

On the health of children and youth

(O zdrowiu dzieci i młodzieży)

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Abstract – When implementing tasks related to the health education of children and youth, it is necessary for the various groups creating the student's didactic space to cooperate. There is also a need for an integrated and possibly formally coherent curriculum. Such a curriculum – according to the authors of this article – should take into account various aspects of understanding health; it should characterise different factors conditioning health; it should place emphasis on the importance of a healthy lifestyle, the role of eating habits, everyday hygiene, physical activity, health risks, mainly accidents at school, as well as the impact of some types of addiction and the role and ways of maintaining mental health.

Key words - health education of children and youth, curriculum content.

Streszczenie – Przy realizacji zadań związanych z edukacją prozdrowotną dzieci i młodzieży konieczna jest współpraca wielu środowisk tworzących przestrzeń dydaktyczną ucznia oraz zintegrowany i możliwie spójny zakres form i treści program edukacyjny. Program ten – zdaniem autorów artykułu- powinien uwzględniać różne aspekty rozumienia zdrowia, powinien charakteryzować różne czynniki warunkujące zdrowie, powinien akcentować znaczenie zdrowego stylu życia, rolę nawyków żywieniowych, higieny życia codziennego, aktywności ruchowej, zagrożeń chorobowych, głównie wypadków w szkole, znaczenie niektórych analogów, rolę i sposoby dbania o zdrowie psychiczne.

Slowa kluczowe - edukacja zdrowotna dzieci i młodzieży, treści programu edukacyjnego.

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Due to the fact that health, especially that of children and youth in school age is the subject of health education, it is advisable to contemplate the essence of health in a universal sense.

I. ON HEALTH ...

Health is commonly defined as the lack of disease. This definition does not seem to be satisfactory. According to the definition of 1948 by the WHO, health began to be identified with complete physical, mental and social well-being. Critics accuse this concept of idealism, i.e. health interpreted in such a manner is practically unattainable. Furthermore, the very notion of "well-being" has not been defined and its meaning is ambiguous. If we follow this concept, suffering or anxiety about the fate of close relations may be considered unhealthy because they undoubtedly disturb that state. [1-4]

However, new suggestions how to precisely define health still make reference to the definition by the WHO, and they go in two directions.

In the first one, health is treated as a "disposition". According to Słońska and Misiuna [5], "health is an evolving ability of a human being to both achieve the full physical, mental and social potential as well as the ability to react to environmental challenges". Understood in such a manner, health is a reservoir and an overall potential of a human

being to develop comprehensively and face the present requirements.

The other approach defines health as the process of seeking and maintaining a state of equilibrium in the face of burdens encountered on an ongoing basis by the body. In this proposition, health as a process has specific dynamics in time and it alters depending on the existing external and internal requirements. [6]

No matter how we choose to define health, it is only right to refer to the health of an individual as a “whole”. Therefore, health means a certain type of balance between its particular dimensions, i.e. the physical, psychological, spiritual, sexual and reproductive dimensions. [7-9]

Physical health is the biological functioning of the body and its particular systems. On the one hand, this means their proper functioning and, on the other hand, a suitable degree of physical fitness and capacity as well as the ability to perform everyday activities without excess fatigue.

Psychological health is composed of two elements: cognitive and affective. Mental health (cognitive component) is the capacity for a clear coherent thinking process, learning and fulfilling one's intellectual reservoir. Emotional health (affective component) is the capacity for controlling one's emotions, recognising them and expressing them in a manner relevant to the situation, which ensures a socially accepted sense of comfort. It is also the ability to cope with difficulties, stress, depression and anxiety. [10-12]

Social health means independence as a characteristic of socially mature people as well as the ability to maintain good interpersonal relationships and to cooperate with others and assume responsibility for oneself and others. [2-4, 7]

Spiritual health may be defined as experiencing inner peace and self-acceptance as well as recognising and implementing religious and/or moral principles and beliefs. Its understanding will depend on the convictions and attitudes of people to the forces which govern human life and to the sense of the world. [13, 14]

