

Nutrition And Lifestyle Habits

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Abstract: *Lifestyle habits mostly affect the state of nutrition in both children and adults. Insufficient sleep, poor nutrition, insufficient physical activity, suboptimal calorie intake have led to the fact that in some countries obesity is a bigger problem than hunger, which further entails certain health problems. Children who were taught to eat grains, vegetables, and fruits in childhood, that is, to eat healthily, have a lower risk of diseases such as type 2 diabetes, cancer, heart disease, and diseases closely related to obesity. The nutrition indicator is one of the indicators of obesity that is often used, but it is not relevant, so the circumferences of certain parts of the body are most often taken. In addition to the risk of disease, bad lifestyle habits also affect the growth and development of children. The set of intentions that are represented in the daily diary are presented in the food pyramid, which aims to regulate based on energy intake. Based on the results of the research, it is recommended that physical activity of 60 minutes a day can lead to the maintenance of body mass and thus to the reduction of the possibility of diseases.*

Keywords—obesity, children, BMI, nutritional, life style

1. INTRODUCTION

When we talk about nutrition and lifestyle habits, it is very important to mention the growth and development of children, which can be defined as a quantitative and qualitative process. The quantitative process refers to the increase of certain dimensions of the body, while the qualitative process refers to changes related to psychological changes as well as changes in certain tissues and organs. Qualitative changes mostly relate to the maturation of the child itself and changes in the structures of individual tissues, organs of the whole organism [1]. These processes last from the birth of the child until the age of adolescence. In addition, there is also a genetic factor that mostly affects the speed of maturation and the final level of growth and development, which is closely related to the genetics of the parents. In addition to genetics, there are influences of gender, race, diet, disease and environmental factors [2]. Gender factors refer to the average length and weight of children at birth, where male children are heavier and taller than female children at birth, but with the first year of life, this difference is lost, which appears again during puberty. Race factors and environmental conditions relate to climatic conditions. Nutritional factors are very important and if they are not optimal, they inhibit growth and development [3]. In addition to these factors, growth and development are largely influenced by anthropological features, which are measured on the skeletons or the human body. Morphological features include bone growth in length and width, muscle mass and subcutaneous fat tissue. In every educational process, it is necessary to carry out measurements in order to establish the morphology. The morphological structure of man consists of 4 features, namely: the longitudinal dimensionality of the skeleton, which is responsible for the growth of the bones in length (body height, arm length, leg length, etc. are measured), the transfacial dimensionality of the skeleton, which is responsible for the growth of the bones in width (the width of

the shoulders, pelvis, hips, and diameter are measured elbow, etc.), mass and voluminousness of the body, which is responsible for the total mass and girth of the body (includes the measurement of body weight, circumference of the chest, abdomen, upper arm, forearm, etc.), subcutaneous fat tissue, which is responsible for the total amount of fat in organism (estimated by skin folds on the upper arm, forearm, skin fold on the back, abdomen, upper leg and lower leg) [4]. During life, a person can influence some factors while others cannot. Factors that can be significantly influenced by physical exercise are the mass and voluminousness of the body, while other factors cannot, such as longitudinal and transferal dimensionality. Morphological changes are also influenced by ossification and muscularization. Ossification is a process that begins in the prenatal period and in which cartilaginous tissue gradually turns into bone. The ossification process itself takes place unevenly, from the third to the fifth year, the ossification of the skull and the entire bone system occurs [5]. In addition to the skeletal system, a very important role is played by the muscular system, that is, the process of muscularization itself, where the muscle mass increases as well as the muscle structure itself. In children, larger muscle groups develop first and then smaller ones. Growth and development of children is a very slow process until puberty. Body weight and level of nutrition also have an impact on physical development, they are closely correlated and depend on several factors [6]. The degree of nutrition represents the difference between consumed and spent calories, which result in the creation of excess fat tissue, i.e. excessive body weight. An increase in the size of fat cells is called hypertrophy, and an increase in the number of fat cells is called hyperplasia. An increase in body weight occurs due to the influence of both or a combination. Hyperplasia has the most impact in adolescence, while hypertrophy of fat cells can occur at any time of life. Hyperplastic obesity occurs in the first 20 years of life, and for this reason, losing body weight or fat cells is difficult to achieve in hypertrophic obesity. So, for this reason, the fatness

