

## ESTIMATION OF SEXUAL BEHAVIOUR AND VULNERABILITY OF ADOLESCENT REPRODUCTIVE HEALTH

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Adolescents are reproductive potential of society. Protection of their reproductive health is one of the biggest challenges of modern society. Adolescent reproductive health is endangered by early sexual activities, inadequate protection against unwanted pregnancy and sexually transmitted infections. It is necessary to take measures which would protect and improve adolescent reproductive health.

Adoption of knowledge about sexuality, physiology of reproduction, protection against unwanted pregnancy and sexual infections are prerequisites for formation of correct attitudes related to family planning and taking over responsibility for their own sexual behaviour. *Acta Medica Medianae* 2009;48(3):20-24.

**Key words:** adolescents, sexual behaviour, reproductive health, contraception

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### Introduction

Universal characteristics of modern societies are the decline of fertility of the population, reduction of natural growth of population, depopulation and aging population (1, 2).

Adolescents are aged 10 – 19 years, and make up a fifth of the world population (3).

They make the vulnerable and the most important aspect of the demographic categories of society because it represents the future reproductive potential. A priority task of modern societies is to preserve the reproductive health of this population. This is also one of the greatest challenges of the 21st century in the healthcare service. It is based on the protection against unwanted pregnancy and sexually transmitted infections (4, 5).

Adolescent sexuality is not a new phenomenon or feature of modern society. It used to be accepted only in the function of reproduction and the institution of marriage. Later, premarital sexual activity became almost universal phenomenon, often marking the beginning of emotional attachment, and not the formation of stable relationship as was before. Women's striving for education and economic independence extended the period of premarital sexual activity and delayed entering marriage and giving birth.

### Aim

The aim of the research was to evaluate the sexual habits and vulnerability of female reproductive health of adolescents attending secondary schools in Prokuplje, and to analyse the appropriate measures for improvement of health in this field.

### Material and methods

An anonymous survey was conducted by filling in the appropriate questionnaire (386 respondents). A sample was obtained by random selection of Prokuplje secondary schools' pupils (High school, Medical school „Dr. Aleksa Savić”, Technical school „15th May”, and Agricultural school „Radoš Jovanović Selja”). The students of all grades were involved by the survey. Statistical analysis was done using standard programs for data processing – MS EXCEL and software package SPSS version 10.0. The appropriate descriptive and analytical statistical analysis were used. The statistical significance of differences in frequency was tested by the  $\chi^2$  test.

### Results

A total of 386 adolescent girls were surveyed. One hundred and eight (27,98%) adolescent girls were sexually active. This trend increases with age (Table 1).

Adolescent girls usually have the first sexual intercourse between the age of 16 and 17, (71,3%) and less frequently at the age of 18 or later (21,3%). A number of adolescent sexual activity begins during early adolescence (Table 2). Difference in grades was statistically highly significant (Kruskal Wallis  $\chi^2=19,447$ ;  $p<0.0001$ ).

Table 1. Proportion of sexually active adolescent girls in relation to the grade they attend

Grade	Adolescent girls polled		Sexually active		%
	number	%	number	%	
I	96	24,87	8	7,41	8,33
II	102	26,42	15	13,89	14,70
III	98	25,39	38	35,19	38,77
IV	90	23,32	47	43,52	52,22
Total	386	100,00	108	100,00	27,98

Table 2. Age of sexual activity initiation

Age	Grade								Total	
	I		II		III		IV		number	%
	number	%	number	%	number	%	number	%		
≤15	4	50,00	-	-	3	7,90	1	2,10	8	7,40
16-17	4	50,00	14	93,30	30	78,90	29	61,70	77	71,30
≥18	-	-	1	6,70	5	13,20	7	36,20	23	21,30
Total	8	100,00	15	100,00	38	100,00	47	100,00	108	100,00

Table 3. Length of relationship in which the first sexual intercourse occurred

Months	Grade								Total	
	I		II		III		IV		number	%
	number	%	number	%	number	%	number	%		
< 3	2	25,00	2	13,30	6	15,8	16	34,00	26	24,10
≥ 3	6	75,00	13	86,70	32	84,2	31	66,00	82	75,90
Total	8	100,00	15	100,00	38	100,0	47	100,00	108	100,00

Table 4. Quality of relationship in which the first sexual intercourse occurred

Quality of relationship	Grade								Total	
	I		II		III		IV		number	%
	number	%	number	%	number	%	number	%		
stable	6	75,00	12	80,00	33	86,84	40	80,90	89	82,40
short	2	25,00	2	13,33	-	-	6	12,80	10	9,27
older man	-	-	-	-	5	13,16	2	4,20	7	6,48
first date	-	-	1	6,70	-	-	1	2,10	2	1,85
Total	8	100,00	15	100,00	37	100,00	47	100,00	108	100,00

