

HEALTH ATTITUDES AND BEHAVIOURS OF FIRST-YEAR UNIVERSITY OF WARMIA & MAZURY STUDENTS: A CALL FOR IMPLEMENTING HEALTH EDUCATION AT UNIVERSITIES

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Abstract

Despite the growing interest in health and the abundance of health-promoting programs and campaigns, there is a noticeable lack of such undertakings at colleges and universities. This is worrisome, considering the fact that the first-year of studies is the last phase of education in which it is possible to promote and establish a healthy lifestyle. The purpose of the research was to evaluate the health attitudes and behaviours of first-year university students. A total of 700 first-year male students aged 19-20 attending the University of Warmia & Mazury in Olsztyn (Poland) took part in the study by filling out anonymous questionnaires concerning health behaviours and attitudes regarding physical activity, nutrition, tobacco and alcohol use, stress and pro-health activities. The results indicate that physical activity of the respondents was limited to participation in the obligatory physical education classes during high school and while at university. Moreover, the students were concerned more about personal hygiene and appearance than physical fitness and proper nutrition. The majority of them did not have a regular schedule of meals and did not take vitamin supplements. The percentage of respondents who declared drinking alcohol regularly (once a week) and even every day is quite worrisome. One out of ten students reported losing consciousness multiple times as a result of binge drinking and over a third blacked out at least once during the first few months of their studies. Although only a small margin of the students surveyed can be considered to be addicted to smoking, nearly half of them admitted to smoking occasionally. Although a significant portion of students expressed a fear in stress generating situations during their studies, the majority possessed a very limited knowledge of stress coping methods. The research results indicate a clear need to implement adequate health promoting programs at the university level of education to help counteract the observed negative tendencies.

Key words: university male students, health attitudes and habits, physical activity, nutrition, tobacco/alcohol use, stress, pro-health activities.

Introduction

Numerous publications emphasize the role of university graduates in the economic and social development of a nation. Higher education generally contributes to high social prestige and is one of the requirements for a successful professional career and better life perspectives (Ansari et al., 2011). Because of their knowledge and social position, individuals holding university degrees are opinion leaders and we can therefore assume them to have a strong influence in shaping the social needs for a healthy lifestyle (Lee, Kang & Zum, 2005). However, despite the above, the role of educated individuals in promoting personal and public health is not often observed.

Data indicating changes in the health behaviours of highly developed societies are well-documented by scientific literature. The contemporary human seems to have forgotten that his body is programmed for an active lifestyle (Brodersen, Steptoe, Boniface & Wardle, 2007). The chronic lack of physical activity, inappropriate nutrition and other negative social factors result in increasing rates of so called civilization diseases like: cardiovascular diseases (heart attack, heart failure, stroke), respiratory diseases (sleep apnoea), problems with joints (degeneration, spinal deformations, flat-footedness), metabolic changes (diabetes), some types of cancer (breast, colon), mental disorders (depression, apathy), infertility and even death (Blair et al., 1989; Church, Earnest, Skinner & Blair, 2007; Din-Dzietham, Liu, Bielo & Shamsa, 2007; LaCaille, Dauner, Krambeer & Pedersen, 2011, Swallen, Reither, Haas & Meier, 2005; Trost & Loprinzi, 2008).

The best example of this negative phenomenon can be observed in the USA, where according to epidemiological studies, 34.2% of adults are overweight and even worse, 33.8% are obese (Flegal, Carroll, Ogden & Curtin, 2010). Poland, which is an example of a developing country after political and social transformation, is also characterized by the same negative tendency although in a somewhat lesser extent. Currently, approx. 6.5 million Poles have a BMI of over 30, and it is estimated that anywhere from 280–300 thousand suffer from very severe obesity (BMI > 40) (Kołakowska, 2012).

What is more, the mortality rates for adult males in Poland in the 1990s increased so dramatically that the situation was referred to as a “health disaster” (Zatoński, 1996). The World Bank Report warns that the loss of productivity potential resulting from increased mortality in the period of highest productivity and the high costs of medical treatment of chronic diseases might be important obstacles to the economic development of the nation (Feachem, 1994).

