

**GENDER ANALYSIS OF SEXUAL BEHAVIOUR OF SENIOR  
HIGH-SCHOOL STUDENTS IN SKOPJE,  
R. MACEDONIA – CROSS-SECTIONAL STUDY**

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**A b s t r a c t:** The aim of the study was to assess the gender influence on the main determinants of sexual behaviour of senior high-school students in Skopje, R. Macedonia (prevalence and age of onset of sexual activity, duration of the relationship before and the contraceptive method used during the first sexual intercourse, and number of lifetime sexual partners).

**Methods:** After ensuring privacy and confidentiality, a cross-sectional study was carried out in Skopje by enrolling 310 high-school students (49.7% males, 49% females, 1.3% unknown) from 5 randomly selected high-schools, from the 4th grade, using a 32-item paper-and-pencil self administered questionnaire.

**Results:** The prevalence of sexual activity was higher among boys than girls (when reaching grade 4 of the study 62.7% of the boys and 26.7% of the girls are sexually active) ( $p < 0.01$ ). In addition, a significant gender difference was found in the following: the mean age of onset of sexual activity is 16 years for boys and 17 years for girls; concerning the duration of the relationship before the first sexual intercourse 33% of the boys and 2.5% of the girls had experienced one-night stand relationship ( $p < 0.01$ ); and concerning the number of partners, having four or more sexual partners was reported by 29.8% of the boys and 5% of the girls ( $p < 0.01$ ). Of those sexually non-active, 62.5% of the boys and 15.5% of the girls did not start with sexual activity because they did not have a chance ( $p < 0.01$ ); 17.9% of the boys and 79.1% of the girls felt unprepared ( $p < 0.01$ ).

**Conclusion:** The data indicates substantial gender differences in sexual initiation patterns and sexual conduct. Boys and girls are vulnerable at different times in their development and hence need to be reached with different public health interventions for

improving their sexual and reproductive health, adapted to local cultural and gender norms.

**Key words:** Macedonia, high-school students, sexual behaviour, gender.

### *Introduction*

The sexual activity and health of adolescents, in general, is determined by their cultural environment, socio-economic status, access to education, religion, ethnic background but also by their gender. Adolescence is a stage of life when gender role differentiation intensifies. The term gender categorises different roles of men and women as determined by the society in which they live. A child's sex is determined before birth but gender is learned throughout childhood. Boys and girls receive different messages about the behaviour that is expected of them, messages that certain behaviour is acceptable for boys but not for girls, and vice versa [1]. Gender perspectives shape the way adolescents view sexuality and play an important role in sexual behaviour, risk-taking attitude and their use and access to information and services. Also, gender perspectives play a role along with the biological distinction in determining the reproductive health status and reproductive health needs. The purpose of gender analysis is to unearth sex differences and gender inequalities and their impact on specific health problems. Those inequalities often create, maintain and exacerbate exposure to various health risks [2, 3].

The United Nations Millennium Development Goal No. 3 emphasizes gender equity as an important prerequisite for the improvement of health. There is a growing recognition that adolescents and young people should be target groups for policies to eliminate gender inequality [4].

Several studies have shown that gender roles affect sexual conduct and health-seeking behaviour. Adolescent sexual activity shows a gender difference in many countries and regions. The data from the WHO European Health Behavior in School-age Children Study (HBSC Study, 2004) showed wide gender differences in sexual conduct among countries. Positive responses on sexual activity among boys range from 18% in Spain to 71% in Greenland. Positive responses among girls ranged from 4% in Republic of Macedonia to 79% in Greenland. In most of the countries, a more traditional pattern prevails and a greater proportion of the boys than girls reported having had sexual intercourse. Over 3 times as many boys as girls gave positive answers in Greece and Israel, and over 10 times as many in the Republic of Macedonia. Interestingly, in some countries like Greenland, England, Wales, Scotland, Sweden, Finland and Germany, more girls than boys declared having had sexual intercourse. The largest differences are found in Germany and Wales [5]. However, little has been reported on the sexual behaviour and practices of sexually active adolescents in Macedonia.

