



## What Do Teenagers Know About a Healthy Lifestyle?

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 06 Nov 2023	<p><i>In order to clarify the degree of awareness of adolescents about a healthy lifestyle, we conducted a social survey of 441 adolescent girls in social networks using the GOOGLE Forms questionnaire. The purpose of this study was to identify the main factors influencing the choice of a healthy lifestyle, as well as the degree of enlightenment of this contingent in determining the most effective methods for improving health and preventing diseases. We also examined the influence of family, school, environment and mass media on the formation of a healthy lifestyle among adolescent girls. The age of the respondents ranged from 13 to 19 years, the average age was <math>15.9 \pm 1.2</math> years</i></p> <p><b>Key words:</b> adolescent girls, reproductive health, healthy lifestyle, awareness, psycho-emotional state, social survey.</p>
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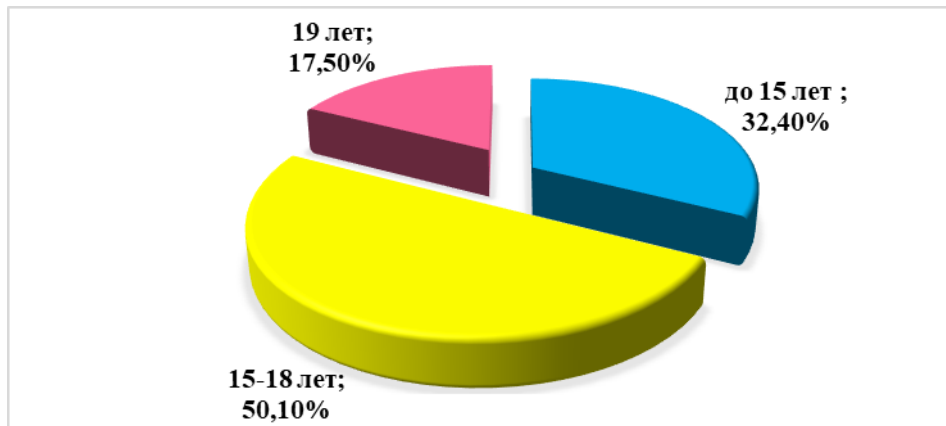
### 1. Introduction

More than one billion teenagers living on all six continents of the world are a stronghold of the future development and prosperity of our world [WHO, 2019]. Today, these young men and women have to overcome enormous difficulties in order to embark on an active and active life path when they become adults. Many individuals and organizations have an important contribution to make in promoting the healthy development of adolescents and preventing and addressing their health problems. According to the State Committee on Statistics of the Republic of Uzbekistan, adolescents (aged 10-19) make up 16.2% of the total population of the country, which represents a unique opportunity for the economic and human development of Uzbekistan. Speaking in an open dialogue with medical workers on March 18, 2022, the President of our country Sh.M. Mirziyoyev emphasized that "The health of the nation is above and most valuable!". In modern society, maintaining a healthy lifestyle is one of the most relevant topics. Health is becoming more and more valuable and important, especially adolescents, because the health of future generations of citizens of our country depends on their health in a period of active growth and development. It was indicated that seven areas of work of the medical community are priorities: primary care, emergency medical care, improving the conditions of medical institutions, material incentives for workers in the field, providing qualified personnel and improving the culture of healthy life, disease prevention.

However, despite all the efforts made to promote the benefits of a healthy lifestyle, many adolescent girls do not know what is meant by healthy lifestyles and reproductive health.

**In order to** clarify the degree of awareness of adolescents about a healthy lifestyle, we conducted a social survey of 441 adolescent girls in social networks using the GOOGLE Forms questionnaire. The purpose of this study was to identify the main factors influencing the choice of a healthy lifestyle, as well as the degree of enlightenment of this contingent in determining the most effective methods for improving health and preventing diseases. We also examined the influence of family, school, environment and mass media on the formation of a healthy lifestyle among adolescent girls.

The age of the respondents ranged from 13 to 19 years, the average age was  $15.9 \pm 1.2$  years. years were 32.4% and 19 years 17.5%, respectively.



**Figure 1. Age range of female respondents.**

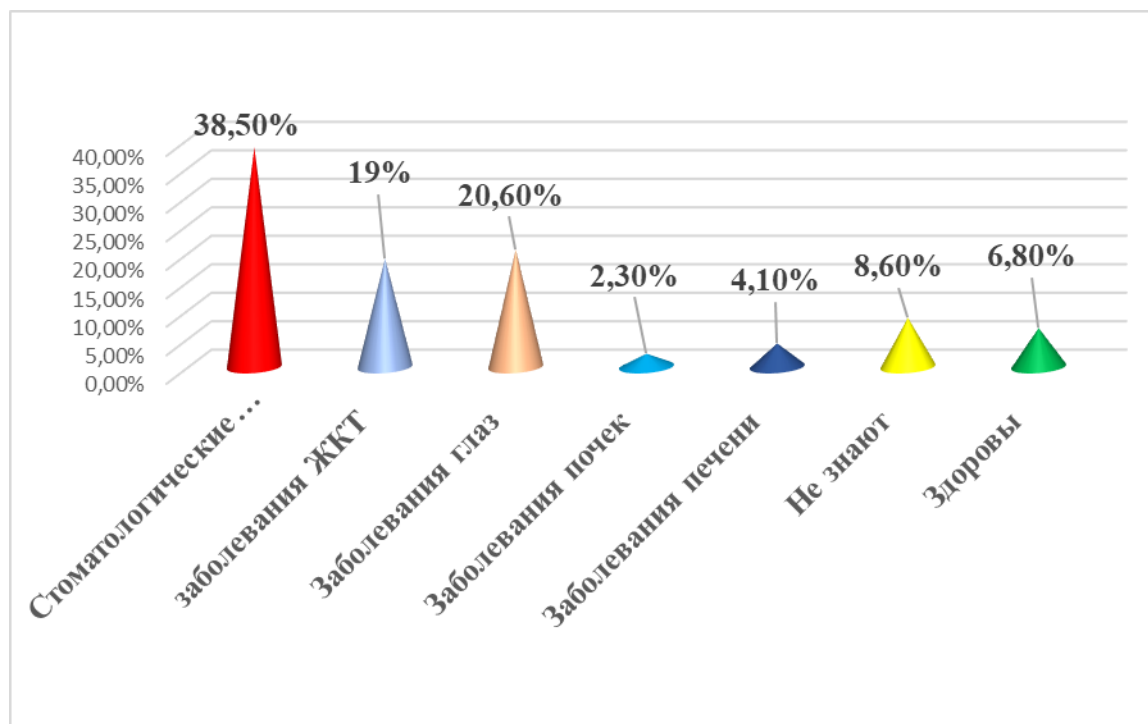
308 teenage girls (69.8%) were in high school, 70 teenage girls (15.9%) were in college, 54 (12.2%) were employed and 9 girls (2.0%) were unemployed, they were at home (Fig. 2).