of a child determines the fatness of an adult, that is, some studies have shown that, in addition to hyperplasia and hypertrophy, there are certain factors and patterns of behavior that influence a child's eating habits or physical activities, which are closely correlated with body mass, or the degree of nutrition [7]. In order to avoid the accumulation of fatty tissue and the creation of excess weight, it is necessary to maintain a proper diet. Proper nutrition can be defined as a method of prevention and a health method that represents the foundation of optimal health. In addition to preventing the accumulation of excess weight, a healthy diet can also prevent diseases such as stroke, pressure, diabetes. In addition to the primary factors of proper nutrition, healthy nutrition is important for proper physical and spiritual development of children and more joy and love in mutual communication [8].

2. RESULTS AND DISCUSSION

2.1 Nutrition children

According to the definition of the World Health Organization (WHO), excessive accumulation of fat, i.e. body weight, can endanger health. For the simplest representation of excess body mass and obesity, the body mass index is used, which represents the relationship between body mass and body height [9]. The definition of body mass index is the ratio of body mass to the square of body height in meters (kg/m²). In children up to 18 years of age, the ratio of height and weight is expressed in percentiles, so that children between the 85th and 95th percentile have excessive body mass, and if they have more than the 95th percentile, these children are considered obese [10]. Obesity is a major health problem today in the 21st century. [41-50]. Children aged 6 to 19 are overweight (31%), i.e. one third. Certain studies show that 10-30% of Europeans aged 7-14 and 25% between 14 and 17 are overweight. Lifestyle changes have caused obesity to increase worldwide, and since 1980, the number has doubled. In some countries, obesity is a bigger problem than hunger. In the last few years, there has been a sudden increase in obesity among children. In Canada, among boys, it increased from 11% to 30%, while in Brazil, it increased from 4% to 14%. According to the WHO methodology, the frequency of pre-obesity and obesity in preschool children in the world is the same as in our country. In previous studies related to nutrition, habits related to nutrition were observed (irregular eating and skipping meals, excessive eating and choice of foods), physical activity, time spent in front of video games, television, telephone, the influence of factors of educational institutions (physical activity time, meals, etc.). In obese children, there is a possibility of an increase in breathing difficulties, cardiovascular diseases, fractures as well as psychosocial problems, where certain studies indicate that a large number of obese people suffer from type 2 diabetes, cardiovascular diseases and some types of cancer [11]. For this reason, the greatest efforts in solving childhood obesity should be in children in the first days of their lives. In addition to the children themselves, the environment as well as the parents

have a very important task in maintaining body weight, as they create eating habits in children.

2.2 Nutrition indicator (BMI)

The body mass index (BMI), also known as the Quetelet index, created in the 19th century, is used to assess the state of nutrition. The formula for calculating the body mass index is a person's body mass in kilograms divided by the square of the height in meters. The body mass index is largely related to the amount of fat tissue and is not relevant when calculating because it does not take into account physical activities, gender, and the size of certain parts of the body. For this reason, in order to obtain more accurate results during research, it is necessary to calculate the waist circumference in addition to the body mass index calculation. Overweight and obesity represent a great danger of some diseases and are divided into three levels: undernutrition, normal weight, overweight and obesity which is divided into three levels [12].

NUTRITION STATUS	VALUE (BMI)
Malnutrition	18.5 kg/m ²
Normal TM	18.5-24.9 kg/m ²
Excessive TM	25-29.9 kg/m ²
Obesity 1st degree	30-34.9 kg/m ²
2nd degree obesity	35-39.9 kg/m ²
3rd degree obesity	>40kg/m ²

*BMI = body mass index, TM = body mass Table 1. Display of body mass index

In children and adolescents, the state of nutrition is calculated based on percentile norms: malnutrition < 5 percentile, normal 5 - 85 percentile, overweight 85 - 95 percentile, obesity > 95 percentile [13].

As the body mass index increases, the risk of disease increases. Health risks begin to appear in the range between 25 and 30 kg/m², i.e. 85-95 percentile, where there is also an important difference between muscle mass and fat mass that the body mass index does not show. In addition to this shortcoming, this method also has a shortcoming in some epidemiological population studies, where people in many cases overestimate or underestimate their own weight or height [14].

