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Perceived parental alcohol problems, internalizing problems and impaired parent-child relationships among 71,988 young people in Denmark

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Abstract

Aims: To test the hypothesis that young people with perceived parental alcohol problems have poorer parent-child relationships and more emotional symptoms, low self-esteem, loneliness, and depression than young people without perceived parental alcohol problems.

Design: Cross-sectional analysis using data from the Danish National Youth Study 2014, a web-based national survey.

Setting: Denmark

Participants: 71.988 high school and vocational school students (aged 12-25, nested in 119 schools and 3.186 school classes) recruited throughout 2014.

Measurements: Outcome variables included internalizing problems such as emotional symptoms, depression, self-esteem, loneliness and aspects of the parent-child relationship. The main predictor variable was perceived parental alcohol problems, including the severity of the perceived problems and living with a parent with alcohol problems. Control variables included age, sex, education, ethnicity, parents' separation and economic problems in the family.

Findings: Boys and girls with perceived parental alcohol problems had statistically significant higher odds of reporting internalizing problems (OR= 1.58 for boys; 1.49 for girls) and poor parent-child relationships (e.g. lack of parental interest: OR= 1.96 for boys; 2.29 for girls) compared to young people without perceived parental alcohol problems. The associations were not significantly stronger for mother's alcohol problems or if the young person lived with the parent with perceived alcohol problems.

Conclusion: Boys and girls in secondary education in Denmark who report perceived parental alcohol problems had significantly higher odds of internalizing problems and poorer parent-child relationships compared to young people without perceived parental alcohol problems.

Introduction

Globally, it has been estimated that alcohol causes almost five percent of diseases and injuries, while nearly four percent of all deaths are attributable to alcohol, making it one of the leading risk factors for death and disability (1). European men and women have a high annual alcohol intake, averaging 10.9 liters of pure alcohol per capita (2). Therefore many face an increased risk of more than 60 alcohol-related diseases (3). Heavy drinking also has psychological and social implications that go beyond the individual alcohol user. Children of parents with alcohol problems are especially at risk of experiencing negative effects.

Children of parents with severe alcohol problems have been found to be at increased risk of adverse mental health outcomes, including internalizing problems (such as depression and anxiety) and externalizing problems (such as aggressive and antisocial behavior) (4-20). However, most previous studies are based on data from help-seeking adults or children of parents in treatment, while the results of general population studies have been mixed (21).

Because not all children of parents with alcohol problems experience negative outcomes, it is plausible that the variability of how the family environment and parent-child relationship are affected by the parents' alcohol problems may explain later mental health outcomes. It has been found that parental alcohol problems can lead to negative parent-child relationships in early adulthood, including poor parent-child communication, lack of trust in parents, and reversed responsibility family roles (16,23).

There has been insufficient research into the effects of mothers' and fathers' alcohol problems as experienced by their children and research results have been inconsistent (5,24-26). Some studies have found that mothers' alcohol problems lead to a higher risk of mental health problems in children than fathers' alcohol problems (5,9,27). Furthermore, some studies suggest that fathers' alcohol problems may be a stronger risk factor for externalizing problems among children, while mothers' alcohol problems are more strongly associated with internalizing problems (4,5,8).

The aim of the present study was to test the hypothesis that young people with perceived parental alcohol problems have poorer parent-child relationships and more internalizing problems, such as frequent emotional symptoms, low self-esteem, loneliness and depression than young people without perceived parental alcohol problems. We also tested whether having a mother with alcohol problems, living with the parent with alcohol

problems, or feeling insecure, being yelled at or scolded because of parents' alcohol problems were more strongly associated with frequent emotional symptoms.

Methods and material

The Danish National Youth Study 2014

Data comes from the Danish National Youth Study 2014, a national survey of 75,858 high school and vocational school students. The Danish National Youth Study was conducted with the aim of investigating health, health behavior and mental health among young people in secondary education in Denmark. In spring 2014 all of Denmark's 137 general high schools and the 12 largest vocational schools were invited to participate. School participant proportion was 87% among high schools and 83% among vocational schools. In high schools, students in all grades and all classes were invited to participate (N=83,751), while only students in basic courses in vocational schools were invited (N=7,527) (total invited participants=91,278). Overall the rate of individual participation was 83% (84% in high schools and 69% in vocational schools). Since the target group was young people, participants older than 25 years of age (N=782) and those with missing data on parental alcohol problems (N=3,088) were excluded, leaving the total study population at 71,988 respondents.

