

From eye rolls to punches: experiences of harm from others' drinking among risky-drinking adolescents across Australia

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Key points

- Young people and risky drinkers are susceptible to experiencing alcohol's harms to others (AHTO)
- Women report more fear and harassment-based AHTO than men, while males report more aggressive AHTO
- Teenagers of a legal alcohol-purchase age experience more AHTO such as harassment in public settings and unwanted sexual attention
- Adverse effects such as verbal or physical abuse are more commonly perpetrated by individuals known to victims, while fear-based harms are more commonly attributed to strangers

Abstract

Objectives: Exploration of experience of harms due to another person's drinking within a demographic particularly vulnerable to these consequences.

Importance of study: Largest sampling of young Australian risky drinkers, who are underrepresented in general population surveys. The range of harms due to others' drinking reported here is more comprehensive than documented elsewhere.

Study type: Cross-sectional self-report survey.

Methods: Participants were 14–19 years old and screened as being within the riskiest-drinking 25% for their age cohort. The convenience sample of 3465 was recruited primarily by social media advertising. Face-to-face interviews were conducted in all eight Australian capital cities ($n = 596$), supplemented by online surveys ($n = 2869$). Past 12-month experience of 13 harms due to others' drinking was assessed by age, gender and perpetrator.

Results: Females were more likely to experience seven harms, mainly characterised by fear and harassment, including being harassed or bothered at a party or some other private setting (41% vs 34% of males, $p < 0.001$), being given unwanted sexual attention (71% vs 47%, $p < 0.001$) and being put in fear (33% vs 20%, $p < 0.001$). Males were more likely

to experience three harms, characterised by aggression: being yelled at, criticised or verbally abused (38% vs 33% of females, $p = 0.002$), being pushed or shoved (42% vs 28%, $p < 0.001$) and being physically hurt (17% vs 11%, $p < 0.001$). Teenagers of a legal alcohol-purchase age were more likely to experience harassment in public settings (49% vs 32–34%, $p < 0.001$) and unwanted sexual attention (66% vs 51–59%, $p < 0.001$) compared with younger teenagers. Seven of the harms studied were more likely ($p < 0.01$) to be perpetrated by people the respondents knew, and five (those associated with fear and aggression) were more likely to be perpetrated by strangers.

Conclusion: Young people who are risky drinkers commonly experience multiple harms from others' drinking. Many of these alcohol harms to others are reported here for the first time, as previous studies of adolescent drinking have focused almost exclusively on the harms young people have experienced from their own drinking. This refocusing on the harms caused by the drinking of others may prompt greater community concern and concomitant calls for better alcohol regulation.

Introduction

Traditionally, research on alcohol has focused on its harmful effects on drinkers themselves. However, increasingly, researchers and policy makers are considering alcohol's harms to others (AHTO), or its second-hand effects. Annually, an estimated 162 400 Australians aged 18 years and older experience physical assault from individuals they believed were under the influence of alcohol¹, and 40% of deaths due to interpersonal violence are associated with another person's drinking.² In addition to incidents requiring emergency responses, AHTO also includes work absenteeism/presenteeism and vandalism.³

Being younger and being a riskier drinker are two risk factors for experiencing AHTO, meaning 'social victims of drinkers' are demographically similar to 'problem drinkers'; and that alcohol likely has both a criminogenic and a victimogenic influence (i.e. it contributes to both perpetration and victimisation).⁴

Riskier drinkers report experiencing higher rates of AHTO. While 19% of the Australian general population reported verbal abuse by a drinker in the past 12 months, 29% of those considered 'risky drinkers' reported this behaviour.⁵ However, the experience of AHTO is not always related to personal alcohol use, and the majority of abstainers were still likely to experience at least one kind of AHTO in the previous 12 months.⁶ One-fifth of Canadian undergraduate abstainers reported having been insulted or humiliated by a drinker⁷, and Australian undergraduates' reports of sexual assault by a drinker were not associated with the frequency of the victim's risky drinking.⁸