**Figure 2. Sphere of employment.**

Awareness about the presence of physical diseases in adolescent girls may vary depending on education, culture, social status and other factors.

As usual among adolescents, girls are more likely to be interested in health issues and more prone to self-diagnosis than boys. Learning about symptoms and searching the internet for information is a common occurrence for many teenage girls. Despite the fact that adolescent girls are more prone to self-diagnosis, many of them do not seek medical attention in a timely manner. This may be due to a lack of information about what diseases can occur at this age and what symptoms to look out for. In addition, many girls are embarrassed to discuss their problems with adults or do not know who to turn to for help. To the question of awareness of somatic diseases in adolescent girls, we received the following data: 170 girls (38.5%) answered that they have dental diseases; 84 (19%) girls answered that they have gastrointestinal diseases; 91 respondents (20.6%) had eye diseases (for which they wore glasses or lenses); 18 (4.1%) girls had liver diseases, mainly after suffering from viral hepatitis of various forms; 10 (2.3%) girls had kidney disease, and 38 (8.6%) adolescent girls did not know what somatic diseases they had, and only 30 (6.8%) girls answered that they were healthy (Figure 3).



**Fig.3. Awareness of adolescents about the presence of somatic pathology in them**

In general, awareness of somatic diseases among adolescent girls is quite high, but this does not always lead to timely access to doctors. Therefore, it is important to raise girls' awareness of how and where to get help when they are sick.

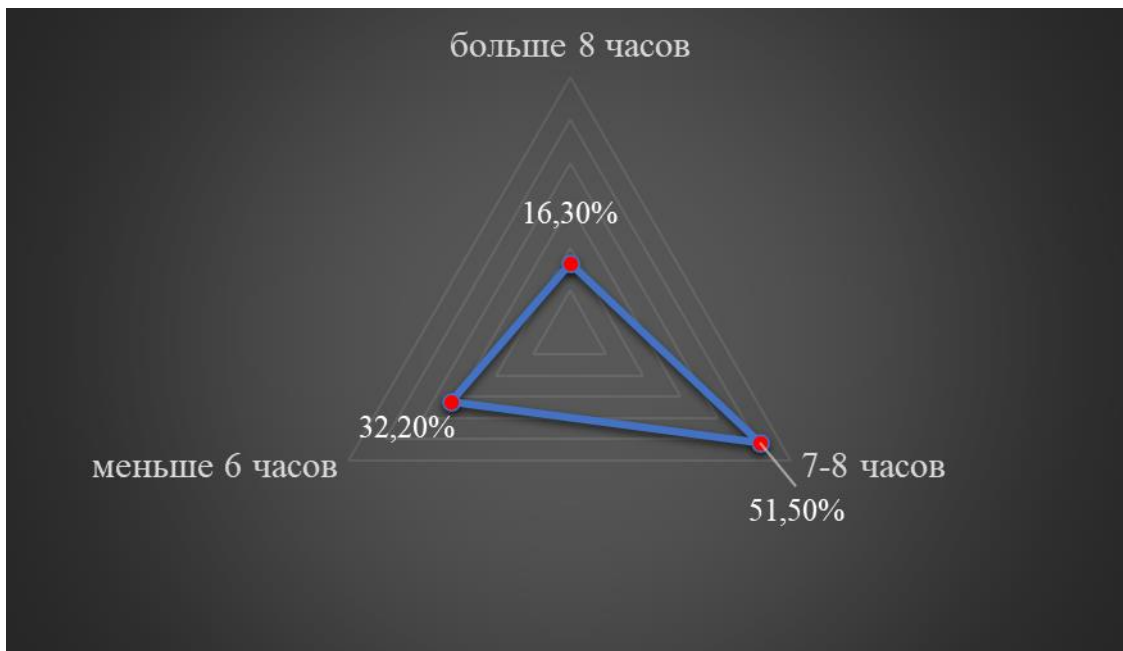
Teenage girls, like boys, can have various bad habits that can negatively affect their health. Some of them:

**Smoking e** - teenage girls may start smoking for a variety of reasons - from the desire to be like their peers to stress and anxiety. They are not informed that smoking can lead to various diseases of the lungs, heart, circulatory system, and even cancer;

**Alcohol - Teenagers** may drink alcohol at parties or with friends. However, they do not have information about the harmful effects of this on health, as well as the risk of getting into an accident or becoming a victim of violence;

**Drug and** - Some teenage girls may experiment with drugs, which can lead to serious health problems and addiction. To the question: **“Have you ever taken alcohol, cigarettes, narcotic and psychotropic drugs?”** - we received the following answers: 386 respondents (87.5%) answered that they had never taken the above products, but to our great surprise, 31 teenage girls (7.0%) took psychotropic drugs, and took them almost regularly; 15 girls (3.4%) tried alcohol more than once; 6 girls (1.4%) smoke cigarettes on a regular basis; 2 girls (0.5%) take drugs more than 3 times a week. In this regard, the work of all levels of education and medicine on the harmful effects of bad habits on the health of adolescents and on the quality of their future life is important.

We know that sleep plays an important role in keeping teenagers healthy. Lack of sleep can lead to various problems such as fatigue, irritability, concentration and memory problems. Also, lack of sleep can negatively affect the immune system and increase the risk of various diseases. Teenage girls should sleep 8 to 10 hours a day. Good sleep helps teens stay healthy and energetic throughout the day, boosts their immune system and reduces the risk of various diseases. Therefore, it is important to pay attention to the quality and quantity of sleep-in order to maintain the health and well-being of adolescent girls. To the question: **“How many hours do you sleep a day?”** , we received the following answers (Figure 3): only 16.3% of girls answered that they sleep more than 8 hours a day; 51.5% of teenage girls - 7-8 hours a day, and 32.2% of girls slept less than 6 hours a day, which affected their well-being, apparently, they faced problems that prevented them from getting getting enough sleep, such as stress, depression, anxiety, workload, and using gadgets before bed.



