


Media reporting on alcohol and other drugs in Australia and the Mindframe guidelines: Baseline data

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Abstract

Introduction: The aim of this study was to generate a baseline database of print media reporting on alcohol and other drug (AOD) issues prior to the release of the *Mindframe* guidelines in March 2019. Specifically, to: (i) describe the content associated with media entries that focus on AOD use in Australian news media; (ii) determine how the media entries compare to several domains associated with recently developed Mindframe guidelines for publicly reporting on AOD; and (iii) identify content factors associated with different scores.

Methods: Media entries between July 2016 and June 2017 were searched for key AOD-related terms using the Australian and New Zealand Newsstream database. Two coding schemes were developed to rate a stratified sample of 50% of the media entries against the Mindframe guidelines. Associations between content and total comparison scores were determined using linear regression models.

Results: Detailed coding of the 2007 articles identified as relevant for the current study indicated that a majority (67%) were focused on one of three substances: alcohol, cannabis or methamphetamine. Most of the entries were either law enforcement (22%) or criminal justice related (19%). Entries that focused on methamphetamine scored significantly lower than entries on alcohol when compared to the Mindframe guidelines, similarly entries focused on crime/justice-related topics scored significantly lower than entries focused on positive outcomes.

Discussion and Conclusions: A disproportionate number of print media entries, particularly those related methamphetamine use, focused on crime or justice-related topics, potentially further contributing to stigma, and emphasising the legal consequences of AOD use.

KEYWORDS

alcohol, cannabis, media monitoring, methamphetamine, stigma

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1 | INTRODUCTION

In Australia, the use of alcohol, tobacco and other drugs (AOD) is a single major cause of preventable disease and illness. The Australian burden of disease study reported that in 2015, tobacco use contributed 9.3%, alcohol use contributed 4.5% and illicit drug use contributed 2.7% of the total disease burden. In males, AOD use make up the top two leading risk factors contributing to disease burden in those aged 15–24 years, whereas AOD use are the second and third leading causes of disease burden in females aged 15–24 (the top being child abuse and neglect) [1]. In terms of direct impact, approximately 4% of the total Australian population aged between 16 and 85 years experience a diagnosable alcohol use disorder in the past 12 months (with the highest prevalence of 11% among those aged 16–24 years), 1.5% experience a drug use disorder in the past 12 months, and AOD use represents a leading risk factor for suicide [2,3].

The news media in general play an integral role in facilitating the public discourse, influencing attitudes and opinions and shaping policy decisions on AOD [4,5]. In Australia, print news media consumption is widespread, with Australians preferring hard news (62%) over soft news such as celebrity, entertainment or lifestyle, with the majority accessing news websites between one and five times per day [6]. Importantly, Australians generally trust the media as found in the Ipsos Global Advisor: Trust in the Media Survey 2019, although they did find that Australians' trust in the media has been waning in recent years [7].

It is not surprising then that the news media can have a large and varied impact on the general population about important social and health issues, including AOD. However, evidence from previous media monitoring studies in Australia paint a negative picture of the media, with sensationalist, unbalanced and inaccurate reporting on issues associated with AOD. For instance, Hughes et al. [8] found that the content of media reports on illicit drugs was heavily distorted towards criminal justice and law enforcement topics (representing 70% of the sample). Rawstorne et al. [9] confirmed these findings with the largest proportion of media articles (24%) focused on 'criminal justice' as the primary topic, and 45% of the articles framed methamphetamine use as a 'crisis' or emergency in the Australian community. A study by Azar et al. [10] performed a content analysis of 4217 alcohol-related newspaper articles published between 2000 and 2011. They found that newspaper reports have become more disapproving in nature with a focus on restrictions, trauma, prevention and drink driving. In a more targeted study focusing on the media reporting on AOD use among people of African ethnicity, Horyniak

et al. [11] found that alcohol-related stories were the most common (68%) and often related to violence (47%) and crime (32%).

