## PART II. PHYSICAL ACTIVITY OF SOCIAL AND PROFESSIONAL GROUPS DZIAŁ II. AKTYWNOŚĆ FIZYCZNA GRUP SPOŁECZNYCH I ZAWODOWYCH

# HEALTH AS A SOURCE OF HAPPINESS AND HEALTH-RELATED BEHAVIOUR OF YOUNG PEOPLE

## ZDROWIE JAKO WYZNACZNIK SZCZĘŚCIA A ZACHOWANIA ZDROWOTNE MŁODZIEŻY

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Authors' contribution Wkład autorów: A. Study design/planning zaplanowanie badań B. Data collection/entry zebranie danych C. Data analysis/statistics dane - analiza i statystyki D. Data interpretation interpretacja danych E. Preparation of manuscript przygotowanie artykułu F. Literature analysis/search wyszukiwanie i analiza literatury G. Funds collection zebranie funduszy

Tables: 4

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Submitted: 2017 March 19 Accepted: 2017 May 15 **Background.** Proper human behaviour is needed to maintain health. Healthy lifestyle patterns develop specifically during childhood and adolescence, a process which helps shape young people, and one which significantly affects various life choices, including those regarding health. The aim of the study was to evaluate the health-related behaviour of young people, and to determine the hierarchical position of health as a symbol of happiness and its

interrelations with related symbols. Differences in the postulated sources of happiness were also determined in patients with favourable and adverse health-related behaviour.

**Material and methods.** The study involved 209 high school students. The age of respondents ranged from 17 to 19 (M = 18, SD = 0.48). The study involved 114 girls (representing 54.5% of the group) and 95 boys (45.4%). The variables were measured using two techniques by Juczynski (2009): the Health Behaviour Inventory (IZZ) and Part I of the Personal Value List

**Summary** 

(measurement of the symbols of happiness).

**Results.** The respondents indicated that good health is positioned third in the hierarchy of the determinants of happiness, slightly lower than a large circle of friends. The respondents regard a successful family life as being the greatest determinant of happiness. Higher ratings for health in the hierarchy of the symbols of personal happiness were associated with more favourable adopted health-related behaviour. Similarly, people with favourable health-related behaviour are more likely to choose health as the source of a positive life than those with adverse behaviour.

**Conclusions.** The high position of health in the scope of a happy life is a positive factor in the health-related behaviour of young people.

**Keywords:** health behaviour, youth, health, happiness

#### Streszczenie

**Wprowadzenie.** Odpowiednie zachowania człowieka stanowią podstawę utrzymania jego zdrowia. Kształtowanie prozdrowotnych wzorów stylu życia ma miejsce szczególnie w okresie dzieciństwa i młodości. Proces ten powiązany jest z budowaniem struktury wartości młodych ludzi, która oddziałuje istotnie na wybory życiowe, także zdrowotne. Celem przeprowadzonych badań było ustalenie poziomu zachowań zdrowotnych młodzieży oraz miejsca zdrowia w hierarchii źródeł szczęścia w tej grupie, a także ustalenie ich wzajemnych powiązań. Określono także różnice w zakresie postulowanych wyznaczników szczęścia w grupie osób z korzystnymi i niekorzystnymi dla zdrowia zachowaniami.

Materiał i metody. W badaniach wzięło udział 209 uczniów szkół licealnych w Łodzi. Wiek badanych mieścił się w zakresie 17-19 lat (M= 18; SD=0,48). Badaniami objęto 114 dziewcząt (co stanowi 54,5 % całej grupy), oraz 95 chłopców (45,4 %). Do pomiaru zmiennych wykorzystano dwie techniki autorstwa Juczyńskiego (2009) – Inwentarz Zachowań Zdrowotnych oraz Listę Wartości Osobistych (cześć I do pomiaru symboli/wyznaczników szczęścia). Wyniki. Przeprowadzone analizy wykazały, że dobre zdrowie zajmuje wysoką trzecią pozycję w hierarchii symboli szczęścia w deklaracji badanych, nieznacznie tylko niżej ocenione niż duży