Incidence rates reveal that the highest increase in weight happens between the age of 18 and 29, which has been confirmed by research (Gordon-Larsen, Adair, Nelson & Popkin, 2004). A decrease in physical activity and increase in caloric intake are the main factors contributing to weight gain among college students (Douglas et al., 1997; Bray & Born, 2004). An example of the former close to home is research on the lifestyles of Lithuanian high school students which reveals that they pay very little attention to exercising and physical activity and “a big gap exists between the perception of healthy lifestyle importance and practising such a lifestyle” (Lamanauskas & Armoniene, 2012, p. 68). Such behaviours may partially result from stress connected with studying, but this is surely not the sole reason (Serlachius, Hamer & Wardle, 2007). It seems probable that excessive alcohol consumption also influences these undesirable health habits (Demory et al., 2004; Durkin, Wolfe & Clark, 1999).

The prevention of health threatening behaviours is a multiple factor structure. It is a function of the interaction between dynamic and constantly changing factors. Health is not a permanent state “given once and forever”. Besides genetic predispositions, physical activity, personal hygiene, tobacco smoking, alcohol consumption and resistance to stress are the most influential factors determining the health status of a population (Podstawski, 2006). The promotion of a healthy lifestyle is a process which aims to teach individuals how to have more control over their health (Edelman & Mandele, 2006). It is a positive dynamic process of enhancing physical, mental, and social wellness, and the self-actualization of an individual. As such, it extends much further than simple illness-avoidance behaviours (Hui, 2002; Podstawski, Górnik, Gizińska & Skibniewska, 2012).

Aim of the Study

The aim of the study conducted among first-year male students at the University of Warmia & Mazury (UWM) in Olsztyn was to assess their behaviours and attitudes towards a healthy lifestyle. The study aim was realized by attempting to answer the following question:

- To what extent are the students' attitudes and behaviours coherent with a healthy lifestyle?

Methodology of research

Ethics

The research was carried out with prior consent from the Ethical Committee of UWM, and the volunteers willingly agreed to participate in the study, which they confirmed by signing a written statement.

Sample of Research

The research was conducted on a total of 700 first-year male students enrolled at the UWM for the summer semester of the 2009/2010 school year. Sixty groups of students totaling 640 men were chosen, using random selection tables (Zieliński & Zieliński, 2001) from a total of 250 groups attending P.E. lessons. The participants were students of various faculties and constituted over 96% of males aged 19-20 from the selected groups. This amount was determined based on the technical possibilities of surveying the study participants during a single week. Only those students who, for whatever reasons, were absent on the day of the studies were excluded from the research. First-year students were specifically chosen because they are a particularly valuable research group, as it is still possible to shape and alter their health attitudes and habits. Moreover, this study constitutes the sixth stage of cross-sectional studies, which have been systematically conducted biannually since 2000 (Podstawski, 2006, 2011; Podstawski, Górnik, Gizińska, & Skibniewska, 2012). The vast majority of study participants were permanent residents of the Warminsko-Mazurskie voivodeship.

It was also assessed whether the number of participants was sufficient and therefore, if the group could be considered representative. The following formula was used for this purpose (1):

$$n = \frac{m_a^2}{4d^2}, \quad (1)$$

Where:

d – maximum (acceptable) estimation error. μ_α – value read from the normal distribution table $N(0.1)$ at the accepted significance level of $1 - \alpha$. for the accepted level of significance $1 - \alpha = 0.95$ ($\mu_\alpha = 1.96$) it was assumed that the estimation error does not exceed 5% (Nowak, 2001). The necessary amount of participants was established as 385 and, therefore, lower than the actual number accounted for in the studies (700). That is why the study group can be considered homogenous and representative for the population of first-year male UWM students. For interpretation of the results, the following residential categories were established: villages, small towns: < 20,000 inhabitants, big towns: 20,000 – 50,000 inhabitants, small cities: 50,000 – 100,000 inhabitants, and big cities: > 100,000 inhabitants.

Instruments and Procedures

The anonymous questionnaire consisted of 28 questions (including 23 closed-ended and 7 open-ended questions). Open-ended questions enabled the students to freely express their response to the given topics. The questions dealt with issues such as: physical activity, physical fitness, nutrition, personal hygiene, sanitary conditions, alcohol and tobacco use, stress, and gaining knowledge on health. The last part of the questionnaire contained personal information, including: gender, age, place of residence while at university, place of permanent residence, as well as the location and type of high school completed.

