

AWARENESS AND ATTITUDES REGARDING ADOLESCENT REPRODUCTIVE HEALTH IN THE REPUBLIC OF SRPSKA

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Results of a large amount of research show that adolescents are not sufficiently informed when it comes to reproductive health.

The aim of this paper was to investigate how well informed adolescents in the Republic of Srpska were about reproductive health and what their attitudes towards it were.

The research was designed as a cross-sectional study which included 683 adolescents - 562 12 years old and 121 15-year-old adolescents from eight regions in the Republic of Srpska. The data on pupils' knowledge of and attitudes towards reproductive health was collected through a questionnaire - survey which pupils completed individually in the presence of trained interviewers, who were available in case of difficulties with understanding questions. Methods of Descriptive Statistics were used to describe the sample in question, and the χ^2 test was used to determine statistical significance of differences in age.

By analyzing the awareness of the 12-year-olds and 15-year-olds, it was found that there was a statistically significant difference in the distribution of answers to the following questions: What is puberty? ($\chi^2=8.050$; $p<0.01$), What is menstruation? ($\chi^2=11.935$; $p<0.01$), What is conception? ($\chi^2=22.974$; $p<0.01$), What is abortion? ($\chi^2=8.851$; $p<0.01$). According to this research, every fourth 12-year-old and eighth 15-year-old received information on reproductive health from their parents. Most young people (54.9%) would ask their parents for advice on solving sexual life issues, while only 2.8% would ask their teacher. Every fourth adolescent would ask their peers for advice on solving sexual life issues. Out of all adolescents that took this survey, 79.1% think that it would be useful to have Sexual Education as a school subject.

Results of this research indicated the need for more intense implementation of education programmes in the field of reproductive health among adolescents in the Republic of Srpska. *Acta Medica Medianae* 2013;52(1):9-15.

Key words: reproductive health, adolescents, awareness, attitudes

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Introduction

The World Health Organization defines adolescence as the period between the ages of 10 and 19, even though the end of adolescence is harder to define because it is determined more by psycho-sociological principles than by somatic, physical or biological changes. Therefore, it is highly important, when defining adolescence (its upper limit), to take into account the aspects of psycho-social maturity, personal - economic independence and freedom, which extend the adolescence period to the age of 25 (1).

Sexuality has biologicophysiological and psychological basis that even the youngest children have to know thoroughly about. Children must have the knowledge about why there is a need to use protection, self-protection and partner protection. Sexual Education is the transfer of knowledge, and as such should be the primary goal of the education system.

In order to form proper attitudes in the fields of family planning and taking responsibility for one's sexual behaviour, one of the important conditions is the knowledge about the possible consequences of irresponsible sexual behaviour, unwanted pregnancy and sexually transmitted diseases. A lot of examples could be given regarding not only the misinformation of adolescents, but also their need to include Sexual Education in the National Curriculum.

Adolescence is the period during which biological maturity is gained, personality is formed, individual's own attitudes and principles are developed, moral and ethical values are built and attained, emotional independence and socially responsible behaviour are attained, more mature relationships with peers, as well as

preparation for economic independence, marriage and parenthood. Taking all these factors into consideration, we can conclude that the process of growing up is in no way easy. In order for adolescents to ask for a doctor's advice or help, they need to have a sense of security and trust. Apart from that, this period in life, due to specificities of health issues, requires specially educated experts. Most European countries have an organized youth health care that enables them free access to a multidisciplinary team of experts educated to work with the population. A preventive health care and health promotion, especially when it comes to reproductive and mental health, has a basic place in this system.

It is considered that the young between the ages of 15 and 19 are at greatest risk with regard to promiscuous behaviour and sexual contacts with a larger number of partners. It is also known that protection is least used at the beginning of sexual activity, while every fifth pregnancy begins in the first month of sexual activity, and about a half of all premarital pregnancies begin in the first six months of sexual activity (2). Secrets about sexual life are mostly revealed in mass media today, but in a specific way that is not always in coordination with educational goals set by society.

Aims

The goal of this paper was to investigate how informed about reproductive health adolescents in the Republic of Srpska were, and what their attitudes towards reproductive health were.