Wyniki. Przeprowadzone analizy wykazały, że dobre zdrowie zajmuje wysoką trzecią pozycję w hierarchii symboli szczęścia w deklaracji badanych, nieznacznie tylko niżej ocenione niż duży krąg przyjaciół. Według młodzieży o szczęściu przede wszystkim decyduje zaś udane życie rodzinne. Im wyżej cenione jest zdrowie w hierarchii źródeł osobistego szczęścia, tym bardziej korzystne dla zdrowia zachowania podejmuje młodzież. Podobnie, osoby o korzystnych dla zdrowia zachowaniach znacznie częściej niż badani o zachowaniach niekorzystnych wybierają zdrowie jak wyznacznik szczęśliwego życia.

**Wnioski.** Wysoka pozycja zdrowia w obrazie szczęśliwego życia jest czynnikiem sprzyjającym zachowaniom promującym zdrowie młodzieży.

Słowa kluczowe: zachowania zdrowotne, zdrowie, młodzież, szczęście

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#### Introduction

Optimal diet, physical activity, avoidance of stimulants and drugs of abuse, adequate sleep and a positive mental attitude ensure that children develop properly. In order to enter adulthood in good health, young people need to develop proper health-related behaviour: forms of human activity that remain, on the basis of objective knowledge about health and subjective beliefs, closely related to health [1]. These forms of health-related behaviour have been classified as habitual and intentional, and pro-health and anti-health. They include such aspects as healthy consumption, physical activity, preventive behaviour, making use of medical care and having a positive mental attitude [2, 3].

Harmful forms of health behaviour have been identified as leading risk factors for the most common causes of mortality, i.e. cardiovascular diseases and cancer [4, 5]. Lifestyle is of fundamental importance to health [6, 7].

However, recent studies have examined the developmental risks to children and teenagers. Younger people demonstrate a number of unsatisfactory lifestyle habits, especially in the fields of physical activity and diet, and examples of higher risk behaviour, such as drinking alcohol and smoking, are growing in popularity among this group [8, 9, 10].

The period encompassing childhood and the teenage years is crucial for the development of behaviour patterns engaged in later on in life. For example, health-compromising behaviour and poor perceived health in adolescence was found to predict low educational level in adulthood [11]. What is more, healthier students are better learners – healthy nutrition and team sports participation were found to have a positive effect on academic performance, whereas the effects of alcohol use, smoking, early sexual intercourse, bullying, and certain screen time behaviour were had an overall negative effect [12].

In response, a number of prevention initiatives have been targeted at children and teenagers. However, in an attempt to improve their effectiveness, recent studies have examined the psychosocial determinants of health-related behaviour in adolescents [13, 14, 15, 16]. The results highlight the role of subjective variables in the prediction of health-related behaviour in young people, such as their sense of coherence, but also the role of such factors as family support and parental attitudes, and the health-related patterns exhibited by parents [15, 17, 18].

The health motive, that is to say the degree of interest in one's own health and the willingness to act on its behalf, is the most important for the development of health-related behaviour. A lack of interest in one's own health results in negligence. The health motive itself stems, in turn, from the values assigned to health [19]. Life goals predict as motives, and they predict health behaviour [20].

Generally speaking, health as a value is a crucial factor for making life decisions and its perception has a decisive influence on the choice of behaviour aimed at improving or maintaining optimal health [21]. Health also enjoys a relatively high position in the hierarchy of values in teenagers, and there are important correlations within the structure of values of family members, with teenagers assigning similar priorities as their parents [22]. However, the correlation between the valuation of health and the adoption of pro-health behaviour is not so clear. For some people, health happens to be only a declarative value. It has been indicated that people who attribute a great value to health are more involved in pro-health behaviour, i.e. diet, quitting smoking, medical behaviour and refraining from risky behaviour [23, 24, 25]. An understanding of the core values may improve the ability to predict decisions related to behaviour such as healthy eating [26].

However, not all studies confirm that health evaluation plays a role in adopting health-related activities. Research conducted by Juczyński and Ogińska-Bulik [27] found varied correlations between the value attributed to health by teenagers and their avoidance or adoption of behaviour adverse to health. It is possible that behaviour perceived to be healthy did not necessarily correspond with actual behaviour [28].