Being younger is associated with a greater likelihood of victimisation. Australians aged 18–29 years are almost three times as likely as older adults to report an alcohol-related harm such as verbal or physical abuse.⁹ The most common AHTO experienced by 4000 Australian undergraduates aged 17–19 years were having to 'babysit' another student (32%), having their studying or sleep interrupted (22%), and having a serious argument or quarrel (14%).⁸ After controlling for their own drinking patterns, students' experiences of AHTO are predictive of broader negative outcomes such as depression¹⁰ and impaired school performance.⁷ Among the 1300 youths aged 14–19 years surveyed in the 2016 National Drug Strategy Household Survey (of which 600 drank alcohol in the past 12 months), 14% reported verbal abuse, 5% reported physical abuse and 12% were put in fear by a drinker in the past 12 months.⁵ Gender, Caucasian ethnicity, urbanicity, living away from parents, personality type and attending a college with riskier-drinking students are also risk factors for students' AHTO experience.^{7,11,12} Young women are more likely than young men to experience unwanted sexual advances and having to take care of someone who has had too much to drink⁸, and young men are more likely to be pushed, hit or assaulted.¹¹

Data for this study are drawn from the Young Australians Alcohol Reporting System (YAARS). YAARS targets young risky drinkers who are underrepresented in national surveys but particularly vulnerable to alcohol-related harm.^{13–17} To our knowledge, YAARS is the largest national youth dataset that describes AHTO. This study sought to provide insight into young risky drinkers' experience of 13 AHTO that have not been assessed elsewhere, and how these harms varied by participant gender, age and whether or not they knew the perpetrator.

Methods

Participants

We developed selection criteria using relevant data sources¹⁸⁻²⁰ to identify the consumption patterns of the riskiest-drinking quartile of each age and gender cohort. One Australian standard drink (SD) is equivalent to 10 g of alcohol. The 14–15-year-olds were consuming ≥ 1 SD in a single sitting at least once a month; 16–17-year-olds had ≥ 5 SD per occasion at least twice per month; 18–19-year-old females had ≥ 7 SD per sitting at least twice per month; and 18–19-year-old males were drinking ≥ 9 SD per occasion at least twice per month.

A convenience sample was recruited through age-targeted social media (Facebook and Instagram) advertisements, referrals by peers and poster advertisements at educational facilities and youth services.²¹

Procedure

Data were collected between October–November 2016 and mid-January–March 2017. Two survey modalities were used: face-to-face interview ($n = 596$) and a shorter-duration self-administered online survey ($n = 2869$). The 45-minute interviews were confidential and conducted in locations such as public cafes in all eight Australian capital cities. Interview participants were reimbursed \$AUD40 for their time and transport. The 20-minute online survey, which included a prize draw, allowed for a lower-cost inclusion of a broader sample (e.g. regional participants). Findings were broadly consistent across both modalities and detailed descriptions of the procedure are available elsewhere.²¹ Participants provided informed consent and all participating sites had institutional ethics approval: Curtin University (HR 52/2014), UNSW Sydney (HR 52/2014), Monash University (1032), University of Tasmania (H16018), Flinders University (OH-00111), ACT Health Research Records and Governance Office (ETH.9.16.185), Charles Darwin University (H16094) and University of Queensland (2016001535).

Measures

Respondents were asked: “In the past 12 months has someone who has been drinking ...” perpetrated any of the 13 harms of interest. Items relevant to young people were selected from an international AHTO study that one of the co-authors codeveloped (psychometric data unavailable).^{22,23} The four dummy-coded response options for experience of the harms were: a) yes – by someone I know; b) yes – by a stranger; c) no; and d) unsure.

For ease of analysis by age and gender, the first two categories were collapsed into ‘yes’, and the latter two combined into ‘no or unsure’.

Data analysis

Z-tests were used to compare whether experience of the 13 AHTO varied by gender (male vs female), age (14–15, 16–17 and 18–19) and perpetrator of the AHTO (known vs unknown).

Respondents who identified as transgender ($n = 16$), or who preferred not to state their gender ($n = 22$), were excluded from the gender analysis due to small group size, but were included elsewhere.

All analyses were computed with SPSS Statistics for Windows (Armonk, NY: IBM Corp; version 24.0).