Sexual health, according to the WHO, is a set of biological, emotional, intellectual and social aspects of sex life important for the positive development of personality, communication, and love. [1,14]

Reproductive health is a state of complete well-being in the physical, mental and social aspect, and not merely the lack of disease or deficiencies connected with the reproductive system, its tasks and processes in all periods of an individual's life. [14]

Based on the presented positions concerning the definition of health, it may be stated that it is not only the equivalent of an objective state consistent with a set of criteria

adopted by a researcher, but it is rather conditioned by the ability of an individual, changing in time and resulting from subjective feelings, to attain at a given stage of his or her biological, psychological, social, spiritual, sexual, and reproductive development, a positive state of well-being. A separate for each person, and not ideal, state of well-being is attainable, indeed.

Health should not be treated as an objective to be achieved, but as a set of advantages and resources used in everyday life to find ourselves in the reality following our conceptions about our place in the world surrounding us. [9, 10, 14]

Consequently, whether a person is healthy or not may be defined according to objective and subjective criteria. This division has arisen as a result of the discrepancies observed between expert assessments and subjective assessments of people reporting health problems. The import of this view for educators lies in the fact that self-assessment of health determines to a great extent an individual's behaviour. [16, 17]

Objective categories are measured and expressed in units and numbers. These may be medical indices concerning disease symptoms and the measurement of various body functions, e.g. blood pressure, central venous pressure, and pulse or cholesterol levels. They also encompass anthropological indices (e.g. body mass measurement or a newborn's head circumference) and physical fitness indices. [14]

Subjective measures are created by people. The introduction of those indices results from the definition of health by the WHO, in which the notion of “well-being” has been used. The subjective measures allow us to describe health and well-being from the perspective of the subjects themselves. [1]

II. FACTORS CONDITIONING HEALTH

Human health in all cultures depends on a variety of factors. It has been acknowledged that the breakthrough moment changing the perception of factors conditioning health, as a result of which emphasis was shifted away from medical actions to a wider social context, was the 1974 report by Canada's minister of health, M. Lalonde¹. He distinguished four groups of factors conditioning health [17]:

¹ Marc Lalonde (born 26 July 1929) – Canadian Minister of National Health and Welfare. In 1974, he published a report entitled “A New Perspective on the Health of Canadians”, in which he proposed the concept of “health fields”. [17]

1. Lifestyle (53% of all influence), i.e. the aggregation of personal decisions that contribute to health and over which the individual has control to a greater or lesser extent.
2. Environment (ca. 21%) – all matters related to health external to the human body, over which the individual has little or no control.
3. Biology (ca. 16%) – all the aspects related to the biology of the human body including genetic factors, age, and sex.
4. Health care organisation (ca. 10%) – the availability, quality, organization, type and resources of health care.

The data presented above demonstrates that 74% of the influence on shaping health is exercised by lifestyle and the environment, whereas lifestyle itself, i.e. the variables of individual conduct, comprises 53% of factors conditioning health.

III. LIFESTYLE

Lifestyle is a concept variously defined and interpreted. Broadly, it may be said that it is a set of attitudes and behaviours and the general life philosophy of an individual or group. It depends on the environment as well as social and cultural standards in which the individual lives, on the community to which he or she belongs and on the individual views, systems of values, attitudes, general economy, politics and organisation of the social structure. Apart from the environment in a broad sense, another element shaping lifestyle is made up of the health-related behaviours of a person. These may be divided into those conducive to health (appropriate physical activity, rational eating, body and environment hygiene, adherence to safety, sufficient sleep, using and providing social support, avoiding an excessive amount of stress, the ability to cope with stress, health self-control and self-examination, safe sexual conduct) and those posing a risk to health (smoking tobacco, abusing alcohol, abusing psychoactive substances and stimulants, aggressive behaviour, lack of body and environment hygiene, eating contrary to the dietary standards, abusing drugs). Both health-promoting behaviours and lifestyle belong to the most essential factors which may be controlled and modified and which directly determine the health of an individual to the greatest extent. [8,9,14]

When we contemplate the correlations between lifestyle and health, it may be found that the foremost purpose of health education should be actions aimed at shaping a life-

style conducive to health in its broadest sense. Providing answers to the following questions may be helpful in determining the nature of health:

- What decides about the valuable, interesting and useful nature of life we live in the context of health as a positive category?
- How may the goals in life considered as providing psychological satisfaction be reconciled with a healthy lifestyle?

