

Fighting, Truancy and Low Academic Achievement in Youth Subcultures

YOUNG
23(4) 357-372
© 2015 SAGE Publications and
YOUNG Editorial Group
SAGE Publications
sagepub.in/home.nav
DOI: 10.1177/1103308815596905
<http://you.sagepub.com>



Daniela Bobakova^{1,2,3}

Andrea Madarasova Geckova^{1,2,3}

Daniel Klein⁴

Jitse P. van Dijk^{1,3,5}

Sijmen A. Reijneveld^{1,5}

Abstract

Lifestyle, music preference, shared values and behaviours of young people can be understood to be components of youth subcultures. Little is known about the association between affiliation with non-mainstream subcultures and problem behaviour. The aim of this study was to assess the association between subculture affiliation and fighting, truancy and low academic achievement, and to determine whether lack of parental knowledge and parental bonding accounts for these associations. Our results showed that youth subculture affiliation is a strong risk factor regarding the above-mentioned behaviours and that part of this risk is accounted for by a lack of protective factors.

Keywords

adolescence, youth subcultures, fighting, truancy, low academic achievement, parental knowledge, parental bonding

Youth subcultures are complex value orientations (aesthetical, political), symbols and patterns of behaviour and lifestyles of groups of young people formed within a dominant culture (Latysheva, 2011; Nicholas, 2009). These groups have also been denoted by other terms, such as, youth cultures, neo-tribes, lifestyles and/or scenes, in order to capture the postmodern nature of these groupings. According to many authors, these seem to have changed from a rather stable or fixed affiliation with youth subcultures to a more fluid or multiple affiliations with certain lifestyles or

¹ Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic.

² Department of Health Psychology, Safarik University, Kosice, Slovak Republic.

³ Olomouc University Social Health Institute, Palacky University in Olomouc, Czech Republic.

⁴ Institute of Mathematics, Science Faculty, Safarik University, Kosice, Slovak Republic.

⁵ Department of Community & Occupational Health, University of Groningen, Groningen, the Netherlands.

Corresponding author:

Daniela Bobakova, Department of Health Psychology, Safarik University, Trieda SNP 1 040 01 Kosice, Slovak Republic.

E-mail: Daniela.Bobakova@upjs.sk

neo-tribes. That is similar to moving from a rather high degree of commitment to a lower commitment, due to their more transient nature (Bennett, 1999, 2011; Blackman, 2005; Hodkinson and Deicke, 2007; Shildrick and McDonald, 2006). Some authors have also marked this transition as moving to a post-subcultural era (Blackman, 2005).

However, we decided to adhere to the term 'youth subcultures' as this satisfactorily captures the nature of the phenomenon in Slovak settings. The situation in Central Europe might differ due to the delayed and lately accelerated emergence of the youth subcultures in the environment of the post-communist countries after the Velvet revolution in 1989 (Bobakova et al., 2012). In these countries, subcultures were a form of escape from the formal disciplinary authority, which caused that the growing importance of youth subcultures is characterized by its delay (Dzambazovic and Klobucky, 1999). According to Dzambazovic and Klobucky (1999), in Slovakia, all subcultures mutually coexist and are constantly recycled in various forms.

Music preference as the core component of youth subcultures (Hodkinson and Deicke, 2007) also plays an important role in, for example, peer-group formation (Bakagiannis and Tarrant, 2006; Selfhout et al., 2009), adolescents' identity finding, self-perception, shared values and conflicts (Baker and Bor, 2008; Schwartz, 2004). Affiliation with youth subcultures seems to be associated with problem behaviours (Dowd and Dowd, 2003; Selfhout et al., 2008; Singer et al., 1993; van der Rijt et al., 2002; Verkooijen et al., 2007). Subcultures, such as, Punk (3.7 per cent), Skinheads (0.8 per cent), Techno scene (9.9 per cent), Metal (6.7 per cent) and especially Hip-hop (26.0 per cent), were found to be quite popular among Slovak adolescents and strongly associated with substance use (Bobakova et al., 2012). Substance use is commonly associated with other problem behaviours, such as, fighting, truancy and low academic achievement (Fleming et al., 2010; Fraga et al., 2011; Henry, 2010; Reid, 2010; Swahn et al., 2009), and the accumulation of these factors seems to be rather hazardous regarding successful adulthood and health-related outcomes (Childs et al., 2011; Haller et al., 2010; Jessor, 1991). Family factors, such as, parental knowledge and parental bonding, were found to be protective factors with regard to adolescents' fighting, truancy and academic achievement (Connell et al., 2011; Henry, 2007; Kristjansson and Sigfusdottir, 2009; Solomon et al., 2008; Springer et al., 2006).

More is known about the association between music preference and problem behaviours than is known about youth subculture affiliation and such associations. Previous studies have associated musical genres, such as, Hip-hop/Rap, Punk/Hardcore and Rock with substance use, fighting, stealing and having unprotected sexual intercourse (Miranda and Claes, 2004; Mulder et al., 2007; Mulder et al., 2009; Schwartz, 2004; Tanner et al., 2009). Only one recent study examined the association between music preference and academic achievement (Bannon, 2006) but did not find them to be associated. Moreover, nothing is known about the association between music preference and truancy.

Current Study

Different types of problem behaviours are highly correlated, predict and are predicted by each other and have many of the same risk and protective factors (Flay, 2002). Norm-breaking behaviour that creates one separate cluster comprising, for

example, physical aggression or delinquency (van Nieuwenhuijzen et al., 2009) might thus also comprise fighting, truancy and/or low academic achievement.

