

Knowledge, attitudes and practices regarding alcohol use amongst undergraduate students at a South African university

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BACKGROUND

Alcohol use amongst undergraduate students in academic institutions is a growing concern in South Africa. Excessive alcohol use is associated with health issues such as mental illness, non-communicable diseases, injuries and risky behaviour leading to unintended pregnancies and spread of infectious diseases.

OBJECTIVES

To determine the knowledge, attitudes, and practices regarding alcohol use amongst undergraduate students at a local South African university

METHODOLOGY

- Conducted a cross-sectional study using a self-administered, anonymised online questionnaire
- Questions explored knowledge, attitudes and practices regarding alcohol use, and screening questions from the Alcohol Use Disorder Identification Tool (AUDIT) to identify hazardous or harmful alcohol practices
- Study population included all undergraduate students at a South African university, 18 years and older
- Data were analysed using Microsoft Excel and Jamovi 2.3.21
- Research protocol was approved by the UCT Human Research Ethics Committee (HREC: 062/2022)

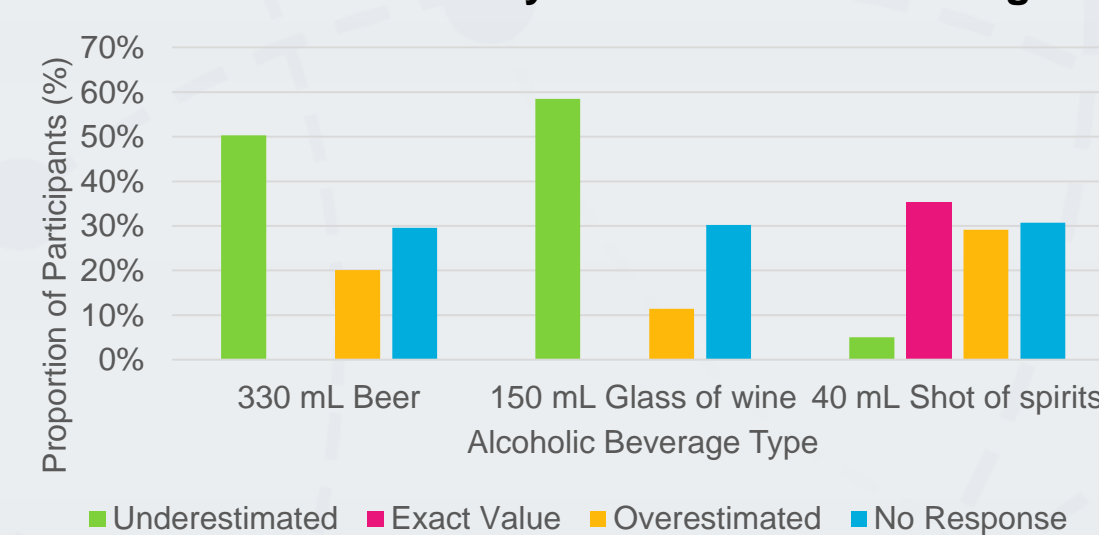
RESULTS

Table 1: Descriptive characteristics

Variable	n = 378 (%)	95% CI*
Sex		
Female	244 (64.6%)	59.6 – 69.2
Male	128 (33.9%)	29.3 – 38.8
Unknown	6 (1.0%)	0.7 – 3.5
Age		
<= 20 years old	67 (17.7%)	14.2 – 21.9
21-29 years old	297 (78.6%)	74.1 – 82.4
>= 30 years old	2 (0.5%)	0.1 – 2.1
Not disclosed	12 (3.2%)	1.8 – 5.5
Faculty		
Engineering and the Built Environment	37 (9.8%)	7.2 – 13.2
Law	12 (3.2%)	1.8 – 5.5
Commerce	22 (5.8%)	3.9 – 8.7
Humanities	55 (14.6%)	11.3 – 18.5
Health Sciences	214 (56.6%)	51.6 – 61.5
Science	38 (10.1%)	7.4 – 13.5
Year of study		
1	48 (12.7%)	9.7 – 16.5
2	57 (15.1%)	11.8 – 19.1
3	78 (20.6%)	16.8 – 25.0
4	74 (19.6%)	15.9 – 23.9
5	91 (24.1%)	20.0 – 28.7
6 or more	30 (7.9%)	5.6 – 11.1
Home**		
Urban	330 (87.3%)	9.5 – 16.2
Rural	47 (12%)	8.8 – 90.5
Residence during academic terms		
In residence	118 (31.2%)	26.7 – 36.1
Off-campus residence	28 (7.4%)	5.2 – 10.5
Communal private accommodation	47 (12.4%)	9.4 – 16.2
With parents	99 (26.2%)	22.0 – 30.9
Private accommodation (alone)	86 (22.8%)	18.8 – 27.3
*95% confidence intervals		
**When not at university		