The perception of the influence of particular elements of life and environment is subject to cyclical changes and evolution, and it is related to the changing world, science, scope of human cognition, organisation of societies, development of urban areas etc. As a result of not completely sensible and purposeful actions taken by communities, the natural environment undergoes cyclical transformation, which has an impact on the life of an individual in the context of health. Evolution in the realm of factors having an indisputable influence on human life schemes generates regular adjustments in lifestyle and in the perception of what is good and bad for us.

The progress of science and scientific research in that scope allows us to look from a perspective at details which until recently have been assessed as unequivocally positive or negative. Nowadays, their influence on health may be somewhat ambiguous. [14]

In the era of rapid civilizational growth, new dangers are constantly being generated, such as those related to industrial development and evolution, the rise of new technologies in agriculture or the production of genetically modified foods, the pollution of water, air, ground, Earth and the cosmos, radiation or the changes in ways of life and lifestyles. The dynamic development of scientific research, e.g. in chemistry and biology, has led to creating innovative preparations and chemical substances applied, for instance, in food preservation or in the creation of mutated strains of microorganisms which gradually begin to play a negative role in our lives. [18, 19]

Civilizational progress in a wide sense is the impulse for the reduction or even eradication of the influence of some factors. The notion of threat to the health of an individual, previously held to be ultimate, has evolved; e.g. the development of medical treatment has changed the scope of diseases considered as terminal until recently. Access to running water and to means of personal hygiene has radically minimised the reach of diseases which result directly from poor sanitary conditions. [14]

Various details of everyday life have become the reason for gradual and radical changes in the temperament of hu-

mans and a new perspective on the role of health in our life, how and why we may take proper care of it and how to effectively extend its duration while maintaining a satisfactory level of fitness. [12, 14].

The theses presented above point to the necessity for pedagogical reflection on the curricula at all levels of instruction in the context of improving health education and the health-promoting influence. Pre-schools and then schools are definitely the best places and time in which modelling the awareness of the child should begin when it comes to taking care of one's own health as well as developing and reinforcing the desirable health-improving habits. It is vital that the child should encounter at the early educational stages a set of interrelated educational initiatives implemented in a well-planned and systematic manner. [20,21]

Initiating health education at the earliest stages of the educational path of a child generates a considerable chance of final success. It is precisely pre-school and school that should jointly with the family environment create the basis for the subsequent behaviours aimed at the promotion of a healthy lifestyle.

The implementation of a curriculum suggests that apart from creating organisational and economic mechanisms conducive to the promotion of a healthy lifestyle, we ought to reinforce the mission of the family in such endeavours and to design and implement suitable educational programmes. It also seems crucial that all the spheres composing the educational environment of the young person should implement coherent and unified content, complement one another and cooperate as part of health education, health promotion and shaping healthy behaviours. This type of policy should be implemented systematically at each stage of education and upbringing. It must be emphasised that the endeavours and algorithms implemented at the early stages of upbringing lay the foundations for the further complete development of the child. [14, 16, 19]

Several areas and directions of action creating a healthy lifestyle may be distinguished.

IV. EATING HABITS

Numerous findings point to a correlation between nutrition and the development and health of a child as well as his or her well-being, activity, and eagerness to learn and play. The sensations of hunger and thirst at school time reduce the ability to concentrate and study. They generate a greater number of mistakes and increase fatigue. A depressed or bad mood accompanying hunger may be the

cause of conflict in the child's environment. In order to prevent such situations, the pupil should have breakfast before going to school. [9, 22, 23]

