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## Original Research Article

# Health-oriented attitudes and opinions of 1st year students at the University of Warmia and Mazury in Olsztyn on the prophylaxis of health hazards (2005/2006)

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## ABSTRACT

**Introduction:** People's health is definitely influenced by their health-oriented attitudes shown in everyday life.

**Aim:** To analyze the health-oriented attitudes of young males and their opinions on the prevention of health hazards.

**Materials and methods:** The research was conducted in the academic year 2005/2006. The study group consisted of 550 students in their 1st year at the University of Warmia and Mazury in Olsztyn. A diagnostic poll with an anonymous questionnaire was applied as the research method.

**Results and discussion:** Negative effects of a harmful life style are noticeable both among Polish as well as foreign students.

**Conclusions:** The investigated students showed a low level of physical activity at secondary school and during studies. In most cases it was limited to participating in obligatory physical education classes. A relatively high percentage of the subjects consumed alcohol every day or once a week. Some students wished to change their eating habits and quit smoking or drinking alcohol.

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## 1. Introduction

The modern man lives in a world dominated by the dynamic civilization transformations affecting economy, society, culture and morality. The civilization progress has led to pathological changes in health-related attitudes, such as a low level of physical activity, improper eating habits, excessive alcohol consumption, smoking cigarettes and taking drugs.

As a result, a number of new diseases have occurred. Earlier unknown, now they are referred to as lifestyle diseases,<sup>8</sup> and include being overweight, obesity, cardiovascular diseases (e.g. myocardial infarction, heart failure, stroke), respiratory diseases (sleep apnea), joint diseases (degenerative lesions, spinal deformities, flat feet), metabolic changes (diabetes), some types of neoplasms (of breast or large intestine), mental disorders (depression, apathy), infertility, and even death.<sup>2,4,16,18</sup>

Health programs implemented all over the world do not bring the expected results, and research results concerning the health of populations in particular regions are alarming. Moreover, this negative tendency is increasing especially in the highly developed countries.<sup>5,6,7</sup> Difficulties associated with the implementation of health programs result directly from the complexity of what is broadly understood as mental and physical health.<sup>17</sup> Preventive activities in the field of health hazards involve such issues as physical activity, nutrition, personal hygiene, consumption of stimulants (alcohol, tobacco products, and drugs), stress, rest, and even free time management.<sup>14</sup>

Thus it seems that an attempt to analyze “a healthy lifestyle” of 1st year students at the University of Warmia and Mazury in Olsztyn on the basis of their declared opinions is worth investigating. The data collected during the research should provide interesting information as to whether these 1st year students identify themselves with health-oriented attitudes, or just the opposite.

## 2. Aim

The aim of the study conducted among 1st year students at the University of Warmia and Mazury in Olsztyn (UWM) was to investigate their attitudes with respect to principles governing a healthy lifestyle.

**Table 1 – Declared forms of motor activity at secondary school.**

Number of declared forms of motor activity	N	%
1	321	58.68
2	178	32.54
3	39	7.13
4	7	1.28
5	2	0.37
Total	547	100.00

**Table 2 – Declared forms of physical activity during secondary education.**

Forms of physical activity	N	%
Obligatory physical education classes	505	92.32
School sports club	109	19.93
Students sports club	19	3.47
Outside school sports club	93	17.00
Society for the promotion of physical culture	13	2.38
Another organization of physical culture	57	10.42
Academic sports association	0	0.00
Individually and rarely with family	84	15.36

The subjects could give more than one answer.

**Table 3 – Subjects' opinions on the level of their motor fitness (from 1 to 6).**

Declared level of motor fitness	N	%
1 – Very poor	0	0.00
2 – Poor	38	7.28
3 – Sufficient	38	7.28
4 – Good	240	45.98
5 – Very good	202	38.70
6 – Excellent	4	0.77
Total	522	100.00

## 3. Materials and methods

This study was conducted in the summer semester of the 2005/2006 academic year during the obligatory physical education classes. The questionnaire was administered to all 1st year students from 50 groups of students chosen randomly. The study group comprised 550 students in their 1st year of regular studies at the UWM in Olsztyn, who permanently lived in the region of Warmia and Mazury. The selected group of 550 students was seen as appropriate and representative enough for this kind of research. The study was approved by the Bioethics Committee at the UWM in Olsztyn. The research method involved a diagnostic poll with an anonymous questionnaire.

## 4. Results

Tables 1–4 display students' answers concerning their physical activity at secondary school and during studies as well as their opinions on their motor fitness.

