

Media portrayal of alcohol does not match its real harm effects in the Czech Republic

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Objectives: The Czech Republic ranks among countries with the **highest alcohol consumption per capita**. Despite all the negative impacts and documented harmfulness of alcohol use, attempts to regulate it more strictly are often impeded by a misconception among a large part of the public. One reason for this is the lack of knowledge about the risks associated with patterns of drinking and volume of alcohol consumption (1). Improved public health is one of the long-term strategic goals (not only) of the Czech health policy (2), (3). In order to design effective global alcohol prevention programs, it is advisable to know how and in what context it is currently presented in the media (4).

Aims: The analysis aims to describe and discuss the media portrayal of harms caused by alcohol consumption and to assess to what extent the media portrayal of the effects of alcohol use in the Czech Republic reflects the reality.

Methods: The dataset of texts (n = 903) was coded and analyzed using 'quantitative-qualitative content analysis' in terms of Bryman's classification (5). The frequency of references to acute and long-term alcohol harms of various types were counted, and the results were compared to the classification of (alcohol) harms by the Independent Scientific Committee of Drugs (ISCD).

Limit factors:
-Single coder: the inter-reliability of coding was not applied, so there was no objectivization of categories, subjective judgements may have appeared.

-Time span: It could be assumed that the amount of alcohol reports and their character would fluctuate during the year according to events that are traditionally associated with higher alcohol consumption and are typical for the particular periods (6) For a more complex study, it would be interesting to cover two or three time segments with different alcohol consumption patterns (7).

-Media range: We did not investigate how numerous a target audience the articles had.

Keywords: media coverage; media analysis; alcohol use impact; acute intoxication effects; long-term use effects; Czech Republic

Dataset characteristics
- 903 articles published between 17 September and 18 October 2017
- Transcripts of all television and radio programs, articles from printed and internet periodicals
- Selected by Newton Media database (8), words and phrases containing the words 'alcohol' or 'addiction', in connection with
Price; Intoxication; Traffic Accidents; Crimes; Violence; Damage; Aftermath; Pub; Beer/Wine/Vodka/Rum; Party; Breath Test; Limitation; Checks; Health; Drinking; Entertainment; Children, Addiction.
- Advertisements and commercials were not included into the selection, because they are special forms of media content with specific authorship, purpose, target audience, financing.
The selected period was chosen by a purposive sampling method in the lower risk part of the year in terms of alcohol consumption in the Czech Republic (6).

Table 3. Acute intoxication effects and long-term usage effects

Acute intoxication effects	Long term usage effects		
Unspecified	492 (54.5%)	Unspecified	709 (78.5%)
Health problems	23 (2.5%)	Health problems	53 (5.9%)
Psychic effects	12 (1.3%)	Psychic effects	9 (1.0%)
Social problems	10 (1.1%)	Social problems	29 (3.2%)
Death	13 (1.4%)	Death	2 (0.2%)
Criminal activity	227 (25.1%)	Criminal activity	21 (2.3%)
Traffic accidents	113 (12.5%)	Addiction	57 (6.3%)
Negligent harm	2 (0.2%)	Fetus jeopardizing	2 (0.2%)
Victimization	11 (1.2%)	Combination of health and social problems	21 (2.3%)
Total	903 (100%)	Total	903 (100%)

Table 1. Mapping Independent Scientific Committee of Drugs (ISCD) harm classification to our measures: acute intoxication effects, long term alcohol use effects

ISCD harm evaluation criteria	Corresponding Acute / Long-term effect
Drug-specific mortality	Acute: Death *)
Drug-related mortality	Long-term: Death *)
Drug-specific damage	Acute: Health problems
Drug-related damage	Acute: Victimization*), Long-term: Health problems
Dependence	Long-term: Dependence
Drug-specific impairment of mental functioning	Acute: Psychic effects
Drug-related impairment of mental functioning	Long-term: Psychic effects
Loss of tangibles **)	Long-term: Social problems *)
Loss of relationships	Acute: Social problems
Injury	Acute: Traffic incidents, Long-term: Fetus jeopardy
Crime	Acute: Criminal activity, Long-term: Criminal Activity
Environmental damage **)	Long-term: environmental damage
Family adversities	Long-term: Social problems *)
International damage **)	Long-term: International damage
Economic cost	Acute: Negligent harm, Long-term: Negligent harm
Community **)	Long-term: Community damage

