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Parental divorce and adolescent drunkenness: Role of socioeconomic position, psychological well-being and social support

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Abstract

The aim of this cross-sectional study was to explore the association between parental divorce and adolescent drunkenness in the last 4 weeks and the contribution of socioeconomic position, family structure, social support from family, and well-being to this association. We obtained data on 3,694 elementary school students from several cities in Slovakia (mean age 14.3, 49.0% males; response rate 93%). Respondents completed questionnaires on how often they had been drunk in the last 4 weeks, whether their parents were divorced, their socioeconomic position (education of parents, family affluence), the composition of the household (one or two parents/step-parents), social support from the family and their own well-being. Parental divorce was found to have an effect on adolescent drunkenness in the last 4 weeks, as well as high socioeconomic position, low social support from the family and high depression/anxiety. The effect of divorce on drunkenness decreased only slightly after adding social support into the model. Our findings indicate that parental divorce has a persistent influence on risk behaviour independent of the influence of socioeconomic position and well-being. Parental divorce may increase the likelihood of drunkenness more than other factors such as low parental support and poor socioeconomic position.

Introduction

Excessive alcohol use is a relatively common problem in adolescence and is also a major public health issue. According to the European school survey on alcohol and other drugs (ESPAD) (Hibbel, 2004), more than half of all students have consumed alcohol by the age of 13 years or younger. The proportion of students who reported having been drunk by the age of 13 or younger varies considerably across countries (Hibbel, 2004). Slovak participants in this study are located approximately in the middle: 27% of boys and 17% of girls reported having been drunk by this age.

The family is one of the most significant contexts associated with the development of children and adolescents. It is the setting in which important values, norms, attitudes and patterns of behaviour are formed, but it can also be a space where different developmental disturbances have their roots (Eickhoff, 2001; Currie et al., 2004). An important protective factor is the network of social relationships and social support that a family provides, that is, the social capital of the family. Social support in general, and in particular social support from the family, is considered to be an important buffer against stressful life events and to play an important role in coping with demanding life situations (Bal et al., 2003; Geckova et al., 2003; Murberg & Bru, 2004). In addition to the protective factors a family might provide to adolescents, some dimensions of family life may also have a negative impact on the health of adolescents and might lead to various emotional and behavioural problems. In this context, Sweeting and West (1995) distinguished three dimensions in family life which might play a role not only as protective factors, but also as risk factors: family structure, family culture (includes parenting style, family cohesiveness, parental support, etc.) and family conflicts (parent-child conflicts). Many studies found an association between these dimensions (impaired structure of the family, improper parenting style, insufficient support or family conflict) and different negative outcomes, like poor well-being (Hetherington et al., 1992) and behavioural problems (Ruschena et al., 2005). A change in family structure, especially parental divorce, might influence family life considerably in all three of these dimensions (family structure, family culture and family conflict) (Spruijt & De Goede, 1997; Unger et al., 2001). The divorce rates in Slovakia are increasing: in 2003 more than 41% of marriages ended in divorce in Slovakia compared with 32% in 1995 (Mladek et al., 2006). Many recent studies confirm that divorce increases the risk of problems in children and adolescents (Amato, 2000; Harland et al., 2002; Rodgers & Rose, 2002; Kelly, 2003; Ruschena et al., 2005). Children and adolescents in divorced families exhibit more externalizing (e.g. antisocial and aggressive behaviour, substance use) and internalizing (e.g. anxiety, depression) problems compared with those in intact families

(Doherty & Needle, 1991; Harland et al, 2002; Hoffmann, 2006; Paxton et al., 2007). Moreover, problems occurring in adolescence, although many years after a divorce, can have their roots in earlier ages (Amato & Keith, 1991; Storksen et al., 2006). So in exploring risk behaviour in adolescents, the understanding of their family background may be necessary.

