

The importance of physical activity and diet in the life of female students

Znaczenie aktywności fizycznej i diety w życiu studentek

Rafał Pawłowski, Robert Dutkiewicz, Tomasz Winiarczyk

Department of Physical Education and Sport, Jan Kochanowski University, Kielce, Poland
Head of the Department: Rafał Pawłowski PhD

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

Abstract

Introduction: The lifestyle is known to be the most influential factor for maintaining a good health condition. Lack of physical activity and poor nutrition are two factors that support each other in a negative way and result in an increasing number of obese people. Irregular nutrition is often closely related to irregular academic life.

Aim of the research: The objective of this research is to find out how female students perceive health – how they understand and define it. Another objective is to determine whether nurses-to-be and psychiatrists-to-be perceive health differently than other students and whether their health-esteem is backed with their free-time physical activity and regular nutrition. It is crucial to find out what factors, according to the research, have the biggest influence on people's health.

Material and methods: The research involved 180 female students of full-time courses at the Jan Kochanowski University in Kielce: 98 female students of the Health Sciences Faculty and 82 female students of other faculties. The method of a diagnostic survey and a questionnaire were used in the research.

Results: The female students perceived health as a quality, well-being, an absence of disease; and for female nursing students health was not only the absence of disease or disability but also biopsychosocial well-being. The most important factors that influence the health condition are physical activity and nutrition. A high evaluation does not correspond to taking care of one's health. Fewer than 8% of the female students practised sport in their free time and ate regularly. More than a half neither did sport nor ate regularly (Pearson's contingency coefficient C reaches a value of 0.1).

Conclusions: The female nursing students, contrary to the female students of other faculties, perceive health in the same way as the World Health Organisation. Regardless of faculty, physical activity and regular nutrition are considered to be the most important factors influencing our well-being. A high health-esteem among the researched students is not backed with their healthy lifestyles.

Streszczenie

Wprowadzenie: Styl życia jest jednym z czynników mających największy wpływ na utrzymanie dobrego stanu zdrowia. Brak aktywności fizycznej i złe odżywianie się to dwa elementy, które w sposób negatywny wspierają się, a skutkiem jest wzrost liczby ludzi otyłych. Nieregularne odżywianie jest często związane z nieregularnym życiem akademickim.

Cel pracy: Celem badań jest ustalenie, czym jest zdrowie dla badanych studentek, jak jest ono przez nie postrzegane, potocznie definiowane, a także czy zdrowie w rozumieniu przyszłych pielęgniarek i fizjoterapeutek różni się od zdrowia widzianego oczyma studentek innych kierunków. Oceniano, czy samoocena dotycząca zdrowia idzie w parze z aktywnością fizyczną w czasie wolnym i regularnym odżywianiem się oraz jakie czynniki, według badanych, mają największy wpływ na stan zdrowia człowieka.

Materiał i metody: W badaniach uczestniczyło 180 studentek studiów stacjonarnych Uniwersytetu Jana Kochanowskiego w Kielcach. Próbę stanowiło 98 (54,4%) studentek Wydziału Nauk o Zdrowiu oraz 82 studentki innych wydziałów. W badaniach zastosowano metodę sondażu diagnostycznego, a jako technikę ankietę.

Wyniki: Dla studentek zdrowie stanowi najczęściej wartość, jest kojarzone z dobrym samopoczuciem, brakiem choroby. Dla studentek pielęgniarstwa zdrowie to nie tylko brak choroby, kalectwa, ale także dobrostan biopsychospołeczny. Najważniejsze czynniki, które mają wpływ na stan zdrowia, to aktywność fizyczna i odżywianie się. Wysoka samoocena dotycząca zdrowia nie idzie w parze z dbałością o nie. Tylko niespełna 8% studentek zarówno uprawia sport w czasie wolnym, jak i regularnie się odżywia, natomiast ponad połowa nie uprawia sportu i nieregularnie się odżywia (współczynnik kontyngencji C Persona osiąga tylko wartość 0,1).