Results

Participants

Most of the convenience sample were recruited through age-targeted social media advertisements (70% Facebook, 17% Instagram), 14% were referred through a friend, 2% saw a poster at their educational facility and 1% were recruited through a youth service ($N = 2818$)²¹. Not all participants responded to all items, so the $N = 2869$ sample size reflects the sample size for the item reported on. The demographics of participants are detailed in Table 1.

Across age and gender groupings, 75% of the total sample ($N = 3465$) were consuming ≥ 9 SD in a single session at least monthly. Monthly drinking in private locations (e.g. homes) appeared similar across age groups (88% in 14–17-year-olds, 94% in 18–19-year-olds, $N = 2826$), whereas visits to licensed venues were more common among 18–19-year-olds (86%), who can legally purchase alcohol, compared to 14–17-year-olds (13%, $N = 2830$).

Table 1. Participant demographics

Characteristic	Category	n	%
Gender	Male	1472	42.5
	Female	1948	56.2
	Transgender	19	0.5
	I do not identify as any of the above/prefer not to say	26	0.8
	Total	3465	
Age (years)	14–15	568	16.4
	16–17	1442	41.6
	18–19	1455	42.0
	Total	3465	
Occupation	School student	1791	52.8
	University student	990	29.2
	Technical college student	156	4.6
	Employed full time	132	3.9
	Trade apprentice	82	2.4
	Unemployed	215	6.3
	Other	29	0.9
	Total ^a	3395	
Place of birth/ parents place of birth ^b	Participant was born overseas	317	9.3
	At least one parent born overseas	1291	38.1
	Participant and parents all born in Australia	2025	59.7
	Total ^a	3392	
Languages spoken at home	English only	2833	88.9
	English and another language(s)	354	11.1
	Total ^a	3187	

^a Total = valid sample size for each item (not all participants responded to every item)

^b Participants could select both the option of “participant was born overseas” and “at least one parent born overseas” so percentages do not sum to 100%.

AHTO by gender

Almost all of those surveyed (94%) experienced a harm due to someone else's drinking in the past 12 months (Table 2). On average, participants reported five AHTO. The most commonly reported AHTO were having a party or social gathering ruined (65%), receiving unwanted sexual attention (61%), social aggression (51%), having their clothing or other belongings ruined (47%), and public harassment (40%).

There were significant gender differences in 10 of the 13 AHTO, with females more likely than males to have experienced at least one AHTO in the past 12 months.

AHTO by age

Older respondents were more likely to have experienced seven of the 13 AHTO, with the exception being that a greater proportion of 14–15-year-olds reported being put in fear by a drinker compared with 16–17-year-olds (Table 3).

AHTO by perpetrator

In 12 of the 13 AHTO, there was a significant difference in the proportion of known vs unknown perpetrators reported (Table 4). Similar proportions reported unwanted sexual attention from known individuals and strangers, and a small proportion (about 10%) reported perpetrators were both known and unknown.

Table 2. Harms experienced due to others' drinking in the past 12 months, all participants and by gender

Harms experienced ^a	All participants		Male		Female		Two proportion Z-test for differences by gender		
	%	N	%	N	%	N	Z	p	More likely ^b
Ruined a party or social gathering	65.1	2873	63.0	1178	66.7	1657	2.07	0.038	Female
Ruined your clothes or other belongings	47.3	2866	48.8	1169	46.5	1659	1.20	0.231	–
Given you unwanted sexual attention	61.0	2860	47.0	1169	70.8	1654	12.78	<0.001	Female
Done something socially aggressive ^c	50.7	2863	50.6	1170	51.1	1655	0.24	0.810	–
Made you afraid when you encountered them on the street	38.6	2860	30.0	1169	44.3	1653	7.67	<0.001	Female
Harassed or bothered you at a party or some other private setting	38.0	2858	33.8	1166	40.8	1654	3.78	<0.001	Female
Harassed or bothered you on the street or in a public place	39.9	2853	35.9	1166	42.5	1650	3.50	<0.001	Female
Left you alone in an unsafe situation	24.8	2860	15.1	1169	31.5	1654	9.92	<0.001	Female
Yelled at, criticised or verbally abused you	35.3	2848	38.4	1161	32.7	1649	3.13	0.002	Male
Pushed or shoved you	34.1	2858	42.4	1170	28.0	1650	7.95	<0.001	Male
Physically hurt you	14.0	2857	17.4	1166	11.3	1653	4.62	<0.001	Male
Put you in fear	27.9	2847	20.4	1162	32.8	1647	7.23	<0.001	Female
Engaged in serious violence that you witnessed	34.2	2849	35.2	1162	33.6	1650	0.89	0.372	–
At least one of the 13 AHTO experienced in past 12 months	93.6	2882	91.9	1180	94.7	1664	2.96	0.003	Female

