THE INFLUENCE OF PEERS OVER ADOLESCENTS' SEXUAL CONDUCT IN MACEDONIA

Mladenovik B., ¹ Spasovski M., ² Kosevska E., ³ Zafirova B. ⁴

¹ Institute for Mother and Child Health Protection, Skopje, R. Macedonia ² Social Medicine Institute, Faculty of Medicine, Ss. Cyril and Methodius University, Skopje, R. Macedonia ³ Public Health Institute of Macedonia, Skopje, R. Macedonia

⁴ Institute for Epidemiology, Biostatistics and Medical Informatics, Faculty of Medicine, Ss. Cyril and Methodius University, Skopje, R. Macedonia

Abstract: The main objective of the study was to investigate the influence of peers on the main determinants of adolescents' sexual conduct in Macedonia, in order to identify both risk and protective factors.

Methodology: Data were obtained through a quantitative cross-sectional survey using a standardized paper-and-pencil self-administered questionnaire prepared for the WHO "Health Behaviour in School-aged Children" study. The study was conducted among 1226 secondary school students aged 15 and 17 (1st and 3rd year) from 10 different secondary schools in Macedonia. Peer contact frequency and peer group activities were examined as independent explanatory variables, and prevalence of sexual activity, age of onset of sexual activity, number of sexual partners and use of contraception during the first and recent sexual intercourse as dependent variables.

Results: Peer contact frequency has shown to be a protective factor with regard to the age of onset of sexual activity and use of contraception during the first and recent sexual intercourse, a risk factor with regard to the prevalence of sexual activity, whereas it has no influence on the number of sexual partners. Peer group activities have no influence on the prevalence of sexual activity and the use of contraception, but direct 'face to face' conversation is a protective factor regarding the age of onset of sexual activity and the number of different sexual partners. Chatting over the Internet has shown to be a risk factor regarding the number of sexual partners, while 'hanging out' has no impact on the determinants of sexual conduct.

Conclusions: Friends may protect adolescents from risk activities and peer influence may be used in public health interventions aimed to improve adolescent sexual and reproductive health.

Key words: sexual conduct, adolescents, peer contact frequency, peer group activities.

Introduction

Sexual and reproductive health is an important segment of adolescent health, and sexual behaviour is the basis thereof [1]. The attention of public health workers has hitherto been focussed on the extent to which adolescents are informed about contraception methods and protection against STI; moreover, relatively few studies have addressed the impact of psychosocial determinants on sexual behavior. The existing results are increasingly demonstrating that family, peers and community impact on sexual behaviour and the choice of either healthy or destructive types of sexual behaviour.

The findings of some studies show that individual characteristics have a greater influence on initiation of sexual activity before the age of 16 compared with peer influence, the family structure and socio-economic status, whereas other studies have shown that individual and social factors were interdependent [2, 3]. There is an increasing need for applying a holistic approach to explaining adolescents' sexual behaviour; there is also an understanding that an integrated model that includes factors at all levels, such as individual, family, peers and community, is more powerful in explaining their sexual behaviour [4, 5].

Peers are an important part of life in the adolescence period, when they are in a phase of separating from parents, creating personal identity and building self-confidence. The culture of life of young people is constantly changing. Many studies have highlighted the importance of relations with peers in identifying the key factors of their social life and culture [6]. Adolescence is a period when relations with peers are intensified, and they impose new and different demands and expectations in a new social relations context. Adolescents enter into intimate relationships, and spend more time with different groups of friends without parental supervision. Peers obtain a crucial role in creating and defining personal and social competences. Young people who don't have friends have fewer possibilities to develop these competences, which may result in isolation or in acceptance of different types of risky behaviour [7]. Data from many studies show that peer support is necessary for building self-confidence, and that it is associated with better school achievement, including a less frequent occurrence of depression among these youngsters [8]. Positive relations with peers are a strong protective factor, and a basis for social learning and building good relations with people later in adulthood [9].

There is a great social concern that relations with peers can be a risk factor for the adoption of negative and risky behaviour, but several studies have shown that a positive influence is more frequent than a negative one. Few studies have addressed the peer influence on the sexual behavior. Peers can be both a protective and a risk factor [10, 11]. They are sometimes a substitute for the family, especially in those families which lack cohesion, consistence, positive identification with the role of the parents, insufficient parental care, etc. Sometimes the family and the peers are complementary to each other, especially in those families with a good parent-child relationship, and these children are capable of creating positive relations with their peers [12, 13, 14].

