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*State of health and lifestyle of adolescents  
from the Świętokrzyskie Region*

It is widely believed that the debates on the determinants of human health originate from the ancient times, when an idea of multiple factors conditioning human health appeared in Chinese medicine and later in Hippocrates' (460–377 B.C.) and other thinkers' papers. Over the centuries health-related beliefs changed, which resulted in, for instance, an increased incidence of the so-called civilized diseases.

These days we can notice a range of positive changes taking place in human consciousness. They refer not only to a higher interest in health-related problems and hazards, but also the ways of prevention or protection. Probably the above mentioned tendencies are conditioned by alarming demographic data. There is a clear tendency for societies to get older as a result of lower and lower birth rate and longer life expectancy. Between the years 2000–2020 a number of the 65–90 age group will increase from 16% to 21% of the whole EU population, whereas a number of the 15–24 age group will decrease to 11% (2). This lack of numerical balance between younger and older people will bring about qualitative changes in intergeneration relations. Financial pressures on social care system will be one of the challenges. One should foresee the fact that in the 21st century we will face an increased number of people with various health problems and with more educational needs concerning health and self care, or a growing number of people requiring home care, the percentage of ill poor people will rise as well. However, people will also look after their own health to a greater extent. Therefore, one should expect the health-maintaining tasks to be shifted from medical institutions to social institutions, society and individuals.

It is worth remembering that the role of environment and lifestyle was highlighted in 1974, in the so-called Lalonde's Report (1). The author presented there a theoretical health model, enumerating elements conditioning health such as man's biology, environment, lifestyle and social care system. The scientists from various countries try to assess to what extent these elements have an influence on human health.

In the National Health Programme, formulated for Poland for 1996–2006, it was stated that lifestyle is the most significant factor, which determines health from 50 to 60%. One should underline that an individual's lifestyle can reinforce his/her health potential or weaken it, thus we talk about its pro-health or anti-health character. Environment (physical, social, family, work) is another factor determining 20% of health. Then genetic factors (20%) appear and medical care is the last element, which can improve 10–15% of health-related problems, according to the Programme's authors.

The aim of this work is to answer the question what is the state of health of youth from the Świętokrzyskie Region in the aspect of selected elements of lifestyle of the examined. The research results may be used by school health care workers, teachers, students of various pedagogical and medical studies as well as parents, whose participation in forming attitudes should be considerable.

## MATERIAL AND METHODS

The material discussed in the work was used by the author in her long-term research of the children from the Świętokrzyskie Region. 531 infants born in 1982 were examined (275 boys and 256 girls). This group has been examined several times at different stages of development, namely at the age of 0, 6, 10, 14 and 18. In the research the influence of socio-economic conditions on their state of health was evaluated. The following factors were taken into consideration: mother's profession at child's birth, social background of the examined, education and occupation of parents, the number of persons in the family, the number of siblings of the examined. However, due to a wide range of the material and publishing requirements all the data can not be included. A detailed analysis of the state of health and lifestyle of the subjects at the age of 18 under examination was carried out. Medical/nursing assessment of the examined with respect to the state of health in selected ontogenesis periods has been made. Moreover, at the age of 18 in particular, a preferred youth lifestyle has been identified from the findings of the diagnostic survey and questionnaire surveys. In the research a tool formulated by W o y n a r o w s k a (4) was partly used. Since lifestyle is not a homogenous concept and both pro-health attitudes, behaviours and individual's life philosophy constitute it, in the paper only health behaviours were discussed in detail. The research material was verified and grouped according to chosen variables. The Statistica Polonia package was used in a statistical analysis. The issue is only a part of extensive research into the discussed subject.

## RESULTS AND DISCUSSION

Discovering and appreciation of the relationships between health and education is needed especially in times of social, economic and political changes. The youth is exposed to information from various sources. The social role of school has changed. New health hazards and problems appear whereas the funds available to solve them are limited, even in the richest countries (5).