**Figure 3. Sleep duration.**

Lack of sleep can affect academic performance. If a teenage girl does not get enough sleep, it can lead to fatigue, irritability, and problems with concentration and memory, which can negatively affect academic performance. Adolescent girls' academic performance can be affected by many factors such as educational level, workload, motivation and healthy lifestyles. The impact of a healthy lifestyle on academic performance is also very important. A healthy lifestyle that includes proper nutrition, regular physical activity, and adequate rest can increase energy and focus, which will positively affect academic performance. To the question: “How do *you study?*”, we received the following answers: 37.2% of girls studied with good marks, 28.8% - excellent, and 27.9% of respondents had only satisfactory marks. In general, the performance of adolescent girls depended on many factors, and a healthy lifestyle is one of the important components for academic success. In this regard, the next step in our study was to determine the psycho-emotional and physical state of adolescent girls. Fatigue after exercise is a common problem among teenagers, especially girls. This can lead to poor academic performance, health and mood problems. One of the main causes of fatigue is also lack of sleep. While teens need 8-10 hours of sleep a day, many of them don't get that much, as we found out, due to schoolwork, extracurricular activities, and gadget use. In addition, lack of physical activity can be the cause of fatigue. Many teens spend most of the day at their desk or in front of a computer screen, which can lead to low energy and fatigue. Fatigue can also be caused by stress. School workload, social problems and other factors can stress teenagers, which can lead to fatigue and emotional exhaustion. Another risk factor is malnutrition. If a teenager does not get enough nutrients, then this can lead to fatigue and a decrease in energy. To the question: “**Do you get tired after class?**”, unfortunately, 68.5% of respondents answered positively, and only 31.5% of adolescent girls indicated that they did not get tired. As you know, there are several ways to deal with fatigue in adolescents. One of these ways is regular physical activity. Playing sports or just taking a walk in the fresh air can help increase energy and reduce fatigue. Sport and physical activity play an important role in maintaining the physical and psycho-emotional health of adolescent girls. Regular exercise helps to strengthen muscles and bones, improve blood circulation and heart function, increase stamina and reduce the risk of developing various diseases. In addition, sports and physical activity can positively influence the psycho-emotional state of adolescent girls. They help reduce stress and anxiety levels, improve mood and self-esteem, increase self-confidence and social adaptation. One of the most effective ways to improve the psycho-emotional state of teenage girls is to play team sports, such as volleyball or basketball. It helps to develop communication, cooperation and leadership skills, as well as strengthen friendships and social bonds. To the question: “**Do you regularly go in for sports?**”, we received the following answers: every third girl answered that they regularly go in for sports, 37.9% go in for physical exercises only during physical education classes, but, unfortunately, 24.9% do not go in for sports at all and 2.7% of girls are exempted from physical culture for some reason (Fig. 4).

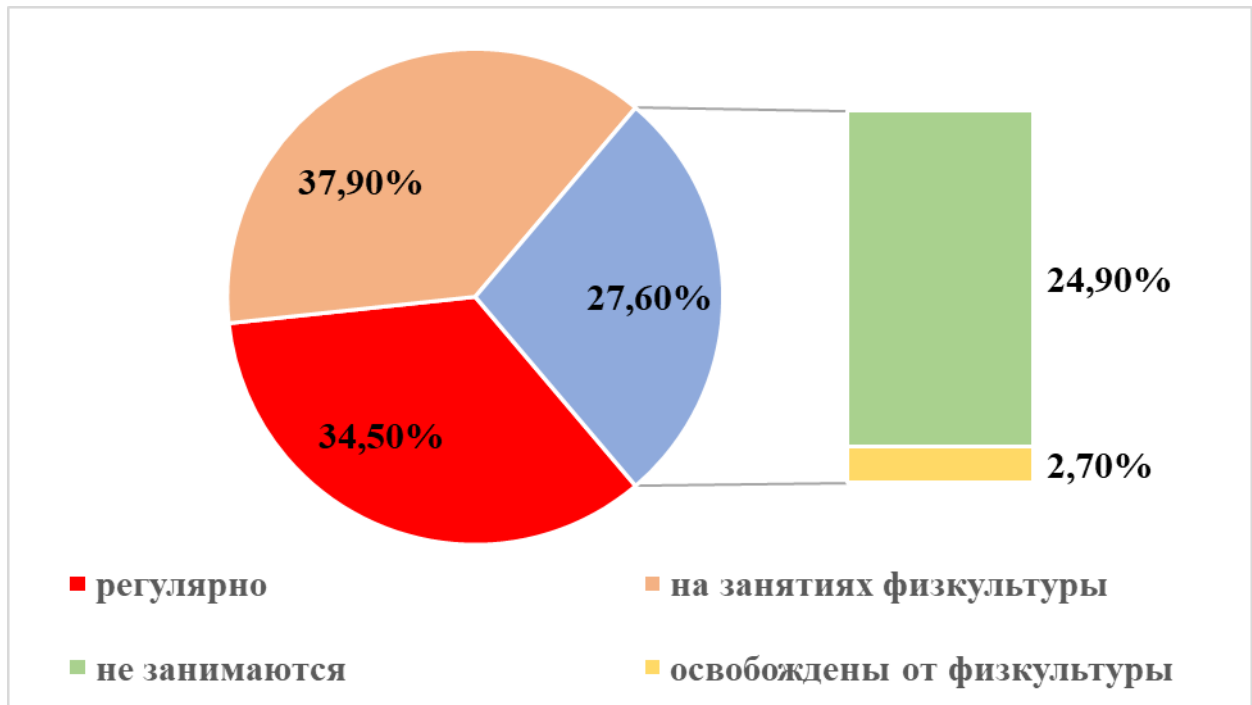


Figure 4. Sports activities.