Data Analysis

The analysis of results used descriptive statistics (frequencies and percentages) which were calculated using the Statistical PL v. 10 software package.

Results of Research

The study group has been characterized in Table 1. The remaining part of the study results have been divided into the following categories of human behaviours influencing health: physical activity, personal hygiene, nutrition, alcohol/tobacco use, reaction to stress, and knowledge on and interest in public health. They have been presented in tables 2-6.

Table 1. Characterization of the research sample.

Residence during studies											
Dormitory		Rented room		Family Home		Boarding school		Total			
N	%	N	%	N	%	N	%	N	%		
216	31.3	257	37.2	197	28.5	20	3.0	690	100		
Place of permanent residence											
Village		Small town		Big town		Small city		Big city		Total	
N	%	N	%	N	%	N	%	N	%	N	%
191	27.7	107	15.5	113	16.4	99	14.4	179	26.0	689	100
Place of high school completed											
Village		Small town		Big town		Small city		Big city		Total	
N	%	N	%	N	%	N	%	N	%	N	%
54	7.9	159	23.1	174	25.3	97	14.2	203	29.5	687	100
Type of high school completed											
General high school				Vocational school				Total			
N		%		N		%		N		%	
500		72.5		190		27.5		690		100	

Looking at the data from table 1, we can state that renting a room was the most popular type of accommodation among first-year university students (37.2%). Residing in a dormitory (indicated by 31.3% of respondents) and living with family (28.5%) were next in terms of popularity. Most of the study participants came from rural areas (27.7%), followed by inhabitants of big cities (26.0%). The remaining respondents came from small and big towns as well as small cities of no more than 100,000 residents. The majority of students (72.5%) graduated from high schools, which were most often located in big cities (29.5%) (Table 1).

Physical Activity

Table 2 shows that most of the students assumed only one or two forms of physical activity in high school (46.44% and 37.15% respectively). Only 13.93% of the respondents declared taking part in three different forms of physical activity during this period. The majority of students (82.17%) did not limit their physical activity, and 15.36% had to limit it only periodically. Obligatory P.E. lessons were the most common circumstance under which physical activity was assumed (declared by 98.11% of the respondents), followed by involvement in school sports clubs (28.74%) and individual activity assumed with the family (28.88%). Non-school sport clubs were also quite popular (21.63%).

Table 2. Students' physical activity during high school and university studies

Number of physical activity forms assumed during high school											
1		2		3		4		5		Total	
N	%	N	%	N	%	N	%	N	%	N	%
320	46.44	256	37.15	96	13.93	12	1.74	5	0.74	689	100
Not limited		Periodically limited				Constantly limited		Total			
N	%	N	%	N	%	N	%	N	%	N	%
567	82.17	106	15.36	17	2.47	690	100				
Circumstances under which physical activity was performed										N	%
Obligatory PE Lessons										676	98.11
School Sport Club (SSC)										198	28.74
Collegiate Sport Club										46	6.68
Non-School Sports Clubs (NSSC)										149	21.63
Society for the Propagation of Physical Culture										17	2.47
Other Organisation										54	7.84
Academic Sports Association (ASA)										4	0.58
Individually, occasionally with family										199	28.88
Attitude towards obligatory PE lessons during university studies											
Should be obligatory during all study years		Should be obligatory during first two years		Should be only voluntary		Completely unnecessary		No opinion		Total	
N	%	N	%	N	%	N	%	N	%	N	%
206	29.86	210	30.43	204	29.56	26	3.76	44	6.39	690	100
Preferred form of PE lessons during university studies											
I do not want to attend		Recreation		Sport		Hard to say		Total			
N	%	N	%	N	%	N	%	N	%	N	%
69	10.09	335	48.98	182	26.61	98	14.32	684	100		
Current physical activity of students											
Obligatory PE Lessons										594	84.86
Academic Sports Association (ASA)										34	4.85
Non-School Sports Clubs (NSSC)										13	1.85
Lack of exercise due to sick leave										59	8.44
Students' assessment of their motor fitness level on a scale of 1 - 6											
Level of motor fitness										N	%
1 (very poor)										0	0.00
2 (poor)										19	2.75

3 (satisfactory)	30	4.34
4 (good)	258	37.38
5 (very good)	319	46.16
6 (outstanding)	65	9.37
Total	691	100

The respondents' attitudes to obligatory PE classes during the studies were equally distributed among the three possible options: obligatory during all study years, obligatory during the first two years or voluntary, with around a third of the students expressing support for each of these options. Only a minor percentage (3.76%) believed physical education at university to be superfluous. Half of the sampled students were in favour of a recreational form of physical education, one fourth preferred practising sport and 15% did not have a clear opinion on the matter. Ten percent of the students declared that they did not want to participate in any form of physical education.

