

ORIGINAL RESEARCH PAPER

**PSYCHOSOMATIC AND SOMATIC PROBLEMS IN
FUTURE HEALTH EDUCATORS: CHANGES AND
RELATIONS WITH LIFESTYLE FACTORS**

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Abstract

The aim of the research is to determine the changes in psychosomatic and somatic problems of future health educators by analyzing the relations of these symptoms with lifestyle factors. The same questionnaire was used in the surveys carried out in 2008 and 2013 in order to evaluate the variables. The respondents were asked how often they had different psychosomatic and somatic complaints over the last 12 months. These complaints were compared with health lifestyle (doing physical activity, frequency of alcohol consumption and smoking) factors. The participants in the first survey (2008) were 168 students (65 male and 103 female), while the participants in the second survey (2013) were 186 students (81 male and 105 female). According to the study results, sleeping disorders were more frequent in the first course male students in 2013 than in 2008. In addition to these disorders, female students complained that they had headache, shoulder and neck pain and backache. It was noticed that in the second survey there were more female respondents who smoked almost every day (17.9% and 8.1% respectively) and less physically active female respondents (52.4% and 21.6% respectively). Thus health educators who are less physically active have a greater probability to have psychosomatic and somatic problems.

Key words: *future health educators, psychosomatic and somatic problems, lifestyle.*

Introduction

Health educators, as the ones engaged in providing health services to society, taking care of a positive attitude to health on the part of the society,

children in particular, are responsible for realizing the valuable purpose of physical education. This means that future health educators (further – future specialists) should command respect of the society by their way of living and health condition, as their mission in life will be to display to their clients the social purport of physical education and health encouraging them to form and put into practice a program of physical activity corresponding to the functional capacity of the body and directed at developing health and social abilities. Such a purpose of physical education and health promotion can be realized only by a qualified specialist who strives for developing and perfecting his/her competence (Wong, Louie, 2002). Furthermore, such an educator must be firmly determined on his own physical education and personal example. It deserves noting that health educators should distinguish themselves among other providers of health services by their physical fitness (Muszkieta, 2005) and should be an example to be followed to their clients by a healthy mode of living (McKenzie, 2007).

A deeper analysis into professional skills and peculiarities of future health educators has revealed a decrease in attention of future specialists to emotional dimensions of professional activities (Kardeliene, Kardelis, 2006) with negative habits becoming ever more prevalent in the lifestyle of future specialists (Allender et al, 2008).

Speaking about future specialists it is worth remembering the research done at six universities of Kaunas in the years 2000 (Petrauskas, 2004). The research presented the results of estimation of the peculiarities of health and lifestyle of the first – years students, psychosomatic and somatic problems included. A comparison of manifestation of these health disorders within various groups of the subjects with respect to different spheres of studies was made. No distinction between future health educators on the one hand and the rest of the students on the other hand, however, was undertaken.

Taking into account the principal purpose of professional activities of health educators, that of strengthening health of the members of society and forming their positive attitude to a healthy mode of life, there are all grounds to believe that positive habits of physical activity and a healthy lifestyle advocated by representatives of this profession should contribute to decreasing the manifestations of the problems mentioned above. Still the current changes taking place within the society, as well as the developments undertaken by the sociopolicy of the country have effect on all citizens, health and lifestyles of future specialists included.

The present research is based on the presumption that psychosomatic and somatic ailments and induces of negative factors of improper lifestyle

are more typical for entrants to the Lithuanian sports university (LSU) of the year 2013, compared to their counterparts of the year 2008.

The aim of the research was to determine the changes in psychosomatic and somatic problems of future health educators by analyzing these symptoms in relation to lifestyle factors.

Materials and Methods

Participants. The first anonymous survey of first – year students was undertaken in the years 2008 and the second one – in the years 2013. The first survey embraced 168 students, 65 male and 103 female among them, and second one – 186 students, 81 male and 105 female respectively.

Methods. During the two surveys undertaken in the years 2008 and the same questionnaire divided into separate groups was applied (Petrauskas, 2004). For the assessment of psychosomatic and somatic ailments a 10 – point scale was used (Stock, Kramer, 2000). The subjects were asked how often during the last 12 months they had been troubled by various health disorders (Tab. 1). According to the frequency of health disorders the subjects were divided into 2 groups. The persons who were never or very rarely troubled by ailments mentioned above were attributed to group 1, whereas the ones who experienced ailments frequently or very frequently were attributed to group 2. Besides, each of the psychosomatic and somatic ailments was assessed by a sum of points that was calculated by attributing a respective point to each variant of the answers given as follows: from 1 point for the answer “never” to 4 points for the answer “very frequently”, accordingly. The sum of points gained allowed us to form 2 groups of the subjects. The students who were never or very rarely troubled by ailments and whose sum of points equaled or was less than the median were attributed to group 1, and the students who experienced ailments frequently (with the sum of points exceeding the median) were attributed to group 2.

