



EATING HABITS OF THIRD-AGE PERSONS

PREHRAMBENE NAVIKE OSOBA TREĆE ŽIVOTNE DOBI

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ABSTRACT

The conducted research aimed to determine the dietary habits of elderly people. The research was conducted on a sample of 237 respondents differentiated by gender, 133 males and 104 females and by age 65 - 89 years. Data processing was done in the SPSS program and descriptive and comparative statistics were used to obtain data. Descriptive parameters were created for the analysis of the factual state of the respondents. The collected data were analyzed using the *Microsoft Excel 2007 tool*, and are presented in tables. It is evident that the health status of the respondents worsens with age, and dietary habits change in a positive sense with age. Given that the world's population is aging, it is necessary to emphasize attention to certain needs and challenges faced by many older people. Nutrition is an important element of health in the elderly population and affects the aging process. Although it is a study on a relatively small number of subjects, in comparison with a larger European study, it becomes relevant for proving the present problem of malnutrition among elderly patients. It is necessary to take all measures to increase the awareness of health workers about this problem in order to successfully prevent it or stop it in time. Looking at the entire sample of respondents globally, we can conclude that overall, a significant number of respondents do not pay enough attention to the structure of foods in their diet and water consumption. In line with previous research, the results of this study highlight the importance of dietary habits in creating a healthy lifestyle and preventing chronic non-communicable diseases.

Key words: eating habits, age, respondents, differences, lifestyle

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SAŽETAK

Provedeno istraživanje je imalo za cilj utvrđivanje prehrambenih navika osoba treće životne dobi. Istraživanje je provedeno na uzorku od 237 ispitanika diferenciranih po spolu, 133 muškog spola i 104 ženskog spola i po uzrastu 65 – 89 godina. Obrada podataka je urađena u SPSS programu i za dobijanje podataka korišćena je deskriptivna i komparativna statistika. Urađeni su deskriptivni parametri za analizu činjeničnog stanja ispitanika. Prikupljeni podaci analizirani su uporabom alata *Microsoft Excel 2007*, te su tablično prikazani. Evidentno je da se zdravstveno stanje ispitanika pogoršava sa godinama starosti, a prehrambene navike se mijenjaju u pozitivnom smislu sa dobnom starošću. S obzirom da svjetska populacija stari, potrebno je naglasiti pažnju prema određenim potrebama i izazovima s kojima su suočeni mnogi stariji ljudi. Prehrana je važan element zdravlja kod starije populacije i utiče na proces starenja. Iako je riječ o istraživanju na relativno malom broju ispitanika, usporedbom s većom europskom studijom, ono postaje relevantno za dokazivanje prisutnog problema malnutricije među starijim pacijentima. Potrebno je preduzeti sve mjere za povećanje svijesti zdravstvenih radnika o tom problemu kako bi se isti uspješno prevenirao ili zaustavio na vrijeme. Gledajući globalno cijeli uzorak ispitanika, možemo konstatovati da u cjelini značajan broj ispitanika ne vodi dovoljno računa o strukturi namirnica u prehrani i konzumiranju vode. U skladu sa dosadašnjim istraživanjima i rezultati ovog istraživanja ističu značaj prehrambenih navika u kreiranju zdravog životnog stila i preveniranju hroničnih nezaraznih bolesti.