The majority of first-year students take part in only one form of physical activity - namely obligatory PE lessons with 8% dismissed from this activity for medical reasons. Only a small percentage are members of the Academic Sports Association (ASA) or Non-School Sports Clubs (NSSC) (4.85% and 1.85% respectively). As compared to high school, the number of circumstances under which physical activity is performed at university dropped from 8 to 3. The most substantial decrease could be observed in the number of respondents attending NSSC (from 21.63% to merely 1.85%). A small increase in ASA participation was, however, observed (from 0.58% to 4.85%). Most of the students assessed their level of motor fitness as very good or good (46.16% and 37.38% respectively) and 10% even as outstanding. It is interesting to note that even though a significant percentage of students did not engage in any physical activity, none of them indicated a poor level of motor fitness (Table 2).

Nutrition

Over half of the respondents believed that their eating habits have a positive influence on their health now and will continue to do so in the future (55.48% and 58.07% respectively). Approximately 30% of the students stated the contrary. About 13% of the students did not see any connection between their eating habits and health. Most of the students do not have regular hours during which they consume the basic meals. Irregular breakfast, dinner, and supper times were declared by 81.26%, 74.49%, and 66.71% of respondents respectively. The data indicate more regularity in consuming the later meals (which reflects a reversed tendency than recommended for a healthy lifestyle). The majority of the respondents do not use any vitamin supplements whatsoever, 19.02% declared using them once a month and 8.93% - once a week. Only 5.61% of the students take vitamin supplements daily with only slightly more (8.21%) eating fruit every day.

Table 3. Students' eating habits.

What influence does nutrition have on your current health status?														
Positive			Negative				No influence			Total				
N	%		N	%		N	%		N	%				
385	55.48		205	29.54		104	14.98		694	100				
What influence will nutrition have on your health status in the future?														
N	%		N	%		N	%		N	%				
403	58.07		207	29.83		84	12.10		694	100				
How regularly do you consume the following meals?														
Breakfast				Dinner				Supper				Total		
Yes		No		Yes		No		Yes		No				
N	%		N	%		N	%		N	%		N	%	
130	18.73	564	81.26	177	25.50	517	74.49	231	33.28	463	66.71	694	100	
How often do you eat fruit?														
Everyday			2-3 times a week			Less than once a week			Not at all			Total		
N	%		N	%		N	%		N	%		N	%	
57	8.21		231	33.28		358	51.58		48	6.91		694	100	
How often do you take vitamin supplements?														
Never			Once a month			Once a week			Everyday			Total		
N	%		N	%		N	%		N	%		N	%	
461	66.42		132	19.02		62	8.93		39	5.61		694	100	
Do you want to improve your eating habits														
Yes						No						Total		
N	%					N	%					N	%	
470	68.12					220	31.88					690	100	
Most important pro-health activities according to students*											N	%		
Everyday body hygiene											628	85.67		
Proper nutrition											29	2.75		
Cleanliness and tidiness of appearance											28	2.61		
Cleaning and disinfection of rooms/flats											17	1.04		
Proper motor fitness											31	2.75		
Total											733	100		

* - respondents could indicate more than one answer

It is surprising that, despite the relatively high percentage of men declaring healthy eating habits, the majority of them (68.12%) still wanted to improve in this respect. When students were asked to indicate the most important pro-health activities, as many as 85.67% of them pointed to daily body hygiene and only 2.75% to maintaining proper nutrition and motor fitness (Table 3).

Alcohol Use

The majority of male university students (70.25%) declared drinking alcohol occasionally, with only 4.08% abstainers. It is alarming that as many as every tenth student consumed

alcohol every day. Four fifths of the respondents drank only one kind of alcohol, the most popular being beer, followed by vodka and wine (61.66%, 21.33% and 15.55% respectively). Over 90% of students who filled out the questionnaires were in favour of alcohol being available on campus.

