

Protective and risk factors of early sexual initiation in youth subcultures

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ABSTRACT **Objectives** To assess the association between subculture affiliation (Hip-hop, Techno-scene, Metal, Punk, Skinheads) and early sexual initiation, and whether gender, family affluence, peer influence, lack of parental bonding and lack of parental monitoring explain this association.

Methods We collected data on 15-year-old primary school pupils who participated in the Health Behaviour in School-aged Children 2009/2010 study. The association of subculture affiliation with early sexual initiation was adjusted for gender, family affluence, peer influence, lack of parental bonding and lack of parental monitoring in five consecutive models using logistic regression.

Results Nearly 50% of the adolescents had a subculture affiliation. These youths were significantly more likely than other adolescents to have had sexual intercourse. Peer influence explained 49% of this association. Adding lack of parental bonding and lack of parental monitoring into the model weakened the association of subculture affiliation with early sexual initiation (20%), but this association remained statistically significant.

Conclusion Youth subculture affiliation is strongly correlated with early sexual initiation. This association is mediated for a large part by peer influence and defective parental monitoring and bonding. Health promotion regarding early sexual initiation should therefore in particular target adolescents under strong influence of peers and with weak parental relationships.

KEY WORDS Adolescents; Youth subcultures; Early sexual initiation; Parental monitoring; Parental bonding; Family affluence; Peer influence; Slovakia

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INTRODUCTION

Non-mainstream groups of adolescents have been shown to accumulate various health compromising behaviours, such as substance use, early sexual initiation and violence¹, with peers having a substantial influence on such activities^{2,3}. Youth subcultures (Hip-hop, Techno-scene, Metal, Punk, Skinheads) characterised by a specific lifestyle, musical taste, shared values and behaviours⁴ are an example of such groups⁵⁻⁷.

The sexual behaviour of youngsters is determined to a large extent by culture, demography, wealth and other regional factors⁸. Slovakia has a history of communism, a still rather influential Catholic Church, one of the lowest income levels within the EU⁹, and rather low total fertility rates¹⁰. Compared with other EU countries, the Slovak Republic currently has one of the youngest populations; youths aged 15 to 19 years account for 6.14% of the population¹⁰. The mean age of sexual debut (sexarche) in Slovakia is 17.8 years¹¹.

One of the most important factors affecting future sexual health and conduct is the timing of sexual debut. Early sexarche (commonly defined as before age 16) has been shown to be associated, for example, with a higher incidence of sexually transmitted infections^{12,13}, the risk being relatively high even after sex with the first sexual partner¹⁴. Furthermore, early sexual initiation increases the likelihood of (i) early pregnancy, (ii) feelings of regret¹² and (iii) a greater number of sexual partners in the future¹². Gender differences and socio-economic factors related to early sexarche vary between countries^{12,15,16}.

Peers and parents have the greatest influence on the timing of sexual debut. Peer norms, attitudes and conduct modulate the sexual behaviour of adolescents to a great extent^{3,17,18}. Perceived peer approval of intercourse, peers themselves being sexually active, and peers breaking rules, are all associated with a higher probability of early experience with coitus^{3,17,18}. In contrast, strong parental bonding and monitoring, good communication with parents, and living in a complete family, are associated with delayed sexarche and other aspects of healthy sexual behaviours^{12,17,19,20}.

Only a few studies have examined sexual conduct in adolescent groups sharing specific music preferences. Hip-hop/rap, metal and rock in particular have been shown to reinforce inappropriate beliefs and

choices regarding sex and relationships²¹⁻²⁴. Nothing is known about sexual behaviour within these self-selected youth subcultures, and this also holds true for the factors that influence such behaviour. Subcultures are based on relatively strong peer bonds, making stronger peer influence rather likely, probably at the expense of weaker parental influence¹⁷.

The aim of this study was to assess the association between subculture affiliation and early sexual initiation, and whether gender, family affluence, peer influence, parental bonding and parental monitoring affect this association.