The main objective of the study was to determine the gender differences in the following determinants of sexual behaviour among senior high-school students in Skopje, Macedonia: the prevalence of sexual activity, age of onset of sexual activity, duration of the relationship before the first sexual intercourse, number of sexual partners and the contraceptive method used during the first sexual intercourse. All these observations would represent a starting-point in creating health education programmes and interventions to improve their sexual and reproductive health which are gender and culturally sensitive. In accordance with some preliminary data we expected that the boys in Skopje, Macedonia, had earlier sexual initiation and higher-risk sexual behaviour.

### *Material and Methods*

#### *Study design*

Data were obtained through a quantitative, cross-sectional survey using a paper-and-pencil self-administered questionnaire. The survey was conducted in March and April 2006.

#### *Population under study*

The population under study included 310 high-school students from 5 different high-schools in Skopje. Both genders were included, from the 4th grade, aged 17–19. The age was selected on purpose as older adolescents were expected to have more sexual experience. All students registered in classes selected at random were invited to participate in the survey.

#### *Sampling method*

The schools were selected at random from the list of high-schools in Skopje. In order to represent the different categories of students in terms of place of residence, socio-economic status, sexual conduct and level of information, classes were distributed through 4 different municipalities and 3 different categories of schools (2 grammar schools, 2 technical schools and 1 art school). There were two levels of sampling: 1) the school and 2) the class.

The size sampling method was based on an estimated 30 students in each class. In each school, 2 classes from the 4th grade were selected at random. Special techniques were proposed in the case of a very unbalanced sex ratio in a class. The whole classes were included, except for students refusing to participate. There were no exclusion criteria. Private high-schools were excluded because they were very few in number and presented very specific characteristics.

The questionnaire contained 32 questions, divided into four sections: a section on general characteristics and knowledge about contraception, a section

on sexual conduct and use of contraception, a section on use of sexual and reproductive health services and a section for sexually non-active students.

To limit the risk of selection bias, the investigator did not seek for volunteers. The most sensitive questions about sexual activity were located in the middle of the questionnaire. To make students comfortable, each one of them was placed alone at a table/desk. The rate of non-responses was low and acceptable (incomplete questionnaires).

### *Ethics*

The consent of the principals of the selected schools was obtained. Questionnaires were anonymous. Students were informed before starting about the purpose of the survey and the content of the questionnaire. Students refusing to participate (only one student) were simply taken out of the survey.

### *Statistical analysis*

A chi-square test, independent Student's t test and Fisher's exact test were used to detect differences between groups and sub-groups: male versus female, sexually active versus sexually non-active, sexually active male versus sexually active female and sexually non-active male versus sexually non-active female. The level of significance was set at  $p < 0.05$  and  $p < 0.01$ .

A statistical computation was made using SPSS (Statistical Package for Social Sciences, Version 13).

The confidence in the results increases with the size of the sample; some variables are studied in smaller sub-populations. For example, when sexually active students are selected, the size of the sample is reduced. Nevertheless, these results provide an initial insight and permit hypotheses to arise for further investigation. The size of the sample could also decrease because students did not respond to certain questions. "Non-respondent" are not included in the analysis of a variable. This could be of concern with a self-administered questionnaire but non-responding students represent a minor problem; the response rate was quite satisfactory (96.7%).

### *Results*

Both sexes were equally distributed; of the 310 students, 154 were males or 49.7% and 152 were females or 49% (4 unknown or 1.3%). The vast majority of the students were aged 17 or 18 years. There was a significant difference in the proportion of sexually active students by gender. Almost two thirds of the boys (62.7%) and 26.7% of the girls in the fourth grade were sexually active ( $p < 0.01$ ) Ten students did not answer the question about sexual activity and those questionnaires were excluded from further analyses (Table 1).

Tabel 1 – Табела 1

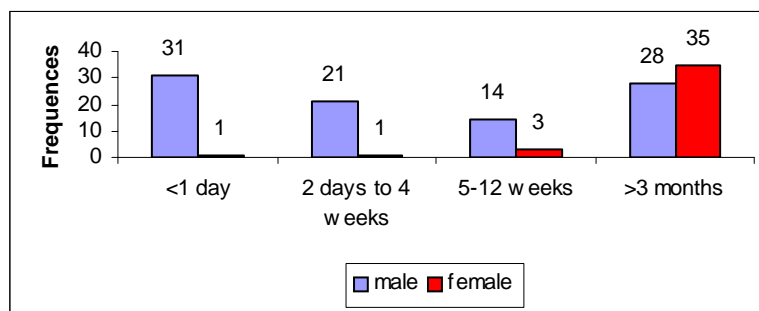
*Student distribution by gender and sexual activity*  
*Дистрибуција на испитаниците според пол и сексуална активност*