2.3 Diet and lifestyle habits

Lifestyle habits as well as nutrition are very important factors that affect the quality of life. Improper nutrition and physical inactivity seriously threaten the physical and psychological development of both children and adults. According to the results, overweight is found in 20-30% of children in Europe, where the fact appears that obese children remain obese in adulthood and are prone to diseases such as diabetes, cancer and cardiovascular processes, which are fatal in 86% of cases. A healthy lifestyle affects the regulation of the percentage of diseases, even in 60% of cases [15]. Proper nutrition implies optimal daily intake of nutrients that are necessary for maintaining the physiological functions of the body and health. Regular physical activity is the basis of a

healthy life, these are factors that influence health improvement and as such should be adopted at an earlier age. However, the entire system, i.e. the chain of life habits and proper nutrition is disrupted by the economic interests of the individual [16]. The best example is the junk food offered to children in schools. Eating sandwiches, drinking frozen drinks, skipping meals, eating "fast" food are alternatives for children's school lunches. Such a diet is unhealthy, poor and can greatly affect the quality of life, which is reflected in dissatisfaction with one's appearance, and for this reason, younger people start going on diets [17]. Adolescence is a very important period, where lifestyle, habits and behavior patterns are formed. Rapid growth and development during that period creates a greater demand for energy and nutrients. If we have bad habits and a bad diet, as we mentioned, diseases and health problems will occur, and in addition, these defects will continue into adulthood [18]. The family plays a very important role in the nutrition of young people, and it is believed that young people consume about 60% of their daily energy needs, which are stored at home. The average value of BMI in 2006 for adults in Serbia was 26.7 kg/cm², 27 kg/cm² for men and 26 kg/cm² for women. In 2010, the prevalence of overweight and obesity in children was estimated at 11.7% in developed countries and 6.1% in developing countries [31-38]. Based on various assessments of eating habits and nutritional status, there are preventive measures to reduce the occurrence of eating disorders and diseases caused by improper nutrition. One of them is regular physical activity (exercise). Physical activity is a regulator for the amount and type of dietary intake [19]. For teenagers and children, 60 minutes of physical activity per day will lead to maintaining body mass. If they took in too much energy through food and did not have physical activity, they would very quickly become obese, that is, gain weight, and obesity can have serious consequences for health and the body [20].

2.4 Food pyramid

The food pyramid represents a set of intentions that are represented in the diet every day. The first healthy food pyramid was published in 1992 and modified in 2005. The modification resulted in the creation of 12 new pyramids that are divided based on energy intake (1000, 1200, 1400, 1600 and up to 3200 kcal per day). In addition to this modification, a transition from two-dimensional to three-dimensional followed. In the daily diet, the foods that should be included are: cereals, vegetables, fruits, milk and milk products, meat, fish, eggs, nuts, fats and nutritional supplements [21].

2.4.1 Cereals

They represent the basis of nutrition. It is recommended that the daily intake be between six and eleven servings from the cereal group. The recommended amounts per meal are between 115-225g for men and 85-170g for women. The amount of intake depends on the amount of activity, gender and age. They represent the main source of energy for the body because they contain a high amount of fiber and in addition have an impact on digestion and detoxification [22]. It is rich

in carbohydrates (60-70%) and less rich in proteins and essential amino acids, and for this reason they should be combined with foods of animal origin [38-41]. Cereals can be divided into whole grains and their products, as well as processed grains and their products. Fruit i.e. whole grains are full and consist of three parts, namely (husk, endosperm and germ), and in processed ones, the germ and shell are removed and only the endosperm remains. For the most part, they are a source of food fibers (soluble and insoluble) that greatly influence the improvement of human health, and in addition, they are rich in B vitamins (thiamine, riboflavin, niacin and folic acid) as well as minerals (magnesium and selenium) [23]. Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersteds. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity that you use in an equation.

2.4.2 Vegetables

Vegetables are the basic component of any healthy diet. It is classified into 5 groups (dark green (broccoli, spinach, kale) - orange vegetables (pumpkin, carrot) - starchy vegetables (potatoes, corn, peas) - dried legumes (beans, soybeans, lentils) - other vegetables (cucumbers, eggplant). It is rich in fiber, minerals and vitamins and is a great source of nutrients (vitamin A, vitamin E, vitamin C and potassium). By combining different types of vegetables, we supply our body with the necessary nutrients [24]. When buying, avoid light-colored vegetables and after of that and frozen, and when seasoning the meal, use a cooking method where most of the harmful substances are removed, i.e. reduced.