Wnioski: Studentki pielęgniarstwa, w odróżnieniu od studentek innych kierunków, postrzegają zdrowie zgodnie z definicją Światowej Organizacji Zdrowia. Aktywność fizyczna i regularne odżywianie się są wskazywane, niezależnie od kierunku studiów, jako najważniejsze czynniki wpływające na stan zdrowia człowieka. Wysoka samoocena dotycząca zdrowia nie idzie w parze ze zdrowym stylem życia badanych studentek.

Introduction

Health is a term of multifaceted and ambiguous nature. This is due to the fact that health is a popular topic for many branches of science. It is an important value for a human being yet perceived in an abstract way by youngsters.

Health can be perceived as the lack of disease symptoms, biopsychosocial well-being, the potential of human attributes, and life quintessence or as a process or value [1].

In most Western European populations, the lack of physical activity derives from chronic diseases and obesity [2]. Without physical activity, any health strategy, health support, and health boost, as well as correct child and youth development, are impossible. Due to its multiple connections with health, physical activity is a desired individual and social value [3].

Lack of physical activity and poor nutrition are two factors that support each other in a negative way and result in an increasing number of obese people. Technical development facilitates our everyday life; however, it makes us live effortlessly. The amount of daily physical activity is far too low for our body's needs. We eat irregularly, we eat too many calories, and we do not eat healthy food. Hypokinesia and poor nutrition defeat our strong will to do sports and eat rationally. As a result, there are more and more obese people, which is also true for Poland. We have to hope that the fight for health and better life quality is not lost.

Physical activity and health training have been proven to be an effective remedy for a variety of civilisation diseases and premature aging. Kuński accurately determined the meaning of sports and recreation activity: it is a factor of anti-risk for various civilisation diseases, which is more meaningful than the harm caused by hypokinesia [4].

Lack of free time, one of the most frequently mentioned barriers for voluntary physical activity, has a significant influence on people's lifestyles. Neither work overload nor fast pace of life foster regular nutrition. A huge amount of free time does not guarantee a healthy lifestyle and good health condition. The inability to take advantage of one's free time, the lack of properly structured hierarchy of needs, prosomatic attitude shaped in youth, laziness, and the lack of awareness of negligence results affect our health in a significant way.

Irregular nutrition is often closely related to irregular academic life. Inconvenient and overloaded timetable, limited financial resources, and a busy social life do not predispose to regular nutrition.

Aim of the research

The lifestyle of an individual and the whole of society is known to be the most influential factor for maintaining a good health condition. So, do the sur-

veyed students perceive physical activity and good nutrition among other factors as the most important ones? Does health-esteem correspond to their free time physical activity and regular nutrition?

The object of the study is to determine what health means to the surveyed students, how it is perceived and commonly defined, as well as if nurses-to-be and psychiatrists-to-be perceive health differently than students of other faculties. Moreover, it is important to place free time physical activity and regular nutrition in the hierarchy of factors that influence our health in the most visible way, as well as to compare what the students declare that they do in terms of physical activity and eating habits.

Material and methods

The survey involved 180 female students of full-time courses at the Jan Kochanowski University in Kielce: 98 (54.4%) female students of the Health Sciences Faculty (nursing and physiotherapy) and 82 female students of other faculties (administration, political science, history, foreign languages, chemistry). Slightly over a half of the researched students live in the countryside (51.1%). 40.9% of students live in a city, mostly in Kielce. The method of a diagnostic survey and a questionnaire were used in the research. A survey was used as a basic technique for collecting data.

Statistical analysis

The impact of the variables was measured by means of Pearson's contingency coefficient *C*, based on the chi-square (χ^2) test.

Results

What does health mean to the surveyed female students? Most respondents perceive health as a value to be placed among other values (37.6%). The female students of the Health Sciences faculty half as often (27.4%) as students of other faculties (53.6%) responded in this way. Apart from evaluative responses stating that health is important, health is very important, health is essential in life, health is the most valuable gift, health is a treasure, health is a priority, there were more elaborated ones – health is the most important value in life, which is not taken care of early enough in order to avoid diseases; it is a measure of our lifestyles. For many people health is a tool for achieving goals and succeeding in different fields. Health loss hinders our performance in other spheres of our lives. Health has been indicated to be a guarantee of fitness and peaceful old age. Hence, staying healthy goes with doing sport, some respondents say that health is the most important value in our lives and one should take care of it by doing sport. However, other respondents say that health is very important but not important enough to do sport.