To improve media reporting, the *Mindframe* Initiative (a program managed by Everymind) was established in the late 1990s to develop and implement guidelines to support safe and non-stigmatising reporting and public communication about suicide and mental ill-health. The program was expanded in 2017 to include specific focus on reporting and public communication about AOD informed by an evidence check to evaluate the impact of media portrayal of AOD use on stigma and behaviours. Kay-Lambkin et al. [12] found that reductions in AOD use may occur when media portrayals favour health, psychological and social risks associated with use, and encourage the public to consider how AOD use fits in with their goals as contributing members of the community [13–15]. This study found it was particularly effective for women and people not already using AOD.

Recommendations emerging from the evidence check included to: (i) develop media guidelines for the reporting and portrayal of AOD; (ii) develop an implementation plan to encourage uptake and use of the guidelines by Australian media; (iii) evaluate the effectiveness of the guidelines in changing media practices and any resulting change on stigma/behaviours around AOD use in the Australian community; and (iv) develop a strategy to empower consumers of AOD-related media reports to evaluate accuracy and credibility of information presented [12]. *Mindframe* guidelines for reporting and communicating publicly about AOD were developed using available evidence and designed in partnership with the AOD sector, consumer representatives, *Mindframe* AOD Advisory Group members and project partners. The core information included within the guidelines include key recommendations about best-practice for communicating publicly about AOD and people who use AOD, including the importance of using helpful and not harmful language and inclusion of help-seeking information in media stories. The guidelines were officially launched in March 2019 and are available on the *Mindframe* website at www.mindframe.org.au [16].

The current study represents the first phase of a broader evaluation of the *Mindframe* guidelines for reporting on AOD, namely this phase will establish a baseline dataset of representative print media entries published prior to the development and implementation of the guidelines. The baseline dataset will form the comparison group for a subsequent evaluation of media entries that are published after the implementation of the *Mindframe* guidelines. The current study has three specific aims related to this phase of the evaluation: (i) describe the content associated with relevant media entries that focus on

AOD use or AOD-related issues published in Australian newspapers or news feeds either in print or online between July 2016 and June 2017; (ii) determine how the media entries compare to several domains associated with the Mindframe guidelines for reporting on AOD; and (iii) identify significant content factors associated with different comparison scores to provide recommendations for where reporting can be improved.

2 | METHOD

The method used for this print media monitoring study is consistent with previous media monitoring studies on suicide and mental health [17,18]. The approach proceeded with media searches, initial screening and extraction from an online media database, the development of content and guideline comparison coding schemes, application of the coding schemes in a random sample of media entries and finally data analysis.

2.1 | Media searches and initial screening

A comprehensive search of Australian print media articles published between July 2016 and June 2017 was conducted using the Australian and New Zealand Newsstream (ProQuest) database. The specific time period was selected as it is prior to the development and launch of the Mindframe Guidelines and therefore establishes a baseline dataset. The search strategy proceeded by capturing any article during the studied time frame that included mention of at least one alcohol and/or drug-related term. The terms were developed in conjunction with several experts in the field of AOD research as well as prior media monitoring studies focusing on AOD. The list of search terms is provided in Data S1, Supporting Information.

The media sampling frame for the current study consisted of 34 newspapers or wire feeds that cover a full spectrum of national and local metropolitan and regional news outlets. Major newspaper outlets were included from multiple Australian states and territories with substantial readership and reach. The choice of specific media outlets to include was also informed by preliminary searches and screening of results, with priority given to Australian metropolitan and regional sources that captured the largest number of media entries identified by the search terms. To improve the relevance of the articles for the purpose of the current study, the media searches were restricted to include one of the search terms in the 'abstract' of the article, that is

the first few sentences. This resulted in 6983 media entries returned from the search and a final 5842 entries remained after removing duplicates. The coding schemes were applied to a selected 50% of the media entries ($n = 2921$). The media entries were sorted by publication date and every second article was selected for coding. This ensured that the results would represent a full spread of articles published over the 12-month period.