Adolescents feel the need to be accepted and respected and yet also to become individuals (Erikson, 1980). During this process, both parents and peers are influential, but their influence varies depending on which aspects of life are considered (study habits, academic activities, substance use, sexual socialization) (Wang et al., 2009). The influence of parents is generally decreasing, and the influence of peers and peer groups is increasing (De Goede et al., 2009). In peer groups, it is not only adolescents' positive self-evaluation through social comparison which can be formed (Tarrant, 2002); while longing for acceptance among group of friends, adolescents can also assume norms and behaviour patterns which are often manifested as problem behaviours (Berger and Rodkin, 2012; Nurmi, 2004; Tarrant et al., 2006). Therefore, parenting that concerns not only authority and control with clear parent-child boundaries but also considerable empathy with children's emotional states and ways of thinking is important (Maccoby, 1992). Parental knowledge and parental bonding were found to be strong mediators of adolescents' problem behaviours (Barnes et al., 2006; Raboteg-Saric et al., 2001; Wang et al., 2011; Wills and Yaeger, 2003).

There is a lack of studies that relate problem behaviours directly to subculture affiliation rather than only to musical preferences related to subcultures. Only in regard to fighting does some evidence exist showing such behaviours to be more likely among youth affiliated with non-mainstream subcultures (Selfhout et al., 2008; Simi et al., 2008). Moreover, the evidence is scarce in regard to academic achievement and truancy. Thus, the aim of this study was to assess the association between subculture affiliation and fighting, truancy and low academic achievement, and to determine whether a lack of parental knowledge and parental bonding accounts for these associations. As was previously shown, given the association between youth subculture affiliation and substance use, which is commonly associated with other problem behaviours, we hypothesize that adolescents with a subculture affiliation will be more likely to fight, skip school and achieve lower at school compared with other adolescents. We also expect parental knowledge and parental bonding to mediate the effect of subculture affiliation on the problem behaviour examined, as these are commonly protective factors.

Methods

Sample and Data Collection

We used data from the Health Behaviour in School-aged Children (HBSC) study conducted in Slovakia in 2010. In order to create 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 them took part in our survey, representing a 98.1 per cent school response rate. Classes from the 5th to 9th grades were selected randomly, one from each grade per school.

We obtained data from 8,491 adolescents from the 5th to 9th grades of elementary schools in Slovakia (response: 79.5 per cent). Non-response was primarily due to illness (10.3 per cent) and parental disapproval of their children's participation

(7.4 per cent). Only the 15-year-old adolescents from the 8th and 9th grades were asked questions about subcultures and cannabis use. There were 4,321 students registered in the 8th and 9th grades, mostly 13–16 years old, and 3,676 students actually filled in the questionnaire (response: 85.1 per cent). This represents a final sample of 1,605 15-year-old adolescents (mean age = 15.47, 49.7 per cent boys) in the target age group of elementary schools in Slovakia. Due to missing responses on the question about youth subcultures, 225 respondents were excluded. Analyses were thus performed on a total sample of 1,380 adolescents.

The study was approved by the Ethics Committee of the Medical Faculty at PJ 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. In order to provide standard conditions requested by the protocol of the study, all questionnaires were administered by trained research assistants in the absence of a teacher during regular class time. This was done with the intention of minimizing undesirable interference by external influences and social desirability when answering questions on sensitive topics.

Measures

Subculture affiliation: Respondents were asked whether they would classify themselves as affiliated with one of the listed subcultures. They were asked to choose only one alternative—the one 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 categorized as ‘adolescents with a subculture affiliation’. The rest of the sample (Church community, Other and No affiliation) was categorized as ‘adolescents without a subculture affiliation’. Youth subcultures as presented are mostly created around the specific genre of music (Gospel, Hip-hop/Rap, Punk, Oi-Punk, Techno/House/Rave, Metal/Heavy-Metal/Rock, etc.) but understood as a wider lifestyle construct. These subcultures are the most present ones in Slovakia (Bobakova et al., 2012).

Fighting: Respondents were asked how many times they had been in a physical fight during the past 12 months, with possible responses *I have not been in a physical fight in the past 12 months / 1 time / 2 times / 3 times / 4 or more times* (Brenner et al., 1995; Currie et al., 2008a). Those who reported being in a physical fight at least three times were categorized as ‘frequent fighters’.

Truancy: Respondents were asked how many times they had stay away from school for at least a whole day without a legitimate excuse in the past 12 months, with possible responses *Never / One or two times / 3 times or more* (Zhang et al., 2000). Those who reported skipping school at least three times were categorized as ‘truants’.

Academic achievement: Respondents were asked about their perception of how teachers evaluate their academic performance compared with that of their classmates, with possible responses *Very well / Well / Average / Below average* (Currie et al., 2008a). Those who reported average and lower academic achievement were categorized as ‘academically less successful’.

Parental knowledge: Respondents were asked about their perception of what their mother and father knew about their activities and whereabouts (Brown and Mounts, 1993; Currie et al., 2008a). Each of the five items (*How much does your mother/father really know about? (1) Who your friends are? (2) How you spend your money? (3) Where you are after school? (4) Where you go at night? (5) What you do with your free time?*) contained 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 and father's knowledge. Two factors were extracted: five items concerning the mother and five concerning the father were loaded into two factors separately with factor loadings varying from 0.72 to 0.785 for the first factor (mother's knowledge) and from 0.854 to 0.876 for the second one (father's knowledge). These items showed satisfying consistency (Cronbach's $\alpha = 0.83$ for the mother; Cronbach's $\alpha = 0.93$ for the father). The higher adolescents scored in parental knowledge, the higher were their levels of perceived parental knowledge. Separate factor scores for the mother and the father were used in the analyses.