Methods

The research was carried out in 2009, and it involved 683 students from primary schools in eight regions of the Republic of Srpska, 562 12-year-olds and 121 15-year-olds. The research was designed as a cross-sectional study and the students that took part in the survey were selected randomly. The data on students' knowledge of and attitudes towards reproductive health was gathered using a questionnaire – survey, which the students completed individually in the presence of trained interviewers, who were available in case of difficulties with understanding questions.

The first part of the questionnaire contained questions about the basic demographic characteristics of the survey-takers (region, age, sex, place of residence). The second part of the questionnaire was related to the questions about how informed adolescents were on the topics, such as: puberty, menstruation, conception and abortion. The third part contained questions related to students' attitudes on who to ask for advice on sexual life issues, from whom they mostly learned about these topics and whether it would be useful to have Sexual Education as a school subject.

Methods of Descriptive Statistics were used to describe the sample in question, and the χ^2

test was used to determine statistical significance of differences in age.

Results

The research involved 683 primary school students from the Republic of Srpska (58% male, 42% female), out of which 562 were 12-year-olds (48% male, 52% female), and 121 were 15-year-olds (45% male, 55% female). 69% of the students taking this survey were from urban background, while 31% of them were from a rural background.

Results in Table 1 were obtained by analysing students' knowledge of what puberty is and when it starts.

Of all the students who took the survey, the question «What is puberty?» was answered incorrectly by 10.4% of the students, while it was left unanswered by 2.3% of the students. It was also determined that the incorrect answer was given by 11.9% of the 12-year-olds and 3.3% of the 15-year-olds. By comparing these two groups of survey-takers it was determined that there was a statistically significant difference in the distribution of correct and incorrect answers ($\chi^2=8.050 > 3.841$; 0.05; DF:1; $p < 0.05$). It is interesting that of all the 12-year-olds who answered this question incorrectly, as many as 86.6 of them answered that the puberty was the name of a hormone.

The question «When does puberty start?» was answered incorrectly by 16.5% of all the students who took the survey, while it was unanswered by 1.6% of them. It was also determined that 16.0% of the 12-year-olds and as many as 19.0% of the 15-year-olds answered incorrectly. Through statistical analysis of this sample, it was determined that there was not a statistically significant difference in the distribution of correct and incorrect answers ($\chi^2=0.666 < 3.841$; 0.05; DF:1; $p > 0.05$).

Results in Table 2 were obtained by analysing students' knowledge of «What is menstruation?». Of all the survey-takers, 9.7% of students did not know the answer to this question, while it was unanswered by 8.2% of the students (11.4% of the 12-year-olds and 1.7% of the 15-year-olds gave an incorrect answer). By comparing these two groups of survey takers, it was determined that there was a statistically significant difference in their knowledge ($\chi^2=11.935 > 3.841$; 0.05; DF:1; $p < 0.05$). Of all the 12-year-olds who did not know the answer to this question, 10% thought menstruation was a female hormone.

By analysing students' knowledge of what conception is and how long pregnancy lasts the results in Table 3 were determined.

The correct answer to the question «What is conception?» was given by 71% of the adolescents taking this survey. 25.6% of the 12-year-olds and 6.6% of the 15-year-olds did not know the correct answer. In the distribution of answers to this question there was a statistically significant difference ($\chi^2=23.974 > 3.841$; 0.05;

DF:1; $p < 0.05$). Of all the 12-year-olds who took the survey and answered incorrectly 82.2% thought conception represents the growth of the baby inside a mother's tummy. This answer was given by 18.3% of all the students who took the survey.

In the distribution of answers to the question: «How long does pregnancy last?» there was no statistically significant difference ($\chi^2 = 2.686 < 3.841$; 0.05; DF:1; $p > 0.05$). Namely, 94.6% of 12-year-olds and 98.3% of 15-year-olds answered this question correctly.

The question «What is abortion?» was answered incorrectly by 6.7% of survey-takers (Table 4). There is a statistically significant difference in the distribution of answers to this question between 12-year-olds and 15-year-olds ($\chi^2 = 8.851 > 3.841$; 0.05; DF:1; $p < 0.05$). When it

comes to being informed about reproductive health, as many as 56.4% of them said they learned most about this topic from television or newspapers, while only 12.2% of them said they learned during their lessons at school. Parents as a source of information on topics related to reproductive health were in the second place with 28.3% in 12-year-olds, and in the third place with 13.2% in 15-year-olds (Table 5).