Table 5. Method of contraception during first sexual intercourse

Method of contraception	Grade								Total	
	I		II		III		IV		number	%
	number	%	number	%	number	%	number	%		
condom	3	37,50	6	40,00	18	47,37	21	44,68	48	44,44
oral contraception	-	-	-	-	1	2,63	-	-	1	0,93
rhythm method	-	-	1	6,67	-	-	-	-	1	0,93
no answer	5	62,50	7	46,66	19	50,50	26	55,32	57	52,77
without contraception	-	-	1	6,67	-	-	-	-	1	0,93
Total	8	100,00	15	100,00	38	100,00	47	100,00	108	100,00

Table 6. Current method of contraception

Method of contraception	Grade								Total	
	I		II		III		IV			
	number	%	number	%	number	%	number	%	number	%
condom	2	33,33	5	45,46	24	75,00	30	76,93	61	69,32
oral contraception	-	-	-	-	2	6,25	4	10,26	6	6,82
intrauterine device	-	-	-	-	-	-	1	2,56	1	1,14
chemicals	-	-	-	-	1	3,13	-	-	1	1,14
rhythm method	-	-	1	9,09	1	3,13	1	2,56	3	3,41
withdrawal	-	-	1	9,09	-	-	1	2,56	2	2,27
double	-	-	1	9,09	1	3,13	-	-	2	2,27
none	4	66,67	3	27,27	3	9,36	2	5,13	12	13,63
Total	6	100,00	11	100,00	32	100,00	39	100,00	88	100,00

Usually, the first sexual intercourse occurred in a relationship which lasted for three months or more (75,9%), and the difference in grade was not statistically significant (Pearson  $\chi^2=4,932$ ;  $p>0.05$ ) (Table 3).

Most of examinees experienced the first sexual intercourse in a stable relationship (82,4%), and the difference in grades was not statistically significant (Kruskal Wallis  $\chi^2=0,390$ ;  $p>0.05$ ) (Table 4).

During the first intercourse they mainly used some form of protection against unwanted pregnancy, usually condoms (44,44%), but a significant number of examinees did not answer the question (52,77%). Difference in grades was not statistically significant (Kruskal Wallis  $\chi^2=3,040$ ;  $p>0.05$ ) (Table 5).

The most common current method of contraception of sexually active adolescents was condom (69,32%). Application frequency of this method was significantly higher than the application of other methods (Kruskal Wallis  $\chi^2=10,359$ ;  $p<0.05$ ) (Table 6).

## Discussion

In modern societies, there is an increasing trend in the number of sexually active adolescents and all the related activities start earlier. It was first observed in 1960s in the Nordic countries, and then in Western Europe. Stabilisation was seen in 1980s, while 1990s were marked by earlier age in which adolescents had the first sexual experience. A similar situation is happening in the countries of central and eastern Europe, however, some 20 – 30 years later (one generation) (6).

An adolescent girl is inexperienced, sexually curious. She has the impression that nothing bad can happen. She approaches the intercourse not connecting it with the possibility of occurrence of unwanted pregnancy and sexually transmitted infections, but caught in the excitement that sexual contact provides. She is not motivated to preserve her health, so that she runs the risk of endangering her future. Her reproductive health depends on the age of initiation of sexual activity, current and total number of sexual partners, the manner of their selection, length and types of sexual relationship,

use of contraception and protection from sexually transmitted infections, alcohol, drugs and social environment. Adolescence is a very sensitive period because of dual messages sent by society.

The amount of risk for the occurrence of reproductive disorders in adolescence, therefore, depends on the adopted model of reproductive behavior, the presence of any health problem, health habits and social environment factors (7).

Their mental and emotional developments are not completed and social dimensions of cognitive process is of great importance. Adolescent girls generally accept the attitudes which have been confirmed by experience of people from their environment. Information obtained from parents have stronger influence on sexual behavior than the information obtained from peers. Of particular importance is the closeness she feels with her mother. The parental home is the place where the topic of family planning is little discussed (7).

Of 386 examinees from Prokuplje secondary schools, 108 have begun sexual activity (27,98%). Their proportion increases with age: first grade students 7,41%, second grade students 14,7%, third grade students 38,77%, and among students of final grade, every second girl became sexually active (52,22%). First sexual intercourse often occurred between the age of 16 and 17 (71,3%), rarely later (21,3%). In the age of early adolescence (up to 15 year), the first sexual intercourse was experienced by 7,4% of examinees. The testing conducted in Belgrade (1995-1997) showed that sexual activity by the age of 15 begins in 10% of girls, between 16 and 17 in 55%, followed by 34% (7).

The first sexual experience of adolescent girls from Prokuplje happened in stable relationships (82,4%), sometimes in temporary, short-term relationships (9,27%). The least frequently, it occurred in relationships with older men (6,48%) or during the first date (1,85%). Data from Belgrade point to more frequent short-term relationships (35%), relationships with much older man (10,3%) and sexual intercourse during the first date (5,7%) (7).

