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The impact of education that focuses on prevention of coronary heart disease on health behaviours of older people

Summary

Cardiovascular diseases, including coronary heart disease is still the leading cause of illness, hospitalizations and deaths. A significant impact on the development and further progress of the disease are risk factors, the vast majority of them are dependent on lifestyle, so it can be controlled and modified. The risk increases with age, in recent years in developed countries, including Poland human life has become significantly longer . One of the most effective and economically beneficial methods that reduces the incidence of ischemic heart disease is health education. An increasing number of people in old age require access to effective educational programs.

The aim of the study was to assess the impact of educational programs conducted, to change health behavior in older people diagnosed with coronary heart disease.

Materials and methods of research

The study included 200 patients treated for ischemic heart disease. They were divided into two groups: educated (group A) and not educated (group B). Each group consisted of 100 patients. In the end, 93 people participated in the educational program, and in the control group 97 people remained. The study consisted of three stages.
The first was called the initial stage (each participant completed a questionnaire, made anthropometric measurements, blood pressure measurement, exercise test and laboratory tests). The second was the education stage (it included a group of 93 educated participants who were divided into four groups and conducted three educational meetings in each of the groups for 60 minutes). These meetings focused on the prevention of coronary heart disease and improving their health .The third stage was the control (6 months after the evaluation of the effectiveness of the education session conducted by all the methods used in the first stage). We used the following research tools: a questionnaire survey of its own authorship, questionnaire design behavior A Friedman and Rosenmana adaptation Wrześniowskiego, anthropometric measurements, exercise test, blood pressure measurement, laboratory tests.

Results

The average age of the study groups before the start of the education program was similar (group A – 68,98) (Group B – 69,92), the largest group of the total were people who were married (78,5%), the majority in group A and B were residents of urban areas (95% and 84%), had higher, secondary, and vocational education in group A respectively (29%, 44%, 27%) and in group B, respectively (39%, 39%, 22%). In total, women accounted for 45% of respondents, and 55% were men. After completing the educational program there was a slight decrease in participants in group A1, 93 people remained, and in group B1 97 remained, but this did not impact the analysis, the characteristics of the study population was similar to that in the first study.

Further analysis of selected food products consumption after the educational program showed definite improvement in group A1 compared to group A in terms of frequency of consumption of oily fish, where there was an increase from 12% (group A) to 59,1% (group A1) of the consumption of fish 3-2 times a week. Also fruit and vegetable daily consumption increased from 42% to 61,3% in groups A1 to A, comparable in groups B1 to B consumption of these products had increased from 42% to 44,3%. Skinny dairy products, were consumed every day by 11% of the patients in group A, in the next study group A1, dairy products daily consumption was done by 22,6% of respondents. The consumption of whole-grain cereal products was part of the daily diet for 30% of group A and group A1 for 44,1% of the respondents. Also there was an increase in the frequency of consumption of vegetable oils, grains and legumes, which the majority of respondents previously consumed rarely. Salt was also a restricted product between groups A to A1 from 48% to 15,1%. There was an increase in the number of respondents discarding visible fat from meats and sausages from 41% to 84,9% in groups A to A1. Statistically differences were noted between the groups A Vs A1 and A1 Vs B1 statistical significance in group B Vs B1, was not confirmed .

A statistically significant difference $p < 0,05$ was noticed by examining the types of forms of physical activity. Respondents with more interest began to use slow and fast walking, gymnastics, cycling and walking with sticks. In groups A to A1 there was

a switch to using the above parameters as follows: slow walking (from 73% to 91,4%); fast walking (from 16% to 31,2%); Gymnastics (from 26% to 40,9%); Cycling (from 4% to 55,9%); walking with stick (from 12% to 30,1%). In addition, the percentage of physically active people, frequency and duration of physical exercises, particularly among active exercisers increased. It was shown by $p < 0,05$.

Mean values made again, using exercise test in groups A to A1 improved slightly from 6,58 MET to 6,86 MET and the minimum test duration increased from 2,6 MET to 3,2 MET. However, there was a statistically significant difference, white $p<0,05$ was found between the groups ,different percentage in the dependence of people who performed effort > 5 MET <10 MET (from 21% to 45,1%).

In the analysis of parameters of systolic and diastolic pressure due to the value of the correct and incorrect demonstrated a statistically significant difference. In groups A to A1 the percentage of people with abnormal pressure both systolic and diastolic blood pressure decreased. In scheduled BMI and WHR no differences were observed, however in group A1 there was a decrease in the percentage of obese people ,second and third degree respectively (from 8% to 5,4%, from 6% to 4,3%) and a slight increase in the percentage of people with normal weight (from 14% to 15,1%).

The program contributed to the improvement in triglycerides, where groups A to A1 showed to $p < 0,0$ and a significant improvement in HDL in the group A1 in comparison with B1. Rating other parameters of lipid and glucose showed no statistically significant difference although the results obtained from the study in the second round showed a slight decrease.

The study group was characterized by a large group of smokers getting sick. Among some the smoking habit remained despite getting four persons on education, those that stopped smoking (7,0% - group A; 3,2% - the group A1). There were also changes in the frequency of alcohol consumption in groups A to A1. There was a decrease in the percentage of people who drunk several times a week, once a week, several times a month respectively (from 5% to 2,2%, from 9% to 4,3%; 24% to 18,3%).

Conclusions

1) Preliminary analysis of prior educational health behaviors revealed numerous irregularities resulting from low levels of healthy practices among the targeted population.

2) Statement of the elderly, patients with diagnosed coronary heart disease, improper health behavior, showed the need for the construction of outstanding educational programs fit for the needs of this age group.
3) The educational program conducted contributed significantly to changes in healthy behaviors in the level of physical activity, which has significantly improved and increased positive behavior habits.
4) After completing the training program beneficial changes although not statistically significant were observed in laboratory tests, degree of obesity, reducing the frequency of drinking alcohol, stopping smoking, and a significant difference was observed in the values of systolic and diastolic blood pressure, triglycerides and HDL cholesterol.
5) The program included a comprehensive education on risk factors for cardio - vascular patients among the elderly.
6) It can therefore be argued that the comprehensive education conducted contributed to the reduction of risk factors in a group of elderly outpatients.
7) Creation of permanent counseling centers focusing on strengthening of a healthy lifestyle in secondary prevention appear to be reasonable.
8) In the work was shown that the effective health education conducted by nursing staff is possible.