Young people starting education have acquired different eating habits at home. An adequate and attractive presentation of the menu will enable them to become familiar with a number of tastes and meals relevant to the age of the children. A suitable presentation of content related to healthy and unhealthy, or even harmful products such as: an excessive amount of sweets, fast food (it is a type of quickly prepared and served food, usually cheap; it is rich in calories, fats and carbohydrates, yet poor in beneficial substances such as fibre, vitamins and microelements; opponents of this type of food believe that regular consumption of fast food leads to modern-day diseases such as obesity, cancer, arteriosclerosis, heart and liver disease), consuming crisps and fizzy drinks with added highly-processed sugar leads to a change in eating habits. [23-25]

Therefore, it is highly important to provide appropriate information to children and adolescents concerning the correct eating habits. The information should address the following issues – what to eat and when, what amounts of food are proper, how to eat as well as the causes of obesity and consequences of being overweight. It is crucial to emphasise the harmful effect of some behaviour patterns promoted by the media such as haste and a consumption-oriented lifestyle. All due emphasis must be placed on the fact that prevention promoting a change of lifestyle in the scope of eating is the cheapest and most effective form of countering obesity and related diseases. [25, 26]

V. EVERYDAY HYGIENE

The issues related to everyday hygiene have the longest tradition and the greatest wealth of experience in the history of health education. The hygiene of body, clothing, place of play and eating meals posed new challenges to teachers. They concern the selection of plays and interests of young people. Television, and unfortunately, the violence which is often to be seen there as well as numerous computer games including aggressive events constitute currently the ways in which youth spend their free time outside school. Frequently, less appreciated are such forms of relax for children as sport and recreational games, discovering and deepening skills such as painting and art, which definitely have a more stimulating influence on the child's development than "moments" spent in front of the TV set or computer. The child must be provided with such a potential which will allow him or her to undertake a vol-

untary selection among the multiple options depending on the present capacities, availability or lack of company and mood. [3, 4, 9]

It must be emphasised that the necessity of actively spending free time is crucial for any young person, and the didactic environment ought to be able to take advantage of this fact and reinforce it in order to shape health-oriented attitudes.

VI. PHYSICAL ACTIVITY

The human health condition and level of physical activity is connected with physical activity not without a reason. Contemporary youth suffer from a lack of movement, which results from an improper lifestyle [26-29]. Each person should fight for their health and one of the most effective methods in such a fight is physical activity because it contributes to well-being. For good health, important is not only the frequency but also the intensity of physical activity since a suitable intensity, frequency and duration of physical activity may significantly and positively harmonize with the oxygen consumption threshold and cholesterol levels, and negatively with systolic blood pressure, body mass and body fat [30].

Consequently, it appears desirable to generate situations in which youth may fully satisfy their demand for physical activity. At school, these will be, for instance, various forms of exercise in physical education lessons or interest groups concerning various aspects of physical culture. At home, such activity may be conducted through jointly farming a small plot of land, helping in some household duties, and through joint play of the entire family, which apart from fitness will also reinforce the emotional bond between the child and parents [30].

Neglecting the importance of physical activity in the period of growth of the young body produces horrendous results nowadays. It is estimated that in Poland the percentage of children with an incorrect body posture ranges between 30 and 69 depending on the age group analysed [31-38]. According to the findings by the Team of the Polish Register of Congenital Developmental Malformations, the occurrence of congenital developmental malformations in the scope of the musculoskeletal system has increased over the last ten years. Currently, such malformations constitute one of the most numerous groups among all congenital developmental malformations (1st place – congenital heart defects, 2nd – defects of the musculoskeletal system) [31-37]. Due to the rapidly increasing frequency of overweight and obesity in children and, it may be presumed that the inci-

dence of locomotor system defects will continue to rise [39, 40].

VII. RISKS OF DISEASE

School age is characterised by the occurrence of many acute infectious childhood diseases. The spread of diseases at school usually takes place by droplet contact, ingestion or by contact with the body or clothing of infected people. In order to eliminate or reduce the risk of infection, it is necessary to reduce the number of pupils in classes as well as to improve the hygienic and sanitary conditions and shape behaviours in students protecting them against infection. One example may be forming the habit of covering one's mouth when sneezing or coughing, especially when one is ill himself [41].