METHODS

Sample and procedure

We used data from the Health Behaviour in School-aged Children (HBSC) study conducted in 2010 in Slovakia. This WHO collaborative cross-national study is conducted every four years in more than 40 countries across the WHO European Region and North America. In order to obtain a representative sample, 134 larger and smaller schools located in rural- as well as in urban areas from all regions of Slovakia were randomly chosen from a list of schools obtained from the Slovak Institute of Information and Prognosis for Education. We contacted 108 schools, and 106 of these took part in our survey, corresponding to a 98% school response rate. Classes from the 5th to 9th grades were selected randomly, one from each grade per school.

We gathered data from 8491 adolescents attending the 5th to 9th grades of primary schools in Slovakia (response: 80%). Non-response was primarily due to illness (10%) and parental disapproval of their children's participation (7%). Only the 15-year-old adolescents from the 8th and 9th grades were asked questions about subcultures and cannabis use. A final sample of 1605 adolescents (mean age = 15.47 years; 49.7% boys) in the target age group of primary schools in Slovakia was thus obtained. Due to missing responses on the question about youth subcultures, 225 respondents were excluded. Analyses were thus performed on a total sample of 1380 adolescents.

The study was approved by the Ethics Committee of the Medical Faculty at Safarik University in Kosice. Parents were informed about the study via the school administration and could opt out if they disagreed with it. Participation in the study was fully voluntary

and anonymous, with no explicit incentives provided for participation. Adolescents could opt out at any stage. Questionnaires were administered by trained research assistants, in the absence of a teacher, during regular class time.

Measures

Subculture affiliation

Respondents were asked whether they would classify themselves as affiliated with one of the listed subcultures. They were instructed to choose only one alternative, which best described their affiliation. Possible responses were: *Hip-hop/Punk/Skinheads/Techno-scene/Metal/Church community/Other/I would not classify myself as affiliated with any subculture*. Those who classified themselves as affiliated with a specific subculture (Hip-hop, Punk, Skinheads, Techno-scene, Metal) were categorised as ‘adolescents with a subculture affiliation’. The remainder of the sample was categorised as ‘adolescents without a subculture affiliation’.

Sexual intercourse

Respondents were asked whether they had ever had sexual intercourse (for better understanding other colloquial terms were used as an example of fully penetrative sexual intercourse, such as ‘making love’, ‘having sex’, or ‘going all the way’). Possible responses were: *yes/no*.

Peer influence

Respondents were asked how many (*any/several/most/all*) of the friends with whom they spent most of their free time, in their opinion, had had sex. Those who reported that most or all of those friends had had sex were considered to be ‘exposed to peer influence’.

Parental monitoring

Respondents were asked about their perception of what their mother and father knew about their activities and whereabouts^{16,25}. For each of the five items there were four answer options (*she/he knows a lot/knows a little/doesn't know anything/don't have or don't see mother/father*). Factor analysis was used to create two latent variables: mother's monitoring and father's monitoring. The higher adolescents scored in parental

monitoring, the higher were their levels of perceived parental monitoring.

Parental bonding

Respondents were asked about emotional support and promotion of autonomy from their mother and father separately^{16,26}. For each of the eight items participants could choose from four possible answers (*almost always/sometimes/never/don't have or see this person*). Of the initial eight items, two were excluded from the scale based on scale reliability analysis. The remaining six items showed satisfactory consistency (Cronbach's $\alpha = 0.83$ for the mother; Cronbach's $\alpha = 0.94$ for the father). Factor analysis was used to create two latent variables: mother's bonding and father's bonding. The higher adolescents scored in parental bonding, the higher were their levels of perceived parental bonding.

Family affluence

This parameter was measured using the Family Affluence Scale II (FAS II)^{16,27}, which consists of four questions: How many computers does your family own (*None/One/Two/More than two*)? Does your family own a car, van or truck (*No/Yes, one/Yes, two or more*)? Do you have a bedroom only for yourself (*No/Yes*)? During the past 12 months, how many times did you go on holiday with your family (*Not at all/Once/Twice/More than twice*)? We tallied the positive answers (range 0–9) and categorised them as follows: low affluence (score = 0–3), middle affluence (score = 4–6), and high affluence (score = 7–9).

