Shaping effective public health messaging for global impact: An analysis of the media coverage of Canada's proposed updated alcohol guidelines

Trygve Ugland[1], Thomas Gottin[2], Chad Dubeau[3] and Catherine Paradis[3]

[1] Bishop's University, Canada.
[2] L'Institut national de santé publique du Québec (INSPQ), Canada.
[3] Canadian Centre on Substance Use and Addiction, Canada.

Abstract

Background: This paper analyses the news media coverage of Canada's proposed updated alcohol guidelines that were submitted for public consultation in the fall of 2022.

Methods: Systematic media tracking was performed from August 29 to October 14, 2022 in Canada, the United Kingdom and the United States. News articles were included if they mentioned the guidelines, and they were classified as positive, negative, or neutral in tone. Different types of arguments were inductively identified and defined from the raw data.

Results: Canada's proposed updated guidelines received substantial media attention. In total, 870 articles were identified over the nine-week period: 85 positive, 279 negative and 506 neutral articles. A clear majority of the articles were duplicates, and 65 were original (24 positive, 22 negative and 19 neutral articles). Most articles were coded for several arguments. All positive articles evoked the Scientific Argument stating that the guidelines demonstrated that alcohol was harmful and/or more harmful than previously thought. The Access to Information Argument, which highlights that people lack knowledge about the risks of alcohol and that they have the right to know, was also evoked in a majority of the positive articles. Most negative articles criticized the guidelines for overlooking the benefits of alcohol and exaggerating its risks. The Canadian proposed updated guidelines seemed to receive comparatively more attention, and a higher number of positive news articles compared to what has been observed elsewhere.

Conclusions: The paper suggests that informative guidance based on people's right to know about the risks of alcohol rather than firm prescriptive guidelines may generate more positive coverage in the news media. Furthermore, the paper highlights the importance of public health actors adopting a strategic and coordinated knowledge translation and exchange approach to counteract the predominantly negative reception from the commercial and alcohol industry actors.

Introduction

Alcohol represents one of the most significant and preventable threats to population health globally (World Health Organization [WHO], 2018). The national alcohol guidelines are an example of an educational tool and a public health strategy that can be adopted to increase knowledge and change attitudes with the objective of reducing alcohol-related harm (Babor et al., 2023). Although the precise effect on alcohol consumption is still unclear (Casswell, 1993; Holmes et al., 2020a), alcohol guidelines have been adopted by health authorities in an increasing number of countries over the past decades. However, the guidelines vary considerably in terms of scope, objectives, risk assessment methodologies and actual recommendations (Kalinowski & Humphreys, 2016; National Health and Medical Research Council, 2020).

Canada's first alcohol guidelines were published by the Canadian Centre on Substance Use and Addiction (CCSA) in November 2011 (Butt et al., 2011). The guidelines recommended 10 standard drinks a week for women, with

no more than two standard drinks a day most days, and 15 standard drinks a week for men, with no more than three standard drinks a day most days. In response to new research on the association between alcohol use, and physical, mental, and social harms, the CCSA was in 2020 mandated by Health Canada (the Federal Ministry of Health) to update the 2011 guidelines. On August 29, 2022, a draft report presenting the proposed updated guidelines was released for public consultation (Paradis et al., 2022). Comments from people in Canada on all aspects of the draft report were sought through an online survey for a period of four weeks.

The draft report's main message was that overall, alcohol is not good for your health, and for those who consume alcohol, drinking less is better for health. Moreover, the updated guidelines were presented in the form of a continuum of risk according to which the risk of premature death and disability was labelled as low for those who consume one or two standard drinks per week; moderate for those who consume between three to six standard drinks per week; and increasingly high for those who consume more than six standard drinks per week. Another key message was that with the consumption of more than two standard drinks on one occasion, most individuals would have an increased risk of injuries or other problems. The draft report clearly stated that the goal of the updated guidelines was to better inform Canadians about alcohol-related risks to enable informed decision-making, and to reduce the burden of alcohol-related problems in Canada. The report was also accompanied by a policy recommendation for governments to introduce mandatory labelling on all types of alcoholic beverages listing the number of standard drinks in the container, the alcohol guidelines, health warnings and nutrition information.

The public attention generated by alcohol guidelines has until recently been subject to little systematic attention (Kersbergen et al., 2022; Wolfaardt et al., 2018). Research from the tobacco field demonstrates that media coverage of public health issues can inspire health-related policy change (Harris et al., 2010; Smith et al., 2006; Sato, 2003), and that media advocacy can therefore play a significant role in promoting public health objectives (Wallack & Dorfman, 1996; Menashe, 1998). However, the match between media reporting and government action is not perfect, as demonstrated in the delayed implementation of graphic health warnings on cigarette and other tobacco packaging in Australia, despite overwhelmingly supportive media coverage (Miller et al., 2009).

