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Addictive Behaviors

Short Communication

Parental relationship satisfaction in French young adults associated with alcohol abuse and dependence

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ABSTRACT

Alcohol consumption is a major risk factor for disease in developed countries. In addition to genetic susceptibility, alcohol consumption is shaped by one's social and family environment. With data from 2009, we examined associations between satisfaction with familial relationships and alcohol abuse and dependence using a national sample of 1101 French young adults aged 22–35. Alcohol-related problems were measured with the Alcohol Use Disorders Identification Test (AUDIT). Main exposure variables included young adults' self-report of satisfaction with parental relationships. In adjusted logistic regression models, having a poor relationship with one's mother (OR = 1.8, 95%CI 1.0–3.6) or father (OR = 1.8, 95% CI 1.0–3.2) was associated with alcohol abuse and dependence. Gender stratified analyses indicated unsatisfactory maternal relationships were associated with alcohol problems in women (OR = 2.6, 95%CI 1.1–6.6); unsatisfactory paternal relationships were suggestive of alcohol abuse in men (OR = 2.0, 95%CI 1.0–4.7), but not in women. Noncohabitation with a romantic partner was associated with an almost three-fold increase of alcohol abuse and dependence in men (OR = 2.8, 95%CI 1.6–4.8). The quality of parental relationships may be important for alcohol abuse, particularly when the parent is the same gender. Family-centered approaches may be considered in prevention efforts to reduce problem drinking in French young adults.

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1. Introduction

Alcohol consumption contributes to morbidity and mortality worldwide (Li, 2008) and is the third largest risk factor for disease burden in developed countries (World Health Organization, 2004). Although alcohol consumption in France has been decreasing, it is still high (Hill & Laplanche, 2010). Alcohol abuse and dependence in young adults are estimated at 21% and 6%, respectively (Legleye, Beck, Peretti-Watel, Chau, & Firdion, 2010; Melchior, Choquet, Le Strat, Hassler, & Gorwood, 2011). Along with long-term damage to internal organs, heavy drinking may lead to chronic alcohol dependence (Li, 2008). It has also been linked to risky sexual behaviors, injury, suicide,

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homicide, motor vehicle accidents, and some cancers (Windle & Windle, 2005; World Health Organization, 2002, 2004).

In addition to genetic influences of alcohol (Herman, Philbeck, Vasilopoulos, & Depetrillo, 2003), alcohol consumption is patterned by social and familial environments (Enoch, 2006; Picherot et al., 2010). In France, there is widespread acceptance of alcohol in the home (Picherot et al., 2010) and regular use is fairly commonplace in young adults (30% in men, 16% in women) (Melchior, Chastang, Goldberg, & Fombonne, 2008). Research on familial influences on youth alcohol consumption has largely focused on parental modeling and monitoring of drinking, though there has also been interest in parent–child bonding and warmth in adolescence (Ryan, Jorm, & Lubman, 2010). The theory of self-medication proposes that alcohol can be used as a coping device that relieves psychological suffering (Khantzian, 1997). Accordingly, the discomforts or complications related to poor relationships with kin could result in self-medication with alcohol.

In France, 40% of male and 18% of female 22–26 year olds report recent binge drinking, (Melchior et al., 2008) and 58% of 15–29 and 29% of 30–49 year olds continue living with their parents (Marpsat, 2009). Nonetheless, research about familial influences on young adult drinking is limited. We examine associations between the

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quality of familial social relationships and alcohol abuse and dependence in French young adults.

2. Methods

2.1. Sample characteristics

The Trajectoires Épidémiologiques en Population (TEMPO) study began in 2009 among young adults aged 22–35 who were offspring of participants of the GAZEL cohort based in France (Goldberg et al., 2007). In 1991, all youth participated in the GAZEL Youth Study, which was designed to estimate the prevalence of psychological problems and access to mental health care in a sample of nationally representative children in terms of family size, geography and socio-economic characteristics (Fombonne & Vermeersch, 1997). In 2009, parents of eligible youth were asked to forward their children a mail or online questionnaire for the TEMPO study.