In the light of the conducted research the following problems in the examined group have been observed, considering health, social aspect and frequency of various disorders: 1) injuries in the 6–18 age group took place usually during sporting events at school and concerned about 31.5% of the researched. It is worth noticing that medical help was needed and 6% of the examined had several injuries during a year (three times and more); 2) Dental decay appeared in every ontogenesis period of the examined. The fact that older children suffered more often from tooth decay is alarming, thus in the 6–10 age group children with decayed teeth constituted about 76%, during puberty (14 years of age) the percentage of the researched with dental decay reached 83%, whereas 89% at the age of 18–89%. These results can be explained by the fact that during puberty children are more prone to decay due to immaturity of just-cut teeth and hormonal changes typical of this ontogenesis period. Other established health disorders in the group under examination were: 3) Motor system disorders, in particular faulty postures (flat back and scoliosis), accounting for 46.5% of the examined. The above mentioned conditions were found to be on the rise in the examined group aged from 6 to 18. The children and adolescents in this age range tend to become less active (sitting at school desks) and developmental conditions emerge that are conducive to motor system disorders (quick pubertal spurt); 4) sense organs disorders: sight (in approx. 15–30%), hearing (approx. 8%), speech (approx. 8%), particularly in younger schoolchildren (6–10 y. o.);

In addition, health disorders in the examined group which persist over subsequent ontogenesis stages include growth and pubescence disorders (approx. 12% of the examined in the age range 10–18) and obesity which affects 7% of the examined. Girls aged 14–18 were found to go on diets, often deficiency ones. More than 30% of the examined went on diets, justifying it with the need to keep a "fashionable figure".

It is also worth mentioning that allergies occupy a special place (including bronchial asthma) among disorders persisting for all ontogenesis stages under examination. One-fourth of the examined underwent some asthma treatment.

In general, the observed health problems in the examined group bear out nation-wide data presented in the subject-related literature and indicate that school-age population still requires intensive health care measures.

As noted earlier, an important role in health determination is attributed to the lifestyle. A major constituent of the lifestyle is human behaviour, and as regards the dependency between the lifestyle and health – health practices. Health practices, both the ones that strengthen the health potential and the ones that are conducive to commencement of pathological processes can be controlled by a human.

The paper presents an analysis of selected practices of adolescents up to 18 y.o. in the context of their relation to health: physical activity, mouth hygiene, attitudes to alcoholism and smoking, as well as health indices and general feeling:

1. **Physical activity of adolescents.** It was observed that physical activity tends to be diminished with age (the author has the data from earlier periods). This is an unfavourable situation due to the fact that activity patterns are transferred from the adolescence to adult age. What deserves underscoring is the fact that adolescents do physical exercises too short and too seldom in their free time (36% of boys and 30% of girls do physical exercises once a week and 30% of boys and 35% of girls make physical exercise for only 1/2 hour in a week). At the same time, immobility resulting from watching TV was observed (40% of boys and 35% of girls watch TV for 2-3 hours a day and as many as 35% of boys spend 1-3 hours a week playing computer games and surfing the Internet). Detailed data are presented in Figures 1-4.

2. **Nutritional habits.** Deficiencies were observed as regards eating some basic foodstuffs (only 20% of boys and 24% of girls eat brown bread, 27% of boys and 21% of girls eat raw vegetables, 63% of boys and 27% of girls eat sweets and drink sweet fizzy drinks more often than once a day). Relevant data are presented in drawings 5-7.

3. **Mouth hygiene.** Adolescents do not take sufficient care of the mouth (62% of boys and 73% of girls brush their teeth more often than once a day).

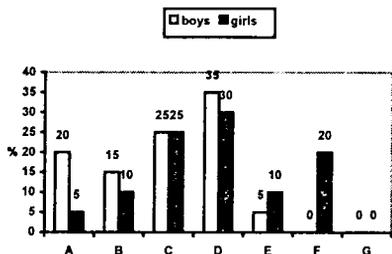
In addition, risky practices were observed in the examined group:

4. **Failing to respect traffic safety.** It was found that 25% boys and 27% girls fasten seatbelts only sometimes or rarely (Fig. 9).