This paper analyses the news media coverage of Canada's proposed updated alcohol guidelines that were submitted to a public consultation in the fall of 2022. Since media coverage may impact the effectiveness of alcohol guidelines as an educational tool and a public health strategy, our main objective is to identify the key arguments evoked in both the negative and positive news articles. The findings are then discussed in relation to the existing literature on media coverage of alcohol guidelines. The paper highlights two important lessons for public health authorities regarding the framing and the promotion of guidelines through knowledge translation and exchange, with the goal of reducing alcohol-related harm.

Methods

Design and Search Strategy

The aim of the research was addressed through a qualitative media analysis, and media tracking was performed from August 29 to October 14, 2022 using both Meltwater, a media monitoring service, as well as Google News alerts. Results from newspapers, radio, television, and blogs that were available online and mentioned Canada's updated alcohol guidelines were compiled in a database. Duplicates (articles captured by both Meltwater and Google Alerts) were removed while reprints (articles reprinted in multiple newspapers via syndication) were retained. Driven by initial aspirations for a comparative study, the search was not limited to Canada and included media coverage from the United Kingdom (UK) and the United States (US). However, due to the very limited number of original news articles from the UK (three) and the US (12) dealing with Canada's updated alcohol guidelines, the comparison was abandoned, but the news articles from the UK and the US were included in the study. Media tracking was also partly driven by the project co-chairs, who, during the project, engaged in discussions with colleagues from other countries that had previously updated their alcohol guidelines. The international colleagues informed them that media coverage was expected to be significantly higher during the public consultation phase — the first instance when the updated guidelines would be presented to the public — compared to the official launch.

The following search terms were used for Meltwater: "Low risk alcohol drinking guideline*"; "Low risk drinking guideline*"; "Guidance on Alcohol and Health"; "Drinking guideline*"; "Alcohol guideline*"; "Alcohol recommendation*"; "Alcohol limits"; "Alcohol guidance"; "Alcohol advice"; "Continuum of risk"; "1 to 2 standard drinks per week"; "3 to 6 standard drinks per week"; "Less is better"; "Right to know"; and "alcohol units". The following search terms were used for Google News Alerts: "Low risk alcohol"; "Low risk drinking"; "Guidance on Alcohol"; "Drinking guidelines"; "Alcohol guidelines"; "Alcohol recommendations"; "Alcohol limits"; "Alcohol guidance"; "Alcohol advice"; "Continuum of risk"; "Standard drink"; "Standard drinks"; "Less is better"; "Right to know"; "Bryce Barker"; "Canadian Centre on Substance Use"; "Catherine Paradis"; "Alcohol"; "Alcool"; and "Centre canadien sur les dépendances".

French and English terms were used to capture articles published in Canada's both official languages.

Inclusion and Exclusion Criteria

Articles were included in the final sample if they mentioned, either fully or partially, the proposed updated alcohol guidelines. An example of a partial mention would be an article the focus of which was not on alcohol guidelines but that would nonetheless mention them. Articles were excluded if they did not mention the alcohol guidelines or if they only discussed the consequences of alcohol consumption without mentioning the guidelines.

Data Categorization

A total of 870 articles were extracted during the period under study. Inspired by the definitions of Kersbegen et al. (2022), the articles were classified as positive, negative or neutral towards the proposed updated alcohol guidelines. An article was classified as positive if the authors developed a favorable view of the proposed guidelines. It was classified as negative if the authors discredited or refuted them. An article was classified as neutral if the authors simply presented the proposed updated alcohol guidelines without additional comments or balanced supporting and critical information. To avoid analysing duplicate articles, a screening was performed to find out how many times an article was republished in separate or sister media.

Iterative and Inductive Thematic Coding and Analysis

Iterative thematic coding of all original articles was conducted following the approach of Paillé and Mucchielli (2012), which consists of moving back and forth between data collection and data analysis. Different types of arguments among the positive and negative articles were inductively identified and defined from the raw data without any predetermined classification.

Results

Classification of Articles

In total, 870 articles were identified (85 positive, 279 negative and 506 neutral towards the proposed updated alcohol guidelines). As demonstrated in Table 1, a clear majority of the articles were duplicates, and only 65 articles were original (24 positive, 22 negative and 19 neutral articles).

Table 1

Articles by Tone

Tone	Articles in Total	Original Articles
Positive	85	24
Negative	279	22
Neutral	506	19
Total	**870**	**65**

Since the neutral articles dealing with the proposed updated alcohol guidelines mainly reiterated the key elements from the press release announcing the public consultation on the report without any added opinion from the journalists, this paper focuses on the arguments evoked in the positive and negative articles.

Thematic Analysis of Positive Articles

Articles welcoming the proposed updated alcohol guidelines primarily summarized the report's key messages and supported them with scientific evidence regarding the direct and indirect consequences of alcohol use on people's health and well-being. Overall, the 24 positive original articles included at least one of three main arguments: the Scientific Argument, the Access to Information Argument or the Economic Argument (Table 2).