Of lifestyle factors the frequency of smoking, consumption of strong alcoholic drinks (whisky, wodka, etc.) and physical activity during the last 3 months was assessed. The students who alongside with obligatory classes of physical activity at the university exercised or went in for sports in their free – time at least 2 – 3 times for week with intensity causing sweat and faster breathing were considered physically active ones.

Research procedures. The students filled in the questionnaires after listening to the introductory instructions given during practical classes. The purpose of the research was explained and anonymity of the answers given in the questionnaires was emphasized. The students filled in the

questionnaires and returned them to the researcher during the practical classes. This procedure of the research enabled him / her to recover all the questionnaires handed out since they had been filled in by all the students who participated in the given class. The students were informed that their participation in the survey was entirely voluntary one and they were allowed to withdraw without finishing or even without starting to fill in the questionnaire. Most of the students found it welcome that their opinion and problems faced were appreciated.

Statistical analysis. In the assessment of statistical relations of qualitative factors the *Chi square* criterion was used and for comparing the samples of quantitative factors the Student's *t* test was applied. To assess the dependency of psychosomatic and somatic problems on lifestyle factors the logistic regression analysis was applied.

Results

Changes in psychosomatic and somatic ailments were assessed after joining the variants of answers “frequently enough” and “very frequently” given by the respondents into a single answer “frequently and very frequently”. These data are presented in Table 1.

Table 1

The percentage of students who frequently and very frequently were troubled by psychosomatic and somatic ailments in the years 2008 and 2013 (in percent)

<i>Ailments</i>	<i>Male</i>		<i>Female</i>	
	<i>2008</i>	<i>2013</i>	<i>2008</i>	<i>2013</i>
1. Headache	7.4	11.2	21.6	39.7*
2. Nervousness and uneasiness	28.8	30.4	52.2	53.1
3. Depression and low spirits	18.3	20.4	35.8	32.4
4. Sleep disorders and sleeplessness	11.6	31.1*	20.5	36.6*
5. Fast heart rate and dizziness	7.9	7.1	18.8	20.7
6. Diarrhoea	0.9	2.4	2.8	8.1
7. Constipation	0.8	0.8	10.6	9.3
8. Gastric ailments and heartburn	12.9	12.1	21.8	22.3
9. Backache	18.7	20.1	23.3	39.9*
10. Neck and shoulder pains	14.4	20.3	13.4	30.3*

* $p < 0.01$ the data of the years 2008 and 2013 compared

From the data presented in Table 1 one can see that some portion of the students were troubled by various health disorders and they were more characteristic of female students. Most of them were nervous and uneasy frequently or very frequently during the last 12 months. It is worth nothing that the female students complained of headache, sleep disorders and

sleeplessness more frequently in the year 2013 than in the year 2008. It is of interest that these health disorders were characteristic of the male students too but in the more recent research made female students complained of backache and pains in the neck and the shoulder more frequently. The results show that sleep disorders and sleeplessness were more frequent while the number of other complaints remained stable in the group of male students. Thus, female students were more troubled by psychosomatic and somatic ailment since during the period of study they were more frequent in the group of female students, compared to that of male students.

The assessment of the problems mentioned according to the sum of points showed the point average of psychosomatic and somatic ailments of male students to have been 16.86 ± 0.54 points in 2008, compared to 18.68 ± 0.59 points in 2013 respectively ($p < 0.05$). The same changes have been observed in the group of female students, as the point average of the ailments discussed equaled 18.94 ± 0.56 points in 2008, and this figure had increased to 20.81 ± 0.59 points ($p < 0.05$) in the year 2013.

The data regarding physical activity of future specialists indicate that female students did physical exercises more rarely, as show by the research results of the years 2008 and 2013, i.e. 21.6% and 52.4% ($p < 0.001$) respectively. Less negative changes have been registered in the group of male students.