Legend: *) articles related to death (15), victimization (11), social problems (29) and to the combination of social and psychosomatic consequences (21) were reviewed and mapped to the ISCD harms manually
**) Four harm types: loss of tangibles, environmental damage, international damage, and damage to communities had their primary direct equivalents in our classifications but these were empty. We have combined other variables to detect potentially more articles on these topics, however, after individual revision, almost none of them qualified for the harm criteria at the end.

Coding procedure and measures
The data were coded following the *Manual for Coding of Media Messages on Addictive Substances and Related Issues: User's Handbook* (9). During the processing of the first 100 articles, the coding system was adapted for specific needs of the current study. The descriptive characteristics for all articles from our dataset were coded using 25 variables:

- **Basic characteristics of the media and of the article (7):** Media range (global, regional), Media type (TV, radio, printed media, ...), Type of information source (police, drug specialist, ...), Traceability of the information source (exactly specified, possible to find, ...), Genre (news, journalism, ...), Article form (report, interview, ...), Article orientation (alcohol, other topic, ...).

- **Users, the scene, and any addictive substances mentioned (5):** Alcohol type (beer, wine, ...), Occurrence of other substances (tobacco, medications, opioids, ...), Users (child, family member, homeless, politician, celebrity ...), Gender of users (male, female, both), User scene (usage trends, production or usage of alcohol, ...).

- **Effects of alcohol use and the emotional evaluation of alcohol (8):** Effects of long-term use (health problems, addiction, fetus jeopardy, ...), Effects of acute intoxication (road safety, crime, health issues, ...), Role of alcohol (enjoyment, market, stigmatization, ...), Focus/topic (primary prevention, users story, roadside inspection, ...), Emotional assessment of the article's content (positive, neutral, negative), Emotional quality of the heading (positive, neutral, negative), Crime or delict type (home violence, endangering through harmful food, alcohol served to youngsters ...), Death (death of a specific person, death or risk of death mentioned in general terms, no reference to death).

- **Complementary circumstances (5):** Heading adequacy (yes, no), Children mentioned in relation to alcohol (yes, no – note: this did not necessarily refer to the alcohol user e.g. in cases as "child was present in a crashed car"), International focus (national, international, both), Well-known persons (explicit names of commonly known personalities like the president of CR, celebrities, authorities, national drug coordinator J.Vobořil, ...), Pictorial attachment (photo, illustrative photo, nothing).



Traffic & crimi: over-medialized

Mapping our dataset to the 16 ISCD harm criteria
Our main question was whether media publish adequate information about the harms caused by alcohol use.

To determine to what extent does the attention paid to various harm types correspond to their real gravity for society we used an expert analysis prepared by the Independent Scientific Committee of Drugs (ISCD) (10) that matches up best to our purposes (11). The 16 harm criteria of the ISCD classification to our dataset we determined which values from which of our categories describe them. In some cases, we had to combine more variables, namely when we excluded articles with emotionally positive content to prevent counting alcohol benefits into harm. Some harm criteria mapped to values that originally existed in our classification system, however, that did not apply to any article from our dataset. These types of harm were not mentioned in the examined media. Some values required to review all the related articles and to map them to the ISCD criteria manually.

Counting harm references in the dataset
-Only reports mentioning either acute intoxication effects or effects of long-term alcohol use were subject to our mapping. If an article mentioned both types of effects, it was included twice (n = 65). Articles that did not mention any type of effects (n = 363) had no impact to our mapping to the ISCD harm criteria.
-In order to be able to compare two incompatible variables we have converted both of them to percentages.