Ključne riječi: prehrambene navike, starost, ispitanici, razlike, životni stil

INTRODUCTION

Old age is the last developmental period in life that can be defined according to chronological age, social roles or functional status. According to the criteria of the World Health Organization, the chronological age of 65 years is accepted as the age limit in the definition of an elderly person and is divided into: early old age - 65-74 years, middle old age - 75-84 and old age - over 85 years. Aging is a basic biological process that occurs at different speeds in different people. Significant factors in this process are heredity, nutrition, lifestyle, diseases and external influences (e.g. socioeconomic status, culture, climate). The elderly population is more likely than the younger population to have numerous chronic health problems and impaired functional capacity, which is closely related to their nutritional status (Bolanča, 2013). This population may experience certain nutritional deficiencies that are mainly secondary in nature and are most often the result of a disease. As older people generally consume a greater number of medications, they may be at increased risk for nutritional deficits caused by medications (Galić et al., 2013). Elderly people are often prone to malnutrition due to lack of appetite, insufficiency of the chewing mechanism, lack of means to ensure good nutrition, and less often they are also prone to obesity. Considering these numerous potential risks for the state of nutrition, and most often for malnutrition, proper nutrition in old age is extremely important, and it takes on a special dimension when a person enters old age (Labor, 2019).

Basic dietary habits and maintaining energy balance are the basis for the prevention and control of various chronic non-communicable diseases. Dietary habits and nutritional status

should be regularly monitored to detect older adults with appetite disorders who are at risk of malnutrition (Stojisavljević et al., 2004). In the absence of effective medications for anorexia, the best effect can be achieved with a multidimensional personalized approach that includes counseling, changes in eating habits, targeted nutritional supplements, and psychosocial support (Mikić et al. 2017).

Nutrition is one of the important links in the chain of significant components of a healthy lifestyle, as well as a link that significantly determines sports and recreational results (Mikić et al., 2010). Therefore, it is important that recreational users pay attention to the calorie intake in their body, and that they try to eat as healthily as possible, i.e. that the food they eat contains enough carbohydrates, proteins, fats, vitamins and minerals.

Proper nutrition should satisfy a person's daily needs for energy, building blocks and protective substances. Planning a proper, well-balanced diet, aims to achieve that energy value in the nutritional structure of an individual or population that can improve health and prevent disease (Mikić et al. 2006).

Nutrition is an important element of health in the elderly population and affects the aging process. The prevalence of malnutrition, which represents any nutritional imbalance, is increasing in the aging population and is associated with: decline in functional status, impaired muscle function, reduced bone mass, immune dysfunction, anemia, reduced cognitive function, poor wound healing, delayed recovery from surgery, higher rates of rehospitalization, and mortality. Elderly people often have reduced appetite and energy consumption, which, together with a decline in biological and physiological functions such as reduced lean body mass, changes in cytokine and hormone levels, and changes in electrolyte regulation, delays gastric emptying and reduces the sense of smell and taste. In addition, pathological changes of aging such as chronic and psychological diseases play a role in the complex etiology of malnutrition in older people. Although it is more common to talk about growing malnutrition in the elderly, obesity is also often present. With age, body fat increases and lean mass decreases due to loss of skeletal muscle. The cause of fat increase is multiple, and includes: reduced physical activity, reduced secretion of growth hormones, reduced level of sex hormones and reduction of basal metabolism. The distribution of fat in older people is different from that of younger people. A greater proportion of body fat is located within the liver and abdomen, which is associated with insulin resistance and a higher risk of ischemic heart disease, stroke and diabetes. Nutritional assessment is important for the recognition and treatment of elderly people at risk of malnutrition (Ahmed, 2010).

RESEARCH METHODOLOGY

Respondent sample

237 respondents participated in the research, of which 133 were male and 104 were female. The only inclusion criterion was age over 65 years. All respondents voluntarily participated in the research.

Sample variables

The sample of variables for the purposes of this research consisted of data from an anonymous written questionnaire. In the aforementioned research, the goal was to look at their eating habits in addition to general data on citizens of the third age collected through two (2) parts of the questionnaire. The survey questionnaire is structured in 2 parts and 7 particles (variables):

1. Part: Personal data

In this part of the survey questionnaire, respondents answered questions about personal information (2 items), such as age and gender.

2. Part: Eating habits

In this part of the questionnaire, respondents answered (5) questions about their eating habits, circling YES or NO.

