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# Alcohol in TV series popular with teens: a content analysis of TV series in France 22 years after a restrictive law

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**Background:** European citizens are the largest alcohol users in the world with an average of 11 l of alcohol per individual per year being used. This consumption practice usually begins during adolescence. Youths' views of substances consumption are built upon socialization experiments from which television takes part. To prevent vulnerable people from media influence, some governments tend to adopt restrictive laws against alcohol marketing within the public space including TV programmes; others rely on the self-control of the alcohol and/or media industry. More than 22 years ago, France adopted a restrictive law made of measures aiming to regulate or prohibit advertising of alcoholic products, especially within media dedicated to minors. **Methods:** This study relies on a content analysis to identify the patterns and the frequencies of occurrences linked to alcohol within a sample of 14 TV series (8 French series and 6 American series) most watched by French teenagers. In total, 180 episodes have been analysed representing 111 h 24 min and 6 s of series coded. **Results:** Alcohol is depicted within 87.8% of the sample. French series statistically show more events related to alcohol when compared to the American series. In French series, alcohol, mainly wine, is associated with a familiar lifestyle context with primary characters. **Conclusion:** The restrictive law ongoing in France does not prevent popular TV programmes watched by minors to depict alcohol. Concerns should be raised about the impact of the values given to the substance integrated to main characters life within the media.

## Introduction

### *Alcohol and adolescents' beliefs*

The harmful use of alcohol is one of the nine worldwide non-communicable diseases targeted by WHO Member States to be reduced by 2025.<sup>1</sup> European citizens are the largest alcohol users in the world: the general population drinks on average 11 l of alcohol per year individually.<sup>2</sup> This consumption practice usually begins during adolescence,<sup>3</sup> when lifelong attitudes, beliefs and habits form.<sup>4</sup> According to the European School Survey Project on Alcohol and Other Drugs (ESPAD) Report 2015, alcohol consumption rates of French teenagers are above or equal to the European average: 84% of French teenagers aged 17 have already had alcohol (vs. 80% on a European average); 53% have consumed alcohol (vs. 48%) and 13% reported having been intoxicated (vs. 13%).<sup>5</sup> Teenagers' beliefs, attitudes and behaviours towards this substance are shaped by many social factors, including images of use within the media.<sup>6</sup> Teenagers, in the midst of an identity development phase, use their body and behaviour (e.g. beverages consumed, substances used) to express their desired identity.<sup>7,8</sup>

### *Television influences on youth*

Television is a well-documented socialization force that shapes youths' views of what life should be. Adolescents often rely on what they see in the media to build their identity by identifying with or imitating the lifestyles of virtual 'peers'.<sup>9</sup> Adolescents are especially susceptible to messages contained in television series where they learn about social norms and adult behaviours. Through these programmes, teenagers develop perceptions of the lifestyle of aspirational characters<sup>10</sup> making them more likely to develop and maintain beliefs and attitudes towards the products used within the programmes in which they project themselves.<sup>11,12</sup>

### *Legislation to protect the minors against alcohol advertising*

In 1991, France voted the Evin's law aiming to reduce the harm caused by alcohol. The government passed measures directed towards alcohol advertising in particular. They were considered at the time as the most restrictive measures in the EU through the prohibition by law of alcohol advertising on TV and other cultural media when directed towards young people. Advertising was permitted only when associated with the health message 'abuse of alcohol is dangerous to health' and were controlled to contain factual elements (origin, composition, etc.) free from characters drinking the substance to which people could identify with.<sup>13</sup> The law has evolved since its first draft but its main measures still exist and are still taken as a reference by other countries when it comes to consider the implementation of similar alcohol policies.<sup>14-16</sup>

Conversely, most European countries are in favour of effective self-control rather than the creation of a law. As an example the National Strategy on Drug and Addiction Policy adopted in Germany in 2012;<sup>17</sup> the 2009-16 National Drug Strategy in Spain<sup>18</sup> or the Irish Public Health (Alcohol) Bill adopted in 2018<sup>19</sup> do not have any statutory regulation of alcohol marketing practice but rely on voluntary codes of practice. On the other hand, introduced on the 1 January 2018, the Lithuanian parliament has endorsed an alcohol legislation which bans alcohol advertising on billboards and on TV during daytime hours.<sup>20,21</sup>

### *Research objective*

Many policymakers and public health scientists express concern that TV programmes appeal to youth and conveys messages about harmful substances that may influence youth consumption.<sup>22,23</sup> Only regular surveillance and monitoring of the content of TV programmes can provide an objective assessment of the television

messages about drinking. This research aims to document the messages about drinking conveyed in TV programmes popular with youth in France.