Table 4. Students' alcohol consumption.

Frequency of alcohol consumption											
I do not drink		Occasionally		Once a month		Once a week		Every day		Total	
N	%	N	%	N	%	N	%	N	%	N	%
28	4.08	483	70.25	48	6.98	59	8.65	69	10.04	687	100
Number of alcohol beverages consumed by students											
1		2		3		4		5		Total	
N	%	N	%	N	%	N	%	N	%	N	%
548	79.65	87	12.65	40	5.81	10	1.45	3	0.44	688	100
Types of alcohol most frequently consumed										N	%
Beer										555	61.66
Wine										140	15.55
Cognac										10	1.11
Vodka										192	21.33
Other										3	0.33
Total*										900	100
Students' opinion on whether alcohol should be allowed on campus											
Yes				No		No opinion		Total			
N	%	N	%	N	%	N	%	N	%	N	%
614	90.42	30	4.42	35	5.16	679	100				
Have you ever had a blackout caused by alcohol consumption?											
Never		Once 5-6		2-3 times		More than 10 times		Total			
N	%	N	%	N	%	N	%	N	%	N	%
467	66.71	134	19.14	34	4.85	65	9.29	700	100		
Do you want to stop drinking?											
Yes				No		No opinion		Total			
N	%	N	%	N	%	N	%	N	%	N	%
154	25.08	401	65.30	59	9.12	614	100				

* - respondents could indicate more than one answer

Almost 20% of the respondents reported experiencing a blackout because of binge drinking at least once, and another 10% had this happen more than 10 times during their first-year of studies. A quarter of the drinking students would like to give up this addictive habit, but the remaining 65.30% did not even consider such a possibility (Table 4).

Tobacco Use

Almost 60% of male students do not smoke at all and 20.71% smoke rarely, only in certain social situations. The remaining 20% could be regarded as addicted to smoking, with 2%

smoking more than one package of cigarettes a day. Over 70% of the smokers believed smoking to be fashionable and 17.75% considered smoking to be a method of coping with stress.

Table 5. Students' opinions on smoking.

Smoking behaviours:		N	%				
I am in favour of total abstaining from cigarettes		401	57.28				
I sometimes smoke in social situations		145	20.71				
I smoke a few cigarettes a day		76	10.85				
I smoke more than 10 cigarettes a day		64	9.14				
I smoke more than a package of cigarettes a day		14	2.00				
Total		700	100				
Reasons for smoking:		N	%				
Smoking is fashionable now		201	72.82				
Smoking helps me to relieve mental tension		49	17.75				
Smoking helps me to socialize		9	3.26				
I like smoking		17	6.15				
Total*		276	100				
Do you want to give up smoking?							
Yes		No		I never thought about it		Total	
N	%	N	%	N	%	N	%
164	62.59	70	26.71	28	9.92	262*	100

* Total refers to smokers only

Only a small percentage reported that they actually enjoyed smoking (6.15%) or believed it to help make social contacts (3.26%). It is promising that the majority of smokers (62.59%) would like to give up this bad habit (Table 5).

Stress

The majority of respondents (75.40%) believed that stressful situations are unavoidable during studies, though 14% were not afraid of stress and believed they could cope with it. At the same time, 10% of the study subjects were extremely concerned about such situations.

Table 6. Students' opinions on stressful situations encountered during studies and methods of coping with stress.

Attitudes toward stressful situations		N	%								
I consider stressful situations to be unavoidable		521	75.40								
Stressful situations are common but I am able to cope with them		97	14.04								
I am very concerned about of stressful situations		70	10.13								
I cannot answer unequivocally		3	0.43								
Total		691	100								
Number of methods indicated of coping with stress											
1		2		3		4		5		Total	
N	%	N	%	N	%	N	%	N	%	N	%
482	70.78	138	20.26	53	7.78	6	0.88	2	0.30	681	100
Methods		N	%								
Relaxation methods (yoga, breathing exercises)		77	8.20								
Massage		39	4.15								
Doing sports		206	21.96								
Proper nutrition		14	1.49								
Meeting friends		146	15.56								
Listening to music		69	7.35								
Talking to a psychologist		7	0.74								
Sleeping		19	2.02								
Alcohol, nicotine and drug use		84	8.95								
Sweets		21	2.23								
I do not think about stress		77	8.20								
Sauna		5	0.53								
Walking		59	6.28								
Hobbies		32	3.41								
Talking to a friend		20	2.13								
Sex		22	2.34								
Taking pills/medication		9	0.95								
I do not know		32	3.41								
Total*		938	100								