Data was collected from January to November 2014. Teachers facilitated the survey by giving students a code that gave access to the electronic survey. Students answered the electronic questionnaire, which consisted of a total of 380 questions, in class during one to two lessons of 45 minutes each.

Ethics

The study was approved by the Danish Data Protection Agency. The questionnaire contained an introduction to the study, which stated that participation was voluntary and that participants' responses would be kept confidential by researchers from the National Institute of Public Health. By answering the online survey participants gave their informed consent to participate.

Measures

Perceived parental alcohol problems

Perceived parental alcohol problems were measured by the question “Does anyone in your immediate family have alcohol problems?” with the possible responses “no, no one”, “mother”, “father”, “step-parent”, “siblings” or “other adults”. An overall measure indicating whether participants perceived any parent to have alcohol problems (yes/no) was

constructed and a measure was coded to distinguish between perceived mothers', fathers', stepparents', or both parents' alcohol problems. To examine the impact of *living with parents with perceived alcohol problems*, a variable was coded to differentiate between young people living with or apart from the parent with perceived alcohol problems. To study the severity of perceived parental alcohol problems, participants who had previously answered that they had a parent with alcohol problems were asked if they *had ever felt insecure because their mother, father, or step-parent was affected by alcohol* and if they *ever had been yelled at or scolded because their mother, father, or step-parent was affected by alcohol*. The possible answers were "No, never", "Yes, sometimes", or "Yes, often".

Internalizing Problems

Internalizing problems were investigated with four measures. Three items asked about *frequent emotional symptoms*. Participants were asked how often within the last six months they had felt a) low, b) nervous, or c) irritable or had been in a bad mood, with the possible responses: "almost daily", "more than once a week", "about once a week", "about once every month", or "seldom or never". Answers were dichotomized with a cut-point of reporting at least one symptom occurring more than once a week or almost daily. A single item measured *depression* within a list of various health conditions: "Do you have any of the following diseases or disabilities? Depression". Answers were dichotomized into Yes/No. "Do not know" answers were conservatively coded as No. *Low self-esteem* was measured by the statement "I am good enough as I am" dichotomized into Agree: "strongly disagree" and "disagree"/ Disagree: "neither agree nor disagree", "agree" and "strongly agree". To measure *loneliness* participants were asked "Do you feel lonely?" (Yes: "Yes, very often" and "Yes, often"/No: "Yes, once in a while" and "No").

Poor parent-child relationships

Four different items measured poor parent-child relationships. Difficult communication with mother or father was measured by the question "how easy is it to talk to your mother/father about things that really bother you?". Two variables for *difficult communication with mother* and *difficult communication with father* were dichotomized into Yes for the answers "very difficult", "difficult" or "I don't have parents to talk to" and No for the answers "very easy" and "easy". *Lack of parental interest* was measured by the question "how often do you feel like your parents are interested in how you feel?" (Yes: "sometimes", "rarely" and "never"/ No: "very often" and "often"). *Lack of parental trust* was measured by the question "how

often do you feel like your parents trust you?” (Yes: “*sometimes*”, “*rarely*” and “*never*”/ No: “*very often*” and “*often*”).

Other covariates

In addition *sex* (boys/girls), *age* (continuous 12-25 years), *ethnicity* (Danish/ Danish and other/ other ethnicity than Danish), *living with parents* (lives with mother and father / lives with father only / lives with mother only/ other living situation without parents), *parents’ separation* within the last year (parents moved apart: yes/no) and *financial strains in the family* within the last year (parents had difficulties paying the bills: yes/no) were included as covariates.

Statistical analysis

Statistical analyses tested whether perceived parental alcohol problems were associated with internalizing problems and poor parent-child relationships. Multilevel logistic regression, nesting participants within school classes within schools were applied to account for dependency among participants within the same class and within the same school. In the model testing if mothers’, fathers’, step-parents’ or both parents’ alcohol problems had different associations with internalizing problems, frequent emotional symptoms were chosen as the outcome to obtain greater statistical power. To test whether perceived parental alcohol problems were associated with poor parent-child relationships multilevel logistic regression models were performed with difficult communication with mother/father, lack of parental interest, and lack of parental trust as outcomes with data from individuals nested within school classes and schools. All analyses were stratified by sex and adjusted for age, ethnicity, education, parents’ separation and financial strains in the family as potential confounders. Differences with regard to which parent was perceived to have alcohol problems and whether the young person lived with them were evaluated with a chi-square test. Trends in traumatic experiences due to parents’ alcohol problems were tested by including the severity variables as continuous in the logistic regression models. Generalized ordered logistic regression model was performed for each outcome in the original categories as a sensitivity analysis to test for appropriate dichotomization. Due to the low number of missing values (generally <1%) complete subject-analysis was performed excluding all missing values from the analyses. In all analyses p-values below 0.05 were considered significant. All statistical analyses and data processing were performed using the statistical package STATA 13.1.