As we already mentioned, adolescents from divorced families are at higher risk of hazardous alcohol use. Several pathways can explain these effects in children and adolescents. One of the possible explanations is lowered parental control after divorce – a lack of monitoring of free time activities and peer relationships is one of the risk factors for early and hazardous alcohol use (Marsden et al., 2005). Another possible way is to view the socioeconomic position of the family as an important determinant to health-related behaviour (Rodgers & Rose, 2002; Currie et al., 2004). Socioeconomic position, via the different availability of economic, social and cultural resources, contributes significantly to health and the establishment of a lifestyle (Abel, 2007). A family after divorce (a single-parent family) is at a higher risk of living in poverty (one income instead of two, frequent moving, etc.), and this economic disadvantage can also intensify the effect of divorce on externalizing and internalizing problems in adolescents (Amato & Keith, 1991; Spruijt & De Goede, 1997). Several studies have confirmed the association between lower socioeconomic position and higher probability of risk behaviour in general (Williams & Debaeky, 1992; Romelsjo & Lundberg, 1996). Nevertheless, the results regarding alcohol use are inconsistent – some studies have confirmed that alcohol drinking in adolescents is associated with a low level of parental education (Arvanitidou et al., 2007) or a low level of family affluence (Zambon et al., 2006), but there are also some findings showing a positive association between the high socioeconomic position of a family and excessive drinking in adolescence (Osler et al., 2001; Littlejohn, 2006). Another way in which divorce may affect adolescents, leading to frequent drunkenness, is via psychological discomfort as a common result of this negative life event. Adolescents from broken families score lowest on different aspects of psychological well-being compared with their peers (Demo & Acock, 1988; Spruijt & De Goede, 1997; Elmaci, 2006). Parental divorce is usually a stressful experience, and each person uses a different coping strategy to handle stressful life events. Although some studies (Armistead et al., 1990) have reported that adolescents most often use the active-cognitive style to cope with parental divorce, in some cases, drinking alcohol (and particularly drunkenness) might also function as a coping mechanism, as an example of avoidance style (Unger et al., 2001; Catanzaro & Laurent, 2004; Marsden et al., 2005), especially among females (Pitkanen, 1999).

According to the latest HBSC study (Currie et al., 2008), Slovak children start drinking alcohol at a relatively early age compared with

children in other countries, and the age of their first experience with drunkenness is also relatively low: 31% of girls and 39% of boys have already experienced drunkenness at 15 years of age. We assume that most of these first experiences with alcohol take place at home, as it is quite common in Slovakia to offer small alcoholic toasts to children and adolescents, for example at family gatherings or parties. Slovakia is a combination of two alcohol-related cultures, since it has many viniculture areas, where alcohol (wine) is, as in Mediterranean countries or France, integrated into daily life, but at the same time the consumption rates of spirits are quite high (often resulting in intoxication). In summary, the family has an important impact on an adolescent's tendency to use alcohol hazardously. In particular, family structure disruption due to parental divorce may be a risk factor in this context.

The aim of this study was, therefore, to explore the association between parental divorce and adolescent drunkenness in the last 4 weeks and the influence of socioeconomic position, family structure, perceived social support from family and psychological well-being as possible confounders or mediating factors.

Methods

Sample

The study sample consisted of 3,694 elementary school students (8th and 9th grades) from three cities in Slovakia: Bratislava (600,000 inhabitants, Western Slovakia), Zilina (156,000 inhabitants, Northern Slovakia) and Kosice (240,000 inhabitants, Eastern Slovakia), and several smaller towns (10,000–40,000 inhabitants) in the Kosice region. Adolescents from rural areas generally go to schools in small towns in Slovakia, because villages do not have their own schools. The schools and classes were selected randomly in each mentioned region. The age range was from 13 to 16 years, with a mean age of 14.38 ± 0.6 years. The sample was stratified by gender (49.0% males, 51.0% females), and 24.6% of the participants lived in Bratislava, 21.3% in Zilina, 32.1% in Kosice and 22.0% in several smaller towns in the Kosice region. The response rate was 93.0%. Nonresponse was primarily due to illness.

Procedure

Data were collected in October, November and December 2006 by a team of trained researchers and their assistants. We asked the directors of the schools for participation, and after their approval and the approval of parents, data were collected. Respondents filled in a questionnaire on a voluntary and anonymous basis without the presence of the teacher during two regular school lessons (45 min each).