N = sample size for each item

^a Respondents were asked: "In the past 12 months, has someone who has been drinking ..."

^b Listed gender reported a significantly ($p < 0.05$) higher proportion of experience

^c Abbreviation of the phrase used in the survey: "Turned their back on you, rolled their eyes at you, gave dirty looks, ignoring you [sic] or did something else to you that was socially aggressive and designed to hurt you."

Note: Not all participants responded to all items.

Table 3. Harms experienced due to others' drinking in the past 12 months, by age

Harms experienced ^a	Descriptives						Two proportion Z-test for differences by age						More likely ^b
	14–15 years		16–17 years		18–19 years		14–15 vs 16–17 years		16–17 vs 18–19 years		14–15 vs 18–19 years		
	%	N	%	N	%	N	Z	p	Z	p	Z	p	
Ruined a party or social gathering	62.9	437	66.8	1208	64.2	1228	1.46	0.143	1.37	0.171	0.46	0.643	–
Ruined your clothes or other belongings	40.0	437	47.5	1202	49.6	1227	2.68	0.007	1.05	0.294	3.45	0.001	Older
Given you unwanted sexual attention	51.0	435	59.1	1199	66.4	1226	2.92	0.003	3.70	<0.001	5.68	<0.001	Older
Done something socially aggressive ^c	46.5	434	49.0	1203	53.8	1226	0.89	0.372	2.32	0.020	2.58	0.010	Older
Made you afraid when you encountered them on the street	38.9	437	35.3	1198	41.7	1225	1.34	0.181	3.24	0.001	1.03	0.305	Older
Harassed or bothered you at a party or some other private setting	36.0	436	35.5	1198	41.1	1224	0.20	0.842	2.84	0.004	1.86	0.062	Older
Harassed or bothered you on the street or in a public place	32.3	436	33.6	1195	48.6	1222	0.49	0.622	7.48	<0.001	5.87	<0.001	Older
Left you alone in an unsafe situation	25.7	436	23.5	1197	25.8	1227	0.93	0.355	1.30	0.193	0.03	0.978	–
Yelled at, criticised or verbally abused you	35.9	434	33.1	1193	37.3	1221	1.07	0.285	2.14	0.033	0.49	0.625	–
Pushed or shoved you	34.1	437	31.3	1196	36.8	1225	1.08	0.279	2.88	0.004	1.02	0.309	Older
Physically hurt you	16.1	435	14.0	1197	13.1	1225	1.04	0.298	0.64	0.522	1.53	0.127	–
Put you in fear	32.1	433	26.1	1197	28.1	1217	2.37	0.018	1.08	0.281	1.57	0.116	Younger
Engaged in serious violence that you witnessed	34.3	434	32.1	1193	36.2	1222	0.85	0.397	2.11	0.035	0.69	0.492	–
At least one of the 13 AHTO experienced in past 12 months	90.2	439	92.7	1211	95.7	1232	1.68	0.093	3.14	0.002	4.25	<0.001	Older

N = sample size for each item

^a Respondents were asked: "In the past 12 months, has someone who has been drinking ..."

^b Listed age group reported a significantly ($p < 0.05$) higher proportion of experience

^c Abbreviation of the phrase used in the survey: "Turned their back on you, rolled their eyes at you, gave dirty looks, ignoring you [sic] or did something else to you that was socially aggressive and designed to hurt you."

Note: Not all participants responded to all items.

