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Aktywność fizyczna i sposób odżywiania studentek fizjoterapii i europeistyki, a styl ich życia

Streszczenie

Wstęp. Ludzkie zdrowie w 60% zależy od stylu życia. Czynniki genetyczne, wpływ środowiska oraz służba zdrowia mają mniejsze znaczenie. Brak aktywności ruchowej, stosowanie używek oraz źle zbilansowana dieta, szczególnie u młodych ludzi, powodują znaczne obniżenie sprawności fizycznej i psychicznej. Taki styl życia może niekorzystnie wpływać na stan zdrowia oraz nieść poważne konsekwencje w późniejszych latach.

Cel. Celem pracy była ocena poziomu wiedzy oraz zachowań zdrowotnych w zakresie aktywności fizycznej, sposobu odżywiania, stosowania używek oraz diet odchudzających przez studentki II roku studiów uzupełniających magisterskich na kierunku fizjoterapia Akademii Wychowania Fizycznego we Wrocławiu oraz studentek II roku studiów uzupełniających magisterskich na kierunku europeistyka Uniwersytetu Wrocławskiego.

Materiał i metody. Grupę badawczą stanowiło 30 studentek fizjoterapii i 30 studentek europeistyki. W badaniu posłużono się metodą sondażu diagnostycznego, z wykorzystaniem opracowanego kwestionariusza ankiety. Był on anonimowy i zawierał 60 pytań zamkniętych i półotwartych oraz metryczki.

Wyniki. Z analizy zachowań zdrowotnych wynika, że większość studentek (90%) uprawia jakąś formę aktywności fizycznej. Najczęstszym powodem uprawiania sportu są: walory zdrowotne aktywności i dbałość o wygląd. Tylko 40% ogółu ankietowanych osób regularnie spożywa posiłki, natomiast 73% studentek fizjoterapii i 63% studentek europeistyki spożywa codziennie śniadania, 75% wszystkich studentek nie pali papierosów, a ponad połowa z nich (51%) choć raz w życiu stosowała dietę odchudzającą.

Wnioski. Rezultaty badań jednoznacznie wskazują, iż mimo nieregularnego trybu życia, zarówno studentki fizjoterapii jak i europeistyki, starają się wprowadzać prozdrowotne zachowania do swojego życia. Warto podkreślić, iż styl życia prezentowany przez studentki fizjoterapii, jest na bardzo wysokim poziomie. Bezapelacyjnie można stwierdzić, że wykazując dużą aktywność fizyczną, unikając używek oraz spożywając pełnowartościowe posiłki, mogą być przykładem godnym naśladowania.

Słowa kluczowe: zdrowie, styl życia, aktywność fizyczna, odżywianie.

Physical activity, the manner of nutrition and the lifestyle of the female students of physiotherapy and the European studies

Abstract

Introduction. Our health depends on our lifestyle in almost 60%, while genetic and environmental factors are of minor importance. Lack of physical activity, the use of stimulants and inappropriately balanced diet are the causes of substantial reduction of fitness and psychological efficiency. Such a lifestyle might have adverse influence on our health and bring serious consequences in later years.

Aim. The aim of the study was to evaluate the level of knowledge and the health behaviours concerning physical activity, the nutrition, stimulants intake and the use of reduction diets by the female students of master's degree course of The Faculty of Physiotherapy of The University of Physical Education in Wrocław and the European Studies of The University of Wrocław.

Material and methods. Thirty healthy female students of physiotherapy and thirty female students of the European studies participated in the present study. The study was performed by the use of questionnaire, which was fulfilled anonymously by the participants and consisted of 60 closed and semi-closed questions.

Results. The present analysis of the health behaviours shows that most of the female students (90%) practise some kind of physical activity. The main reasons for that are benefits for health and care for the outlook. Only 40% of respondents eat meals regularly, whereas 73% and 63% of female students of physiotherapy and female students of the European Studies, respectively, do not eat breakfasts at all. In addition, 75% of all these students do not smoke cigarettes and 51% use a reduction diet.