The response rate for the 2009 TEMPO guestionnaire was 44.3% (n = 1101, 59% women), which is comparable to other mental health surveys conducted in France (Alonso et al., 2004). Of the 2498 eligible youth, 16 had died since 1991 and 4 were too ill or disabled to answer. Among non-respondents, 27.5% had a parent who did not complete the 2009 GAZEL questionnaire, suggesting that the parent did not forward the TEMPO questionnaire to them. In addition, 6.9% of parents had no regular contact with their child and could not forward the questionnaire. Another 28.1% of non-respondents indicated lack of interest. When the parent forwarded the questionnaire to their child, non-response was 8.9%. Non-respondents were more likely to be male, to come from low socio-economic status or divorced families, and their parents were more likely to smoke tobacco and abstain from alcohol. Participants and non-participants did not vary with regard to parental or their own global psychopathology. TEMPO received ethical approval from the Comité Consultatif sur le Traitement de l'Information en Matière de Recherche dans le domaine de la Santé (CCTIRS) and from the French National Committee for Data Protection (CNIL: Commission Nationale Informatique et Liberté).

To assess alcohol-related problems we used the French version of the Alcohol Use Disorders Identification Test (AUDIT), a ten-item screening test developed by the World Health Organization and validated against clinical diagnoses (Bohn, Babor, & Kranzler, 1995; McCusker, Basquille, Khwaja, Murray-Lyon, & Catalan, 2002; Melchior et al., 2011), which captures alcohol abuse and dependence (referred to as alcohol abuse from here onward) over a twelve-month period (Babor, Higgins-Biddle, Saunders, & Monteiro, 2007). Following published guidelines, men who scored ≥ 8 and women who scored ≥ 7 were considered to show signs of alcohol abuse or dependence (Babor et al., 2007).

Participants were asked about their partner status based on cohabitation (with a partner versus in another housing arrangement) and to describe their relationships with their mother ("Are you satisfied with your relationship with your mother?"), father ("Are you satisfied with your relationship with your father?"), and partner ("Are you satisfied with your love life?"), rated on a scale of 1–8 (from "very satisfied" to "very unsatisfied"). Because conceptually we were interested in studying young adults with the least relationship satisfaction, these scales were dichotomized between scores 1–5 (satisfied) and scores 6–8 (unsatisfied).

Covariates included: age (as a continuous variable); sex (male vs. female); educational level (\leq high school vs. > high school) and negative affectivity (as a continuous variable) (<u>Rammstedt & John, 2007</u>). Negative affectivity was based on two items from the Ten Item Personality Inventory (TIPI) about being anxious and easily troubled (reverse coded) and being calm and emotionally stable (Gosling, Rentfrow, & Swann, 2003). Each item was scored on a scale ranging from 1 (not true at all) to 7 (very true) and the two were combined, as recommended by the scale's authors (Gosling et al., 2003). Parental

history of alcoholism was based on the child's report from the TEMPO study in 2009 regarding whether or not either of their parents ever had a problem with alcoholism during the parent's lifetime (yes vs. no), ascertained using a questionnaire adapted from the National Institute of Mental Health-Family Interview for Genetic Studies (NIMH-FIGS)(Maxwell, 1992).

2.2. Statistical methods

To test the association between social relationships and alcoholrelated problems, we first calculated bivariate chi-square and ttests. Second, we adjusted for socio-demographic variables, negative affectivity, and parental history of alcoholism using logistic regression. Negative affectivity was adjusted for in all models in order to account for the possibility it would result in a tendency to negatively assess social relationships. Parental history of alcoholism was adjusted to control for the possible genetic influence of alcohol-related problems and because parental alcoholism may affect the parentchild relationship. Because social relationships and alcohol use patterns vary in men and women, we stratified the analyses by gender. All data were analyzed using SAS 9.1 (SAS Institute, Cary, North Carolina).