Most of the young would seek advice regarding sexual life issues from their parents (54.9%), while only 2.8% would ask their teachers. Every fourth adolescent would seek advice regarding sexual life issues from their peers (Table 6).

Of all the adolescents who took the survey 79.1% thought it would be useful to have Sexual Education as a school subject (Table 7).

Table 1: Answers to the questions «What is puberty?» and «When does puberty start?»

What is puberty						When does puberty start			
Age	Sex	Correct answers	Incorrect answers	No answer	Total	Correct answers	Incorrect answers	No answer	Total
12	M	33.09	5.71	1.02	39.82	30.89	8.2	0.73	39.82
	F	37.34	4.1	1.02	42.46	36.9	4.98	0.59	42.47
15	M	7.61	0.29	0.15	8.05	6.44	1.46	0.15	8.05
	F	9.23	0.29	0.15	9.67	7.61	1.9	0.15	9.66
Total		87.27	10.39	2.34	100	81.84	16.54	1.62	100

Table 2. Answers to the question «What is menstruation?»

What is menstruation??							
Age	Correct answers		Incorrect answers		No answer		Total
	M	F	M	F	M	F	
12	28.84	38.36	6	3.37	4.98	0.73	82.28
15	7.76	9.67	0.29	0	0	0	17.72
Total	36.6	48.03	6.29	3.37	4.98	0.73	100

Table 3. Answers to the questions «What is conception?» and «How long does pregnancy last?»

What is conception?						How long does pregnancy last?			
Age	Sex	Correct answers	Incorrect answers	No answer	Total	Correct answers	Incorrect answers	No answer	Total
12	M	24.74	11.13	3.95	39.82	36.16	2.78	0.88	39.82
	F	29.87	9.96	2.63	42.46	41	1.32	0.15	42.47
15	M	7.03	1.02	0	8.05	7.76	0.29	0	8.05
	F	9.37	0.15	0.15	9.67	9.66	0	0	9.66
Total		71.01	22.26	6.73	100	94.58	4.39	1.03	100

Table 4: Answers to the question «What is abortion?»

What is abortion?							
Age	Correct answers		Incorrect answers		No answer		Total
	M	F	M	F	M	F	
12	32.06	37.34	4.39	2.2	3.37	2.92	82.28
15	7.91	9.37	0.15	0	0	0.29	17.72
Total	39.97	46.71	4.54	2.2	3.37	3.21	100

Table 5. Answers to the question «Where or from whom did you learn most about the afore-mentioned topics?»