2.4.3 Fruits

In addition to vegetables and fruits, it represents a very important group, that is, it occupies a special place in the pyramid of proper nutrition. It is rich in carbohydrates, vitamins, minerals, fiber, water and organic acids. People who consume more vegetables and fruits will have a reduced risk of cardiovascular disease, type 2 diabetes, colon, stomach and mouth cancer, and even some chronic diseases [25]. Most fruits contain 80-93% water, 3-4 organic acids, 15-20% carbohydrates and about 1-5% protein, with the exception of nuts (almonds, hazelnuts, cashews, walnuts, carob). Due to the large amount of water, it is very refreshing and low in calories. It has a great effect on strengthening the immune system (strawberries have a large amount of vitamin C, iron and carotene, which have a favorable effect on the immune system, cherries have an effect on the quality of bones and teeth, pears are ideal for the brain because they contain silicic phosphoric acid, while apples with their vitamin C pectin and potassium protect the intestines and blood vessels. Nuts are rich in vitamin E, which is a strong natural antioxidant, for this reason it must play a significant role in the diet [26].

2.4.4 Milk and milk products

According to Hippocrates, milk is the most perfect food in the world. Dairy products include yogurt, cheese, milk and other products based on the aforementioned products. The substances found in dairy products are very nutritious and play an important role in maintaining the health of the body, these nutrients include calcium, potassium, vitamin D and proteins. Calcium is mostly found in Parmesan cheese and milk, which is the basis for the growth of bones, teeth, functioning of the heart, muscles and nerves [27]. Foods based on yogurt, milk, and various cheeses contain proteins and vitamins that play a role in providing normal and proper functioning of the body. The recommended intake of dairy products depends on the lifestyle and the age of the person (child). Children should consume 3 times a day, adults 2 times, while children in puberty 4 times a day [28].

2.4.5 Fish, nuts, meat and eggs

Nuts and fish contain healthy fats and are therefore recommended to be consumed more often than meat and poultry. Recommended daily amounts of intake are between 140-170g. They represent very high quality food, they are rich in omega 3 fatty acids and with normal and regular consumption they prevent the possibility of atherosclerosis, heart attack and stroke. As for meat products, preference should be given to chicken, turkey, and rabbit meat. It is also important to use the cooking method in water and avoid frying. It is a very important source of energy, they are rich in carbohydrates and proteins, and in addition, vitamins, proteins and minerals (phosphorus, magnesium and potassium), which enable the proper functioning of the body and also serve to build nerves, muscles and blood). Eggs are the main source of protein and for this reason the value of other proteins is measured in comparison with them. Eggs are a mixture consisting of egg whites and yolks. Vitamins and minerals are found in the yolk, while the egg white contains water, proteins and all essential amino acids, and their separation significantly changes the content of nutrients [29].

2.4.6 Fats and nutritional supplements

Fats are an ingredient that should be eliminated from the diet or reduced to a minimum amount. Most fats, oils, margarine and sugar are rich in energy, but they have very little quality nutrients, but we also cannot exclude them from the diet because they are extremely important for the function of the brain and nervous system [30]. Among the fats, you should choose healthier ones. The unsaturated fats found in olive oil represent one of the highest quality and healthiest oils and are the largest source of monosaturated fatty acids. Animal fats should be replaced with vegetable fats. Particular attention should be paid to saturated and trans fatty acids because they are unhealthy, they are found in crackers, cakes, biscuits. Scientific research has proven the connection between consumed fats and chronic diseases such as diabetes and heart disease [50-53].

3. CONCLUSION

Life habits as well as nutrition are a very important factor in the growth and development of every child. During growth, the child is influenced by various external factors, where the family plays a very important role, from where the child makes his first life habits, which later, among other things, affect both nutrition and physical activity, which is perhaps the most important factor. It is very difficult to form a proper diet today, because the pace of life has accelerated a lot, where meals are skipped, and unhealthy food is much more accessible, both in primary and secondary education. The best indicator is the percentile ratio for children, while for adults it is BMI (body mass index). Physical activity is less and less, and therefore there are more and more obese children who have various health problems, where more and more experts are appearing who try to solve the problem of obesity. Proper nutrition and adequate physical activity are two factors that regulate nutrition and, therefore, the accumulation of fat cells, that is, body weight. In order to facilitate the regulation of daily calorie intake, food pyramids have been organized, which are divided based on the energy level of intake, where there are goals and amounts in to which they should be entered.