The results of the research done indicate that there are no statistically significant changes in the consumption of strong alcoholic drinks by future specialists. This means that both in the years 2008 and 2013 the frequency of consumption of these drinks remained nearly the same, except for the fact that the percentage of male students who indicated they never consumed strong alcoholic drinks had grown from 2.1% in 2008 to 11.3% in 2013 ($p < 0.05$). No marked changes in the percentage of female students who consumed strong alcoholic drinks have been registered either.

Speaking about the lifestyle of future specialists it is of importance to note that according to comparison data of the years 2008 and 2013 presented in Table 2 there was a statistically significant increase in the number of female students who smoked nearly every day. It is of interest to note that certain positive changes have been registered in the smoking habits of male students, as there was a light increase in the number of non – smokers according to the data of the year 2013, whereas the number of those who smoked nearly every day remained nearly the same.

Table 2

The frequency of smoking during the last 3 months of the years 2008 and 2013
(in percent)

<i>The frequency of smoking</i>	<i>Male</i>		<i>Female</i>	
	<i>2008</i>	<i>2013</i>	<i>2008</i>	<i>2013</i>
1. Nearly every day	28.8	27.3	7.6	19.1*
2. On special occasions	29.3	18.0	30.4	23.2
3. Never	39.7	48.4	61.1	60.3

* $p < 0.05$, the data of the years 2008 and 2013 among female students compared

After the analysis of the relationship between the factors of psychosomatic and somatic ailments on the one hand and lifestyle factors on the other hand it was found in the research done in 2008 that future specialists, who were less troubled by psychosomatic problems, were more active physically (49.1% and 63.4%; $p < 0.03$). This relationship was also evident in the research done in 2013: the students, who were less troubled by psychosomatic problems, were more rarely less active physically (68.3% and 49.2%; $p < 0.01$). Besides, the future specialists, who had less psychosomatic complaints, smoked more rarely nearly every day (20.2% and 29.4%; $p < 0.05$), as well as smoked more seldom daily and consumed strong alcoholic drinks 2 – 3 times per week (9.8% and 19.5%; $p < 0.05$) in the year 2013.

The relationship revealed between the factors of psychosomatic and somatic problems on the one hand and lifestyle factors on the other hand shows that some of lifestyle factors mentioned above have constant connections with separate factors, i. e. their relationship repeats itself, as evident from both surveys done in the years 2008 and 2013. Thus one could speak about the importance of lifestyle factors for the manifestation of psychosomatic and somatic ailments. Regression analysis of psychosomatic and somatic problems according to the data of the survey undertaken in the year 2013 and lifestyle factors shows that future specialists due to small physical activity have a greater probability of being faced with psychosomatic and somatic problems.

Discussion

The results obtained from the research done can be explained in accordance with the level of awareness of professional role in which, according to K. Green (2002), two distinct factors could be singled out: personal habits and the context of behavior, i.e. the level the person is aware of his own importance as well as limitations and restrictions imposed on him. Habits, as a dimension of the role played in life means that a network

of social relations of young people can affect their values, views, inclinations, etc. and can be decisive as regards their priorities. Therefore this process, as indicated in literature on the subject (Green, 2002), is called unconscionable assimilation of tastes. Thus, by participating in the network of social relations a person is subject to changes since his habits undergo changes too. Still changes in habits that constitute the second nature of the person that operates as an automatic blindly functioning mechanism of self – control are slower than changes taking place in the person's social relations. It is said therefore that personal views are associated with yesterday's experience. Such an attitude to the results of the research enables one to get a bit closer to the explanation of a social conditionality of the behavior of future specialists and allows one to speak about health and lifestyle problems of schoolchildren as future students. It has been found that the lifestyle of teenagers is not conducive to health (Grabauskas et al., 2004) since they regard their learning load as an excessive one (Sketerskiene et al., 2008) and complain of fatigue (Vaitkevicius et al, 2008). Furthermore, according to the data of the survey undertaken in the year 2006 every third schoolboy of the 11th – 12th forms practiced smoking frequently and the consumption of strong drinks is spreading with every year since the consumption of strong alcoholic drinks has doubled during the period from 2000 to 2006 (Baleviciene, Pauriene, 2007). This circumstance partly accounts for the widespread smoking and consumption of strong among future specialists. This context will be further developed in discussing the relation of psychosomatic and somatic problems of future specialists with certain factors of their lifestyle with special reference to the nature of changes, comparing the data of surveys carried out in the years 2008 and 2013.