Table 4. Harms experienced due to others' drinking in the past 12 months, by perpetrator of harm

Harms experienced ^a	Perpetrator of harm			Total (all who experienced the harm) <i>n</i>	Two proportion Z-test for known only vs stranger only		
	Known only %	Stranger only %	Both known and stranger %		Z	<i>p</i>	More likely ^b
Ruined a party or social gathering	65.4	23.5	11.1	1870	16.22	<0.01	Known
Ruined clothes or other belongings	68.2	24.1	7.7	1355	17.05	<0.01	Known
Given you unwanted sexual attention	40.1	38.6	21.3	1745	0.58	>0.05	–
Done something socially aggressive ^c	60.4	26.8	12.8	1451	13.00	<0.01	Known
Made you afraid when you encountered them on the street	10.5	84.1	5.4	1104	28.46	<0.01	Stranger
Harassed or bothered at a party or some other private setting	34.0	52.5	13.5	1085	7.18	<0.01	Stranger
Harassed or bothered on the street or in a public place	12.9	81.4	5.7	1137	26.47	<0.01	Stranger
Left you alone in an unsafe situation	90.4	6.3	3.2	709	32.52	<0.01	Known
Yelled at, criticised or verbally abused you	55.3	34.2	10.5	1006	8.16	<0.01	Known
Pushed or shoved you	48.8	41.6	9.7	974	2.78	<0.01	Known
Physically hurt you	57.1	34.6	8.3	399	8.73	<0.01	Known
Put you in fear	34.6	54.4	11.0	794	7.66	<0.01	Stranger
Engaged in serious violence that you witnessed	30.1	54.9	15.0	974	9.63	<0.01	Stranger

^a Respondents were asked: "In the past 12 months, has someone who has been drinking ..."

^b Listed group were reported to have a significantly ($p < 0.05$) higher proportion of perpetration

^c Abbreviation of the phrase used in the survey: "Turned their back on you, rolled their eyes at you, gave dirty looks, ignoring you [sic] or did something else to you that was socially aggressive and designed to hurt you."

Discussion

This study provided insight into young risky drinkers, who are most vulnerable to AHTO but who are underrepresented in national surveys. We confirmed they were experiencing a high prevalence of a range of harms, most of which are not assessed in other datasets.

Risky-drinking adolescents reported experiencing AHTO at a rate two to three times higher than adolescents of the same age in the general population.⁵ More than one-third (36%) of our sample reported being yelled at, criticised or verbally abused by a drinker, compared with 14% of adolescents in the general population who reported a drinker had verbally abused them. While 5% of adolescents in the general population reported that a drinker physically abused them, 15% of participants in this study reported that a drinker had physically hurt them. One in eight (12%) of adolescents in the general population experienced fear as a result of someone

else's drinking, compared with more than one in four (28%) adolescents in this study. Although this study's item phrasing is more inclusive, and it is unweighted to age distribution, these higher reports of AHTO indicate a genuine difference between adolescents with risky drinking patterns compared with other adolescents. Further comparisons between our results and earlier datasets^{2,24} for young people in the general population were more difficult to conduct because of differences in item wording and the significant trend toward adolescents abstaining from alcohol within the past 10 years.⁵

Consistent with the adult gender violence literature⁵, young women in our sample reported a greater range of AHTO, especially those harms characterised by fear and harassment. Females were more likely than males to experience unwanted sexual attention (females 71% vs males 47%), be put in fear, and be harassed in public and private spaces. Males were more likely than females to report experiencing aggressive harms such as verbal or physical abuse (males 42% vs females 28%).

Previous studies suggest perpetrators of harms to others are more likely to be male.¹¹ These gendered findings on AHTO may have policy implications as experiences of fear, but not necessarily verbal and physical abuse, have been shown to be associated with increases in support for alcohol regulation policies.²⁵ That is, the experience of fear may be a driver of support for alcohol regulation, and this may in part explain why support for regulation is particularly apparent among women.