5. **Smoking.** Most probably due to no-smoking campaigns led over the past few years and the number of the examined (531) the obtained data indicate a significant share of non-smokers (83% of boys and 89% of girls). However, what is worrying is a share of boys (8%) and girls (5%) who smoke every day (Fig. 10).

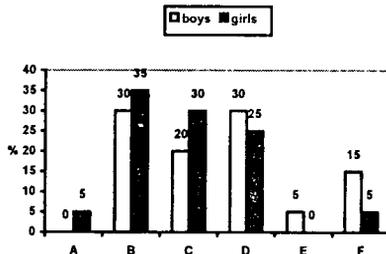
6. **Drinking alcohol.** It was established that 12% of boys drank alcohol every week and 23% of boys and 5% of girls drank alcohol every month, whereas 12% of boys and 4% of girls were at least 2-3 times intoxicated with alcohol. Analysis of the data allows for a conclusion that boys drink alcoholic beverages and get intoxicated with a significant higher frequency (Fig. 11-12).

Health and general feeling of the examined adolescents has, in their own opinion, decisively more positive than negative elements, which may be a result of failing to comply with physicians' recommendations, adaptation abilities of young organisms or lack of interest in own health. The majority of the examined (53% of boys and 62% of girls) consider themselves healthy and 55% and 48% are satisfied with their lives, respectively, although they communicate various ailments and use medicines to treat them. Most ailments are psychosomatic symptoms, such as nervousness, irritation or bad mood, headaches and stomach aches. Detailed data are presented in Figures 13-18.



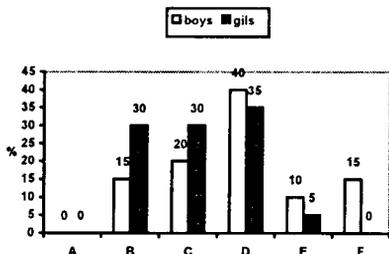
A – everyday  
 B – 4-6 times a week  
 C – 2-3 times a week  
 D – once a week  
 E – once a month  
 F – less than once a month  
 G – never

Fig. 1. Frequency of physical exercise done after lessons



A – never  
 B – about 1/2 hour  
 C – 1 hour  
 D – 2-3 hours  
 E – 4-6 hours  
 F – 7 hours and more

Fig. 2. A number of hours spent weekly on intensive physical exercise



A – never  
 B – less than 1/2 hour  
 C – about 1/2 h  
 D – 2-3 hours  
 E – 4 hours  
 F – more than 7 hours

Fig. 3. A number of hours spent daily on watching TV



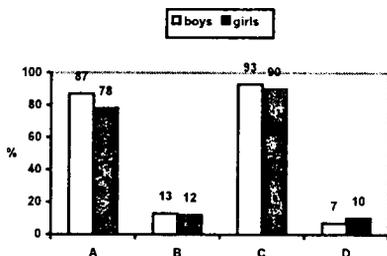
A – never  
 B – less than 1 hour  
 C – 1-3 hours  
 D – 4-6 hours  
 E – 7-9 hours  
 F – 10 hours  
 G – less than 10 hours

Fig. 4. A number of hours spent weekly on computer games



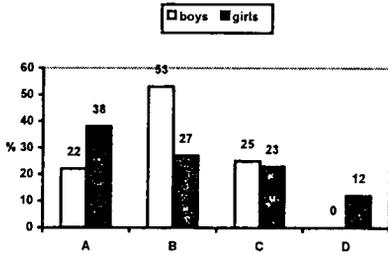
A – fruit  
 B – raw vegetables  
 C – brown bread  
 D – milk and milk products

Fig. 5. Consumption of necessary products from selected food group



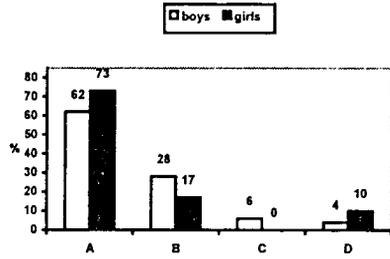
A – breakfast eaten at home  
 B – breakfast not eaten at home  
 C – 2nd breakfast eaten at home  
 D – 2nd breakfast not eaten at school