Unfortunately, despite what is commonly known - sport and physical activity are important components of a healthy lifestyle - every third girl in our study does not participate in sports and physical activity on a regular basis. Of course, this can affect energy levels, physical and mental health, and ultimately the quality of life of expectant mothers.

Feelings of "loneliness" during adolescence can have a particular impact on the socialization of adolescents. At this age, girls often feel insecure, looking for their place in life and striving to establish themselves in society. If they feel lonely, it can make them feel anxious, sad, and depressed. Feelings of loneliness can arise due to various reasons. For example, girls may feel rejected if they do not meet certain standards of beauty or behavior that society dictates. They may also feel lonely if they don't have close friends or if they can't get along with other people, especially their parents. Feelings of loneliness can also lead to negative health outcomes for girls. They can become victims of bullying or violence from peers, and this sometimes even leads to suicidal tendencies. To the question: "Do you feel lonely?" - we got the following: 76.2% of girls do not feel lonely, but 18.6% of girls, in their opinion, are very lonely, 5.2% of girls feel misunderstood by their relatives and friends (Fig. 5).

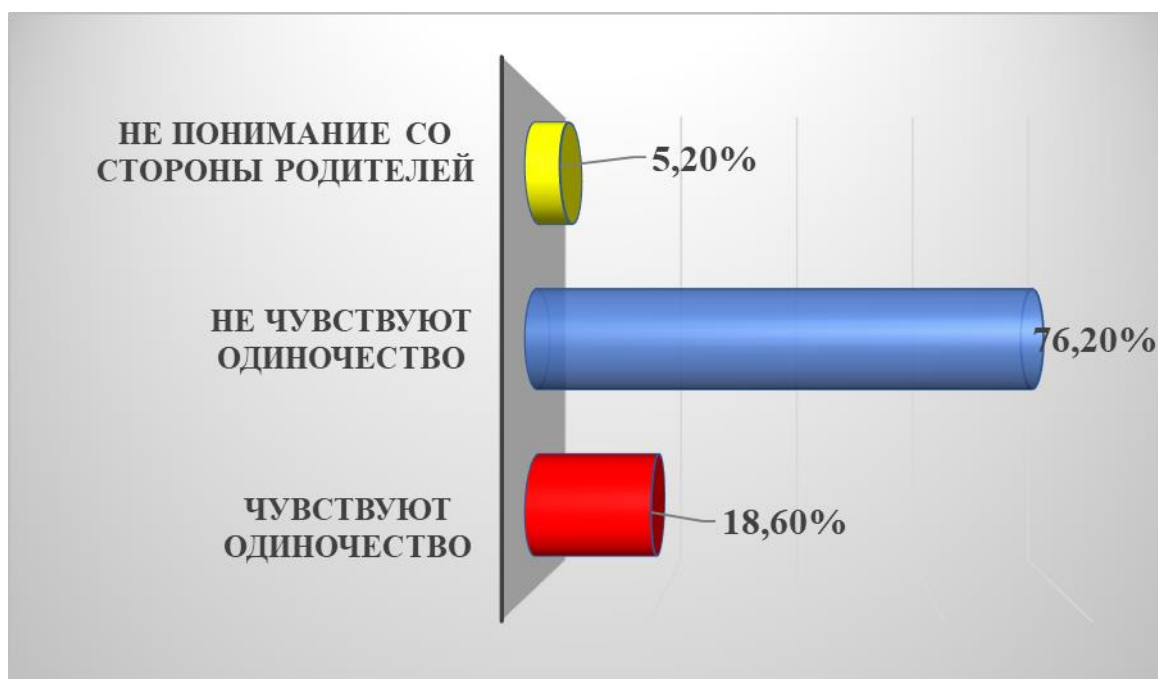
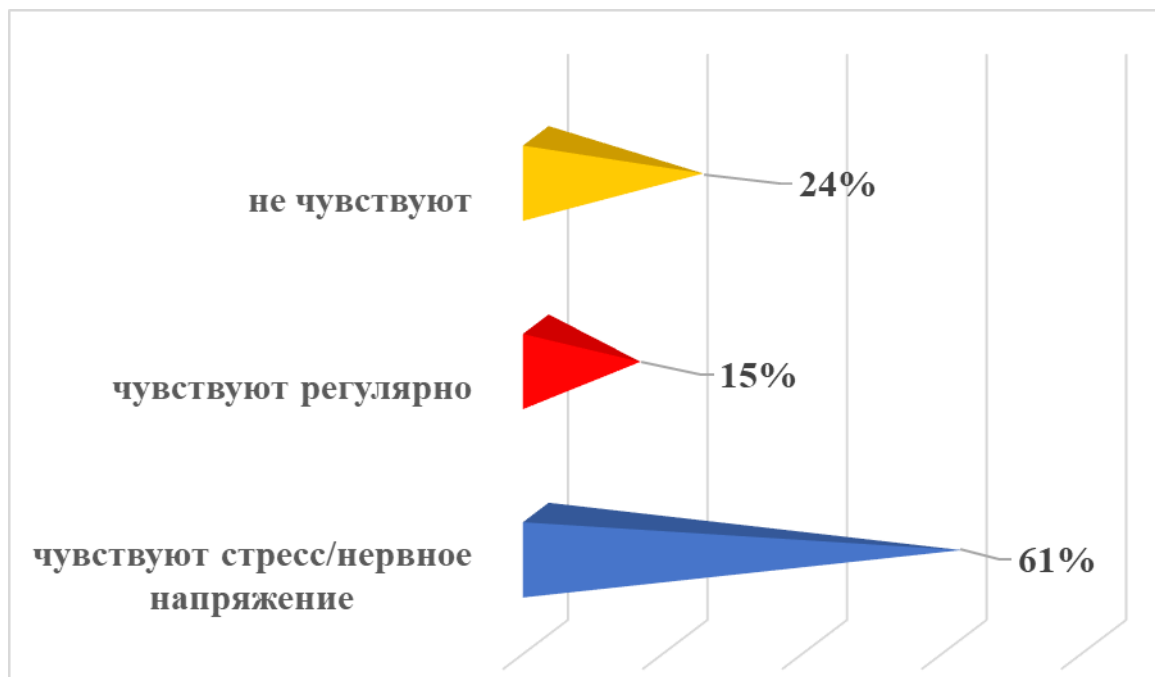


Figure 5. Feeling of "loneliness" among the respondents.