For 20.8% of respondents health is a perceptible body condition – good mood, being happy, the lack of problems, the lack of stress, self-satisfaction, satisfaction from one's body condition, increasing body satisfaction, a lot of energy, and the will to live. Health is an internal balance, a good physical, mental, and spiritual condition. It is a harmony of body and spirit. It is not only physical fitness but also mental efficiency.

Only 10.4% female students perceive health in a negative sense as the lack of disease and its symptoms. On the one hand such a statement is true, but on the other hand it is a far-reaching simplification of health as such, or rather it is a one-sided perception. Being healthy means the lack of disease, proper body weight, the lack of mental disorders, not going to a doctor, total body efficiency.

Health being perceived in a positive way means more than the lack of disease or disability – it is physical, mental, and social well-being (13.2%). Such a perception of health depends on the faculty that the surveyed students attend. Hence, the female nursing students' understanding of health corresponds to the knowledge that they gained during their course. In other words, they perceive health the same way as the World Health Organisation.

Sometimes health is associated only with qualities of body (6%) including very good physical fitness, good physical form, stamina, and good posture. 3.2% of the surveyed students indicated factors important to maintaining good health, e.g. not smoking, physical activity, proper nutrition, avoiding stress, healthy relationships, and healthy lifestyle. 8.8% of the surveyed students did not provide a response regarding characteristics of the concept of health.

We know what health means to the surveyed female students, but what is their self-esteem? Only 14.5% estimated their health as average or bad. 23.3% estimated it as very good, and 62.2% as good. Such high grading confirms the thesis that young people treat diseases or health imperfections as something abstract.

Table 1 presents the selected factors for each group of the students, which influence our health. Due to a fast pace of life we suffer from a lack of free time and overload of work duties. Such a lifestyle results in physical activity shortage, bad nutrition, and an inability to handle stress, which leads to body malfunction or disorders. The research results reflect the importance of these factors – physical activity (82.8%), proper nutrition (58.9%), and handling stress (52.2%).

Table 1. The most important factors that influence human health condition, as viewed by the surveyed students

| Factors that influence health | Health sciences faculty | | Other faculties | | Total | |
|---|-------------------------|------|-----------------|------|----------|------|
| | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % |
| Physical activity | 83 | 84.7 | 66 | 80.5 | 149 | 82.8 |
| Proper nutrition | 53 | 54.1 | 53 | 64.6 | 106 | 58.9 |
| Handling stress | 50 | 51.0 | 44 | 53.7 | 94 | 52.2 |
| Healthy home, school, and work | 39 | 39.8 | 28 | 34.1 | 67 | 37.2 |
| Clean air and water | 23 | 23.5 | 39 | 47.6 | 62 | 34.4 |
| Safe food | 21 | 21.4 | 33 | 40.2 | 54 | 30.0 |
| Using stimulants | 21 | 21.4 | 22 | 26.8 | 43 | 23.9 |
| Proper relationships | 32 | 32.7 | 11 | 13.4 | 43 | 23.9 |
| Healthy pregnancy | 8 | 8.2 | 20 | 24.4 | 28 | 15.6 |
| Access to health care | 13 | 13.3 | 9 | 11.0 | 22 | 12.2 |
| Hazardous waste | 13 | 13.3 | 7 | 8.5 | 20 | 11.1 |
| Health care | 9 | 9.2 | 10 | 12.2 | 19 | 10.6 |
| Elimination of genetic disease risk factors | 3 | 3.1 | 12 | 14.6 | 15 | 8.3 |
| Noise | 12 | 12.2 | 3 | 3.7 | 15 | 8.3 |
| Environment pollution | 2 | 2.0 | 10 | 12.2 | 12 | 6.7 |
| Ionising radiation | 2 | 2.0 | 8 | 9.8 | 10 | 5.6 |
| Health education | 8 | 8.2 | – | – | 8 | 4.4 |