The highest number of subjects practiced only one form of physical activity at school (58.68%). Considerably fewer men practiced two or three activities (32.54% and 7.13%, respectively). The percentage of subjects who practiced more than three activities was minimal (Table 1).

The largest group of subjects (92.32%) participated in the obligatory physical education classes, while a lot fewer of them were members of sports clubs at school and outside school, or exercised individually or with their families (19.93%, 17.00%, and 15.36%, respectively). None of the

**Table 4 – Opinions on the nature and form of physical education classes.**

Nature of physical education classes	N	%
Compulsory during whole studies	272	50.28
Compulsory at 1st and 2nd year	109	20.15
Voluntary from 1st year	150	27.73
Should not be in the curriculum	10	1.85
<b>Total</b>	<b>541</b>	<b>100.00</b>
Preferred forms of physical education classes		
I do not want	39	7.65
I do not know	314	61.57
Recreation	97	19.02

**Table 5 – The most important health-related activities in the opinion of the subjects.**

The most important activities to stay healthy	N	%
Everyday hygiene, including personal hygiene	562	80.51
Proper diet	62	8.88
Cleanliness and neatness of clothing	17	2.44
Disinfection and disinsection of rooms	2	0.29
Developing motor fitness	39	5.59
Cosmetics	4	0.57
Other	12	1.72
<b>Total</b>	<b>698</b>	<b>100.00</b>
The subjects could give more than one answer.		

students attended the activities organized by the Academic Sports Association (Table 2).

Almost half of the subjects (45.98%) evaluated the level of their motor fitness as good. A considerable number (38.70%) thought that they represented a very good level. An equal number of subjects assessed their motor fitness as sufficient and poor (7.28% each). None of the students declared their motor fitness as very poor (Table 3).

More than half of the subjects (50.28%) stated that physical education classes should be obligatory throughout the whole course of studies; almost a third (27.73%) that such classes should be voluntary from the 1st year onward; and 20.15% believed that these classes should be compulsory at the 1st and 2nd year of studies. Only a slight percentage of subjects (1.85%) thought that these types of classes were totally unnecessary during studies. A high proportion of subjects (61.57%) did not know what form physical education classes should assume. Nearly one-fifth (19.02%) believed recreation to be an attractive form for such classes, while 11.76% chose sports (Table 4).

The highest percentage of subjects saw everyday hygienic activities as the most important health-related activity (80.51%). Such issues as proper diet (8.88%), developing motor fitness (5.59%), cleanliness and neatness of clothing (2.44%), disinfection and disinsection of rooms (0.29%) did not play such important roles for these subjects (Table 5).

A similar percentage of men noticed the positive effect of diet on their present and future health (43.65% and 41.24%, respectively). As far as negative effects are concerned,

**Table 6 – Students' opinions concerning the influence of their diets on their health and on their will to change their eating habits.**

Assessment of eating habits' influence – at present	N	%
Positive	227	43.65
Negative	163	31.35
No influence	130	25.00
<b>Total</b>	<b>520</b>	<b>100.00</b>
Assessment of eating habits' influence – in the future		
Positive	219	41.24
Negative	226	42.56
No influence	86	16.20
<b>Total</b>	<b>531</b>	<b>100.00</b>
Will to improve eating habits		
Yes	399	73.35
No	145	31.28
<b>Total</b>	<b>544</b>	<b>100.00</b>

**Table 7 – Students' opinions on alcohol consumption.**

Frequency of alcohol consumption	N	%
Never	10	1.82
Rarely	373	67.94
Once a month	62	11.29
Once a week	83	15.12
Every day	21	3.83
<b>Total</b>	<b>549</b>	<b>100.00</b>
Number of kinds of consumed alcohol		
1	408	78.01
2	68	13.00
3	38	7.27
4	9	1.72
5	0	0.00
<b>Total</b>	<b>523</b>	<b>100.00</b>

**Table 8 – Kinds of alcohol most often consumed by the subjects and their opinions as to its availability on campus.**

Most often I drink	N	%
Beer	464	55.24
Wine	98	11.67
Cognac	11	1.31
Vodka	253	30.12
Another alcoholic drink	14	1.67
<b>Total*</b>	<b>840</b>	<b>100.00</b>
Easy availability of alcohol on the UWM campus		
Yes	411	75.14
No	88	16.09
I do not know	48	8.78
<b>Total</b>	<b>547</b>	<b>100.00</b>

\* The subjects could give more than one answer.

opinions were less uniform (31.35% and 42.56%, correspondingly). A considerable percentage of subjects thought that

