Investigating Underage Youth Access to Alcohol in Switzerland: Inventory of Modes of Access and Association with Youth Characteristics

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Abstract — Aims: While laws restrict alcohol access to youth under the age of 16/18 (fermented/distilled beverages) in Switzerland, direct underage accessibility is high. Focusing on underage youth, our study presents an inventory of primary and alternative modes of access to alcohol and investigates associations with youth characteristics. Methods: Data were collected using semi-structured interviews and self-report questionnaires. In total, 223 underage youth aged 15–17 years were interviewed. Results: Overall, about half of the participants reported illegal commercial purchase, either direct or by underage peer, in on- (49.3%) and/or off-premise (48.0%) contexts. Off-premise purchase by proxy of legal age (30.5%; excluding shoulder-tapping), social supply off-premise (i.e. receiving/exchanging alcohol; 26.5%) and direct purchases in on- (13.9%) and off-premise (11.2%) contexts were the most recurrent primary modes of access. Significant associations of direct purchases with frequency of consumption and perceived alcohol availability were recorded. Associations between primary and alternative ways to access alcohol, in particular, between on-premise modes, were also evidenced. Conclusion: Providing an overview of the context of underage alcohol access in Switzerland and an indirect view of youth perceptions of limitations of existing structural measures has identified particularly the need for enforcement of existing legislation.

INTRODUCTION

In Switzerland, young people’s accessibility to alcohol is regulated by federal legislations that ban the retail and distribution of any alcoholic beverage to youth under the age of 16 and of distilled alcoholic beverages to youth under the age of 18 (Swiss Confederation, 2011, 2013), which makes Switzerland one of the most permissive developed country regarding young people’s access to alcohol (World Health Organization (WHO), 2011). Recent test-purchase results highlighted high levels of direct accessibility, with underage sales rates exceeding, in some cantons (i.e. federal states), 80% for youth aged 14–15 years (Astudillo and Kuendig, 2013). Just as alarming is the annual rate of hospital admissions with acute intoxication diagnoses, which exceed 1.5 per 1000 among youth in this age group (Wicki, 2012). There is therefore need for further comprehensive investigations of underage youth sources or modes of access to alcohol, the latter terminology being preferred in the present study.

Most studies that investigated underage alcohol access have been conducted in North America. Findings documented that underage high school and college students can easily obtain alcohol through various modes; for example, from friends/acquaintances (generally of legal age to purchase) or shoulder-tapping (i.e. asking a stranger to purchase alcohol), at parties, using alcohol home delivery services, or via direct purchase using a fake ID (Wagenaar et al., 1993, 1996; Schwartz et al., 1998; Fletcher et al., 2000; Toomey et al., 2007; Fabian et al., 2008; Brown et al., 2009; Martinez and Sher, 2010; Friese et al., 2011). Among the few European studies on this matter (Maisey and Davies, 2003; Storvoll et al., 2008; Morleo et al., 2010), one case study from the UK (Maisey and Davies, 2003) reported that the most common primary source of alcohol access for youth aged 11–16 years was parents (35% of participants) and off-licenses (28%). In Norway, Storvoll et al. (2008) reported that more than two-thirds of youth, 13–15 years old, had obtained/bought alcohol from other adolescents over the last 12 months, about half had stolen alcohol at home, and almost one-third had drank at licensed premises. Overall, older peers or parents were the primary sources of alcohol in most of these studies. A report by Smart et al. (1996) contrasts with the figures from Europe (Maisey and Davies, 2003) and found that only 7% of Ontarian students under 20 years of age reported accessing alcoholic beverages at off-premises (respectively, 3% in bars/restaurants).

Few studies have also highlighted significant but varying associations among the ways with which youth access alcohol, youth demographics and alcohol use characteristics (e.g. age, sex, frequency of alcohol consumption and perceived availability, see Smart et al., 1996; Wagenaar et al., 1996; Harrison et al., 2000). In sum, while basically core modes of access appear cross-culturally distributed and thus should also be found in Swiss contexts, scientific evidence draws attention to the complexity of the underage youth alcohol access and to variations that might be meaningful in different sociocultural and legal contexts.

