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Psychosocial and Contextual Factors Related to Early Drinking Initiation in a Sample of Italian Adolescents (12-14 years)

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Psychosocial and Contextual Factors Related to Early Drinking Initiation in a Sample of Italian Adolescents (12-14 years)

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Abstract: Underage drinking is common in Italy. Children experiment under parental supervision their first sip of alcohol as family is reputed a factor of mitigation of unwanted consequences. However, evidence about later age outcomes is not conclusive. *Methods.* A national sample of 1.180 lower secondary school students (12-14), was surveyed for first drinking experience, subsequent drinking and opinions on alcohol. Multivariate analysis was conducted using SEM (Structural Equation Modeling) analysis. *Results.* 1) alcohol use (including drunkenness) is mediated by frequency but also by facility of access and peers. Positive alcohol appreciation normalizes the idea that moderate drinking is unproblematic; 2) girls are more exposed to drunkenness if their peers get drunk; 3) initiation under adults external to parents expose to uncontrolled drinking; 4) a positive appreciation at first experience confirms higher consumption levels but not excess. *Conclusion.* Alcohol initiation seems relatively independent from the presence/absence of family figures. Peers mediates towards higher consumptions.

Keywords: alcohol use, intervention, prevention, family relations/processes, gender differences, sem analysis

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Introduction

In Western cultures, alcohol consumption at a young age is a widely known phenomenon. In countries where underage alcohol initiation is regularly measured, prevalence appears already high at an early age (Patrick et Schulenberg 2014, Kelly et al. 2016). Although underage drinking is often judged as an alarming symptom *per se*, it is often assumed that there is an evolving path from early experiences with alcoholic beverages, albeit episodic, to later, more structured consumption. Numerous studies emphasize the risks associated with adolescence drinking, showing concern for an early drinking onset (Grant et Dawson 1997; Sobock et al. 2000; Adolfsen et al. 2014) and for later heavy drinking outcomes, both in later adolescence and into the adult age (Donovan et Molina 2013; Liang et Chiritzhs 2015, Anderson et al. 2013). Underage drinking rates varies from country to country. A comparison between the US and some European countries (Farhat et al. 2012), illustrates significant gender and country differences. Moreover, early onset depends on legally/culturally established limits varying from context to context. Besides, distinguishing between tasting/sipping and consumption of a full drink determines differences in the underage drinking prevalence (Wadolowski et al. 2015). In Italy, familial initiation of children with alcoholic drinks is common with children tasting an alcoholic drink, mostly wine, under parental supervision in occasion of a family celebrations or feasts (Strunin et al. 2010). Exploring the relationship between early onset and later heavy drinking shows that problem drinking is only partially constrained by an early onset. In particular, early experiences with alcohol could be an important component of a problematic lifestyle in adolescence but not necessarily a specific predictor of later substance abuse (Kuntsche et al. 2013). A survey carried out on a sample of middle school Italian children found that 29.9% of respondents (mostly 13 years) has tasted their first alcoholic beverage aged between 6 and 10, (Tucci et al. 2013). Drunkenness, although not common, is already present. In the UK 14% of 11 years old were already drinkers (Kelly et al. 2016). This is strikingly different from results from other countries like, for instance, Australia (Davenport et al. 2012). Research in the area tried mostly to assess how alcohol use and abuse are associated with factors that might indicate a significant predictive power. This association is significantly constrained by cultural backgrounds and established practices of drinking. A European analysis has shown that young people across different countries maintain different drinking patterns reflecting a variety of values and behaviours. For instance, it is confirmed that Mediterranean countries youngsters compared to Northern ones show less inclination to intoxication (Engels & Knibbe 2000). Adolescence is a complex phenomenon in which different determinants exert a combined influence on youngsters.

Substance use related behaviours in adolescence, including risky drinking, are associated with several influences like the role of parents at first drink (Long Foley et al. 2004), parental drinking itself as a possible explanation of their offspring's alcohol use (Li et al. 2002, Latendresse et al. 2008, Koning et al. 2010), and motivations towards alcohol (Cox & Klinger 1988, Kuntsche et al. 2005). Drinking at a young age goes with exposure to risk but expresses also a process of growth and emancipation from childhood. This implies both positive and negative expectations. The first ones include relaxation and closer links with friends, extended to the construction of gender identities (Demant 2007). The second ones have to do with coping to relieve tension against difficulties of various type (Kuntsche et al. 2010).

