, we studied the health status of women. We analyzed and assessed women by age, sex, hereditary diseases, concomitant diseases and several principles. We summarized all the data in graphs, and it turned out that from the collected data, it turned out that most of the disease and mortality rates are in the middle (132.) and old (101) age, while we are talking about ages.

Keywords: Cardiovascular diseases, women, nutrition, bad habits, physical activity.

Introduction: Cardiovascular disease (CVD) is the leading cause of death and the most common cause of permanent disability in Western countries (Go et al. 2013). Several risk factors contribute to the development of CVD, such as age, elevated blood cholesterol, diabetes, obesity, tobacco use, sedentary lifestyle, and hypertension (HYP; Najjar et al. 2005). When HYP and other cardiovascular risk factors are present simultaneously, they can reinforce each other, resulting in an overall cardiovascular risk greater than the sum of its individual components (Lewington et al.; Mancia et al. 2013a).

Given this strong correlation between cardiovascular disease risk factors, updated guidelines for cardiovascular disease prevention emphasize the importance of physical activity among HYP treatments (Aronow et al.; Mancia et al. 2013b). In particular, hypertensive patients are advised to participate in endurance training programs to reduce both systolic and diastolic blood pressure. A decrease in blood pressure is usually accompanied by an improvement in central and peripheral hemodynamics (Gibala et al.; Hood et al. 2011). Interestingly, circuit training (CT) exercise is becoming one of the most popular fitness programs among healthy older adults due to its increased enjoyment compared to standard ET (Bartlett et al. 2011). However, there is limited data on the effectiveness of this approach to exercise in reducing CVD risk factors in older hypertensive patients (Guimaraes et al.; Lamina 2010). In addition to the

potential appeal of CT for the elderly population, it is important to note that the physiological mechanisms activated by CT differ from those involved in ET in terms of stimulation of central hemodynamics (Zhang et al. 2014). The limited heart rate (HR) and cardiac output are indeed balanced by high stimulation of the peripheral circulation, as with exercise with small muscle mass. Notably, lower blood pressure and improved health-related quality of life (Oken et al. 2006), were also observed after training based on breath control and meditation (relaxation training, RT) (Santaella et al. 2006). Relaxation is a simple method of improving autonomic balance, and breathing control and, as a result, lowering blood pressure in people with hypertension. However, whether this slow breathing training can also reduce other cardiovascular risk factors is still a research question.

The purpose of the research: Development of a physical activity program using traditional medicine methods for postmenopausal women with arterial hypertension.

METHOD

1. To conduct a retrospective analysis of treatment and preventive measures in postmenopausal women with arterial hypertension in rural and urban areas.
2. To study the commitment to a healthy image of the studied population, taking into account nutrition and physical activity

To assess the level of physical activity in women with arterial hypertension in the postmenopausal period, according to questionnaires (International Questionnaire on Physical Activity, IPAQ, motor activity questionnaire ODA23+).

To conduct a comparative analysis of physical activity in postmenopausal women with normal and overweight

To study the quality of life among the examined individuals

To study the effectiveness of a comprehensive program using the herbal drug cordyceps sinensis extract and special exercises of Tai Chi gymnastics in women with postmenopausal hypertension

RESULTS

Materials and research methods

The study will include middle-aged females (45+) with normal and overweight postmenopausal women with arterial hypertension. Exclusion criteria will be over 65 years of age with the presence of arterial hypertension of the second and third stages, concomitant diseases.

It is planned to carry out the following examination methods:

1. Activity questionnaires (International Physical Activity Questionnaire) Questionnaire on physical Activity, IPAQ), motor activity questionnaire Table 1oda23+);
2. Determination of physical
3. performance - Harvard step test or treadmill test;

4. Biochemical blood test: blood lipid profile (TC, LDL cholesterol, HDL cholesterol, triglycerides), glucose level, general blood and urine analysis.

5. Anthropometry, study of somatotype

6. Determination of body mass index

7. Echocardiographic examination of hearts

8. Quality of Life Study (SF -36)

The study design will be represented by single-stage descriptive studies (cross-sectional) study of outpatient records, analysis of questionnaires and measurements, as well as a non-randomized controlled trial divided into 4 groups

Group 1 – postmenopausal women with hypertension with standard treatment

with normal and overweight

Group 2 – postmenopausal women with arterial hypertension taking standard therapy and an exercise program

Group 3 - women with standard therapy, a set of physical exercises and taking a herbal drug

Group 4 – women receiving standard therapy and a developed complex of Tai Chi gymnastics and a herbal drug Cordyceps sinensis extract.

Statistical analysis will be carried out using specialized software, the choice of which will be made at the stage of preparing the statistical analysis plan.