Material and Methods

Data were obtained through a quantitative, cross-sectional survey using a paper-and-pencil self-administered questionnaire conducted in February-April 2009. The population under study included 1226 secondary school students from 10 different secondary schools from 8 different cities in Macedonia in order to represent the different categories of students in terms of place of living. socio-economic status, sexual conduct and influence of local traditional and cultural norms. Both sexes were included, from 1st and 3rd years, aged 15 and 17. The age was selected on purpose as older adolescents were expected to have more sexual experience. The cities and the schools were selected randomly from the list of secondary schools in a respective city. All students registered in classes selected randomly were invited to participate in the survey. The size sampling method was based on an estimated 30 students in each class. In each school, 2 classes from the 1st and 3rd years were selected randomly. Special techniques were proposed in case of a fairly unbalanced sex ratio in a class. The whole classes were included, except those students who refused to participate. There were no exclusion criteria. Private secondary schools were excluded because they were very few in terms of number and presented some very specific characteristics.

The questionnaire prepared for the WHO "Health Behaviour in Schoolaged Children" study was used, adapted to the local circumstances and to the survey. It included 31 questions, divided in five sections: section on general characteristics, socio-economic status, family culture, peer culture and sexual conduct.

This article, presenting some of the findings, examines the influence of peer contact frequency and peer group activities as independent explanatory variables, on the prevalence of sexual activity, age of onset of sexual activity, number of sexual partners and use of contraception during the first and recent sexual intercourse as dependent variables.

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Consent from the principals of the selected schools was obtained. Questionnaires were anonymous. Students were informed beforehand about the purpose of the survey and the content of the questionnaire. Students who refused to participate (only two students) were simply not included in the survey. The rate of non-response (incomplete questionnaires) was low and acceptable.

Chi-square test, Mann-Whitney U test and Student's t-test for independent samples were used to detect differences between groups and subgroups. The level of significance was set at p < 0.05 and p < 0.01. Statistical computation was made using SPSS (Statistical Package for Social Sciences, Version 13).

Results

Both sexes were equally distributed; of the 1226 students, 590 were males or 48.1% and 636 were females or 51.9%; the mean age of the students was 15.7 (\pm 1.13 SD). Prevalence of sexual activity was higher among boys than girls; 292 boys (76.4%) and 90 girls (23.6%) were sexually active. Of the sexually active respondents 68.1% were 17 and 18 years old (3rd year of secondary education), whereas 58.1% of the sexually nonactive were 14 and 15 years old or in the 1st year of secondary education (p < 0.01) (Table 1).

Table 1 – Табела 1

Distribution of students by sex and age, and sexual activity

Дистирибуција на иститианиците сторед тол, возраст и сексуална активност

	Sexually active	Sexually non-active
Sex		
Males	292 (76.4%)	298 (35.3%)
Females	90 (23.6%)	546 (64.7%)
Total	382 (100.0%)	844 (100.0%)
School year	,	, , ,
1 st	122 (31.9%)	490 (58.1%)
3 rd	260 (68.1%)	354 (41.9%)
Total	382 (100.0%)	844 (100.0%)

The average age of the first sexual experience is $14.9 (\pm 1.5 \text{ SD})$ years for boys, and 15.5 years for girls ($\pm 1.4 \text{ SD}$). The median for the onset of sexual activity is 15 years for boys (ranging from 10 to 17), and 16 years for girls (ranging from 12 to 17 years).

Influence of the frequency of spending time together on sexual behaviour

The frequency of respondents spending time together was examined through the number of days in the week spent in the company of peers immediately after school, as well as through the number of evenings they went out together during the week. Sexually active adolescents hang out with their friends after school for more than 4 days (p < 0.01), which is significantly more than the sexually inactive ones, and they spend significantly more time in the evening hours with their friends as well, i.e. more than 4 times a week (p < 0.01) (Table 2).