Parental bonding: Respondents were asked about emotional support and promotion of autonomy from their mother and father separately (Currie et al., 2008a; Parker et al., 1979). Each of the eight items (*My mother/father (1) Helps me as much as I need, (2) Lets me do the things I like doing, (3) Is loving, (4) Understands my problems and worries, (5) Likes me to make my own decisions, (6) Tries to control everything I do, (7) Treats me like a baby, (8) Makes me feel better when I am upset*) contained four answer options (*Almost always / Sometimes / Never / Don't have or see this person*). Factor analysis was used to create two latent variables: mother's and father's bonding. From the initial 16 items, four were excluded from the scale (two concerning father and two concerning mother). This increased the explained variation; thus, these two factors were extracted, leaving six items concerning mother and six concerning father. These were then loaded into two factors separately, with factor loadings varying from 0.647 to 0.784 for the first factor (mother bonding) and from 0.833 to 0.897 for the second one (father bonding). These items showed satisfying consistency (Cronbach's $\alpha = 0.83$ for the mother; Cronbach's $\alpha = 0.94$ for the father). The higher adolescents scored in parental bonding, the higher were their levels of perceived parental bonding. Separate factor scores for the mother and the father were used in the analyses.

Family affluence: was measured using the Family Affluence Scale II (FAS II) (Currie et al., 2008a, 2008b), 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 your own bedroom for yourself (*No / Yes*)? During the past 12 months, how many times did you travel away on holiday with your family (*Not at all / Once / Twice / More than twice*)? The sum score was computed, and a three-point ordinal scale was used in the analysis: low affluence (score = 0–3), middle affluence (score = 4–6) and high affluence (score = 7–9).

Results

We first described the background characteristics of the sample and tested correlations between fighting, truancy and academic achievement. Boys reported subculture affiliation significantly more often than girls. Adolescents with a subculture

Table 1. Descriptive Statistics by Subculture Affiliation

	Adolescents with a Subculture Affiliation		Other Adolescents		Total N = 1,380	p-Value*
	N = 650	(%)	N = 730	(%)		
Gender						<0.001
Boys	387	59.5	267	36.6	654	
Girls	263	40.5	463	63.4	726	
Family affluence						ns
Low	163	26.7	192	27.4	355	
Medium	332	54.4	357	50.9	689	
High	116	19.0	153	21.8	269	
Risk behaviour						
Fighting	97	15.1	55	7.6	152	<0.001
Truancy	50	6.8	67	10.4	117	<0.05
Academic achievement	262	40.6	112	25.5	447	<0.001
Parenting	Mean (SD)		Mean (SD)		N	
Monitoring						
Mother	17.47 (2.69)		18.32 (2.08)		1,343	<0.001
Father	15.61 (4.00)		16.06 (3.76)		1,343	<0.05
Bonding						
Mother	21.24 (2.86)		21.57 (2.37)		1,337	<0.05
Father	19.53 (4.68)		19.82 (4.21)		1,329	ns

Source: Authors' own.

Notes: * based on chi-square test; ns—not significant.

affiliation reported fighting, skipping school and low academic achievement significantly more often than other adolescents (Table 1). We also found that adolescents with a subculture affiliation received significantly less parental knowledge and maternal bonding compared with others (Table 1). We found weak (although statistically significant) correlations between fighting, truancy and academic achievement (Table 2).

Table 2. Mutual Correlation Coefficient between Fighting, Truancy and Academic Achievement

	Fighting	Truancy	Academic Achievement
Fighting	1		
Truancy	0.22***	1	
Academic achievement	0.23***	0.19***	1

Source: Authors' own.

Note: *** p < 0.001.

Next, we performed multivariate logistic regression analyses regarding the association of subculture affiliation with fighting, truancy and academic achievement (Model 1). Then, we adjusted for gender and FAS (Model 2). Finally, we additionally adjusted for parental knowledge and parental bonding (Model 3). Adolescents with a subculture affiliation were significantly more likely than other adolescents to fight, skip school and achieve lower at school (Table 3, Model 1). Adding gender and family affluence to the model substantially accounted for these associations. It weakened the association of subculture affiliation with fighting by 42.9 per cent and with low academic achievement by 33.7 per cent (Table 3, Model 2). This adjustment also strengthened the association of subculture affiliation with truancy by 22.2 per cent (Table 3, Model 2). Adding parental bonding and particularly parental knowledge further weakened all associations, by another 21.9 per cent in regard to fighting, 32.5 per cent in regard to truancy and 27.7 per cent in regard to low academic achievement (Table 3, Model 3). A part of the association between fighting, truancy and lower academic achievement and youth subcultures is accounted for by a lack of parental bonding and parental knowledge. The degree of reduction of the odds ratios (ORs) was computed using the formula: $(OR[\text{crude}] - OR[\text{adjusted}]) / (OR[\text{crude}] - 1) \times 100$ per cent.

We also assessed whether parental knowledge and parental bonding were modified by subculture affiliation, and this did not show any statistically significant interaction effect (not shown).

All data were analyzed using SPSS 16.0 for Windows.

