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Responsibility for health - public awareness

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Abstract Health is the most precious value of every human being. Attitudes concerning health behavior are determined by many factors. Patterns of actions are passed on from the earliest years by parents and caregivers, which are copied or changed during the course of life. The adoption of health behaviors changes depending on age, gender, economic conditions, the influence of mass media, advertising, personality traits, socio-cultural factors. However, a person himself is responsible for the behaviors he undertakes that have a positive or negative impact on his health.
The aim of this study is to assess the responsibility for one's own health and the health-promoting behaviors undertaken by the individuals surveyed.
Material and methods The study involved 100 randomly selected residents of Przemyśl. It was conducted between December 2020 and the end of January 2021. The research was voluntary and anonymous. In this study, the method of diagnostic survey was used. The research tool was a survey questionnaire, which consisted of a questionnaire and the Juczyński Health Behavior Inventory, assessing behaviors in four categories: eating habits, preventive behaviors, health practices and positive mental attitude. A statistical significance level of $p<0.05$ was assumed.
Results and conclusions Low level of intensity of health behaviors was presented by 27% of subjects, average results were obtained by 43% of subjects. High level of intensity of health behaviors was presented by 30% of subjects. Women show a higher rate of proper eating habits, preventive behaviors, and work practices. Age of the subjects did not influence positive mental attitude. Subjects under 35 presented higher levels of health practices than subjects over 35.
Keywords: health, health behaviors, social awareness

Streszczenie Zdrowie jest najcenniejszą wartością każdego człowieka a postawy dotyczące zachowań zdrowotnych są determinowane przez wiele czynników. Od najmłodszych lat przez rodziców i opiekunów przekazywane są wzorce działań, które w trakcie trwania życia są powielane albo zmieniane. Podejmowanie zachowań zdrowotnych zmienia się w zależności od wieku, płci, uwarunkowań ekonomicznych, wpływu środków masowego przekazu, reklamy, cech osobowości, czynników społeczno–kulturowych. Jednak człowiek sam odpowiada za podejmowane przez siebie zachowania, które mają pozytywny lub negatywny wpływ na jego zdrowie.
Celem pracy jest ocena odpowiedzialności za własne zdrowie oraz podejmowane zachowania sprzyjające zdrowiu ankietowanych osób.
Materiał i metody W badaniu udział wzięło 100 losowo wybranych mieszkańców Przemyśla. Zostały one przeprowadzone w okresie od grudnia 2020 roku do końca stycznia 2021 roku. Badania były dobrowolne i anonimowe. W pracy wykorzystano metodę sondażu diagnostycznego. Narzędziem badawczym był kwestionariusz ankiety, który składał się z metryczki oraz Inwentarza Zachowań Zdrowotnych Juczyńskiego, oceniającego zachowania w czterech kategoriach: nawyków żywieniowych, zachowań profilaktycznych, praktyk zdrowotnych i pozytywnego nastawienia psychicznego. Przyjęto poziom istotności statystycznej $p<0,05$.
Wyniki i wnioski Niski poziom nasilenia zachowań zdrowotnych prezentowało 27% badanych, wyniki przeciętne uzyskało 43% badanych. Wysoki poziom nasilenia zachowań zdrowotnych prezentowało 30% osób. Kobiety wykazują wyższy wskaźnik prawidłowych nawyków żywieniowych, zachowań profilaktycznych oraz praktyk zawodowych. Nie wykazano by wiek badanych osób wpływał na pozytywne nastawienie psychiczne. Osoby do 35 roku życia prezentowały wyższy poziom praktyk zdrowotnych niż osoby po 35 roku życia.
Słowa kluczowe zdrowie, zachowania zdrowotne, świadomość społeczna

Introduction

Over the years, health and its definitions have been constantly changing. According to the currently accepted and valid definition proposed by WHO: "it is a state of complete physical, mental, social well-being and not merely the absence of disease or infirmity". Therefore, health is understood as a value, resource, and condition [1], it is the most important value of every human being, which can be considered on many levels: biological, social, mental, or physical. It is considered on the basis of three characteristics, namely fitness, understood as physical activity and the performance of all activities, health behaviors that benefit health, and mental health, defined as relationships among peers and maintaining a sense of well-being [2]. Contemporary health is defined as: "a person's adaptation to geographic, social, and living conditions that enable him or her to function for the maximum time possible. Human behaviors may contribute to health maintenance or the onset of disease or deterioration of health" [3].