**Table 9 – Subjects' opinions on smoking cigarettes**

Opinion	N	%
I am totally against smoking	336	61.09
In some circumstances, when with friends I admit the possibility of smoking, but in moderation	94	17.09
Smoking helps relieve stress	71	12.90
Smoking helps establish social relationships	49	8.9
<b>Total</b>	<b>550</b>	<b>100</b>
Do you want to quit smoking?		
Yes	129	60.28
No	85	39.71
<b>Total</b>	<b>214</b>	<b>100</b>

their diets did not influence either their present or future health condition (25.00% and 16.20%, respectively). A vast majority of students declared their will to improve their eating habits (73.35%); nevertheless a considerable percentage did not want to do so (31.28%) (Table 6).

Beer was consumed most often (55.24%). A considerable percentage of the subjects also drank vodka (30.12%), and a lot fewer drank wine (11.67%). The subjects stated that alcohol was easily available on campus (75.14%). Students who did not have any opinions on the availability of alcohol (8.78%) most probably did not drink, thus they were not interested in its availability (Table 8).

The majority of these subjects (67.94%) rarely consumed alcohol, 15.12% – once a week, 11.29% – once a month, while 3.83% drank alcohol every day. Only 1.82% of the subjects declared teetotalism. Most of the students declared drinking one kind of alcohol (78.01%), considerably fewer drank two or three kinds (13.00% and 7.27%, respectively), while only 1.72% – four (Table 7).

More than half of the subjects (61.09%) declared nicotine abstinence. Considerably fewer of them (14.84%) smoked rarely, only under some circumstances. Some students smoked cigarettes in order to relieve stress or to establish social relationships (11.20% and 7.73%, respectively). Slightly more than half (60.28%) of the subjects wanted to quit smoking; unfortunately, 39.71% of them did not want to quit this addiction (Table 9).

## 5. Discussion

University students have become a serious subject of research and analysis in the field of public health,<sup>10</sup> and their 1st academic year is a critical period for promoting an active lifestyle in the academic milieu.<sup>11</sup> Studies are believed to be a transitory period, when young people are likely to embrace the habits of a healthy lifestyle.<sup>12</sup>

The research results presented in this work indicate that 1st year students present insufficiently health-oriented attitudes. It is most worrying that the subjects show a low level of physical activity at secondary school and during studies, which is predominantly limited to obligatory physical education classes. Sedentary lifestyle is one of the lifestyle diseases, and the percentage of students who are physically

inactive is constantly growing all over the world.<sup>19</sup> What is even more worrying, a considerable percentage of students consume alcohol once a week or even every day. The students who begin studies very rarely declare teetotalism. A vast majority of them drink alcohol and smoke tobacco.<sup>15</sup>

Unfavorable effects of an unhealthy lifestyle are also noticeable among students in other countries.<sup>1,9,11,22</sup> The National College of Health Risk Behaviour Survey shows that 35% of American college students are overweight.<sup>13</sup> Research into students' eating habits points to the need of the implementation of health-promoting programs into the curriculum.<sup>3</sup> That was also confirmed by the results referring to the UWM students, since the majority of these subjects wished to improve their diets and limit the amount of alcohol consumed. In 1993, one of the first studies was conducted into binge drinking, a fashion widely spread among American college students. It showed that 2 out of 5 students attending a 4-year college in the United States drink alcohol at this level or greater.<sup>21</sup>

An attractive health-promoting program incorporated into the curriculum can improve the health-oriented attitudes of students.<sup>1</sup> However, such a program offered at the UWM leaves much to be desired. According to Toomey et al.,<sup>20</sup> universities should also be assessed on the basis of improvement mechanisms they implement to reduce alcohol consumption among their students. Otherwise, all the activities that promote a healthy lifestyle are only intentional, remaining in the sphere of wishful thinking rather than being an effective procedural algorithm.

## 6. Conclusions

This conducted research indicated that UWM students who constituted the study group presented a low level of physical activity at secondary school and during studies, which was predominantly limited to obligatory physical education classes. Low awareness of these students as far as their health was concerned was reflected in frequent (every day or once a week) consumption of alcohol by a considerable percentage (over 10%) of the subjects. Beer was the most popular drink among those who drank alcohol. A high percentage wished to change their diets and stop smoking.

## Conflict of interest

None declared.

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## REFERENCES

- [1] Alpar SE, Senturan L, Karabacak Ü, Sabuncu N. Change in the health promoting lifestyle behavior of Turkish university nursing students from beginning to end of nurse training. *Nurse Educ Pract.* 2008;8(6):382-388.