Results

Study population characteristics

The total study population included 71,988 young people in high schools and vocational schools (table 1). More girls (8.0%) than boys (5.9%) reported parental alcohol problems. Boys and girls with perceived parental alcohol problems did not seem to differ from boys and girls without perceived parental alcohol problems with regard to age and ethnicity. More boys and girls who attended vocational schools, who lived with mother only or with other than parents, who had experienced parents' separation or financial strain within the last year reported perceived parental alcohol problems.

<<Table 1 here>>

Internalizing problems

Perceived parental alcohol problems were significantly associated with a higher likelihood of frequent emotional symptoms, depression, low self-esteem and loneliness among both boys and girls (table 2). For example, girls with perceived parental alcohol problems had about two and a half times higher odds of reporting depression compared to girls without perceived parental alcohol problems. But although girls reported a higher prevalence of perceived parental alcohol problems and internalizing problems, no significant sex differences in the association between perceived parental alcohol problems and internalizing problems were found.

<<Table 2 here>>

Poor parent-child relationships

Both boys and girls with perceived parental alcohol problems had significantly higher odds of communication difficulties with their mother or father, including experiencing a lack of parental interest and lack of parental trust (table 3). For example, girls with perceived parental alcohol problems had about three times higher odds of reporting communication difficulties with their father. Again no significant sex differences in the association between perceived parental alcohol problems and poor parent-child relationship were found.

<<Table 3 here>>

Parent with the alcohol problem and whether they are in the household
Among boys, perceived fathers', mothers', step-parents', and both parents' alcohol problems were significantly associated with higher odds of experiencing frequent emotional symptoms compared to boys who did not perceive their parents to have alcohol problems (table 4).

Among girls, step-parents' alcohol problems were not significantly associated with frequent emotional symptoms. Although mothers' alcohol problems were more strongly associated with frequent emotional symptoms among both boys and girls, chi-square did not find mothers' alcohol problems to be significantly different from fathers' alcohol problems among boys ($p=0.45$) or girls ($p=0.10$). Furthermore, the chi-square test did not find perceived parental alcohol problems among both parents' to be significantly different from perceived fathers' alcohol problems among boys ($p=0.23$), but did so among girls ($p=0.008$). Living with the parent with perceived parental alcohol problems was more strongly associated with frequent emotional symptoms; however the chi-square test found no significant difference in the odds of frequent emotional symptoms with regard to whether they are in the same household among either boys ($p=0.66$) or girls ($p=0.09$).

<<Table 4 here>>

Traumatic experiences

Tests for trend showed that the more frequently both boys ($p<0.001$) and girls ($p<0.001$) with perceived parental alcohol problems reported to have felt insecure or to have been yelled at or scolded because of their parents being affected by alcohol, the higher the odds of frequent emotional symptoms (table 5). For example, compared to boys without perceived parental alcohol problems, boys who reported having frequently felt insecure because of parents' drinking had a three times higher odds of frequent emotional symptoms.

<<Table 5 here>>

Sensitivity analyses

Sensitivity analyses for all outcomes showed that for each category boys and girls with perceived parental alcohol problems had statistically significant higher odds of being in a higher ordered category. The sensitivity analyses support the results indicating that irrespective of how outcomes were dichotomized, statistically significant differences between boys and girls with and without perceived parental alcohol problems were found.

Discussion

Primary findings

The present study has examined associations between having parents with alcohol problems among 71,988 boys and girls attending high schools and vocational schools in Denmark. Boys and girls with perceived parental alcohol problems had consistently higher odds of frequent emotional symptoms, depression, low self-esteem and loneliness than boys and girls without perceived parental alcohol problems. Perceived parental alcohol problems were also significantly associated with communication difficulties with their mother and father, lack of parental interest, and lack of parental trust. In general, results were similar between boys and girls, but there was a difference in the prevalence of reporting of perceived parental alcohol problems, internalizing problems and poorer parent-child relationship, which were all more prevalent among girls. No differences in the association between frequent emotional symptoms and perceived mothers' and fathers' alcohol problems were found for either boys or girls. Similarly, no significant differences in the odds of frequent emotional symptoms were found with regard to whether the young people lived with or without the parent who was perceived to have alcohol problems. A significant trend in the association was found between increasing frequency of traumatic experiences because of parents' drinking and higher rates of frequent emotional symptoms.

