

UDC: 613.88-053.6(100+497.11)

DOI: 10.2478/afmnai-2014-0027

Scientific Journal of the Faculty of Medicine in Niš 2014;31(4):219-224

Review article

Reproductive Health of Youth in the World and Serbia

Olivera Radulović^{1,2}, Slađana Babić¹, Milena Veljković^{1,3}, Ana Stefanović², Čedomir Šagrić^{1,2}, Katarina Bulatović²

¹University of Niš, Faculty of Medicine, Serbia ²Public Health Institute Niš, Serbia ³Primary Healthcare Center Niš, Serbia

SUMMARY

Reproductive health implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide about it. It is directly conditioned by social, cultural and behavior factors.

One in every five people in the world is an adolescent, and 85% of them live in developing countries. In many countries, taboos and norms about sexuality pose strong barriers to providing information, health services and other forms of support needed by young people to safeguard their sexual and reproductive health.

The regulation of fertility is the most important factor that affects the reproductive health. Adolescents are not sufficiently aware of the possibility of contraception or sexually transmitted infections. In Serbia, 84% of boys and 65% girls (adolescents) have had sexual experience. Worldwide, 36-70% of adolescents do not use contraception and unwanted pregnancies are the reason for 90% of unwanted births and 89% of unsafe abortions.

There are many programs in the world which aim to increase the knowledge about preservation of reproductive health. There are not any national programs in our country for family planning and preservation of reproductive health in youth population. In national strategy for youth are given different ways of youth education in the field of health promotion, including promotion of reproductive health.

In order to ensure that adolescents have the ability to achieve good health, we must provide information and education in a timely manner, and we need to provide life skills and choices.

Key words: reproductive health, youth, programs

Corresponding author:

Olivera Radulović • phone: +381 64 44 94 783 • e-mail: nuna0203@gmail.com •

REPRODUCTIVE HEALTH

Reproduction of population has always been the reflection of condition and influence of numerous factors, from organization of social community and its possibilities and economical status to religious, cultural and individual interests. It has always been oscillating between the two extremities, from giving birth to too many children to giving birth to insufficient number of children.

Insufficient knowledge about the family planning and, more important, methods for family planning is leading to increased number of unwanted pregnancies. Worldwide, contraceptive prevalence increased from 54.8% in 1990 to 63.3% in 2010, and unmet need for family planning decreased from 15.4% in 1990 to 12.3% in 2010 (1).

Reproductive health is directly conditioned by social, cultural and behavior factors. Reproductive life can be include of pleasant and incentive events and conditions, such as satisfaction, intimacy and happiness, which bring love, giving birth and raising children, and happy family life, but also the painful ones which endanger health, such as inequality, abusing and illness.

Regulation of fertility is one of the most significant factors, which have an influence on reproductive health. The fundamental right of a woman is to have a control over her fertility. The 22 million unsafe abortions that occur each year cause an estimated 47.000 maternal deaths, mostly in developing countries (2). Modern methods of contraception would prevent 54 million unintended pregnancies, 26 million abortions, and 7 million miscarriages (3).

At the International Conference on Population and Development, held in Cairo in 1994, sexual and reproductive health was identified as an area of special concern for all national health services. This includes both prevention and care, and covers a range of issues, such as safe motherhood, reproductive choices and STI/HIV/ AIDS control. The 1995 International Planned Parenthood Federation (IPPF) Charter on sexual and reproductive rights declares the "right to equality and to be free from all forms of discrimination" (4).

Reproductive health of youth in the world

A huge proportion of the world's population - more than 1.75 billion - is young, aged between 10 and 24 years. One in every five people in the world is an adolescent, and 85% of them live in developing countries. Adolescents have specific health and development needs, and many face challenges that hinder their well being, including poverty, a lack of access to health information and services, and unsafe environments.

Nearly two thirds of premature deaths and one third of the total disease burden in adults are associated with conditions or behaviors that began in youth, including tobacco use, a lack of physical activity, unprotected sex or exposure to violence (5).