Table 3. Associations of Subculture Affiliation with Fighting, Truancy and Low Academic Achievement: Odds Ratios (OR) and 95 Per Cent Confidence Intervals (CI)

	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Fighting N = 1,213			
Subculture affiliation			
No	1 (Reference)	1 (Reference)	1 (Reference)
Yes	2.12 (1.46–3.09)***	1.64 (1.11–2.41)*	1.50 (1.01–2.22)*
Gender			
Girls		1 (Reference)	1 (Reference)
Boys		3.69 (2.41–5.64)***	3.44 (2.23–5.31)***
Family affluence			
High		1 (Reference)	1 (Reference)
Middle		1.21 (0.74–1.98)	1.29 (0.79–2.12)
Low		0.85 (0.48–1.53)	0.92 (0.50–1.67)
Parenting			
Father monitoring			0.81 (0.59–1.11)
Mother monitoring			0.66 (0.54–0.81)***
Father bonding			1.16 (0.86–1.56)
Mother bonding			1.30 (1.04–1.62)*

(Table 3 Continued)

(Table 3 Continued)

	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Truancy N = 1,221			
Subculture affiliation			
No	1 (Reference)	1 (Reference)	1 (Reference)
Yes	1.47 (0.98–2.22)	1.56 (1.02–2.38)*	1.26 (0.82–1.96)
Gender			
Girls		1 (Reference)	1 (Reference)
Boys		0.89 (0.58–1.36)	0.84 (0.54–1.31)
Family affluence			
High		1 (Reference)**	1 (Reference)*
Middle		1.48 (0.29–0.77)**	0.47 (0.29–0.78)**
Low		0.57 (0.33–0.99)*	0.56 (0.32–1.00)*
Parenting			
Father monitoring			0.51 (0.37–0.71)***
Mother monitoring			0.61 (0.49–0.75)***
Father bonding			1.51 (1.10–2.08)*
Mother bonding			1.11 (0.89–1.39)
Academic achievement N = 1,217			
Subculture affiliation			
No	1 (Reference)	1 (Reference)	1 (Reference)
Yes	1.98 (1.55–2.53)***	1.65 (1.28–2.14)***	1.47 (1.13–1.91)**
Gender			
Girls		1 (Reference)	1 (Reference)
Boys		2.36 (1.82–3.05)***	2.32 (1.78–3.03)***
Family affluence			
High		1 (Reference)**	1 (Reference)*
Middle		1.57 (1.11–2.22)*	1.55 (1.09–2.22)*
Low		1.87 (1.28–2.75)**	1.74 (1.17–2.60)**
Parenting			
Father monitoring			0.88 (0.71–1.09)
Mother monitoring			0.71 (0.61–0.82)***
Father bonding			0.91 (0.73–1.12)
Mother bonding			0.90 (0.78–1.05)

Source: Authors' own.

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Discussion

The aim of this study was to assess the association between subculture affiliation and fighting, truancy and low academic achievement, and to determine whether a lack of parental knowledge and parental bonding accounts for these associations. Adolescents with a subculture affiliation are more likely to fight, skip school and achieve lower

at school compared with other adolescents when controlling for gender and family affluence. Parental bonding and particularly parental knowledge significantly accounted for fighting, truancy and low academic achievement in adolescents with a subculture affiliation. Nevertheless, part of the association between subculture affiliation and fighting or low academic achievement remained unexplained. Youth subculture affiliation thus seems to be a strong risk indicator regarding fighting, truancy and low academic achievement, which cannot be fully accounted for by a lack of protective factors.

Fighting was found to be significantly associated with subculture affiliation even when controlling for gender, family affluence and a lack of protective factors. Boys seem to be fighters more frequently than girls and to have a subculture affiliation more often than girls. In youth subcultures, such behaviour might be considered as a symbol of masculinity and predominance, but it occurs among girls as well. Girls are even more prone to psychological distress when experiencing such behaviour (Landstedt and Gadin, 2011). Adjustment for parental knowledge caused a modest decrease in the association between subcultural affiliation and frequent fighting. Interestingly, adjustment for maternal bonding increased the likelihood of fighting among adolescents affiliated with subcultures, even though the average level of bonding did not vary by affiliation status. According to Farrell et al. (2011), the protective effect of parental bonding regarding fighting depends on the nature of the messages parents convey, whether they support nonviolent solutions rather than fighting. Further research is needed on whether the type of bonding indeed varies by subculture affiliation.

Truancy was found to be significantly associated with subculture affiliation when controlling for gender and family affluence, but this association was fully accounted for by the lack of parental knowledge. Even if affiliation with youth subcultures is disregarded, boys and those with low socio-economic status are more likely to skip school (Veenstra et al., 2010), which holds for our sample too. But girls affiliated with youth subcultures seem to be more likely to skip school, and family affluence does not seem to play a role in such cases. Parental knowledge seems to be an effective protective factor regarding truancy in youth subcultures, unlike parental bonding, which does not seem to play an important role here.

Subculture affiliation appears to be an important risk factor also with regard to lower academic achievement, which can be further related to the above-mentioned truancy and other undesirable outcomes (Henry, 2010). Our findings that boys and those with lower family affluence are more likely to achieve lower at school are in line with previous studies (Currie et al., 2008a; Jaeger, 2011). Parental knowledge partially accounted for the association between subculture affiliation and lower academic achievement, but this association remained statistically significant. Parental bonding also does not seem to be important in regard to low academic achievement in youth subcultures, although previously it was found to be influential (Rothon et al., 2012; Wondimu et al., 2010).