Measures

Parental Divorce: Respondents were asked to answer the question of whether their parents are divorced, with the responses: *no/yes, less than 12 months ago/yes, more than 12 months ago, but less than 3 years ago/yes, more than 3 years ago*. A dichotomized variable was constructed for the analysis – *no / yes* (any period since divorce).

Socioeconomic Position of the Family: Two indicators were used to determine family socioeconomic position: parents' education level and family affluence. Parents' education level, defined as the highest level of education attained by each parent of the respondents, was classified as: high (university), medium (secondary school) or low (apprenticeship or primary school only). Family affluence was measured using the Family Affluence Scale (Currie et al., 2004), which consists of four questions concerning the possession of a car and computer in the family, the family going on holiday (longer than 5 days) in the past year and the respondents having their own room. Possible answers were: *no/yes, one/yes, two or more* for the question about car; *none/one/two/three or more* for the question about computer; *no/once/twice/three or more times* for the question about holiday and *yes/no* for the question about the own room. The sum score was computed, and a three-point ordinal scale was used in the analysis: low affluence (score = 0–3), middle affluence (score = 4–5) and high affluence (score = 6–7).

Composition of the Family (Household): This question concerned whether the child lives in a household with one or two parents or step-parents.

Social Support from the Family: Social support from family was measured using the Perceived Social Support Scale (Blumenthal et al., 1987), which is a 12-item self-reported questionnaire assessing perceived social support in three dimensions (from the family, friends and significant others). We only used the family dimension, which consists of four items: about general perceived help (*My family really tries to help me*), help with decision-making (*My family helps me in decision-making*), perceived emotional support from the family (*My family gives me the emotional support and help I need*) and talking about problems with the family (*I can talk about my problems with my family*). A 7-point Likert-type format was used ranging from totally disagree (1) to totally agree (7). The range of sum scores was 4–28, with a higher score indicating a higher level of perceived social support from the family. The internal reliability of social support from the family dimension was high; Cronbach's alpha coefficient was 0.91.

Psychological Well-Being: Psychological well-being was measured using the 12-item version of the General Health Questionnaire (GHQ12) (Goldberg & Williams, 1988). The GHQ-12 is a widely used self-reported questionnaire assessing psychological illness. It is divided into two

subscales: social dysfunction and depression/anxiety. The questions concern the degree to which the respondents' present state differs from their usual state. The factor 'depression/anxiety' consists of the following items: (1) *Have you recently lost much sleep over worry?* (2) *Have you recently felt constantly under strain?* (3) *Have you recently felt that you couldn't overcome your difficulties?* (4) *Have you recently been feeling unhappy and depressed?* (5)

Have you recently been losing confidence in yourself? (6) *Have you recently been thinking of yourself as a worthless person?* The factor 'social dysfunction' consists of following items: (1) *Have you recently been able to concentrate on whatever you are doing?* (2) *Have you recently felt that you were playing a useful part in things?* (3) *Have you recently felt capable of making decisions about things?* (4) *Have you recently been able to enjoy your normal day-to-day activities?* (5) *Have you recently been able to face up to your problems?* (6) *Have you recently been feeling reasonably happy, all things considered?* (Sarkova et al., 2006). We used a 4-point Likert scale for scoring (1–4) and a different way for scoring the items of each subscale, so there was no need to recode the items. Items were summed for the two subscales (depression/anxiety and social dysfunction), with the sum scores ranging from 6 to 24 for each subscale, a higher score indicating higher levels of depression/anxiety and social dysfunction, thus poor well-being. Cronbach's alpha coefficient was 0.82 for depression/anxiety and 0.65 for social dysfunction.

Risk Behaviour – Drunkenness in the Last 4 Weeks: Drunkenness in the last 4 weeks was assessed based on the self-evaluation of respondents. They were asked whether they had been drunk during the last 4 weeks, with the responses: *no/1 to 2 times / 3 or more times*. Before analysis we dichotomized this question into: *no / yes* (at least 1 time).