2.2 | Development of the coding scheme

The coding scheme was divided into two sections given the primary aims of the current study: a content coding scheme and a comparison coding scheme. Both coding schemes were developed by the authors specifically for the current project in conjunction with Everymind project staff and pilot tested independently by the study coders. The content coding scheme was developed to identify important characteristics of the media entries that could be used for descriptive purposes and follow-up analyses of quality reporting. The full content coding scheme is provided in Data S2.

The comparison coding scheme was developed using a similar method to the previous Mindframe media monitoring study focussed on suicide and mental illness [17]. The full coding scheme is provided in Data S3. Each of the domains (or questions) for the coding scheme were mapped specifically to one or more of the Mindframe guidelines for reporting on AOD [16]. The coding scheme comprised eight domains, with each domain rated on a four-point response scale depending on how well the article follow the Mindframe guidelines: yes, no, unsure, not applicable. Coders were instructed to provide a response of 'not applicable' if the specific article did not have an opportunity to address the domain. A total score was then calculated by summing the applicable values of each of the responses, dividing by the total number of applicable responses, and multiplying by 100, to generate a score between 0 and 100.

The coding team met on a weekly basis during the study to crosscheck any difficult responses, discuss further issues and reduce the possibility of coder drift in the operationalisation of the coding schemes. The coders were blind to the results from the other coders. Each coder was randomly assigned roughly a third of the full sample of media entries to complete. A random subsample of 10% were double coded by a random selection of two of the coders. The average percent agreement between the two coders across the eight domains was 79%. The percent agreement ranged from a low of 68% associated with 'Does the entry portray AOD use as a health condition?' and 'Does the entry unfairly focus

only on AOD use in a stigmatising way?’ to a high of 93% and 99% associated with ‘Does the entry glamourise AOD use or related activity?’ and ‘Does the entry include help-seeking information?’, respectively.

2.3 | Statistical analysis

Descriptive statistics were used to examine and compare the full sample versus the sample of entries that were subsequently identified as relevant during coding. Articles that were deemed relevant (primary or secondary focus on AOD issue) were examined further. Individual domains from the guideline comparison coding scheme were examined separately in addition to the full score calculated from the total number of responses. To examine the associations between content-related factors, the data were analysed using linear regression. Both univariable and multivariable models were estimated to determine the independent effects of different content variables.

3 | RESULTS

The initial extraction included 2921 print media entries from 33 news publications across 27 metropolitan and regional cities. The media entries were published by a relatively small number of publishers/media companies including News Limited (40% of the total media entries), Fairfax media (now Nine Media) (35% of the total media entries), Australian Associated Press (14% of the total media entries), Australian Provincial Newspapers (9% of the total media entries) and the Australian Broadcasting Corporation (2% of the total media entries). With respect to the individual publications and newspapers, the largest percentage of the total media entries were published by the Australian Associated Press News Wire (15%), followed by *Herald Sun* (7%) and the *Newcastle Herald* (6%), while the lowest percentage of media entries were published by the *Port Macquarie News* (1%). In terms of geographical spread, the largest percentage of media entries were published in Australia’s largest cities, with Sydney ranked first (26%) followed by Melbourne (10%), Newcastle (6%), Canberra (5%) and Brisbane (5%). The number of media entries were evenly spread across the 12-month period with some evidence of a slight decrease in entries towards the end of the 12-month period and a large spike around October and November of 2016. The average word count for all extracted media entries was 395 (SD = 326) with a range of 36–6245 words.

Approximately 2007 (68.7%) entries were coded as relevant with 1708 or 85% of the relevant articles coded as having a primary focus on AOD use or an AOD-related

issue, and the remaining 299 (15%) coded as the article discussing another issue but references AOD as an important secondary issue. Similar patterns were observed for the location and date of publication between relevant and non-relevant media entries. Relevant articles demonstrated a significantly smaller word count ($M = 358$, $SD = 274$) in comparison to non-relevant articles ($M = 477$, $SD = 406$, $t = 8.01$, $p < 0.01$).

