

PREFERED HEALTH BEHAVIOURS IN STUDENTS OF HIGHER EDUCATION INSTITUTIONS IN RZESZÓW

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Keywords:

- health
- behaviours
- students
- youth

Abstract:

Introduction: Among the most important values in human life is health, its level depends on various factors, among which a significant role is played by pro health behaviours. **Aim** The aim of this work was to establish pro health behaviours among students of higher education institutions in Rzeszów and factors influencing such behaviours. **Material and method:** The study was conducted among 132 students of Rzeszów Higher Education Institutions. A diagnostic questioner, which was based on the Health Behaviour Inventory (IZZ) was used. The obtained data was analyzed statistically by Spearman rang correlation coefficient. **Results:** The results of the conducted study indicated high value of the general intensity indicator of health behaviours. Most points were achieved in the category of health behaviours connected with positive psychic attitudes, the smallest number of points was achieved in prevention. Students living in bigger cities present higher intensity of health behaviours than their peers from smaller cities. **Conclusions:** There was a statistical significance between domicile and socioeconomic status of students and the intensity of the undertaken health behaviours. In the studied group the lowest result was obtained in prevention behaviours, connected with obeying health advice, the ability to search for the information on health and disease.

INTRODUCTION:

Health is a term being in the scope of interest of various scientific disciplines. A way of perceiving health is based on many factors as a result of which many its interpretations were born [Huber et al. 2011]. According to some authors, the development of medicine since the time when WHO initially defined health has caused that the idealized perspective of health is becoming more a task or aim which we are trying to achieve rather than actually available for most people state [Ostrzyżek, Marcinkowski 2012; Lancet 2009; Greaves 2000]. WHO by Health 2020 indicates, that among other values appreciated in life, health is a key to achieve other aims in life, it is a kind of source, which enables human to fulfill its own potential [WHO 2013]. According to studies by CBOS (2012) health is one of the highest valued goods in Polish society, three fourths of the respondents indicated health as the most important value in life. Unfortunately, high subjective value of health is not represented by health behaviours young Poles [Boguszewski 2012]. The researchers are unanimous in terms of the fact, that life style is a factor having the largest influence on health [Woynarowska 2000]. Pro health life style can be described as „a group of behaviours that are characteristic for a given unit or social group having crucial meaning for health”. Among health behaviours we can enumerate all related to health habits, customs, activities, attitudes and values, which are accepted by

a given society [Gniazdowski 1990: 83; Strelau 2000: 542]. Woynarowska defines health behaviours as acting or non-acting, which directly or indirectly influences humans health. One can distinguish behaviours which are seeking health (pro health behaviours) and jeopardizing health (anti health behaviours). Health behaviours are formed in the early childhood in the process of socialization and are shaped through all life [Woynarowska 2000; Binkowska – Bury 2009; Chlebna – Sokół 2007]. Generally, in pro health activity of humans we can distinguish purposeful and habitual pro health behaviours. Social processes and cultural influence have a result in health habits and are strictly connected with hygiene of healthy life, physical activity and eating habits [Juczyński 2001]. Studies are a specific moment in young people lives. New surrounding and living conditions are often connected with accepting the responsibility for creating your own lifestyle. This time is combined with new social life conditions and changes of work rhythm. This situation can foster health risking behaviours among students [Gibson et al. 2016]. Many authors indicate the increase of detrimental health behaviours in this group [Soomet et al. 2012; von Bothmer, Fridlund 2005; WHO 2010; Mikołajczyk et al. 2008; Zadarko-Domaradzka et al. 2013]. Activities promoting health play here a big role. Raising awareness of people enables the control over one's own health and strengthening of correct health behaviours [Juczyński 2001]. The problem of life style and health behaviours among academic students constitutes the subject of interest of many authors in the country and abroad. For example there are studies conducted among the large group of students from the countries belonging to Carpatian Region in terms of the chosen elements of lifestyle i.e. leisure physical activity [Zadarko et al. 2014, 2016; Zadarko-Domaradzka et al. 2016]. The aim of this work was to establish pro health behaviours among students of higher education institutions in Rzeszów and factors influencing such behaviours.