Aim and objectives

This study explored ways in which underage youth access alcohol in French-speaking Switzerland by proposing a detailed inventory of modes of access. Specifically, this study describes the primary (or main) and alternative modes of access to alcohol among underage youth and investigates the association between modes of access and youth characteristics by applying a mixed methods approach (Tashakkori and Creswell, 2007).

METHODS

Data collection took place between June and August 2012 in four urban agglomerations of the French-speaking part of Switzerland. Eligible participants were youth aged 15–17 years who drank alcohol occasionally to regularly. Non-eligibility criteria were (a) did not drink in the last month and (b) only drank once in the lifetime. Participants were contacted in public places frequented by youth in this age group (selection
based on reports by local street social workers). To avoid collecting ‘contaminated’ data because of shared practices within peer-networks, and accordingly, to gather data from youth with heterogenous profiles and from different regions, we applied a basic stratified purposive random sampling strategy, i.e. stratified across agglomerations, followed by recruitments at random (Teddlie and Yu, 2007). Data were collected using a semi-structured interview and short paper-pencil questionnaire. Ethical approval was granted by the Cantonal Ethics Committee for Research on Human Beings of Vaud Canton (protocol 428/11).

Among the 1162 contacted youth, 257 refused contact or participation (22.1%) and 676 did not meet the inclusion criteria (187 were too young, 337 too old and 152 had drank only once in their lifetime or had not drank in the last month). In total, 229 interviews were completed, including 19 pretests. Data from 13 pretest interviews deemed of good quality were included in the final dataset. The analyzed dataset comprised 223 female (53.8%) and male (46.2%) aged 15 (39.0%), 16 (34.1%) and 17 years (26.9%). Overall, 135 interviews (60.6%) were conducted in urban areas with populations exceeding 100,000 inhabitants and 88 in smaller cities.

**Data treatment and analyses**

Based on the final set of 223 interviews, 767 modes of access or ways of accessing alcohol were described (3.44 modes per respondent on average; considering only beverages under retail ban to them). Essentially, focusing on respondents’ own experiences yielded different contexts in which they drink alcohol. Every mode of access was scrutinized by adapting questions to the contexts of consumption (e.g. ‘When you drink beers with your friends by the lake, how do you access these?’), ‘Who did actually purchase these from and where?’; ‘To what extent are you involved in the process?’). Once a mode of access was thoroughly documented, including strategies applied to maximize the success of access, a similar scheme was applied to other modes (if identified). Identification of new modes could occur at any moment during the interview process as well as during a final review of the data that was conducted to clarify any gaps or discrepancies. Built on faceted classification or grounded theory data collection principle (Leigh Star, 1998), original coding of qualitative data was based on a set of core and conditional dimensions (definitions can be obtained from the authors), with the aim to identify a possible spectrum of meaningful modes of access. This process resulted in a hierarchical structure of categories, with 85 first level constructs and 125 second level sub-coding options. The following underlying emergent dimensions were considered when deriving the classifications: whether access related to direct purchase (i.e. by the respondent), indirect purchase (i.e. proxy purchase by others with direct financial compensation), social supply (i.e. provision by others without direct financial compensation), or scam on a peer or stealing from home. In cases of direct purchase sub-coding included whether the respondent was accompanied. In cases of indirect purchase, sub-coding included whether the purchase was done by someone (acquaintance) of legal age, by another underage person, or through shoulder-tapping, and whether the respondent was present during the purchase. In cases of social supply, sub-coding included whether the provision involved compensation and whether that compensation was immediate or delayed. Moreover, the overall context of access (i.e. off-premise vs. on-premise context) was considered as well as the type of outlet in the case of direct involvement of respondents (e.g. convenience stores, including corner shops or alcohol distribution specialist shops, and corporate retail outlets for ‘off-premise context’; bar/pubs, nightlife premises, clubs, concert venues, and temporary stands for ‘on-premise context’).

