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**PREVENTION OF REPRODUCTIVE HEALTH PROBLEMS AMONG  
ADOLESCENT GIRLS****ПРОФИЛАКТИКА РЕПРОДУКТИВНОГО ЗДОРОВЬЯ  
ДЕВОЧЕК-ПОДРОСТКОВ****A.V. Gordiets, M.Y. Galaktionova, D.A. Maiseenko  
А.В. Гордиец, М.Ю. Галактионова, Д.А. Маисеенко**Krasnoyarsk State Medical University named after Prof. V.F. Voyno-Yasenetsky,  
1 Partisana Szelesniaka St, Krasnoyarsk, 660022, RussiaКрасноярский государственный медицинский университет  
имени профессора В.Ф. Войно-Ясенецкого,  
Россия, 660022, г. Красноярск, ул. Партизана Железняка, 1

E-mail: gordiezav@yandex.ru; myugal@mail.ru; dmitrij.maiseenko@pochta.ru

**Abstract**

The article describes the experience of the volunteer work of medical university students with teen girls in schools in the prevention of reproductive health problems. The article describes an example of the organization of a health lesson «I am a girl and a future mother!» by the students under the guidance of teachers, pediatricians and obstetricians. For the first time in our medical school students performed volunteer work with teenagers in schools in the district territory within the framework of an all-Russian patriotic action «Snow landing», dedicated to the 70th anniversary of Victory in the Great Patriotic War.

**Аннотация**

В статье описывается опыт волонтерской работы студентов медицинских университетов с девочками-подростками в школах по профилактике проблем репродуктивного здоровья. В статье описывается пример организации урока здоровья «Я девушка и будущая мать!» учащимися под руководством учителей, педиатров и акушеров. Впервые в нашем медицинском университете студенты провели волонтерскую работу с подростками в школах на территории района в рамках общероссийской патриотической акции «Снежный патруль», посвященной 70-летию Победы в Великой Отечественной войне.

**Keywords:** volunteers, students, schoolgirls, reproductive health.**Ключевые слова:** волонтеры, студенты, школьницы, репродуктивное здоровье.**Introduction**

The World Health Organization (WHO) defined health as a complete physical, mental and social well-being. Thus, health is not only the absence of disease: it is physical, social and psychological harmony; friendly relations of a person with other people, with nature and with himself.

Abroad, volunteer activity is viewed as socially significant, as a contribution to the social sector and the economic development of society. It is referred to as both the translation of values and traditions and the way to integrate the unprotected groups of citizens into society [Kapustina, 2016]. Recently, volunteering is gaining momentum, becoming a new trend of modern Russian reality. Regardless of its form (caring for people in need, mutual assistance, provision of services, organization of charitable public campaigns) volunteerism expresses the desire of people to help



their neighbor and work for the benefit of society. It is especially important to cultivate volunteerism among young people. Since the world outlook and culture of behavior formed in young people remain for a lifetime [Galaktionova et al., 2014].

In the framework of the annual Address to the Federal Assembly of the Russian Federation in 2015, President V.V. Putin called the wide involvement of citizens in various charity events a special sign of our time. The President asked the Public Chamber and the Agency for Strategic Initiatives to engage in support of volunteer and charitable movements. He also pointed to the need to keep these issues under special control. The State Program «Patriotic education of citizens of the Russian Federation for 2016-2020» says that it is necessary to «develop a volunteer movement which is an effective tool for civil and patriotic upbringing» [State Program «Patriotic Education of Citizens»].

The strategy of the state youth policy in the Russian Federation, developed before 2016, also presupposes the development of a volunteer movement in Russia, the implementation of the state program «Russian Volunteer». The project «Russian Volunteer» is addressed to young people aged 14 to 25 years.

Interest in volunteer activities is especially growing among students. As known, students are the most mobile population group, they are purposeful and initiative. It is also indisputable that the active self-development of modern youth, especially in the student environment, requires socially recognized and socially approved activities. The structure of modern volunteer movements have long ago defined a variety of forms, types and duration of institutional activity. Thus, volunteering can be «organized and unorganized, carried out in public and private organizations, in a group and individually. Groups of volunteers can be of two or more people [Paklina, 2016].