3. Results

The sample included females (59%) and males (41%), who were on average 29 years old (range 22–35). Approximately three fourths of participants had above a high school education and about 60% were cohabitating. As reported by their children, approximately 4% of the parents had experienced lifetime alcoholism. The prevalence of alcohol abuse was approximately twice as high in males compared to females (21% versus 9% respectively, p<0.01) and in youth who were single compared to those cohabitating (22% versus 9%, respectively, p<0.01). Youth without alcohol abuse were more likely to be older (p<0.01). A poor relationship with one's mother or father was related to a higher likelihood of alcohol abuse (23% vs. 14% for a poor versus good maternal relationship; 22% versus 14% for a poor versus good paternal relationship). Poor satisfaction with one's love life was associated with a higher prevalence of alcohol abuse (22% versus 13% respectively, p<0.01) (Table 1).

In multivariable logistic regression models (Table 2), not cohabitating was associated with slightly over a two-fold odds of alcohol abuse (OR = 2.3, 95% CI 1.6–3.5). Likewise, having an unsatisfactory relationship with one's mother (OR = 1.8, 95% CI 1.0–3.6) or father (OR = 1.8, 95% CI 1.0–3.2) was also associated with alcohol abuse. After gender stratification, odds of alcohol abuse for youth living alone was especially elevated in men (OR = 2.8, 95% CI 1.6–4.8) and elevated but only marginally significant in women (OR = 1.9, 95% CI 1.0–3.3).

Parental relationship variables indicated that a poor relationship with one's mother or father was marginally significantly associated with almost a two-fold odds of alcohol abuse in both men and woman combined (OR = 1.8, 95% CI 1.0-3.6 for the maternal relationship; OR 1.8, 95% CI 1.0–3.6 for the paternal relationship). A poor maternal relationship was related to alcohol abuse in women (OR = 2.6, 95% CI 1.1-6.6) but not in men (OR = 1.5, 95% CI 0.5-4.1). Though falling slightly short of statistical significance, a poor relationship with the father was related to alcohol abuse in men (OR=2.0, 95% CI 0.9-4.7), but was far from statistically significant in women (OR = 1.6, 95% CI 0.6-4.2). The association between satisfaction with love life and alcohol abuse lost statistical significance after covariate adjustments (Table 2). Additional analyses including the presence of symptoms of depression and anxiety, as measured by the Achenbach System of Empirically-Based Assessment (Achenbach, 2007), did not show any substantial changes in estimates between satisfaction variables and alcohol outcomes, indicating no sign of mediation.

Demographic and social relationship variables of participating French young adults (TEMPO study, n = 1103, 2009).

	Overall Number (%)	No problem Number (%)	Alcohol abuse/dependence Number (%)	p-value
Catagorical variables				
Gender				
Male	454 (41.16)	352 (78.57)	96 (21.43)	< 0.0001
Female	649 (58.84)	579 (90.75)	59 (9.25)	
Education level				
≤High school	246 (22.88)	201 (83.06)	41 (16.94)	0.21
>High school	829 (77.12)	706 (86.31)	112 (13.69)	
Cohabitating with partner				
No	442 (41.19)	339 (78.11)	95 (21.89)	< 0.0001
Yes	631 (58.81)	569 (91.33)	54 (8.67)	
Parental history of alcoholism				
Yes	956 (95.79)	34 (80.95)	8 (19.05)	0.38
No	42 (4.21)	812 (85.84)	134 (14.16)	
Satisfaction with maternal relationship				
Poor	67 (6.27)	51 (77.27)	15 (22.73)	0.05
Good	1001 (93.73)	850 (86.03)	138 (13.97)	
Satisfaction with paternal relationship				
Poor	87 (8.31)	67 (78.82)	18 (21.18)	0.06
Good	960 (91.69)	820 (86.41)	129 (13.59)	
Satisfaction with love life				
Poor	279 (19.04)	158 (77.83)	45 (22.17)	0.0005
Good	880 (80.96)	760 (87.36)	110 (12.64)	
Continuous variables				
	Mean (SD): range	Mean (SD)	Mean (SD)	p-value
Age in years	28.94 (3.69): 22-35	29.10 (3.69)	27.85 (3.43)	< 0.0001
Negative affectivity	4.38 (1.40): 1-7	4.36 (1.40)	4.43 (1.44)	0.58

The total for each variable vary depending on number of missing: 0 for gender; 28 for education level; 30 for cohabitating with partner; 105 for parental history of alcoholism; 35 for satisfaction with maternal relationship; 56 for satisfaction with paternal relationship; 16 for satisfaction with love life; 0 for age; and 18 for negative affectivity.