Fig. 6. Consumption of the 1st the 2nd breakfast



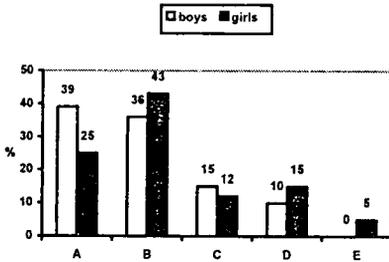
A – once a day                      B – more often than once a day  
 C – at least once a week        D – seldom

Fig. 7. Confectionery & sweet beverages consumption



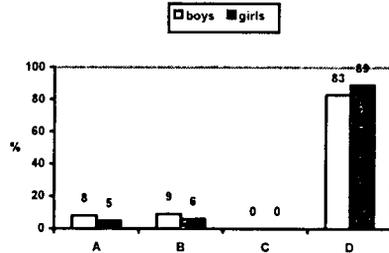
A – more than once a day    B – once a day  
 C – once a week                D – less than once a week

Fig. 8. Frequency of tooth brushing



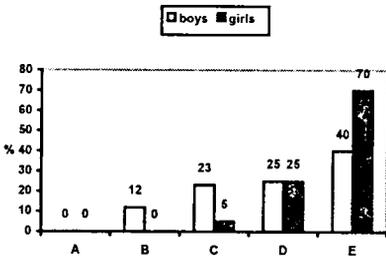
A – always                        B – often  
 C – sometimes                D – seldom or never  
 E – usually there are not seatbelts

Fig. 9. Fastening seatbelts while driving



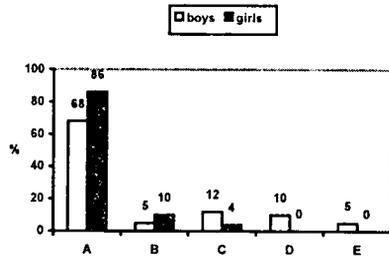
A – everyday                      B – at least once a week  
 C – less than once a week    D – never

Fig. 10. Tobacco smoking



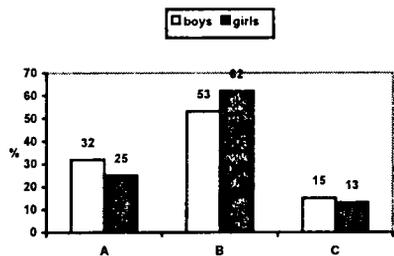
A – everyday                      B – every week  
 C – every month                D – seldom than once a week  
 E – never

Fig. 11. Alcohol intake



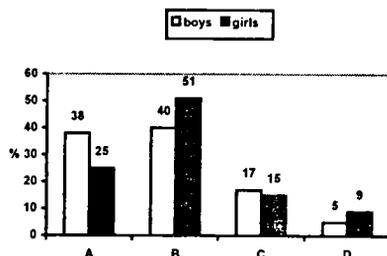
A – never                        B – once  
 C – 2-3 times                D – 4-10 times  
 E – more than 10 times

Fig. 12. Being in the state of intoxication



A – I am very healthy    B – I am healthy  
C – I am not healthy

Fig. 13. Subjective assessment of one's own health



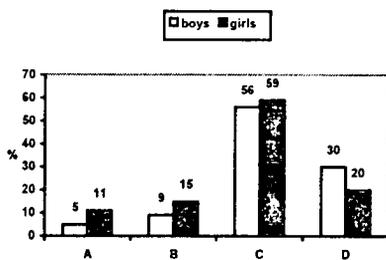
A – very good    B – good  
C – good enough    D – bad

Fig. 14. Subjective assessment of one's own physical fitness



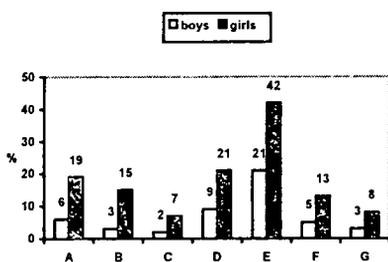
A – very satisfied    B – satisfied  
C – rather satisfied    D – unsatisfied