Of course, the advantages of volunteering for student youth are: the possibility of self-realization, the expansion of socially important contacts, the acquisition of new practical knowledge and skills, as well as professional experience. The disadvantages could be: possible absence from classes due to participation in volunteer activities, lack of free time, emotional burn-out and moral fatigue. And, nevertheless, the participation of students in volunteer activities helps to constructively solve the important task of increasing the professional competence of future specialists by gaining first experience of participating in professional activities, increasing the opportunities for professional orientation and forming the basic personal and social competencies necessary for professional activity [Kapustina, 2016; Paklina 2016; Gordiets et al., 2017].

Volunteering allows students in the field of project activities to model the individual routes of education and development of students, as well as their own educational route and professional career, engage in research activity while studying personal characteristics and educational needs of various categories of children, to adopt and generalize the existing pedagogical experience, to participate in the development and testing of innovative educational technologies [Gerlach et al., 2016].

In Russia, the incidence of gynecological diseases varies from 10 to 35 % [Semyatov, 2009]. The deterioration of the health of adolescent girls that form the reproductive potential of the nation is of particular concern in recent decades. Therefore, nowadays special attention is paid to issues of adolescent reproductive health, because according to the «The concept of Russian demographic development for the period until 2015» reproductive health is exactly the factor that will determine the reproduction of the population [Kalashnikova et al., 2010; Egorova et al., 2011; Maiseenko et al., 2015].

Reproductive health of women is formed in childhood and adolescence. Formed physical development, especially during puberty, and past medical history have further significant impact on the course of pregnancy and childbirth, and the disorders of sexual development and menstrual function during the puberty are often the causes of deterioration of the reproductive function and infertility [Bitzer et al., 2016; Heywood et al., 2016; Jayarajah et al., 2016].

Health education can be individual, group and collective. It includes the promotion of preventive measures aimed at creating a need for a healthy lifestyle and orienting young people and

their parents on understanding the harm «of risky" or so-called "self-destructive» behavior (smoking, alcohol abuse, drug addiction, substance abuse, early sexual activity, juvenile delinquency, vagrancy, etc.) [Gordiets et al., 2015].

Nowadays almost 18 % of children aged 10-11 and over 60 % of 16-17 year olds smoke (boys – 25.4 %, girls – 20.9 %). It turns out that smoking by teenage girls more than 5 cigarettes a day for 5 years is comparable with the removal of one ovary. Smoking can cause infertility and adverse pregnancy with the development of anemia, gestosis and violations of labor, not to mention the condition of the fetus. About 40 % of 10-11 year-olds and more than 72 % of those over 13 years old consume alcoholic beverages (including low alcohol drinks). By age 30, these young people can become chronic disabled [Donnelly et al., 2016].

Therefore, to date, it has been proved that the formation of the reproductive system in girls occurs in the luteal phase deficiency conditions. And in the first years after menarche 80 % of girls have anovulation. However, recently the frequency of disorders of menstruation rhythm increased in the group of 10-14 year old girls, and 15-17 year old girls, which requires medical correction [Bersamin et al., 2016; Breuner et al., 2016].

An important cause of the neglect on contraception and reproductive health is the low competence of information sources.

Preventive counseling of adolescent girls is an important feature of the medical examination of children. The principle of equality is important while working with adolescents. Pediatricians and obstetricians-gynecologists can teach volunteers (medical students) the principles of counseling adolescents about healthy lifestyle, sexual relations and reproductive health of girls.

In order for preventive counseling of adolescents to be effective, the following principles must be observed:

1. Informing the adolescent about the diseases and available risk factors, methods of self-control, health improvement, behavioral habits.
2. Motivation of a teenager to take active actions for a healthy lifestyle.
3. Training of adolescents in recovery skills and behavioral habits.

The basis of a conversation with teenagers is a clear, understandable explanation, discussion and decision-making. Listening to the interlocutor, the children first react to Who is speaking, then to How one is speaking and then to What is being said.

It is important to talk openly, emotionally and persuasively with teenagers. The advices should be given in a clear form and it is necessary to concern whether the teenager understood it or not (the «feedback principle»).

During counseling it is important to understand that teenagers perceive behavioral risk factors as life's pleasures:

- to have a good and tasty meal – overweight and obesity;
- opportunity of easy communication – smoking, alcohol intake, sex;
- sitting long hours in front of computer, TV, gadgets – hypodynamia;
- stress reduction – alcohol, food, drugs, sex, etc.

Therefore, the formation of behavioral skills in preventing reproductive diseases in girls requires a doctor and a medical student to have certain knowledge and skills.