Broadly speaking, 18–19-year-olds were more likely to experience AHTO than younger teens. This is possibly due to the older age groups' increased consumption of alcohol in public spaces, and also perhaps due to their increased exposure to situations associated with harm through risky drinking *per se*. However, it is important to note that the harms were still high even among the younger groups who were predominantly drinking outside of the licensed venue context, and thus a different set of responses is required for younger teens.

Consistent with the literature², fear-based AHTO were more commonly attributed to strangers than perpetrators who were known to the victim, and the more tangible harms such as verbal or physical abuse were more commonly inflicted by perpetrators who were known to victims. Harms included having clothes/other belongings ruined (68% known vs 24% unknown), being yelled at (55% known vs 34% unknown) or being physically hurt (57% known vs 35% unknown). This study did not assess how the respondents specifically knew the perpetrators. However, unpublished work conducted by this team with over 600 risky-drinking 14–19-year-olds from Western Australia (WA) in 2016 using similar methods provides some insight (data available on request). In the WA study, 41% of respondents reported someone under the influence of alcohol yelling at, criticising or verbally abusing them in the past 12 months. The perpetrator(s) were friends (reported by 53%), current/ex-partners (16%), parents (16%), other relatives (3%), other known persons (17%) and others unknown to them (34%). Previous studies have asked parents whether their children have been affected by others' drinking²⁶; however, asking parents whether their own or others' drinking is affecting their child can be fraught with social desirability bias. In contrast, this study provides unique insight into whether young people have been harmed by their parents' and others' drinking from the young person's perspective.

Strengths and limitations

The strengths of this study are that it is one of the few studies about younger people not restricted to college students. Furthermore, we assessed 13 AHTO, as opposed to the three that are routinely assessed in the general population survey⁵, and also explored whether the perpetrators were known to the respondent.

This study's limitations include reliance on participants' perception/interpretation and self-report of another's intoxication. Our AHTO items were phrased so they would be comparable with a general population survey.⁵ However, the phrase "has someone who has been drinking ..." does not indicate specific attribution, that is, whether the victim thought the incident *related* to the drinking, or if the alcohol use was simply incidental. Although there was no external verification of incidents, certain harms can only be assessed by self-report – for example, internal states such as fear, and less severe harms such as having a party ruined, which would not be officially recorded elsewhere.

As the target population represented approximately 1% of Australian residents^{5,27}, random sampling techniques were not feasible and participants were recruited using a purposive technique. Lastly, while the sample was at higher risk for victimisation and perpetration than the general population due to their age and drinking patterns, they did not otherwise show the hallmarks of marginalisation commonly identified in snowball samples recruited for other studies of drug use.²⁸

Conclusion

In recent years it has become common for policy discussions around alcohol to consider the safety of the broader community, as well as that of the individual drinker. This has been evidenced by AHTO being included in the first priority area in the draft *Australian national alcohol strategy 2018–2026*²⁹ and also identified in the WHO *Global strategy to reduce the harmful use of alcohol*.³⁰

This study found a high prevalence of a range of harms not assessed elsewhere. Many of these harms were not only an inconvenience, but have the potential to affect how young people live their lives. Young risky drinkers' problems are compounded by their own drinking, others' drinking and their relative inexperience in both these arenas. In addition, intoxication may compromise their capacity to deal with threats.

There are longer-term benefits to addressing these early social experiences of alcohol-related harms. The perception among young people that it is normal to experience AHTO can set up future expectations for their own and others' behaviours in a range of contexts, as well as tolerance of others' behaviours.³¹

From the perspective of young people themselves, they may believe that if they drink too much and hurt themselves it is their own choice, or that they can handle the consequences for themselves. However, evidence that lives other than theirs are affected may give them pause for thought. This may also be relevant for policy makers and the wider community.

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Competing interests

None declared.

Author contributions

TL and AML were responsible for drafting the manuscript, and overseeing the editing by RO, JF, DL, TC, RMidford and SA. TL, AML and WL were responsible for the analysis and interpretation of the data. TL, SA, RO, DL, WL, TC, WG, SL, JF, LB, AA, RMa, and RMi contributed to the study design, collecting and interpreting the data, and reviewing the manuscript.