As exposure to substances is very likely at this age, understanding the nature of the individual experiences depends crucially on internal and external factors acting as drivers in a context, i.e. representations, beliefs and occasions leading to behaviour. These factors converge on a socially and individually set of rules, norms and habits, constituting systems of influence. All this calls for a complex multifactorial framework. To achieve some coherence out of several potential developments, social ecology approaches are promising (Bronfenbrenner 1977) coupled with social learning (Bandura 1977) and social control (Petraitis et al. 1995) theories. These hypotheses, in turn, relies on a series of different mediating paths for understanding action (Jessor 1991). One major aspect in disentangling the complexities of alcohol related behaviour indicates that young people come to drinking under many perspectives functional to building up an adult identity. These processes are transitional in nature, i.e. guided by parallel and often conflicting attitudes and values in the sense of the evolutionary notion of "multiple pathways" typical of developmental studies (Masten et al. 2009). Adolescence is an age of progressive detachment from the parents. This leads to novel lifestyles and opposing choices mediated by the pressure of the peers. The role of peers in influencing the decision to drink has been studied in many ways (Bot et al. 2005, Jones & Magee 2014, Patrick & Schulenberg 2014). It can be asked how much the role of friends contrasts or reinforces or diminishes a pre-existing parental influence and how the two factors interact in determining consumption, binge drinking and long-term consequences. Both cross sectional and longitudinal studies provide evidence in several, not always converging, directions. Already drinking friends can act as inducers (Light et al. 2013). Friends and peers may stimulate higher consumption while collective approval of drinking is more frequently associated with alcohol intoxication (Jones & Magee 2014). By contrast the positive influence of parental recommendations, especially when paired with a supportive environment (Habib et al. 2010; Kelly, Chan and O'Flaherty 2012; Strunin et al. 2010), has been recorded. For instance parental interventions based on disapproval of

early alcohol consumption (Ryan et al. 2010), or on a reinforced combination of parental and peer preventive action (Koning et al. 2011) proved effective. The attitudes and norms set up by parents determine strict or permissive parenting styles. The first presents stricter norms while the second allow for some form of relaxed control, implying the possibility for adolescents to have a direct decision on their own drinking, with or without adult supervision. (Ryan et al. 2010; Gilligan et al. 2012; Davenport et al. 2012). Parenting styles can be associated to certain typologies of drinking behaviours. Drinking typologies emerge as significantly linked to different parenting styles accounting for both the role of rules and the dimension of parental affection. Stricter rules appear correlated with lower risk alcohol consumption and paternal warmth-affection is also significantly linked towards low risk drinking typologies. By contrast, maternal warmth-affection is significantly associated to higher risk drinking profiles (Cablova et al. 2016) more or less reinforced by a permissive attitude of parents (Becona et al. 2013). Parental supervision in occasion of the initial drinking experience may help to build barriers against risky drinking in the long run, but real effectiveness of parental authorized drinking is mixed (Kaynak et al. 2014). Some results seem to show a better protection in contexts where parents exert a rigorous control (Choquet et al. 2007). Others have questioned the authoritative style as the optimal one (Garcia & Gracia 2009). Studies in England, Wales and the USA aimed at identifying the mediational role of parents and peers, show both that frequent drinking occasions and drinking friends reinforce a latent need to drink for coping (Cox et al., 2006) and that parental involvement is negatively associated with alcohol abuse (Pilgrim et al. 2006). Families with a high internal cohesion seem to provide awareness of the alcohol associated risks leading eventually to more controlled consumption (Habib et al. 2010). This has been called the “buffering hypothesis”, i.e. a form of positive impact against substance use in high risks contexts (Cleveland et al. 2010). In particular, variables expressing family closeness resulted significant in predicting lower engagement in alcohol use, while the model of the influence exerted by peers appears to be less significantly associated to alcohol use (Ennett et al. 2008). These findings have been questioned in the light of different outcomes seemingly hinting at a sort of “protective-reactive effect” shown by the fact that in highly stressing contexts adolescents tend to succumb to high-risk behaviour (Schonberg and Shaw, 2007). As children grow into adulthood, developmental studies indicate a weakening of alcohol rules and the decrease of parental guidance (Masten et al. 2009). These outcomes, known as ‘drinking trajectories’, aim at understanding the effect of certain socialization practices of the individuals (Casswell et al. 2002, Koning et al. 2012, Mares et al. 2012). The importance of so-called ‘alcohol-specific rules’ is invoked to check for the nature and speed of such evolution, based on the