	Male	%	Female	%	Total	%
Sexually active	94	62.7	40	26.7	134	44.7
Sexually non-active	56	37.3	110	73.3	166	55.3
Total	150	100.0	150	100.0	300	100.0

Sexually active students were asked about their age at their first sexual intercourse, the duration of the relationship and about the contraceptive method used during the first sexual intercourse. Students reported in full years the age they had sex for the first time.

The mean age of sexual initiation was 16.01 years in males ( $\pm 1.2$  SD) and 16.96 years in females ( $\pm 1.1$  SD). The median age of sexual initiation for boys is 16 years (range 12–18 years), while for the girls it was 17 (14–19 years). The first sexual intercourse appears to be a highly unplanned activity, i.e. 55/94 (58.5%) of the boys and 18/40 (45%) of the girls did not plan their first sexual experience ( $p > 0.05$ ).

The duration of the relationship before the first sexual intercourse is important from several aspects: a longer duration usually means a greater possibility of the use of contraception, a greater possibility of knowing the partner's sexual history (partner selection) and a greater possibility of a higher level of psychological and emotional intimacy. There is significant gender difference in the duration of the relationship before the first sexual experience ( $p < 0.01$ ). Boys are prone to "one-night-stand" relationships which makes their sexual activity highly risky behaviour; 31/94 (33%) of the boys and 1/40 (2.5%) of the girls reported having such an experience (Figure 1).



*Figure 1 – Duration of the relationship before the first sexual intercourse*  
*Слика 1 – Времетраење на врска та пред првото сексуално искуство*

The students were asked about the contraceptive method used during the first sexual intercourse. A list of different methods was proposed, including modern methods like pills, intrauterine device (IUD) and emergency contraception, and traditional methods like withdrawal and calendar. Students had the option to mark several methods (Figure 2).

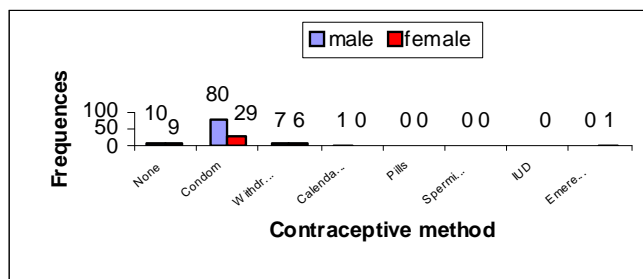


Figure 2 – Contraceptive method used during the first sexual intercourse  
Слика 2 – Контрацептивна метода користена за време на првото сексуално искуство

Condoms were by far the most frequently-used contraceptive method at the first sexual intercourse: 85.1% (80/94) of the boys and 72.5% (29/40) of the girls ( $p > 0.05$ ). The use of modern contraceptives like pills and emergency contraception were marginal.

About 10.6% (10/94) of sexually active boys and 22.5% (9/40) of sexually active girls did not use contraception at the first sexual intercourse, without a significant difference of "non-users" between genders ( $p > 0.05$ ).

The number of sexual partners is an important component of sexual conduct and falls largely under the influence of gender roles and cultural norms.

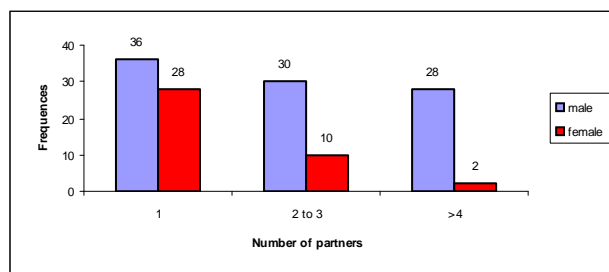


Figure 3 – Number of lifetime sexual partners  
Слика 3 – Број на дотогашни сексуални партнери

Figure 3 shows that boys are more likely to change partners and have multiple sex partners; 29.8% (28/94) of the boys and 5% (2/40) of the girls reported having 4 or more partners, with a statistically significant difference ( $p$

< 0.01). Seventy percent (28/40) of the girls and 38.3% (36/94) of the boys reported having only one sexual partner.