Adolescent sexual activity begins from various reasons. Adolescent girls from Prokuplje do it mostly for love (77,78%). Other reasons are much more rare: the need to be loved (2,78%),

curiosity (6,48%), physical attractiveness (5,56%), the impact of environment (0,93%) and the insistence of a partner (1,83%). Data from Belgrade confirm love as the most common motive (45,7%), as well as considerable presence of curiosity (35,1%) (7).

The assumption is that one third of sexually active adolescents think they were wrong and did it too early, and they should be encouraged to postpone this activity.

Without use of contraception during one year, 90% of sexually active adolescent girls will stay pregnant (8). They often do not use this form of protection when they experience their first sexual intercourse. They are convinced that they cannot get pregnant because they are young and have sex rarely. Sex during adolescence is often sudden, without use of appropriate contraceptives and without sufficient motivation to apply it. Adolescent girls often do not consider the possible consequences, they want to be „natural“ and believe that the partner „protects“ them well. The use of contraception is often felt as unpleasant duty and is used incorrectly, irregularly and for short. Adolescent girls have enormous need to use highly effective, safe and reversible contraception with minimal side effects, whose applications is not related to sex and that protects the transmission of sexually transmitted infections.

Adolescent girls from Prokuplje commonly use condom during the first intercourse (44,44%). The fact that 52,77% did not answer this question is alarming. The assumption is that they applied the withdrawal methods, but did not know to define it. Adolescent girls often start to think about contraception only some time after the initiation of sexual activity (usually when confronted with the fear of possible pregnancy). They still often choose condom (69,32%), much less frequently oral contraception (6,82%). There are 13,63% of girls not using contraception, either because they want to give birth or they unnecessarily run the risk of unwanted pregnancy.

Adolescent girls are afraid that contraception can be harmful. The greatest fear is related to contraceptive pills and this fear is an important element when deciding about the choice of fertility control method. The fear of contraceptive use is often more present than fear of a deliberate abortion (7).

Adolescent girls have the right to choose their own method of contraception that suits them on the basis of the given professional information.

Condom is the only contraception that protects against pregnancy and transmission of sexual infections. The young often object that putting a condom reduces the enjoyment of sex because they lack the feeling of direct contact and relaxation (63,33%). Some girls think that condom is not safe enough because it can fall off or tear, they complain of physical discomfort, and about 10% believe that is harmful to health.

Oral contraception is suitable for a healthy adolescent girl in a stable, monogamous relationship. The use of this kind of contraception is followed

by regular menstrual periods, which are scarce and painless, and as well as reduced risk of adnexitis and functional ovarian cysts (8). The simultaneous use of oral contraceptives and condoms is a double protection: it provides high degree of protection against pregnancy and sexually transmitted diseases (8,9). In Prokuplje, this protection is used by 2,27% of adolescent girls.

Insufficient degree of responsibility towards their own health is primarily a reflection of their insufficient knowledge about sexuality, and protection against unwanted pregnancy and sexually transmitted diseases. Their knowledge is often scarce and informative, and essential knowledge of the mechanism of fertility control and practical application of skills is missing. Knowledge is usually a key factor in taking responsibility for sexual behavior (7).

Special biological susceptibility to sexual infections is reported in the population under 15 years of age. Frequent changing of sexual partners is risky, sex with an unfamiliar partner and a partner from a group with high risk for infection of this kind.

Contemporary social trends contribute to increased sexual freedom among adolescents. Sexual experience with numerous sexual partners increases the risk of sexually transmitted diseases, and jeopardize reproductive health of adolescents.

In case of contraceptive errors (forgetting to take the pill or if the condom falls off/ tears), it is recommended to use the postcoital contraception (10,11).

Adolescent girls from Prokuplje often rely on unsafe methods of contraception, and they are rarely familiar with the application of emergency contraception (34,3%), which makes their reproductive health vulnerable. About 80% of adolescent pregnancy is unwanted, and usually result in intentional abortion. It is very stressful experience which may jeopardize their future fertility (12).

## Conclusion

It is necessary to prevent premature beginning of sexual activity in adolescence, and when this happens they should be advised that the application of safe contraception protects them against unwanted pregnancy and sexual infections. The results of this study warn that reproductive health of adolescents is jeopardized, that it is necessary to take measures to preserve and improve it. It is necessary to introduce modern methods of contraception so that they themselves have the opportunity to choose the most suitable form. Main contraceptive option for adolescents is condom. It is necessary to use condom every time in a new sexual relationship. When the relationship is stable, switching to oral contraception is recommended.

The acquisition of knowledge about sexuality, physiology of reproduction, contraception, induced abortion and sexually transmitted infections is a prerequisite for the formation of proper attitudes in the field of family planning and responsibility in sexual behavior.

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## PROCENA SEKSUALNOG PONAŠANJA I UGROŽENOSTI REPRODUKTIVNOG ZDRAVLJA ADOLESCENATA

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**Ključne reči:** *adolescencenkinje, seksualno ponašanje, reproduktivno zdravlje, kontracepcija*