REFERENCES

- [1] Damayanti, R., Wiratama Natsir, MP, Annisa, I., Trianto, DM, Sungkar, S., & Friska, D. (2021). Protein intake and number of children associated with nutritional status. *JPMA. The Journal of the Pakistan Medical Association*, 71(Suppl 2)(2), S99–S102.
- [2] Verjans-Janssen, SRB, van de Kolk, I., Van Kann, DHH, Kremers, SPJ, & Gerards, SMPL (2018). Effectiveness of school-based physical activity and nutrition interventions with direct parental involvement on children's BMI and energy balance-related behaviors - A systematic review. *PLoS one*, 13(9), e0204560. <https://doi.org/10.1371/journal.pone.0204560>
- [3] Salam, RA, Das, JK, Ahmed, W., Irfan, O., Sheikh, SS, & Bhutta, ZA (2019). Effects of Preventive Nutrition Interventions among Adolescents on Health and Nutritional Status in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis. *Nutrients*, 12(1), 49. <https://doi.org/10.3390/nu12010049>
- [4] Vucic, S., Dharmo, B., Jaddoe, VWV, Wolvius, EB, & Ongkosuwito, EM (2019). Dental development and craniofacial morphology in school-age children. *American journal of orthodontics and dentofacial orthopedics: official publication of the American Association of Orthodontists, its constituent societies, and the American Board of Orthodontics*, 156(2), 229–237. <https://doi.org/10.1016/j.ajodo.2018.09.014>
- [5] Rutkowski, M., & Niewinska, K. (2021). The Epidemiology of Benign Proliferative Processes of the Skeletal System in Children. *International journal of environmental research and public health*, 18(17), 9338. <https://doi.org/10.3390/ijerph18179338>
- [6] Rampersaud, GC, Pereira, MA, Girard, BL, Adams, J., & Metz, JD (2005). Breakfast habits, nutritional status,