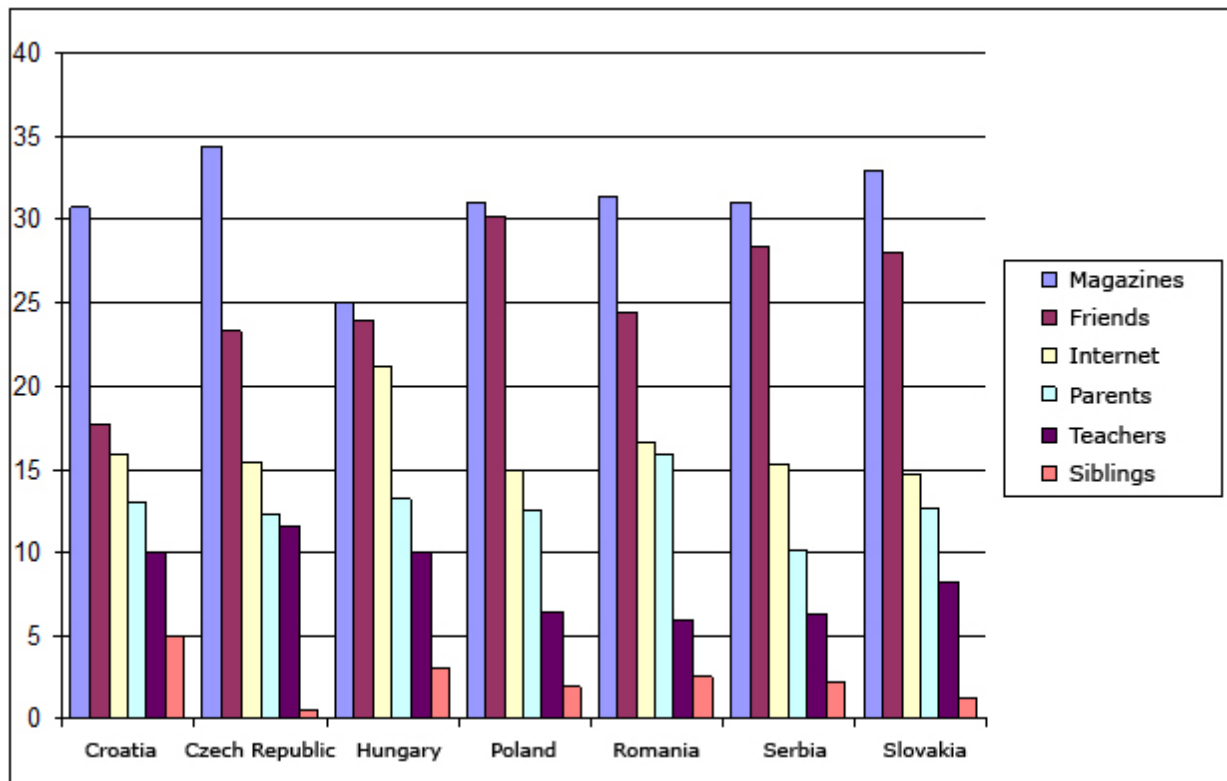
Where or from whom did you learn most about the afore-mentioned topics?									
Age	In classes at school		From parents		From television or the newspapers		No answer		Total
	M	F	M	F	M	F	M	F	
12	2.63	4.68	6.44	16.84	27.38	18.6	3.37	2.34	82.28
15	2.34	2.49	1.02	1.32	4.69	5.71	0	0.15	17.72
Total	4.97	7.17	7.46	18.16	32.07	24.31	3.37	2.49	100

Table 6. Answers to the question «Who would you first seek advice from regarding sexual life issues?»

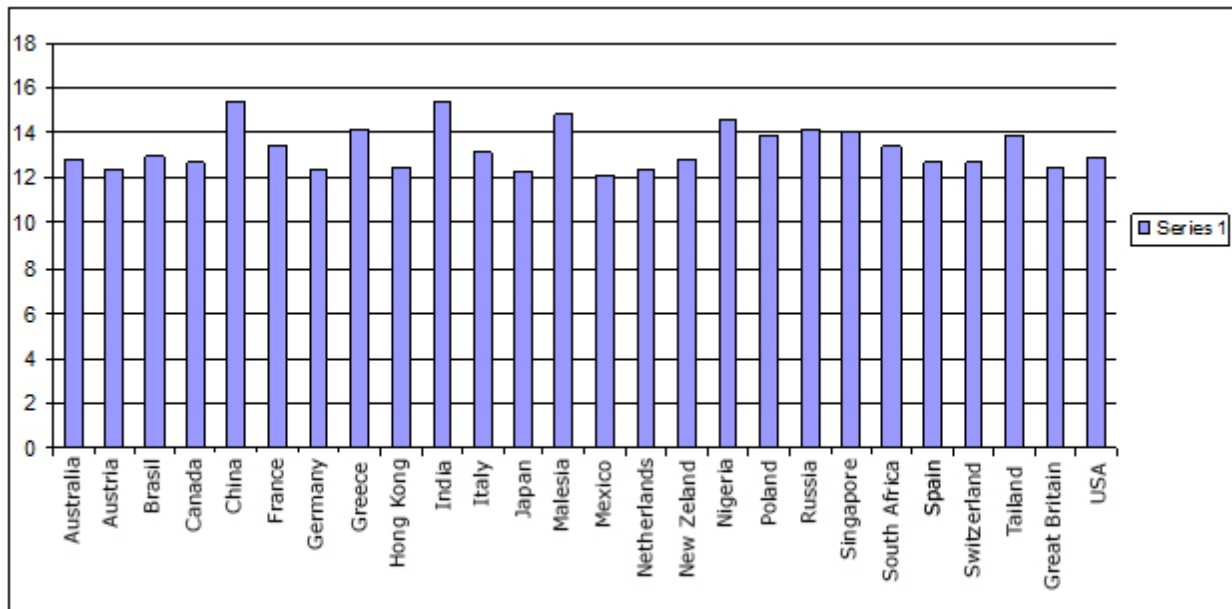
Who would you first seek advice from regarding sexual life issues?											
Age	From parents		From siblings		From teachers		From peers		No answer		Total
	M	F	M	F	M	F	M	F	M	F	
12	19.03	26.79	5.56	4.39	1.9	0.44	10.98	9.66	2.35	1.17	82.27
15	3.95	5.13	1.32	2.05	0.44	0	2.2	2.34	0.15	0.15	17.73
Total	22.98	31.92	6.88	6.44	2.34	0.44	13.18	12	2.5	1.32	100