Another example of an appropriate attitude may be a suitable promotion of oral hygiene, forming the habit of maintaining clean hands and a general attention to personal hygiene [16, 42]. Crucial as well are issues related to adjusting clothing to the season (a hat, gloves, scarf, and warm underwear), contact with animals and substances of unknown origin [41].

VIII. ACCIDENTS AND FIRST AID AT SCHOOL

In the school year of 1999-2000, as many as 109,464 pupils suffered in accidents, 71 of them died, and 1,040 accidents led to serious bodily injury. Most accidents (65,402) happened at elementary schools (at vocational schools – 14,445, at secondary schools of general education – 11,491). In some provinces, every tenth elementary school pupil suffers an accident during school time. In the school year of 2010-2011, the total number of accidents among children and youth in educational facilities decreased to almost half of that in 1999-2000. There were 49 fatal accidents. The site of most accidents was elementary school where occurred 51.3% of all accidents among children and youth in the school year of 2010-2011.

The injuries usually concern limbs, then the head, trunk, and eyes. Accidents usually take place at gymnasiums, in corridors, on stairs as well as on playing fields and playgrounds. The majority of accidents take place during physical education classes and during breaks between classes [43].

Contrary to the popular belief, accidents are not purely random events. “The increased propensity for injury in childhood and adolescence is an unnecessary price paid by young people for their development, gaining new skills, discovering the world as well as for a lack of experience, ignorance of risks and the carelessness of both peers and adults” [42]. In view of the above, it seems necessary to constantly educate children and youth how not to provoke situations of endangering the health and life of themselves and others in everyday life. The speakers may be representatives of professions which enjoy high esteem in the eyes of a young audience such as fire-fighters, police officers, and paramedics [14, 16].

Training programmes should be adjusted to the needs of various groups of participants, and the teaching style ought to ensure amassing and memorizing both knowledge and practical skills [16].

IX. UNHEALTHY IMPACT OF CERTAIN ADDICTIONS

Addictions are one of the main problems of modern-day adolescents. The most common addictions among youth are nicotine addiction (67.1%), drug addiction (27.0%) and alcoholism (23.0%).

Nicotine is a psychoactive alkaloid entering into a reaction with the acetylcholine receptors located in the ganglia of the autonomic nervous system, adrenal medulla and in the central nervous system. It acts on both the sympathetic and parasympathetic part of the nervous system. The activity of nicotine consists in stimulating the central nervous system (especially the so-called reward system in the limbic system) [44, 45]:

- it broadens the peripheral blood vessels,
- it increases the heartbeat,
- it increases blood pressure,
- it reduces striated muscle tension,
- it accelerates peristalsis and stimulates secretion of the gastrointestinal tract glands, thus accelerating the burning of calories.

In Poland, the percentage of minors taking various narcotic substances has been gradually increasing. Unfortunately, ever more “fashionable” is smoking marijuana, hashish, and heroin. Such behaviours often take place during various social occasions and events for young people. The present rise of drug addiction probably has numerous

causes including: the weakening of social value systems, the increased availability of drugs, unbeneficial trends in mass culture as well as a sense of destabilization and social incertitude. Particularly dangerous is the new trend in Poland for taking “soft” drugs (“eco weed”, amphetamine). The effect of this tendency is an increase in the number of addicts among younger students (12 – 13 years old). Not only those young people resort to drugs who have emotional or existential problems but also those for whom drugs become a way of achieving success and climbing the social ladder [46, 47].

Alcohol addiction is a chronic disease which advances and may result in death. Alcoholism is a multi-factor disease and it has an impact on both the physical and mental health of a person as well as on his or her social environment. It cannot be completely cured – only efforts can be made to minimise the damage and control the symptoms [48, 49].

Alcoholism usually develops in four stages [48]:

- early stage – it lasts from several months to several years in which the tolerance of alcohol gradually increases; alcohol reduces negative emotions and drinking is associated with pleasure,
- warning stage – it begins at the moment when memory blanks appear,
- critical stage – loss of control over drinking,
- chronic stage – drinking binges lasting many days.