Our results suggest that part of the association between fighting, truancy and lower academic achievement and youth subcultures is accounted for by a lack of protective factors. Regarding youth subcultures, parental knowledge seems to be of higher importance than parental bonding. The relationship with parents affects attitudes towards school and norms, which then affects involvement in various offending behaviours (Estevez and Emler, 2010). Parental bonding is related to adolescents' openness in communication and willingness to conform to parental rules (Keijsers et al., 2009; Tomcikova, 2011). More troubled adolescents, such as, those

affiliated with youth subcultures, might be more difficult to monitor or supervise effectively (Jacobson and Crockett, 2000), which may consequently lead to an accumulation of problem behaviours. On the other hand, a lack of parental knowledge could lead to exaggerated expression of rebellion against conformity to parental or social rules (Nurmi, 2004) embodied in youth subcultures and also manifested as problem behaviours (McCulloch et al., 2006). The accumulation of problem behaviours in youth subcultures could also be explained in a different way: These subcultures might just be another expression of the desire to be deviant, that is an extreme form of rebellion against conformity.

The strength of our study is that it contains relevant data from a large and representative sample of adolescents. It maps an important part of the spectrum of correlated problem behaviours in an important age period, when such behaviours might have a crucial impact on the successful future of adolescents regarding academic and personal performance. Moreover, our study takes into account the most important protective factors regarding the examined behaviours.

A limitation of this study could be that we were missing data on subculture affiliation from 225 respondents. However, no differences, or merely trivial (although significant) differences, were found regarding fighting, truancy and low academic achievement between those 225 adolescents and the remainder of the sample. As more boys than girls did not answer this question, a small difference was found regarding gender (Cohen's $w = 0.37$). This could have caused a slight underestimate of the proportion of adolescents with a subculture affiliation, as boys were affiliated more frequently. However, the small size of this group makes it unlikely that this had any effect on further findings. Another limitation might be the cross-sectional design of our study, which did not allow us to explore causal pathways. A limitation of our study could also be that we used self-reported data. However, self-reporting of problem behaviour has been previously shown to offer satisfying reliability (Del Boca and Noll, 2000). Moreover, our findings regarding substance use are comparable to a previous HBSC study (Currie et al., 2008a), so we do not expect this to be a source of bias.

Despite some limitations, our findings imply that the risk of fighting, truancy and low academic achievement is higher in adolescents affiliated with youth subcultures. Stimulating parents' knowledge of the risks related to subculture affiliation and their parenting skills, particularly in regard to knowledge, could be a sound strategy to help prevent such behaviours in adolescents affiliated with youth subcultures. As the effect of protective factors seems to be most limited in regard to fighting, it is also important to strengthen adolescent's self-control and their ability to refrain from aggressive behaviour in a high-risk environment. Thus, prevention strategies could be targeted at adolescents with subculture affiliations and their parents, as these adolescents seem to be more prone to accumulate problem behaviours. Our results also suggest that fighting and academic achievement seem to be a more severe problem in boys, who are also more often affiliated to youth subcultures. This supports a gender-specific approach in prevention.

Furthermore, it may be important to explore which protective factors operate in adolescents who do not behave riskily despite their having a subculture affiliation. In general, the causal pathways of risk and protective factors regarding problem behaviours in youth subcultures require further study, preferably in longitudinal designs to disentangle causality.

Youth subculture affiliation is a strong risk factor regarding fighting, truancy and low academic achievement. A part of this risk is accounted for by a lack of protective factors. The protective role of parental bonding and particularly parental knowledge regarding fighting, truancy and low academic achievement in adolescents with a subculture affiliation seems to be of high importance, as these behaviours seem to be not only mutually correlated but also associated with other problem behaviours, such as, substance use. Our findings thus imply that preventive strategies should target adolescents with a subculture affiliation, as they are more prone to accumulate these problem behaviours.

Acknowledgement

This work was partially supported by the Research and Development Support Agency under Contract No. APVV 0032-11 and by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences, Reg. No. 1/0981/15.

References

- Bakagiannis, Sotirios and Tarrant, Mark (2006) 'Can Music Bring People Together? Effects of Shared Musical Preference on Intergroup Bias in Adolescence', *Scandinavian Journal of Psychology* 47(2): 129–36.
- Baker, Felicity and Bor, William (2008) 'Can Music Preference Indicate Mental Health Status in Young People?', *Australasian Psychiatry* 16(4): 284–88.
- Bannon, Brent (2006) 'More than a Feeling? Music Genre Preferences and School Grades of American Youth', Conference Papers—*International Communication Association*, Dresden, Germany: 1–31.
- Barnes, Grace M., Hoffman, Joseph H., Welte, John W., Farrell, Michael P. and Dintcheff, Barbara A. (2006) 'Effects of Parental Monitoring and Peer Deviance on Substance Use and Delinquency', *Journal of Marriage and Family* 68(4): 1084–104.
- Bennett, Andy (1999) 'Subcultures or Neo-tribes? Rethinking the Relationship between Youth, Style and Musical Taste', *Sociology* 33(3): 599–617.
- (2011) 'The Post-subcultural Turn: Some Reflections 10 Years On', *Journal of Youth Studies* 14(5): 493–506.
- Berger, Christian and Rodkin, Philip C. (2012) 'Group Influences in Individual Aggression and Prosociality: Early Adolescence Who Change Peer Affiliations', *Social Development* 21(2): 396–413.
- Blackman, Shane J. (2005) 'Youth Subcultural Theory: A Critical Engagement with the Concept, Its Origins and Politics, from the Chicago School to Post Modernism', *Journal of Youth Studies* 8(1): 1–20.
- Bobakova, Daniela, Madarasova Geckova, Andrea, Reijneveld, Sijmen A. and van Dijk, Jitse P. (2012) 'Youth Subculture Membership is Associated with Substance Use of Adolescents', *European Addiction Research* 18(2): 91–96.
- Brener, Nancy D., Collins, Janet L., Kann, Laura, Warren, Charles W. and Williams, Barbara I. (1995) 'Reliability of the Youth Risk Behavior Survey Questionnaire', *American Journal of Epidemiology* 141(6): 575–80.
- Brown, Bradford B. and Mounts, Nina (1993) 'Parenting Practices and Peer Group Affiliation in Adolescence', *Child Development* 64(2): 467–82.
- Childs, Kristina K., Sullivan, Christopher J. and Gulledege, Laura M. (2011) 'Delinquent Behavior across Adolescence: Investigating the Shifting Salience of Key Criminological Predictors', *Deviant Behavior* 32(1): 64–100.