hypothesis that at later stages, once children are more emancipated from families, the protective value of family rules decline and consumption increases. A longitudinal study examining a combination of alcohol specific rules associated with constant and supportive parental communication on alcohol, shows that children with moderately authoritative parents are less inclined to start drinking at 12 and increasing consumption less rapidly at a later stage (Koning et al. 2012). The consumption inducing peer role seems, by contrast, less significant (Mares et al., 2012). Communication is generally considered as an instrument of awareness to positively influence children's behaviour. Clearly stated alcohol rules and communication are significant in delaying or reducing adolescents' drinking while communication, in a way unexpectedly, appeared related to heavier drinking (van de Vorst et al. 2010). Drawing robust causal relationships remains hence difficult. This recommends prudence on deriving a clear-cut judgement on the nature of juvenile drinking. The present study adopts an open perspective, broadly reminiscent of the developmental studies approach. Given the distinctive role of alcoholic beverages in the early socialization processes of young people in Italy, the role of familial habits in this connection and the emerging independent attitudes of adolescents, it is worth investigating how the social pressure (family and friends) interact with alcohol availability and occasions of use (relevant contexts) and how in turn these interact with remembered sensations and expressed opinion on alcohol.

More specifically the current investigation analyses data from a sample of young Italian adolescents to test: 1. How alcohol use and uncontrolled drinking are associated to the role played by parents and friends (social factors), 2. How alcohol use and uncontrolled drinking are associated to the facility to get alcohol and to social events where drinking occurs (contextual factors), and 3. How alcohol use and uncontrolled drinking are associated to the opinion on alcohol use and the quality of the remembered sensation at first use occasion (psychological factors).

Methods

Sample

The data came from the OPGA-SIMA survey on alcohol use and abuse among the lower secondary school students in Italy, a research coordinated by SIMA (Società Italiana di Medicina dell'Adolescenza), and Laboratorio Adolescenza, a research and communication company active in the field of juvenile health and wellbeing. The Department of Sociology and Social Research of the University of Trento provided scientific coordination, data treatment and statistical analysis. The sample included 1180 children (52.3%

female and male 47.7%), drinkers and non-drinkers. Participating students were recruited in the third year of lower secondary schools. In this year children aged 12-14 are prevalent. Mean age of the sample was 12.9 years (12 years: 9.5%, 13 years: 67.6%, 14 years: 20.0%, 15 years: 2.7%, and 16 years 0.2%). For the present study, the sample reflected the Italian population in the Italian Metropolitan cities/areas, (i.e. urban conglomerations > 500.000 inhabitants), but not of the lower secondary school students in the same areas. The five cities were Turin (21.3% of the sample), Milan (20.6%), Rome (19.6%), Naples (19.9%), and Palermo (18.6%). Data were collected in April-May 2014.

Questionnaire

The questionnaire touches upon various aspects on alcohol initiation: drinking onset age, parental role, peers role, opinion on alcoholic beverages, sensations associated to the first drinking occasion. The questionnaire is available upon request to the authors.

Dependent Variables: Alcohol Use Measures

Variables expressing alcohol use were aimed at measuring frequency of consumption. Questions were relativized to “current” consumption (“In this period how many times do you drink: wine/beer/aperitifs, vermouth/spirits /alcolpops?”) Permitted answers were never/sometimes/often. All respondents, included current abstainers, were included in the statistical analysis. The Alcohol use indicator was obtained summing the answers “never”, “sometimes” and “often” for each alcoholic beverage. Unidimensionality of the latent concept has been confirmed by factor analysis (the first factor accounting for 53.6% of total variability) with Cronbach’s Alpha at 0.78. As a result every participants received a score ranging between “0” (never drunk, 23.6% of the sample, tab. 1) and “10” (respondents who tasted more than once all types of beverages, 0.4% of the sample). Alcohol misuse has been built on the answer to the question “Did you ever get drunk?” allowing for three possibilities: “never” (76.7%), “yes, once”, “yes, more than once”. 15.4% of the respondents experienced drunkenness once, while 7.9% more than once.

The two resulting synthetic descriptors, hereafter considered as dependent variables, are therefore named FREQUENCY, expression of regular drinking, and UNCONTROLLED DRINKING, expression of risky drinking.

Tab. 1. Variables included in the analysis (n. = 1180)

Variable	%
FREQUENCY OF DRINKING	
0, never all types of beverages	23.6
1	19.3
2	18.8
3	16.4
4	7.9
5	6.6
6	3.3
7	2.0
8	1.4
9	0.3
10, more than once all types of beverages	0.4
UNCONTROLLED DRINKING	
Never	76.7
Yes, once	15.4
Yes, more than once	7.9
SEX	
M	47.7
F	52.3
FRIENDS	
Nobody	48.3
Yes, few	43.8
Yes, most of them	8.9
PARENTS	
Presence of other people at first drink	55.8
Presence of parents at first drink	44.2
GETALC	
0, Never capable to get alcohol	32.0
1	18.1
2	22.1
3	12.9
4, Never capable to get alcohol	14.9
EVENT	
Special occasions (party, holiday, ...)	64.2
Other occasions	35.8
OPINION	
0, very negative opinion of drinking	17.1
1	32.6
2	33.0
3, very positive opinion of drinking	17.3
FEELING	
Unpleasant sensation or no opinion	71.0
Pleasant sensation	29.0