Table 2

Positive News Articles and Types of Arguments

The Scientific Argument	The Access to Information Argument	The Economic Argument
Alcohol is harmful and/or more harmful than previously thought.	People lack knowledge about the risks of alcohol, and they have the right to know.	Alcohol consumption represents a huge economic cost for society.
24/24 articles	14/24 articles	5/24 articles

As demonstrated in Table 2, each positive article (24/24) put forward the Scientific Argument asserting that alcohol is harmful and/or more harmful than previously thought. These articles highlighted that alcohol is a carcinogen and referred to new science demonstrating increased risk to health.

The Canadian Centre on Substance Use and Addiction considers alcohol to be a carcinogen, linked to over half a dozen types of cancers, including colon, rectum, throat, liver, esophagus and larynx. More than two alcoholic beverages a week skyrockets risk for cancers, along with cardiovascular diseases and injuries. **News article, daily newspaper (US): "St. John's docs talk men's health" –** *Gillette News Record***, September 28, 2022**

Drinking alcohol is not safe. The risk increases with the amount that you consume. The [CCSA] …, a national advisory organization, recently published new guidelines that reflect our evolving understanding of how alcohol affects our health. **News article, weekly newspaper (Canada): "Dr. Mitch Shulman: The 'new' alcohol guidelines, and 'Don't try this at home!'" –** *The Suburban***, September 7, 2022.**

The careful review process identified much weaker evidence than before for the hypothesis that low doses of alcohol can protect against heart disease. **Opinion, daily academic news and research publisher (Canada): "Canada's low-risk alcohol use guidelines have been slashed to 6 drinks per week. Here's why" –** *The Conversation***, August 31, 2022.**

More than half of positive articles (14/24) evoked the Access to Information Argument focusing on the public's right to know about the risks of harm from alcohol. These articles argued that it was up to people to decide their health risks as long as they were sufficiently informed.

We have a choice: we can imitate the ostrich by burying our heads in the sand or we can frankly discuss the place that alcohol occupies in our lives… Of course, at the end of the day, when we see the (wine) cellar, it is up to each individual to manage their risk. But you still have to be well informed… [our translation]. **Opinion, daily**

newspaper (Canada): "*Fruité, vif et… cancérigène*" – *La presse*, September 4, 2022

… the whole intent of this report is, what do we know about a whole range of health risks from alcohol consumption and what do we need to then do to make sure Canadians have this information and can use that and support them in the choices they make? **News article, Canada's national public broadcaster: "Dr. Strang explains newly proposed guidelines of alcohol consumption" – *CBC News*, September 2, 2022.**

People in Canada have a right to know. **News article, Canada's national public broadcaster: "More than 6 drinks a week leads to higher health risks, new report suggests — especially for women" – *CBC News*, August 29, 2023**

Finally, a fifth of all positive articles (5/24) evoked the Economic Argument and welcomed the proposed updated guidelines by pointing out the economic costs of alcohol use.

The loss of alcohol sales revenues in provincial coffers would be more than made up by savings to provincial budgets for health and justice. **Editorial, online platform for multiple daily and weekly newspapers in Canada: "A toast to drinking less" – *SaltWire*, September 3, 2022.**

Most of the positive articles were coded for several arguments supporting the proposed updated guidelines. The following is an example of an article combining all three arguments:

Over the past decade, the once widely held view that moderate drinking had some health benefits have been called into question … Ultimately, Canadians deserve to be informed of alcohol's risks to make healthy choices...Together, these measures can help reduce alcohol's significant negative impact on Canadians' health, economic and social well being. **Opinion, publisher of journalism about health care in Canada: "It's time to revise Canada's low-risk alcohol drinking guidelines" – *Healthy Debate*, August 29, 2022.**

Thematic Analysis of Negative Articles

The thematic analysis revealed four main types of arguments in the original articles that were unfavorable to the proposed updated alcohol guidelines (Table 3).

Nineteen of the 22 articles evoked the Benefits Argument criticizing the proposed updated alcohol guidelines for not considering either the social or health benefits of alcohol use.

Table 3

Negative News Articles and Types of Arguments

The Benefits Argument	The Exaggeration Argument	The Unreliability Argument	The Impracticality Argument
The health and social benefits of alcohol use were overlooked	Risks associated with alcohol use were exaggerated	The report was produced by an organisation colluding with the Canadian government	The report is impractical to implement at both individual and political levels.
19/22 articles	18/22 articles	12/22 articles	12/22 articles

Yet alcohol, used sensibly, is also a source of pleasure to many. This is given no weight in the study. **Editorial, daily newspaper (Canada): "Study on alcohol guidelines doesn't address some crucial issues: Sober second thought needed" – *The Times Colonist*, September 8, 2022.**

...the guidelines released for public consultation are based exclusively on the notion of risk to physical health, without considering elements related to psychological well-being and socialisation [our translation]. **Opinion, daily newspaper (Canada) : "*Des conclusions démesurées pour la consommation d'alcool à faible risque*" – *Le Devoir*, September 28, 2022.**

Several articles took exception to the fact that the report did not consider the way alcohol can reduce the health risk and protect people from developing certain conditions, including heart disease.