MATERIAL AND METHOD:

The study was conducted among 132 students of selected Higher Education Institutions from Rzeszów, who participated in Cooper test in autumn edition of project „Cooper test for all” in Rzeszów. The participation in the study was voluntary, all participants gave their consent to take part in the project. The age of participants was between 19 and 27 years, however most participants were 19 to 21 years (68%). In the study group there were 83 women and 49 men. The largest group (78%) constituted first cycle studies students. People studying on second cycle studies or integrated Master studies constituted 9,9% and 12,1% accordingly. Almost a half of the respondents indicated village as the place of their origin (48,5%) the other part originated from towns or cities (in which 27% from cities over 100 thousand inhabitants). The questioned answered the question on the amount of money, that monthly stays at their own disposal after payment of basic payments and bills. Additionally, the examined students were asked what is the monthly income per person in their household. The characteristic of the studied group including detailed answer representations is presented in Table 1.

The study was conducted with the use of a diagnostic questioner, which was based on the Health Behaviour Inventory (IZZ) by Zygryd Juczyński and questions concerning health competence created by the author [Juczyński 2001]. Health Behaviour Inventory is a tool designed to examine healthy and sick adults. It is composed of 24 statements, grouped in four category, describing various types of behaviours connected with health. First of them, consists of 6 questions concerning correct eating behaviours, followed by other categories, each comprising 6 questions concerning prevention behaviours, undertaken health practices, and positive psychic attitudes. The studied group marked how often do they undertaken the activities connected with health, assessing each of the behaviours in the questionnaire according to the 5 degree scale: 1 – hardly ever, 2 – seldom, 3 – from time to time, 4 –often, 5 – almost always. It was decided, that in the assessment last year should be taken into an

account, the time of filling in the questionnaire did not exceed 5 minutes. By the frequency of the behaviours chosen by the respondents the intensity was established. The numbers marked by the respondents were counted according to the instruction of the author in order to obtain the general indicator of the health behaviours intensity. The values of this indicator are between 24 to 120 points. The higher result was obtained the higher intensity of health behaviours was achieved. The general indicator of the undertaken health behaviours is exchanged into a standard unit and then can be interpreted properly to the qualities characteristic for standard ten. The results between 1 – 4 standard ten are treated as low, whereas between 7 – 10 standard ten as high and 5 and 6 standard ten as average [Juczyński 2001]. Questions concerning correct eating habits include type of food (e.g. whole meal bread, vegetables, fruit). Prevention behaviours are connected with obeying health recommendations, abilities to search for information on health and disease. A group of statements concerning health practices concerning daily practices connected with sleep, reaction and physical activity. Positive psychic attitude is described as avoiding strong emotions, stress and tensions or depressing situations.

Table 1. Characteristics of the studied group

Features	Total N=132	
	N	%
Sex		
Women	83	37,0
Men	49	63,0
Age of respondents		
19	40	30,3
20	26	19,7
21	24	18,2
22	10	7,6
23	23	17,4
24-27	9	6,8
Domicile		
village	63	47,7
town <20 thousand	22	16,7
city 20-100 thousand	11	8,3
city >100 thousand	36	27,3
Achieved income		
<500	28	21,2
500-1000	43	32,6
1001-1500	29	22,0
1501-2000	16	12,1
2001-3000	11	8,3
>3000	5	3,8
Higher Education Institution		
University of Rzeszów	101	76,5
Rzeszów University of Technology	19	14,4
University of Information Technology and Management	12	9,1

The obtained data was analyzed statistically by the use Statistica. Nonparametric tests were used, because the assumption of normal distribution of all the examined data was not fulfilled. Compatibility was verified by W. Shapiro-Wilk test. All correlations were assessed by Spearman rang correlation coefficient. The statistical hypothesis was conducted based on the statistical significance of $\alpha = 0,05$.

RESULTS

The results of the conducted study indicated high value of the general intensity indicator among students in Rzeszów. Both women and men taking part in the study achieved a result of around 7 standard ten, according to the temporary Polish norms of the Health Behaviour Inventory proposed by Jurczyński. At the same time, women achieved insignificantly higher value of the mentioned above indicator– in this case the indicator was on the level of average 92,2 points, whereas in men the average was 90,7 points. Most points were achieved in the category of health behaviours connected with positive psychic attitudes (average 20,1 points in men and 20,4 points in women). However, the smallest number of points was achieved in prevention behaviours (average 19,0 points in men and 19,2 points in women). The differences were not statistically significant.