Personal data variables

- ❖ Age of respondents
- ❖ Gender

Dietary habits variables

- ❖ Do you eat healthy?
- ❖ Do you take care of the calorie intake in your diet?
- ❖ Do you take care of the structure of the foods (per serving) in your diet?
- ❖ How many meals do you consume during the day
- ❖ Drinking water throughout the day.

Data processing was done in the SPSS program and descriptive and comparative statistics were used for the obtained data. Descriptive parameters were created for the analysis of the factual situation of the respondents. The collected data were analyzed using the *Microsoft Excel 2007 tool*, and presented tabularly and graphically.

RESULTS AND DISCUSSION

Personal data of the respondent

In this part of the work, the personal data of the respondents are presented. Personal data refer to the age and gender of the respondents (Table 1). Respondents are aged 65 - 89 years, of which 133 are male and 104 are female, which is a total of 237 respondents.

Table 1. Age and gender of respondents - total

Years	Number Respondents		Total	%
	Male	Female		
65-89	133	104	237	100%

Eating habits

An important part of a healthy lifestyle is the implementation of a proper or healthy diet. Food is our daily need and it is very important what kind of food, how much and when we enter the body. Dietary habits are an important determinant in the development of risk or protective factors for health and CVD, and are largely the result of the cultural, socio-economic and agricultural environment (WHO, 2002). Basic dietary habits and maintaining energy balance are the basis for the prevention and control of various chronic non-communicable diseases. Nutrition is one of the important links in the chain of important components of a healthy lifestyle - lifestyle, as well as links that significantly determine the sports and recreational result. Some respondents engage in sports and recreational activities in order to reduce subcutaneous fat, maintain fitness and shape, or increase muscle mass. Therefore, it is important that recreational users take care of their calorie intake, and that they try to eat as healthy as possible, that is, that the food they eat contains enough carbohydrates, proteins, fats, vitamins and minerals. Proper nutrition should satisfy a person's daily needs for energy, building blocks and protective substances. Planning a proper, well-balanced diet, aims to achieve that energy value in the nutritional structure of an individual or population that can improve health and prevent disease. Individual The goals in planning proper nutrition are clearly different from population goals. When setting population goals, we start from the data on the health status of the nation that we have, from the established mortality and morbidity rates and other socio-medical indicators of disease that directly or indirectly correlate with nutrition (Stojisavljević et al., 2004).

The results from (Table 2.) show that 160 or 64.5% of respondents declared that they eat healthily. Thus, 89 or 61.6% of the male respondents declared that they eat healthily, while 71 or 68.3% of the female respondents declared that they eat healthily. Therefore, about 7.0% of female respondents eat healthier than male respondents. Which confirms that a significant number of respondents are paying attention about healthy eating. The results presented in (Table 2) show that 187 or 78.9% of respondents take care of the calorie intake in their diet. Also, 97 or 72.5% of male respondents pay attention to the calorie intake in their diet, while 90 or 86.5% of female respondents pay attention to the calorie intake in their diet.

Therefore, about 14.0% of female respondents take more care about calorie intake compared to male respondents. The results show that the majority of respondents take care of the calorie intake in their diet. When planning your diet, the first step is to calculate your energy needs. Human energy needs are defined as "energy intake balanced with energy expenditure, which should maintain the energy balance of a person, whose nutrition and body composition, as well as the level of physical activity are completely in line with good health. If it is about children, pregnant or lactating women, energy needs include the energy needed for growth

and tissue growth or milk secretion" (WHO, 1985). Energy balance or balance is a state in which the body mass remains the same, because the amount of energy that is taken in through food is equal to its consumption. The organism meets its daily energy needs by consuming carbohydrates, fats, proteins and alcohol (Stojisavljevi et al., 2004).