When learning about the world, young people weigh up values, recognize them as their own and multiply. According to the Ajzen [29] theory of planned behaviour, they implement normative values such as symbols of happiness through their own behaviour and actions.

The period of youth is one characterised by the laying down of the foundations of adult life, and the fostering of patterns of behaviour including those related to health. It is also the most essential time for the development of value systems, beliefs about happiness and personal views affecting various spheres of life.

The aim of the study was threefold:

- to determine the level of health-related behaviour and the hierarchy of the predictors of happiness chosen by adolescents;
- to determine the types of correlations between the declared sources of happiness and health-related behaviour in adolescents;
- to identify differences in the postulated sources of happiness in the group of people with regard to favourable and adverse health-related behaviour.

#### Material and methods

The study involved 209 high school students lived in central Poland (Lodz city): 114 girls (54.5%) and 95 boys (45.4%). The age of the respondents ranged from 17 to 19 years (M = 18,00, SD = 0.48).

Inclusion to the group was voluntary and all surveys were anonymous. Research was conducted during lesson hours, with the teacher not present. Questionnaires were preceded by an explanatory statement which urged the respondents to give accurate answers.

The Health Behaviour Inventory (IZZ) authored by Juczyński [19] was used to measure the health-related behaviour. The tool contains 24 statements describing various types of health-related behaviour, the intensity of which is assessed on a scale from 1 ("almost never") to 5 ("almost always"). The overall health-related behaviour score is obtained by adding up the individual behaviour scores. It is also possible to calculate the intensity of four categories of health-related behaviour: i.e. preventive behaviour (adherence to health recommendations and obtaining information about health and disease), correct eating habits (the kind of consumed food), health practices (habits associated with sleep, recreation and physical activity) and a positive mental attitudes (avoiding too strong emotions, tension and stress). A higher score implies greater intensity of declared behaviour.

The second technique used was the Personal Value List by Juczyński [19]. The first part of the tool describes nine symbols of happiness, out of which the respondents are asked to select the five most important for them, answering the question: "What do you think determines personal happiness?"). The selected determinants then are ordered from 5 - the most important to 1- the least important. These assessments are treated as weights enabling interpretation. The symbols that are not selected are awarded 0 points.

#### Results

In the first stage of the statistical analysis, the means and standard deviations of variables were calculated. The mean health-related behaviour score for the whole study group (M = 72.4, SD = 11.4) was 5 Sten, indicating an average level [19].

Figure 1 shows the means for the symbols of happiness in the whole group.



Figure 1. Symbols of happiness in the whole group of respondents (ranked from the most to the least frequently selected)

In the study group, good health, as a determinant of happiness, takes the third highest position (average of 2.56), only slightly below a large circle of friends (2.73). The respondents indicated that happiness is primarily determined by successful family life (3.53). Fame and popularity were indicated as determinants of happiness by the lowest number of people (0.08).

Health was rated higher in relation to the Juczynski [19] study, in which "good health" was awarded an average weight of 1.85, taking fifth position.

The relationship between sex and the intensity of the studied variables is presented in tables 1 and 2.

**Table 1.** Comparison of the mean results of the general score and the different types of health-related behaviour between boys and girls

Variables -	Boys (N= 95)		Girls (N=114)		Test t
Health-related behaviour	M	SD	M	SD	р
General index of health behaviour	70.4	12.1	74.1	10.6	2.3
Correct eating habits	15.8	4.1	18.2	3.9	4.3 ***
Prevention behaviour	16.1	4.3	18.2	3.6	3.8
Positive mental attitudes	19.2	4.4	19.0	4.4	-0.4 n.s
Health practices	18.8	3.8	18.8	3.8	0.1 n.s

M – mean; SD – standard deviation; t – value of test t, p – significance level

The data indicates that there is a difference between boys and girls in terms of the overall score for health-related behaviour and the indicators of healthy consumption habits and preventive actions. Boys are characterised by more adverse health lifestyles than girls.