In total, three synthetic classifications of modes of access were identified (see Tables 1–3). Data were further stratified based on the distinction between primary mode of access (i.e. the most common/usual way) and alternative modes of access, as defined by participants themselves. Finally, the structured data were analyzed together with the data collected through self-report questionnaires. Gender (females vs. males), age (15-16 vs. 17-year-old), frequency of alcohol use (measured through a single usual frequency item and transformed into a crude annual frequency) and perceived ease of purchasing alcohol in commercial settings (assessed separately for on- and off-premise contexts on a scale that ranged from 1 ‘impossible’ to 5 ‘very easy’) were considered.

We used a descriptive analytical framework built on univariate and bivariate analyses. Associations of modes of access with youth socio-demographics, alcohol use characteristics and perceived ease of purchasing alcohol were computed using Independent-samples t-tests, which calculated differences in proportions and means between contrasted conditions (see Table 1). The distribution of primary and alternative modes of access in total and on- vs. off-premise contexts are detailed in Table 2. Associations between modes of access and between primary and alternative modes were examined by considering the proportions of respondents with ‘co-occurring’ modes and Phi correlation measures (see Table 3).

The MaxQDA software (VERBI GmbH) was used to code the qualitative data, which were later merged with the quantitative data. Analyses were conducted using PASW/SPSS 18.0.3 (SPSS Inc., 2010).

**RESULTS**

Table 1 presents the distribution of reported modes of access in total and at the individual level. Among the 767 single modes of access reported, 197 (25.7%) related to direct purchase (by the respondent), 345 to indirect purchase (45.0%; proxy purchase, including 36 to shoulder tapping) and 217 to social supply (28.3%; e.g. getting alcohol as presents or in return for food, soft-drinks or other type of alcohol). Eight cases (1.0%) related to alcohol stolen from family reserves or from scams on peers. A more detailed inventory of modes of access is presented in Fig. 1.

At the individual level (see Table 1), almost two-thirds of respondents (65.9%) reported having purchased alcohol themselves (direct purchase), and 22.9% through other underage persons (purchase by underage proxy). Purchase via friends or acquaintances of legal age was reported by 77.1% of respondents (purchases by proxy of legal age), and shoulder-tapping by 14.3%. Almost 70% of respondents had received alcohol for free or in return for explicit compensation (social supply).

The results revealed only one significant difference in the proportion of users of given modes of access by socio-demographics, which indicate that a higher proportion of
15-year-olds (vs. 16–17) reported purchases by underage proxy (36.8 vs. 14.0%; $P < 0.001$). Considering the frequency of alcohol use and the perception of purchase ease, direct purchasers had a higher frequency of consumption ($P < 0.01$) and higher average perception of ease of purchasing alcohol in off- ($P < 0.05$) and on-premise ($P < 0.001$) contexts. Also, a clear shift was recorded between purchases made by respondents or by underage proxy, and those made by a proxy of legal age (peer or acquaintance) or through shoulder-tapping based on type of outlet (data not presented in tables). Direct purchases typically occurred in bars or pubs (29.4%) and convenience stores (22.3%) and purchase by underage proxy occurred...
primarily in convenience stores (45.5%), while reports related to shoulder-tapping and purchases by proxy of legal age seldom occurred in convenience stores; <5% of the cases (i.e. a majority of these reports referred to purchases in corporate retail outlets).

Considering the context of access and the dichotomy between primary and alternatives modes of access (see Table 2), 48.9% of respondents reported having purchased alcohol themselves in on-premise contexts and 33.2% in off-premise context. About 30% of respondents accessed alcohol primarily through purchases by proxy of legal age in off-premise contexts (30.5%, plus 0.9% using shoulder-tapping), 26.5% through social supply in an off-premise context (i.e. provision by others without direct financial compensation) and 13.9% through direct purchases in on-premise context. Shoulder-tapping and scams or stolen (at home) were seldom reported as primary modes of access; the latter was, nonetheless, a relatively important alternative mode of access (13.5% of "users").