Table 2. Eating habits age 65-89 (older age-third age)

65-89	MALE					FEMALE					TOTAL (Σ)				Σ
YEAR	YES	%	NO	%	Σ	YES	%	NO	%	Σ	YES	%	NO	%	
Healthy food	89	61.6	51	38.4	133	71	68.3	33	31.7	104	153	64.5	84	36.5	237
Calories	97	72.9	36	27.1	133	90	86.5	14	13.5	104	187	78.9	50	21.1	237
Food structure	39	29.3	94	70.7	133	54	51.9	50	48.1	104	93	39.2	144	60.8	237
Water	46	34.6	87	65.4	133	59	56.7	45	43.3	104	105	44.3	132	55.7	237

To the question "do you take into account the structure of food (per serving) in your diet", 93 or 39.2% of respondents answered positively, of which 39 or 29.3% were male and 54 or 51.9% were female. It is obvious that female respondents are significantly more careful (about 22.6%) about the structure of food in their diet compared to male respondents. However, looking globally at the entire sample of respondents, we can state that overall, a significant number of respondents do not take sufficient account of the structure of food in their diet. Bearing in mind that this is one of the postulates of a healthy diet, in addition to moderation and variety of food, it is clear that the majority of respondents do not take into account the structure of the foods they simultaneously consume in their diet and that in this sense it is necessary to warn the respondents that they must be further educated and familiarized with the principles and recommendations of a healthy diet. It is considered that there are no healthy or unhealthy foods. It is only a question of selection, combination and amount of food. However, it is worth mentioning that the Mediterranean diet has become a kind of standard of proper nutrition, since it is also recommended by the *World Health Organization* as a prototype food for combating chronic degenerative diseases (Galić et al., 2013). In this diet, carbohydrates from cereals, vegetables and fruits are the basis. Scientific research has confirmed that this diet contributes to health. Diversity and moderation is the key to a healthy diet (Mikić et al., 2006). No food contains all the essential nutrients in the amount we need, so we should eat a variety of foods to ensure proper nutrition. The more varied the food, the less likely it is that a deficiency or an excess of certain nutrients will develop. Each day you should choose food ingredients from several main groups. These are: cereals, vegetables, fruits, milk and meat. Of all the elements, substances and compounds in the human body, water is by far the most abundant. During the aging process, its amount decreases, and in older people, more than half of the body mass is made up of water, and the thesis that "water is not only the mother but also the matrix of life" is accepted with certainty (Szent-György's position quoted by Karmas) (Mikić, Bajramović, 2005). It is essential for the creation and maintenance of life in general. The results shown in (Table 2) show that 105 or 44.3% of the respondents consume more than two liters of water, of which 46 or 46.6% are male and 59 or 56.7% are female. Looking at the entire sample, we can conclude that about 50% of the

sample consumes a sufficient amount of water during the day. Given the results obtained, it can be concluded that a significant number of respondents do not consume a sufficient amount of water during the day. Here too, it was shown that the female respondents somewhat more responsible when it comes to water consumption compared to the respondents. Looking globally at the entire sample of respondents, we can state that overall, a significant number of respondents do not take sufficient account of the structure of food in their diet and water consumption. Bearing in mind that one of the postulates of a healthy diet is, in addition to moderation and variety of food, it is clear that the majority of respondents do not practice a healthy diet and that in this sense it is necessary to warn the respondents that they must be additionally educated and familiarized with the principles and recommendations of a healthy diet.

Eating a meal

Modern times impose a certain way of life, the pace is faster than ever before, stress and pollution of the environment are our everyday life. Free time is getting less and less, and eating healthy is an increasing challenge. The most ideal would be to divide the daily meals into three larger and two smaller meals. Meals should not be "skipped" and should be coordinated with daily activities. The optimal time between meals is four to five hours. In this way, the meals are evenly distributed throughout the day. Breakfast is the most important meal after an overnight fast and a key factor in weight control.

The results presented in (Table 3) show that the largest number of respondents 118 or 49.8% consume three meals a day, 65 or 27.4% consume two meals a day, 30 or 12.7% consume four meals a day. Observing the distribution of meals during the day by gender, we can conclude that male respondents mainly consume two, three or four meals a day, and female respondents three, four, but also five meals a day.