Table 2 – Табела 2

Number of days and evenings during the week spent with friends
Број на денови йо часови и вечери во неделаша йоминаши со йријашели

	Sexually active	Sexually non-active
Nº of days		
≤3	134 (35.1%)	414 (49.2%)
> 4	248 (64.9%)	428 (50.8%)
Total	382 (100.0%)	842 (100.0%)
N° of evenings		
≤ 3	196 (52.7%)	660 (78.6%)
> 4	176 (47.3%)	180 (21.4%)
Total	372 (100.0%)	840 (100.0%)

Regarding the age of the first sexual experience, adolescents who spend more time with their friends after school have their first sexual intercourse at a significantly later age (p < 0.05). The Mann-Whitney U test that was used, confirms the tested difference between the adolescents who spend time with their friends after school ≤ 3 and > 4 days in the week as statistically significant (Table 3).

Adolescents who go out in the evening and spend more time with their friends had their first sexual experience at a later age. However, the differences have shown to be insufficient in order to be confirmed statistically (p > 0.05) (Table 3).

Table 3 – Табела 3

Age of onset of sexual activity by days and evenings spent with friends Возрасти на зайочнување со сексуална активности сйоред број на денови и вечери во неделатиа йоминатии со йријатиелитие

	Number of days			of evenings
	≤3	> 4	≤3	> 4
Age (years)				
10	/	6 (1.6%)	4 (1.1%)	2 (0.5%)
11	2 (0.5%)	2 (0.5%)	/	4 (1.1%)
12	8 (2.1%)	/	8 (2.1%)	/
13	15 (4.0%)	9 (2.4%)	16 (4.3%)	8 (2.1%)
14	28 (7.5%)	44 (11.8%)	44 (11.8%)	28 (7.5%)
15	18 (4.8%)	66 (17.7%)	36 (9.7%)	48 (12.9%)
16	52 (13.9%)	66 (17.7%)	62 (16.7%)	56 (15.1%)
17	10 (2.7%)	46 (12.4%)	26 (6.7%)	30 (8.1%)
Total	133 (35.5%)	239 (64.1%)	196 (52.4%)	176 (47.3%)

Regarding the number of sexual partners, neither the frequency of adolescents spending time with their peers during the day (p > 0.05), nor the frequency of spending time together in the evening hours significantly impact (p > 0.05) on the number of different sexual partners (Table 4).

Table 4 – Табела 4

Number of sexual partners according to days and evenings during the week spent with friends

Број на сексуални *ūаршнери* с*ūоред број на денови* и вечери во недела*ша ūоминаши* со *ūријашелише*

	Number of days		Number o	of evenings
	≤3	> 4	≤3	> 4
Number of partners				
1	60 (16.1%)	116 (31.2%)	90 (24.2%)	86 (24.1%)
2–3	46 (12.4%)	70 (18.8%)	64 (17.2%)	52 (13.9%)
4 >	27 (7.3%)	53 (14.2%)	42 (11.3%)	38 (10.3%)
Total	133 (35.8%)	239 (64.2%)	196 (52.7%)	176 (48.3%)

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The use of contraception during the first and recent sexual intercourse is positively associated with the frequency of spending time together with peers after school (p < 0.01) and in the evenings (p < 0.01) (Table 5).

Table 5 – Табела 5

Use of contraception during the first and recent sexual intercourse according to the number of days and evenings during the week spent with friends Уйойреба на конйрацейција за време на йрв и йоследен сексуален однос сйоред број на денови и вечери во неделайа йоминайи со йријайелийе

	During the first sexual intercourse		During the recent sexual intercourse	
	Yes	No	Yes	No
N° of days				
≤ 3	101 (27.2%)	32 (8.6%)	111 (29.8%)	22 (5.9%)
> 4	7 (58.3%)	22 (14.5%)	227 (61.1%)	12 (3.3%)
Total	318 (85.5%)	54 (23.1%)	338 (90.9%)	34 (9.2%)
No of evening	gs			
≤ 3	160 (43.1%)	36 (9.7%)	174 (46.8%)	22 (5.9%)
> 4	158 (42.4%)	18 (4.8%)	164 (44.1%)	12 (3.2%)
Total	318 (85.5%)	54 (14.5%)	338 (90.9%)	34 (9.1%)

Influence of activities with peers on sexual behaviour

In order to assess the impact of activities with peers on the sexual activity of the respondents, a list of questions was offered whereof the following ones were analysed: "How often do you talk with friends 'face to face' during your spare time?", "How often do you chat over the Internet with your friends?", "How often do you do nothing special, just hang out with your friends"?