- A total of 378 participants were included, of whom 65% were female and median age was 22 years (IQR 21 – 23).
- Most students underestimated the alcohol units in a bottle of beer and glass of wine (Figure 1)

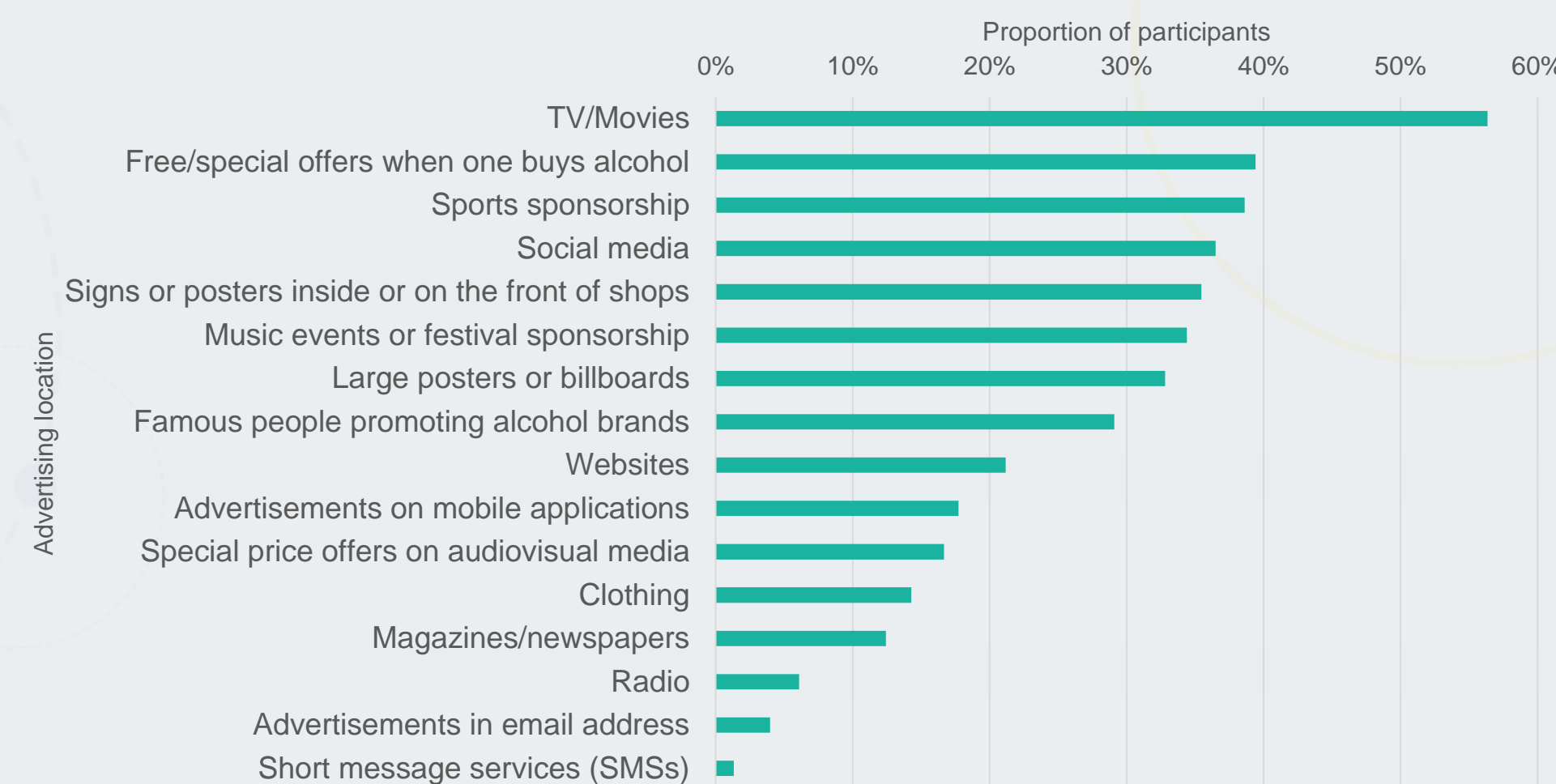
Figure 1: Knowledge of students regarding alcohol units found in commonly used alcoholic beverages*