Table 2. Health-esteem vs. doing sport and regular eating among the surveyed students

| Health-esteem | Students doing sport and eating regularly | Students doing sport and eating irregularly | Students not doing sport and eating irregularly | Students not doing sport and eating regularly | Dependence measure and the significance of differences |
|---------------|---|---|---|---|--|
| Very good | 6.8 | 27.3 | 52.3 | 13.6 | $C = 0.1$ $p < 0.05$ |
| Good | 7.0 | 20.2 | 45.6 | 27.2 | |

Genetic factors or those connected with proper functioning and access to health care are perceived as less important.

The female students of all faculties usually indicated the same most important factors that influence our health – physical activity, proper nutrition, and handling stress. Less important factors were perceived differently by the students of different faculties. Nursing and physiotherapy students half as frequently as students of other faculties indicated clean air and water, and safe food, and three times less frequently a healthy pregnancy, which may seem quite surprising. Many times less frequently they perceived the problem of elimination of genetic disease risk factors, environmental pollution, and ionic radiation. By contrast, they indicated proper relationships and noise. Both surveyed groups quite rarely and with similar frequency indicated health care – access to health services and a health care structure. Every fourth person indicated a connection between using stimulants and good health.

Since the vast majority of the women surveyed evaluated their health in a positive way and indicated physical activity and proper nutrition as the two most essential factors for health, it can be assumed that very good self-esteem goes with a healthy lifestyle. Nothing could be more misleading. Only 6.8% of the students who claimed to be very healthy did sport in their free time and ate irregularly. 52.3% of them did not practise any sport and ate irregularly. 13.6% did not practise sport but ate regularly, and 27.3% did sport but eat irregularly. These differences are statistically unimportant (Table 2).

Over half of all the students surveyed did not practise sport in their free time and ate irregularly (56.7%). Only 7.8% both did sport in their free time and ate regular meals. 23.4% of the surveyed female students practise sport and 27.8% eat regularly.

The faculties directly connected with human health – nursing and physiotherapy – do not have a positive influence on health behaviour. The female students of the Health Sciences Faculty did sports less frequently and at the same time they ate regularly (4.1–12.2%). The number of those who did not practise sport and ate irregularly was also bigger in this faculty (60.2–52.4%). Treating these two important factors for our health individually, one can state that the nursing and physiotherapy students more often did sports and ate less regularly than students of other faculties. Such a compound has a low strength, and Pearson's contingency coefficient C does not exceed the value of 0.1 (Tables 3 and 4).

Nearly every fourth surveyed student (24.3%) estimated their physical activity as sufficient although the majority of the students did not practise sport in their free time. Over a half of the students evaluated their physical activity as insufficient.

Only every fourth person declared doing sport, although only for 1 h a week. The students doing sport did not always evaluate their physical activity as sufficient although they spent up to 10 h a week doing sport. They had a strong need to satisfy their natural body needs. They were more honest with themselves than those who felt relatively satisfied not doing sport.

Discussion

In the whole Kielce academia, the better the youngsters evaluate their health condition, the more often they do sport in their free time [5]. This point is reflected in this survey. One can confirm that over a half of the surveyed students claim to be in good health although they do not practise sport and have an unhealthy diet. However, they are in their twenties now so it is a question of time when they will change

Table 3. Doing sport and regular nutrition as viewed by the surveyed students of different faculties

| Faculty | Students doing sport and eating regularly | Students doing sport and eating irregularly | Students not doing sport and eating irregularly | Students not doing sport and eating regularly | Dependence measure and the significance of differences |
|-------------------------|---|---|---|---|--|
| Health sciences faculty | 4.1 | 17.3 | 60.2 | 18.4 | $C = 0.03$ $p > 0.05$ |
| Other faculties | 12.2 | 13.4 | 52.4 | 22.0 | |

Table 4. Self-esteem of everyday physical activity among the surveyed students

| Variable | The percentage of students not doing sport in free time (%) | Students doing sport in free time (hours per week) |
|---------------------------|---|--|
| Sufficient (5.6%) | 60.0 | 2–4 |
| Rather sufficient (18.7%) | 57.6 | 2–9 |
| Difficult to say (21.5%) | 72.6 | 3–10 |
| Rather insufficient (35%) | 76.5 | 1–5 |
| Insufficient (19.2%) | 70.1 | 1–6 |

their evaluation and reach a proper conclusion that youth passes and health must be taken care of and fought for.