Regarding the prevalence of sexual activity, no statistically significant difference was registered in relation to (i) the frequency of the talks 'face to face' with one's friends, (ii) the frequency of chatting over the Internet, and (iii) the time spent in hanging out with one's friends (p > 0.05) (Table 6).

Table 6 – Табела 6

Prevalence of sexual activity regarding activities with peers
Преваленца на сексуална активности сторед активности со врсници

_	Sexually active	Sexually non-active
Talk 'face to face'		
Never	28 (10.1%)	48 (12.4%)
2 > during the week	250 (89.9%)	572 (87.6%)
Total	278 (100.0%)	652 (100.0%)
Chat over Internet	, ,	, ,
Never	34 (11.6%)	78 (11.7%)
2 > during the week	258 (88.4%)	588 (88.3%)
Total	292 (100.0%)	666 (100.0%)
Hanging out	, ,	, ,
Never	64 (27.6%)	116 (25.7%)
2 > during the week	168 (72.4%)	336 (74.3%)
Total	232 (100.0%)	452 (100.0%)

Adolescents who often talk with their friends 'face to face' have their first sexual contact at a significantly later age (p < 0.05) (Table 7).

Table 7 – Табела 7

Age of onset of sexual activity according to frequency of talking with friends 'face to face' Возрасти на зайочнување со сексуална активности сторед честинте разговори со пријателите, "лице в лице"

	"How often do you talk 'face to face' with your friends?"			
Age (years)	Never	2 > during the week	Total	
10	2 (0.7%)	2 (0.7%)	4 (1.4%)	
11	2 (0.7%)	1	2 (0.7%)	
12	1	6 (2.2%)	6 (2.2%)	
13	2 (0.7%)	14 (5.0%)	16 (5.7%)	
14	7 (2.5%)	44 (15.9%)	51 (18.5%)	
15	6 (2.2%)	62 (22.4%)	68 (24.6%)	
16	4 (1.4%)	82 (29.6%)	86 (31.0%)	
17	4 (1.4%)	40 (14.4%)	44 (15.9%)	
Total	27 (9.7%)	250 (90.3%)	277 (100.0%)	

There is no statistically significant difference between the respondents who never chat with their friends over the Internet and those who do that 2 or more times a week, as regards the age of their first sexual intercourse (p > 0.05) (Table 8).

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Table 8 – Табела 8

Age of onset of sexual activity according to frequency of chatting over the Internet Возрасій на зайочнување со сексуална акійивносій сйоред чесійойшай на чейување йреку инійерней

	"How often do you chat over the Internet with your friends"?			
Age (years)	Never	2 > during the week	Total	
10	/	4 (1.4%)	4 (1.4%)	
11	2 (0.7%)	/	2 (0.7%)	
12	/	8 (2.7%)	8 (2.7%)	
13	4 (1.4%)	12 (4.1%)	16 (5.5%)	
14	6 (2.0%)	50 (17.1%)	56 (19.1%)	
15	8 (2.7%)	60 (20.6%)	68 (23.3%)	
16	12 (4.1%)	80 (27.4%)	92 (31.5%)	
17	2 (0.7%)	44 (15.1%)	46 (15.7%)	
Total	34 (11.6%)	258 (88.4%)	292 (100.0%)	

The influence of the respondents spending time together / just hanging out with their friends on the age of onset of sexual activity turned out to be statistically insignificant (p > 0.05) (Table 9).

Table 9 – Табела 9

Age of onset of sexual activity according to frequency of hanging out Возрасій на зайочнување со сексуална акійивносій сйоред чесійойайа на шейікање наоколу

	"How often do you chat over the Internet with your friends"?			
Age (years)	Never	2 > during the week	Total	
10	2 (0.9%)	/	2 (0.9%)	
11	/	/	/	
12	4 (1.7%)	4 (1.7%)	8 (3.4%)	
13	2 (0.9%)	12 (5.2%)	14 (6.0%)	
14	4 (1.7%)	36 (15.5%)	40 (17.2%)	
15	18 (7.8%)	34 (14.7%)	52 (22.4%)	
16	20 (8.6%)	58 (25.0%)	78 (33.6%)	
17	14 (6.0%)	24 (10.3%)	38 (16.4%)	
Total	64 (27.6%)	168 (72.4%)	232 (100.0%)	

Regarding the number of different sexual partners, there is a statistically significant difference with regard to the frequency of talking 'face to face' with

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friends (p < .0,01), and with regard to the frequency of chatting over Internet (p < 0,05), whereas the respondents' habit of hanging out with their friends does not influence significantly the number of sexual partners (p > 0.05) (Table 10).