Findings in relation to other studies

The present study has contributed to the literature on children of parents with alcohol problems by confirming previous research that found these children to be more vulnerable to mental health problems than other children (4-14,17-20). Based on a large sample of young people in Denmark, our study has added that those who perceive their parents to have alcohol problems have a higher risk of internalizing problems. The results of this study also suggest that young people who perceive their parents to have alcohol problems also have poorer parent-child relationships, which could partly explain the higher likelihood of internalizing problems. These results are in line with previous research that found that the quality of both maternal and paternal relationships significantly predicted depressive mood in children of parents with alcohol problems (23). Although previous research has found gender differences in mental health consequences (4,26,27), no such differences in internalizing problems were found in the present study. Furthermore, in contrast to previous findings (5,9,26), our study did not find a statistically significant higher likelihood of frequent emotional symptoms among young people who perceived their mother to have alcohol problems, as compared to

those who perceived their father to have alcohol problems. Consequently, our results suggest that the burden from perceived parental alcohol problems on young peoples' mental health is constant and consistent: it does not appear to matter which parent has the alcohol problem, the gender of the young person, or whether these young people live with or without the parent with perceived alcohol problems. The lack of significant differences regarding which parent is perceived to have alcohol problems might partly be explained by high level of gender equality in parental responsibilities in Danish society (28).

Study strengths

One key strength of our study is the large survey sample, which has reduced the risk of random errors. It also facilitated the study of separate associations for mothers', fathers', step-parents', and both parents' alcohol problems with young people's frequency of emotional symptoms, which can be difficult with the lower statistical power of smaller sample sizes.

Most studies on parental alcohol problems and related effects on mental health have been based predominantly on more severe (and often clinical) cases of parental alcohol problems with limited generalizability, whereas this study investigates the impact of perceived parental alcohol problems within a large sample of young people in Denmark. Parental alcohol problems were self-reported by the young people and therefore express their perception of whether their parents' alcohol use can be characterized as problematic. This approach gives unique insight into the prevalence of perceived parental alcohol problems and their impact on mental health in a student population in Denmark that could not have been obtained via registers or in clinical studies.

By inviting all students in the class to participate, all students present on the day of the survey were likely to participate in the study. This should minimize the problem of self-selection, which is an issue in many studies of children of parents with alcohol problems (29). The high response proportions of 84% in high schools and 69% in vocational schools suggest a minimal problem of selection bias within schools.

Study limitations

Our study also has limitations. One of these is the cross-sectional design. The major problem with cross-sectional data is the lack of temporality and therefore the risk that an association found could be the result of reverse causality. Although it cannot be excluded, it seems unlikely that the perception of parents' alcohol use as problematic should be a result

exclusively of young people's mental health.

Adjusting for too few confounders could have resulted in residual confounding in this study. Socioeconomic differences in alcohol problems among adults (30) and in mental health among adolescents (31) have been found previously; therefore, socioeconomic differences in the prevalence of parental alcohol problems and in the impact experienced by their children might exist. Unfortunately, measures of family socioeconomic status and parental mental illness were not available in the Danish National Youth Study 2014. Also there is strong evidence of high comorbidity between mental illnesses, such as depression and anxiety, and alcohol use disorder (21), and thus parental mental illness may have also additionally increased the risk for mental health problems in children (15). Whether the harmful effects of parental mental illness differ from those of parental alcohol problems remains unknown. Adjusting for parental mental illness in the analysis possibly could have explained some of the associations found or could have revealed a synergistic effect. However, studies that have controlled for parental mental illness showed inconsistent results regarding whether parental alcohol problems were associated with mental health problems in children (5,17,21,25,32).