Statistical analyses

We first described the background characteristics of the sample. Differences in the rate of sexual initiation, background characteristics, degree of sexual activity of peers and parental influence between adolescents with- and those without a subculture affiliation were assessed using the chi-squared test. Next, we performed multivariate logistic regression analyses regarding the association of subculture affiliation, and gender, family affluence, peer influence, parental bonding, and parental monitoring, with early sexual initiation (Model 1). We then adjusted for gender and family affluence (FAS) (Model 2). Model 3 was further adjusted for peer influence. Finally, we adjusted for a

lack of parental bonding and parental monitoring, separately and jointly (Models 4, 5). The degree of reduction of the Odds Ratios (ORs) was computed using the formula: $(OR [crude] - OR [adjusted]) / (OR [crude] - 1) \times 100\%$. All data were analysed using SPSS 16.0 for Windows.

RESULTS

Almost 50% of the adolescents reported an affiliation with one of the selected youth subcultures. Boys reported a subculture affiliation significantly more often than girls. A check for representativeness revealed that we were missing data on subculture affiliation for 225 respondents; however, only trivial differences were found in regard to experience with sexual intercourse between those 225 youths and the remainder of the sample. Adolescents with a subculture affiliation reported sexual intercourse and peer influence significantly more often than did the others (Table 1). We also found that youngsters with a subculture affiliation received significantly less parental monitoring and maternal bonding than others (Table 1).

Adolescents with a subculture affiliation were more than twice as likely to have had sexual intercourse

than those who stated they had no such affiliation (OR: 2.33, 95% confidence interval [CI]:1.59–3.40; Table 2, Model 1). Boys were 1.6 times more likely to report early sexual initiation than girls, and adolescents admitting to having sexually experienced peers were nearly nine times more likely to report early sexarache than those without such peers. Early sexual debut was also more likely in respondents reporting lower parental bonding and lower parental monitoring. We did not find an association of family affluence with early sexual initiation.

Adding gender and family affluence to the model did not affect the strength of the associations of subculture affiliation with the experience of sexual intercourse (OR: 2.25, 95% CI: 1.53–3.33; Table 2, Model 2). Adding peer influence explained 49% of the association of subculture affiliation with sexual intercourse (OR: 1.84, 95% CI: 1.22–2.78; Table 2, Model 3). Adding parental bonding to the model further weakened this association (by another 17%), but it still remained statistically significant. Both mother's and father's bonding were significantly associated with the probability of sexual intercourse among adolescents (OR: 1.72, 95% CI: 1.14–2.62; Table 2, Model 4). Adding parental monitoring to the model

Table 1 Rate of sexual initiation, background characteristics, degree of sexual activity of peers, and parental influence by subculture affiliation (chi-squared test).

	Adolescents with subculture affiliation		Adolescents without subculture affiliation		Total N= 1380	p-value*
	n= 650	%	n= 730	%		
Sexual initiation	106	17	53	7	159	<0.001
<i>Gender</i>						<0.001
Boys	387	60	267	37	654	
Girls	263	41	463	64	726	
<i>Family affluence</i>						ns
Low	163	27	192	27	355	
Medium	332	54	357	51	689	
High	116	19	153	22	269	
Most friends sexually active	97	16	53	7	150	<0.001
<i>Parenting</i>	Mean score (SD)		Mean score (SD)		N	
<i>Bonding</i>						
Mother	21.24 (2.86)		21.57 (2.37)		1337	<0.05
Father	19.53 (4.68)		19.82 (4.21)		1329	ns
<i>Monitoring</i>						
Mother	17.47 (2.69)		18.32 (2.08)		1343	<0.001
Father	15.61 (4.00)		16.06 (3.76)		1343	<0.05

SD, standard deviation; ns, not significant.

Table 2 Crude effects of early sexual initiation and other covariates (Model 1) and associations of subculture affiliation with early sexual intercourse initiation subsequently adjusted for gender and family affluence (Model 2), peers' influence (Model 3), parental bonding and parental monitoring (Models 4,5).