More than a quarter of adolescents in developing countries reported that they had sex before the age 15, and 21-64% of youth (15-19) use contraception. Worldwide, 36-70% of adolescents do not use contraception and unwanted pregnancies are the reason for 90% of unwanted births and 89% of unsafe abortions (adolescents aged 15-19 had an estimated 3.2 million unsafe abortions in 2008)(6). In the Balkans, 41.3% of boys and 20.8% of girls have already experienced sexual intercourse. Mean age at sexual debut differs between sexually active boys (15.5) and girls (16.3). A condom was used during the first sexual intercourse by 73.7% of boys and by 69.0% of girls. Condoms was consistently used during sexual intercourse with the current or last partner by 64.3% of boys and 48.5% of girls (7).

Multiple studies in Europe have shown that among young people, the mean age at the time of the first sexual intercourse is between 15.7 and 18 years of age. There is some evidence that the age of initiation may be lowering. The percentage of 15-year-olds who had experienced sexual intercourse in developed European countries goes from 15 to 17 (8).

About 16 million girls aged 15 to 19 give birth every year - roughly 11% of all births worldwide. The vast majority of births to adolescents occur in developing countries. The risk of dying from pregnancy-related causes is much higher for adolescents than for older women (9).

Significant differences exist between the pregnancy rates in various countries in Europe; from a low 5.39 pregnancies per 1000 women aged 15-19 in Switzerland to a high of 64.73 pregnancies per 1000 in the Russian Federation. Examination of pregnancy outcomes reveals that more adolescents choose to terminate their pregnancy than deliver (10).

Young people aged 15-24 accounted for an estimated 45% of new HIV infections worldwide in 2007. Up to 80% of people who are HIV-positive in the European Region have not yet turned 30 (5).

In many countries, taboos and norms about sexuality pose strong barriers to providing information, health services and other forms of support needed by young people to safeguard their sexual and reproductive health. Sexual and reproductive behaviors during adolescence have immediate but also long-term consequences. Many adolescents in developing countries have an unmet need for contraception, which can contribute to poor reproductive health outcomes (11, 12).

The health behaviors and problems affecting adolescents are unique. Predominant among the factors that contribute to the global burden of disease among young people are sexually transmitted infections, HIV, the consequences of unsafe sex, unsafe abortion, and alcohol and drug abuse. Many of these factors are interrelated (13-15). Social, psychological and economic problems are often associated with reproductive behavior (16, 17).

Reproductive health of youth in Serbia

Various researches of reproductive health between youth in Serbia have shown that the situation is unsatisfactory. Eighty-four percent of males and 65% of females (adolescents) reported having sexual experience. One-third of adolescents who were sexually active in the year before the research had used unsafe methods of contraception (infertile days, withdrawal) (18). Research between students of the University of Niš has shown that 78% are sexually active students, and 68% use contraception, most commonly a condom (19). They do not have enough knowledge about contraception, neither about sexually transmitted diseases. Research in Kragujevac has shown that 41.6% of the students had sexual relations; 80% of the interviewees used a condom during the first sexual contact, and more than half (51.6%) of the students having sexual relations did not use contraceptives (20).

According to the official statistic, from the total number of deliveries, 7.3% are females younger than 20 years. Delivery rate of women aged from 15 to 19 years is 17.4 per 1000 women in this age. There is no precise information about interruptions of pregnancies of adolescents because of the lack of information, so there is no precise information about pregnancy rate. According to the official information, the rate of interrupted pregnancy of females aged from 15 to 19 years was 4.1 per 1000 during the year 2006, and according to information of the Republic Institute for Statistics, pregnancy rate was 21.0 per 1000 (18).

According to assessments, in every calendar year there are about 50 pregnancies per 1000 females aged 15-19 years (in Netherlands is this number 7, and in Great Britain, which has the worst health indicators of adolescents, this number is 28). It is estimated that in our country each year 6-7 thousands of females aged between 15 and 19 years have abortion.

Problem of sexually transmitted diseases among young people in our country is not completely clear because of the incomplete registration of these diseases. However, results of some researches show that a huge number of youths has some sexually transmitted infection (for example: one third of sexually active females aged 19 has chlamydial genital infection). At the age under 15 HIV infection is rare (3.6% of total infected number), and in the age between 15 and 24 it is four times higher (13.2%) (21).