Shaping a negative attitude to addictions such as smoking tobacco, abusing alcohol and drugs may be initiated already among pre-school children and be continued at school.

A key part is played by the exemplary conduct of people forming the educational environment around the child. Many children do not have negative associations with smoking cigarettes, for instance, because there have always been adult smokers surrounding them, including their parents, who create multiple patterns of health behaviour.

A crucial role in prevention and protecting youth against the negative effects of addictions is played by protective factors.

These include [12, 14, 15]:

- individual resources (intellectual abilities, a positive temperament, self-control mechanisms, optimism, social skills, a positive self-image, and motivational processes), resources arising from the relationship with parents (emotional support provided to the child, safety and trust, informing the child about the expectations concerning compliance

- with social standards and health-improving behaviours, involvement of the parents in learning),
- resources arising from relationships with other important people (having a mentor who may provide emotional support in adolescence),
- resources of the local environment (safe neighbourhood, teachers' support, scouting, religious communities, access to school common rooms, youth clubs, and specialist clinics).

Programmes providing education in the scope of a healthy lifestyle teach carefully selected skills necessary in everyday life to overcome difficulties and satisfy psychological needs without resorting to violence or perception-altering substances. Such skills relate to constructive problem solving, taking decisions, building a positive self-image and assertiveness. The scope of action should cover demonstrating the detrimental effects of addictions and generating a belief that they do not contribute anything attractive and interesting to life [14].

X. MENTAL HEALTH

The need for stabilisation, dependence, care, release from fear and chaos, the need for structure, order, justice, restrictions, and support by a guardian are the most fundamental needs of a human being [12, 14, 16]. “An average child (...) usually prefers a safe, ordered, predictable and just world on which he or she may rely and in which no unpredictable, uncontrolled or dangerous things happen and in which there are mighty guardians who can, if need be, protect them from harm” [42].

Most developmental theories consider the first few years of a child's life to be the formative period for the psyche. The most essential aspect of this process is the quality of the actual bond, including that with parents [12, 27].

Under the influence of the rising expectations imposed by the modern world, peer pressure, and often the excessive expectations and unfounded complaints of parents in relation to the child, a young person often finds himself in stressful situations. A proper development of the ability to cope in situations of both success and emotional breakdown, to cope with problems, take up challenges, resolve disputes without violence and aggression, the ability to cope with aggressive behaviour of others, ability to cooperate in a team, belief in your own strength and abilities should emerge and/or be consolidated in the school environment. Namely, school is an environment in which the child encounters for the first time an organised community

functioning according to specific principles. He or she learns to cooperate with others and finds a place in that new world, which undoubtedly reflects that which he or she may anticipate in further adult life. Professionally prepared diagrams, principles and algorithms should prepare the child for the challenges and problems awaiting him or her in life [14].

XI. SUMMARY

The need for stabilisation, dependence, care, release from fear and chaos, the need for structure, order, justice, restrictions, and support by a guardian are the most fundamental needs of a human being [12, 14, 16]. “An average child (...) usually prefers a safe, ordered, predictable and just world on which he or she may rely and in which no unpredictable, uncontrolled or dangerous things happen and in which there are mighty guardians who can, if need be, protect them from harm” [42].