It is important to remember that loneliness is not inevitable for teenage girls. There are many ways that can help them deal with these feelings. Parents, schools, medical professionals and the whole society should be involved in the socialization of such adolescents.

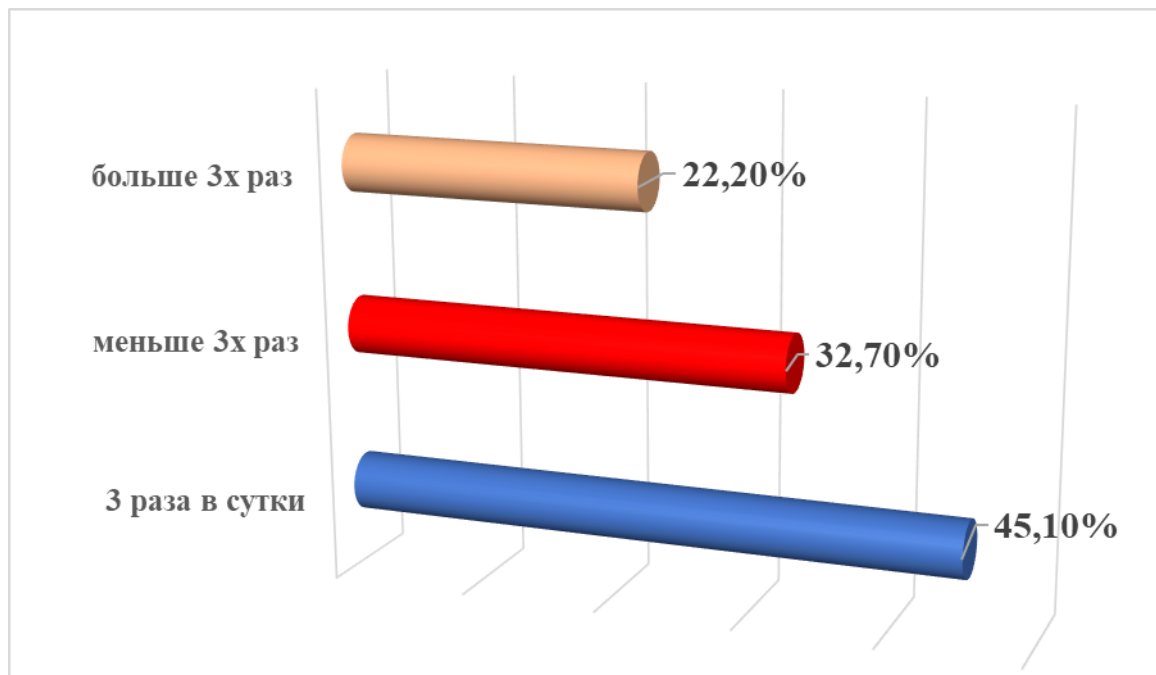
Today, stress and nervous tension are very common among teenagers. At this age, they face many new social challenges that can leave them feeling anxious, restless and insecure. Stress and nervous tension can arise due to various reasons. For example, girls may feel under pressure from school, social obligations, family problems, or personal problems. They may also suffer from perfectionism and anxiety about their appearance, personality, or accomplishments. Stress and nervous tension can have negative health consequences for girls. For example, they may begin to experience physical symptoms such as headaches, stomachaches, or muscle tension. They may also suffer from low mood, depression or anxiety. To the question: **“Do you experience stress/nervous tension?”**, teenage girls answered as follows: 76% of teenage girls experience stress/nervous tension, and ¼ of them experience these feelings regularly and only 24% of respondents do not experience stress or nervous tension. (Fig. 6).



**Figure 6 Feeling stressed/nervous.**

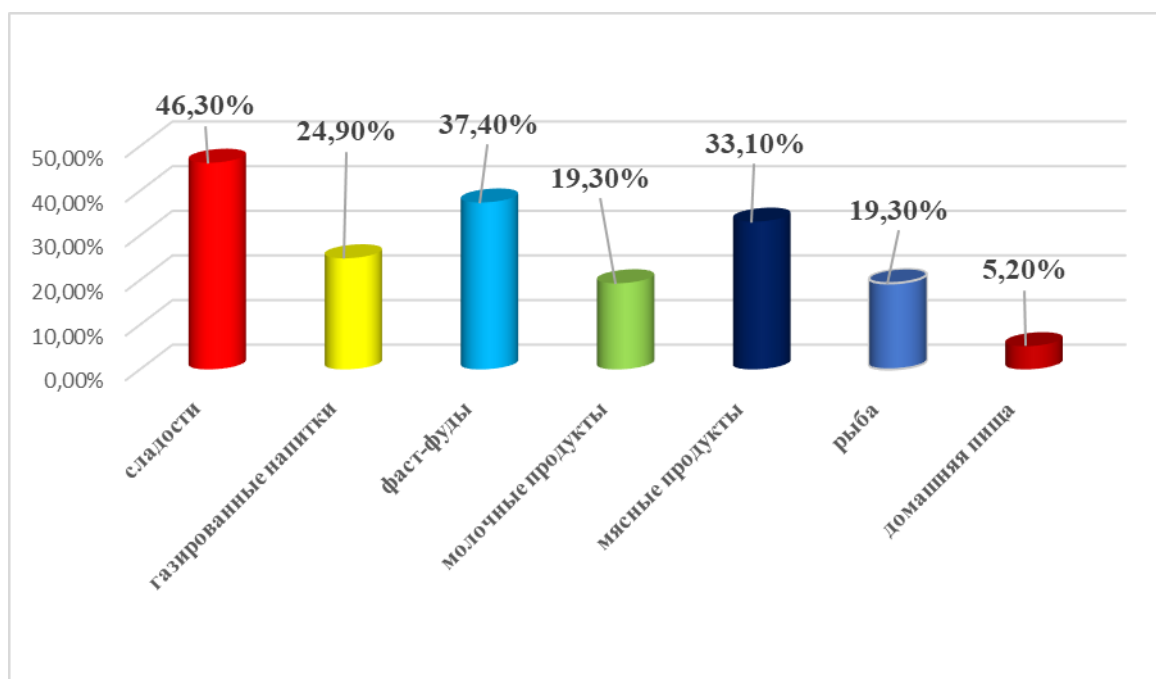
It is important to remember that stress and nervous tension are not inevitable for teenagers. There are many ways that can help them deal with these feelings. For example, they may exercise regularly, meditate, or practice yoga. They can also seek the help of a psychologist or counselor to help them sort out their feelings and teach them effective ways to deal with stress and anxiety. However, these aids should be available to teenagers.