Social factors

Parents and friends are the fundamental socially relevant bonds of the respondents. They crucially include the parental role of guidance and influence and the peer group, i.e. friends that exert an influence on their life and help shaping certain lifestyles. Given that they model social relationships, this dimension has been labelled as “social factors”. For these reasons, they have been considered as a decisive source of influence in the investigation. The PARENTS descriptor refers to the presence of parents at first drink (44.2% had first occasion of drinking in presence of parents, 55.8% with other adults, tab. 1). The FRIENDS descriptor refers to the circle of friends of the respondent, specifically: “Are there among your friends some who have got drunk at least once?” (48.3% had no friends who got drunk, while 43.8% had some drunk friends and 8.9% had several drunk friends).

Psychological factors

Both opinion on alcoholic beverages and expressions of pleasure/displeasure may help understanding the motivations behind each respondent; therefore, they are here alluded to as psychological factors. Opinion on alcohol use and sensation experienced at first drink provide the concise expression of the individual attitude toward drinking. These two factors summarize variables associated with various possible responses, which have been recorded. Opinion on alcohol has been obtained by combining into a single variable (OPINION) the following questions: “Drinking 1-2 glasses of alcoholic beverages at meals is normal”, “Occasional drunkenness episode is not alarming” and “After a drink you are more relaxed”. Unidimensionality of the latent concept has been confirmed by a factor analysis with the first factor accounting for 44.2% of total variability. 17.1% of the respondents had a very negative opinion of drinking, 32.6% negative opinion, 33.0% positive opinion and 17.3%, totally positive opinion (tab. 1). Sensation experienced at first drink (FEELING) is built out of possible sensations and feelings to which the respondent had to match the memory of her first drinking experience: 71.0% unpleasant sensation or no opinion, 29.0% pleasant sensation.

Contextual factors

Certain factors are intrinsically associated with the living environment of youngsters. Adolescents are responsive on a number of circumstances that may constitute an incentive or stimulus to drink or to abuse. The facility to get alcohol is certainly one as is the early encounter with alcoholic beverages on specific occasions (social, familial, more rarely personal). This dimension has been baptized “contextual factors”.

The questionnaire contained two related questions: “Is it easy for you to get any of the following alcoholic beverages?” (wine / beer / aperitifs, vermouth / spirits / alcolpops, GETALC), and “Where did you drink alcoholic

beverages for the first time?” (EVENT). Places associated with first drink are “Special occasions” (at a party, on holiday, on a special occasion): 64.2%, “other occasions” (including “at home”, “at home with friends”): 35.8%, tab. 1). The variable EVENTS has been built so that ‘1’ codes those who had a first drink during special occasions and ‘0’ accounts for other cases. Regarding the accessibility construct (GETALC), the items corresponding to the possibility to get alcoholic beverages have been used to build a single index after controlling for unidimensionality through factor analysis (with the first factor responsible for 61.7% of the total variance, and Cronbach Alpha at 0.79). Scaling for the latent construct range was between “0” (not able to get alcohol, 32.0%) and “4” (always capable to get alcohol, 14.9%).

Analysis

In order to gain an appropriate insight into these issues a SEM (Structural Equation Modeling) approach has been chosen (Jöreskog and Sörbom 1996, Kline 2010). SEM has several advantages: first, it invites the researcher to elaborate a solid conceptualization of the possible causal relationships under scrutiny. It helps describing in a rigorous way the conceptual model by analysing the causal dependencies between dependent and independent variables. Second, the method consents a highly reliable control of all the included variables. It allows the immediate and contemporary control of all covariates, and it therefore has a high confirmatory value. Finally, it is highly efficient in keeping together all the structural parameters of both dependent and independent variables. In this study, four SEM models are analysed and commented. Model 1 generalizes over all respondent in the study. It has an exploratory role in that it discriminates over all the relevant variables included in the analysis associated with the most relevant factors. Structural relationships are hence highlighted at their maximum level of generality. Successive models (2, 3 and 4) are built out of subgroups. The models try to answer to different possible stimuli and motivations moulding the drinking experiences of the adolescents.