References

1. Australian Bureau of Statistics. Crime Victimization, Australia, 2015–16. Canberra: ABS; 2017 [cited 2017 Sep 31]. Available from: www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4530.0Main+Features12015-16?OpenDocument
2. Laslett A-M, Catalano P, Chikritzhs T, Dale C, Doran C, Ferris J, et al. The range and magnitude of alcohol's harm to others. Melbourne: AER Centre for Alcohol Policy Research, Turning Point Alcohol and Drug Centre, Eastern Health; 2010 [cited 2017 Oct 31]. Available from: fare.org.au/wp-content/uploads/The-Range-and-Magnitude-of-Alcohols-Harm-to-Others.pdf
3. Collins DJ, Lapsley HM. The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004/05. Canberra: Commonwealth of Australia; 2008 [cited 2019 Oct 15]. Available from: nadk.flinders.edu.au/files/3013/8551/1279/Collins__Lapsley_Report.pdf
4. Fillmore KM. The social victims of drinking. *Br J Addict*. 1985;80(3):307–14.
5. Australian Institute of Health and Welfare. National drug strategy household survey 2016: detailed findings. Canberra: AIHW; 2017 [cited 2019 Oct 15]. Available from: www.aihw.gov.au/getmedia/15db8c15-7062-4cde-bfa4-3c2079f30af3/21028a.pdf.aspx?inline=true
6. Laslett A-M, Room R, Waleewong O, Stanesby O, Callinan S. Harm to others from drinking: patterns in nine societies. Geneva: World Health Organization; 2019 [cited 2019 Oct 23]. Available from: apps.who.int/iris/bitstream/handle/10665/329393/9789241515368-eng.pdf?sequence=1&isAllowed=y
7. Cabalatangan S, McCarthy B. Second-hand effects of college drinking and educational experiences: findings from an analysis of pooled cross-sections. *Drugs: Education, Prevention and Policy*. 2015;22(6):463–9.
8. Hallett J, Howat PM, Maycock BR, McManus A, Kypri K, Dhaliwal SS. Undergraduate student drinking and related harms at an Australian university: web-based survey of a large random sample. *BMC Public Health*. 2012;12(1):37.
9. Laslett A-M, Room R, Ferris J, Wilkinson C, Livingston M, Mugavin J. Surveying the range and magnitude of alcohol's harm to others in Australia. *Addiction*. 2011;106(9):1603–11.
10. Greenfield TK, Karriker-Jaffe KJ, Kerr WC, Ye Y, Kaplan LM. Those harmed by others' drinking in the US population are more depressed and distressed. *Drug Alcohol Rev*. 2016;35(1):22–9.
11. Davis MacNevin P, Thompson K, Teehan M, Stuart H, Stewart S. Is personality associated with secondhand harm from drinking? *Alcohol Clin Exp Res*. 2017;41(9):1612–21.
12. Thompson K, Davis-MacNevin P, Teehan M, Stewart S, Team TCCR. The association between secondhand harms from alcohol and mental health outcomes among postsecondary students. *J Stud Alcohol Drugs*. 2017;78(1):70–8.
13. Aiken A, Lam T, Gilmore W, Burns L, Chikritzhs T, Lenton S, et al. Youth perceptions of alcohol advertising in Australia: are current advertising regulations working? *Aust N Z J Public Health*. 2018;42(3):234–9.