'Fifty years of epidemiological and clinical research points to substantial health benefits – not harms – of daily intakes of small amounts of alcohol', he said. 'The plain fact is that, if people were to follow the recommendation to reduce consumption to two small drinks or less a week, it is likely that they would be worse off in health terms'. **Opinion, daily newspaper (UK): "Now they tell us just THREE drinks a week are bad for our health" – *Daily Mail,* October 8, 2022.**

… alcohol can bring a benefit: some protection against myocardial infarction, if you drink a glass of alcohol or two a day. **Editorial, online news platform (US): "I have read the same studies and I do not come to the same conclusions" – *ARCHYDE*, September 1, 2022.**

The Exaggeration Argument was evoked in 18 original articles stating that the risks associated with alcohol use were greatly exaggerated in three different ways .

First, negative articles contradicted the report's findings by reminding readers that drinking guidelines in other countries were less stringent.

> *...the wording of the CCSA's guidelines [...] contrasts not only with the previous CCSA guidelines, published in 2011, but also with the drinking standards currently advocated by several other international expert groups, such as the NIAAA in the United States, or by government agencies in Australia or the United Kingdom* [our translation]. **Opinion, daily newspaper (Canada): "*Des conclusions démesurées pour la consommation d'alcool à faible risque*" – *Le Devoir*, September 28, 2022.**

Second, articles criticized the report for ignoring the contexts and other risk factors associated with alcohol-related outcomes. Regarding co-founding risk factors, a cardiologist explained:

> *I have read the same studies and I do not come to the same conclusions. Smokers are also much more at risk of developing diseases and cancer when they consume alcohol. There is a terrible synergy between tobacco and alcohol. You multiply your risk 30 times when you smoke, of getting throat cancer if you drink. You have to look at each disease and each individual.* **Editorial, online news platform (US): "I have read the same studies and I do not come to the same conclusions", ARCHYDE, September 1, 2022.**

Third, several articles argued that the proposed guidelines would stigmatize drinkers and attack the freedom and responsibilities of ordinary people.

> *...[the guidelines] risks stigmatizing the vast majority of Canadians who choose to drink alcohol, as drinking more than two drinks per week is now considered 'out of the norm'* [our translation]. **Opinion, daily newspaper (Canada): "*Des conclusions démesurées pour la consommation d'alcool à faible risque*", *Le Devoir*, September 28, 2022.**

The Unreliability Argument focuses on the legitimacy of the CCSA as an organization and its links to the Canadian government which funded the update of the alcohol guidelines.

> *But what strikes many as strange is the relationship between Health Canada and the CCSA. The Ottawa-based group is supported with funding from Health Canada. [...] In other words, the CCSA's goal is to raise awareness, reduce the amount of alcohol consumed in Canada and influence policy. It would be like asking People for the Ethical Treatment of Animals to review guidelines for the beef industry. It's simply impossible to overlook potential predispositions and biases.* **Opinion, daily newspaper (Canada): "Is Canada drinking too much?", *Ottawa Citizen*, September 6, 2022.**

> *This is one of those uniquely Canadian institutions that will claim to be independent but would shut down within two days if government support were cut off. Which is why this nanny state mentality of describing anything more than two alcoholic drinks a week as risky is so worrisome.* **Opinion, daily newspaper (Canada): "Trudeau's nanny state says more than two drinks a week is too risky", *Calgary Sun*, September 30, 2022.**

The Impracticality Argument was evoked in 12 negative articles which claimed that the guidelines were unrealistic to implement at both the individual and the political levels. At the individual level, the argument was usually part of a broader discourse arguing that the proposed updated guidelines were too low or moralistic to be followed, as reflected in the following quote:

> *Abstaining from sex would also eradicate the risks of sexually transmitted diseases (as well as the human species). But I suspect few Canadians would be content to sign up for the monastic lifestyle, because the good life is not equated with the life of "maximally optimal health choices".* **Opinion, daily newspaper (Canada): "When public health becomes a tool of social control", *National Post* September 28, 2022.**

In the same vein, some articles argued that the report's recommendation of mandatory warning labels on alcoholic drinks would be ignored by the population and that it would therefore not be an efficient public policy tool.

> *...the new guidelines put out by the CCSA also recommends that consideration be given to putting health-related warnings on bottles and containers of booze, much like the warnings that appear on packs of cigarettes and other tobacco products. Really? I'm not sure that would deter anyone from purchasing their favourite bottle of chardonnay or shiraz or six-pack of brew.* **Opinion, daily newspaper (Canada): "Boozy Findings", *Calgary Sun*, September 2, 2022.**

Most negative articles were also coded for several arguments, as in the example below, which includes the Benefits, the Exaggeration and the Impracticality arguments:

> *But does that mean we shouldn't drink it? No, alcohol plays other roles in our lives, it brings pleasure and has a socialising role... The most precious tool we have is our internal compass. We know what is good for us, but we destroy this compass by being under the pressure of external guilt-inducing rules... The rules are making people dizzy, they don't know what to do to stay healthy. Guilt: "People feel helpless," she says. They get up in the morning and they're stressed, they say to themselves that they're eating fruit and vegetables, they're careful not to eat too much meat, and then they say, "Oh, I had two glasses of wine yesterday, so that's it for the rest of the week. Really?"* [our translation]. **News article, daily**

newspaper (Canada): "*Manger sans culpabiliser, est-ce possible?*" – La Presse, September 25, 2022.