Most of the relevant media entries were coded as news (89%) followed by editorials (6%), commentaries (5%) and other (0.3%). In terms of the primary substance reported on, the greatest percentage of articles reported on alcohol (28%), followed by methamphetamine (21%), cannabis (18%) and drugs in general (10%). The mean number of external sources identified in the relevant articles was 1.7 with a median of 2 sources identified and a range of 0 through to 15 sources. The greatest percentage of articles included sources from law enforcement (22%) or the legal system (21%), followed by politicians/government officials (15%) and health organisational representatives (11%).

In terms of the primary topic reported on by the relevant articles, most of the entries were either law enforcement (22%) or criminal justice related (19%), followed by entries on AOD-related policies or programs (13%) and AOD-related harms (12%). The topics with the fewest entries including those related to AOD use by a prominent politician (0.5%) and AOD use by another prominent person or celebrity not captured by the other categories (0.3%). To examine any relationship between the primary topic reported on and the primary substance reported on, the top four substances (alcohol, methamphetamine, cannabis and drugs in general) were selected and then compared depending on whether the primary topic was crime/law related (law enforcement, legal system or alcohol drug-related crime) or not. Across all four substances the percentage of crime/law-related articles was 52%; however, this differed significantly depending on which substance was the primary focus (Wald $\chi^2 = 124$, $df = 3$, $p < 0.001$). The results are displayed in Figure 1. Logistic regression indicated that the odds of a crime/law related topic for entries reporting primarily on methamphetamine were 4.6 (95% confidence interval 3.5, 6.1) times the odds of a crime/law-related topic in entries reporting primarily on alcohol. Similarly, entries that reported on cannabis and drugs in general demonstrated significantly higher odds of a crime/law-related topic in comparison to alcohol-related articles (odds ratio 2.5, 95% confidence interval 1.9, 3.3 and odds ratio 1.9, 95% confidence interval 1.4, 2.6, respectively).

Table 1 shows the frequencies and percentages associated with the guideline comparison coding scheme for the individual domains in the total number of relevant

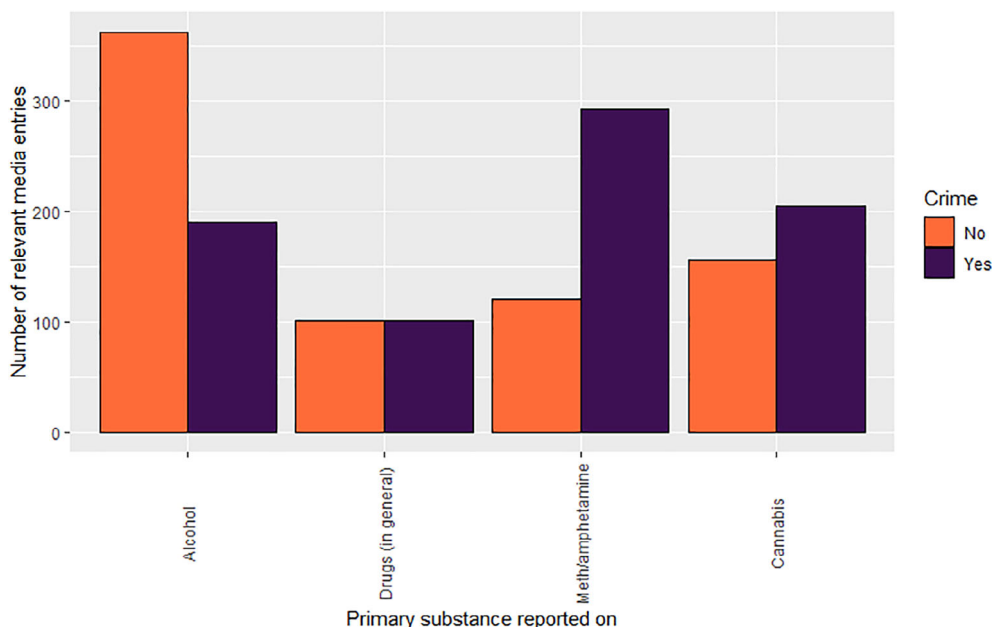


FIGURE 1 Number of crime/law-related media entries with a primary focus on alcohol, drugs (in general), methamphetamine and cannabis ($n = 1531$).