14. Wilson J, Ogeil RP, Lam T, Lenton S, Lloyd B, Burns L, et al. Re-thinking pre-drinking: implications from a sample of teenagers who drink in private settings. *Int J Drug Policy*. 2018;52:20–4.
15. Ogeil RP, Lloyd B, Lam T, Lenton S, Burns L, Aiken A, et al. Pre-drinking behavior of young heavy drinkers. *Subst Use Misuse*. 2016;51(10):1297–306.
16. Lam T, Lenton S, Ogeil R, Burns L, Aiken A, Chikritzhs T, et al. Most recent risky drinking session with Australian teenagers. *Aust N Z J Public Health*. 2017;41(1):105–10.
17. Lam T, Lenton S, Burns L, Aiken A, Ogeil R, Gilmore W, et al. Alcohol policy impact on young risky drinkers and their support for proposed measures. *Aust N Z J Public Health*. 2015;39(2):129–34.
18. Australian Institute of Health and Welfare. National drug strategy household survey detailed report: 2013. Canberra: AIHW; 2014 [cited 2019 Oct 15]. Available from: www.aihw.gov.au/getmedia/c2e94ca2-7ce8-496f-a765-94c55c774d2b/16835_1.pdf.aspx?inline=true
19. Victorian Drug and Alcohol Prevention Council. 2009 Victorian youth alcohol and drug survey. Melbourne: Victorian Drug and Alcohol Prevention Council; 2010 [cited 2019 Oct 15]. Available from: s3.amazonaws.com/zanran_storage/www.health.vic.gov.au/ContentPages/111167689.pdf
20. White V, Williams T. Australian secondary school students' use of tobacco, alcohol, and over-the-counter and illicit substances in 2014. Melbourne: Victorian Department of Health, Cancer Council Victoria; 2016 [cited 2019 Oct 15]. Available from: darta.net.au/wordpress-content/uploads/2017/01/ASSAD-2014.pdf
21. Lam T, Lenton S, Chikritzhs T, Gilmore W, Liang W, Pandzic I, et al. Young Australians' Alcohol Reporting System (YAARS): national report 2016/17. Perth, WA: National Drug Research Institute, Curtin University; 2017 [cited 2019 Oct 15]. Available from: ndri.curtin.edu.au/NDRI/media/documents/yaars/yaars-2016-17-final-report.pdf
22. Callinan S, Laslett A-M, Rekke D, Room R, Waleewong O, Benegal V, et al. Alcohol's harm to others: An international collaborative project. *Int J Alcohol Drug Res*. 2016;5(2):25–32.
23. ThaiHealth. The harm to others from drinking: a WHO/ThaiHealth international collaborative research project. Melbourne: Centre for Alcohol Policy Research, LaTrobe University; 2012 [cited 2019 Oct 15]. Available from: www.capr.edu.au/wp-content/uploads/2012/08/H2O-WHO-TH-Protocol_for_web.pdf
24. Callinan S, Room R. Harm, tangible or feared: Young Victorians' adverse experiences from others' drinking or drug use. *Int J Drug Policy*. 2014;25(3):401–6.
25. Stanesby O, Rankin G, Callinan S. Experience of harm from others' drinking and support for stricter alcohol policies: Analysis of the Australian National Drug Strategy Household Survey. *Int J Drug Policy*. 2017;45:25–32.
26. Laslett A-M, Ferris J, Dietze P, Room R. Social demography of alcohol-related harm to children in Australia. *Addiction*. 2012;107(6):1082–9.
27. Australian Bureau of Statistics. Australian Demographic Statistics. Canberra: ABS; 2016 [cited 2017 Oct 31]. Available from: www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3101.0Explanatory%20Notes1Sep%202016
28. Peacock A, Uporova J, Karlsson A, Gibbs D, Swanton R, Kelly G, et al. Australian drug trends 2019: key findings from the National Illicit Drug Reporting System (IDRS) interviews. Sydney: National Drug and Alcohol Research Centre, UNSW; 2019 [cited 2019, Oct 23]. Available from: ndarc.med.unsw.edu.au/resource/key-findings-2019-national-illicit-drug-reporting-system-idrs-interviews
29. Commonwealth of Australia as represented by the Department of Health. Consultation draft national alcohol strategy 2018–2026. Canberra: Commonwealth of Australia; 2018 [cited 2019, Oct 15]. Available from: www.health.gov.au/sites/default/files/draft-national-alcohol-strategy-2018-2026.pdf
30. World Health Organization. Global strategy to reduce the harmful use of alcohol. Geneva: WHO; 2010 [cited 2019 Oct 15]. Available from: www.who.int/substance_abuse/publications/global_strategy_reduce_harmful_use_alcohol/en/
31. Lilleston PS, Goldmann L, Verma RK, McCleary-Sills J. Understanding social norms and violence in childhood: theoretical underpinnings and strategies for intervention. *Psychol Health Med*. 2017;22(sup1):122–34.