Discussion

Overall, the public consultation on Canada's proposed updated alcohol guidelines received considerable attention from the media. Between August 29 and October 14, 2022, nearly 900 articles were published and reprinted in various media. A basic finding is consequently that alcohol is an issue that creates interest and curiosity in people. This can be explained by alcohol's omnipresence in our everyday life, as well as the fact that most people in Canada use alcohol (Health Canada, 2019). However, the Canadian guidelines seemed to receive comparatively more attention than what has been observed elsewhere. In Australia, where alcohol is also vastly used and promoted, a 2018 study revealed that there had only been 217 mentions of the national alcohol guidelines in the media over a 15-year period (Wolfaardt et al., 2018).

In terms of tone, of the 870 published articles, 58% were coded as neutral, 32% as negative and 10% as positive. Among the original articles, however, the share of positive articles was 37%, while 34% and 28% were negative and neutral, respectively. The fact that on average, a neutral article was republished about 27 times, a negative one about 12 times and a positive one only 3.4 times is an important observation. This is likely a reflection of the current social media era where negatively charged articles and editorials – regardless of the topic – are more widely shared than positive ones (Trilling et al., 2017; Kalsnes & Larsson, 2018).

Most positive and negative news articles were coded for several arguments. All positive articles evoked the Scientific Argument stating that the proposed updated guidelines and report demonstrated that alcohol was harmful and/or more harmful than previously thought. The Access to Information Argument which highlights that people lack knowledge about the risks of alcohol, and that they have the right to know was also evoked in a majority of the positive articles. This indicates that many trust and refer to scientists when it comes to health matters, but also that many are positive about receiving scientific information that will enable them to make informed decisions about their lives and health (see also Battiston et al., 2021; Hadden, 2021).

The thematic analysis revealed that most negative articles criticized the proposed updated alcohol guidelines for overlooking the benefits of alcohol and exaggerating its risks. These articles aimed to indicate a difference between "drinking" and "drinking well", suggesting that the benefits of alcohol outweigh the risks for those who "drink well". Furthermore, the negative articles frequently criticized the scientific process, methodological choices, and the modelling techniques. In some respects, the arguments used in these articles were reminiscent of those used by the alcohol industry to cast doubt on the harmful effects of alcohol products on health, and on the effectiveness of alcohol control policies and initiatives by means of pseudo-scientific criticism (see Ulucanlar et al., 2023). Along the lines described in the *Triumph of Doubt* (Michaels, 2020),

expertise was discredited to give credibility to the overarching argument that the proposed updated guidelines overstated the harms and downplayed the benefits of alcohol use in people's lives.

Articles arguing against the proposed updated alcohol guidelines did so also by questioning the credibility of those responsible for drafting the report's conclusions, as well as the practicality of those conclusions. Despite a rigorous and detailed disclosure of affiliations and interests according to guidance developed by the Guidelines International Network Board of Trustees (Canadian Centre on Substance Use and Addiction [CCSA], 2021; Schünemann et al., 2015), the CCSA and the authors of the report were subject to accusations about their associations and motives in several negative articles. Similar to what has been previously demonstrated in the tobacco field (Cardador et al., 1995), journalists and commentators portrayed the report's authors as political actors instead of scientific ones, as if the public health recommendations were driven by political motives. The same observation was made in the United Kingdom when their latest alcohol guidelines were released (Holmes et al., 2020b; Kersbergen et al., 2022).

The media analysis findings are distinctive in that Canada's proposed updated alcohol guidelines received a higher number of positive news articles compared to what has been observed elsewhere. For instance, while only 2.2% of the news media articles were categorized as positive in tone in a recent study of the responses to the alcohol guidelines disseminated in the UK in 2016 (Kersbergen et al., 2022), 37 % of the original articles were categorized as positive in the Canadian case. This is a surprising result given that editorials and commentaries in the press often do not support public health arguments when it comes to alcohol, and instead tend to discuss alcohol problems with an underlying view that liberalized alcohol markets are preferable (Babor et al. 2023). We believe that the comparatively higher number of positive press articles can be attributed to two specific aspects, which we consider to be the key findings of this study, as they may provide important lessons for public health authorities seeking to raise awareness of and reduce alcohol-related harm.

The first lesson concerns the framing of the Canada's proposed updated alcohol guidelines. Message framing can be an effective strategy for promoting responsible drinking behavior (de Graaf et al., 2015), and gain-framed messaging has showed more favourable responses than loss-framed messaging (Park et al., 2020). Rather than imposing strict rules, Canadian experts, partly in response to criticisms about alcohol guidelines constraining personal autonomy (Holmes et al., 2020b), opted for presenting a continuum of risk associated with different alcohol consumption levels. This approach aimed to empower individuals to assess their own position on the continuum, understand their own risk level, and potentially opt for healthier and safer behaviors, aligning with the principle of people's right to know. Another framing difference is clearly visible in the preferred use of "Guidance on Alcohol and Health" in the Canadian case (Paradis et al., 2022), whereas in the UK and in Australia for example, the term "guidelines" was used. Overall, the Canadian less prescriptive and more informative

approach may have resonated with many, who got the impression that the experts behind the proposed updated alcohol guidelines were not telling people what they should *do*, but rather, what they should *know*.