Other limitations include the measures used in this study. As data came from the Danish National Youth Study 2014, which had a broad objective of collecting data on health, health behavior and mental health among secondary education students, all measures had to be kept in short formats. Parental alcohol problems were measured by a single question only and therefore information on duration and severity of parents' current alcohol problems was not collected. By relying solely on young people's perceptions, no information was obtained directly from parents regarding their actual alcohol consumption, or their own perception of whether they themselves have alcohol problems. Neither was any kind of objective classification used to assess whether the parents were alcohol dependent or heavy drinkers. Measures of internalizing problems were derived from other sections of the survey questionnaire, which were intended for other research purposes. No items were included on anxiety, which is also a key internalizing problem. Other validated and standardized short version instruments might have been better measures than those we were able to use. However, single-item measures have generally been found to have similar reliability and validity to equivalent multi-items measures (33,34).

As alcohol problems are generally a subject of taboo, underreporting of perceived parental alcohol problems is also likely to have occurred. Children of parents with alcohol problems have been found to be loyal to their parents and to avoid talking openly

about alcohol problems in the family (29,35). Internalizing problems might also be underreported, leading to an underestimation of the association of perceived parental alcohol problems and internalizing problems. It cannot be excluded that our findings could be over- or underestimated due to a possible response bias reflecting a general tendency to respond to questions positively or negatively.

Problems of selection bias due to non-participation are assumed to be limited due to the overall high participation rate (83%), but it cannot be excluded that individuals who were more severely affected by parental alcohol problems may not meet the requirements for admission to high school or vocational schools or the family alcohol problems might have impaired them in such a way that they did not attend school on the day of the study. This could lead to an underrepresentation of parental alcohol problems. Despite the fact that our study sample is not representative of all young people in Denmark, it does represent a considerably large proportion of Danish adolescents (66% of all high school students and 11% of vocational students in basic courses in Denmark), and can therefore be considered representative of secondary education students in Denmark (36).

Implications

Our results suggest that, in contrast to other young people, those with parents who have alcohol problems represent a vulnerable group with poor parent-child relationships and more internalizing problems. Policy makers and health promotion practitioners should become aware of interventions that are especially effective in reducing internalizing problems and buffer the effects of parents' alcohol problems on young people.

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Table 1: Descriptive characteristics of the Danish National Youth Cohort 2014 (N=71,988). N (%)

	All (%)	Perceived parental alcohol problems			
		Boys		Girls	
		No	Yes	No	Yes
Study population	71,988 (100)	28,202 (94)	1,760 (5.9)	38,680 (92)	3,344 (8.0)
Age, mean years (SD)	18.0 (1.3)	18.1 (1.4)	18.7 (1.8)	17.9 (1.1)	18.1 (1.4)
School type					
High school	67,686 (94)	25,245 (89)	1,393 (79)	37,893 (98)	3,155 (94)
Vocational School	4,302 (6.0)	2,959 (11)	367 (21)	787 (2.0)	189 (5.7)
Ethnicity					
Danish	63,746 (90)	24,500 (89)	1,514 (88)	34,677 (91)	3,055 (92)
Danish and other	5,007 (7.1)	2,095 (7.6)	130 (7.2)	2,601 (6.8)	181 (5.5)
Other than Danish	2,200 (3.1)	1,071 (3.9)	81 (3.7)	972 (2.5)	76 (2.3)
Cohabitation					
Mother & father	47,642 (67)	19,453 (69)	523 (30)	26,706 (69)	960 (29)
Mother only	14,191 (20)	4,667 (17)	678 (39)	7,418 (19)	1,428 (43)
Father only	3,006 (4.2)	1,277 (4.6)	115 (6.6)	1,392 (3.6)	222 (7.0)
Other	6,687 (9.4)	2,613 (9.3)	423 (24)	2,956 (7.7)	695 (21)
Parents' separation					
Yes	3,850 (5.4)	1,441 (5.2)	192 (11)	1,908 (5.0)	309 (9.4)
No	66,980 (95)	26,086 (95)	1,509 (89)	36,392 (95)	2,993 (91)
Financial strains in the family					
Yes	11,215 (16)	3,180 (12)	547 (32)	6,204 (16)	1,284 (39)
No	59,674 (84)	24,353 (88)	1,155 (68)	32,140 (84)	2,026 (61)

*Missing values not shown, generally <1%

Table 2: Odds ratios (95% confidence interval) for effect of having parents with a perceived alcohol problem on internalizing problems among boys and girls in secondary schools