Continuous (quantitative) data will be presented using a number of observations, arithmetic mean, standard deviation, median, interquartile range, minimum and maximum

Table 1

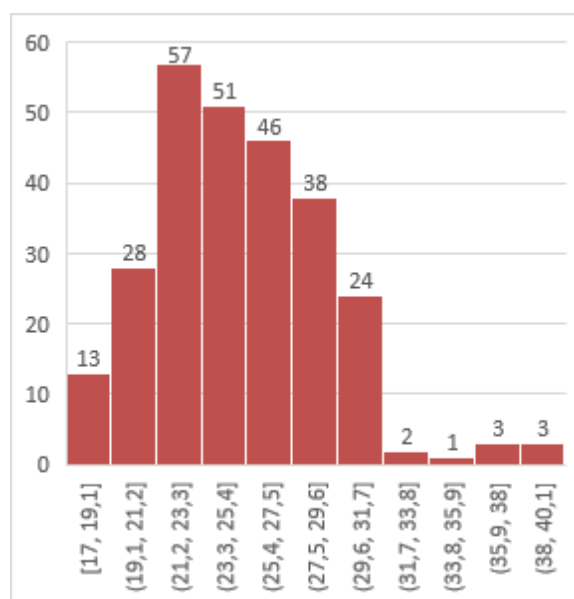
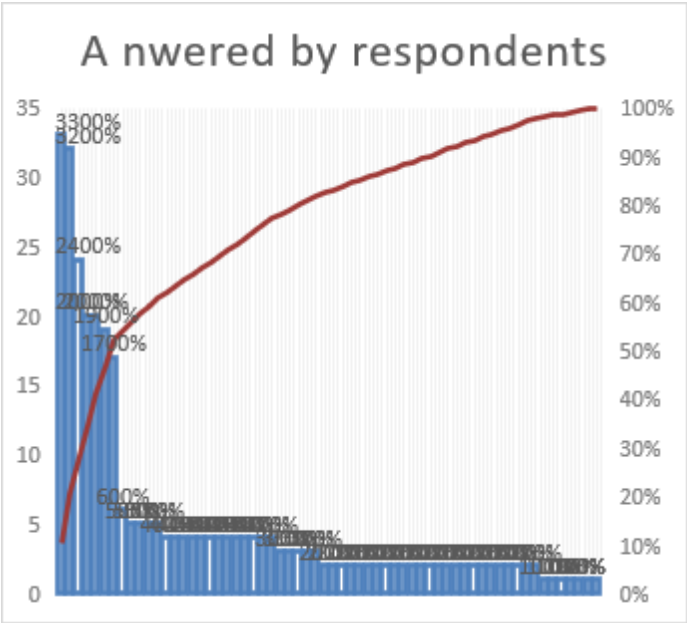


Table 2



Ordinal, categorical, and qualitative data will be presented using absolute frequencies (number of observations) and relative frequencies (percentages). Scientific novelty: a comprehensive modified treatment and preventive program will be developed

using traditional medicine methods for middle-aged postmenopausal women with arterial hypertension. of mahogany, mushroom preparations will be studied in postmenopausal women with arterial hypertension.

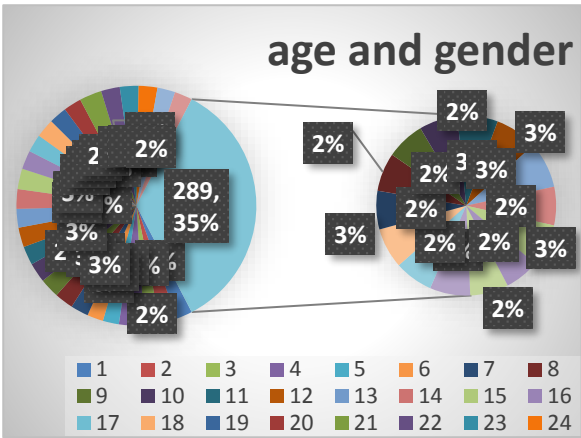


Table 3

Depending on the level of blood pressure, there are three degrees of hypertension:

- first: systolic pressure rises to 140-160 mmHg, and diastolic pressure - to 90-100 mmHg;
- second: systolic pressure 160-180 mmHg, diastolic - 100-110 mmHg;
- third: systolic pressure is above 180 mmHg, diastolic pressure is more than 110 mmHg.

These symptoms may vary in severity, depending on the individual characteristics of the body and are not specific to hypertension. It should not be forgotten that increased blood pressure in the absence of medical care can cause complications. Therefore, if the listed symptoms appear, you must immediately contact

experienced doctors to lower your blood pressure, diagnose and prescribe treatment, taking into account the nature and stage of development of this disease. To date, there is no data on the exact causes of this pathology. But numerous studies have shown a direct dependence of the occurrence of arterial hypertension on a number of factors. These factors include:

1. In age changes circulatory systems;
2. Prolonged stay in a stressful situation;
3. Hereditary _ predisposition;
4. Problems with excess _ weight;
5. Availability _ sugar diabetes;
6. Diseases _ thyroid glands;

7. B diseases adrenal glands and kidneys;
8. And redundant consumption of cookery salt
9. Reception _ hormonal contraceptives;
10. Smoking and abuse _ alcohol.