- Connell, Christian M., Cook, Emily C., Aklin, Will M., Vanderploeg, Jeffrey J. and Brex, Robert A. (2011) 'Risk and Protective Factors Associated with Patterns of Antisocial Behavior among Nonmetropolitan Adolescents', *Aggressive Behavior* 37(1): 98–106.
- Currie, Candace, Gabbainn, Saoirse N., Godeau, Emmanuelle, Roberts, Chris, Smith, Rebeca, Currie, Dorothy, Pickett, Will, Richter, Mathias, Morgan, Antony and Barnekow, Vivian (2008a) *Inequalities in Young People's Health: Health Behaviour in School-aged Children (HBSC) International Report from the 2005/2006 Survey*. Copenhagen: WHO Regional Office for Europe.
- Currie, Candace, Molcho, Michael, Boyce, William, Holstein, Bjorn, Torsheim, Torbjorn and Richter, Mathias (2008b) 'Researching Health Inequalities in Adolescents: The Development of the Health Behaviour in School-aged Children (HBSC) Family Affluence Scale', *Social Science and Medicine* 66: 1429–36.
- De Goede, Irene H.A., Branje, Susan J.T., Delsing, Marc J.M.H. and Meeus, Wim H.J. (2009) 'Linkages over Time between Adolescents' Relationships with Parents and Friends', *Journal of Youth and Adolescence* 38(10): 1304–15.
- Del Boca, Frances K. and Noll, Jane A. (2000) 'Truth or Consequences: The Validity of Self-report Data in Health Services Research on Addictions', *Addiction* 95(3): 347–60.
- Dowd, James J. and Dowd, Laura A. (2003) 'The Center Holds: From Subcultures to Social Worlds', *Teaching Sociology* 31(1): 20–37.
- Dzambazovic, Roman and Klobucky, Robert (eds) (1999) *Sucasne subkultury mladeze (Current youth subcultures)*. Bratislava: Slovak Sociological Society, Slovak Academy of Sciences.
- Erikson, Erik H. (ed.) (1980) *Identity and the Life Cycle*. New York: W. W. Norton.
- Estevez, Estefania and Emler, Nicholas P. (2010) 'A Structural Modelling Approach to Predict Adolescent Offending Behaviour from Family, School and Community Factors', *European Journal on Criminal Policy and Research* 16: 207–20.
- Farrell, Albert D., Henry, David B., Mays, Sally A. and Schoeny, Michael E. (2011) 'Parents as Moderators of the Impact of School Norms and Peer Influences on Aggression in Middle School Students', *Child Development* 82(1): 146–61.
- Flay, Brian R. (2002) 'Positive Youth Development Requires Comprehensive Health Promotion Programs', *American Journal of Health Behavior* 26(6): 407–24.
- Fleming, Charles B., Catalano, Richard F., Haggerty, Kevin P. and Abbott, Robert D. (2010) 'Relationships between Level and Change in Family, School, and Peer Factors during Two Periods of Adolescence and Problem Behavior at Age 19', *Journal of Youth and Adolescence* 39(6): 670–82.
- Fraga, Silvia, Ramos, Elisabete, Dias, Sonia F. and Barros, Henrique (2011) 'Physical Fighting among School-going Portuguese Adolescents: Social and Behavioural Correlates', *Preventive Medicine* 52(5): 401–04.
- Haller, Moira, Handley, Elisabeth, Chassin, Laurie and Bountress, Kaitlin (2010) 'Developmental Cascades: Linking Adolescent Substance Use, Affiliation with Substance Use Promoting Peers, and Academic Achievement to Adult Substance Use Disorders', *Development and Psychopathology* 22(4): 899–916.
- Henry, Kimberly L. (2007) 'Who's Skipping School: Characteristics of Truants in 8th and 10th Grade', *Journal of School Health* 77(1): 29–35.
- (2010) 'Skipping School and Using Drugs: A Brief Report', *Drugs: Education, Prevention and Policy* 17(5): 650–57.
- Hodkinson, Paul and Deicke, Wolfgang (2007) *Youth cultures: Scenes, Subcultures and Tribes*. New York, NY: Routledge.
- Jacobson, Kristen C. and Crockett, Lisa J. (2000) 'Parental Monitoring and Adolescent Adjustment: An Ecological Perspective', *Journal of Research on Adolescence* 10(1): 65–97.