A second lesson concerns the knowledge translation and exchange (KTE) approach that the Canadian project relied upon. Although public health actors often engage in public debates in newspapers through opinion pieces and letters to the editors (Nicholls, 2011), studies have found that the contributions of the public health actors are less coordinated and strategic than those of the commercial and alcohol industry actors (Fogarty & Chapman, 2012; Hawkins & McCambridge, 2021; Holden & Hawkins, 2013). For example, the dissemination of the low-risk drinking guidelines in the UK in 2016 was not accompanied with a coordinated approach by public health actors, which opened the door for other actors to dominate the public debate (Holmes et al., 2020b). In Canada, however, a more comprehensive and strategic KTE plan was designed and implemented prior to the consultation period. For instance, the project's executive committee with members from federal, provincial and territorial governments, and national organizations was tasked to facilitate uptake of the proposed updated alcohol guidelines by key partners and stakeholders. Moreover, the project's co-chairs held multiple technical briefings with various health-related organizations across the country. The CCSA's communication team also reached out to key organizations within the health and medical sector and supported them in their efforts to issue public statements. Finally, in the days leading up to the public consultation, experts responsible for updating the guidelines participated in media sessions and were provided media briefing booklets which featured key messaging and Q&As. Overall, this analysis highlights the necessity of carefully audience tailored and institutionalized KTE approaches in public health policy-making processes in general (Fafard & Hoffman, 2020), and in the alcohol sector specifically.

Both the framing of Canada's proposed updated alcohol guidelines and the KTE strategies supporting them may contribute to increase our understanding of why a plurality of the original news articles were positive in tone. However, since the negative and neutral articles were more frequently republished than the articles that were positive in tone, it is evident that public health authorities need to continue to engage in media monitoring and KTE activities in order to ensure that their messages are shared and republished after the initial publication. Future research should be directed towards better understanding the dynamics behind the re-publication of news articles dealing with alcohol guidelines and other public health initiatives. Also, a systematic comparative study of the news media coverage of alcohol guidelines in different contexts and jurisdictions is clearly needed to shed further light on the differences in attention and tone.

This study is not without limitations. First, it was not feasible for us to include social media in our analysis. Second, although we found that positive articles were less frequently republished in separate or sister media than neutral and negative ones, we did not study the reach of the individual articles. We can therefore not determine the public's total exposure to the different types of arguments on Canada's proposed updated alcohol guidelines during the consultation period. Third, the various media outlets have not been subject to systematic analysis, and we do therefore not know what or who is driving the positive and negative articles. Future studies should look more systematically into the characteristics of the media outlets, like ideological orientations, target audiences etc., that may explain the tone of and arguments evoked in articles on alcohol guidelines.

Conclusion

This paper has analyzed the positive and negative news articles regarding Canada's proposed updated alcohol guidelines released in 2022, and it emphasizes the significance of understanding these arguments for public health actors in other jurisdictions involved in the development of alcohol guidelines. The paper suggests that framing the updated guidelines based on the public's right to know about alcohol risks may result in more positive media coverage than strict prescriptive guidelines. The positive articles often highlighted the public's right to information and the freedom for individuals to decide on their health risks with sufficient knowledge.

A coordinated and strategic knowledge translation and exchange approach among public health actors is crucial for effectively disseminating and promoting alcohol guidelines, particularly in light of the predominantly negative reception from commercial and alcohol industry actors. This study highlights the need for comprehensive resources focused on alcohol, providing key arguments to support alcohol policy advocates and policymakers in their efforts. A vast literature has been produced in recent years that shed light on the industry's tactics and arguments (see, for instance McCambridge et al. 2018; O'Brien et al., 2023; Ulucanlar et al., 2023), and these findings needs to be made more accessible to politicians, policy-makers, journalists and citizens who should be sufficiently aware to make informed decisions.

Finally, this analysis revealed that alcohol use and alcohol guidelines are sensitive issues towards which people, including journalists and commentators, tend to have emotional responses. In a culture where alcohol is synonymous with good times (see Johnston, 2013), any suggestion to reduce its use is likely to be met with instinctive reactions. While the message may be "drink less alcohol", what some people seem to hear is "have no more fun". Moving forward, the release of alcohol guidelines should systematically include encouraging information like the positive impact of reduced alcohol use on physical, mental, and social health. Alcohol guidelines should be framed as "good news" which inform people that there is a very simple solution to improve their health, i.e. by reducing alcohol consumption.

Research Ethics Approval Statement

Ethical review was not required because the study relied only on publicly available data and information.