- [2] Church TS, Earnest CP, Skinner JS, Blair SN. Effects of different doses of physical activity on cardiorespiratory fitness among sedentary, overweight or obese postmenopausal women with elevated blood pressure. *JAMA*. 2007;297(19):2081–2091.
- [3] Croll JK, Neumark-Sztainer D, Story M. Healthy eating: what does it mean to adolescents? *J Nutr Educ*. 2001;33(4):193–198.
- [4] Duvigneaud N, Wijndaele K, Matton L, Deriemaeker P, Philippaerts R, Lefevre J, et al. Socio-economic and lifestyle factors associated with overweight in Flemish adult men and women. *BMC Public Health*. 2007. <http://dx.doi.org/10.1186/1471-2458-7-23>.
- [5] Dwyer JJ, Hansen B, Barrera M, Allison K, Coelin-Celestini S, Koenig D, et al. Maximizing children's physical activity: an evaluability assessment to plan a community-based, multi-strategy approach in an ethno-racially and socio-economically diverse city. *Health Promot Int*. 2003;18(3):199–208.
- [6] Fragala-Pinkham MA, Haley SM, Rabin J, Kharasch VS. A fitness program for children with disabilities. *Phys Ther*. 2005;85(11):1182–1200.
- [7] Francis KT. Status of the year 2000 health goals for physical activity and fitness. *Phys Ther*. 1999;79(4):405–414.
- [8] Garrett K. Sources of hope in chronic illness. *Health Sociol Rev*. 2001;10(2):99–107.
- [9] Gómez-López M, Granero-Gallegos A, Baena-Extremuera A. Perceived barriers by university students in the practice of physical activities. *J Sports Sci Med*. 2010;9:374–381.
- [10] Gyurcsik NC, Bray SR, Brittain DR. Coping with barriers to vigorous physical activity during transition to university. *Fam Community Health*. 2004;27(2):130–142.
- [11] Irwin JD. The prevalence of physical activity maintenance in a sample of university students: a longitudinal study. *J Am Coll Health*. 2007;56(1):37–41.
- [12] Leslie E, Sparling PB, Owen N. University campus setting and the promotion of physical activity in young adults: lesson from research in Australia and the USA. *Health Educ*. 2001;101:116–125. <http://dx.doi.org/10.1108/09654280110387880>.
- [13] Lowry R, Galuska DA, Fulton JE, Wechsler H, Kann L, Collins JL. Physical activity. Food choice and weight management goals and practices among U.S. college students. *Am J Prev Med*. 2000;18(1):18–19.
- [14] Podstawski R, Skibniewska KA, Mroczkowska A. Relationships between lifestyle and motor fitness in early-school children. *Pol Ann Med*. 2012;19(1):21–26.
- [15] Podstawski R. Pro-health attitudes of first year students attending the University of Warmia & Mazury in Olsztyn on health (2001/2002). In: Jurgielewicz-Urniaż M, ed. *Sport i wychowanie zdrowotne (Sport and Health Education)*. Olsztyn: OSW; 2012:59–74.
- [16] Ruta B, Otocka-Kmiecik A, Nowak D, Kujawa J. Antiatherosclerotic effect of exercise on the antioxidant properties of paraoxonase – a preliminary examination. *Pol Ann Med*. 2012;19(1):84–88.
- [17] Seedhouse D. *Health Promotion: Philosophy, Prejudice and Practice*, 2nd ed. Chichester: John Wiley & Sons Ltd.; 1997.
- [18] So HK, Nelson EAS, Li AM, Wong EMC, Lau JTF, Guldán GS, et al. Secular changes in height weight and body mass index in Hong Kong children. *BMC Public Health*. 2008;8:320. <http://dx.doi.org/10.1186/1471-2458-8-320>.
- [19] Stelzer J, Ernest JM, Fenster MJ, Langford G. Attitudes toward physical education: a study of high school students from four countries – Austria, Czech Republic, England, and USA. *Coll Student J*. 2004;38(2):171–179.
- [20] Toomey TL, Lenk KM, Wagenaar AC. Environmental policies to reduce college drinking: an update of research findings. *J Stud Alcohol Drugs*. 2007;68(2):208–219.
- [21] Wechsler H, Davenport A, Dowdall G, Moeykens B, Castillo S. Health and behavioral consequences of binge drinking in college: a national survey of students at 140 campuses. *JAMA*. 1994;272(212):1672–1677.
- [22] Yen LL, Hung BH, Yang HH, Tung SC, Yen HW. Addictive drug use in vocational high school students. *J Med Educ*. 1997;1:69–80.