TABLE 1 Frequency and percentages of each domain of the Mindframe Guidelines in the total number of relevant media entries ($N = 2007$).

Domain	Yes		No		Not applicable/unsure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1. Does the entry use alarmist or sensationalist language?	765	38	1236	62	6	<1
2. Does the entry use inappropriate language when referring to people who use AOD?	305	15	1095	55	607	30
3. Does the entry portray AOD use as a health condition?	414	21	1040	52	553	28
4. Does the entry characterise AOD use as delinquent, violent or morally weak?	600	30	872	43	535	27
5. Does the entry unfairly focus only on AOD use in a stigmatising way?	446	22	1015	51	546	27
6. Has the entry sought expert opinion?	1321	66	670	33	16	1
7. Does the entry glamourise AOD use or related activity?	85	4	1912	95	10	1
8. Does the entry include help-seeking information?	28	1	1928	96	51	3

Note: given the very low number of unsure responses across the quality domains it was decided to merge this group with 'not applicable'. Abbreviation: AOD, alcohol and other drugs.

media entries. A series of linear regression models were estimated treating scores as continuously distributed to examine the statistical significance of content characteristics associated with greater mapping to the Mindframe guidelines are presented in Table 2. In terms of primary substance reported on, media entries that addressed tobacco products ($b = 5.6, p < 0.01$) and cannabis

($b = 4.6, p < 0.01$) scored significantly higher in comparison to media entries on alcohol. Conversely, entries that primarily focused on methamphetamine ($b = -4.5, p < 0.01$) scored significantly lower than entries on alcohol. With respect to primary topic, media entries that addressed justice/law/crime-related issues ($b = -12.2, p < 0.01$), celebrity AOD use in general ($b = -7.0,$

TABLE 2 Multivariable regression coefficients for models predicting total scores ($n = 2007$).

Variable	Category	<i>b</i>	SE	<i>t</i>	<i>p</i> -value
Entry type	News	8.9	1.3	7.1	<0.01
	Commentary/editorials/other	Ref	–	–	–
Primary substance	Alcohol	Ref	–	–	–
	Drugs (in general)	–3.0	1.4	–2.2	0.03
	Tobacco products	5.6	1.8	3.0	<0.01
	Cocaine	–2.0	1.7	–1.2	0.22
	MDMA	3.3	2.2	1.6	0.12
	Methamphetamine/amphetamine	–4.5	1.1	–3.9	<0.01
	Cannabis	4.6	1.3	3.6	<0.01
	Other drugs ^a	–1.4	1.6	–0.9	0.37
Primary topic	Positive outcomes	Ref	–	–	–
	Harms	–5.6	2.0	–2.8	<0.01
	Justice/law/crime	–12.2	1.9	–6.6	<0.01
	Policy or program initiative	–1.8	1.9	–0.9	0.35
	Research	–1.4	2.5	–0.6	0.57
	Celebrity ^b	–7.0	2.5	–2.9	<0.01
	Other	–1.0	2.7	–0.4	0.71
Number of sources	Zero	Ref	–	–	–
	One	6.9	1.4	5.0	<0.01
	Two or more	9.8	1.6	6.0	<0.01
Source type: industry representative	Absent	Ref	–	–	–
	Present	–3.8	1.8	–2.1	0.04
Source type: politician/government official	Absent	Ref	–	–	–
	Present	–0.2	1.3	–0.1	0.90
Source type: law enforcement representative	Absent	Ref	–	–	–
	Present	2.2	1.1	1.9	0.05
Source type: legal representative	Absent	Ref	–	–	–
	Present	4.9	1.2	4.1	<0.01
Source type: research organisation/academic/expert	Absent	Ref	–	–	–
	Present	6.6	1.6	4.2	<0.01
Source type: health organisation representative	Absent	Ref	–	–	–
	Present	8.7	1.4	6.4	<0.01
Source type: community organisation representative	Absent	Ref	–	–	–
	Present	–1.6	1.9	–0.9	0.39
Source type: sports industry representative	Absent	Ref	–	–	–
	Present	1.4	2.4	0.6	0.57
Source type: member of the public	Absent	ref	–	–	–
	Present	–7.7	2.1	–3.7	<0.01
Source type: person with lived experience	Absent	Ref	–	–	–
	Present	5.3	1.4	3.7	<0.01
Source type: friends/family	Absent	Ref	–	–	–
	Present	–2.0	1.6	–1.2	0.22