Acknowledgements

References

Babor, T. F., Casswell, S., Graham, K., Huckle, T. Livingston, M. Osterberg, E., Rehm, J., Room, R., Rossow, I., & Sornpaisarn, B. (2023). *Alcohol: No Ordinary Commodity*. Oxford University Press.

Battiston, P., Kashyap, R., & Rotondi, V. (2021): Reliance on scientists and experts during an epidemic: Evidence from the COVID-19 outbreak in Italy. *SSM Population Health,* *13*,100721. https://doi.org/10.1016/j.ssmph.2020.100721.

Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). *Alcohol and health in Canada: A summary of evidence and guidelines for low-risk drinking. Ottawa, ON*. Canadian Centre on Substance Abuse.

Canadian Centre on Substance use and Addiction (2021). *Update of Canada's Low-Risk Alcohol Drinking Guidelines: Disclosure of Affiliations and Interests. CCSA, Ottawa: ON*. https://www.ccsa.ca/sites/default/files/2021-12/CCSA-Lower-Risk-Drinking-Guidelines-Disclosure-Affiliations-and-Interests-2021-en.pdf.

Casswell, S. (1993). Public discourse on the benefits of moderation: implications for alcohol policy development, *Addiction*, 88(4). 459–465. https://doi.org/10.1111/j.1360-0443.1993.tb02052.x.

Cardador, M. T., Hazan, A. R. & Glantz, S. A. (1995): Tobacco industry smokers' rights publications: A content analysis. *American Journal of Public Health, 85*(9), 1212–1217. https://doi.org/10.2105/ajph.85.9.1212.

de Graaf, A., van den Putte, B. & de Bruijn, G. J. (2015): Effects of Issue Involvement and Framing of a Responsible Drinking Message on Attitudes, Intentions, and Behavior". *Journal of Health Communication*, *20*(8), 989–994. https://doi.org/10.1080/10810730.2015.1018623.

Fafard, P., & Hoffman, S. J. (2020): Rethinking knowledge translation for public health policy. *Evidence & Policy*, *16*(1), 165–175. https://doi.org/10.1332/174426418X15212871808802.

Fogarty, A. S., & Chapman, S. (2012): Australian television news coverage of alcohol, health and related policies, 2005 to 2010: implications for alcohol policy advocates, *Australian and New Zealand Journal of Public Health*, *36*(6), 530–536. https://doi.org/10.1111/j.1753-6405.2012.00933.x.

Hadden, S. G. (2021). *A citizen's right to know: Risk communication and public policy*. Routledge.

Harris J. K., Shelton, S. C., Moreland-Russell, S. & Luke, D. A., (2010). Tobacco coverage in print media: the use of timing and themes by tobacco control supporters and opposition before a failed tobacco tax initiative, *Tobacco Control*, *19*, 37–43. https://doi.org/10.1136%2Ftc.2009.032516.

Hawkins, B. R. & McCambridge, J. (2021): Partners or opponents? Alcohol industry and the 2016 revision of the U.K. low-risk drinking guidelines, *Journal of Studies on Alcohol and Drugs,* 82(1): 84–92. https://doi.org/10.15288/jsad.2021.82.84.

Health Canada (2019). *Canadian Alcohol and Drugs Survey (CADS): Summary of results for 2019*. https://www.canada.ca/en/health-canada/services/canadian-alcohol-drugs-survey/2019-summary.html

Holden, C., & Hawkins, B. (2013). 'Whisky gloss': The alcohol industry, devolution and policy communities in Scotland, *Public Policy and Administration*, *28*(3), 253–273. https://doi.org/10.1177/0952076712452290.

Holmes, J., Beard, E., Brown, J., Brennan, A., Meier, P. S., Michie, S., Stevely, A. K., Webster, L., & Buykx, P. F. (2020a). Effects on alcohol consumption of announcing and implementing revised UK low-risk drinking guidelines: findings from an interrupted time series analysis. *Journal of Epidemiology and Community Health*. *74*(11), 942–949. https://doi.org/10.1136%2Fjech-2020-213820.

Holmes, J., Beard, E., Brown, J. et al. (2020b). How did news media communicate the revised UK drinking guidelines?. In *The impact of promoting revised UK low-risk drinking guidelines on alcohol consumption: interrupted time series analysis*. Southampton (UK): NIHR Journals Library, Public Health Research, No. 8.14.). https://www.ncbi.nlm.nih.gov/books/NBK563553.

Johnston, A. D. (2013). *Drink: The intimate relationship between women and alcohol*. Harper Collins.

Kalinowski A., & Humphreys, K. (2016). Governmental standard drink definitions and low-risk alcohol consumption guidelines in 37 countries, *Addiction*, *111*(7), 1293–1298. https://doi.org/10.1111/add.13341.

Kalsnes B, & Larsson A. O. (2018): Understanding news sharing across social media: Detailing distribution on Facebook and Twitter. *Journalism Studies, 19*(11),1669–1688. https://doi.org/10.1080/1461670X.2017.1297686.