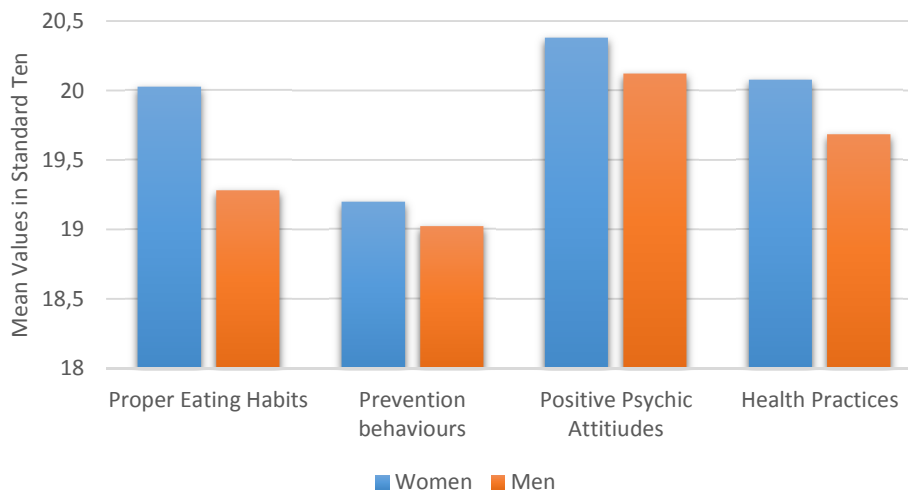


Figure 1. Mean values of the categories of the health behaviours indicator in women and men

Health behaviours among students were compared according to the type of higher education institution on which they were studying. The best results were observed in students of University of Information Technology and Management, intensity indicator was on average 93,01 points. Significantly less points were obtained by the students of Rzeszów University of Technology (average 86,65 points). University of Rzeszów achieved a result in between the earlier mentioned institutions (average 92,39 points), only in prevention behaviours, students of this institution got the highest results. However, the correlations were not statistically significant.

Further statistical analysis showed significant correlations between three types of pro health behaviours from the group pg prevention behaviours and (Tab. 3) and seven behaviours from different categories and the achieved income in household of the respondents. Weak, but statistically significant correlation was observed between prevention behaviours and studies cycle and health practices and year of studies of the respondents. The results suggest, that the higher year of studies the worse practices were observed in students, especially in terms of time devoted for students to relax.

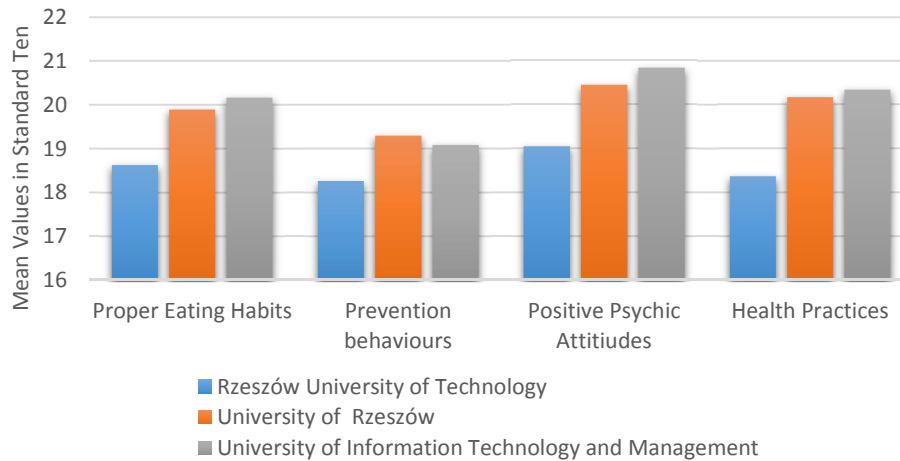


Figure 2. Mean values of the categories of the health behaviours indicator according to Higher Education Institutions on which the respondents studied