	Perceived parental alcohol problems			
	Boys		Girls	
	No (N=28,204)	Yes (N=1,760)	No (N=38,680)	Yes (N=3,344)
Frequent emotional symptoms (N=19,096)				
Number	4,440	440	11,890	1,446
OR (95% CI)	1 Reference	1.58 (1.38-1.80)	1 Reference	1.49 (1.38-1.60)
Depression (N=4,179)				
Number	954	147	2,403	486
OR (95% CI)	1 Reference	1.91 (1.52-2.38)	1 Reference	2.11 (1.88-2.37)
Low self-esteem (N=6,629)				
Number	1,326	153	4,256	598
OR (95% CI)	1 Reference	1.67 (1.36-2.05)	1 Reference	1.53 (1.38-1.69)
Loneliness (N= 6,698)				
Number	1,556	193	4,036	616
OR (95% CI)	1 Reference	1.68 (1.39-2.02)	1 Reference	1.66 (1.50-1.84)

Adjusted for age, ethnicity, education, parents' separation and economic problems in the family.

Table 3: Odds ratios (95% confidence interval) of poor parent-child relationship characteristics among boys and girls with and without perceived parental alcohol problems

	Perceived parental alcohol problems			
	Boys		Girls	
	No (N=28,204)	Yes (N=1,760)	No (N=38,680)	Yes (N=3,344)
Difficult communication with mother (N=17,989)				
Number	6,863	643	8,543	1,187
Odds Ratio (95% CI)	1 Reference	1.49 (1.32-1.67)	1 Reference	1.69 (1.56-1.83)
Difficult communication with father (N=33,831)				
Number	10,574	1,135	18,280	2,511
Odds Ratio (95% CI)	1 Reference	2.69 (2.39-3.04)	1 Reference	3.05 (2.80-3.33)
Lack of parental interest (N=5,970)				
Number	1,804	261	2,997	631
Odds Ratio (95% CI)	1 Reference	1.92 (1.61-2.28)	1 Reference	2.33 (2.10-2.59)
Lack of parental trust (N=6,642)				
Number	2,730	338	2,791	459
Odds Ratio (95% CI)	1 Reference	1.85 (1.59-2.15)	1 Reference	1.75 (1.55-1.96)

Adjusted for age, ethnicity, education, parents' separation and economic problems in the family.

Table 4: Odds ratios (95% confidence interval) for effect of having a parent with alcohol problems and cohabitation status of parent with alcohol problems on frequent emotional symptoms among boys and girls in secondary schools

	Boys		Girls	
	N	Odds ratio (95% CI)	N	Odds ratio (95% CI)
Parent with alcohol problem...				
(No parental alcohol problem)	28,204	1 Reference	38,680	1 Reference
Father only	1,178	1.49 (1.27-1.75)	2,205	1.43 (1.30-1.58)
Mother only	285	1.65 (1.21-2.26)	554	1.70 (1.41-2.04)
Stepparent only	138	1.84 (1.18-2.85)	281	1.18 (0.91-1.54)
Both parents	159	2.10 (1.33-3.31)	304	1.92 (1.49-2.47)
Cohabitation with parent with alcohol problem				
(No parental alcohol problem)	28,204	1 Reference	38,680	1 Reference
No	1,029	1.56 (1.31-1.85)	1,920	1.43 (1.29-1.58)
Yes	680	1.56 (1.28-1.91)	1,323	1.60 (1.42-1.80)

Adjusted for age, education, ethnicity parents' separation and economic problems in the family.

Table 5: Odds ratios (95% confidence interval) for effect of traumatic experiences with parents on frequent emotional symptoms among boys and girls in secondary schools

	Boys		Girls	
	N	Odds ratio (95% CI)	N	Odds ratio (95% CI)
Ever felt insecure because of parents' drinking				
(No parental alcohol problem)	28,204	1 Reference	38,680	1 Reference
Never	597	1.19 (0.93-1.51)	780	1.15 (0.98-1.35)
Sometimes	833	1.39 (1.15-1.67)	1,637	1.34 (1.20-1.50)
Often	323	3.32 (2.53-4.36)	918	2.19 (1.90-2.54)
Ever been yelled at or scolded because of parents' drinking				
(No parental alcohol problem)	28,204	1 Reference	38,680	1 Reference
Never	845	1.20 (0.99-1.46)	1,288	1.18 (1.04-1.33)
Sometimes	623	1.54 (1.24-1.91)	1,289	1.44 (1.27-1.62)
Often	260	3.80 (2.79-5.17)	729	2.41 (2.05-2.83)

Adjusted for age, education, ethnicity, parents' separation and economic problems in the family.