Today, there is no doubt that nutrition is an important factor in the normal growth and development of adolescents. The high growth rates of girls require a constant supply of a sufficient amount of plastic material with food, primarily protein, mineral salts, vitamins and microelements. Optimal nutrition contributes to disease prevention, increased efficiency, and creates conditions for adaptation to the environment. Among the various eating disorders of modern adolescents, a significant place is occupied by excessive consumption of easily digestible carbohydrates, fast food (fast food), insufficient intake of animal protein, deficiency of vitamins, microelements and dietary fiber. Given the programming impact of rational nutrition on health, its prolonged impact on the quality and length of life, it is necessary to pay much attention to the formation of proper eating behavior and its correction in adolescent girls. It is necessary to monitor the diet. Recommended 3 main meals and 2-3 snacks throughout the day. To the question: **“How many times do you eat a day?”**, We received the following answers: 45.1% of girls answered that they eat 3 times a day; 32.7% of the respondents answered that they eat less than 3 times a day and only 22.2% eat more than 3 times (Fig. 7).



**Figure 7. Number of meals.**

In general, proper nutrition is an important component of a healthy lifestyle for adolescent girls. It helps to maintain health and energy, improve physical fitness and improve the quality of life. We have identified the problem of the quality of nutrition of adolescent girls. Often girls preferred fast food, which contains a lot of fat, sugar and salt. Some girls also suffered from diets and food restrictions that could lead to nutritional deficiencies and various health problems. From food, they mainly preferred fast foods, carbonated drinks or sweets (Fig. 8). Of the 441 respondents, 204 girls (46.3%) preferred sweets, 110 (24.9%) carbonated drinks, 165 girls (37.4%) preferred and regularly consumed fast foods, only a very small number of respondents (19, 3%) - dairy products; 146 respondents (33.1%) - meat products, 85 girls (19.3%) - fish and other seafood. A very small number of girls preferred homemade food - only 23 girls (5.2%). These data indicate that adolescents are not being worked on about balanced nutrition and the health consequences of malnutrition. You can also make an indirect conclusion about malnutrition in the family.



**Figure 8. Favorite food.**

In our opinion, teenage girls should be taught how to eat right and what foods are good for health. To do this, lectures and seminars should be held in schools and educational institutions. Parents/family have an important role to play in improving the nutrition of their children. They can help you choose the right foods and prepare healthy meals at home. And it is very important that healthy food is available

to teenagers. And most importantly, society should promote a healthy lifestyle among them. This may include running healthy eating campaigns, healthy cooking workshops.

To date, among adolescent girls, diseases associated with hormonal changes in the body are common. For example, many girls face problems with menstrual irregularities, breast diseases, thyroid problems, etc. One indicator of the health status of adolescent girls is the presence of a normal menstrual cycle. Girls should be informed that the onset of the menstrual cycle (MC) is the culmination of puberty, menstruation is a natural monthly occurrence throughout the reproductive life of healthy adolescent girls, non-pregnant women of reproductive age, and adult premenopausal women. Menarche usually occurs between the ages of 11 and 14, but may occur earlier or later. This is a normal process, but if menarche occurs very early (before 8 years) or very late (after 16 years), then this may be a sign of hormonal disorders in the body. Menstrual dysfunctions range from 21 to 63% in the structure of gynecological diseases in adolescent girls [Shakirova S.M., 2020], which is due to the immaturity of the functional system of neuroendocrine regulation of menstrual function and high sensitivity to the effects of various adverse factors. The family doctor, parents and the girls themselves should be aware that menstrual irregularities can be caused by various factors: hormonal disorders, lack of nutrients in the body, severe stress, thyroid disease, taking certain medications, etc. Menstrual irregularities can manifest as irregular or excessive periods, painful periods, absence of periods, and other symptoms. To the question: " **At what age should menstruation begin?**", adolescent girls answered as follows: 48.8% of girls answered at 11-14 years old, 29% at 11-12 years old and 22% at 14-16 years old. These data show that almost all adolescent girls are aware of the age of the start of the menstrual cycle. To the question: "**If the menstrual cycle did not start at the age of 16, is it necessary to contact a specialist?**" - almost no one answered. This indicates a low sanitary literacy of the population, insufficient work in schools, mahallas, etc. Unfortunately, we did not receive answers to a number of questions below. This:

1. Who should I contact if I don't have my period at 16?
2. Did you have any signs of menstruation before this age?
3. Do you think it could be related to your lifestyle or diet?
4. Have you had any illnesses or health problems that may be related to the lack of menstruation?
5. What do you think about going to the doctor for diagnosis and treatment?
6. Are you afraid / embarrassed to see a doctor about this?
7. What measures do you take to maintain your health and restore a regular menstrual cycle?

In our opinion, this study should be continued, since it is of great practical importance and is aimed at expanding the understanding of the differential lineage and distinctive features of the body of a growing adolescent girl.

The next stage of our study was an assessment of the knowledge of adolescent girls about the current vaccination against **the human papillomavirus** in the country. The human papillomavirus (HPV) is one of the most common viruses that infects the skin and mucous membranes of humans. More than 200 types of HPV are known today, and some of them cause certain diseases such as papillomas, warts and cancer. Vaccination against HPV is an important means of preventing the development of diseases associated with this virus, including cervical cancer, which is the third most common cancer among women in the world.

There are several types of HPV vaccines that protect against different types of the virus:

- Bivalent vaccine: designed to protect against the two main oncogenic types of HPV (16 and 18), which are responsible for 70% of cervical cancers.
- Quadrivalent vaccine: designed to protect against four types of HPV (6, 11, 16 and 18), including two oncogenic types that cause cervical cancer and two types that cause genital warts.
- Nonavalent vaccine: designed to protect against nine types of HPV (6, 11, 16, 18, 31, 33, 45, 52 and 58), providing a broader spectrum of protection against cervical cancer and other HPV-related diseases.