## Methods

This study relies on a content analysis method<sup>24</sup> to identify the patterns and the frequencies of occurrences linked to alcohol within a sample of TV series most watched by French teenagers.

### Series sample

The study sample was determined based on Me'diame'trie's audience measures for the series most viewed by youths aged 15–19 during the period September 2012 to June 2013. The most popular TV series watched by youths were selected based on top-rated access during prime-time.<sup>25</sup> Researchers selected the top 14 most watched TV series: eight of them were French productions six were US productions, allowing a comparison of the occurrence of drinking messages. Among the series selected, three broadcasted daily on TV (all French). The other series were produced seasonally with a finite number of episodes broadcast every year (see [Supplementary material S1](#)).

Series were either bought as DVDs or digitally recorded from the advertising-supported broadcast network. Recording occurred from January to May 2014, until 10 episodes per series were available. The final sample consisted of 180 episodes: 10 episodes per series, except for one series made of short scenes lasting for 2–3.5 min, and for which 50 episodes were selected to maintain consistency in the total amount of time coded.

### Coder training and reliability

Two coders were trained to ensure accurate and reliable coding content analysis based on a coding manual developed for previous research.<sup>26</sup> Reliability in the main sample was assessed by having 25% of the episodes assigned to two coders for independent coding and by computing Intraclass Correlation Coefficients to measure reliability analyses.<sup>27</sup>

### Measures

Coding procedures and measures were conducted both at the interval and at the episode level as based on protocols used in prior research.<sup>26</sup> In accordance with the key dimensions of investigation, coders classified each alcohol occurrence based on its modality (visual/auditory). Each spatial depiction was categorized as foreground or background incidental (e.g. restaurant customers drinking in the background), type of alcohol (beer, wine/champagne, cocktail, liquor or other) and setting (home, work, bar, party, restaurant, store or other). Coders captured auditory comments about the substances verbatim and coded them as positive, negative or neutral. Coders computed overall scores at the episode level (number of auditory references, amount of time alcohol appeared for each beverage category and for each setting).

Coders measured the relevance of alcohol to the overall story of the episode at the end of the episode. They assessed the extent to which substance themes were central to the episode (either its central plot, its major parallel subplots or its segments). The measure for this overall assessment was a three-item plot connection scale from 1 (not at all) to 5 (allot): (i) alcohol references are relevant to story; (ii) without references to alcohol, the story would be different; and (iii) alcohol is connected to the plot.

### Statistical analysis

To take into account the different length of each episode/series, researchers calculated alcohol occurrence time transformed in ratios. The ratios were expressed as median and interquartile range over a scale going from 0 to 100. Researchers carried out the

statistical analysis with R software, version 3.3.3. The *P*-values <0.05 was considered statistically significant.

## Results

### Overview of alcohol depictions

Alcohol was present in 158 episodes out of the 180 episodes coded. In total, 3160 events linked to alcohol were found and analysed. Alcohol events are mostly depicted in a visual way (81.5% vs. 18.5% for verbal references) (see [figure 1](#)).

### Overall alcohol appearances

Coders analysed a total of 111 h 24 min and 06 s of TV programmes from which 7 h 29 min and 07 s depict alcohol, representing 6.72% of the total viewing time. The mean level of plot connection to alcohol for the series is rather low, showing no particular relevance between the alcoholic substance presented and the context of the series (see [table 1](#)).