Table 2. The chosen health behaviours from prevention behaviours group

Exemplary prevention practices	Domicile				Spearman Correlation Value	p
	village	town <20 thousand	city 20-100 thousand	city >100 thousand		
I have alarm telephone numbers written down.	2,67	3,05	3,20	3,35	0,19	0,0178
I do medical check up regularly	2,25	2,32	2,70	2,59	0,16	0,0376
I try to learn how other people avoid diseases	2,78	3,00	3,50	3,35	0,23	0,0037

The results of the analysis suggest that the intensity of the prevention behaviours increases with the size of the domicile of the respondents. Students coming from the biggest cities (over 100 thousand inhabitants) are the exception as their results were insignificantly lower than the results of respondents from cities with 20-100 thousand inhabitants. The correlations were weak, but were statistically significant on the level of $p < 0,05$. More statistically significant correlations were observed in terms of income achieved in household of students in the study Table 4). Among all the categories at least one type of behaviours correlated with the above mentioned data.

Table 3. Chosen health behaviours form different categories and income achieved in household of respondents

Health behaviour	Income						Spearman Correlation Value	p
	<500	500-1000	1001-1500	1501-2000	2001-3000	>3000		
I eat a lot of vegetables, fruit	3,64	3,93	3,79	3,81	4,27	3,80	0,20	0,0097
I eat healthy food	3,29	3,60	3,48	3,88	4,00	3,60	0,18	0,0248
I avoid eating food with preservatives	2,79	2,79	3,07	3,06	3,82	3,00	0,16	0,0458
I regularly do medical check ups	2,11	2,14	2,76	2,81	2,64	2,20	0,18	0,0257
I treat seriously advice from people worried about my health	2,89	3,30	3,79	3,69	3,91	3,00	0,23	0,0028
I avoid depressing situations.	2,82	2,95	3,48	3,13	3,64	3,20	0,22	0,0053
I limit smoking	4,57	4,33	4,31	3,56	3,55	3,20	-0,16	0,0478

A similar trend to domicile was observed in terms of income per person in the household of the respondents and the behaviours from the group of correct eating habits. The statements: „I care about healthy eating” and „I avoid eating food with preservatives” were more often made by respondents with higher income, the exception were people with the highest income. The correlations were statistically significant but quite weak.

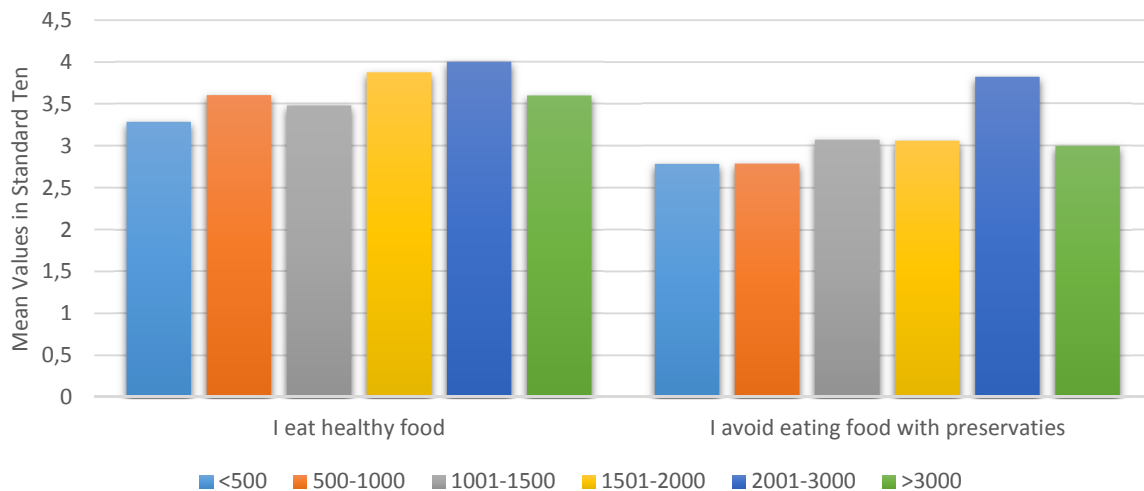


Figure 3. Chosen behaviours from the group of correct eating habits expressed in standard ten and income per person in the household of the respondents

Similar correlations were noticed in case of positive psychic attitudes, the higher income the more frequently the respondents were treating seriously the advice of the people worried about their health. The exception was a group of students with the highest income. On the other hand, it was observed that if the income of family of the respondents was higher than seldom the person decided to limit smoking, the correlations were weak, but showed statistical significance on the level of $p < 0,5$.