A deeper analysis into the peculiarities of research data as regards the gender of students has shown that both in the years 2008 and 2013 female students were more frequently faced with psychosomatic and somatic problems than their male counterparts. Such a fact has been registered by other researchers too (Petrauskas, 2004; Unalan et al., 2008). Besides, female students complained that they had headache, shoulder and neck pains and backache more frequently than male students. What is most important is the fact that negative changes had been observed throughout the period of study. This phenomenon could be explained taking into account the following peculiarities of the lifestyle of female students: these problems are characteristic of less physically active students (the number of physically active female students had decreased by nearly 50 percent during the period

of study) and associated with an increase in smoking (practiced nearly every day).

The fact that a greater number of female than male students maintain that they frequently feel unable to deal with the psychosocial problems that trouble them allows us to assert that future female specialists may encounter difficulties in their professional activities. This argument finds support in publications of other authors as regards the scale of values typical for female students and their attitude to health. Thus, for instance, female students more frequently than male students of the LSU characterize themselves as sensitive and honest personalities who consider friendship and welfare of the family of great importance. They are of the opinion that they lack confidence in themselves (Malinauskas, 2008) and admit that they should take a greater care of their health (Griniene, Zachovajevs, 2008). A great number of roles (daughter, friend, educator, provider of health services, wife, etc.) that women are willing to perform frequently adds to stronger distress and greater morbidity as well as hinders their professional career without some social support being provided to them (Harbour et al., 2008). It is thought that headache, neck and shoulder pains and backache can also be caused by a great deal of time given to studies. The research done in both schoolchildren (Baleviciene, Pauriene, 2007) and students of LSU (Kardeliene, Kardelis, 2006) comes to the same conclusions. It is of importance that other authors writing about physical activity of girls and females in general emphasize physical activity as a means of preventing headache, backache, as well as neck and shoulder pains (Allender et al, 2008).

The research done in 2013, likewise the one done in 2008 revealed the same relationship between psychosomatic problems on the one hand and changes in such lifestyle factors, as physical activity and frequency of smoking. This relationship is supported by the data of other researchers (Allender et al, 2008) while negative changes in the frequency of smoking have also been found among, female students by the authors who have made a study of the students of Kaunas university of medicine from the 1st to 6th years (Veryga, Stanikas, 2005).

The course of development of professionalism and professionalization at the university of future specialists, as providers of health services, in the context of our research might also be explained by subconscious awareness of the assimilation of tastes that emphasizes the importance of habits for personal behavior. The research done shows that signs of de – professionalization are typical for students, as a group united by similar lifestyle habits and these signs become ever more apparent during

the course of studies irrespective of the sphere of studies chosen (Jankauskas et al., 2007). Besides, very frequently the profession of health educator is chosen by school leavers who are more interested in obtaining the university graduation diploma than in the specific character of their professional activities since 17.5% of students share an unfavourable attitude to their future profession (Karanauskiene, 2006). It is worth nothing that during the years of studies the motivation of future specialists for taking care of their physical fitness is getting weaker and weaker, whereas negative changes in their social behavior connected with health become ever more apparent, i. e. the students practice smoking and consumption of alcohol more frequently (Кардялис и др., 2007). Such facts give us grounds to assert that some portion future specialists are not ready for professional activities, as the personal example of education, one of the basic principles of education, particularly emphasized in hodegetics, will hardly be realized. In forming the awareness of values of clients concerning health lifestyle and physical activity throughout one's life it is frequently that the personal example of health educator has greater effect on clients than all techniques of education taken together. It is doubtful if a future specialist, who is aware of the values of health but do not acknowledge them, will be an example of desirable social behavior to be followed. Such a situation will only make the process of de – professionalization stronger since, according to subconscious awareness of the assimilation of tastes, habit as a dimension of role is a personality construct that changes slowly.

Conclusions

1. A comparative analysis of the results obtained has shown that future health educators, entrants to the 1 st year of studies at the LSU, in 2013 faced greater psychosomatic and somatic problems than their counterparts, entrants to the university in the year 2008. Thus, male students were troubled by sleep disorders more frequently, whereas female students alongside with these problems complained of headache, backache, as well as pains in the neck and the shoulder more frequently, compared to male students.

2. During the period of the research the number of less physically active female students and the ones who smoked nearly every day had grown. The changes mentioned above were less apparent among male students though a greater number of them indicated that they did not use any strong alcoholic drinks in 2013.

3. According to the data of a logistic regressive analysis the manifestation of psychosomatic and somatic problems among future specialists can be increased by a small physical activity.

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