Table 10 – Табела 10

Number of partners according to frequency of activities with peers
Број на сексуални џарџинери сџоред чесиоџиаџи на акишвносији со врсници

	1 partner	2–3 partners	4 > partners
Talk 'face to face'			
Never	4 (1.4%)	11 (4.0%)	12 (4.3%)
2 > during the week	132 (47.6%)	62 (22.4%)	56 (20.2%)
Total	136 (49.0%)	73 (26.4%)	68 (24.5%)
Chat over Internet			
Never	12 (4.3%)	8 (2.7%)	14 (4.7%)
2 > during the week	120 (41.1%)	82 (28.1%)	56 (19.2%)
Total	132 (45.4%)	90 (30.8%)	70 (23.9%)
Hanging out			
Never	34 (14.7%)	20 (8.6%)	10 (4.3%)
2 > during the week	80 (34.5%)	52 (22.4%)	36 (15.5%)
Total	114 (49.2%)	72 (31.0%)	46 (19.8%)

There is no statistically significant difference between the use of contraception during the first and recent sexual intercourse and the frequency of talking 'face to face' (p > 0.05), chatting over Interent (p > 0.05) and hangining out with friends (p > 0.05) (Table 11).

Table 11 – Табела 11

Use of contraception during first and recent sexual intercourse according to activity with peers

Уйошреба на коншрацейција за време на йрв и йоследен сексуален однос сйоред активности со врсници

	During the first sexual intercourse		During the recent sexual intercourse	
	Yes	No	Yes	No
Talk 'face to f	face'			
Never	24 (10.1%)	3 (1.1%)	25 (9.0%)	2 (0.7%)
2 > during the week	208 (75.1%)	42 (15.1%)	224 (80.9%)	26 (9.4%)
Total	232 (85.2%)	45 (16.2%)	249 (89.9%)	28 (10.1%)

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Chat over Inte	rnet			
Never	30 (10.3%)	4 (1.3%)	30 (10.3%)	4 (1.4%)
2 > during the week	226 (77.4%)	32 (11.0%)	240 (82.2%)	18 (6.2%)
Total	256 (87.7%)	36 (12.3%)	270 (92.5%)	22 (7.6%)
Hanging out				
Never	58 (25.0%)	6 (2.6%)	56 (24.2%)	8 (3.4%)
2 > during the week	144 (62.1%)	24 (10.3%)	140 (60.3%)	28 (12.1%)
Total	202 (87.1%)	30 (12.9%)	196 (84.5%)	36 (15.5%)

Discussion

Sexually active respondents spent significantly more time out of home with their peers after school and during the evening hours compared with sexually non-active ones. The frequency of adolescents spending time together during the day and during the evening hours did not significantly influence the number of sexual partners, whereas it did influence the age of onset of sexual activity and the use of contraception during the first and recent sexual intercourse. Adolescents who spent more time with their friends had their first sexual experience at a later age and the use of contraception was higher. Moreover, adolescents who went out in the evening more often had their first sexual experience at a later age, but the differences proved to be insufficient to be statistically confirmed.

The study did not confirm any significant association between the content of spending time together on the one hand, and the prevalence of sexual activity on the other hand. Namely, there is no significant association between the prevalence of sexual activity and (i) the frequency of 'face to face' talks with one's friends, (ii) the frequency of chatting over the Internet, and (iii) the time spent in hanging out with one's friends. Adolescents who often talk with their friends 'face to face' had their first sexual contact at a significantly later age, whereas communication with friends over the Internet and the frequency of the respondents hanging out with their friends did not influence the age of onset of sexual activity.

There is a significant association between the number of sexual partners and the frequency of talking 'face to face' with one's friends; respondents who talk more often with their friends (2 or more times a week) change partners much less. There is no statistically significant difference regarding the frequ-

ency of talking 'face to face' between the respondent groups with 2–3 and with 4 or more different partners.

Respondents who chat over the Internet more often tend to change considerably more partners, whereas the respondents' habit of hanging out with their friends does not significantly influence the number of different sexual partners.

Conclusions

The frequency of spending time with peers proved to be a risk factor in relation to certain components, and a protective factor in relation to other components. This study confirmed that the amount of time spent with peers out of home is a significant risk factor in initiating sexual activity. On the other hand, adolescents who spend more time with their peers have their first sexual experience at a significantly later age and use contraception much more.