Finally, only few significant correlations were recorded when testing associations among modes of access (see Table 3). The most frequent combinations were off-premise indirect purchase with off-premise social supply (50.2%), off-premise indirect purchase with on-premise direct purchase (39.5%), and on-premise direct purchase with off-premise social supply (33.2%). Significant positive correlations were found only between on-premise direct and indirect purchases and between on-premise indirect purchases and social supply. Another significant, but negative correlation, was found for on-premise social supply and off-premise indirect purchase.

When investigating the association between primary and alternative modes (see Table 3; lower part), the finding yielded four significant positive correlations. On-premise direct purchases and on-premise social supply (as primary modes) correlated with off-premise social supply (alternative); on-premise indirect purchases (primary) correlated with on-premise direct purchases (alternative); and on-premise social supply (primary) correlated with on-premise indirect purchase (alternative). A borderline correlation was found between off-premise social supply (primary) and off-premise indirect purchases (alternative). Finally, in three of seven cases, significant negative correlations were recorded for a given mode as primary and alternative modes of access (e.g. on-premise direct purchase).

**DISCUSSION**

This study highlights the ease with which youth access alcohol through very differentiated modes of access and points to the limitations of existing structural measures. The results support earlier scientific evidence on the complexities of the underage youth alcohol access phenomenon and on meaningful variations in different sociocultural and legal contexts.

While earlier studies reported social supply and indirect proxy purchases as the easiest and most frequently used modes of access (Wagenaar et al., 1993; Fabian et al., 2008), in our study direct alcohol purchases followed closely, with two of three respondents purchasing alcohol directly (65.9%; 33.2% off-premise, 48.9% on-premise). Storvoll et al. (2008) reported comparable figures for Norwegian youth; however, they did not differentiate between direct purchases and indirect proxy purchases with direct involvement of the respondents, which would, consequently, inflate markedly our figures.
Considering the respondents’ most frequently used mode of access, direct purchase was almost as frequently reported as was other prevailing modes (i.e. 25.1% of youth accessed alcohol primarily through direct purchases). This finding contrasts results of earlier European and US studies (Wagenaar et al., 1996; Storvoll et al., 2008), and highlights the ease with which youth can purchase alcohol in commercial settings in Switzerland, which is consistent with the results of test-purchase studies on alcohol and tobacco accessibility (Astudillo and Kuendig, 2013; Kuendig and Astudillo, 2013). Taken together, these results emphasize not only the importance of sound legal measures and regulations, but also the need for implementation efforts (DiFranza et al., 2009; Tutt et al., 2009; DiFranza, 2012). These efforts are essential because, to our knowledge, no tangible enforcement strategy has been set up at the national or even regional levels following the enforcement of these regulations in 1983 (distilled alcoholic beverages) and 2002 (fermented alcoholic beverages).

In addition to the fact that one respondent of seven reported shoulder-tapping, more than three of four reported asking peers or sibling of legal age to purchase alcohol for them (i.e. purchase by proxy of legal age). These findings indicate that, at the individual level, legal alternatives are easy to set up if direct purchase is seen as too risky or likely to fail. Moreover, with lay persons being apparently keen on helping underage youth purchase alcohol, this finding is a reminder that Switzerland is often reported as leaning toward the wetter segment of the wet–dry continuum of cultural positioning of drinking (Room and Makela, 2000), which further raises the issue of social responsibility in providing underage youth with alcohol.

The second objective of our study was to address possible associations among different modes of access and associations of modes of access with youth characteristics and perceptions of alcohol availability or purchase ease. With the exception of a significant association between age and purchase by underage proxy (i.e. more frequent among 15-year-old respondents, which might be expected), the experiences with other modes of access were not associated with socio-demographics. As in earlier studies, consistent associations of direct purchase with drinking frequency (Harrison et al., 2000) and perceived purchase difficulty (Wagenaar et al., 1996) were recorded. When considering associations between modes of access, positive correlations were found between various primary and alternative modes and between, for example, several on-premise modes. This finding highlights both that modes of access are diversified at individual level and a clear clustering of modes of access in on-premise contexts. The latter observation is
consistent with common social behaviors in bars in Switzerland where people not only purchase their own drinks, but also frequently offer rounds to drinking mates, which can be seen as a specificity of continental Europe drinking culture as opposed to, for example, Nordic countries. The former observation is in accordance with our earlier observation regarding the possibility of setting up legal alternatives if direct purchase seems too risky or likely to fail (and vice versa).