Kersbergen, I., Buykx, P., Brennan, A., Brown, J., Michie, S. & Holmes, J. (2022). Print and online textual news media coverage of UK low-risk drinking guidelines from 2014 to 2017: A review and thematic analysis. *Drug and Alcohol Review*, *41*(5), 1161–1173. https://doi.org/10.1111/dar.13458.

McCambridge, J., Mialon, M., & Hawkins, B. (2018). Alcohol industry involvement in policymaking: A systematic review. *Addiction, 113*(9), 1571–1584. https://doi.org/10.1111/add.14216.

Menashe, C. L. (1998): The power of a frame: An analysis of newspaper coverage of tobacco issues-United States, 1985–1996, *Journal of Health Communication*, *3*(4), 307–325. https://doi.org/10.1080/108107398127139.

Michaels, D. (2020). *The triumph of doubt: Dark money and the science of deception*. Oxford University Press.

Miller, C. L., Hill, D. J., Quester, P. G., & Hiller, J. E. (2009): Response of mass media, tobacco industry and smokers to the introduction of graphic cigarette pack warnings in Australia. *European Journal of Public Health*, *19*(6), 644–649. https://doi.org/10.1093/eurpub/ckp089.

National Health and Medical Research Council (2020): *Australian guidelines to reduce health risks from drinking alcohol*. Canberra: Commonwealth of Australia, 2020. https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-reduce-health-risks-drinking-alcohol#block-views-block-file-attachments-content-block-1.

Nicholls, J. (2011): UK news reporting of alcohol: An analysis of television and newspaper coverage, *Drugs: Education, Prevention and Policy*, *18*(3), 200–206. https://doi.org/10.3109/09687631003796453.

O'Brien, P., Dwyer, R., Gleeson, D., Cook, M., & Room, R. (2023). Influencing the global governance of alcohol: Alcohol industry views in submissions to the WHO consultation for the Alcohol Action Plan 2022-2030. *International Journal of Drug Policy, 119*, 104115. https://doi.org/10.1016/j.drugpo.2023.104115.

Paillé, P. & Mucchielli, A. (2012). *L'analyse qualitative en sciences humaines et sociales*. Armand Colin.

Paradis, C., Butt, P., Shield, K., Poole, N., Wells, S., Naimi, T., Sherk, A., & the Low-Risk Alcohol Drinking Guidelines Scientific Expert Panels (2022). *Update of Canada's low-risk alcohol drinking guidelines: Final report for public consultation*. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction. https://www.ccsa.ca/sites/default/files/2022-08/CCSA-LRDG-Update-of-Canada%27s-LRDG-Final-report-for-public-consultation-en.pdf.

Park, S.-Y., Son, H., Lee, J., & Go, E. (2020). Moderating effects of social norms and alcohol consumption on message framing in responsible drinking campaigns: Value from deviance regulation theory. *Health Communication, 35*(7), 793–803. https://doi.org/10.1080/10410236.2019.1593077

Sato, H. (2003). Agenda setting for smoking control in Japan, 1945-1990: Influence of the mass media on national health policy making, *Journal of Health Communication*, *8*(1), 23–40. https://doi.org/10.1080/10810730305731.

Schünemann, H. J., Al-Ansary, L. A., Forland, F., Kersten, S., Komulainen, J., Kopp, I. B., Macbeth, F., Phillips, S. M., Robbins, C., van der Wees, P., Qaseem, A. (2015). Guidelines International Network: Principles for Disclosure of Interests and Management of Conflicts in Guidelines. *Annals of Internal Medicine, 163(7),* 548–553. https://doi.org/10.7326/m14-1885

Smith, K., Wakefield, C.M., & Edsall, E. (2006). The good news about smoking: How do US newspapers cover tobacco issues?, *Journal of Public Health Policy*, *27*(2), 166–181. https://doi.org/10.1057/palgrave.jphp.3200079.

Trilling D, Tolochko P, Burscher B. (2017). From newsworthiness to shareworthiness: How to predict news sharing based on article characteristics? *Journalism & Mass Communication Quarterly*, *94*(1), 38–60. https://doi.org/10.1177/1077699016654682.

Ulucanlar, S., Lauber, K., Fabbri, A., Hawkins, B., Mialon, M., Hancock, L., Tangcharoensathien, V., & Gilmore, A. B. (2023). Corporate political activity: Taxonomies and model of corporate influence on public policy. *International Journal of Health Policy and Management, 12*(1), 1–22. https://doi.org/10.34172/ijhpm.2023.7292.

Wallack L., & Dorfman, L. (1996). Media advocacy: A strategy for advancing policy and promoting health, *Health Education Quarterly*, *23*(3): 293–317. https://doi.org/10.1177/109019819602300303.

Wolfaardt, B. M., Brownbill, A. L., Mahmood, M. A., & Bowden, J. A. (2018). The Australian NHMRC guidelines for alcohol consumption and their portrayal in the print media: a content analysis of Australian newspapers. *Australian and New Zealand Journal of Public Health*, *42*(1), 43–45. https://doi.org/10.1111/1753-6405.12758.

World Health Organization (2018). Global Status Report on Alcohol and Health 2018. Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241565639