The preventive counseling for adolescents should be based on a certain algorithm, namely:

1. Informing about certain risk factors.
2. Explaining the negative impact of the identified factors on the health of the girl, the future mother.
3. Explaining the regular monitoring of health by a doctor in a polyclinic and school.

The challenges of time, the tasks of ensuring economic security and national interests require the creation of an adequate system of state regulation of the economy, as well as changing and rethinking the theoretical research in this field. Today there are significant changes in the categorical apparatus and its content component. In particular, to ensure economic growth, people were previously considered an economic resource and a labor force and the level of development



of this resource. In the current works, the categories «human potential, human capital, human development» are increasingly being studied, which are not only a factor of production, but also the goal of economic growth, a criterion for effective state management.

It is often emphasized that the main wealth of the country is the aggregate of accumulated capital, an important part of which is human potential, and economic growth ensures the economic security of man and society. With the increase in the level of economic security, there is more room for economic growth and improving the quality of life of a person. The well-known scientist and philosopher Pitirim Sorokin once wrote: «The fate of any society depends, first of all, on the properties of its members. A society consisting of idiots or mediocre people will never be a prosperous society. Give a group of devils a magnificent constitution and yet this will not create a beautiful society. Conversely, a society of talented and strong-willed people inevitably creates more advanced forms of community life». And further in his work he continues: «A careful study of the phenomena of the rise and fall of entire peoples shows that one of the main reasons for them was precisely a sharp qualitative change in the composition of the population in one direction or another" [Sorokin, 1992] Consequently, P. Sorokin believes that only the talent of Russian ancestors allowed to create a powerful state and a number of great universal values.

In this sense, the health of children, adolescents and youth, which determine the future of the country, is crucial.

**Purpose.** Study of the literature data on the reproductive health of adolescent girls. Mastering the health education methods with adolescents.

### **Materials and methods of research**

The consultation of adolescent girls in the schools of settlements of Nizhne-Ingashsky District, Krasnoyarsk Krai during the winter holidays in February 2016. The event was organized by the student headquarters of Krasnoyarsk SMU supported by the university administration and the administration of Nizhne-Ingashsky District within the framework of a patriotic action «Snow landing».

### **Results and their discussion**

Within the framework of «Snow landing» action 10 settlements of Nizhne-Ingashsky District, Krasnoyarsk Krai were visited. In each settlement the meetings with the population and the children of Grades 7-11 were held. For the teenage girls the reproductive health lesson was conducted: the present situation on the health of girls, the need for regular medical surveillance and for observance of healthy lifestyle were explained. Girls were given a lot of visual materials: menstrual calendars, girls' personal hygiene rules and sexual security rules etc. (Photos 1 and 2).

The following is a plan of the health lessons for schoolgirls of 12-17 years, «I am a girl and a future mother». The duration of the lesson is 45 minutes. Required equipment and materials - multimedia projector, laptop, videos, presentation, printed materials for distribution.

1. Introduction. Explanation of the relevance of the problem of preservation of women's reproductive health (presentation). 10 minutes.

2. A brief review of the anatomy and physiology of female reproductive organs (presentation). 5 minutes.

3. Showing the video «How to wash properly - intimate hygiene» (Produced with the scientific mentoring by the honored science worker of the Russian Federation Prof. Razinskiy V.E. (RUDN) (available at <https://ok.ru>). 2,40 minutes.

4. Showing the video «Hygiene of girls» (School of Dr. Komarovsky) (available at [www.youtube.com](http://www.youtube.com)). 9 minutes.

5. Showing the video «Personal hygiene during menstruation» (available at [www.youtube.com](http://www.youtube.com)). 2 minutes.

6. Explaining how to use a menstrual calendar. Giving handouts (menstrual calendars). 5 minutes.

7. Rules to be observed when discussing the beginning of a sexual life with a teenager. 10 minutes.



Photo 1. Conducting sanitary educational work with schoolgirls  
 Фото 1. Проведение санитарно-просветительской работы со школьницами

Principles of conducting a conversation:

**What are the threats of early initiation of sex? Is it possible to have sex at 15 and why wait if the body is ready?**

Modern society mostly lives by the rule: first a career, then a family. Thus, the birth of the first child has shifted to the age of about 25 (for women) and 28-30 (for men), but the average beginning of sexual activity, as in former times, falls on 14-16 years.