(Continues)

TABLE 2 (Continued)

Variable	Category	<i>b</i>	SE	<i>t</i>	<i>p</i> -value
Source type: other	Absent	Ref	–	–	–
	Present	0.8	2.3	0.3	0.74

Note: Bold indicates *p*-value <0.01. The model included all other variables treated as covariates in a single model (e.g., providing independent effects of each variable controlling for all others).

Abbreviations: *b*, unstandardised regression coefficient; *t*, *t*-test statistic.

^aOther drugs category included: heroin, opioids (illicit/pharmaceutical), hallucinogens, inhalants, performance enhancing drugs, new psychoactive substances and other.

^bCelebrity category included: sportsperson, politician, entertainment and other prominent person.

p < 0.01) or harms associated with AOD use (*b* = −5.6, *p* < 0.01) exhibited significantly lower guideline scores relative to entries on positive outcomes. Finally, entries that included at least one (*b* = 6.9, *p* < 0.01) or two or more (*b* = 9.8, *p* < 0.01) external sources exhibited significantly higher scores relative to those articles that did not obtain information from an external source. Specifically, entries that included a source from a health organisation (*b* = 8.7, *p* < 0.01), research organisation (*b* = 6.6, *p* < 0.01), person with lived experience (*b* = 5.3, *p* < 0.01), or legal representative (*b* = 4.9, *p* < 0.01), demonstrated significantly higher scores than entries that did not include sources from those categorises.

4 | DISCUSSION

The current study aimed to provide an overview of the content associated with print media reporting of AOD and AOD-related issues between July 2016 and June 2017 as well as establish a baseline dataset that can be used for ongoing evaluation of the Mindframe guidelines and track trends over time, similar to previous studies evaluating the media guidelines for publicly reporting on suicide and mental illness [18]. Detailed coding of the 2007 articles identified as relevant for the current study indicated that a majority (67%) were primarily focused on one of three substances: alcohol, cannabis or methamphetamine. For alcohol and cannabis, the increased representation in the media might reflect the higher prevalence of use associated with these two substances. Alcohol is the one of the most widely used substances in Australia, with recent findings from the National Drug Strategy Household Survey indicating that 25% of people aged 14 and over will consume more than four standard drinks in one sitting at least monthly [19]. Likewise, cannabis is used more frequently in Australia than any other illicit drug and prevalence has increased over recent years with approximately 12% of the population using in the past 12 months [19]. However, the high percentage of entries reporting on methamphetamine does not reflect

the prevalence of methamphetamine use in the general population. Approximately 1.3% of Australians aged 14 or more used methamphetamine in the past 12 months and prevalence has decreased in recent years. The disproportionate media attention may instead reflect increases in harms associated with methamphetamine use perhaps due to increase in the use of crystal (as opposed to less potent forms) methamphetamine, or a perception of increased harms given people who use crystal methamphetamine are more likely to present to hospital [20]. However, it should also be noted that it is difficult to accurately measure the prevalence of illicit drugs such as methamphetamine using population-based surveys, and it has been suggested that the prevalence of methamphetamine use may be underreported in surveys due to stigma, discrimination and negative attitudes commonly associated with the drug [21].