Students were asked if they ever bought condoms.

The purchase of condoms appeared more as the responsibility of the boys; 83.1% (128/154) of the boys and 23% (35/152) of the girls had ever bought condoms. Of those sexually active students, males (85.1% or 80/94) had significantly more experience in purchasing condoms than sexually active females (37.5% or 15/40) ( $p < 0.01$ ).

Students were asked if they had "*condoms today, with them, at home, or in some other place*". A difference between genders was demonstrated again: a larger proportion of the boys (48.1% or 74/154) possessed condoms than girls (11.2% or 17/152) ( $p < 0.01$ ).

Sexually non-active students were asked about the reason for not starting sexual activity. They were given a list of reasons and had the option of marking several, which are listed in Table 2.

Table 2 – Табела 2

*Reasons for not starting sexual activity*  
*Причини за незапочнување со сексуална активност*

Reasons	Males (56)		Females (110)	
	n	%	n	%
Do not feel prepared	10	17.8	87	79.1
Did not have the opportunity	35	62.5	17	15.5
Premarital sex is wrong	6	10.7	9	8.2
Afraid of getting pregnant	4	7.1	31	28.2
Fear of contracting HIV/AIDS	13	23.2	20	18.2
Parents would know	1	1.7	5	4.5

n = number of students who chose the option

The three main reasons for sexually non-active boys not starting sexual activity were: did not have a chance (35/56 or 62.5%); fear of contracting HIV (13/56 or 23.2%); and didn't feel prepared (10/56 or 17.9%).

The main reasons for girls not starting sexual activity were: didn't feel prepared (87/110 or 79.1%); fear of becoming pregnant (31/110 or 28.2%); and fear of contracting HIV (20/110 or 18.2%).

The most frequent reason for boys is that they did not have an opportunity (62.5%), while only 15.5% of the girls choose that option ( $p < 0.01$ ). This results might reflect gender differences and pressure of traditional societal norms as early sexual activity is seen as acceptable for boys, but not for girls.

*Discussion*

Significant gender differences were found in many elements of sexual behaviour among the high-school students in Skopje: age of sexual initiation, proportion of sexually active male and female students, duration of the relationship before the first sexual intercourse, and in the number of sexual partners.

Boys, in general, are much more prone to risky sexual behaviour than girls. They started sexual activity one year earlier than girls. A one-year age disparity in sexual initiation is preserved, as in most European countries. Young men generally report having their first sexual experience earlier than their female counterparts. The mean age at first sexual intercourse for 15-year-olds in the European region ranges from 13.5 to 14.6 years [5]. In most countries and regions, the age at first sexual intercourse is slightly lower for boys than for girls. The largest gender difference, about 1 year, is found in Portugal. But in many countries the gender disparity regarding age of sexual initiation has been diminishing or equalizing (Wales, Scotland, England) or girls start sexual activity earlier than boys (Greenland) [6–8]. Surveys in ten Latin American countries found that young men had initiated sexual activities on average one to two years earlier than young women had [9].

There was a significant gender difference of reported sexual activity between the male and female adolescents in Skopje: when reaching grade 4 of study, 63% of the boys and 27% of the girls are already sexually active. The studies conducted in European countries and USA report the proportion of sexual activity to be between 50–80% for males and 50–60% for female adolescents [10, 11].

It is more common for boys to have casual relationships or "one-night-stands" and to have multiple sex partners. This puts them at higher risk of contracting sexually transmitted infections and is very often connected with sexual coercion.

Gender roles could be one of the explanations for such differences. The results of the study imply that gender norms still put the boys at higher risk as the young men feel pressured to change partners more and to start sexual activity earlier. Young men's attitudes towards sex and intimate relationships in general often cause negative health and social consequences [12–14].

A small proportion of students consider that having sex before marriage is unacceptable. A less-mentioned reason was the "fear that parents would know". Answers reflect the rising social acceptance of premarital sexual activity, changing societal norms and the decreasing role of parents as a protective factor [15, 16].



Sex is a highly unplanned activity which can be explained by lack of refusal skills in girls and growing societal liberalizing attitudes toward sexual activity in youth. The unplanned nature of sexual activity in boys and girls puts them both at high risk of not using contraception and consequently contracting STIs, and puts the girls at risk of unwanted pregnancy. Girls probably face barriers to purchasing and using condoms, partly because of the lack of negotiation skills to introduce contraception in the relationship, lack of decision power or having fewer economic resources [17, 18].