An overall picture of the conceptual model takes into account a list of variables which describes a system of relevant relations and contribute to shaping a causal network for the topic. In particular, the model includes (beyond the socio-demographic variable SEX): role of the circle of friends, especially those who have experienced drunkenness (FRIENDS), presence of parents at first drink (PARENTS), facility to get alcoholic beverages (GETALC), special events (EVENT), memory of the first experience when drinking alcohol for the first time (FEELING), and an alcohol related opinion (expressed as positive or negative attitude towards consumption: OPINION). As

regards as FREQUENCY, we considered it both as a dependent variable, but also as mediator of UNCONTROLLED DRINKING.

Fig. 1. Conceptual model of analysis

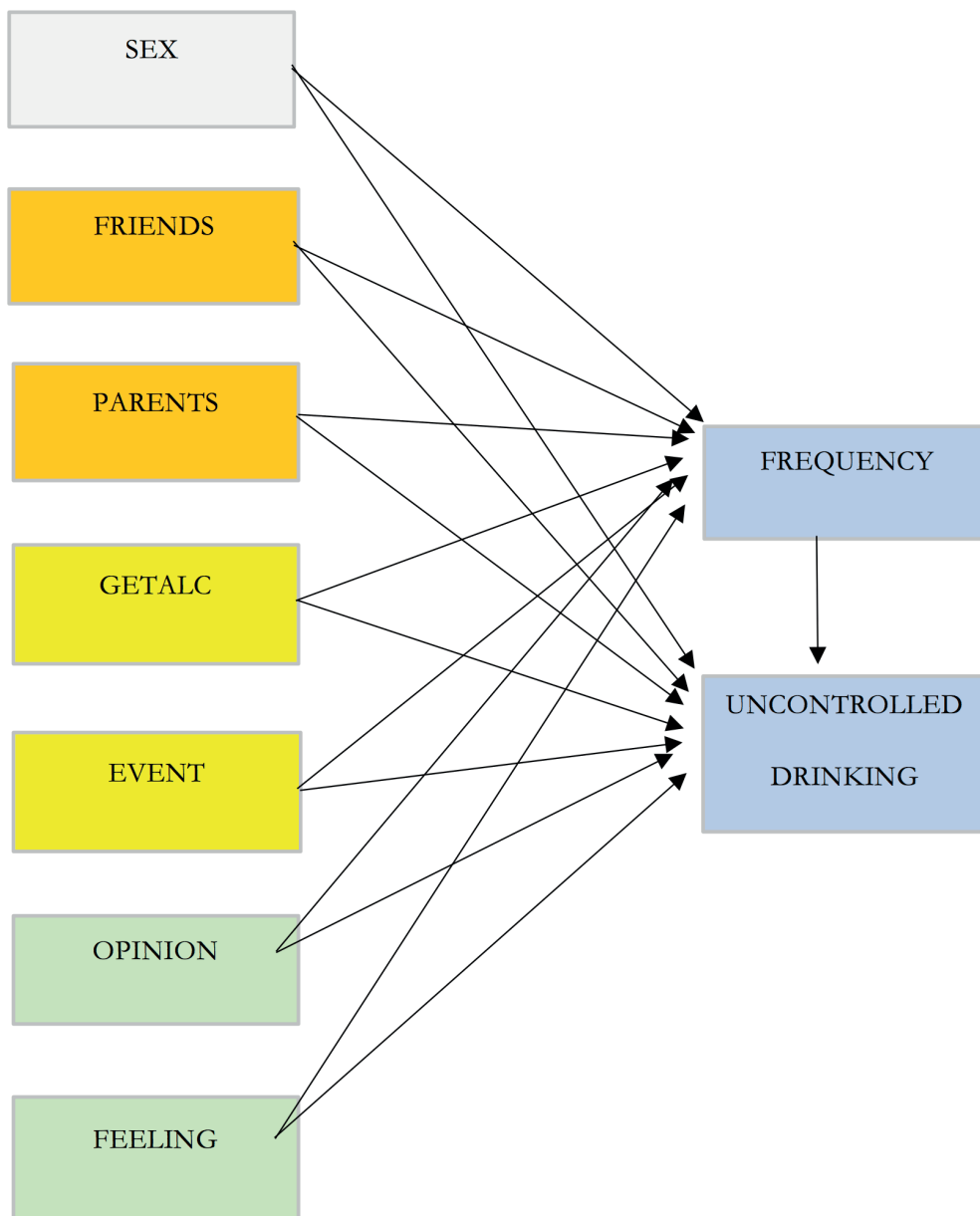


Figure 1 shows how the system of variables has been arranged.

Statistical analysis was performed using Lisrel 8.80 (Jöreskog & Sörbom 2006). All models were estimated using the weighted least square method with computation of polychoric correlation matrix between variables. All the models show a good fit to the data.

Results

Results are given separately for each model in analysis. Model 1, accounting simultaneously for all cases, is summarized in Table 2.