*There are 1.7 standard units of alcohol in a 330 mL bottle of beer, 2.1 units in a 150 mL glass of wine, and 1 unit in a 40 mL shot of spirits.

- Interestingly, majority (80%) of students, even when exact values were not correctly estimated, assumed that males can safely drink more than females.
- Relationship stress and increased workload were most commonly cited triggers for consuming alcohol.
- Students encountered alcohol advertising mostly in TV/Movies (Figure 2)

Figure 2: Locations where alcohol advertising was encountered by participants 6 months prior to completing the questionnaire (n = 252)



- Overall, 78.9% students had consumed alcohol before, with 14.4% consuming alcohol up to 3 times a week.
- Male students were more likely to engage in binge drinking than female students ($p < 0.000$).
- Year of study, age and faculty were not significantly associated with more frequent drinking or hazardous drinking.

Table 2: Practices regarding alcohol use

Variable	Total n (%)	95% CI	Males n (%)*	Females n (%)*	p-value
Frequency of alcohol consumption (n = 256)					
Never	54 (21.1)	16.5 – 26.5	18 (20.5)	35 (21.5)	$p = 0.014$
Monthly or less	75 (29.3)	24.0 – 35.2	17 (19.3)	56 (34.4)	
2 to 4 times a month	87 (34.0)	28.4 – 40.0	31 (35.2)	55 (33.7)	
2 to 3 times a week	37 (14.5)	10.6 – 19.3	20 (22.7)	16 (9.8)	
4 or more times a week	3 (1.2)	0.4 – 3.6	2 (2.3)	1 (0.6)	
Number of drinks on typical day of drinking (n = 198)					
1 or 2	83 (41.9)	35.2 – 49.0	24 (34.8)	57 (45.6)	$p < 0.000$
3 or 4	65 (32.8)	26.6 – 39.7	14 (20.3)	50 (40.0)	
5 or 6	39 (19.7)	14.7 – 25.9	21 (30.4)	17 (13.6)	
7, 8 or 9	10 (5.1)	2.7 – 9.2	9 (13.0)	1 (0.8)	
10 or more	1 (0.5)	0.01 – 3.5	1 (1.5)	0 (0.0)	
Consumption of at least 6 drinks on one occasion (n = 158)					
Never	58 (29.3)	23.3 – 36.0	8 (11.6)	48 (38.4)	$p < 0.000$
Less than monthly	95 (48.0)	41.1 – 55.0	34 (49.3)	60 (48.0)	
Monthly	32 (16.2)	11.6 – 22.0	17 (24.6)	15 (12.0)	
Weekly	13 (6.6)	3.8 – 11.0	10 (14.5)	2 (1.6)	
Alcoholic beverages type consumed (n = 198) †					
Wine	156 (78.8)	72.5 – 84.0	50 (72.5)	103 (82.4)	$p = 0.105$
Cocktails	135 (68.2)	61.3 – 74.3	33 (47.8)	101 (80.8)	$p < 0.000$
Gin	103 (52.0)	45.0 – 58.9	30 (43.5)	71 (59.9)	$p = 0.081$
Vodka	93 (47.0)	40.1 – 54.0	31 (44.9)	61 (48.8)	$p = 0.596$
Cider	90 (45.5)	38.6 – 52.5	25(36.2)	63 (50.4)	$p = 0.055$
Beer	83 (41.4)	34.7 – 48.4	48 (69.6)	33 (26.4)	$p < 0.000$
Whiskey	44 (22.2)	16.9 – 28.9	20 (30.0)	22 (17.6)	$p = 0.066$
Brandy	37 (18.7)	13.8 – 24.8	20 (29.0)	16 (12.8)	$p = 0.006$
Other	10 (5.1)	2.7 – 9.2	5 (7.3)	5 (4.0)	$p = 0.189$