DISCUSSION

The period of studies is most often connected with the change of the surrounding and conditions of living of the young person, very often resulting in drastic changes in its attitude and habits, also those connected with health. The results of the study indicate a quite high value of the intensity indicator of health behaviours among students in Rzeszów both men and women. The best results the questioned achieved in the category of positive psychic attitude, the lowest in the category of prevention behaviours. In both cases women presented insignificant dominance over men. A similar correlation was noticed by Binkowska-Bury and others (2010), who analyzed 555 students of University of Rzeszów and Rzeszów University of Technology [Binkowska-Bury et al. 2010]. Women showed significantly higher intensity of health behaviours than men and this correlation was statistically significant Another big study concerning 43 thousand Inhabitants of Ontario province in Canada also proved this correlation, comparing to women, men more often drink alcohol or smoke [Pomerleau et al. 1997]. Similar results can be observed in works of other authors [Smoleń et al. 2012; Sygit 2008; Szczerbiński, Karczewski 2010; Weber-Rajek et al. 2015; Pietryka-Michałowska et al. 2004]. However, different results were obtained by Baumgart and others (2015), analyzing health behaviours of 85 students of physiotherapy. They indicated insignificantly lower value of the intensity of health behaviours among women opposed to men, such correlation was not statistically significant [Baumgart et al. 2015]. In own study, significant difference in terms of intensity of the presented health behaviours among the students of the higher education

institutions, was also observed. The best results were achieved by the students of University of Information Technology and Management followed by University of Rzeszów, the lowest results were in Rzeszów University of Technology. This correlation is not statistically significant. Similar studies concerning area of studies and the undertaken health behaviours indicated the presence of such correlation, however it was not statistically [Baran, Stocka 2008]. Taking into an account the socioeconomic status of the respondents it was indicated that there are some statistically significant correlations between the intensity of some health behaviours and domicile and the achieved income in the students' household. The students coming from bigger cities presented better results in prevention behaviours than their peers from smaller cities, with the exception of the inhabitants of the big cities (above 100 thousand inhabitants). Also the income achieved in the students' household was correlated with the undertaken pro health behaviours. The people with lower income indicated lower value of intensity of pro health behaviours, with the exception of smoking, which increased together with the income achieved in students; household. Those correlations were statistically significant. The results of own study show a negative correlation between year of studies and time devoted by the respondents to relax. Binkowska-Bury (2010) in her work did not observe statistically significant correlations between domicile and the undertaken health behaviours. However, the results of this study confirm positive correlation between students' economic status and the undertaken health behaviours [Binkowska-Bury et al. 2010]. Those results were not indicated in the work by Smoleń and others (2012). In those studies there were no statistically significant correlations between the above factors among students of The State Vocational Academy in Sanok [Smoleń et al. 2012]. Different results were achieved by Kropornicka and others (2015) after conducting studies in students of Medical University in Lublin. The respondents coming from villages were characterised by more beneficial health behaviours in comparison with students from cities [Kropornicka et al. 2015]. Also the results of other studies indicate, that such data as sex, domicile and socioeconomic status play a big role in shaping health behaviours of young people [Carroll et al. 2006; Kielbasiewicz-Drozdowska 2007; Ying et al. 2007; Penar-Zadarko et al. 2009].

CONCLUSIONS

1. The group of the physically active students indicated high value of the general intensity indicator of health behaviours.
2. A significant correlation between domicile and socioeconomic status and the intensity of health behaviours was observed..
3. In the studied group, prevention behaviours were the weakest, connected with obeying health advice, the ability to search information on health and disease.

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