Conclusions. The present results show that despite the irregularity of lifestyle, all these students try to bring health behaviours in their life. It is noteworthy that the lifestyle of female students of physiotherapy is on a very high level. They set a good example, showing a high level of physical activity, avoiding the use of stimulants and eating high-value meals.

Keywords: health, lifestyle, physical activity, nourishment.

INTRODUCTION

According to the World Health Organization, lifestyle means a way of life, which is the result of individual preferences, behaviour patterns and life conditions determined by the social, economical, cultural factors and personal characteristics. Lifestyle depends on the existence of conditions, environment, politics and social structure organization [1]. It is not only a philosophy, but also a complex of behaviours and attitudes that characterise a person or a community. Its role in modern world is crucial, while it determines a health condition of a person. Our health depends on our lifestyle in almost 60% [2]. The lifestyle is formed with the conditions we live in, the behaviour patterns we observed since early childhood and the cultural factors. Taking care of our health, everyday activity, increase of physical performance are the elements of proper lifestyle. Nevertheless, Ostrowska claims that the term lifestyle has been shortened lately. In medical studies, it refers only to a way of nutrition, avoidance of stimulants, physical activity and ability to reduce stress. However, we cannot forget that elements of our lifestyle are determined culturally. The term lifestyle functions also in psychology and means a complex public behaviours, typical reactions and elements of personality. Sometimes it means also a prediction of difficulties and full mobilisation to cope with them [3].

Modern, democratic world, globalisation and the increase of migrations lead to multicultural environments come into being. Cultural outputs may vanish due to unquestioned acceptance of the trends of dominating societies. Lifestyle as an individual attitude of a person to his/her own life; it should influence the whole society intensely, i.e. through physical activity [4]. However, there has to be an army of trained people, who not only advocate rules, but also comply with them, to succeed in promoting a healthy lifestyle [2].

AIM

The aim of the study was to assess the level of knowledge and the health behaviours connected with physical activity, the way of nutrition, the use of stimulants and reduction diets by the master's degree female students of The Faculty of Physiotherapy of The University of Physical Education in Wrocław and the master's degree female students of The European Studies of The University of Wrocław.

MATERIAL AND METHODS

Thirty healthy female students of physiotherapy and thirty female students of the European studies participated in the present study, aged 24-26 years. Over 60% of the students were 24 years old. The mean body mass for the female students of physiotherapy and for the students of the European Studies was 60.13 kg (48-80 kg) and 60.86 kg (48-78 kg), respectively. The mean values of the Body Mass Index (BMI) showed no significant differences between those two groups, but the standard deviation revealed that the female students of the European Studies differ among one another more than the female students of physiotherapy (Figure 1).

The study was performed by the use of questionnaire, which was fulfilled anonymously by the participants and consisted of 60 closed and semi-closed questions. Questions (qualitative, nominal and rank) were connected with socio-demographic features (age, height, weight, the place of living), subjective assessment of lifestyle, physical activity, the way of nutrition, the use of stimulants and reduction diets.

Statistical analysis was performed by the use of STATISTICA 8.0 PL. The data (weight, height, Body Mass Index (BMI)) are presented as mean, standard deviation and maximum and minimum values. The analysis of variance was used to show the statistical significance (Fisher-Snedecor test). The level $p < 0.05$ was considered to be statistically significant. The t-test was used as a post-hoc test to compare the means.

RESULTS

For the question, "How many times a week do you perform physical activity?" – 60% of the students of physiotherapy and 36% of the students of the European studies answered 1-2 times a week, over 30% of the students of both courses perform a physical activity 3-4 times a week and 20% of the students of the European studies do not perform any kind of physical activity (Figure 2).

For the question, "Why are you physical active?" – 70% of the students of physiotherapy claimed that they want to be healthy ($p < 0.05$) and over 29% of the students of the European studies exercise because they want to look well ($p < 0.05$).