In what follows indices associated to each factor express the estimation of the structural parameter occurring between the dependent variable and the independent one and, in brackets, the respective standard error. The parameter represents the effect of the independent variable on the dependent variable. The model summarizes some expected findings. With reference to the frequency of consumption, some factors manifest a certain force, namely the role of “friends drinking to excess” (FRIENDS: 0.21) and both the opinion (0.19) and sensation associated to first drinking occasion in lifetime (“positive sensation” and “drinking not harmful for the drinker” (FEELING: 0.20). The “facility to get alcohol” is also positively correlated with frequency (GETALC: 0.18). Uncontrolled drinking is associated more strongly to the presence of friends who have experienced drunkenness (0.33). By contrast, it seems that “presence of parents at first drink” is somehow only moderately related to alcohol use and abuse. It presents in fact only a slight inverse relationship to frequency and a small impact in reducing drunkenness (-0.14).

Tab. 2. First Model. Lisrel estimates (n. = 963)

		INDEPENDENT VARIABLES							
		SOCIAL FACTORS		CONTEXTUAL FACTORS		PSYCHOLOGICAL FACTORS			
DEP. VAR.	FREQUENCY	SEX	FRIENDS	PARENTS	GETALC	EVENT	OPINION	FEELING	R ²
FREQUENCY	-	-0.13*** (0.04)	0.21*** (0.04)	-0.09*** (0.04)	0.18*** (0.04)	-0.13*** (0.04)	0.19*** (0.03)	0.20*** (0.04)	0.38
UNCONTROLLED DRINKING	0.37*** (0.05)	-	0.33*** (0.05)	-0.14*** (0.05)	-	-	0.10*** (0.04)	0.09 (0.05)	0.53

$$X^2 = 3.54; df = 3; P = 0.32; RMSEA = 0.014 (* = 0.10, ** = 0.05, *** = 0.01)$$

In the second model (Model 2) structural parameters have been calculated separately for the subgroups of male and female respectively (Table 3). Frequency of drinking varies with sex, as boys are more likely to have free access to alcohol compared to girls. This is confirmed by the GETALC factor (summarizing “facility to get an alcoholic beverage”: 0.22) for males. The FEELING aspect (“sensation at first drink”) is on a par for both boys

and girls. OPINION (“drinking 1-2 glasses of alcoholic beverages at meals is normal”) correlates with female frequency (not so much with boys: 0.14). Risky drinking (UNCONTROLLED DRINKING) is significant for both subgroups but is a stronger as peer group influence (FRIENDS) for females (0.35) compared to males (0.26), while for FREQUENCY it is the opposite (0.28 for males and 0.16 for females). It is interesting to see how females seem to be more sensitive to the pressure of friends indulging with uncontrolled use of alcohol. Girls apparently look for peers to get drunk. The same is only partially true for boys. Sex is hence a major discriminant in structuring alcohol related behaviours.

Tab 3. Second Model: Sex. Lisrel estimates (n. = M: 467; F: 496)

		INDEPENDENT VARIABLES							
		SOCIAL FACTORS		CONTEXTUAL FACTORS		PSYCHOLOGICAL FACTORS			
DEP. VAR.	GROUPS	FREQUENCY	FRIENDS	PARENTS	GETALC	EVENT	OPINION	FEELING	R ²
FREQUENCY	M	-	0.28*** (0.05)	-	0.22*** (0.05)	-0.09 (0.05)	0.14*** (0.05)	0.21*** (0.05)	0.37
	F	-	0.16*** (0.06)	-0.13*** (0.05)	0.15*** (0.05)	-0.20*** (0.05)	0.21*** (0.05)	0.21*** (0.05)	0.36
UNCONTROLLED DRINKING	M	0.37*** (0.06)	0.26*** (0.06)	-0.14***	0.06 (0.04)	-	0.10*** (0.05)	0.09 (0.05)	0.52
	F	0.38*** (0.06)	0.35*** (0.06)	-0.12*** (0.06)	0.06 (0.04)	0.08 (0.06)	0.09 (0.06)	0.09 (0.05)	0.54

$$X^2 = 3.82; df = 6; P = 0.70; RMSEA = 0.000 (* = 0.10, ** = 0.05, *** = 0.01)$$

Coming to the role exerted by family figures and especially parents in moulding the drinking experience of adolescents, the hypothesis to be tested is whether parental presence has any favouring or deterring effect on the way adolescents use (frequency) or abuse (uncontrolled drinking) alcoholic beverages. This hypothesis has to do with the way parental guidance, in the form of information on alcohol, personal example or simple presence is significant for the evolutionary path of adolescents drinking.