Table 7. Answers to the question «Would it be useful to have Sexual Education as a school subject?»

Would it be useful to have sexual education as a school subject?							
Age	YES		NO		No answer		Total
	M	F	M	F	M	F	
12	32.5	31.77	5.71	9.66	1.61	1.03	82.28
15	6.74	8.05	1.17	1.61	0.15	0	17.72
Total	39.24	39.82	6.88	11.27	1.76	1.03	100



Graph 1: Sources of information about sex and relations between the two genders (%)
 Source: The Face of Global Sex 2008. The path to sexual confidence. Durex network



Graph 2: Mean age at first formal sex education

Source: *The Face of Global Sex 2008. The path to sexual confidence. Durex network*

Discussion

Research results indicated that there was a statistically significant difference in being informed between 12-year-olds and 15-year-olds only regarding some basic term definitions, such as the definition of puberty, conception, menstruation and abortion. 15-year-olds were better informed because they were more interested in the topics, and some of these topics had already been dealt with in their Biology classes. Still, objectively speaking, the young do not possess an adequate knowledge of human anatomy and the physiology of human reproductive organs.

Television and newspapers were, in this research conducted in the Republic of Srpska, mostly represented as a source of information on reproductive health (56%). If we take into consideration that our National Curriculum contains almost no topics dealing with these issues, it is not surprising that the young gather information in other ways – by media, on the Internet, from their peers. Similar results were obtained in the research of Belgrade adolescents' knowledge of, attitudes towards, and behaviour concerning reproductive health where the most usual source of information was mass media (3). The research taken among the young between the ages of 15 and 20 in 15 European countries indicated that adolescents from Italy, Spain, Poland get the highest percentage of information on reproductive health from their peers or on the Internet. It is interesting that in these countries the Sexual Education in schools is not obligatory (4).

The Face of Global Sex 2009 Research was conducted in seven countries of Eastern Europe, during which what was taken into consideration was the main factors that influence the need for the introduction of Sexual Education in the young between the ages of 14 and 22. The young in the

Eastern European countries got most information on sex and relationships between sexes from magazines and friends. Research results indicated that parents participated only in a small percentage in a child's education when it comes to sex and relationships between sexes. This percentage was the smallest in Serbia and it amounted to 10.1% (5).

The young expressed their need for additional sexual education, with the greatest need for this kind of education in Serbia, where 92.9% of the young said they lacked additional sexual education, and in Romania, where the percentage was 90.6%. A great need for Sexual Education existed in the Czech Republic, Croatia and Slovakia, while in Hungary and Poland there was a moderate need for additional sexual education (5). This research in the Republic of Srpska indicated that the young had a need for additional sexual education (78% of 12-year-olds and 84% of 15-year-olds).

Research conducted in the USA and Western Europe indicated that sexual education of the young contributed to the postponing of the first sexual intercourse, and in sexually active youth developed awareness of the need to use protection from unwanted pregnancy and sexually transmitted diseases. Sexual Education has the greatest effect when a young person gets it before he/she starts with sexual activities. School should in this developmental period instigate the development of skills – both physical and cognitive – so that the young could properly form attitudes towards and principles related to reproductive health (6).

Family as the primary factor in child's education does not take a high place in sexual education. The reasons are most probably traditional and culturological, but overemployment and poor knowledge of these topics of the

parents themselves also have an important role. The research conducted in the Republic of Srpska indicated that every fourth 12-year-old and every eighth 15-year-old were given information on reproductive health by their parents. Research conducted in the USA indicated that 44% of adolescents talked to their parents about reproductive health-related issues (7). Data of the study conducted among Scottish adolescents indicated that insufficient parental control was related to earlier beginning of sexual activity of the youth, while for girls it meant a larger number of partners and a less frequent use of condoms (8).