Each person is individually responsible for his/her own health in every dimension: physical, mental, social, hence the important role of determinants of pro-health behavior. Through health determinants we consciously exert positive or negative influence on health.

The definition of health behavior in medical terms takes into account all kinds of activities aimed at protecting health during work, safety on the road, as well as safe sexual behavior. Moreover, performing preventive examinations, using necessary medications without abusing them should be considered [4]. A great influence undoubtedly on health behavior is education about factors positively affecting health, which should be transmitted through health education. Through education it is possible to influence the formation of people's attitudes, beliefs, increase knowledge. Through education, people learn how to take care of their own health, as well as how to shape their environment so that it is easier to maintain health [5].

The aim of this study is to assess the responsibility for one's own health and the health-promoting behaviors undertaken by the individuals surveyed.

Material and methods

The survey involved 100 randomly selected residents of Przemyśl. It was conducted between December 2020 and the end of January 2021. The research was voluntary and anonymous. The method of diagnostic survey was used in the study. The research tool was a survey questionnaire, which consisted of a metric and the Juczyński's Health Behavior Inventory, assessing behaviors in four categories: eating habits, preventive behaviors, health practices and positive mental attitude. In the study group there were 44% men (n=44) and 56% women (n=56). The mean age of the study subjects was 37.10±13.63. The age of 18-25 was 18% (n=18). Between 26 and 35 were 35% of subjects (n=35). The age group of 36-45 was 26% of the subjects (n=26) and over 45 was 21% of the subjects.

Statistical analysis was based on nonparametric tests, including Mann-Whitney test and Kruskal-Wallis test. For qualitative variables the $\chi 2$ test of independence was used. The choice of tests was dictated by the lack of normality of variable distributions, which was checked by the Kolmogorov-Smirnov test. The level of statistical significance was $p<0.05$. Calculations were performed using SPSS 20 program.

n - number of subjects,

p - level of statistical significance,

M - mean,

SD - standard deviation,

Me - median,

Min, Max. - minimum and maximum value

Results

The mean overall health manners severity index (24-120 point scale) was 82.31±12.04 points and ranged from 57 points to 106 points. However, the indicated differences were not statistically significant (p=0.3252). The obtained results are presented in Table 1.

Table 1. Severity of health behaviors vs. age.

			Age		Total
			Below 35	Over 35	
Severity of health behaviors	low	n	11	16	27
		%	20,8%	34,0%	27,0%
	average	n	25	18	43
		%	47,2%	38,3%	43,0%
	high	n	17	13	30
		%	32,1%	27,7%	30,0%
Total		n	53	47	100
		%	100,0%	100,0%	100,0%
$\chi 2=2,247$; p=0,3252					

Source: own.

The mean level of proper eating habits was 3.36 points on a 1-5 point scale and ranged from 1.83 points to 4.67 points. Dietary practices were mainly implemented by the respondents by eating plenty of fruits and vegetables (3.62 points) and least by avoiding salt and highly salted foods (3.03 points) - Table 2.

Table 2. Proper eating habits.

	I eat plenty of vegetables and fruit	I limit consumption of products such as animal fats and sugar	I take care to eat a proper diet	I avoid foods with preservatives	I avoid salt and foods with high salt content	I eat whole grain bread	I have good eating habits
M	3,62	3,21	3,61	3,40	3,03	3,28	3,36
Me	4,00	3,00	4,00	3,00	3,00	3,00	3,50
SD	0,91	1,15	0,83	1,13	1,15	1,00	0,74
Min.	2	1	1	1	1	1	1,83
Max.	5	5	5	5	5	5	4,67

Source: own.