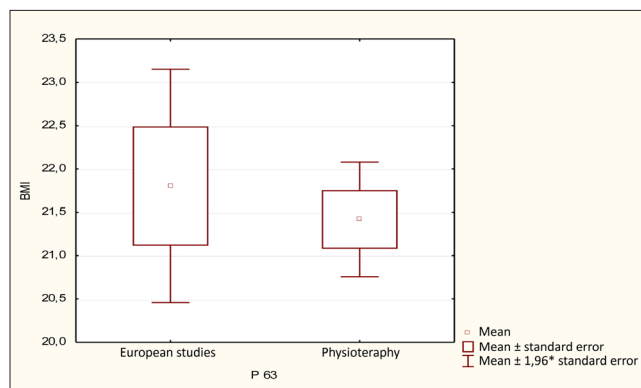


FIGURE 1. Body Mass Index of both groups of subjects.

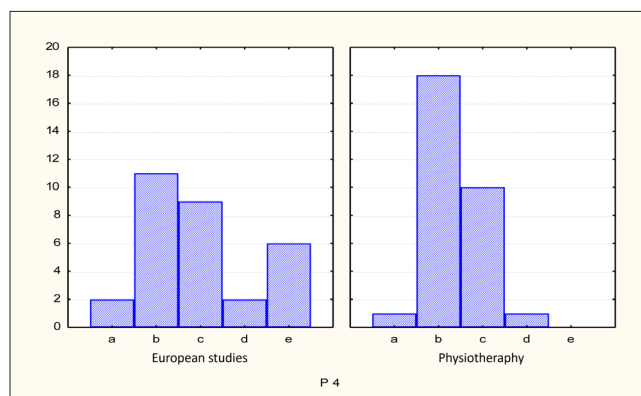


FIGURE 2. The distribution of exercising physical activity (a – every day, b – 1-2 times a week, c – 3-4 times a week, d – 5-6 times a week, e – I do not perform any kind of physical activity).

Moreover, 20% of them do not exercise at all, because they lack time (Figure 3).

Sixty per cent of all respondents eat 3-4 meals a day. Over 36% of the students of the European studies and 3% of the students of physiotherapy eat 1-2 meals a day ($p<0.05$). Twenty per cent of the students of physiotherapy and the students of the European studies eat 5-6 meals a day (Figure 4)

Furthermore, 76% of the students of physiotherapy and 36% of the students of the European studies eat wholemeal bread ($p<0.05$) and 33% of the students of the European studies eat and 13% of the students of physiotherapy eat white bread.

All of the female students of physiotherapy (100%) and 96% of the female students of the European studies drink tea, with green tea being the most popular (50% and 34% respectively). The black tea is the second popular one – 44% of the students of the European studies and 23% of the students of physiotherapy declare drinking this kind of tea ($p<0.05$) (Figure 5).

Seventy per cent of the students of physiotherapy and 35% of the students of the European studies declare eating vegetables more than once a day. For the question, “Do you eat fruits?” – 100% of respondents said yes. Over 83% of the students of physiotherapy and 53% of the students of the European studies declare eating fruits more than once a day. The difference between groups was significant ($p<0.05$). The students mostly eat apples, bananas and oranges.

Over 63% of the students of physiotherapy and 30% of the students of the European studies declare not using sugar ($p<0.05$).

For the question, “Do you snack between meals?” – 75% of all respondents (80% of the students of the European studies and 70% of the students of physiotherapy) answered in the affirmative. The students snack fruits most often (71% of the students of physiotherapy and 12% of the students of the European studies). The answers were different significantly ($p<0.05$). Moreover, 29% of the students of the European studies snack chips and none of the students of physiotherapy does it ($p<0.05$).

Seventy-five per cent of all respondents do not smoke cigarettes (80% of the students of physiotherapy and 70% of the students of the European studies).