Explanations: * - respondents could give several answers

The knowledge and awareness of methods of coping with stress was very limited: 70.78% respondents declared familiarity with only one such technique and 20.26% could name merely two. The most popular methods of coping with stress were: practising sports (21.96%) and meeting friends (15.56%). Using addictive substances was declared by 9%, while relaxation methods or listening to music were indicated by 8.2% each.

Discussion

The presented research clearly indicates that physical activity is not very popular among first-year male UWM students, since only about 30% of the respondents thought that PE lessons should be obligatory for the whole period of study. Moreover, those who wanted to participate

in PE classes preferred their recreational form over sports. Even though students in general are aware of the necessity of physical activity and evaluate PE classes positively (Reda & Ahmad, 2012), their actual level of such activity remains low (Negasheva & Mishkova, 2005; Stelzer, Ernest, Fenster, & Langford, 2004). A major decrease in physical activity is observed when changing over from high school to university (Douglas et al., 1997) and during the first year of studies (Bray & Born, 2004). Many students work during their university education and so the lack of time may be an important obstacle to regularly performing physical activity. This fact was also confirmed by the present study which clearly indicates that students' physical activity is practically limited to participation in the obligatory PE lessons. As compared to high school, the number of opportunities for assuming physical activity decreased by almost a half; a significant drop of participation in NSSC was observed (from 21.63% to merely 1.85%) accompanied by only a slight increase in participation in ASA activities (from 0.58% to 4.85%). This all boils down to deterioration in university students' involvement in physical activity. Such findings are contradicted by opinions of the majority of university students who evaluate their level of motor fitness as high (Podstawski, 2006, 2011, 2012). A good level of motor fitness might be the residue of doing sports in high school but if physical activity is not maintained, the level of motor fitness will quickly decrease. Moreover, the study subjects were not found to be especially physically active as high schoolers and so there is nothing to support the students' high opinion of themselves.

The respondents' attitudes to proper nutrition are also not coherent with their eating behaviours. The majority of them realized that there is a connection between nutrition and health but at the same time, most of them did not consume meals regularly (especially breakfast) and did not take any vitamin supplements. This is very unfortunate considering that proper nutrition and physical activity are the main factors contributing to the health status of a person (ACHA-NCHA, 2006; Levitsky, Halbmaier & Mrdjenovic, 2004). Two thirds of the first-year students declared they wanted to improve their diet but their actual behaviours did not seem to reflect such a desire. When looking at the students' evaluations of the importance of different pro-health behaviours, we can see that body hygiene and appearance were considered to be much more important than proper nutrition and maintaining a good level of motor fitness. Such changes in daily habits are typical of university youth (Lowry et al., 2000) and especially visible during the first year of studies (Huang et al., 2003). They are explained by a complex interplay of individual factors (such as motivation and self-regulatory skills) as well as the physical environment (such as the availability of adequate facilities: gyms, cafeterias serving proper food) and social factors (peer pressure) (LaCaille et al., 2011).

The results on the alcohol consumption of first-year students are even more alarming. Even though the majority of students declared drinking alcohol rarely, there was also a substantial percentage of individuals who drank every week or even every day. A shocking finding of our research was that as many as 10% of the respondents experienced blackouts as a result of binge drinking over 10 times during their first year at university. The phenomenon of binge drinking is also quite often observed in American colleges (Wechsler & Nelson, 2008). In Ireland over 50% of students declared drinking alcohol above the weekly recommended units (Harrington et al., 2010). Data on university students in Germany and Lithuania confirm that they indulge in alcohol consumption (Stock et al., 2009).