Model 3 isolates two groups: those who had a first drink under some form of parental supervision and those who had not (Table 4). Parents seem to play a role in relation to uncontrolled drinking. This is anyway even stronger when first drink is mediated through adult figures external to the parents of the adolescents (first drink with others than parents: FREQUENCY: 0.44). For those who had the first drink with parents, it is also significant the EVENT factor (0.15, summarizing the variable: “having had first drink during a special event”). At the same time, the importance of FRIENDS is always significant for both the groups, showing a permanence of the peer group influence whatever the occasion and the subgroups we consider. Such a result seems

consistent with a moderate to low influence of parents. It is equally true that so called contextual factors (GETALC, EVENT) have little influence on these consumers.

Tab.4. Third Model: First drink with parents. Lisrel estimates (n. = parents: 537; other: 426)

INDEPENDENT VARIABLES										
DEP. VAR.	GROUPS	FREQUENCY	SEX	SOCIAL FACTORS		CONTEXTUAL FACTORS		PSYCHOLOGICAL FACTORS		R ²
				FRIENDS	PARENTS	GETALC	EVENT	OPINION	FEELING	
FREQUENCY	Parents	-	-0.15*** (0.05)	0.20*** (0.05)	-	0.18*** (0.03)	-0.18*** (0.05)	0.18*** (0.04)	0.17*** (0.05)	0.35
	Other	-	-0.11*** (0.06)	0.21*** (0.06)	-	0.18*** (0.03)	-0.10 (0.05)	0.20*** (0.05)	0.24*** (0.06)	0.37
UNCONTROLLED DRINKING	Parents	0.32*** (0.06)	-	0.36*** (0.06)	-	0.14*** (0.07)	0.15*** (0.07)	0.13*** (0.06)	0.07 (0.05)	0.50
	Other	0.44*** (0.06)	-	0.32*** (0.06)	-	0.03 (0.06)	-0.03 (0.06)	0.05 (0.05)	0.07 (0.05)	0.52

$X^2 = 6.63; df = 6; P = 0.36; RMSEA = 0.015$ (* = 0.10, ** = 0.05, *** = 0.01)

Tab 5. Fourth Model. Sensation at first drinking. Lisrel estimates (n. = pleasant: 283; unpleasant: 678).

INDEPENDENT VARIABLES										
DEP. VAR.	GROUPS	FREQUENCY	SEX	SOCIAL FACTORS		CONTEXTUAL FACTORS		PSYCHOLOGICAL FACTORS		R ²
				FRIENDS	PARENTS	GETALC	EVENT	OPINION	FEELING	
FREQUENCY	Pleasant	-	-0.20*** (0.06)	0.27*** (0.06)	-0.12*** (0.05)	0.22*** (0.05)	-0.07 (0.06)	0.28*** (0.06)	-	0.43
	Unpleasant	-	-0.13*** (0.04)	0.20*** (0.05)	-0.08 (0.05)	0.19*** (0.05)	-0.15*** (0.05)	0.18*** (0.04)	-	0.26
UNCONTROLLED DRINKING	Pleasant	0.36*** (0.06)	-	0.37*** (0.06)	-0.22*** (0.07)	0.08 (0.05)	0.07 (0.05)	0.02 (0.04)	-	0.51
	Unpleasant	0.40*** (0.07)	-	0.27*** (0.07)	-0.07 (0.08)	0.10 (0.05)	0.07 (0.05)	0.03 (0.04)	-	0.48

$X^2 = 4.71; df = 7; P = 0.70; RMSEA = 0.000$ (* = 0.10, ** = 0.05, *** = 0.01)

The last model (Model 4, table 5) compares those who expressed a positive sensation when offered a first drink to those who declared a nasty sensation. The underlying assumption is that first sensations have a role in shaping tastes and preferences. The hypothesis assumes that there could be a long-term effect of the first sensation. Those who have had a pleasant sensation are more prone to have a positive evaluation of alcohol drinking (“1-2

glass of alcoholic beverages at meals is normal”: 0.28, OPINION). This seems to confirm a link between the idea that “drinking is good for you” and a positive appreciation of alcoholic beverages through subjective taste. The problematic behaviour (UNCONTROLLED DRINKING) of those who have a positive feeling is rather mediated by social factors (FRIENDS: 0.37, versus 0.27 of those who had a negative sensation at first taste). It must be underlined that the subgroups of the children who expressed a positive sensation show a moderating parental influence (PARENTS: -0.22).