- Of the 257 participants responding to the AUDIT tool:
 - 11.7% (95% CI 8.3 – 16.2) screened positive for harmful or hazardous drinking
 - 8.6% (95% CI 5.7 – 12.7) for likely alcohol dependence.
- Students with harmful or hazardous drinking were:
 - less likely to acknowledge the negative health risks of alcohol ($p=0.047$) and
 - the negative health outcomes when older ($p=0.057$) than those with no harmful drinking.

CONCLUSIONS

Table 2 continued

Location of drinking (n = 198) †					
At home, alone	31 (15.7)	11.2 – 21.4	12 (17.4)	19 (15.2)	$p = 0.690$
At home, with friends	114 (57.6)	50.5 – 64.3	44 (63.8)	68 (54.4)	$p = 0.206$
At home, with family	79 (39.9)	33.3 – 46.9	28 (40.6)	48 (38.4)	$p = 0.766$
At university residence, alone	18 (9.1)	5.8 – 14.0	9 (13.0)	9 (7.2)	$p = 0.179$
At university residence, with friends	31 (15.7)	11.2 – 21.4	18 (26.1)	13 (10.4)	$p = 0.004$
At social events	172 (86.9)	81.3 – 90.9	61 (88.4)	107 (85.6)	$p = 0.583$
At other people's places	108 (54.6)	47.5 – 61.4	41 (59.4)	66 (52.8)	$p = 0.375$
Other	11 (5.6)	3.1 – 9.8	1 (1.5)	10 (8.0)	$p = 0.358$
Days of alcohol consumption (n = 196) †					
Monday	3 (1.5)	0.5 – 4.7	1 (1.5)	2 (1.6)	$p = 0.714$
Tuesday	2 (1.0)	0.3 – 4.0	1 (1.5)	1 (0.8)	$p = 0.584$
Wednesday	6 (3.1)	1.4 – 6.7	4 (5.9)	2 (1.6)	$p = 0.118$
Thursday	40 (20.4)	15.3 – 26.7	18 (26.5)	21 (16.9)	$p = 0.116$
Friday	174 (88.8)	83.5 – 92.5	65 (95.6)	107 (86.3)	$p = 0.044$
Saturday	177 (90.3)	85.3 – 93.7	65 (95.6)	108 (87.1)	$p = 0.059$
Sunday	48 (24.5)	18.9 – 31.0	23 (33.8)	25 (20.2)	$p = 0.037$
Participation in drinking games (n = 198)					
Yes	157 (79.3)	73.0 – 84.4	59 (85.5)	94 (75.2)	$p = 0.092$
Participation in "pre-drinking" (n = 198)					
Yes	161 (81.3)	75.2 – 86.2	61 (88.4)	97 (77.6)	$p = 0.064$

*Column percentages shown
† Not mutually exclusive - multiple options could be chosen for these questions

- Despite students' recognition of the harmful effects of alcohol, its misuse is still common behaviour among students
- Findings suggest that alcohol advertising may influence drinking amongst those with hazardous drinking.
- Students consume more alcohol at social events than at home or university residence, possibly attributed to social interactions, less restrictions and less supervision

- More interventions need to be developed to educate students about the harms of alcohol use and identify harmful and hazardous drinking.

LIMITATIONS

- Small sample size
- Selection bias due to voluntary participation
- Recall and social desirability bias from data collection with self-administered questionnaire
- Central tendency bias due to inclusion of Likert-type questions in questionnaire
- High item non-response bias

ADVOCACY MESSAGE

Health promotion interventions are needed to inform students about harmful alcohol practices and to support wellness. Regular screening opportunities may assist in early detection and management of harmful drinking. A systemic evaluation and regular surveillance of the drinking culture in universities is recommended.

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