- body weight, and academic performance in children and adolescents. *Journal of the American Dietetic Association*, 105(5), 743–762. <https://doi.org/10.1016/j.jada.2005.02.007>
- [7] O'Connor, A., Buffini, M., Nugent, A., Kehoe, L., Flynn, A., Walton, J., Kearney, J., & McNulty, B. (2021). Dietary fat intakes in Irish children: changes between 2005 and 2019. *Public health nutrition*, 24(5), 802–812. <https://doi.org/10.1017/S1368980020004255>
- [8] Specht, IO, Rohde, JF, Olsen, NJ, & Heitmann, BL (2018). Duration of exclusive breastfeeding may be related to eating behavior and dietary intake in obesity prone normal weight young children. *PloS one*, 13(7), e0200388. <https://doi.org/10.1371/journal.pone.0200388>
- [9] Konstan, MW, Pasta, DJ, Wagener, JS, VanDevanter, DR, & Morgan, WJ (2017). BMI fails to identify poor nutritional status in stunted children with CF. *Journal of cystic fibrosis: official journal of the European Cystic Fibrosis Society*, 16(1), 158–160. <https://doi.org/10.1016/j.jcf.2016.11.005>
- [10] Ma, J., Wang, Z., Song, Y., Hu, P., & Zhang, B. (2010). BMI percentile curves for Chinese children aged 7-18 years, in comparison with the WHO and the US Centers for Disease Control and Prevention references. *Public health nutrition*, 13(12), 1990–1996. <https://doi.org/10.1017/S1368980010000492>
- [11] Patil, SG, Arakeri, S., & Khode, V. (2021). Association of Low BMI with Aortic Stiffness in Young Healthy Individuals. *Current hypertension reviews*, 17(3), 245–249. <https://doi.org/10.2174/1573402117666210121100936>
- [12] Weir, CB, & Jan, A. (2022). BMI Classification Percentile And Cut Off Points. In *StatPearls*. StatPearls Publishing.
- [13] Geserick, M., Vogel, M., Gausche, R., Lipek, T., Spielau, U., Keller, E., Pfäffle, R., Kiess, W., & Körner, A. (2018). Acceleration of BMI in Early Childhood and Risk of Sustained Obesity. *The New England journal of medicine*, 379(14), 1303–1312. <https://doi.org/10.1056/NEJMoa1803527>
- [14] Fricke, J., & Sironi, M. (2020). Sexual fluidity and BMI, obesity, and physical activity. *SSM - population health*, 11, 100620. <https://doi.org/10.1016/j.ssmph.2020.100620>
- [15] Scaglioni, S., De Cosmi, V., Ciappolino, V., Parazzini, F., Brambilla, P., & Agostoni, C. (2018). Factors influencing children's eating behaviors. *Nutrients*, 10(6), 706. <https://doi.org/10.3390/nu10060706>
- [16] Mahmood, L., Flores-Barrantes, P., Moreno, LA, Manios, Y., & Gonzalez-Gil, EM (2021). The Influence of Parental Dietary Behaviors and Practices on Children's Eating Habits. *Nutrients*, 13(4), 1138. <https://doi.org/10.3390/nu13041138>
- [17] Fishbein, M., Cox, S., Swenny, C., Mogren, C., Walbert, L., & Fraker, C. (2006). Food chaining: a systematic approach for the treatment of children with feeding aversion. *Nutrition in clinical practice: official publication of the American Society for Parenteral and Enteral Nutrition*, 21(2), 182–184. <https://doi.org/10.1177/0115426506021002182>
- [18] Łoboś, P., & Januszewicz, A. (2019). Food neophobia in children. *Neofobia żywieniowa in dzieci. Pediatric endocrinology, diabetes, and metabolism*, 25(3), 150–154. <https://doi.org/10.5114/pedm.2019.87711>
- [19] Dobbins, M., Husson, H., DeCorby, K., & LaRocca, RL (2013). School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18. *The Cochrane database of systematic reviews*, 2013(2), CD007651. <https://doi.org/10.1002/14651858.CD007651.pub2>
- [20] Hnatiuk, JA, Salmon, J., Hinkley, T., Okely, AD, & Trost, S. (2014). A review of preschool children's physical activity and sedentary time using objective measures. *American journal of preventive medicine*, 47(4), 487–497. <https://doi.org/10.1016/j.amepre.2014.05.042>
- [21] Vidal, SM, Fajardo, PI, & González, CG (2013). Veterinary education in the area of food safety (including animal health, food pathogens and surveillance of foodborne diseases). *Revue scientifique et technique (International Office of Epizootics)*, 32(2), 425–424.
- [22] Linas, N., Peyron, MA, Eschevins, C., Hennequin, M., Nicolas, E., & Collado, V. (2020). Natural food mastication capability in preschool children according to their oral condition: A preliminary study. *Journal of texture studies*, 51(5), 755–765. <https://doi.org/10.1111/jtxs.12536>
- [23] Harris, JL, Schwartz, MB, Ustjanauskas, A., Ohri-Vachaspati, P., & Brownell, KD (2011). Effects of serving high-sugar cereals on children's breakfast-eating behavior. *Pediatrics*, 127(1), 71–76. <https://doi.org/10.1542/peds.2010-0864>
- [24] Ragelienė T. (2021). Do children favor snacks and dislike vegetables? Exploring children's food preferences using drawing as a projective technique. *A cross-cultural study. Appetite*, 165, 105276. <https://doi.org/10.1016/j.appet.2021.105276>
- [25] Hodder, RK, O'Brien, KM, Stacey, FG, Wyse, RJ, Clinton-McHarg, T., Tzelepis, F., James, EL, Bartlem, KM, Nathan, NK, Sutherland, R., Robson, E., Yoong, SL, & Wolfenden, L. (2018). Interventions for increasing fruit and vegetable consumption in children aged five years and under. *The Cochrane database of systematic reviews*, 5(5), CD008552. <https://doi.org/10.1002/14651858.CD008552.pub5>