The young in the Republic of Srpska would first seek advice regarding sexual life issues from their parents, both every second 12-year-old and every second 15-year-old. They had the least trust in their teachers when it comes to these topics, so that every 35th 12-year-old and every 40th 15-year-old would seek advice from their teachers at school. It was exactly this that indicated how important permanent and system-regulated education of the young regarding reproductive health was. Thus, the adolescents would be better informed, more responsible towards themselves and their sexual partners, and school would be a place where they gain this knowledge.

Therefore, it is necessary within population policy, in order to preserve the fertile potential of population, to particularly implement and evaluate programmes of youth reproductive health protection.

Risky behaviour, when it comes to sexuality, often leads to unplanned pregnancies and abortions, as well as contracting sexually transmitted diseases. This kind of risky behaviour can only be fought by prevention.

"The Face of Global Sex 2008" Research indicated that the most probable beginning of formal sexual education is between the ages of 12 and 16, with the young in Mexico starting their sexual education from the age of 12, and in China from the age of 15.5. However, no regional trends were identified, for example, in Pacific Asia. The average age of first sexual education in Japan was at the age of 12, which is significantly lower than the average age in other Asian countries. Similar situation is in Europe (9).

The conclusion is that sexual education of the young should be formally introduced, and the sooner, the better. Reproductive Health education should involve medical facilities, schools and media. Preservation and improvement of reproductive health is a significant public medical issue in the whole world.

Health and educational intervention, as indicated by the research, is most efficient if it is not individually oriented and conveyed only once. Directed towards the community and being

permanent, with clearly defined goals, target groups, educational strategies and evaluation parameters – intervention can bring the aforementioned changes in behaviour. Such intervention is best achieved through health and education programmes, which represent a number of educational activities, both in health care, and in community, while influencing health-related behaviour (10).

Conclusion

Health improvement, in the broadest sense of the word, is defined as a mutual concept which means enabling people and communities to increase control over their health and improve it (11). This is achieved by timely educating primarily young people through health education and by developing necessary skills and habits (12).

Besides the aforementioned, the reproductive health promotion also represents an extended social care with the purpose of establishing the appropriate public health policy (13). Realising reproductive health necessarily includes the right of men and women to be informed, and to have a free choice and access to reliable, acceptable and available methods of family planning, as well as the right to use adequate services that would enable women to safely go through pregnancy and childbirth.

Reproductive health awareness of the young is insufficient, on the one hand, because these topics are not sufficiently covered by the National Curriculum, and on the other, because of the insufficient role of the parents in transferring sexuality-related knowledge.

The results of this research indicate that girls were better informed than their male peers, and had a greater percentage of correct answers than the boys (all the questions were answered correctly by 60% of the girls and 40% of the boys). If we take into account only those students who answered correctly all the questions regarding their awareness, we can conclude that the young from an urban background are better informed (76%) than those from a rural background (24%). What is concerning is the fact that the young gather most information on reproductive health from mass media – newspapers or television (56%). At the same time, 79% of adolescents who took the survey thought it would be useful to have Sexual Education as a school subject.

Research conducted worldwide indicate that the implementation of an integrated youth programme at schools and in primary health care is the most successful and rational way to obtain adequate information regarding reproductive health. Implementation of this programme should be timely, systematic and permanent.