With respect to primary topic, approximately 52% of the entries focused on issues associated with criminal justice, law enforcement or alcohol/drug-related crime. The proportion of crime/law enforcement related entries versus non-crime/law enforcement-related entries differed depending on the primary substance. Entries on methamphetamine were overwhelmingly focused on crime/law enforcement-related issues, whereas entries for cannabis demonstrated slightly more balanced reporting with respect to crime and law enforcement and entries that focused on drugs in general demonstrated an even split. In contrast, only one-third of entries reporting on alcohol had a crime/law enforcement focus, perhaps related to the cultural acceptability of alcohol. These findings confirm those found in previous media monitoring studies, with 40% of methamphetamine-related news articles focused on criminal justice or drug-related crime. Indeed, Rawstorne, et al. [9] concluded that reporting further contributed to the framing of methamphetamine use as a criminal justice issue with people who use methamphetamine as deviant and deserving of the legal consequences as opposed to treatment or additional health services. While previous evidence has suggested that a relationship exists between

methamphetamine use and criminality, forming a key social consequence [22], the question of whether the proportion of criminality is equivalent to the proportion of media reporting on criminality requires further exploration. This also highlights the need to reframe the use of drugs from being a criminal/legal issue, which reinforces stigmatising attitudes and prevents people from seeking help, to that of a health issue, which supports help-seeking, reduces stigma and promotes meaningful and respectful discourse.

While most media reports did not glamourise AOD or use inappropriate or stigmatising language, there were still areas for improvement. More than a third of media entries did not follow the guidelines associated with the use of sensationalist or alarmist reporting and characterising people who use AOD as delinquent, violent or morally weak. Most media entries did not portray AOD use as a health issue (likely due to the increased proportion of crime/law enforcement-related entries) and almost none of the entries provided help-seeking information relevant to AOD use. The final point is particularly relevant given the widespread reach and influence that many of these publications have over the general population.

The results of the current study should be interpreted with some limitations in mind. The agreement between coders was sufficient but not complete, suggesting that there is some subjectivity associated with the guidelines and how they are applied to the sample of media entries. Like the guidelines for suicide and mental ill-health, some of the criteria require more subjective judgements than others [23]. To determine the impact of less than complete agreement on the regression results, a variable representing each of the three coders was included as a covariate in sensitivity analysis. These results provided no indication that the regression results differed while controlling for coder ID. This study only examined print media, not media in general (e.g., radio or TV news, social media), a larger-scale study across all media outlets would be beneficial to see if there are any difference based on news medium. The Mindframe guidelines also contain information regarding the appropriate use of images in news entries; however, the media database used to source the entries only provided text-based transcripts. To evaluate the appropriate use of images it would have required a systematic search for a copy of the media entry direct from the publisher across the entire sample.

This was the first study to systematically examine a large sample of print news media entries and code those entries according to the Mindframe guidelines for reporting on AOD use and AOD-related issues. Like previous media monitoring studies, we found a disproportionate number of media entries focused on crime or justice-

related topics, potentially further contributing to stigma, and emphasising the legal consequences of AOD use. However, the proportion of crime or justice-related entries differed depending on the substance, with alcohol-related articles exhibiting the fewest crime or justice-related entries and methamphetamine-related articles exhibiting the most. Likewise, most of the media entries focused on one of three substances (alcohol, methamphetamine or cannabis), and there was evidence of significantly different comparison scores depending on the substance reported on, with methamphetamine-related articles generating relatively lower scores and cannabis-related articles generating relatively higher scores. This study also shows that media reporting on AOD use can easily be improved through a number of ways including use of person-centred language, inclusion of multiple credible external sources, and altering the focus from a criminal lens to a health perspective. It is hoped that improvements to print media reporting on AOD use will ultimately result in decreased stigma, greater help-seeking behaviour, and reduced burden associated with AOD use and AOD-related disorders among the broader community.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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