Ways to inform youth about reproductive health

Increasing flow of information, especially in the last decade, when youth use more the Internet, has ena-

bled that information about sex become available to a large number of people. Since youth live in a "high-risked environment" and meet new changes in life, it is necessary that they get an adequate education and form particular values about sexual behavior and family planning.

Media and friends are important source of information in many countries, especially in those where education in schools is insufficient and inadequate (22, 23). In developed European countries, the situation is different. In Great Britain sexual education exists in schools, so the school is the most important source of information about sexual life, in regard to friends (8). In the Netherlands, Sexual communication is a principal means of transmitting sexual values, beliefs, expectations, and knowledge from parents to children (24).

Many young people already use the Internet as their main source of sexual information. Mobile phone technology, the Internet and social media are increasingly being used even in developing countries. These technologies are potentially valuable for communicating contraception-related information and options to adolescents conveniently and discretely. Social media, especifically Facebook can improve the contraceptive knowledge of adolescents, and increases their preference for contraceptives (25, 26).

In Arabian countries, where conversation about sexuality is still a taboo, youth has no possibilities to get necessary information in school or from parents. 95% of males and 75% of females in Algeria has received information about sexuality without parents' or health workers' help (27).

In China, sexual education was introduced in 2002, so that a half of youth who enter studies already have the knowledge about sexuality and reproductive health. Still, most of the students think that this is an old-fashioned education, inadequate and it does not satisfy their needs. As the most important sources of education, students in China state: press, radio, parents, friends and the Internet (28).

For youth in Egypt and Oman, a hotline for questions about reproductive health and HIV has been opened (29).

In the USA, students who enter universities come with different level of knowledge, so they have the programs which should preserve and promote their reproductive health. Program offers the basic knowledge about contraception, its usage and prevention of sexually transmitted diseases (30).

In Montenegro, students have got information on family planning mostly from parents (31).

Young people in Serbia are not informed about contraception from adequate sources. As part of school programs in our country an adequate education about sexuality and use of contraception does not exist. They rarely speak about these issues with their parents, so according to research, more than half of youth in Niš get knowledge about contraception from friends or media. Only one-third of students have been informed by doctors, and slightly obove one-fourth have been informed by their parents (19). A survey from 2006 showed that women from Niš younger than 20 usually get information from several sources. Only 1.5% of the interviewees aged 15-19 received the information from the doctor (32). A similar situation is in Novi Sad: adolescents in Novi Sad get information from media (63,6%), friends (50,6%), parents (5%) and doctors (1%) (33).

Promotion of youth reproductive health in the world

There are many programs in the world which aim to increase knowledge about preservation of reproductive health. Sexual and reproductive health issues have been set out as priorities in the collaborative agreements between the WHO Regional Office for Europe and the member states. Most programs consider young peoples' special needs in reproductive and sexual health. In some countries, programs addressed to young people are implemented in the framework of strategies to prevent and combat HIV/AIDS and sexually transmitted infections (STI).

As for the Western European Region, there is a growing awareness of the need to develop approaches that address the diverse needs, attitudes, cultural and social backgrounds of young people, in order to gather experience regarding how to promote the inclusion of diverse groups, particularly young migrants, in sexual and reproductive health program and services.

The WHO Regional Office for Europe released its Regional Strategy in 2001 to provide strategic guidance for member states in the development of policies and the implementation of program for improving sexual and reproductive health. The overall goal of the Strategy "is to support member states in their efforts to ensure sexual and reproductive rights, to improve the sexual and reproductive health status of the people and to generate solidarity in Europe", in order to reduce the wide regional gap in sexual and reproductive health status in Europe, as well as inequalities within European countries (34).

Regarding adolescents' sexual and reproductive health, the three objectives are:

- To inform and educate adolescents on all aspects of sexuality and reproduction, and to assist them in developing the life skills necessary to deal with these issues in a satisfying and responsible manner,
- To ensure easy access to youth-friendly services,
- To reduce the levels of unwanted pregnancies induced abortions and STIs among young people.