- [26] Binder, A., Naderer, B., & Matthes, J. (2020). A "Forbidden Fruit Effect": An Eye-Tracking Study on Children's Visual Attention to Food Marketing. *International journal of environmental research and public health*, 17(6), 1859. <https://doi.org/10.3390/ijerph17061859>
- [27] Kwon, Y., Lee, SW, Cho, YS, Jeong, SJ, & Han, MY (2021). Is High Milk Intake Good for Children's Health? A National Population-Based Observational Cohort Study. *Nutrients*, 13(10), 3494. <https://doi.org/10.3390/nu13103494>
- [28] DeBoer, MD, Agard, HE, & Scharf, RJ (2015). Milk intake, height and body mass index in preschool children. *Archives of diseases in childhood*, 100(5), 460–465. <https://doi.org/10.1136/archdischild-2014-306958>
- [29] Pérez-Quintero, O., Martínez-Azcona, O., Balboa, V., & Vila, L. (2020). Daily baked egg intake may accelerate the development of tolerance to raw egg in egg-allergic children. *European journal of pediatrics*, 179(4), 679–682. <https://doi.org/10.1007/s00431-019-03488-4>
- [30] Butte NF (2000). Fat intake of children in relation to energy requirements. *The American journal of clinical nutrition*, 72(5 Suppl), 1246S–1252S. <https://doi.org/10.1093/ajcn/72.5.1246s>
- [31] Birch, LL, & Fisher, JO (1997). Food intake regulation in children. Fat and sugar substitutes and intake. *Annals of the New York Academy of Sciences*, 819, 194–220. <https://doi.org/10.1111/j.1749-6632.1997.tb51809.x>
- [32] Aksović, N., Bjelica, B., Ilić, I., Ilić, H. S. & Miletić, M. (2022). Structure of situational motor abilities in handball. *Sport and Health*, 16(1), 111-120. DOI: 10.7251/SIZEN2101111A
- [33] Milanović, Lj., Bjelica, B., & Cicović, B. (2022). Physical activities as a moderator of bmi and social relations. 9th International Scientific Conference "Anthropological and Teo-Anthropological Views on Physical Activity" At: 24-25. March, Kopaonik, Serbia.
- [34] Zrnić, R., Kocić, J., Bjelica, B., Zelenović, M., Vučković, S., & Jovanović, S. (2022). The influence of the combined exercise program on the functional status of older women. 9th International Scientific Conference "Anthropological and Teo-Anthropological Views on Physical Activity" At: 24-25. March, Kopaonik, Serbia.
- [35] Joksimović, K., Bjelica, B., Karišik, S., Pržulj, R., & Zelenović, M. (2022). Comparative analysis of anthropological dimensions of handball players with athletes of other sports games. 9th International Scientific Conference "Anthropological and Teo-Anthropological Views on Physical Activity" At: 24-25. March, Kopaonik, Serbia.
- [36] Mekić, R., Bjelica, B., Aksović, N., Murić, B., Kahrović, I. Chortane, O. G. & Zelenović, M. (2022). The Influence of Sports Gymnastics on The Motor Skills of Female Students *The Journal of International Anatolia Sport Science*, 7(3), 14-25. Doi: 10.5505/jiasscience.2022.93585
- [37] D'Onofrio, R., Lupelli, N., Sannicandro, I., Agosti, N., Bjelica, B., Vettone, T., Marino, R., Di Sanzo, V. (2022). Specializzazione sportivaprecoce : Disfunzioni posturali e lesioni da overuse in giocatori di calcio scheletricamente immaturi. Parte. 1 [Early sports specialization (ESS) : Postural dysfunction and overuse injuries in skeletally immature in soccer player . Part. 1] ; Ita. *J. Sports Reh.*, 9(1), 43 –54.
- [38] Demirci, N., Demirci, P. T., Bjelica, B., & Güven, E. (2022). Investigation of Attitudes Towards Exercise Behavior Changes of Adults Registered with Fitness and Activity Centers under the COVID-19 Lockdown. *JUMORA: Jurnal Moderasi Olahraga*, 2(2), 101-114. <https://doi.org/10.53863/mor.v2i2.430>
- [39] Singh, L. S., L. Pungding, Singh, W. J., Bjelica, B., Burhaein, E., & Zelenovic, M. (2022). Effect of Skipping Rope Training on Resting Heart Rate and Cardiorespiratory Endurance Among Soccer Players. *JUMORA: Jurnal Moderasi Olahraga*, 2(2), 115-124. <https://doi.org/10.53863/mor.v2i2.426>
- [40] Marković, M., Vasić, G., Bjelica, B., & Zelenović, M. (2022). Differences in the nutritional status of urban and rural children. *International Journal of Academic Health and Medical Research (IJAHMR)*, 6(11), 5-9.
- [41] Zečirović, A., Bjelica, B., Zečirović, R., & Aksović, N. (2022). Effects of group fitness programs on morphological characteristics and motor abilities of women. *Asian Exercise and Sport Science Journal*, 6(1), 78-83.
- [42] Zelenović, M., Kontro, T., Dumitru, R., Aksović, N., Bjelica, B., Alexe, D. L. & Dragoi, C. (2022). Leisure-Time Physical Activity and All-Cause Mortality: A Systematic Review. *Revista de Psihologia del Deporte* 31(1):1-16.
- [43] Koliopoulos, T., Papakonstantinou, D., Ciarkowska, K., Antonkiewicz, J., Gambus, F., Mebarek-Oudina, F., Milanović, Lj., Bjelica, B., Aksović, N., Alempijević, R. (2021). Green Designs in Hydraulics for Safe Agricultural Tourism and Sustainable Sports Tourism Facilities - Mitigation of Risks of Tourism in Crisis at post COVID-19 era. *International Conference on Tourism Technology & Systems 2021*. In book: *Advances in Tourism, Technology and Systems, Selected Papers from ICOTTS 2021*, 2. DOI: 10.1007/978-981-16-9701-2_4
- [44] Aksović, N., Bjelica, B., Milanović, F., Cicović, B., Bubanj, S., Nikolić, D., Skrypchenko, I., Rozhechenko, V., Zelenović, M. (2022). Evaluation and comparative analysis of the results of a vertical jump between young basketball and handball players. *Pedagogy of Physical Culture and Sports*, 2, 137-144.
- [45] Bjelica, B., Aksović, N., Cicović, B., Milanović, Lj., Colak, R. & Zelenović, M. (2022). Effects of different