Statistical Analyses

We first assessed the characteristics of the sample. Next, a binary logistic regression (enter method) was performed to analyze the association between adolescent drunkenness in the last 4 weeks and parental divorce, leading to an odds ratios with associated 95% confidence intervals. Four models were constructed and adjusted for gender. In the first model we analyzed the effect of divorce as an independent variable. In the second step we added socioeconomic factors into the model (educational levels of parents, family affluence and completeness of the household). The third model included all previous variables and perceived social support from family as well. We then added the two dimensions of psychological well-being to the last model. We checked possible gender differences (interaction as well as models separately for males and females), but the differences were not statistically significant, so we decided to calculate the models adjusted for gender. The study sample was relatively homogenous

regarding age. Inclusion of age in the models did not improve their model fit; therefore, we did not include age. All regression analyses were limited to respondents with no missing values on any variable in the full model 4. In general, estimates barely differed between this limited set and estimates based on the extended set. Because the data were collected during entire school classes, a clustering of the students' outcomes per class might affect our findings. To account for this clustering, we performed all logistic regression analyses using MLwiN 2.02 (www.cmm.bristol.ac.uk/MLwiN/index.shtml). The other analyses were done using SPSS v14.

Results

A description of the sample and its characteristics can be found in Table 4.1.

Table 4.1 Frequencies of the study variables

		Males		females	
		N = 1765		N = 1834	
		N	%	N	%
drunkenness in last 4 weeks	yes	324	19.3	308	17.2
	no	1353	80.7	1479	82.8
parental divorce	yes	342	19.8	381	21.2
	no	1388	80.2	1427	78.9
father's education	low	577	34.4	489	28.9
	medium	744	44.4	794	46.9
	high	356	21.2	409	24.2
mother's education	low	555	32.5	471	26.5
	medium	936	54.9	968	54.4
family affluence	high	215	12.6	341	19.2
	low	622	36.0	795	43.8
	medium	728	42.2	764	42.1
	high	377	21.8	256	14.1
family composition	single-parent	281	16.0	310	17.0
	complete	1470	84.0	1516	83.0
		Mean (SD)		Mean (SD)	
family social support		21.3 (5.5)		22.1 (5.4)	
depression/anxiety		10.7 (3.9)		12.9 (4.4)	
social dysfunction		11.4 (2.5)		12.1 (2.7)	

Table 4.2 shows the results of multilevel logistic regression analysis for the effect of parental divorce, gender, socioeconomic factors, social support from family, and psychological well-being on drunkenness in the last 4 weeks among adolescents. The first model assessed the effects of parental divorce (regardless of time since the divorce) and gender. Divorce was found to have had a significant effect: parental divorce increases the probability of drunkenness among adolescents. In the next model, we included socioeconomic factors (educational levels of parents, family affluence and completeness of the household). The effect of parental divorce hardly changed, and a significant effect was found based on the father's education level and family affluence: low paternal education level, low family affluence and parental divorce increased the probability of drunkenness among adolescents. In the third model, we added perceived social support from the family to the previously mentioned variables. The significant effect of parental divorce persisted in this model. A significant effect was found based on a medium and low level of paternal education, a low level of family affluence and a low level of social support from family. The last model contains all of the previous variables together with the two dimensions of psychological well-being. The effect of parental divorce again remained significant, as it had in the previous models. Gender was also found to have had a significant effect in this model, together with the significant effect of paternal education level, family affluence, social support from the family and the depression/anxiety dimension of well-being. In general, the multilevel analyses showed a significant clustering of the students' outcomes per class, as shown by the random variances that are indicated in the bottom row of Table 4.2. However, this clustering hardly affected the estimates concerned. For instance, the odds ratio for the effect of parental divorce in the final model 4 in Table 4.2 was 1.46 (1.08–1.96), compared with 1.50 (1.12–2.02) for the ordinary logistic regression.

Table 4.2 Binary logistic regression estimates for the effect of parental divorce, gender, socioeconomic factors, perceived social support from family and psychological well-being on the drunkenness in the last four weeks.