The intensity level of preventive behaviors was 3.39 points. (SD=0.80) and ranged from 1.50 points to 4.83 points. Preventive behaviors were mainly realized by respondents by avoiding colds (4.10 points), and to a small extent by seeking knowledge on how others avoid diseases (2.80 points) - Table 3.

Table 3. Preventive behaviors.

	I avoid colds	I keep a note of emergency service phone numbers	I follow my doctor's instructions based on my medical tests	I visit my doctor on regular basis	I try to learn how others avoid illness	I seek medical information and understand the causes of health and illness	Preventive behaviors
M	4,10	3,27	3,66	3,27	2,80	3,22	3,39
Me	4,00	4,00	4,00	3,00	3,00	3,00	3,50
SD	0,77	1,83	1,19	1,42	1,14	0,99	0,80
Min.	2	1	1	1	1	1	1,50
Max.	5	5	5	5	5	5	4,83

Source: own.

The positive mental attitude index was 3.66 points in the study group on a 1-5 point scale and ranged from 2.00 points to 4.50 points. Positive mental attitude was manifested among the subjects mainly by having friends and regulated family life (4.32 points), and to a small extent by taking seriously the advice of those expressing concern about the subjects' health status (3.15 points - Table 4.

Table 4. Positive mental attitude.

	I take advice from people who are concerned about my health seriously	I avoid situations that make me feel down	I try to avoid strong emotions, stress and tension	I have friends and a settled family life	I avoid feelings like anger, anxiety and depression	I think positively	Positive mental attitude
M	3,15	3,60	3,36	4,32	3,65	3,90	3,66
Me	3,00	4,00	4,00	5,00	4,00	4,00	3,83
SD	1,13	0,86	0,90	0,89	0,87	0,77	0,52
Min.	1	1	1	1	1	2	2,00
Max.	5	5	5	5	5	5	4,50

Source: own.

Health practices in the study group averaged 3.31 points on a 1- to 5-point scale and ranged from 1.83 points to 4.67 points. Health practices were implemented by the respondents mainly by reducing smoking (3.83 points) and least by avoiding overwork (3.07 points) - Table 5.

Table 5. Health practices.

	I get enough rest	I avoid overworking	I control my body weight	I am getting enough sleep	I don't smoke	I do not do excessive physical exercise	Health practice
M	3,13	3,07	3,38	3,28	3,83	3,17	3,31
Me	3,00	3,00	4,00	3,00	5,00	3,00	3,33
SD	0,90	0,98	1,02	0,87	1,55	0,93	0,57
Min.	1	1	1	1	1	1	1,83
Max.	5	5	5	5	5	5	4,67

Source: own.

Low level of intensity of health activities was presented more often by men (38.6%) than women (17.9%). Average results were obtained by about 40% of women and men each. High level of health behavior intensity was found more often among women (39.3%) than among men (18.2%). There was a significantly higher index of healthy eating habits in the group of women than in the group of men (3.76 points vs. 2.85 points; $p<0.0001$). There was a higher index of health practices in women (3.42 points) than in men (3.17 points) - $p=0.0254$. There were significant differences in aspects such as weight control ($p=0.0001$) and avoidance of excessive physical exertion ($p<0.0001$) It was noted that subjects under 35 presented a significantly higher index of health practices (3.44 points) than those over 35 (3.17 points) - $p=0.0276$. Significant differences were found in all aspects of health practices except for getting enough rest ($p=0.0922$).

Discussion

Health has long been one of the most precious values of every human being. In order to maintain it at an optimal level for as long as possible, pro-health attitudes and a healthy lifestyle are encouraged. The period of childhood and adolescence is a period which favours the observance of health manners, whereas the period of adolescence is often associated with the promotion of behaviors negatively influencing health. Therefore, it is worth emphasizing the importance of observing health attitudes in different age groups as a factor having a positive impact on health.