Fig. 15. Feeling of satisfaction with one's own life



A – very often    B – quite often  
C – sometimes    D – never

Fig. 16. Feeling of loneliness



A – headaches    B – stomach aches  
C – backaches    D – irritation and bad mood  
E – nervousness    F – problems with falling asleep  
G – dizziness

Fig. 17. Incidence of psychosomatic ailments



A – cough    B – colds  
C – headaches    D – stomach ache  
E – problems with falling asleep    F – nervousness

Fig. 18. Reasons for taking medicines

## CONCLUSIONS

1. Adolescents suffer from a number of health disorders, wherein some are typical while the others are not. The most frequent ones include: injuries, caries, motor system disorders (spinal column diseases), sight and hearing impairment, obesity, growth and pubescence disorders, allergies.

2. Negative health practices account for a significant part of adolescents' lifestyles. They include: nutritional irregularities, low physical activity, smoking, alcoholism and a discrepancy between a general good opinion of adolescents on their health and epidemiologic data that indicate adolescents' health and development disorders.

3. Identification of health practices of adolescents and the manner how they perceive their health is a requirement for health improvement in the future, acquisition of ability to make sound choices, significant reduction in injuries and decrease of risky health practices.

4. The presented results indicate a necessity to conduct research in this field, in particular in the context of disturbing demographic changes observed in human health and development.

## REFERENCES

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## SUMMARY

An analysis of medical/ nursing assessment of the examined children with respect to their state of health in selected ontogenesis periods has been made. Moreover, at the age of 18 in particular, a preferred youth lifestyle has been identified from the findings of the diagnostic survey and questionnaire surveys. The state of health and lifestyle of the adolescents from the Świętokrzyskie Region are discussed in this paper. It is based on the results of the author's long-term project. 531 infants, born in 1982, were examined (275 boys and 256 girls). An in-depth analysis of the state of health and lifestyle of 18-year-old youth was carried out. Pro-health attitudes of the adolescents and the way they perceive their health will condition an improvement of the state of health in the future, the abilities to make healthy choices, a considerable reduction of injuries and a decrease in the spread of risky health behaviours.

## Stan zdrowia i styl życia młodzieży z Regionu Świętokrzyskiego

Celem opracowania jest próba odpowiedzi na pytanie, jak kształtuje się stan zdrowia i styl życia młodzieży z badanego regionu. Materiał do opracowania pochodzi z długofalowych badań dzieci. Przebadano dokumentację 531 noworodków urodzonych w 1982 roku (275 chłopców i 256 dziewcząt). W zakresie stanu zdrowia dokonano analizy oceny lekarsko-pielęgniarskiej badanych

i ich funkcjonowania w tym zakresie w poszczególnych okresach ontogenezy. W wyniku zastosowanego sondażu diagnostycznego i podjętych badań ankietowych ustalono preferowany przez młodzież styl życia. Na podstawie przeprowadzonych badań stwierdzono, że młodzież cierpi z powodu wielu zaburzeń w stanie zdrowia, przy czym niektóre z nich są typowe, inne nie. Do najbardziej powszechnych zaburzeń należą: zaburzenia układu ruchu (choroby kręgosłupa), próchnica zębów, wady wzroku i słuchu, otyłość, nerwice, alergie, zakłócenia akcji serca. W zakresie stylu życia młodzieży zaobserwowano znaczący udział negatywnych zachowań zdrowotnych, takich jak: nieprawidłowości w żywieniu, mała aktywność fizyczna, palenie papierosów, zjawisko alkoholizmu, sięganie po narkotyki w sytuacji stresowej, wzrost agresji w kontaktach interpersonalnych. Zaprezentowane wyniki wskazują na konieczność prowadzenia badań w tym zakresie, zwłaszcza w obliczu niepokojących zmian obserwowanych w stanie zdrowia i rozwoju populacji.