Overall, the presence of alcohol is different regarding the setting of the series analysed ( $P < 0.001$ ), the type of alcohol ( $P < 0.001$ ) and the characters it is associated with ( $P = 0.003$ ). No significant difference is observed between the spatial depiction (foreground, background or mixed) in which the alcohol is presented, neither between the positive or negative valence of the audio messages analysed (see [table 2](#)).

Alcohol is more likely to be associated with a scene where mixed characters are presented rather than a scene where secondary characters would be presented on their own ( $P = 0.0018$ ). No significant result was found when compared with main characters.

The setting 'Home' showed the most alcohol events (see [table 2](#)). We can observe a significant difference between the type of alcohol presented within it ( $P < 0.001$ ): the event 'Multiple Alcohol' which regroups different types of alcohol presented within the same scene is the most evident (see [Supplementary material S2](#)).

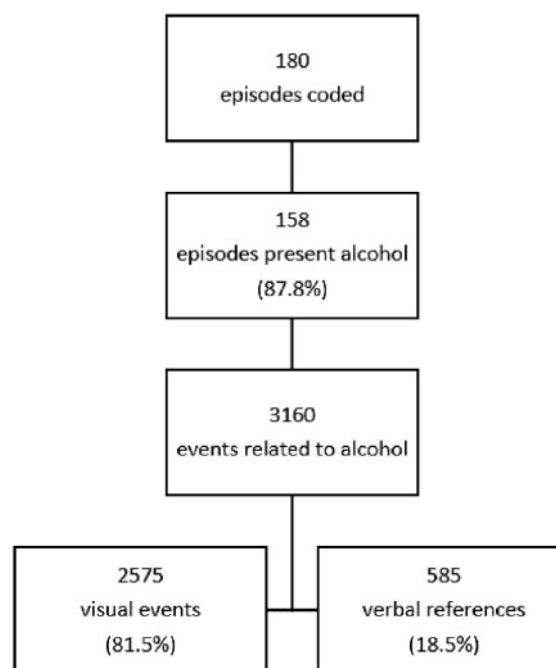


Figure 1 Depiction of alcohol substances within the episodes coded among the most popular TV series watched by youths

**Table 1** Overall visual and audio characteristics of the alcohol events per origin of the series (in time and number of events, both reported in percentage) associated with the level of plot connexion (mean per series) ( $N = 14$ )

Series	Program <sup>a</sup>	Visual screen <sup>a</sup>	Audio references to alcohol				Mean level of plot <sup>b</sup>
			origin	length, t	time of alcohol, t (%)	Total, n	
France	70:23:17	06:03:44 (8.61)	396	186 (46.97)	100 (25.25)	110 (27.78)	1.68
USA	41:00:49	01:25:23 (3.47)	189	36 (19.05)	75 (39.68)	78 (41.23)	1.45
Mixed	111:24:06	07:29:07 (6.72)	585	222 (37.95)	175 (29.91)	188 (32.14)	1.57

<sup>a</sup>In hh:mm:ss.

<sup>b</sup>1 = not at all; 5 = extremely.

**Table 2** Overall comparison of the alcohol occurrence time reported in ratios (visual and audio) according to the dimensions investigated over the series analysed ( $N = 14$ )

	Median (Q1–Q3)	P-value <sup>a</sup>
Setting		<0.001
Home	2.65 (1.03–7.41)	
Bar	0.73 (0.34–1.09)	
Work	0.50 (0.34–0.75)	
Restaurant	0.35 (0.13–0.80)	
Other setting	0.25 (0.04–0.51)	
Party	0.00 (0.00–0.13)	
Disco	0.00 (0.00–0.00)	
Store	0.00 (0.00–0.00)	
Type of alcohol		<0.001
Multiple alcohol	1.94 (1.46–3.98)	
Wine	1.79 (1.05–5.97)	
Liquor	0.59 (0.23–1.01)	
Beer	0.51 (0.43–0.79)	
Cocktail	0.06 (0.01–0.15)	
Other alcohol	0.00 (0.00–0.00)	
Character		0.003
Mixed character	2.32 (2.09–5.68)	
Main character	1.11 (0.46–4.15)	
Secondary character	0.65 (0.22–1.34)	
Spatial depiction		0.395
Foreground	1.75 (1.01–2.86)	
Mixed	1.41 (0.82–2.21)	
Background	1.19 (0.63–2.80)	
Audio reference		0.542
Positive audio reference	0.04 (0.02–0.07)	
Negative audio reference	0.03 (0.02–0.06)	

<sup>a</sup>Friedman test.