Table 3. Eating habits - How many meals do you consume during the day (65-89 years old - older age - third age)

65-89. YEAR	MALE		FEMALE		TOTAL (Σ)	
		%		%		%
1 meal	1	0.8%	0	0%	1	0.4%
2 meals	41	30.8%	24	23.1%	65	27.4%
3 meals	68	51.1%	50	48.1%	118	49.8%
4 meals	15	11.2%	15	14.4%	30	12.7%
5 meals	7	5.3%	15	14.4%	22	9.3%
6 meals	1	0.8%	0	0%	1	0.4%
7 meals	0	0%	0	0%	0	0%
8 meals	0	0%	0	0%	0	0%
Total	133	100%	104	100%	237	100%

What is characteristic of older people is that they are more inclined to traditional habits and in the largest percentage they declare for three meals a day, but even there there are modifications with two or four meals a day. Looking globally at the entire sample of

respondents, we can state that overall, a significant number of respondents do not pay enough attention to the structure of food in their diet and water consumption. Bearing in mind that one of the postulates of a healthy diet is, in addition to moderation and variety of food, it is clear that the majority of respondents do not practice a healthy diet and that in this sense it is necessary to warn the respondents that they must be additionally educated and familiarized with the principles and recommendations of a healthy diet. When it comes to the dietary habits of the respondents, when it comes to the entire sample, about 50% of the respondents declared that they eat healthily and take care of their calorie intake. The results are similar with water consumption. However, when it comes to the structure of the foods consumed, the results are much worse, because somewhere around 30% of the respondents declared that they take care of the structure of the foods.

CONCLUSION

The main objective of this research is to determine the dietary habits of elderly people. The research was conducted on a sample of 237 respondents differentiated by gender, 133 males and 104 females and by age 65 – 89 years. A sample of seven variables for the purposes of this research was extracted from an anonymous survey questionnaire. The sample of variables is structured in two parts: personal data of the respondents (2), and dietary habits of the respondents (5) variables. An important part of a healthy lifestyle is the implementation of a proper or healthy diet. Food is our daily need and it is very important what kind of food, as well as when we take it into the body. A balanced diet does not mean driving for dozens of kilometers to some isolated food store in search of products obtained through biological means, but a balanced diet means eating a variety of healthy foods (from all food groups - the healthy food pyramid), eating food in moderate amounts, i.e. as much as the body needs, and eating food at approximately the same time every day. Proper nutrition represented by nutritionism (it differs from the term healthy diet) based on scientific knowledge enables a longer, healthier and better life for individuals, groups with special nutritional needs and entire populations. Looking globally at the entire sample of respondents, we can state that overall, a significant number of respondents do not pay enough attention to the structure of food in their diet and water consumption. Bearing in mind that one of the postulates of a healthy diet is, in addition to moderation and variety of food, it is clear that the majority of respondents do not practice a healthy diet and that in this sense it is necessary to warn the respondents that they must be additionally educated and familiarized with the principles and recommendations of a healthy diet. What is characteristic of older people is that they are more inclined to traditional habits and in the largest percentage they declare for three meals a day, but there are also modifications with two or four meals a day. It has been observed that the choice of food and eating habits of the elderly is influenced by socioeconomic status. Food price is a factor that influences food decisions made by older adults and is likely to have greater meaning for individuals who come from areas of higher poverty levels. Previous studies have found that people with lower incomes ate less fruits, vegetables, milk, meat, poultry and fish than adults with higher incomes. During the survey, it was discovered that the respondents mostly manage to provide a somewhat healthy diet with their own pension, but due to small pensions and often high supplements for medicines, they very rarely eat

expensive foods such as high-quality fish, oil and nuts, which contain numerous macro and micronutrients important for their health. As a result, their meals are often monotonous, which is by no means good, and they should eat a varied diet as much as possible. By harmonizing the diet with the overall condition of an elderly person, it resulted in a good nutritional status and a better overall health outcome.

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