Youth sexuality education and the sexual and reproductive health of young people are also addressed in other program areas, as in the field of reproductive choice, where proposed activities are, for example, to introduce or to extend reproductive rights and family planning education in schools, universities, military services, and to remove legal obstacles to access to family planning services for minors. In the field of STI/HIV/AIDS control, the Strategy suggests raising awareness of risky sexual behavior, adapting young people's safer sexuality education to the needs of boys and girls, and implementing peer education in STI/HIV prevention (34).

Promotion of youth reproductive health in Serbia

There are not any national programs in our country for family planning and preservation of reproductive health in youth population. "Information about family planning" was brought in 1998 and it was supposed to partly solve this problem, but it never came to realization. National program for family planning does not exist, so only single programs could partly improve the existing situation. Except youth counseling, which exists in some health centers, web sites where youth can get basic information about reproductive health has been recently created (35).

In proposal of Youth Law (clause 20/ 5, 6.) the following is stated: "Comprehensive informing youth about important questions for youth, and promoting and incitement for active and quality spending their free time, tendancy to healthy and safe ways of living" (36).

In national strategy for youth, clause 4.10. reads: "Protect and promote health of youth, reduce risks and leading health disorders and develop health protection adjusted to youth". Within that, one of specific aim is to preserve youth reproductive health, given through clause 4.10.2. "Protection and promotion of youth reproductive health". Measures for realization of this aim are the following:

4.10.2.1. Promotion of knowledge, attitudes and behavior of youth in the field of reproductive health, with acception and respect of gender diversity;

4.10.2.2. Development of programs of peer educators in terms of reproductive health;

4.10.2.3. Including contents important for protection of youth reproductive health into curriculums of primary and high schools;

4.10.2.4. Mobilization of parents, media, citizens' associations and local communities to affect public opinion and politics in relation to reproductive health (37).

With the strategy of developing youth health in the Republic of Serbia, different ways of youth education in the field of health promotion are given, including promotion of reproductive health through the following tasks:

8.2.4. Including health education in school curriculums and their full implementation.

8.2.2.1. Preparation and production of peer programs for youth health promotion (37).

CONCLUSION

Reproductive health is a key element of a healthy life. Substantial numbers of adolescents experience the negative health consequences of early, unprotected sexual activity - unintended pregnancy, unsafe abortions, pregnancy-related mortality and morbidity and sexually transmitted infections including human immunodeficiency virus infection. Sexuality education within and outside school settings, and increasing the access to and use of contraception by making health services adolescent-friendly, need to be a key component of an overall strategy to preventing these problems.

* Part of this paper was presented at the 45. International Scientific meeting "Days of preventive medicine", Niš, Serbia, september 27-30, 2011.

References

- Alkema L, Kantorova V, Menozzi C, et al. National, regional, and global rates and trends in contraceptive prevalence and unmet need for family planning between 1990 and 2015: a systematic and comprehensive analysis. The Lancet2013; 381(9878):1642-52. http://dx.doi.org/10.1016/S0140-6736(12)62204-1
- 2. World Health Organization. A global research agenda for family planning:results of an exercise for the setting of research priorities. Bulletin of the World Health Organisation, article ID:BLT.13.122242. Geneva, 2013.
- 3. World Health Organization. Ensuring human rights in the provision of contraceptive information and services: guidance and recommendations ISBN 987 92 4 150 6748. Geneva, 2014.
- 4. UNFPA. Programme of Action of the International Conference on Population and Development: paragraphs 7,2 and 7.45. (Cited 2008 Jan. 20,); Avaliable from UNFPA: www.unfpa.org.
- WHO. Adolescent health. (Cited 2011 Sep. 01,); Avaliable from: http://www.who.int/features/factfiles/adolescent_health/ en/index.html
- 6. Chandra-Mouli V, McCarraher DR, Phillips SJ, et al. Contraception for adolescents in low and middle income countries: needs, barriers, and access. Reprod Health 2014;11(1):1.