Table 2. Comparison of the mean rates of the symbols of happiness in the groups of boys and girls

Variables -	Boys (N= 95)		Girls (N=114)		Test t
symbols of happiness	M	SD	M	SD	р
Large circle of friends	2.7	1.6	2.7	1.6	-0.0
Large circle of friends					n.s
Happy family life	2.9	1.8	4.0	1.5	4.4
парру ганину пте	2.9				***
Having one's favourite job, profession	1.7	1.7	1.5	1.4	-0.8
maving one stavourite job, profession	1.,	1./	1.5	1.7	n.s
Success in learning, work	1.3	1.5	0.9	1.4	-1.7
Success in rear ining, work	1.5				n.s
Good health	2.7	1.8	2.5	1.7	-1.0
door nearth	2.,	1.0	2.3		n.s
Being needed to other people	1.2	1.6	1.6	1.7	1.7
Being needed to other people	1.2	1.0	1.0	1.7	n.s
Good material conditions	1.6	1.7	1.1	1.5	-2.3
dood material conditions					*
Life full of adventure, travel	0.6	1.3	0.6	1.2	0.1
	0.0	1.5	0.0	1.2	n.s
Fame, popularity	0.2	0.7	0.0	0.1	-2.1
	0.2	0.7	0.0	0.1	*

M – mean; SD – standard deviation; t – value of test t, p – significance level

Among the studied symbols of happiness, the two groups of respondents differ most with regard to the selection of successful family life, with this being more highly rated by girls. Boys, in comparison to girls, are more likely to perceive good material conditions and fame and popularity as synonymous with happiness. In terms of the choice of health as a predictor of happiness, there were no differences between the two groups. However, as the differences in the overall rate of health-related behaviour and the declared symbols of happiness are not large, further analyses were conducted on the entire study group.

In order to verify the correlations between health-related behaviour and the symbols of a happy life declared by the respondents, correlation coefficients were calculated (Table 3).

<sup>\*</sup> p < 0.05, \*\* p < 0.01, \*\*\*p<0.001, ns — not significant

<sup>\*</sup> p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001, ns — not significant

**Table 3.** Correlation coefficients between health-related behaviour and the declared symbols of happiness for the whole group of respondents

Variables	General index of health behaviour	Correct eating habits	Prevention behaviour	Positive mental attitudes	Health practices
Large circle of friends	-0.05	0.07	-0.12	-0.04	-0.01
Happy family life	0.13	0.11	0.12	0.08	-0.00
Having one's favourite job, profession	0.02	0.05	0.01	-0.02	0.08
Success in learning, work	0.01	0.03	0.14	-0.06	-0.13
Good health	0.21	0.06	0.12	0.22	0.18
Being needed to other people	-0.01	-0.05	0.05	-0.04	-0.02
Good material conditions	-0.22	-0.22	-0.18	-0.12	-0.10
Life full of adventure, travel	-0.15	-0.05	-0.18	-0.11	-0.06
Fame, popularity	0.00	-0.06	-0.05	0.08	0.04

The selected correlations are significant at of p < 0.05

The data in the table indicates that the choice of good health as a source of happiness is associated with the indicator of health-related behaviour: higher values assigned to health correspond to a more favourable view of health behaviour by the respondent. A similar correlation also exists between positive mental attitudes and health practices: the choice of health as an important part of a happy life goes hand in hand with avoiding stresses and strains, and the preference for healthier habits in everyday life.

A correlation was also observed between health-related behaviour and the selection of good material conditions and a life full of adventure; however, this correlation is negative in that a higher position in the hierarchy for the two characteristics is associated with less favourable health behaviour. Choosing success in learning and work was found to have a positive correlation with preventive behaviour, although this relationship was the weakest observed.

The groups of respondents demonstrating favourable and adverse health-related behaviour were the compared with regard to their postulated symbols of happiness, according to their overall health-related behaviour. Three groups of young people were formed: one with adverse health-related behaviour (n=64; 30.62% of all respondents) (M - 0.5 SD), another with favourable behaviour (n=60; 28.71% of all respondents) (M + SD 0.5) and another with an average level of health-related behaviour (n=85; 40.67% of the whole group). The results are presented in Table 4.