The study revealed risk behaviour based on gender stereotypes. Gender issues play an important role in sexual conduct. The society responds in different ways depending on the gender but there is a growing recognition that improvement of the sexual and reproductive health of boys, largely neglected, is crucial for the improvement of that of girls. Differences in sexual initiation and conduct also imply that boys and girls are vulnerable at different periods of their life.

Gender roles are a dynamic concept and they are changing over time. For instance, in many countries the age disparity in the period of sexual initiation between the two sexes has been decreasing, while in several developed countries there is an inversion in this traditionally expected behaviour. Combined with the probability of a greater number of partners and a prolonged period of premarital sexual activity because of later marriage, all this puts adolescents and young people at risk of unwanted pregnancy, early childbearing and contracting STIs [19–21].

In conclusion, addressing the gender dimensions of sexual conduct is important when creating public health interventions for improving adolescent sexual and reproductive health. This will also lead to greater gender equality and promotion of human rights [22, 23].

This study is limited for generalization of the findings to all adolescents in Macedonia by the fact that it was carried out in a single large city, the capital Skopje. It may be necessary to broaden the scope of factors associated with sexual behaviour in adolescents (income level and parental education, peer culture, ethnic affiliation, etc.) and to carry out such a study across other parts of the country to evaluate whether the internal traditional cultural norms intensify gender influence on sexual conduct. Nevertheless, the study does provide an insight into the sexual conduct of adolescents in Skopje and does permit hypotheses arising for further investigations in Macedonia.

#### *Acknowledgement*

Results presented in this article are part of a larger study of sexual conduct and knowledge about and use of contraception as well as use of sexual and reproductive health services among senior high-school students in Skopje, Macedonia.

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#### Резиме

### РОДОВА АНАЛИЗА НА СЕКСУАЛНОТО ОДНЕСУВАЊЕ НА СРЕДНОШКОЛЦИТЕ ВО СКОПЈЕ, Р. МАКЕДОНИЈА – ТРАНСФЕРЗАЛНА СТУДИЈА

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Целта на оваа студија беше да го одреди влијанието на родот врз главните детерминанти на сексуалното однесување на средношколците во Скопје, Македонија (преваленца на сексуално активни средношколци, возраст на започнување со сексуална активност, времетраење на врската пред првото сексуално искуство, вид на контрацептивна метода користена за време на првиот сексуален однос и број на сексуални партнери).

*Метод:* Откако беа обезбедени приватност и доверливост, беше спроведена трансверзална студија во која беа вклучени 310 средношколци од Скопје (49,7% момчиња, 49% девојки, 1,3% непознато) од 5 средни училишта селектирани по случаен избор, од 4-та година образование, при што беше користен прашалник за самоизвестување составен од 32 прашања.

*Резултати:* Преваленцата на сексуално активни средношколци беше поголема кај оние од машки пол, или во 4-та година образование сексуално активни се 62,7% момчиња и 26,7% девојки ( $p < 0,01$ ). Статистички значајна разлика беше најдена во следново: просечна возраст на започнување со сексуална активност кај момчињата е 16, кај девојките 17 години; 33% момчиња наспроти 2,5% девојки изјавиле дека врската пред првото сексуално искуство траела помалку од еден ден ( $p < 0,01$ ); 29,8% момчиња наспроти 5% девојки имале 4 или повеќе сексуални партнери ( $p < 0,01$ ). Од сексуално неактивните, 62,5% момчиња и 15,5% девојки не започнале со сексуална активност затоа што немале можност ( $p < 0,01$ ); додека 17,9% момчиња и 79,1% девојки се чувствуваа неподготвени ( $p < 0,01$ ).

*Заклучок:* Податоците зборуваат дека постои суштинска родова разлика во однос на започнувањето со сексуална активност и во сексуалното однесување. Момчињата и девојките се вулнерабилни во различен период од својот развој поради што интервенциите за унапредување на нивното сексуално и репродуктивно здравје би требало да бидат адаптирани на локалните родови и културни норми.

**Клучни зборови:** Р. Македонија, средношколци, сексуално однесување, род.

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