Table 2

Multivariable logistic regression models for relationship variables associated with alcohol use and dependency, both overall and when stratified by gender (TEMPO study, 2009).

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				
Cohabitating with partner No 2.3 (1.6, 3.5) 2.8 (1.6, 4.8) 1.9 (1.0, 3.3) Yes 1.0 1.0 1.0 Model 2 Satisfaction with maternal relationship - - - Poor 1.8 (1.0, 3.6) 1.5 (0.5, 4.1) 2.6 (1.1, 6.6) - Good 1.0 1.0 1.0 - - Model 3 Satisfaction with paternal relationship - - - - Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) - - Good 1.0 1.0 1.0 - - - - Model 4 Satisfaction with love life - - 1.2 (0.7, 2.2) 1.4 (0.6, 2.9)		N=1103	N=454	N=659
Yes 1.0 1.0 1.0 Model 2 Satisfaction with maternal relationship 1.5 (0.5, 4.1) 2.6 (1.1, 6.6) Good 1.0 1.0 1.0 Model 3 Satisfaction with paternal relationship 1.0 1.0 Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) Good 1.0 1.0 1.0 Model 3 Satisfaction with paternal relationship 1.0 1.0 Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) Good 1.0 1.0 1.0	Cohabitating			
Satisfaction with maternal relationship				
Good 1.0 1.0 1.0 Model 3 Satisfaction with paternal relationship Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) Good 1.0 1.0 1.0 Model 4 Satisfaction with love life 1.3 (0.8, 2.0) 1.2 (0.7, 2.2) 1.4 (0.6, 2.9)	Satisfaction with maternal relationship			
Satisfaction with paternal relationship Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) Good 1.0 1.0 1.0 Model 4 Satisfaction with Image: Satisfaction with Image: Satisfaction with love life Poor 1.3 (0.8, 2.0) 1.2 (0.7, 2.2) 1.4 (0.6, 2.9)				
Poor 1.8 (1.0, 3.2) 2.0 (0.9, 4.7) 1.6 (0.6, 4.2) Good 1.0 1.0 1.0 Model 4 Satisfaction with love life 1.3 (0.8, 2.0) 1.2 (0.7, 2.2) 1.4 (0.6, 2.9)	Satisfaction with paternal			
Satisfaction with love life Poor 1.3 (0.8, 2.0) 1.2 (0.7, 2.2) 1.4 (0.6, 2.9)	Poor			
	Satisfaction with			

All models controlled for age (cont), gender (male/female), educational level (\leq high school, >high school), negative affectivity (cont). Models 3 and 4 are controlled for parental history of alcoholism. Models 2–5 also controlled for cohabitation with partner (no/yes). Sample sizes for models vary depending on number of missing observations for the variables included.

4. Discussion

Our study suggests that parental relationship satisfaction is associated with alcohol abuse and dependence in French young adults. In analyses stratified by gender, dissatisfaction with one's maternal relationship was a risk factor for women, but not for men. This pattern of gender-matching was suggestive in men as well, e.g. having a poor relationship with one's father was related to problematic drinking in men (although falling slightly short of statistical significance), but was weak and far from significant in women. For both genders combined, and in stratified analyses, not cohabitating with a spouse or partner was associated with higher likelihood of alcohol abuse and dependence.