- Jaeger, Mads M. (2011) 'Does Cultural Capital Really Affect Academic Achievement? New Evidence from Combined Sibling and Panel Data', *Sociology of Education* 84(4): 281–98.
- Jessor, Richard (1991) 'Risk Behaviour in Adolescence: A Psychosocial Framework for Understanding and Action', *Journal of Adolescent Health* 12(8): 597–605.
- Keijsers, Loes, Frijns, Tom, Branje, Susan J.T. and Meeus, Wim (2009) 'Developmental Links of Adolescent Disclosure, Parental Solicitation, and Control with Delinquency: Moderation by Parental Support', *Developmental Psychology* 45(5): 1314–27.
- Kristjansson, Alfgeir L. and Sigfusdottir, Inga D. (2009) 'The Role of Parental Support, Parental Monitoring, and Time Spent with Parents in Adolescent Academic Achievement in Iceland: A Structural Model of Gender Differences', *Scandinavian Journal of Educational Research* 53(5): 481–96.
- Landstedt, Evelina and Gadin, Gillander K. (2011) 'Experiences of Violence among Adolescents: Gender Patterns in Types, Predators and Associated Psychological Distress', *International Journal of Public Health* 56(4): 419–27.
- Latysheva, Tatiana V. (2011) 'The Essential Nature and Types of the Youth Subculture Phenomenon', *Russian Education and Society* 53(8): 73–88.
- Maccoby, Eleanor E. (1992) 'The Role of Parents in the Socialization of Children: An Historical Overview', *Developmental Psychology* 28(6): 1006–17.
- McCulloch, Ken, Stewart, Alexis and Lovegreen, Nick (2006) 'We Just Hang Out Together': Youth Cultures and Social Class', *Journal of Youth Studies* 9(5): 539–56.
- Miranda, Dave and Claes, Michel (2004) 'Rap Music Genres and Deviant Behaviors in French-Canadian Adolescents', *Journal of Youth and Adolescence* 33(2): 113–22.
- Mulder, Juul, ter Bogt, Tom F.M., Raaijmakers, Quinten A.W. and Vollebergh, Wilma A.M. (2007) 'Music Taste Groups and Problem Behavior', *Journal of Youth and Adolescence* 36(4): 313–24.
- Mulder, Juul, ter Bogt, Tom F.M., Raaijmakers, Quinten A.W., Gabhainn, Saoirse N., Monshouwer, Karin and Vollebergh, Wilma A.M. (2009) 'The Soundtrack of Substance Use: Music Preference and Adolescent Smoking and Drinking', *Substance Use & Misuse* 44: 514–31.
- Nicholas, Sinclair (2009) 'Subcultures and Countercultures', *Research Starters Sociology* 04: 1–6.
- Nurmi, Jari-Erik (2004) 'Socialization and Self-development. Channeling, Selection, Adjustment, and Reflection', in R.M. Lerner and L.D. Steinberg (eds) *Handbook of Adolescent Psychology*, p. 85. New Jersey: John Wiley and Sons.
- Parker, Gordon, Tupling, Hilary and Brown, L.B. (1979) 'A Parental Bonding Instrument', *British Journal of Medical Psychology* 52(1): 1–10.
- Raboteg-Saric, Zora, Rijavec, Majda and Brajsa-Zganec, Andreja (2001) 'The Relation of Parental Practices and Self-conceptions to Young Adolescent Problem Behaviors and Substance Use', *Nordic Journal of Psychiatry* 55(3): 203–09.
- Reid, Ken (2010) 'Finding Strategic Solutions to Reduce Truancy', *Research in Education* 11: 1–18.
- Rothon, Catherine, Goodwin, Laura and Stansfeld, Stephen (2012) 'Family Social Support, Community 'Social Capital' and Adolescents' Mental Health and Educational Outcomes: A Longitudinal Study in England', *Social Psychiatry and Psychiatric Epidemiology* 47(5): 697–709.
- Schwartz, Kelly (2004) 'Music Preferences, Personality Style, and Developmental Issues of Adolescents', *Journal of Youth Ministry* 3(1): 47–64.
- Selphout, Maarten H.W., Delsing, Marc J.M.H., ter Bogt, Tom F.M. and Meeus, Wim H.J. (2008) 'Heavy Metal and Hip-Hop Style Preferences and Externalizing Problem Behavior: A Two-Wave Longitudinal Study', *Youth and Society* 39(4): 435–52.