Table 2. The Role of alcohol and the Emotional assessment of an article's content

Role of alcohol	Emotional assessment of an article's content			Total
	Negative	Neutral	Positive	
Unspecified (0)	2	255		257
Enjoyment (+)	3	87	14	25
Freedom, status, style (+)	6	57	7	18
Goods, market (0)	32	40	3	75
Substance, research (0)	9	13	2	24
Limitation, stigma (-)	3	1		4
Health threats (-)	69	19	1	89
Addiction, illness (-)	66	20		86
Society threats (-)	12	3	1	16
Crime, violence (-)	180	108	2	290
Bad habit (-)	8	3		11
Victimization (-)	8			8
Total	398	475	30	903

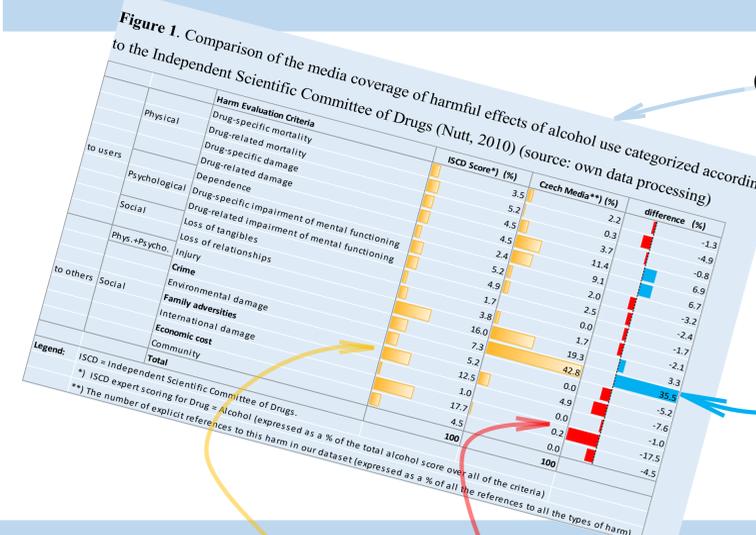
*) Emotionally positive articles skipped when comparing with ISCD harm scores
Remaining articles - subjected to a further comparison with ISCD harm scores: 869

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Declaration of interest
The authors report no conflict of interest.

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Results: Our results (from 2017) show that the most frequent roles played by alcohol in the Czech media were connected to crime, violence (44.9%), health threats (13.8%) and addiction, illness (13.3%). The short-term intoxication effects in the areas of crime and road safety, in particular reports on traffic accidents, are over-represented, while topics describing the impact of alcohol use on health, family and society, as well as economic costs or environmental issues seem to be marginal. That corresponds to the fact that police and courts were the information source in more than half of the articles, while information sourced from physicians, sociologists and drug field professionals was rather scarce.

Conclusions: Media portrayal of alcohol in the Czech media is rather distorted and does not match up to real harm effects on the society. The medialization of alcohol-related harms is not proportional to their actual severity. The research revealed a significant disproportion in the frequency that alcohol has been referred to as a criminal problem (often traffic related problem) over health and social issues (including the economic cost). The latter are addressed in the media rather insufficiently.

Alcohol abuse is only seldom described as a health issue. The effects of its use are most frequently criminalized. Space for interventions that could help increase the general awareness of the real risks associated with drinking alcoholic beverages exists. It is recommended that health and drug prevention professionals present their views in the media more often. Also some basic data like the total social cost of alcohol and its biggest components (12) are worth to appear in the media more often. In terms of public health, it is imperative to strengthen media presentation of the impact of alcohol use on health and social issues.

Further research: To compare real data on various harm types from a corresponding period. Further research could also use other data selection strategies to get representative data sample of a longer time period.



Health & social, under-medialized

Economic cost to society (almost) not medialized



Clinique of addiktology



General University Hospital in Prague



FIRST FACULTY OF MEDICINE Charles University