**What are the consequences of this gap for adolescents? Advantages of early sex?**

Psychologists have identified only two advantages of the early beginning of sexual life:

1. The first is a short-term increase in the self-esteem of a teenager («I am not worse than the others»), strengthening his/her authority in the peer environment where early sexual relations are welcomed.

2. The second is the satisfaction of the need for recognition and love, which is especially true for girls, who often regard sexual intimacy as an evidence of a young man's reverential attitude towards them.

What are the threats of the early onset of sexual activity?

According to psychologists, there are much more effective ways of obtaining recognition, love and strengthening authority in the group - beyond sexual relations, while the early onset of sexual relations brings a lot of trouble, both to the immature body and the mind of young people.

**Threat number 1: Pregnancy**

The first danger is early pregnancy. The paradox of physical development of adolescents is that while being ready for sex, the body is practically not prepared for childbirth. The question arises: how did our grandmothers give birth at the age of 14-16?



Photo 2. Skiing between the settlements in Nizhne-Ingashsky District  
Фото 2. Переход на лыжах между поселениями в Нижне-Ингашском районе

The answer is simple: with a life like that a woman used to become a great grandmother by the age of 42, but more often she was already an old woman by 40, and the average life expectancy was not high. Frequent childbirth and hard physical labor, coupled with early adult life, did not allow to stay healthy for a long time. However, in the current situation, only two out of ten pregnant women speak of childbirth at such a young age. The remaining eight have an abortion. 60 % of the first pregnancies end in abortion, and two thirds of the girls who had an abortion before the age of 18 develop infertility. In addition, in girls who started sexual life at the age of 15, subsequently cervical cancer is diagnosed twice as often than in those who started it at 19.

### **Threat number 2. Sexually transmitted diseases**

This group includes not only venereal diseases, such as syphilis and gonorrhea, but also HIV, AIDS, viral hepatitis B and C, genital herpes, urea- and mycoplasmosis, chlamydia, cytomegalovirus, human papillomavirus (HPV). There are more than 40 types of infections - and every 10 years scientists discover new ones. Some diseases are treated easily, others cause early death from concomitant diseases. The most terrible thing is that in order to become infected, it is enough to have one sexual intercourse (and sometimes just a «French» kiss). And many of the sexually transmitted diseases are asymptomatic, especially in girls.

### **Threat number 3. Psychological consequences**

Sexologists say that a regular sexual life before the age of 18 inhibits mental and physical development. The fact is that sex is a huge stress for the endocrine and nervous system, which turns out to be beyond the power of the developing organism. To avoid the consequences of stress, young people start using alcohol and drugs, change partners, but nothing satisfies them. This is the cause of many teenage depressions that could eventually lead to suicide. Physicians have proved the connection between the early onset of sexual activity and the subsequent psychological deviations: neuroses, affects, inadequate perception of reality. However, even if they did not have depression, young people enter adulthood with a whole heap of intrapersonal conflicts and problems, the main one of which is infantilism. In the sphere of intersex relations it manifests itself as the



inability to build harmonious relations, the expectation that fate will send an ideal partner, and a constant search for one.

Of course, we can not speak about a happy family life in this case. According to statistics, more than 50 % of marriages between people who started their sexual lives before 18 disintegrates, and personal immaturity today is one of the main social problems, as well as its consequences – increasing alcoholism and drug addiction in the society, early mortality, demographic collapse.

#### **When to start a sex life?**

Psychologists consider the optimal age for the beginning of sex life to be 19-20 for girls and 22-24 for young men. In other words, there should be a gap of 5-10 years between the first sexual urge and complete physical and mental maturation. But what to do all these years? Scientists say: abstain. Well-known endocrinologists, physiologists, gynecologists and psychiatrists agree: there are no diseases that could be caused by abstinence at this age. Moreover, the energy required for young people to achieve full physical and social maturity is sublimated, or transformed from sexual. And a person who wastes the sexual energy is deprived of moral and physical reserves for growth and personal achievements. The coaches are well aware of that. In professional sports, sex life is only permissible after 22-25, because only at this age it becomes compatible with huge muscle loading. And even adult and physically mature athletes are recommended complete abstinence for 1.5-2 weeks before the competition for the accumulation of strength.

### **Conclusions**

Thus, the collaboration of the students' volunteer movement and the teaching staff of the university for the events of this format demonstrates the advisability of conducting classes on the basics of a healthy lifestyle with the inclusion of issues of reproductive health starting with the high-school students and the first-year students of higher educational institutions, thereby laying the basis for the future happy motherhood.

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