Fifty-one per cent of those questioned used a reduction diet in the past. Fifty per cent of the students of physiotherapy

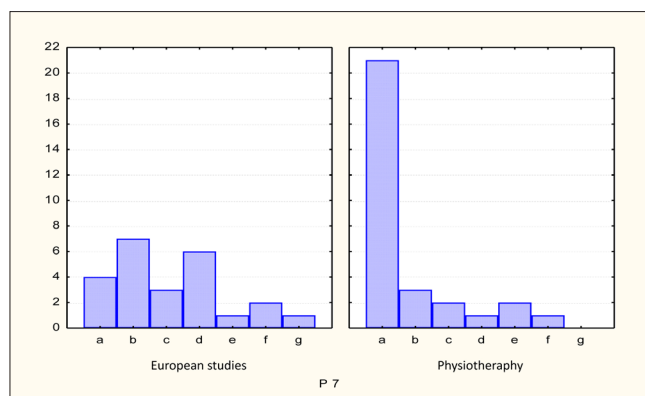


FIGURE 3. The distribution of the reasons for being physically active (a – I want to be healthy, b – I want to look well, c – I want to be slim, d – I want to keep my weight, e – I want to lose on weight, f – I want to realise my potential, g – other reasons).

and 47% of the students of the European studies used a diet of 1000 kcal. Over 70% of all respondents gain the information about diets from the Internet, while over 30% of the students of physiotherapy receive advice from a dietician.

DISCUSSION

University students live in a very specific environment. The state of their future health is influenced negatively by the irregularity of their lifestyle, often dictated by the course of studies, and by negative factors such as stimulants, stress or inappropriate diet [5]. When comparing these two groups of students (students of physiotherapy and students of the European studies), one can see that the lifestyle of the students of physiotherapy is much healthier and praiseworthy. Diversification of the Body Mass Index (BMI) between these groups shows greater differences within the group of the students of the European studies. The extreme values can be observed, implying obesity (BMI=33.29) or underweight (BMI=16.95). The group of the students of physiotherapy do not show such discrepancies. Zarzecka-Baran and Wojdak-Hassa claim that almost 92% of the students of The Medical University in Gdańsk present proper Body Mass Index. Only 3% of the students examined were overweight and none of them was obese [6]. It is worth mentioning that the students of physiotherapy could easily understand terminology of the present questionnaire while the students of the European

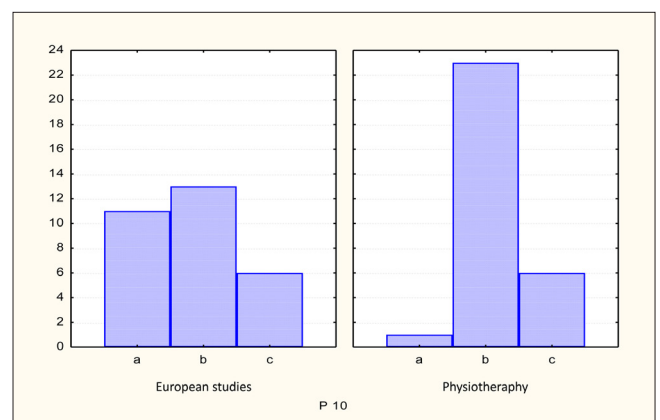


FIGURE 4. The distribution of the frequency of meals eaten (a – 1-2 meals a day, b – 3-4 meals a day, c – 5-6 meals a day).

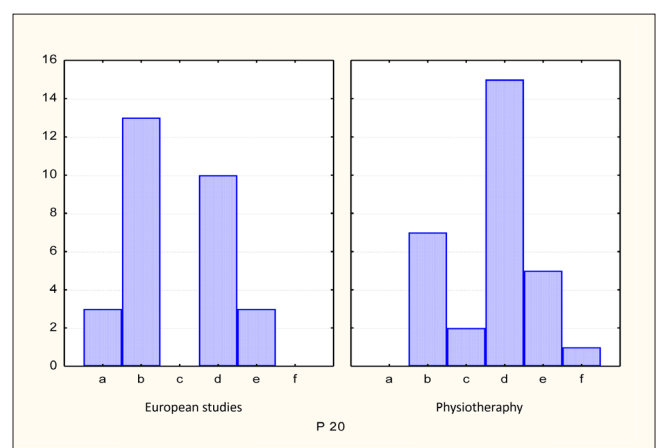


FIGURE 5. The distribution of the type of tea drunk (a – white tea, b – black tea, c – red tea, d – green tea, e – fruit tea, f – other).