% of drunk			drunkenness in the last four weeks			
			OR (95% CI)			
			Model 1	Model 2	Model 3	Model 4
Divorce	Intact	15.8%	Ref	Ref	Ref	Ref
	divorced	24.4%	1.60 (1.25 - 2.04)***	1.51 (1.13 - 2.03)***	1.49 (1.12 - 2.00)**	1.46 (1.08 - 1.96)**
Gender	Male	19.3%	Ref	Ref	Ref	Ref
	Female	17.2%	0.89 (0.73 - 1.09)	0.91 (0.74 - 1.10)	0.92 (0.76 - 1.13)	0.80 (0.65 - 0.99)*
Father's education	High	20.2%		Ref	Ref	Ref
	Medium	18.3%		0.69 (0.53 - 0.91)*	0.69 (0.53 - 0.90)*	0.70 (0.53 - 0.93)*
	Low	15.0%		0.56 (0.41 - 0.78)***	0.56 (0.41 - 0.77)***	0.56 (0.40 - 0.78)***
Mother's education	High	19.3%		Ref	Ref	Ref
	Medium	17.9%		0.97 (0.72 - 1.32)	0.98 (0.72 - 1.33)	0.97 (0.71 - 1.32)
	Low	16.5%		1.03 (0.72 - 1.49)	1.05 (0.73 - 1.51)	1.04 (0.72 - 1.52)
Family affluence	High	20.6%		Ref	Ref	Ref
	Medium	18.2%		0.86 (0.66 - 1.12)	0.85 (0.65 - 1.11)	0.82 (0.62 - 1.08)
	Low	15.9%		0.60 (0.44 - 0.80)***	0.58 (0.43 - 0.78)***	0.55 (0.40 - 0.75)***
Family composition	Complete	16.8%		Ref	Ref	Ref
	Single	20.8%		1.13 (0.81 - 1.58)	1.13 (0.81 - 1.58)	1.15 (0.82 - 1.61)
Social support from family					0.97 (0.96 - 0.99)*	0.98 (0.96 - 1.00)*
Depression/anxiety						1.05 (1.02 - 1.08)***
Social dysfunction						1.03 (0.98 - 1.08)
Random variation at class level (standard error) #			0.265 (0.083)	0.265 (0.083)	0.247 (0.081)	0.232 (0.080)

* p < 0.05, ** p < 0.01, *** p < 0.001; Ref=reference category

For the empty model, this was 0.282 (0.085)

Discussion

This study explored the association between parental divorce and adolescent drunkenness in the last 4 weeks and the contribution of socioeconomic and psychological (well-being, perceived social support) factors to this association. We found that parental divorce had an effect on adolescent drunkenness in the last 4 weeks. That is, adolescents who experienced the divorce of parents are more likely to report being drunk recently. Secondly, socioeconomic position, family structure, perceived social support from the family and psychological well-being accounted for a rather limited part of this association, even though several of these factors were themselves associated with recent drunkenness. This was true in particular for poor well-being (especially high depression/anxiety), high socioeconomic status of the family and low social support from the family.

Our finding regarding the association of parental divorce with recent drunkenness in adolescents is in line with the findings of several other studies which explored the effect of divorce or family structure on substance use (Doherty & Needle, 1991; Rodgers & Rose, 2002; Paxton et al., 2007). Adolescents living in broken families are at a higher risk of trying alcohol earlier and drinking more hazardously (Kirby, 2006). This fact might have several explanations. First, it might be related to lower parental control after divorce. The majority of adolescents of divorced parents live in a single-parent family, that is with one parent only (nearly 60% in our sample), and this parent often has to perform the functions of both parents. This could lead to a decrease in the control of adolescent behaviour, thus opening up more opportunities for risk behaviour in general and for experimentation with alcohol in particular. One of the risk factors for early and hazardous alcohol use is undeniably the lack of monitoring of free time activities and peer relationships of adolescents (Marsden et al., 2005).