References

1. Babić N. Reproduktivno zdravlje adolescenata. Banja Luka (Republic of srpska): Academy of Arts and Sciences of the Republic of Srpska, Medical Department; c2010. Reproduktivni potencijal adole scenata u Republici Srpskoj.
2. Santelli JS, Beilenson P. Risk factors for adolescent sexual behavior, fertility, and sexually transmitted diseases. J Sch Health. 1992; 62(7): 271-9. [[CrossRef](#)] [[PubMed](#)]
3. The Face of Global Sex 2010. They won't know unless we tell them: 01.09.2012. Available from: URL: <http://www.durexnetwork.org>
4. Kisić-Tepavčević D, Sterić M, Kisić V, Popović A, Pekmezović T. [Knowledge, attitudes and behaviour of adolescents about reproductive health at Belgrade territory]. Srp Arh Celok Lek. 2010; 138(3-4): 214-8. Serbian [[CrossRef](#)] [[PubMed](#)]
5. The Face of Global Sex 2009. Sex and relationships education: assessing the gaps for Eastern European youth: 04.09.2012. Available from: URL: <http://www.durexnetwork.org>
6. Women in transition: regional monitoring reports, No. 6 (1999). Florence: UNICEF Child;
7. Abma JC, Martinez GM, Mosher WD, Dawson BS. Teenagers in the United States: sexual activity, contraceptive use, and childbearing, 2002. Vital Health Stat 23. 2004; (24): 1-48. [[PubMed](#)]
8. Wight D, Williamson L, Henderson M. Parental influences on young people's sexual behaviour: a longitudinal analysis. J Adolesc. 2006; 29(4): 473-94. [[CrossRef](#)] [[PubMed](#)]
9. The Face of Global Sex 2008. The path to sexual confidence: 02.09.2012. Available from: URL: <http://www.durexnetwork.org>
10. Curtis H, editor. Promoting Sexual Health. London: British Medical Association Foundation for AIDS; c1992. Introduction; p1-3.
11. WHO. Health promotion Glossary. Investment in Health. International Conference on Health Promotion. Geneva: WHO; c1990.
12. Cucić V, Simić S, Bjegović V, Živković M, Vuković D, Doknić-Stefanović D, Ananijević-Pandej J. Socijalna medicina. Beograd (Serbia): Savremena administracija; c2000. Promocija zdravlja.
13. Lazes P, Kaplan L, Gordon K. The handbook of health education. London: Aspen Pub; c1987.

INFORMISANOST I STAVOVI ADOLESCENATA U POGLEDU REPRODUKTIVNOG ZDRAVLJA U REPUBLICI SRPSKOJ

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Rezultati velikog broja istraživanja pokazuju da adolescenti nisu dovoljno informisani kada je u pitanju reproduktivno zdravlje.

Cilj rada bio je da se ispita informisanost i stavovi adolescenata u Republici Srpskoj u vezi sa reproduktivnim zdravljem.

Istraživanje je dizajnirano kao studija presjeka kojom je obuhvaćeno 683 adolescenata – 562 dvanaestogodišnjaka i 121 petnaestogodišnjak iz osam regiona Republike Srpske. Podaci o znanju i stavovima učenika o reproduktivnom zdravlju prikupljeni su putem upitnika – ankete, koju su učenici popunjavali samostalno, u prisustvu obučenih anketara, koji su bili na raspolaganju u slučaju poteškoća u razumijevanju pitanja. Za opisivanje ispitivanog uzorka korišćene su metode deskriptivne statistike a za utvrđivanje statističke značajnosti razlika po uzrastu, korišćen je χ^2 test.

Analiziranjem informisanosti anketiranih dvanaestogodišnjaka i petnaestogodišnjaka utvrđeno je da postoji statistički značajna razlika u distribuciji odgovora na pitanja šta je pubertet ($\chi^2=8,050$; $p<0,01$), šta je menstruacija ($\chi^2=11,935$; $p<0,01$), šta je začćeće ($\chi^2=22,974$; $p<0,01$), šta je abortus ($\chi^2=8,851$; $p<0,01$). Ovo istraživanje je pokazalo da je informacije o reproduktivnom zdravlju od roditelja dobio tek svaki četvrti dvanaestogodišnjak, odnosno svaki osmi petnaestogodišnjak. Savjet za probleme iz seksualnog života najveći broj mladih bi potražio od roditelja (54,9%), a samo 2,8% od nastavnika. Svaki četvrti adolescent bi o problemima iz seksualnog života savjet potražio od vršnjaka. Od anketiranih adolescenata, njih 79,1% smatra da bi bilo korisno da imaju predmet seksualno vaspitanje.

Rezultati dobijeni ovim istraživanjem upućuju na potrebu intenzivnijeg sprovođenja edukativnih programa u oblasti reproduktivnog zdravlja među adolescentima u Republici Srpskoj. *Acta Medica Medianae 2013;52(1):9-15.*

Ključne reči: reproduktivno zdravlje, adolescenti, informisanost, stavovi