studies might have read it mistakenly. These two groups might read the term “very active lifestyle” differently. Performed Spearman’s correlation for the questions 1-5 showed that the students of the European studies could not be a reliable source of the answers. The students of the European studies claim that they have a very healthy lifestyle, while they exercise 1-2 times a week or do not exercise at all (20% of them). They might have probably thought that a healthy lifestyle is i.e. their everyday duties (work, studies – often very demanding and exhaustive).

The WHO reports from 2002 and 2003 show that lack of physical activity is one of the leading factors of industrial diseases like heart diseases, atherosclerosis, hypertension or obesity [7]. The report of the Centre of the Public Opinion Poll from 2003 states that 59% of Poles do not perform any kind of sport or exercise aimed at improving physical fitness. It is a huge percentage of sedentary lifestyle people, so the fact that in the recent study 90% of respondents is physical active is satisfactory.

It is worth mentioning that there is a substantial variety of sports performed by the students of physiotherapy with over 27% of them performing yoga, Pilates, horse riding or martial arts. Similar research was performed by Zarzycka-Baran and Wojdak-Hassa with the students of the Medical University in Gdańsk. In their study over 80% of the students were physical active (32% of them were swimming, 23% were riding on a bike, 21% were performing aerobics and 12% were running) [6]. The physical activity of the students of the Medical University of Silesia was also analysed by Krzych. He states that 49% of respondents perform sports regularly [8], so the results of the recent research which show that 90% of respondents are physically active (100% of the students of physiotherapy and 80% of the students of the European studies) is a very good result among other studies. The awareness of physiotherapy students of being active is reflected in practice – they take part actively in different types of physical activities. Asking for reasons of being active gave us interesting results. It seems that over 70% of the students of physiotherapy practice sports because they want to be healthy, while 29% of the students of the European studies practice sports because they care for their appearance. These results are opposite to the results of Zarzecka-Baran and Wojdak-Hassa performed at the Medical University of Gdańsk, where 53% of respondents exercise because of the pleasure derived from physical activity and 39% because of the medical reasons [6]. The students of physiotherapy are the group of people to whom the health is most important. Nevertheless, the percentage of sedentary students is worrying. In this study it appeared that 20% of the students of the European studies do not exercise at all, giving the lack of time as a reason of this state. Similar results were obtained in the group of the students of medical studies in Gdańsk – 16.5% of them did not perform any kind of sport because of the lack of time (55%) or laziness (45%) [6].

The regularity and the quality of nutrition were also checked via our questionnaire and we stated that over 40% of respondents eat regularly. Similar results were obtained by Krzych – he informs that 47% of students of the Medical University of Silesia eat regularly [8], and by Malara et al. – they state that 45.6% of students of the Silesian Techni-

cal University also eat regularly [5]. The regularity of meals is not the only fundamental matter, but also the appropriate quantity. It is recommended to eat 5-6 meals a day at regular intervals lasting about 2-3 hours. In our study, the students declare eating 3-4 meals a day, while Malara et al. inform that only 47% of students of the Silesian Technical University eat 3 meals a day [5]. We suppose that most of the students eat even more than they declared, while they might not have taken snacks into consideration – we must remember that a fruit or a packet of crisps is also a meal. Our presumptions are based on the results of questionnaire – 75% of our respondents declare having a snack between meals. It is worth mentioning that 71% of the students of physiotherapy admit to snacking fruits, while 29% of the students of the European Studies snack crisps. The percentage is worrying, especially that the study of Mojska et al. show a high quantity of neurotoxic acryloamid in crisps [9].