Our results highlight the importance of kin relationships in association with drinking patterns in young adults, and suggest that this association may be stronger when there is parent-child gender matching. Parental influence on adolescent or young adult drinking has been shown in numerous studies (Abar & Turrisi, 2008; Beck, Shattuck, Haynie, Crump, & Simons-Morton, 1999; Fairlie, Wood, & Laird, 2011; Wood, Read, Mitchell, & Brand, 2004), with more parental involvement thought to weaken the peer influences on problem drinking (Wood et al., 2004). US men and women with a fair/poor paternal relationship had more alcohol symptoms compared to those with a good/excellent relationship (Kramer et al., 2008). Other research has identified depression as a mediator between negative bonding with fathers (but not mothers) and alcohol problems in US college students of both genders (Patock-Peckham & Morgan-Lopez, 2007). Unadjusted analyses from a French cross-sectional study suggested higher risk of binge drinking and drunkenness among boys reporting maternal relationship dissatisfaction, but not girls (Ledoux, Miller, Choquet, & Plant, 2002). Paternal relationships were associated with binge drinking and drunkenness during the past year for boys, while only drunkenness was associated for girls (Ledoux et al., 2002).

Social Learning Theory provides one explanation for gender matching between children and parents, as it suggests that a parent sharing the child's gender is a more salient role model (Bandera & Walters, 1963). As early as 2001, Patock-Peckham, Cheong, Balhorn, and Nagoshi (2001) have described parenting styles of parents with the same gender as their children as being important for alcohol use among US college students. They found that paternal permissiveness and authoritarianism were related to alcohol use and drinking control in male children, while permissive and authoritarian parenting in mothers were related to drinking control only in female children (Patock-Peckham & Morgan-Lopez, 2006).

We found that cohabitation with a spouse or partner was protective against alcohol abuse and dependence. This finding supports results from a national US study showing significant reductions in heavy drinking following marriage for both men and women (Merline, Schulenberg, O'Malley, Bachman, & Johnston, 2008). Similar patterns have been observed for reduced substance abuse after marriage (Curran, Muthen, & Harford, 1998; Leonard & Das Eiden, 1999). One possible explanation is that substance use is incompatible with conventional adult roles such as marriage (Homish, Leonard, & Cornelius, 2007).

Because our main exposure variables of parental and spousal relationships were ascertained simultaneous to alcohol abuse, further research is necessary to determine the direction of the effect. A strength of this study is the rich data on covariates, and the focus on a vulnerable period when there is a high prevalence of problematic drinking. Although we did not have medical diagnoses of parental alcoholism, we were able to examine relationships with both mothers and fathers while taking into account child report of parental alcoholism. Furthermore, a fairly large sample size allowed us to examine gender specific patterns. Because loss to follow-up limits the study's generalizability, further research will be needed to assess whether the results hold among lower-risk families. We also lack information about why children consider their relationship with parents to be unsatisfactory. However, though evidence is mixed, generally literature suggests that parental warmth, monitoring, support, and control may be important for adolescents' risk of alcohol and drug use disorders (Moore, Rothwell, & Segrott, 2010; Jacob & Johnson, 1997; Roche, Ahmed, & Blum, 2008; Wu, Lu, Sterling, & Weisner, 2004). More studies are needed to determine whether these factors may be salient in young adults.

Our study suggests that relationship quality with parents and cohabitating partners is associated with excess drinking in French young adults. The fact that statistical control for parental alcoholism did not eliminate associations between satisfaction with the parental relationship and child alcohol abuse and dependence suggests that the relationships are independent of history of parental alcoholism. Current approaches to alcohol prevention that incorporate issues such as family conflict and parental substance abuse (Gilvarry, 2000) may have important implications for relationship satisfaction with parents. Given our study's results, family-centered interventions may be propitious in preventing and reducing alcohol abuse.

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Contributors

- · Pamela Surkan drafted the article and conducted some of the statistical analysis.
- Rebecca Fielding-Miller carried out statistical analyses.
- Maria Melchior contributed to data interpretation, bibliographic searches and manuscript finalization.

Conflict of interest

None of the authors has any conflicts of interest.

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