http://dx.doi.org/10.1186/1742-4755-11-1

- Delva W, Wuillaume F, Vansteelandt S, et al. Sexual behavior and contraceptive use among youth in the Balkans. Eur J Contracept Reprod Health Care 2007; 12(4):309-16.
 - http://dx.doi.org/10.1080/13625180701673855
- 8. Wellings K, Parker R. Sexuality Education in Europe. IP-PF European Network, Brussels 2006.
- 9. World Health Organization. Preventing Early Pregnancy and Poor Reproductive Outcomes. Geneva, 2011.
- 10. WHO. Conference on youth sex education in a multicultural Europe. Cologne, 2006.
- Gottschalk LB, Ortayli N. Interventions to improve adolescents' contraceptive behaviors in low- and middleincome countries: a review of the evidence base. Contraception. 2014 May 4. <u>http://dx.doi.org/10.1016/j.contraception.2014.04.017</u>
- 12. Brown W, Druce N, Bunting J, et al. Developing the "120 by 20" goal for the Global FP2020 Initiative. Stud Fam Plann 2014;45(1):73-84.

http://dx.doi.org/10.1111/j.1728-4465.2014.00377.x

 Connery HS, Albright BB, Rodolico JM. Adolescent substance use and unplanned pregnancy: strategies for risk reduction. Obstet Gynecol Clin North Am 2014;41 (2):191-203. <u>http://dx.doi.org/10.1016/j.ogc.2014.02.011</u>

 Castelo-Branco C, Parera N, Mendoza N, et al. Alcohol and drug abuse and risky sexual behaviours in young adult women. Gynecol Endocrinol 2014;30(8):581-6.

- http://dx.doi.org/10.3109/09513590.2014.910190 15. Mendes N, Palma F, Serrano F. Sexual and reproductive health of Portuguese adolescents. Int J Adolesc Med Health 2014;26(1):3-12. http://dx.doi.org/10.1515/ijamh-2012-0109
- Colón M, Martínez R, Tulla M, et al. Psychosocial factors associated with failure to use contraception among adolescents with repeat pregnancies in Puerto Rico. Bol Asoc Med P R 2014;106(1):12-6.
- 17. Tsitsika A, Andrie E, Deligeoroglou E, et al. Experiencing sexuality in youth living in Greece: contraceptive practices, risk taking, and psychosocial status. J Pediatr Adolesc Gynecol 2014;27(4):232-9. <u>http://dx.doi.org/10.1016/j.jpag.2013.11.009</u>
- Stanković M, Miljković S, Grbesa G, Visnjić A. General characteristics of adolescent sexual behaviour: national survey.SrpArhCelokLek 2009;137(7-8):409-15. <u>http://dx.doi.org/10.2298/SARH09084095</u>
- 19. Radulović O. Socio-medical aspects of family planninginthe student population. Doctoralthesis. Faculty of Medicinein Niš, 2009 (in Serbian).
- 20. Radovanović S, Kocić S, Sorak M, Milić C. Attitudes and behaviour of students related to reproductive health. Med Pregl 2010;63(11-12):859-62. http://dx.doi.org/10.2298/MPNS1012859R
- 21. Regulationofthe national programof healthcare for women, children and youth. Official Gazetteofthe Republic of Serbia28/09, 24.04.2009 (in Serbian).
- 22. Brcar P. Sexual behavior of Slovenian primary school pupils youth sexual behavior. Psychiatr Danub 2008; 20(2):153-6.
- Okoliyski M. Knowledge and education about sexuality. (Cited 2009, February 12). Available from: http://www2.hu-berlin.de/sexology/IES/bulgaria.html#3.
- 24. de Looze M, Constantine NA, Jerman P, et al. Parent-Adolescent Sexual Communication and Its Association

with Adolescent Sexual Behaviors: A Nationally Representative Analysis in the Netherlands. J Sex Res 2014. http://dx.doi.org/10.1080/00224499.2013.858307

 Kofinas JD, Varrey A, Sapra KJ et al. Adjunctive social media for more effective contraceptive counseling: a randomized controlled trial. Obstet Gynecol 2014;123 (4):763-70. <u>http://dx.doi.org/10.1097/AOG.000000000000172</u>

 Kumar MM, Lim R, Langford C et al. Sexual knowledge of Canadian adolescents after completion of high school sexual education requirements. Paediatr Child Health 2013;18(2):74-80.