Regular eating of vegetables and fruits is crucial for our health according to the contemporary knowledge. Containing substantial amount of water, fruits and vegetables are low-calorie and rich in vitamins and antioxidants. They also contain a lot of carbohydrates and cellulose. WHO recommends eating 400g/person/24 hours of fruits and vegetables, which is about five portions a day. In our study almost 70% of the students of physiotherapy and only 35% of the students of the European studies declare eating vegetables at least once a day, while Krzych informs that 86% of the students of medicine eat vegetables few times a week and only 41% everyday [8]. These results are not optimistic especially that future doctors were surveyed who need to be an example for other people. Over 83% of the students of physiotherapy and 53% of the students of the European studies declare consumption of fruits at least once a day. The respondents usually eat bananas, oranges or strawberries. The students of physiotherapy present more diversified consumption of fruits – they eat watermelons, raspberries, grapes and mandarins more often than the students of the European studies. Only 42% of the students of medicine eat fruits everyday [8]. Malara et al. inform that only about a half of the students of the Silesian Technical University (55%) eat fruits and vegetables at least once a day [5]. The results of our study are surprisingly favourable for the students of physiotherapy. It might be connected with their knowledge about the beneficial influence of fruits and vegetables on our health, appearance and wellbeing. It shows that they prefer a fruit to snack, which will be transferred into a good energy and burned, than high-fat snack and full of “empty calories” crisps or bar of chocolate.

For the healthy lifestyle, a right attitude towards available stimulants is also crucial. Based on our results we can state that over 75% of respondents are non-smokers. Similar results, concerning students of the Silesian Technical University, were obtained by Malara et al. (80% of non-smokers) [5]. Zarzecka-Baran and Wojdak-Hassa and Pietryka-Michałowska claim that there is 76% [6] and 67% of non-smokers among students, respectively [10]. Comparing these results with our results, we claim that a group of non-smoking students is substantial which influences their health favourably.

We have also focused on the use of reduction diets by the students of physiotherapy and the students of the European

studies. The reduction of food rations to lose a few kilograms has become very popular recently. Diets used without supervision of a doctor can worsen physical and psychical state. Women still use “wonderful” diets despite the warnings about the yo-yo effect and the loss of water instead of fat. In our study over 51% of students used reduction diets in the past. It is a substantial percentage despite the small amount of our respondents (n=60). The diet of 1000 kcal, the cabbage diet and the Atkins’ diet were mainly used. The fact that 26% of the students used diet of their own idea is very worrying. Persons with the lack of knowledge and recklessly reducing caloric intake might harm themselves instead of losing weight. In this study over 71% of respondents gain knowledge about diets from the Internet. It is a good source of information, but insufficient to create a profitable and harmless diet by oneself. Only the students of physiotherapy (31%) consult a dietician, which might be a sign of awareness of inappropriate use of reduction diets. The most effective diet, according to the students of the present study, is a diet of 1000 kcal. Zarzecka-Baran and Wojdak-Hassa performed similar experiment on the students of the Medical University in Gdańsk and stated that 76% of respondents used a reduction diet [6]. We can speculate that most of the students are dissatisfied with their appearance. They prefer to use unfavourable reduction diets instead of changing their lifestyle radically. Rapid weight loss in a short time is not only unhealthy but also generated additional kilograms in the future. The rules of healthy lifestyle and sufficient physical activity should accompany us every day. This is the only way to give us health and a good mood for many years.

CONCLUSIONS

1. The female students of physiotherapy are more active physically than the students of the European studies. Most of them exercise to be healthy.
2. The way of nutrition of the female students of physiotherapy is balanced better and the meals are of high-value.
3. Most of the respondents are non-smokers.
4. Over a half of those questioned used a reduction diet, at least once in a lifetime. Only the female students of physiotherapy received advice from a dietician.

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