Every person who has problems with high blood pressure needs to take preventive measures:

- ☐ reduce alcohol consumption and stop smoking;
- ☐ monitor your diet and reduce salt intake;
- ☐ provide physical activity at least four times a week;
- ☐ strive to avoid stressful situations that cause arterial hypertension.

The appearance of arterial hypertension during menopause deserves special attention. In this case, the pathology becomes a consequence of exacerbation of emotional reactions and disturbances in the functioning of the nervous system, provoked by hormonal imbalance. Often, patients over 50–55 years of age suffer from this disease.

What exercise program is best for 45-50-year-old women?

Walking, jogging, swimming, and dance exercises are good ones to try. Aerobic exercise works the large muscles in your body, benefitting your cardiovascular system - and your weight. Work up to getting 25 or more minutes per session, 3 or 4 days a week. What exercises should older women do?

Examples of muscle-strengthening activities include carrying heavy shopping bags, yoga, pilates, lifting weights, working with resistance bands, and doing exercises that use your body weight, such as push-ups and sit-ups. Heavy gardening, such as digging and shoveling. Regular physical activity is vital for good physical and mental health. It helps improve your overall health and fitness, maintain a healthy weight, reduce your risk for many chronic diseases, and promote good mental health. For special gymnastic exercises of the Tai Chi system will be developed for middle-aged women with normal and overweight.

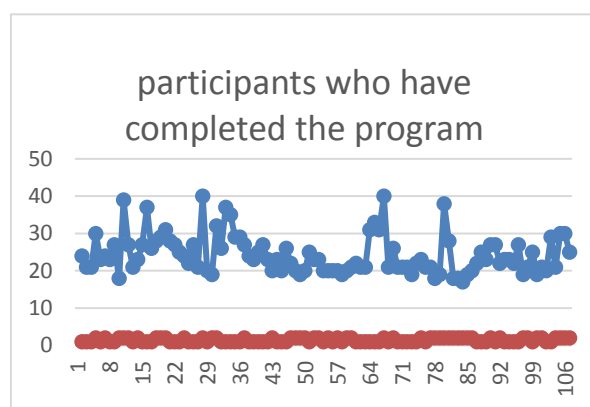


Table 4

Expected results: Our study is very relevant and the past program is useful for women. Engage in regular physical activity or exercise most days to protect against heart disease, diabetes, osteoporosis and other conditions associated with aging. Modified physical activity programs for middle-aged women with pathologies of the cardiovascular system have been introduced into the practical activities of outpatient specialists, and an algorithm for preventive measures has been developed using a comprehensive program of traditional medicine methods.

REFERENCES

1. Laws of the Republic of Uzbekistan, decrees and decisions of the president of the republic of Uzbekistan, decisions of the Cabinet of Ministers.
2. Tolipova JO Innovative technologies in teaching biology. Methodical manual. - T.: "Teacher", 2013. P.-34-58 Arzikulov RU Fundamentals of a healthy lifestyle. - T as hkent I- part. 2005. -256,

245- p.

3. Muminov H. A. healthy lifestyle is the science and practice of Health. - What? Republican Institute of Health and medical statistics, 2006. 40
4. Life book: An Encyclopedic Guide to young families. - T.: "East", 2011.
5. European Status Report on Alcohol and Health 2010 / World Health Organization 2010. - P. 25-36, 290-295.
6. Hegde S. Influence of physical activity on hypertension and cardiac 1.structure and function / S. Hegde, S. Solomon // Current Hypertension Reports. – 2015. – No. 17 (10). – P.77.
7. Tikhonova N. Arterial hypertension as a factor in the choice of conflict 2.resolution strategies by the older persons / N. Tikhonova, N. Rivozlantirish istiqbollari : muammo va Echimlar 2022, 174-178
8. Eraliyev E., Khudaykulova G., Usmanxodjaeva A.A.,

- Djuraeva N. /Role of rehabilitation in pandemic conditions"Eurasian journal of Medical and natural sciences" Volume 2 Issue 11, October 2022, p.17-20 Demina, L. Klimatchkaia, et al. // Family Medicine & Primary Care Review. – 2018. – No. 20 (4). – P.368-372. DOI:10.5114/fmpcr.2018.79349
- 9.** Artemieva, T. System of Amosov / T. Artemieva // Be healthy. - 2011. - No. 1. - S. 32-39. 14. Velensky M.Ya. _ Physical culture and healthy lifestyle of a student / M.Ya. Vilensky, A.G. Gorshkov. - M.: Knorus, 2013.- 68 p.
- 10.** Nazarova, EN Fundamentals of a healthy lifestyle / EN Nazarova, Yu.D. Zhilov . - M.: Academy, 2013. - 45 p.
- 11.** Sagatova DR European Journal of Molecular medicine. Volume 1 No.3. doi10.5281/zenodo.5040414. "Overview of the advanced pathogenetic features of the osteoarthritis
- 12.** Development of a physical activity program using traditional medicine methods for postmenopausal women with arterial hypertension. Novateur Publication 466, Sadashiv Peth, M.S.India-411030 Akhmedova D. Sh., Safarov A.J. novateurpublication.org