Of all the explored activities, the ability to talk with one's friends 'face to face', as an important indicator of demonstrating the ability to empathize with the others, proved to be a strong protective factor – these adolescents become sexually active later and change partners less. Chatting over the Internet proved to be a risk factor, as these respondents tend to change their partners much more. Activities with peers do not have a significant influence on the decision about starting with sexual activity.

Peer culture can be a strong predictor of peer influence on the individual and is often associated with the adoption of different types of risky behaviour; however, this study showed that the frequency of spending time together with peers and the activities therewith can be not only a risk factor, but also a protective factor and a basis for social learning and for acquiring positive habits.

In conclusion, it becomes increasingly clear that the selection of healthy or risky behavior is less and less a matter of personal choice, and is more and more influenced by the social circumstances in which the individual is living, such as the influence of the family, peers, school and the broader social environment [15–18, 19].

If one adds to this the vulnerability of the adolescent period, as well as the complexity of sexual and reproductive health that depends largely on sexual behaviour, it becomes clear that there are no fast and simple solutions [20]. Therefore, it is of utmost importance that peer influence, *inter alia*, be understood as an important component of the social environment when designing interventions that are aimed at improving the health and the well-being of adolescents [21].

REFERENCES

- 1. Werner-Wilson R.J. (1998): Gender differences in adolescent sexual attitudes: the influence of individual and family factors. *Adolescence*; 33: 519–531.
- 2. Paul C., Fitzjohn J., Herbison P., Dickson N. (2000): The determinants of sexual intercourse before age 16. *J Adolesc Health*; 26(2): 136–147.
- 3. Carey M.P. (2007): Behavioral skills and adolescent sexual risk behavior. J *Adolesc Health*; 41: 211–212.
- 4. Buzzini S.R., Gold M.A., Murray P.J. (2006): Sexual risk and protective factors among juvenile detainees. *J Adolesc Health*; 38: 125.
- 5. Irwin C.E. (2006): Beyond abstinence: what we need to do to decrease the risks of sexual behavior during adolescence. *J Adolesc Health*; 38: 165–168.
- 6. Diblasio F.A. (1994): A Conceptual model of sexuality active peer association. *Youth and Society;* (25): 351–367.
- 7. Romer D., Black M., Ricardo I., Feigelman S., Kaljee *et al.* (1994): Social influences on the sexual behavior of youth at risk for HIV exposure. *American Journal of Public Health*; 84 (6): 977–985.
- 8. Bender D., Losel F. (1997): Protective and risk effects of peer relations and social support on antisocial behaviour in adolescents from multi-problem milieus. *Journal of Adolescence*; 20: 661–678.
- 9. Berndt T.J. (1996): Exploring the effects of friendship quality on social development. In: Bukowski WM, Newcomb AF, Hartup WW (Eds.). The Company They Keep: friendship in childhood and adolescence. Cambridge: Cambridge University Press.
- 10. Settertobulte W., Matos M. Peers and health. In Currie C., Roberts C Morgan A., Smith R., Settertobulte W., Samdal O., Rasmussen VB. (Eds.). Young people's health in context. Health Behavior in School-aged Children (HBSC) Study: International report from the 2001/2002 Survey. Copenhagen. World Health Organization, 2004.
- 11. Michaud P.A. (2006): Adolescents and risks: Why not change the paradigm? *J Adolesc Health*; 38: 481–483.
- 12. Resnick M.D. (2000): Protective factors, resiliency, and healthy youth development. *Adolesc Med*; 11(1): 157–64.
- 13. Jones G.P., Dembo M.H. (1989): Age and sex role differences in intimate friendships during childhood and adolescence. *Merrill-Palmer Quartely*; 35(4): 445–462.
- 14. Marshal H., Stenner P. Friends and lovers (1997): In Roche J, Tucker S. (eds.) Youth in Society: London: SAGE Publications.
- 15. Barreara M. *et al.* (2002). Pathways from family economic conditions to adolescents' distress: supportive parenting, stressors outside the family, and deviant peers. *Journal of Community Psychology*; 30(2): 135–152.