- 27. Pan Arab Project. Arab Family Health in Numbers, Youth, no.7, 2006.
- Ying L, Randall C, Wagner D, et al. Needs and preferences Regarding Sex Education Among Chinese College Students: A Preliminary Study. International Family Planning Perspectives 2004; 30(3):128-33. <u>http://dx.doi.org/10.1363/3012804</u>
- 29. Ministry of Health, Oman. Oman National AIDS Programme. HIV/AIDS Hotline records. Oman, 2006.
- 30. Leven S. Protecting the University's student body. The Cavalier Daily, April 05, 2005.

- Ljaljević A, Terzić N, Palibrk M, Mugosa B. Behavior of young people regarding family planning. Mater Sociomed 2013;25(2):93-5. <u>http://dx.doi.org/10.5455/msm.2013.25.93-95</u>
- Radulović O, Višnjić A, Šagrić Č, Tasić A, Bogdanović M. State of knowledge in women of Niš about contraception and family planning. Acta Facultatis Medicae Naissensis 2006; 23(1):45-51.
- Radovanović S, Kocić S, Sorak M, Milić C. Attitudes and behaviour of students related to reproductive health. Med Pregl 2010;63(11-12):859-62. <u>http://dx.doi.org/10.2298/MPNS1012859R</u>
- 34. WHO. Regional Strategy on Sexual and Reproductive Health. Copenhagen, Denmark, 2001.
- 35. Firston-line servicefor young people www.21dan.com (Cited 2011 Sep. 04,); Avaliable from: http://www.zdravlje.nshc.org.rs/ (in Serbian).
- 36. Draft Lawon Youth, Public Hearing, Belgrade, 2010 (in Serbian).
- 37. National strategy for youth. Number: 56-1777/2008-001. Belgrade, 2008 (in Serbian).

REPRODUKTIVNO ZDRAVLJE MLADIH U SVETU I SRBIJI

Olivera Radulović^{1,2}, Slađana Babić¹, Milena Veljković^{1,3}, Ana Stefanović², Čedomir Šagrić^{1,2}, Katarina Bulatović²

> ¹Univerzitet u Nišu, Medicinski fakultet, Niš, Srbija ²Institut za javno zdravlje Niš, Srbija ³Dom zdravlja Niš, Srbija

Sažetak

Reproduktivno zdravlje podrazumeva da su ljudi u mogućnosti da imaju odgovoran, zadovoljavajući i siguran seksualni život, da imaju sposobnost za reprodukciju i slobodu da odlučuju o njoj. To je direktno uslovljeno društvenim, kulturnim i bihejvioralnim faktorima.

Jedan od pet ljudi u svetu je adolescent, a 85% njih živi u zemljama u razvoju. U mnogim zemljama, tabui i norme o seksualnosti predstavljaju veliku prepreku za pružanje informacija, korišćenje zdravstvenih usluga i druge oblike podrške koje su potrebne mladima kako bi se zaštitili od polno prenosivih bolesti i sačuvali reproduktivno zdravlje.

Regulacija fertiliteta je najznačajniji činilac koji utiče na reproduktivno zdravlje. Adolescenti nisu dovoljno upoznati sa mogućnostima kontracepcije, niti sa polno prenosivim infekcijama. U Srbiji je 84% mladića i 65% devojaka (adolescenata) imalo seksualno iskustvo. U svetu 36-70% mladih ne koristi kontracepciju, tako da su neželjene trudnoće razlog za 90% neželjenih porođaja i 89% nesigurnih pobačaja.

U svetu postoji mnogo programa čiji je cilj porast znanja o očuvanju reproduktivnog zdravlja. U našoj zemlji ne postoji nacionalni program za planiranje porodice i očuvanje reproduktivnog zdravlja u populaciji mladih. U Nacionalnoj strategiji za mlade dati su različiti načini edukacije mladih u oblasti promocije zdrav-Ija, uključujući i promociju reproduktivnog zdravlja.

Da bi se adolescentima omogućilo postizanje željenog nivoa zdravlja, potrebno je istovremeno im pružiti informacije i obrazovanje i razvijati životne veštine i veštine izbora.

Ključne reči: reproduktivno zdravlje, mladi, programi