The presented own research shows that low level of health behavior was presented by only 27% of the respondents. While average 43% of the respondents, high level of health behavior intensity was possessed by 30% of the surveyed respondents. In the study of Kulik et al. it was shown that the female students surveyed represented low activity in undertaking health behaviors [6]. The study of Muszalik et al [7] shows that high level of health behaviors was represented by older people while Nowak et al [8] in their study conducted in a group of female dietetics students showed that the index of healthy behaviors was at the level of 84.05. Szkut et al in their study in a group of people qualified for cardiac surgery showed that the

study subjects mostly followed the rules related to healthy eating [9]. Baumgart et al showed a high level of health behavior [10]. From a study conducted by Valentunkiewicz et al in a group of nurses, the level of health behaviors based on the Health Behavior Inventory was 73.19 [11]. Mental attitude was rated the highest in the study group, while health practices were rated the lowest. In a study by Koziel et al among participants of the University of the Third Age, health behaviors were assessed at an average level [12].

In the self-reported study, low adherence to health behaviors was more often presented by men (38.6%) compared to a group of female respondents (17.9%). Average adherence to health behaviors was presented by 40% of men and women. On the other hand, high level was recognized in 39.3% of examined women as well as 18.2% of men. The study of Kulik et al shows that the vast majority of female students surveyed rarely or very rarely undertake health behaviors [6]. Kim [13] and Mahalik et al [14] came to a similar conclusion. The study by Muszalik et al found that both men and women obtained higher levels of health behaviors [7]. Arendt et al obtained similar results from their study. In the group they studied, men had an average level of health behavior, while 35.29% of men had a low level [15]. According to Grochans et al both gender and education are factors that influence the health behaviors of the study subjects [16].

Low levels of health actions were more often observed among those over 35 (34%) than among those under 35 (20.8%). Those under 35 presented an average (47.2%) or high level of intensity of health attitudes. In the study of Arendt et al (2014), it was found that only 21.57% of male respondents presented high level of health manners. Szkup - Jablonska et al showed that age has no effect on the adoption of health practices [17].

The dietary practices of the study subjects were realized by eating fruits and vegetables and to a lesser extent by avoiding salt and salted foods. Muszalik et al in their study showed that the dietary practices in his study group were at an average level [7]. The men in the study conducted by Arendt et al rated the dietary practices the lowest, with the study group declaring that they did not avoid salt or salted foods, and consumed few fruits and vegetables [15]. In a study by Koziel et al [12], Third Age University students rated their eating habits better compared to older adults.

Preventive behaviors were implemented most often by avoiding colds, and to a lesser extent by seeking knowledge about avoiding diseases. Czapinski and Panek [18] emphasize that people often engage in behaviors related to immediate prevention, and least related to long-term prevention. Muszalik et al [7] found higher scores for preventive behaviors in their study. In the study of Arendt et al [15], men scored highest on preventive behaviors, they

avoided colds and followed medical recommendations. In the study of Szkut et al, preventive behaviors were better rated in the intellectually active group [9]. Adherence to health recommendations as well as health infromation were rated better.

Positive mental attitude was most often manifested by the respondents by having friends and a regulated family life. In the group of female students in the study of Kulik et al [5], positive mental attitude was at a low level. However, in the study group, 82.7% of the respondents engage in health behaviors by having friends and regulated family life and avoiding stress. From the study of Muszalik et al [7], the study group showed positive mental attitude. In a study conducted by Arendt et al [15], men rated mental attitude highest most often by having friends, regulated lifestyle. In a group of people treated for diabetes, it was shown that the better the mental attitude, the better the level of quality of life of the subjects, especially in the social, psychological and environmental domains [19].