		Model 1	Model 2	Model 3	Model 4	Model 5
		OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Sexual experience	N = 1195					
Subculture affiliation	No	1 (reference)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Yes	2.33 (1.59-3.40)***	2.25 (1.53-3.33)***	1.84 (1.22-2.78)**	1.72 (1.14-2.62)*	1.70 (1.11-2.59)*
Gender	Girls	1 (reference)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Boys	1.61 (1.18-2.20)**	1.18 (0.80-1.72)	1.32 (0.88-1.97)	1.36 (0.90-2.05)	1.35 (0.89-2.06)
Family affluence	High	1 (reference)	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Middle	0.77 (0.52-1.15)	0.86 (0.54-1.37)	0.89 (0.54-1.46)	0.82 (0.49-1.35)	0.82 (0.49-1.35)
	Low	0.67 (0.42-1.08)	0.76 (0.44-1.31)	0.84 (0.47-1.49)	0.65 (0.36-1.19)	0.66 (0.36-1.20)
Peers having sex	No	1 (reference)		1 (reference)	1 (reference)	1 (reference)
	Yes	8.88 (6.10-12.92)***		8.09 (5.28-12.40)***	7.92 (5.12-12.25)***	7.78 (5.02-12.08)***
Parental bonding	Father	0.75 (0.65-0.87)***			0.81 (0.68-0.98)*	0.84 (0.62-1.13)
	Mother	0.74 (0.65-0.85)***			0.72 (0.61-0.84)***	0.74 (0.60-0.90)**
Parental monitoring	Father	0.83 (0.72-0.96)*				0.96 (0.71-1.31)
	Mother	0.79 (0.69-0.90)***				0.94 (0.76-1.17)

OR, odds ratio; CI, confidence interval; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

led to a trivial change in the association of subculture affiliation with sexual intercourse, but decreased the effect of mother's and father's bonding (OR: 1.70, 95% CI: 1.11–2.59; Table 2, Model 5).

DISCUSSION

The aim of this study was to assess the association between subculture affiliation and early sexual initiation, and whether gender, family affluence, peer influence, parental bonding and parental monitoring explain this association. Adolescents with a subculture affiliation were significantly more likely than others to have had sexual intercourse, and they reported having significantly more sexually active peers. They also perceived significantly less parental bonding and monitoring.

Peer influence and lack of parental bonding and parental monitoring are associated with a higher risk of early sexual initiation. These factors mediated most of the differences between adolescents with a subculture affiliation and others, i.e., they jointly explained 90% of the association of subculture affiliation with early sexual initiation. However, after adjustment for all these factors, this association remained statistically significant.

The prevalence of sexual experience among 15-year-old Slovak adolescents is the lowest among the European countries involved in the HBSC study²⁸. The average prevalence of sexual experience in HBSC countries for 15-year-olds is 23% among girls and 29% among boys. This is nearly double that among Slovak adolescents. The mean age of sexual debut in Slovakia is 17.8 years, which is almost three years more than the age of the participants in the HBSC study whom we assessed. The Slovak adolescents in our sample were more sexually experienced than the average Slovak youth.

Boys were more likely than girls to report having had sex and to have a subculture affiliation. The higher prevalence of reported coitus among boys is in line with some previous studies^{13,16}. According to the HBSC study, boys in the participating countries are more likely to report having had sex, although this gender difference is statistically significant only in a minority of countries¹⁶. Moreover, there are wide variations between countries, with no clear geographical patterns emerging^{12,15,16}. Family affluence had no effect on early sexual initiation, which is in line with previous HBSC results regarding Slovakia. In most Central and Eastern European countries a significant

association was found between having had sexual intercourse and family affluence¹⁶. However, worldwide results are again inconsistent^{12,15,16,29}. Family affluence did not seem to play a systematic role in the association between subculture affiliation and early sexual debut in our study. Moreover, adolescents with subculture affiliation did not differ in family affluence from other teenagers, which could simply be because youths with different social backgrounds can share similar values particular to a given subculture³⁰.