$P < 0.01$ .

$P < 0.001$ .

### Difference between US and French series

French series depict alcohol for 8.61% of the time analysed; US series depicted alcohol for 3.47% (see [table 1](#)).

There is a significant difference between the amounts of time of alcohol depiction within French and US series: overall, alcohol appears visually more in French series than in US series ( $P < 0.05$ ) (see [table 3](#)). French TV series present alcohol as being accessible, integrated to everyday life and used within a ‘family/friend’ context at home: whether being present on the kitchen countertop, on the dinner table or while celebrating any particular occasions. US series mainly relate to crime stories investigated by a group of professionals. Thus, most of the US stories are set within a ‘working’ context into which the main characters are investigating, mainly either within the agents’ office or a murder scene, which often relate to a nightlife context. The US series relate stories evolving around a character or group of characters (friends or colleagues) who tend to have a similar age. On the opposite, most of the French series depict the storyline of different generations of people who are belonging to a family or could be associated as such. These different contexts of alcohol

**Table 3** Comparison of the alcohol occurrence time reported in ratios (visual and audio) according to the dimensions investigated per series origin ( $N = 14$ )

	French series (n = 8) Median (Q1–Q3)	US series (n = 6) Median (Q1–Q3)	P-value <sup>a</sup>
Total visual references	8.95 (3.81–13.1)	3.25 (2.70–3.60)	0.012
Visual setting			
Home	4.03 (2.89–8.61)	0.93 (0.41–1.80)	0.059
Bar	0.89 (0.42–1.04)	0.58 (0.34–1.25)	0.948
Work	0.35 (0.06–0.48)	0.55 (0.51–1.46)	0.137
Restaurant	0.33 (0.20–0.52)	0.65 (0.20–0.80)	0.650
Other setting	0.26 (0.06–0.47)	0.25 (0.06–0.60)	0.950
Party	0.00 (0.00–0.09)	0.00 (0.00–0.06)	0.775
Disco	0.00 (0.00–0.00)	0.00 (0.00–0.02)	0.323
Store	0.00 (0.00–0.00)	0.00 (0.00–0.00)	0.312
Type of alcohol			
Wine	4.27 (1.92–6.71)	0.97 (0.38–1.35)	0.059
Multiple alcohol	2.18 (1.51–2.88)	1.64 (1.03–3.62)	0.573
Liquor	0.60 (0.31–0.12)	0.53 (0.25–0.61)	0.846
Beer	0.51 (0.37–0.77)	0.59 (0.46–0.79)	0.950
Cocktail	0.09 (0.04–0.40)	0.02 (0.00–0.13)	0.331
Other alcohol	0.00 (0.00–0.00)	0.00 (0.00–0.00)	0.312
Visual character			
Mixed character	5.38 (2.21–6.10)	2.25 (1.03–2.35)	0.181
Main character	3.64 (1.71–5.29)	0.49 (0.43–0.61)	0.019
Secondary character	0.65 (0.29–1.53)	0.59 (0.22–1.00)	0.852
Spatial depiction			
Foreground	2.52 (1.80–4.90)	0.94 (0.57–1.43)	0.019
Mixed	1.85 (1.00–2.41)	0.09 (0.77–1.45)	0.345
Background	1.74 (1.24–3.84)	0.66 (0.36–0.94)	0.081
Total audio references	0.14 (0.09–0.23)	0.11 (0.08–0.13)	0.345
Audio references			
Positive audio references	0.07 (0.04–0.13)	0.02 (0.01–0.02)	0.019
Negative audio references	0.03 (0.02–0.06)	0.04 (0.02–0.06)	0.950

<sup>a</sup>Wilcoxon test.