- physical activities on the body composition of middle-aged people. *Anthropologie (Czech Republic)* 60(1):149-159. DOI: 10.26720/anthro.21.06.14.1
- [46] Zrnčić, R., Mitić, D., Jovanović, S., Bjelica, B. (2022). Effects of Recreational Swimming on Women's Psychosomatic Status. *Quality of Life*, 13(1-2), 30-37.
- [47] Bjelica, B., Milanović, Lj. (2022). Parental Attitudes and Their Impact on Child Development. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 6(3), 1-10.
- [48] Milanović, Lj., Bjelica, B. & Cicović, V. (2022). Identifying Problems in Working With Children With Disabilities in the Educational Process -Inclusion of Children With Disabilities. *International Journal of Academic Pedagogical Research (IJAPR)*, 6(3), 1-8.
- [49] Miletić, M., Aksović, N., Bjelica, B., Veličković, S., Ilić, H.S. (2022). Effects of the acrobatic program on the body composition and flexibility of adolescents. *FACTA UNIVERSITATIS, Series: Teaching, Learning and Teacher Education*, 2-10. UDC 796.012.21:572.512; 796:61; 796.4:371.212 (497.11 Niš).
- [50] Milanović, Lj., Bjelica, B., Cicović, V., Pržulj, R., Zrnčić, R., Aksović, N. (2022). Early Detection Of Foot Deformity At Younger School Age. *International Journal of Academic Health and Medical Research (IAHMR)*, 6(2), 63-67.
- [51] Milanovic, Lj., Bjelica, B., Fulurija, D., Aksović, N., Alempijević, R. (2021). Physical composition and motor skills of footballers. *International Journal of Academic Health and Medical Research (IAHMR)*, 6(1), 139-145.
- [52] Bjelica, B., Aksović, N., Bubanj, S., Milanović, LJ. (2021). Prevalence and problems caused by postural disorders: A review. *International Scientific Conference "Contemporary Challenges of Sports, Physical Exercise and Active Life"* Belgrade, 14-15. May. 224-231.
- [53] D'Onofrio, R., Tamburino, P., Castellacci, E., Tripoli, S., Manzi, V., Civitillo, C., Bjelica, B., Zelenović, M., & Febbrari (2022). The recovery of the ball in soccer. Technical-tactical frameworks such as pathological postural mechanics of ACL injuries: Technical Report Il recupero della palla nel calcio. Frameworks tecnici-tattici quali meccaniche posturali patologiche delle lesioni del LCA: Report Tecnico Gennaio, *GIOSBE Journal* 7(2), 1-10.