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XII. REFERENCES

- [1] WHO. Definicja zdrowia i jakości życia wg WHO. <http://www.who.int/en/>
- [2] Guzik B. Edukacja wobec globalizacji i globalizacji. W: Muchacka B. Edukacja wobec wyzwań globalnego społeczeństwa. Nowy Sącz; Wydawnictwo Państwowej Wyższej Szkoły Zawodowej, 2007: 40-58.
- [3] Stawarz B, Sulima M, Lewicka M, Brukwicka I, Wiktor H. Health and determinants of health - a review of literature, p.I. JPHNMR 2014; (2): 4-10.
- [4] Stawarz B, Sulima M, Lewicka M, Brukwicka I, Wiktor H. Health and determinants of health - a review of literature, p.II. JPHNMR 2014; (2): 11-16.
- [5] Słońska Z, Misiuna M. Promocja zdrowia. Słownik podstawowych terminów. Warszawa; Agencja Promo-Lider, 1993.
- [6] Heszen-Niejodek I, Wrzesieńiewski K. Udział psychologii w rozwiązywaniu problemów zdrowia somatycznego. W : Strelau J. Psychologia. Podręcznik akademicki. Jednostka w społeczeństwie i elementy psychologii stosowanej. Gdańsk; Gdańskie Wydawnictwo psychologiczne, 2007: 458465.
- [7] Woźniak M, Brukwicka I, Kopański Z, Kollár R, Kollárová M, Bajger B. Zdrowie jednostki i zbiorowości. JCHC 2015;4:1-3.
- [8] Woźniak M, Brukwicka I, Kopański Z, Kollár R, Kollárová M, Bajger B. Związki stylu życia ze zdrowiem. JCHC 2015;4:4-9.
- [9] Woźniak M, Brukwicka I, Kopański Z, Kollár R, Kollárová M, Bajger B. Zdrowie jako wypadkowa działania różnych czynników. JCHC 2015;4:15-20.
- [10] Dahlgren G, Whitehead M. European strategies for tackling social inequities in health: Levelling up Part 2. W: Studies on social and economic determinants of population health, No. 3, WHO Regional Office for Europe, Copenhagen 2007.
- [11] Green L, Kreuter M. Health program planning: An educational and ecological approach. New York; McGraw-Hill, 2005.
- [12] Harwas – Napierała B, Trempała J. Psychologia rozwoju. Warszawa; PWN, 2002,
- [13] Aleksandrowicz J. W poszukiwaniu definicji zdrowia. Studia Filozoficzne 1972; 9:21-31.
- [14] Clark J, Henderson J(eds.). Community Health. New York; Churchill Livingston, 2015.
- [15] Chodkiewicz J. Zmagając się ze światem - Znaczenie zasobów osobistych. www.psychologia.net.pl
- [16] Gniazdowski A. Zachowania zdrowotne. Łódź; Wydawnictwo Instytutu Medycyny Pracy, 2006.
- [17] Marc Lalonde A. New Perspective on the Health of Canadians . www.phac-aspc.gc.ca, 1981.
- [18] Ratajczak Z. Psychologia pracy i organizacji. Warszawa; Wydawnictwo PWN, 2008.
- [19] Andruszkiewicz A, Banaszkiewicz M. Promocja Zdrowia. Lublin; PZWL, 2010.
- [20] Karski J B. Postępy promocji zdrowia. Warszawa; CeDeW, 2008.
- [21] Heszen I, Sęk H. Psychologia zdrowia. Warszawa; Wyd. Naukowe PWN, 2007.
- [22] Ciborowska H, Rudnicka A. Dietetyka. Żywienie zdrowego i chorego człowieka. Warszawa; Wydawnictwo PZWL, 2007.
- [23] Sosińska AL, Kowalik J, Kopański Z, Bruchwicka I, Wojciechowska W. Wiedza i zachowania prozdrowotne w zakresie prawidłowego odżywiania na podstawie badań młodzieży szkół ponadgimnazjalnych . JPHNMR 2012; (1):27-32.
- [24] Urbńska B , Wojciechowska B, Kopański Z. Żywienie w dzieciństwie a otyłość w wieku dorosłym . JPHNMR 2012; (1):14-19.
- [25] Payne A, Barker H. Dietetyka i żywienie kliniczne. Wrocław; Elsevier, 2013.