Young people often neglect their health. Between 31.7% and 37.8% of the surveyed young women adhered to the principle: “I do not care for my health as long as I do not suffer any diseases.” Over the years women are more likely to evaluate their health condition as average or bad [6].

The percentage of society physically active in their free time varies depending on cultural factors and economic development. In Eastern and Central Europe it comes to 30% and it is higher than in Western Europe and the USA (23%), but lower than in the Mediterranean region (39%) and in developing countries (44%). The amount of free time physical activity among a significant number of students is below the recommended level, and knowledge about health is not sufficient [2].

The percentage of female students physically active in their free time is slightly lower (23.4%) than the one indicated in this survey. In the earlier survey, 42.6% of female students from the whole academia in Kielce declared doing sport [7]. At the same college, between 23% [8] and 34% of the female students [9] do physical exercise at least twice a week.

Apart from lifestyle, which has the most significant influence on human health, one should mention the natural environment, both physical and social, genetic factors, inheritance, health service, and the condition of health care [10].

The surveyed students unanimously indicated physical activity and proper nutrition as the most important factors that influence human health. However, treating lifestyle as a whole, using stimulants or having a healthy pregnancy are mentioned far less frequently. The natural environment is another important group of factors that influence health. Such components of the social environment as proper relationships, avoiding stress, and healthy home, school, and work play

a significant role. Equally important is clean air and water, and safe food. Health service, the condition of health care, and genetic factors are less important.

Declaration of a healthy lifestyle in the surveyed group does not correspond with the actual behaviours that are beneficial to health [11]. The faculty the surveyed students attend, which is directly connected with health, does not improve health behaviours. On the contrary, the nurses-to-be and the physiatrists-to-be practiced sport and ate regularly less frequently than the female students of other faculties.

Every fourth surveyed female student evaluated their everyday physical activity in a similar way to the students of Krakow colleges. However, in Krakow there were more students who claim that their physical activity is sufficient and that they eat regularly while studying [12].

There were three times fewer students in the group in the survey who eat regularly than those who declare a lack of regularity in eating. It is the worst result of 6 medical colleges in Poland. The percentage of the students who admitted that they ate irregularly three basic daily meals exceeded nearly twice the percentage of the students who declared regular eating. Physical activity among academic students was very little compared with physical activity among secondary-school students [13].

The Academy of Physical Education students, who take courses corresponding strictly with physical activity and gaining knowledge of health aspects of recreational training, noticed a close connection between their own free time physical activity and good health condition more frequently than the Jan Kochanowski University female students. Every third student claimed to take care of their health by doing sport in their free time (compared to 15.6% of the surveyed Jan Kochanowski University students). They also evaluated their health condition as good or very good [14], and in this respect the situation does not change [7].

The Academy of Physical Education students' evaluation of their free time physical activity and health was the highest. They had the most regular diet and were the most aware of the correspondence between physical activity and health (as contrasted with students of other colleges). Moreover, 2/3 of them declared doing physical exercise for 5–6 h a week, and 3/5 of them evaluated their health as very good [15]. These results are better than in the surveyed group of students – their results are comparable to the results of students from other colleges.

Conclusions

The female nursery students, contrary to the female students of other faculties, perceive health in the same way as the World Health Organisation. Regardless of faculty, physical activity and regular nutrition

are considered to be the most important factors influencing our well-being. A high health-esteem among the researched students is not backed by their healthy lifestyles.

Conflict of interest

The authors declare no conflict of interest.

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Address for correspondence:

Rafał Pawłowski PhD
Department of Physical Education and Sport
Jan Kochanowski University
ul. Świętokrzyska 21 h, 25-406 Kielce, Poland
Phone: +48 696 488 854
E-mail: rpawlow@ujk.edu.pl