Discussion

The present analysis assumes that alcohol use and abuse in adolescence are dependent on a number of factors reflecting the variety of psychological, social and contextual influences on individuals in a crucial transitory phase in their lives. Results showed that all the mentioned factors have an influence, and that the direction and strength of each influencer varies accordingly to relevant contextual qualifications of each determinant. Sex, parents, sensation, opinion and friends are confirmed as major constraints on the evolution of alcohol behaviour since an early age.

The general model (Model 1) has shown that friends have a prevalent influence on both consumption (FREQUENCY) and risky drinking (UNCONTROLLED DRINKING). Parents, if associated at the first drinking experience, have a moderate contrasting role with respect to frequency, but not so much towards early drunkenness. Psychological variables have an influence on drinking (FREQUENCY), in particular sensorial memories, if positive, mediate towards regular drinking.

Coming to gender (Model 2), it is manifest that the social dimension, represented by the prevalent behaviour of peers, plays a major role especially for males. Girls who can be counted among frequent drinkers, (prone to uncontrolled drinking) are driven by their friends. For males it also valid an association with the facility to get alcoholic beverages and positive memory of first taste. Special events (in many cases celebration and feast) are inversely correlated with the probability girls choose drinking. A positive sensation at first drink sustains the correlation with regular use (FREQUENCY) but not with risky use (UNCONTROLLED DRINKING). The presence of parents (Model 3) at first experience correlates weakly with both psychological and contextual factors. Things are different with respect to social factors: youngsters who had a first drinking occasion in presence of parents are more exposed to risky drinking mediated by friends. Finally, the role of sensations (Model 4) makes the difference when initial sensation is pleasant. In addition, this can be paired with the presence of friends who got drunk leading to a double influence of sensitivity to taste and peer influence.

Conclusion and limitations

One of the strengths of this work is the attempt of testing the (simultaneous) effect of social, psychological and contextual factors on alcohol consumption. Social factors are by and large the most relevant influences. It can be safely assumed that children get a lot of their attitudes towards alcoholic beverages from observed examples. In this respect, friends are highly influential; nonetheless, it is difficult to assert whether they are instrumental to the decision to drink or whether they have a reinforcing influence on peers that have already experimented with alcohol. They certainly can have a major pushing capacity towards uncontrolled drinking (but the survey do not offer details about the circumstances in which uncontrolled drinking typically happen). Parents in this survey show some mixed correlations: in one sense, their presence at first drink can lead to an implicit authorization to alcohol use but it is also relevant in curbing or delaying uncontrolled, i.e. risky, drinking. Therefore, in a sense, parents play an inducing role with respect to supporting drinking initiation but their presence is also a moderating factor with respect to heavier drinking. In absence of other controls, it can be said that, at this early age, parents are neither a definite pro-alcohol influencer nor a guaranteed factor of protection against alcohol abuse. Sex confirms the known differences, with a prevalence in male drinking, but some girls have already an orientation towards uncontrolled drinking typically mediated by (older?) male mates. The same can be said with reference to the facility to get alcohol, something mostly associated with being a male. Sensations and events are equally important (sensations more than events). In this respect, it can be supposed that Italian social habits often favour a relatively early appreciation of voluptuary features like taste, possibly in dependence of a family culture that looks with approval to gastronomic pleasures and sees wine as natural complement of each meal, especially when all the family members gather around the table.

Finally, this work cannot cast new light on the discussed issue whether and how initial consumption under parents' supervision is linked to alcohol consumption and misuse at later ages. Within the limits of this research, it is not possible to get a comprehensive answer. Students were mostly 13-14 years old, only a minority were beyond that age class. Hence, a full evaluation of the researched causal link is limited to a very narrow span of age. Subsequent, more structured patterns of consumption and abuse, starting at 15-16 years would have to be included in a coherent research design to test for causal links delayed in time. Therefore, larger and longitudinal samples over a longer period of adolescence should help this direction of research. In addition, it will be important to explore in more detail how the talk about alcohol occur between parents and children. The quality of the intergenera-

tional relationship has many facets: the internal cohesion of the family, the number of convivial occasions children and parents share, the type of familial habits regarding eating and drinking are all factors that help modelling one's attitude towards alcoholic beverages. The nature of recommendations within the family should also be studied in connection with the opinion of alcohol developed by youngsters, which may or may not reflect the prevalent parents' opinions on the issue. This last question can be analysed by looking at the role exerted by friends, especially those already engaged in uncontrolled drinking: their opinions and examples may interfere with those inherited from the familial context. Although the present survey is cross-sectional, not allowing repeated observations on the same individuals, the results are quite stable for all the employed variables and the causal links well grounded. Another limitation derives from the fact that the sample is composed of students living in urban and metropolitan areas. Therefore, results are exclusively associated with an urban environment. Youngsters from rural or peripheral areas may show different behaviour.

Conflict of interest

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