**Table 4.** A comparison of groups with favourable and adverse health-related behaviour with regard to their preferred symbols of happiness

Variables	Adverse health-related behaviour (N= 64)		Favourable health-related behaviour (N= 60)		Test t
	M	SD	M	SD	р
Large circle of friends	2.8	1.6	2.7	1.5	0.4
Large en ele of menas	2.0	1.0			ns
Happy family life	3.2	1.9	3.7	1.7	-1.6
парру ганну ше	3.2	1.7	3.7	1.7	ns
Having one's favourite job, profession	1.6	1.5	1.6	1.5	0.0
liaving one stavourite job, profession	1.0	1.5	1.0	1.5	ns
Success in learning, work	1.3	1.5	1.0	1.5	0.9
Success in rear ining, work	1.5	1.5			ns
Good health	2.1	1.9	2.9	1.5	-2.8 **
					-0.2
Being needed to other people	1.4	1.7	1.5	1.8	-0.2 ns
				1.4	1.9
Good material conditions	1.6	1.8	1.1		ns
Life full of adventure, travel	0.9	1.5	0.4	0.9	2.3
Fame, popularity	0.1	0.7	0.1	0.6	0.1
	0.1				ns

M – mean; SD – standard deviation; t – value of test t, p – significance level

<sup>\*</sup>p < 0.05, \*\*p < 0.01, ns — not significant

The data suggests that people with favourable health-related behaviour are more likely to regard health as a predictor of a happy life than respondents with adverse behaviour. Another significant difference, though less so, is that a life full of adventure and travel is assigned greater importance by those with adverse health-related behaviour.

#### **Conclusions**

In reference to the study aims, the results indicate that:

- The respondents rate good health in the third position in the hierarchy of the sources of happiness, only slightly lower than having a large circle of friends. Happiness is primarily determined by a successful family life. No differences were observed between the groups of boys and girls in terms of choosing health as a symbol of happiness.
- The obtained data show that the higher that health is valued in the hierarchy of the determinants of personal happiness by younger people, the more favourable to health their behaviour is.
- Respondents with favourable health-related behaviour choose health as a source of a happy life much more frequently than those with adverse behaviour,.

According to the surveyed teenagers, "good health" was rated higher in relation to the Juczyński [19] study, which recorded the average weight of 1.85, ranking the fifth position.

Other studies confirm the high position of health in the values hierarchy of young people [22]. Similar data were obtained in studies on adolescents by Juczyński [30], where "good health" occupied the high second position in the ranking of values, and neither gender nor age significantly differentiated the value of health.

The average result of health-related behaviour obtained in the study group (M = 72.4, SD = 11.4) highlighted the average level of the variable. Significant, though small, differences in the overall rate of health-related behaviour were noted between boys and girls, an observation which has been confirmed by other studies [31].

Torres and Fernández [24] also report that the value attributed to health influences the prediction of prohealth behaviour in adolescents. In addition, research conducted by Kristiansen [32] and Huxley and Grodan [33] found that the perception of health as a value, among other things, was related to overall preventive health behaviour. Teenagers often take up risky behaviour following peer pressure, and should they rate health highly in the pursuit of happiness, this could have a protective influence against the adverse effects of the environment. Assigning a low value to health may predispose them to engaging in behaviour adverse to health in high-risk situations [34].

The above data reinforces the need for a purposeful impact on the value system of young people so as to shape and strengthen their perception of health as a value. Such a course aimed at modifying values in teenagers and children is not only possible but would also reap rewards [35]. Parents and teachers should emphasise the value of health in the normative sense, so that adolescents include the standard in their own system of values. The important role of health in the pursuit of personal happiness should be emphasized, even when it has not deteriorated, and perhaps especially so in this case. The role of education and prevention programmes can be observed from an early age. The role of the family should not be underestimated, as parental influence on the attitudes and behaviour of children is critical. Transferring and strengthening the value of health is one of the ways of shaping the health potential of the new generation.

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