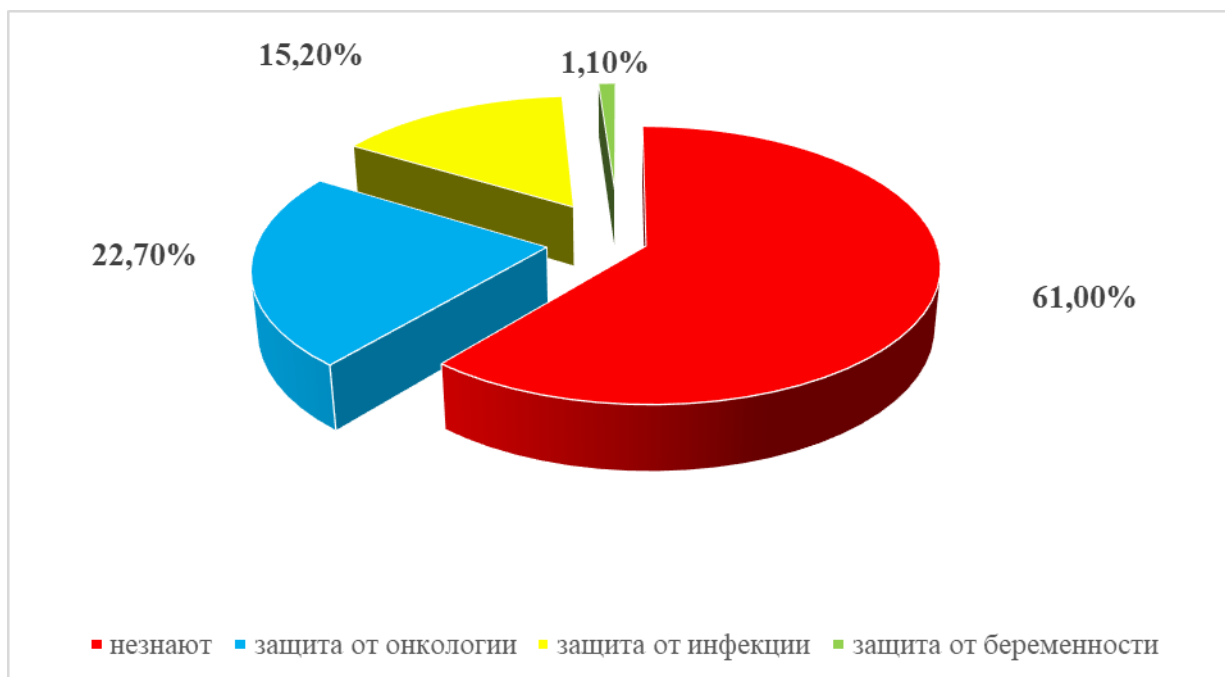
All parents should be informed that HPV vaccination is recommended for boys and girls between the ages of 9 and 14, as vaccination is most effective before sexual activity begins. Vaccination is carried out in three stages: the first dose is administered on the first day, the second dose 1-2 months after the first, and the third dose 6 months after the first. It is important to follow the vaccination protocol to ensure optimal protection against HPV. HPV vaccines have been clinically tested and proven to be



effective and safe. Vaccination significantly reduces the risk of cervical cancer, vulvar cancer, vaginal cancer, anal cancer, and genital warts. The vaccine is about 90% effective in preventing cervical cancer and more than 95% in preventing genital warts caused by the respective types of HPV.

In **Uzbekistan**, as in many other countries, human papillomavirus (HPV) vaccination is an important part of the strategy for the prevention of cervical cancer and other HPV-related diseases. Our country has launched national HPV vaccination programs to reduce morbidity and mortality from cervical cancer and other HPV-associated diseases. Programs cover adolescents aged 9 to 14, with priority given to girls. Within the framework of the program, vaccination is free of charge.

To the question: **“Have you received a vaccine against the human papillomavirus?”** - unfortunately 75.3% of teenage girls answered **negatively**. This indicates insufficient explanatory work with adolescent girls about the importance of vaccination, its safety and effectiveness, the lack of information campaigns aimed at raising awareness about HPV and vaccination. This is evidenced by the answers to the following question: **“Why do we need a vaccine against the human papillomavirus?”**. 61% of the girls surveyed answered **“I don’t know”**; only 22.7% answered that it “protects against cancer”; 15.2% - “protects against infection”, and several adolescents ( 1.1% of respondents ) answered that they “protect against pregnancy” (Fig. 9).



**Figure 9. Human papillomavirus vaccine awareness.**

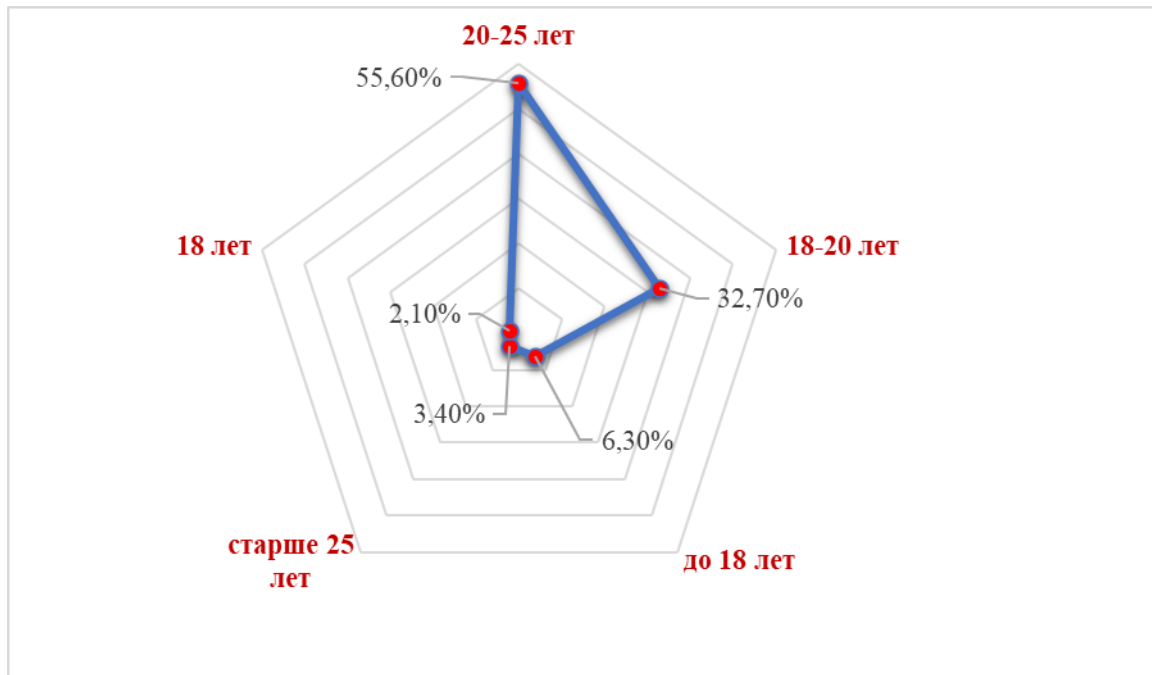
In our opinion, there are several reasons why adolescent girls and their parents may refuse vaccination against human papillomavirus:

- lack of awareness about the vaccine and its efficacy;
- fear of injection and possible side effects;
- misconceptions about the risk of human papillomavirus disease;
- lack of trust in medical authorities or the health care system as a whole.

According to our study, there is no active counseling by primary health care for adolescent girls. To the question : **“ How often do you visit your family doctor? ”**, unfortunately, 50.8% of the respondents indicated that they do not visit unnecessarily, no health complaints, 29.3% of girls indicated that “more than 6 months have passed since visiting the doctor”, 14.3% of adolescent girls never visited a family polyclinic, 5.7% of the respondents answered that more than 1 year had passed since visiting the polyclinic, but at the same time, 65.5% of the respondents know the name and surname of their doctor, and 10% of girls have no idea even about the location of their polyclinics.

The question of what age is best to become a mother is one of the most important in a woman's life. Each girl must make her own decision about when it is best for her to give birth to a child. However , there are certain factors that can influence the choice of the optimal age for the start of motherhood. The average age of motherhood in different countries of the world ranges from 25 to 30 years. This is due to the fact that at this age, women usually have already completed their education, started working

and have become more self-confident. However, in some regions of our country, early marriage is a common practice, especially in rural areas. One of the reasons for early marriage is the traditional way of life in Uzbekistan, where family and children are considered the most important aspect of life. However, early marriage can have negative consequences for young women, as they are often forced to interrupt their education and give up career opportunities. In addition, early marriage can lead to premature pregnancy, which increases the risk of complications for mother and child. To the question: **"What age do you consider optimal for the birth of the first child?"**, We received the following data: 55.6% of adolescent girls consider the age of 20-25 years to be optimal; 32.7% of respondents consider 18-20 years old; 6.3% of girls consider the optimal age, unfortunately, up to 18 years; 3.4% are over 25 years old, and 2.1% are exactly 18 years old (Figure 10).



**Figure 10. Answers to the question: "Optimal age for the first pregnancy."**

Thus, 41.4% of the surveyed adolescent girls consider the optimal age for the birth of the first child to be up to 20 years. It should be noted that activities are currently being carried out in Uzbekistan to promote a healthy lifestyle and family planning, which are aimed at reducing the risks of early marriage and childbirth, the country's government is working to improve the economic situation so that families can provide their daughters with better education and career opportunities. height, which can help delay marriage and birth.

As a continuation of this question, we were interested in the question of the knowledge of adolescent girls about contraceptive methods. In our country, among adolescent girls, there is low awareness of contraceptive methods and family planning. Many teenage girls do not know how to use birth control and how to take care of their health during puberty. This can lead to unwanted pregnancies, early marriage and other problems in the future. In addition, in some regions there is a lack of information about available methods of contraception and family planning, as well as how to get help and advice on these issues. This makes it difficult to make an informed decision about their reproductive health and the realization of their reproductive rights. To the question: **"What methods of contraception do you know?"**, we received the following answers: 65.8% of respondents had no idea about family planning methods at all, and 13.4% of adolescent girls answered that it was not necessary to know, the remaining 20, 8% of the respondents knew some methods of contraception (9.1% knew about condoms; 7.3% about IUDs and 4.5 % about hormones). Thus, despite the fact that more than 40% of respondents believe that the optimal age for the birth of the first child is the age of up to 20 years, 65.8% of adolescents have no idea about modern contraceptives. All this again proves the need for extensive educational programs for adolescents about contraceptive methods, their advantages and disadvantages, about family planning and the need for constant care for their health. In addition, it is necessary to increase the availability of consultations and medical care for adolescents so that they can receive the necessary assistance and support in this important issue not only in a medical institution, but also at their place of study/work, at their place of residence.

**Summary.** Thus, a sociological survey of adolescent girls about a healthy lifestyle made it possible to identify the main problems and factors influencing the choice of a healthy lifestyle, as well as to think

about effective methods for improving the quality of medical care and preventing diseases in adolescents. We are faced not only with frequent manifestations of irresponsible attitude to their health, but also with their misunderstanding of the very concept of a healthy lifestyle. A sedentary lifestyle, heavy dependence on the computer, irregular snacks and poor sleep, the use of psycho -active substances - all this directly affects health. Most of the interviewed girls do not have sufficient information about menstrual irregularities, contraceptive methods and family planning.

Recommendations to improve the situation include educational programs for adolescent girls to help them learn about the characteristics of a growing female body, contraceptive methods, family planning and taking care of their health. In addition, there is a need to increase the availability of counseling and health care for adolescent girls. To raise awareness about healthy lifestyles, social media and other media can also be used to educate adolescent girls about the importance of a healthy lifestyle and how to achieve it.

#### **4. Conclusion**

Adolescent girls are more likely to have unhealthy lifestyles, so a system should be developed that will improve the quality of services for adolescent girls. The study also found that one of the main reasons for unhealthy lifestyles in adolescents is a lack of information about healthy lifestyles and their benefits. Therefore, one of the recommendations that emerged from the study is to conduct more information work among adolescents. In general, this study allows us to better understand the problems that characterize the knowledge and attitude of adolescents to their health, as well as to develop recommendations for their solution.

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