Health practices in the study group were most often implemented by reducing smoking, and to a lesser extent by avoiding overwork. Those under 35 years of age in our study presented higher levels of health practices than those 35 years of age and older. The differences were in health practices with the exception of getting plenty of rest. From the study conducted by Kulik et al in a group of female students, it was shown that as health behaviors, the subjects most often indicated reducing smoking (82%) and avoiding colds (77%) [6]. In the study of Muszalik et al, higher levels of health practices were reported in the non-working group, while the elderly group had high rates of rest, physical activity, as well as recreation. Only 35% of the subjects had a normal body weight, the rest were overweight or obese [15]. From the study of Smoleń et al [20] it was found that the elderly had a high rate of eating habits. The study by Debska et al [21] shows that health practices are at a slightly lower level in the study group of elderly population.

In our study, women presented a higher index of correct eating habits than in the group of men. The observed differences were related to all correct eating habits. The higher index of health practices was more frequent in women. The differences were related to weight control and avoidance of excessive exercise. A study by Arendt et al found that men living in the city showed a higher index of health attitudes in all categories of health relationships, except preventive behaviors [15]. The study group had an average score in the consumption of whole grain bread. On the other hand, in terms of health behaviors, the male group showed an average level. In the study of Andruszkiewicz et al. it was found that the studied group of male smokers was characterized by a high level of positive mental attitude, while a low level of proper eating habits [22]. Romanowska - Tołłoczko showed that physical education

students have the lowest frequency of health behaviors, while they often undertake preventive activities. Among the students of the University of the Third Age, no correlation was found between gender and health behaviors undertaken by the study group [23].

It was also observed that women presented higher levels of preventive behaviors compared to the male group. The differences were in all aspects except having the phone numbers of the ambulance service recorded. In a study conducted by Kulik et al [6], female students represented low levels of preventive behaviors. A study by Arendt et al. [15] found that individuals between the ages of 50 and 59 had the highest score on health behaviors and the lowest score on preventive measures.

The gender of the subjects did not affect the positive mental attitude of the subjects. It was shown that women took cues from people expressing concern about their health more seriously than men. In men over the age of 40, positive psychological attitudes were higher among those who reported having friends and a regulated family life [15]. Romanowska - Tolloczko showed that neither gender nor age influences the adoption of health-related behaviors [23]. Szkut et al showed that women were significantly more likely to engage in health-related behaviors in terms of preventive measures and healthy eating. Positive mental attitude was better rated in Third Age University listeners compared to those who did not engage in any mental activity [9]. Intellectually active people avoided depressing situations and situations causing severe stress [12].

Proper eating habits as well as preventive behaviors did not differ between those under 35 and those over 35. Respondents under 35 were more likely to consume fruits and vegetables than those over 35, while those over 35 were more likely to be observed seeking medical information and understanding the causes of health and disease. A study conducted by Kulik et al found that the female students surveyed frequently reached for fruits and vegetables as part of their health behaviors (72.6%) [6]. The study by Szkup - Jablonska et al [16] in a group of female students shows that no relationship was found between the age of the subjects and differences in eating habits, mental attitude and health behaviors [9]. The age of the study subjects had no effect on the adoption of health-related behaviors. The group of adolescent girls was characterized by inappropriate eating habits. Most of the respondents studied represented low and average health behaviors [11].

The above study shows that the studied group of people represented a low and average rate of health behavior intensity, with women showing a much higher rate of proper eating habits. It is worthwhile to pay attention to the education of health attitudes in each age group.

Results

1. Women show higher rates of proper eating habits, preventive behaviors, and work practices.
2. Age of the subjects was not shown to affect positive mental attitude. Subjects under 35 years of age presented higher levels of health practices than subjects over 35 years of age. Gender differentiates the adoption of health-promoting behaviors as well as preventive behaviors. Women presented higher level in both aspects.
3. Gender and age did not differentiate mental attitude towards health-promoting practices.

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