Adding peer influence explained a substantial part (49%) of the association between subculture affiliation and early sexarche. A strong influence from peers is in line with previous studies which found that attitudes, perceptions and sexual behaviours of peers are important determinants of such initiation^{3,31}. Moreover, involvement with deviant peers, often a core aspect of youth subcultures⁵, is also considered to be a risk factor for early sexual debut¹⁷. We can assume that mixed gender peer groups connecting individuals with the same subculture affiliations and with positive attitudes towards sexual intercourse are creating an environment that makes early sexarche more likely. Although a big part of the association with an early first experience of coitus runs via peer influence, subculture affiliation remains a strong and statistically significant factor.

Rates of parental bonding were lower among adolescents with subculture affiliation, and adjustment for parental bonding decreased the association between subculture affiliation and early sexarche (17%). Our findings are in line with previous studies which found parental bonding to be associated not only with delay of sexual debut^{19,32}. These studies also showed an association of parental bonding with healthier sexual behaviours such as a lower number of sexual partners or use of contraceptives and condoms.

Parental monitoring, especially by the mother, seems to protect against early sexual initiation, but adding it to the model barely affected the association between subculture affiliation and early sexarche. Our data are again in line with those of other investigators^{12,20}. Moreover, De Graaf *et al.* concluded that parental monitoring is more important for healthy sexual development than parental bonding³². We have shown that – even though monitoring is important – it does not explain differences in relation to subculture affiliation, whereas parental bonding does. Possibly bonding creates an environment wherein parents can monitor adolescents more effectively via the latter's self-disclosure³³,

making parental influence beyond direct parental supervision possible³². Apparently, this occurs to a lesser degree among teenagers with a subculture affiliation.

The association between subculture affiliation and early sexual initiation was partially explained by peer influence and a lack of protective factors; even after all adjustments, this association remained statistically significant. Other factors than those studied also make it more likely that adolescents with a subculture affiliation become sexually active. One such factor might be music preference²² connected to the particular youth subculture or substance use^{15,34}. Likewise, physiological and psychological factors^{12,18,35}, unsupervised time spent with peers and the opposite gender³⁶, and the drive to have sex¹⁸ may play a role. The lack of protective factors, such as bonds with parents, may lead to typical adolescent rebellion against parents and against conforming to society, as is embodied in youth subcultures. This could be a consequence of parents' difficulties encountered in monitoring or supervising more problematic adolescents effectively³⁷, or in contrast, this rebellion could be a consequence of an over-protective upbringing³⁸. Yet another explanation might simply be the desire of youths with a subculture affiliation to behave in a way other than is expected by society and their parents.

Strengths of our study are the representativeness of the sample and the assessment of an important and thus far unexplored topic. A limitation of this study could be that we miss data on subculture affiliation from 225 respondents. However, only trivial differences were found regarding experience with sexual intercourse between those 225 adolescents and the remainder of the sample. Including older age groups might contribute to our understanding of factors that influence sexual behaviour, especially in teenagers with less sexual experience.

Another weakness is that we only included a question on vaginal intercourse. Sexual activity in adolescents consists of a variety of non-coital and coital acts, and some authors stress the importance of covering sexual behaviour in its full range³⁹. Unfortunately, we

could not do this. Another limitation of our study is that we did not address the sexual orientation. Thus not all respondents may have been referring to vaginal intercourse when mentioning sexual activity⁴⁰. Our findings should thus be generalised with caution.

The cross-sectional design of our study is still another limitation: it did not allow us to explore causal pathways.

Our findings imply that early sexual initiation is much more frequent in adolescents with a subculture affiliation, even when higher peer influence or lower parental bonding and monitoring are accounted for. Other risky and rule-breaking behaviours which, at any rate, are encountered in this age-group⁴¹, also occur more in youth subcultures⁵. This should be taken into account when planning preventive activities aimed at preserving sexual health in these subcultures: they should be adapted to the youth subcultures concerned.

CONCLUSION

Youth subculture affiliation is strongly associated with early sexual initiation. This link is to a great extent mediated by peer influence and a lack of protective factors such as parental monitoring and bonding.

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