Regular drinking and repeated experiences of blackouts are symptoms of addiction. The general approval of the availability of alcohol on campus may also be viewed as rather distressing. The above findings are supported by other research which has shown that an increased demand for alcohol is especially visible during the first year of studies (LaCaile et al., 2011). Peer approval and pressure are important factors increasing alcohol consumption among students (Varela & Pritchard, 2011). Moreover, despite the high quantities of alcohol consumed, the so called "culture of alcohol consumption" among the respondents seems to be low, considering that the majority of them drink only one kind of alcohol (mainly beer).

The research revealed 40% of the students to smoke (with different regularity) and over

60% of those who did to express a desire to quit. For comparison, one can refer to data from seven universities in the United Kingdom, according to which over 70% of students abstained from nicotine (Ansari et al., 2011). An alarming finding of our research is the relatively high percentage of regular tobacco users, smoking even more than a package a day (10%). This is certainly a level of addiction that may prove very difficult to break. The most commonly given reasons justifying smoking (such as the belief that smoking is fashionable or that it is an efficient way of coping with stress) make it all the more difficult to give up this harmful habit.

The period of university education can be regarded as stressful for young adults, especially during exam sessions (Bayram & Bilgel, 2008). Research conducted among American college students indicates that exam stress can even lead to a marked increase in depression and others forms of psychopathology (Twenge et al., 2010). According to the results of the this study, more than 10% of the students were very concerned about stressful situations during their studies and the majority of the sampled group had a very limited knowledge of stress coping methods. A comparable percent (10%) of US college students indicated that they had been treated for depression resulting from poor academic achievement (Herman et al., 2011) and this appeared to be a factor in many decisions to drop out of college (Hysenbegasi, Hass & Rowland, 2005). Students who have difficulties in coping with stress should have the opportunity to participate in special programs incorporated in the study curriculum (either obligatory or voluntary). Psychological counselling centres should be located on campus for those students who need temporary support or guidance.

Although the fact that the present research was conducted among first-year students of only one Polish university can be viewed as a limitation of these studies, it is still possible to make certain generalizations. There are at least three reasons that support applying the results of studies on UWM students to students of other Polish universities. First, UWM is among the biggest Polish universities with over 32,000 students enrolled during the 2009/2010 academic school year. Second, it is a multiprofile university, embracing various disciplines such as humanities, social sciences, agriculture, technical sciences, biology, medicine and even fine arts. Lastly, the data on health behaviours gathered at other Polish universities indicate very similar tendencies (Lisicki, 2006; Umiastowska, 2007).

In general, the results of the present research indicate that the social group of Polish society which invests the most in education and should become the most productive sector of the economy in the future puts health at a huge risk. Unhealthy behaviours have both immediate and delayed consequences. On a short term scale unhealthy habits make studies more difficult (since healthy individuals are known to have better academic achievements (Basch, 2011)). The continuation of certain behaviours described in the article (many of which are addictive) may result in the fact that the investment in education may not be fully returned in the future because of the poor health of the educated employees.

An obvious question arises: what can be done about this? What kind of intervention would be adequate and efficient? Psychologists have developed social cognition models to describe and predict health-related behaviours, such as, smoking, attending medical screening, eating or exercise. Such models include numerous variables as predictors of health related behaviours. Among them are personality characteristics (self-efficacy, locus of control, individual attitudes and beliefs), perception of a given health-related behaviour (if it poses a threat to individual health), social factors (norms, socio-economic status, ethnicity), as well as situational and cultural factors. Successful intervention should be based on preliminary research identifying which factors are correlated with a particular behaviour (Ogden 2004). Such intervention should be designed as a long-term process including information, persuasion, increasing skills, goal setting and rehearsal of skills. In the future this should lead to setting up school health programs and services that are evidence based, strategically planned and effectively coordinated (Pyle et al., 2006).

Conclusions

The presented results create a disquieting picture of first-year UWM students' health awareness and habits. The respondents turned out to be more preoccupied with their appearance than taking care of their health. The prevalence of health promoting behaviours, such as physical activity and proper nutrition was low. On the other hand, habits which pose a risk to health, such as smoking and especially excessive drinking, were common. Addictive tendencies might be induced by peer pressure and limited stress coping skills. The epidemiological assessment of health attitudes and habits is important, especially during the first-year of studies, since this is the last stage of formal education which allows pro-health habits to be established and maintained. On the whole, there is a clear need to implement adequate health-promoting programs at the university level to help counteract the negative tendencies revealed in the present research.

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