- [26] Herman IP. Physics of the Human Body. Berlin, Heidelberg; Springer Verlag, 2007.
- [27] Rasińska R. Analiza wybranych wyznaczników kształtuowania postaw prozdrowotnych. [\[http://www.wbc.poznan.pl/Content/169184/index.pdf\]](http://www.wbc.poznan.pl/Content/169184/index.pdf)
- [28] Hanson HA. Physiology in Health and Disease. Philadelphia; Saunders, 2009.
- [29] EU Working Group "Sport & Health". EU Physical Activity Guidelines. Recommended Policy Actions in Support of Health-Enhancing Physical Activity 2008.[ec.europa.eu/sport/library/policy_documents/eu-physical-activity-guidelines]
- [30] Górski A. (red.) Fizjologiczne podstawy wysiłku fizycznego. Warszawa; PZWL,2008.
- [31] Latos-Bieleńska A, Materna-Kiryuk A. Polish Registry of Congenital Malformation – aims and organization of the Registry monitoring 300 000 births a year. J Appl Genet 2005; 46: 341 – 348.
- [32] Latos-Bieleńska A, Materna-Kiryuk A. i wsp. Polski Rejestr Wrodzonych Wad Rozwojowych. Poznań; OWN,1998.
- [33] Latos-Bieleńska A, Materna-Kiryuk A, Mejnartowicz J. i wsp.:Wrodzone wady rozwojowe w Polsce w latach 1998 – 1999. Dane z Polskiego Rejestru Wrodzonych Wad Rozwojowych. Poznań; OWN, 2002.
- [34] Latos-Bieleńska A, Materna-Kiryuk A, Mejnartowicz JP. Wrodzone wady rozwojowe w Polsce w latach 2000-2002. Poznań; OWN, 2006.
- [35] Jodkowska M, Woynarska B. Testy przesiewowe u dzieci i młodzieży w wieku szkolnym. Materiały instruktażowe dla pielęgniarek i higienistek szkolnych. Warszawa; IMiDz, 2002.
- [36] Jodkowska M, Woynarska B, Oblacińska A . Test przesiewowy do wykrywania zaburzeń w rozwoju fizycznym u dzieci i młodzieży w wieku szkolnym. Materiały metodyczne dla pielęgniarek szkolnych oraz lekarzy podstawowej opieki zdrowotnej. Warszawa;IMiDz, 2007.
- [37] Nowotny J, Saulicz E. Niektóre zaburzenia statyki ciała i ich korekcja. Katowice; AWF, 1993.
- [38] Kasperekzyk T. Wady postawy ciała, diagnostyka i leczenia. Kraków; Kasper, 1998.
- [39] Janiszewska R, Tuzinek S, Nowak S, Ratyńska A, Biniaszewski T. Nieprawidłowości postawy ciała u dzieci 6-12 letnich – uczniów szkół podstawowych z Radomia – badania pilotażowe. Probl Hig Epidemiol 2009, 90(3): 342-346.
- [40] Krzyżaniak A. i wsp. Zdrowie poznańskich uczniów. Poznań; nakł. Miasta Poznania, 2009.
- [41] Beaglehole R. i wsp. Podstawy epidemiologii. Łódź; Instytut Medycyny Pracy, 2002.
- [42] Woynarska B. Edukacja zdrowotna. Warszawa; Wydawnictwo PWN, 2007.
- [43] Unicef. Dzieci w Polsce. Dane , liczby, statystyki. <https://www.unicef.pl/content/download/.../file/Dzieci%20w%20Polsce.pdf>
- [44] Nowak D, Wojciechowska M, Kopański Z, i wsp. Mechanizm, objawy i rozpoznanie uzależnienia od tytoniu. JCHC 2014;4:10-13.

- [45] Nowak D, Wojciechowska M, Kopański Z, i wsp. Skutki zdrowotne palenia tytoniu. JCHC 2014;4:14-18.
- [46] Ks. Sroczyński P. Przyczyny narkomanii wśród młodzieży szkolnej. Legnickie Studia Teologiczno-Historyczne. 2007; 2 (11): 171-176.
- [47] Jędrzejko M. Narkotyki : vademecum. Warszawa; Fundacja Pedagogium, 2008.
- [48] Ryszkowski A, Wojciechowska M, Kopański Z, i wsp. Objawy i skutki nadużywania alkoholu. JCHC 2015;1:2-6.
- [49] Ryszkowski A, Wojciechowska M, Kopański Z, i wsp. Funkcjonowanie w społeczeństwie osób uzależnionych od alkoholu. JCHC 2015;1:7-13.