Another explanation for the fact that adolescent children of divorced parents are more likely to report drunkenness in the last four weeks might be poor well-being. In this study we found that depression/anxiety (as a part of well-being) has an effect on adolescent drunkenness. Parental divorce might represent a stressful experience in an adolescent's life (e.g. inter-parental conflict, moving, less nurturing) (Armistead et al., 1990) and therefore might cause a worse sense of well-being (Spruijt & De Goede, 1997; Storksen et al., 2006). Also, in our sample respondents with higher levels of depression/anxiety were those with divorced parents, and those who had experienced parental divorce recently (in the last 12 months) reported even more elevated levels of depression/anxiety. Thus, poor well-being may be one route for the negative impact of parental divorce on alcohol-related behaviour among adolescents.

Another main finding of our study is the result concerning socioeconomic position. First of all, socioeconomic position does not contribute very much to the association between parental divorce and drunkenness among adolescents. In accordance with other studies (Williams & Debaquey, 1992; Romelsjo & Lundberg, 1996), we assumed that a lower socioeconomic position would be connected with a higher probability of drunkenness. Our results do not support this assumption: on the contrary, in our sample, higher socioeconomic position (higher education of the father and higher levels of family affluence) was related to an increased probability of drunkenness. Our explanation for this finding is twofold. First, adolescents from families with a higher socioeconomic position have more financial resources (e.g. more pocket money from parents), so they can more easily buy alcohol. But this explanation is not sufficient, because buying enough alcohol to get drunk is neither particularly expensive nor is alcohol inaccessible in Slovakia. Therefore, a possible second explanation for why adolescents with higher socioeconomic position are at a higher probability of being drunk is that the attitude towards drinking alcohol, and particularly towards drunkenness, is a part of the particular youth subculture related to high socioeconomic position.

The last finding of this study is that social support from the family is a protective factor for adolescent alcohol use and that it lessens the effect of parental divorce on drunkenness. This means that social support, as part of the social capital of a family, appears to function as a risk buffer against the impact of divorce on drunkenness: even if parents are divorced, an adolescent might be less likely to exhibit risk behaviour if he/she experiences emotional support from family members. This finding is in line with the work of Catanzaro and Laurent (2004), who found that perceiving high levels of family support reduced the risk of alcohol use associated with the avoidance of problems as a coping strategy.

The fact that drunkenness clusters per class, but that this has hardly an effect on model outcomes, may be interpreted as meaning that classroom-bound factors do not affect drunkenness in an important way, but that children in a given class to some degree share common background characteristics like family support and divorce background. In Slovak society, alcohol is a relatively highly tolerated psychoactive substance that is quite embedded in the culture. As we already mentioned, children have their first experiences with alcohol rather early in life and usually do so at home in the form of small occasional toasts. Although Slovakia has wine-producing areas, the consumption rates of spirits are quite high. In addition, restrictions on the selling of alcohol to those under age are insufficiently monitored, so it is not very difficult for adolescents to buy alcohol. Furthermore, the price policy also does not help in this context, as in most bars it is cheaper to buy a beer than any soft drink, for example. It seems that the findings of our study can be generalized to adolescents

in other countries with a similar drinking culture, such as the Czech Republic or Hungary. The same holds true even more for countries in which drunkenness is far less accepted.

Strengths and Limitations

The present study has several strengths and limitations. The first strength is the size of the study sample and the representation of several different regions in Slovakia. The second is that a wide set of possible confounders was explored in the models, including sociological as well as psychological variables. We also should mention that selection bias was unlikely due to the way the sample was drawn and the satisfactory response rate (93%). A main limitation of our study is that it relied on the self-report of respondents. The questionnaires were filled out anonymously, which has been shown to lead to valid self-reports (Del Boca & Noll, 2000). However, we cannot exclude interpersonal differences in the assessment of drunkenness, although its rather higher prevalence will probably decrease the size of the differences. Moreover, adolescents from small towns and rural areas were underrepresented in our sample compared with the Slovak population. However, prevalence rates of drunkenness were similar among the adolescents concerned and the remainder of our sample, which makes it rather unlikely that this would affect our findings.

Conclusion

The present study contributes to the understanding of adolescent drunkenness in the light of parental divorce. In the contemporary society, where the number of marriages ending in divorce and rates of binge drinking are increasing, this issue requires research attention. Our results imply that adolescent children of divorced parents are at higher risk of drunkenness and should thus be a particular target group in prevention.

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