- 16. Poulin F., Cillessen A.H.N., Hubbard J.A., Coie J.D., Dodge K.A., Vanderbilt D.S. (1997): Children's friends and behavioral similarity in two social contexts. *Social Development*; 6(2): 225–237.
- 17. Gauze C., Bukowski W.M., Aquan-Assee J., Sippola L. (1996): Interactions between family environment and friendship and associations with self-perceived well-being during early adolescence. *Child Development*; 67: 2201–2216.
- 18. Bukowski W.M., Newcomb A.F., Hartup W.W. (1996): Friendship and its significance in childhood and adolescence. In W. M. Bukowski, A. F. Newcomb, W. W. Hartup (Eds.). The Company They Keep (pp. 1–15). Cambridge: Cambridge University Press
- 19. Henry D.B., Schoeny M.E., Deptula D.P., Slavick J.T. (2007): Peer selection and socialization effects on adolescent intercourse without a condom and attitudes about the costs of sex. *Child Development;* 78(3): 825–838.
- 20. Wellings K., Collumbien M., Slaymaker E., Singh S., Hodges Z., Patel D. *et al.* (2006): Sexual behaviour in context: a global perspective. *The Lancet*; 368: 1706–1728.
- 21. World Health Organization (2005): European Strategy for Child and Adolescent Health and Development. WHO Regional Office for Europe, Copenhagen. Available from: URL; http://www.euro.who.int/childhealthdev/strategy/20060919_1, accessed: 19 October 2008.

Резиме

ВЛИЈАНИЕТО НА ВРСНИЦИТЕ ВРЗ СЕКСУАЛНОТО ОДНЕСУВАЊЕ НА АДОЛЕСЦЕНТИТЕ ВО РЕПУБЛИКА МАКЕДОНИЈА

Младеновиќ Б.,¹ Спасовски М.,² Ќосевска Е.,³ Зафирова Б.4

¹Завод за здравсійвена зашійшійа на мајки и деца, J3V Здравсійвен дом – Скойје, Р. Македонија

²Инсшишуш за социјална медицина, Медицински факулшеш, Универзишеш "Св. Кирил и Мешодиј", Скойје, Р. Македонија

³Инстий ут за јавно здравје на Р. Македонија, Скотје, Р. Македонија ⁴Институт за етидемиологија со биостатистика и медицинска информатика, Медицински факултет, Универзитет, Св. Кирил и Методиј", Скотје, Р. Македонија

Главна цел на истражувањето е да се одреди влијанието на врсниците врз сексуалното однесување на адолесцентите во Македонија и да се идентификуваат можните ризик и протективни фактори.

Метод: Податоците беа обезбедени преку квантитативна трансверзална студија спроведена помеѓу 1226 ученици на возраст од 15 и 17 години (1-ва и 3-та година средно образование) од 10 средни училишта од Р. Македонија. Како инструмент беше користен стандардизиран прашалник за самоизвестување изготвен за студијата на СЗО: "Здравствено однесување на децата од училишна возраст". Беше испитано влијанието на фреквенцијата на дружење и активностите со врсници како независни експланаторни варијабли, врз преваленцата на сексуална активност, возраста на започнување со сексуална активност, бројот на сексуални партнери и употребата на контрацепција за време на прв и последен сексуален однос, како зависни варијабли.

Резуліпатіти: Фреквенцијата на дневното и вечерното дружење се покажа како протективен фактор во однос на возраста на започнување со сексуална активност и употреба на контрацепција за време на прв и последен сексуален однос, како ризик фактор во однос на преваленцата на сексуалната активност, но не влијае врз бројот на партнери. Активностите со врсници не влијаат врз преваленцата на сексуалната активност и употребата на контрацепција, додека разговорот "очи в очи" има протективно влијание врз возраста на првото сексуално искуство и бројот на партнери; разговорот преку Интернет е ризик фактор за промена на поголем број на партнери, додека навиката за шеткање наоколу не влијае врз ниедна детерминанта на сексуалното однесување.

Заклучок: Протективно влијание на врсниците може да биде користено во јавно-здравствените активности наменети за унапредување на сексуалното и репродуктивно здравје на адолесцентите.

Клучни зборови: сексуално однесување, адолесценти, фреквенција на дружење, активности со врсници.

Corresponding Author:

Mladenovik B.
Institute for Mother and Child Health Protection 1000 Skopje,
Republic of Macedonia
Tel. +389 70 302143,

E-mail: bmladenovik@yahoo.com