$P < 0.05$ .

presentation could explain in part the difference between the two series origins: alcohol is shown in a home setting more often in French series than in US series ( $P = 0.059$ ). French series associate alcohol to the main characters more than the US series ( $P < 0.05$ ), show alcohol in the foreground setting more often ( $P < 0.05$ ) and make more positive audio reference to alcohol ( $P < 0.05$ ) (see [table 3](#)).

When looking at the depiction made of alcohol within the ‘Home’ setting, ‘Wine’ events are shown more often in French series ( $P < 0.01$ ), so as ‘Multiple Alcohol’ events ( $P < 0.05$ ) and ‘Beer’ events ( $P < 0.05$ ) (see [Supplementary material S3](#)).

### Alcohol references within the TV programmes analysed

The coding process revealed 585 audio comments among the sample analysed categorized as positive (222 events, 37.95%), negative (175 events, 29.91%) or neutral (188 events, 32%) (see [table 1](#)).



Particular occasions (i.e. a celebration, the creation of bonding, flirting, etc.) provide a moment to serve alcohol and to make a verbal comment: ‘with all these emotions... pour me a glass of red wine please’; ‘It must be time to drink somewhere on earth’; ‘Why not having a last glass in a more intimate place?’. Such comments make a direct link between the alcohol and the reason it is used, especially within the French TV series coded.

No significant difference between French and US TV series appeared when it came to negative audio references to alcohol: alcohol dependency is even depicted in different TV series: ‘You were an alcoholic, you were operating on your patients while being drunk’; ‘It has been 6 years that my husband is fighting against alcohol, and so do I’. Yet, some French TV series reports negative audio comments that tend to trivialize alcohol use: ‘I think you had a bit too much of the Christ’s blood’. Such a playing down process is absent from the US series sample analysed.

### *Alcohol depiction within French series*

French series provide more positive than negative audio references on alcohol (186 vs. 100,  $P < 0.05$ ). Overall, the scenes in French series show ‘wine’ and ‘multiple alcohol’ events more often than the other type of alcohol ( $P < 0.01$ ) and associate alcohol more often to main characters on their own or to mixed characters in comparison to scenes with secondary characters only ( $P < 0.05$ ).

As previously stated for the comparison within US series, alcohol is significantly shown more often in the ‘Home’ setting for French series: ‘Wine’ events are the most commonly depicted in front of the events ‘Multiple Alcohol’ and ‘Beer’ which as well are more present within French series than the other type of alcohol coded (see [Supplementary material S3](#)).

## Discussion

It is the first time that a study assesses the content of the most popular TV programmes watched by teenagers in France. This study demonstrates that despite a restrictive alcohol law created more than 22 years ago to protect vulnerable people; alcohol imagery within popular TV series watched by teenagers is still common. The monitoring of alcohol presence within the sample analysed revealed an important presence of the substance appearing in 87.8% of the episodes, 20% more than a recent study conducted on mixed programmes analysed in UK television.<sup>28</sup> French-produced programmes that are directly under a restrictive law show alcohol the most with the substance being depicted for a median time of 8.95% of an episode. Thus, viewers are nearly three times more likely to be exposed to alcohol content while watching French entertaining programmes in comparison to US-produced programmes that show alcohol for a median time of 3.25% of an episode and that are under a self-code of practice. A strong association between alcoholic substances to main characters is as well underlined.

### *Presence of alcohol within TV series rather positive, almost within French series and linked to desirable people*

French TV series show alcohol more often than the US TV series coded and in a more positive way. Alcohol is associated with the main characters with whom the audience can identify: within the sample coded, characters associated with alcohol are indeed mostly stable and desirable with good professional or personal situation or both. Such characteristics increase the viewers’ chances of identifying with a character and minimizing consequences of substances consumption, raising in return the risk of identification to a fictional character and the use of substances.<sup>23,29–31</sup>

Our sample consisted of popular prime-time TV programmes considered as classical transgenerational-entertaining content.