- Selfhout, Maarten H.W., Branje, Susan J.T., ter Bogt, Tom F.M. and Meeus, Wim H.J. (2009) 'The Role of Music Preferences in Early Adolescents' Friendship Formation and Stability', *Journal of Adolescence* 32(1): 95–107.
- Schildrick, Tracy and MacDonald, Robert (2006) 'In Defence of Subculture: Young People, Leisure and Social Divisions', *Journal of Youth Studies* 9(2): 125–40.
- Simi, Pete, Smith, Lowell and Reeser, Ann M.S. (2008) 'From Punk Kids to Public Enemy Number One', *Deviant Behavior* 29(8): 753–74.
- Singer, Simon I., Jou, Susyan and Levine, Murray (1993) 'Heavy Metal Music Preference, Delinquent Friends, Social Control, and Delinquency', *Journal of Research in Crime and Delinquency* 30: 317.
- Solomon, Barry S., Bradshaw, Catherine P., Wright, Joseph and Cheng, Tina L. (2008) 'Youth and Parental Attitudes toward Fighting', *Journal of Interpersonal Violence* 23(4): 544–60.
- Springer, Andrew E., Sharma, Shreela, de Guardado, Alba M., Nava, Francisco V. and Kelder, Steven H. (2006) 'Perceived Parental Monitoring and Health Risk Behavior among Public Secondary School Students in El Salvador', *Scientific World Journal* 6(3): 1810–14.
- Swahn, Monica, Alemdar, Meltem, Hamburger, Merle and Donovan, John (2009) 'Alcohol and Violence among Urban Youth: Correlates of Alcohol-related Physical Fighting versus Other Physical Fighting.' Paper presented at the ASC Annual Meeting, Philadelphia, PA, November, 2009.
- Tanner, Julian, Asbridge, Mark and Wortley, Scot (2009) 'Listening to Rap: Cultures of Crime, Cultures of Resistance', *Social Forces* 88(2): 693–722.
- Tarrant, Mark (2002) 'Adolescent Peer Groups and Social Identity', *Social Development* 11(1): 110–23.
- Tarrant, Mark, MacKenzie, Liam and Hewitt, Lisa A. (2006) 'Friendship Group Identification, Multidimensional Self-concept, and Experience of Developmental Tasks in Adolescence', *Journal of Adolescence* 29(4): 627–40.
- Tomcikova, Zuzana (2011) *Parental Divorce and Adolescent Excessive Drinking: Role of Parent-Adolescent Relationship and Other Social and Psychosocial Factors*. Slovak Republic: Graduate School Kosice Institute for Society and Health, PJ Safarik University.
- van der Rijt, Gerrit A.J., d'Haenens, Leen S.J. and van Straten, Pascalle (2002) 'Smoking and Other Substance Use as Distinct Features of Teenage Subcultures', *Journal of Adolescent Health* 31(5): 433–35.
- van Nieuwenhuijzen, Maroesjka, Junger, Marianne, Velderman, Mariska K., Wiefferink, Karin H., et al. (2009) 'Clustering of Health-compromising Behavior and Delinquency in Adolescents and Adults in the Dutch Population', *Preventive Medicine* 48(6): 572–78.
- Veenstra, Rene, Lindenberg, Siegwart, Tinga, Frank and Ormel, Johan (2010) 'Truancy in Late Elementary and Early Secondary Education: The Influence of Social Bonds and Self-control—The TRAILS Study', *International Journal of Behavioral Development* 34(4): 302–10.
- Verkooijen, Kirsten T., de Vries, Nanne K. and Nielsen, Gert A. (2007) 'Youth Crowds and Substance Use: The Impact of Perceived Group Norm and Multiple Group Identification', *Psychology of Addictive Behavior* 21(1): 55–61.
- Wang, Aimin, Peterson, Gary W. and Morpheu, Lori K. (2009) 'Who is More Important for Early Adolescents' Developmental Choices?', *Marriage and Family Review* 42(2): 95–122.
- Wang, Ming-Te, Dishion, Thomas J., Stormshak, Elisabeth A. and Willett, John B. (2011) 'Trajectories of Family Management Practices and Early Adolescent Behavioral Outcomes', *Developmental Psychology* 47(5): 1324–41.

- Wills, Thomas A. and Yaeger, Alison M. (2003) 'Family Factors and Adolescent Substance Use: Models and Mechanisms', *Current Directions in Psychological Science* 12(6): 222–26.
- Wondimu, Ahmed, Minnaert, Alexander, van der Werf, Greetje and Kuyper, Hans (2010) 'Perceived Social Support and Early Adolescents' Achievement: The Mediational Roles of Motivational Beliefs and Emotions', *Journal of Youth and Adolescence* 39(1): 36–46.
- Zhang, Sheldon, Benson, Theodore and Deng, Xiaogang (2000) 'A Test-retest Reliability Assessment of the International Self-report Delinquency Instrument', *Journal of Criminal Justice* 28(4): 283–95.

Authors' Bio-sketch

Daniela Bobakova, PhD, received her Masters' degree in social work from the St. Elisabeth University of Health and Social Sciences in Bratislava. During her external studies, she worked in temporary state service as an Independent Consultant in the Social and Family Bureau, Social Division, Department of Social and Legal Child Protection. She is currently a postdoctoral fellow at the Department of Health Psychology, Medical Faculty, PJ Safarik University in Kosice. Her research is focused on health behaviour in school-aged children, in particular, on the role of subculture affiliation, and also on the health of the Roma population.

Andrea Madarasova Geckova, PhD, received her PhD in medical sciences from the University of Groningen, the Netherlands. She is a Professor in Social Psychology (Masaryk University in Brno, Czech Republic). Her research is at the crossroads of public health, health psychology and medical sociology. Since 1997, her international research projects have focused on inequalities in health among (Slovak) adolescents and young adults. Currently, she is a Head of the Department of Health Psychology.

Daniel Klein, PhD, received his Masters' degree in mathematics from PJ Safarik University, Kosice, in 2004, and he received his PhD degree from the same university in 2008. After studies, he began working at the Institute of Mathematics, PJ Safarik University, as a researcher, and from 2010 as an Assistant Professor. His research interests are linear models, multivariate statistics and computational statistics.

Jitse P. van Dijk, PhD, is Associate Professor of Community and Occupational Medicine and staff member in the Department of Health Sciences, Section Community and Occupational Medicine, and of the Public Health Research Programme of the UMCG. His research focuses on healthy development of adolescents and promotion of social participation in case of disease in community-based settings. A key feature of his research is a very close collaboration with school teachers and clinicians in the area of public health and related fields.

Sijmen A. Reijneveld, PhD, is Professor of Community and Occupational Medicine. He heads the Department of Health Sciences, and the Public Health Research programme of the University Medical Center Groningen (UMCG),

and is Visiting Professor at Netherlands Organisation of Applied Scientific Research (TNO) Child Health, Leiden. His research focuses on prediction and early detection of health problems and promotion of social participation in case of disease in community-based settings. A key feature of his research is a very close collaboration with practising professionals in the area of public health and related fields, and a continuous searching for opportunities to collaborate with private partners.