Considering the correlations between modes of access and focusing, for example, on those related to getting alcohol through social supply in on-premise contexts, it is noteworthy that, independent of the level of significance of the correlations, the loadings (positive or negative) of the correlations with other modes of access can be seen as coherent. Basically, it can be depicted that among youth who obtain alcohol for free or in exchange for non-financial compensation while at a bar (on-premise; social supply), it is also slightly more common to purchase alcohol on-premise through proxies (on-premise; indirect purchase) and to get alcohol for free or in exchange for non-financial compensation in off-premise contexts (off-premise; social supply). Additionally, it is less common that youth purchase alcohol ‘off-premise’ themselves or through proxy purchasers (off-premise-direct purchase and off-premise-indirect purchase). In sum, independent of the significance of these associations, the image of youth obtaining alcohol in bars through social supply is that of obtaining alcohol mostly without direct involvement (neither on- or off-premise) and possibly not getting alcohol in off-premise contexts, unless social supply. A further interesting contrast is that direct purchases were mostly reported to occur in small or less formally managed structures (e.g. bars, pubs, convenience stores) and proxy purchases by legal age peers or siblings and shoulder-tapping in corporate retail outlets. This finding concurs, to some extent, with the fact that retailers in Switzerland implement age control inconsistently; routine aide-memoire and staff training for age control are usually implemented in corporate retail outlets; however, they are often nonexistent in independent structures such as convenience stores and on-premise outlets. Efforts toward better implementation of systematic age control, either through technical or training initiatives, are urgently needed in every type of retail venue (Paschall et al., 2007).

Limitations

As mentioned, the nature of the research design implies that the figures presented are not representative in terms of distribution, and that micro-phenomenon and strategies specifically applied in other regions remain unobserved. Emerging or alternative modes of access may have been observed in communities where specific efforts or strategies have been developed to overcome underage alcohol consumption or in markedly more rural communities (e.g. remote Alpine valley) where commercial alcohol availability is lower than in areas covered in this study. However, both the sampling strategy (aimed to avoid ‘contaminated’ or correlated data from shared practices within peer groups) and the relatively large number of interviews are expected to ensure that the data reflect different perspectives of the phenomenon. Further, the study design offered the opportunity to identify patterns of access that have been undocumented in Switzerland or elsewhere until now (e.g. social supply through exchange with immediate compensation related to illegally purchased alcohol and other illegally accessed substances such as cigarettes or cannabis; see Fig. 1).

Another limitation relates to social desirability bias as it is likely that some participants inflated or deflated the number of used modes of access. However, every interview ended with a final wrap-up review of reported modes during which participants were asked to confirm or disconfirm and finalize or complete the summary made by the interviewer. This process allowed us to determine whether some reports related to strategies that might be known but not actually used, or had been eluded or forgotten. While we hoped that we could detect all such reports, it is impossible to ascertain that desirability bias did not encourage respondents to provide biased reports.

CONCLUSIONS

Our findings must be understood in the realm of the public health relevance of structural measures implemented in Switzerland in the 1980s and expanded in 2002. However, these measures have not been enforced and, even today, while a total revision of the federal law addressing alcohol trade is ongoing, doubts remain about whether alcohol test-purchases will finally be supported legally. To date, recorded violations are usually not fined or prosecuted, and, if fined, the amounts can be seen as symbolic (i.e. usually not exceeding a couple of 100 Euros). Further, basically no fear exists from substantial negative consequence when selling alcohol to underage youth in Switzerland because, today, retailers are at risk of a temporary suspension of alcohol selling license only after repeated documented violations. Our findings may also support education and communication initiatives aimed to deter legal aged persons from purchasing alcohol for underage youth, which might further reduce youth’s perceptions of alcohol availability and help modify their perceptions of drinking norms.

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Conflict of interest. None declared.

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