However, viewers and the young generation, in particular, are not restricted to only one type of entertaining media anymore. The multiplication of the different entertaining media give much more opportunities to the viewers to access media that fit best to their interests. This opportunity facilitates the learning of beliefs about particular behaviours disseminated by inspiring characters from these media, whether being fictional, artists, influencers or others.

### *Entertaining content as a promotional media for alcohol consumption*

One of the most proactive European countries to publish research documenting the exposure of young people to substance related imagery through their favourite media is the UK. They reveal that traditional prime-time TV programmes do not show much change over the years when it comes to promote alcohol with over 50% of the programmes doing so.<sup>28</sup> These numbers are found to be similar when examining TV reality shows to which youth are fond of and that commonly depict ‘real’ participants within a situation involving alcohol.<sup>32,33</sup>

Media material related to youth in general continues to promote substance use, whether through video platforms such as YouTube<sup>34</sup> or within popular video games<sup>35</sup> both referencing the substance over 40% of the time.

These rates are below the French rates hereby depicted and still alarming for researchers that seek policy makers to go beyond the self-regulation code of advertising practice that they are under, especially at a time when internet and social media use are overtaking the use of traditional media.<sup>36</sup>

### *The regulation of alcohol marketing practice*

The 1991 French Evin’s Law is regularly cited as an example when it comes to consider the restriction of substances on screens by governments and policy makers who want to assert the marketing strategies of alcohol promotion.<sup>37</sup>

Previous studies have questioned the real ability of the latest version of the Evin’s law to protect young people from the exposure of substances advertising through different media such as billboards, movies, internet and others.<sup>14</sup>

This research stands in line with these findings and goes beyond by underlying the promotion of the alcohol substance portrayed as being integrated to use in everyday life within highly suggestible content. Not only is the actual version of the Evin’s law not efficient to protect vulnerable people from facing alcohol references through their entertaining content, but it could act as an imaginary protection shield: a government directive in place could be considered stronger than a voluntary code of practice.

## Conclusion

This study demonstrates that the ongoing restrictive Evin’s law against alcohol marketing does not prevent popular entertaining content from promoting desirable lifestyles associated with alcohol use towards teenagers. Concerns should be raised about the impact of the values given to the substance integrated to the main characters’ life within the media from which teenagers learn, and the findings published by the scientific communities about media influence need to be addressed by policy makers.

Long before the adoption of the Evin’s law, while the Evin’s law being discussed and passed, and still after being in place and replicated in part in other countries, studies have alerted on the influence of images and appealing lifestyles towards children and teenagers from which substances like alcohol are depicted.<sup>26,38,39</sup> Yet, whether the findings are transposed within a law, whether they are regulated through voluntary code of practice, the effectiveness of substances regulation in general towards a vulnerable audience is legitimately questioned.

In order to be effective, preventive strategies against the promotion of alcoholic or addictive substances in general might need to be considered and to act towards the source of influence itself with its advertising landscape, the access to the product and its availability. Learning from the four P's of marketing (Place, Product, Promotion and Price) traditionally used to sell a product and reach consumers might help.<sup>40</sup> This could take the form of condensing and/or strengthening existing measures developed in different countries (i.e. limiting the product visibility, its access and hours of sale —*Place*, forbidding alcoholic product targeting youth as sweetened alcoholic beverage —*Product*, pressuring the entertainment industry to restrict their content —*Promotion*, initiating a minimum unit pricing Bill —*Price*). In order to be effective, policy makers need to bring back the initial essence of the Evin's law<sup>14</sup> by bringing to the fore their will to reduce harm alcohol consumption towards the population.

## Supplementary data

Supplementary data are available at *EURPUB* online.

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*Conflicts of interest:* None declared.

### Key points

- The French Evin's law does not prevent alcohol to be associated with characters, neither to be depicted in a desirable way within traditional popular entertaining content.
- French TV programmes under a restrictive law show more alcoholic content than TV programmes from self-regulated countries.
- The desirable lifestyle and the setting associated with generic alcoholic substances on screen have to be considered from a preventive perspective.
- Governmental public health strategy should address alcohol substance use influence by looking at the marketing strategies developed by industrials.

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