

The relationship between young people, social media use and alcohol use: A prospective cohort study

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Acknowledgement of Country

The University of Queensland (UQ)
acknowledges the Traditional Owners and their
custodianship of the lands on which we meet.

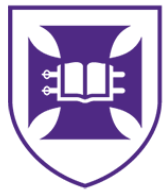
We pay our respects to their Ancestors and their
descendants, who continue cultural and spiritual
connections to Country.

We recognise their valuable contributions to
Australian and global society.

*The Brisbane River pattern from A Guidance Through Time
by Casey Coolwell and Kyra Mancktelow.*



Who are we?



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

The National Centre for
Youth Substance Use
Research



Introduction: Alcohol

- Alcohol use remains one of the leading contributor to disease burden
- Social modelling and influences are fundamental determinants of youth and young adult drinking
- These social influences are driven by the development of positive alcohol expectations
- Robust association and causal studies have demonstrated powerful influences of traditional media (TV, radio, print, etc.) on alcohol use



Introduction: Social Media

- Prevalent part of modern daily life, with over 60% of the global population using social media [1]
- The average social media user engages in reading and posting media over two hours each day [1]
- Social influence/modelling are key factors in of youth alcohol initiation, use and problem drinking [2-4]
- Recent research has found 54-63% of substance-related videos on social media positively portray substance use [5-7]



Image Source: <https://www.facebook.com/xxxx.alehouse/photos/a.2497620503611154/4300977613275425/>

Introduction: Youth Social Media x Drinking

- **This exposure is particularly relevant for young people, who are purposefully targeted with by these technologies, with the most popular videos have been viewed over a million times [5-7].**
- **Many of these videos are sponsored by multi-national alcohol and tobacco companies, paying ‘influencers’ to promote products, often without funding disclosures [8].**
- **Youth are especially vulnerable to the harms of alcohol due to the sensitive period of rapid brain development, increasing risk of developmental problems and early onset alcohol problems [4,9,10].**

Introduction: Aim and Hypotheses

- This study aims to assess the impact of early social media engagement on age of alcohol onset and future drinking behaviours in sample of youth via seven-year prospective cohort study.
- We hypothesise that **alcohol-naive youth (aged 12-13 years) with greater social media engagement** would **consume more alcohol**, commence **drinking at an earlier age**, and engage in **greater problem drinking** behaviours, controlling for key co-factors known to contribute to higher risk youth drinking.



Methods

- Data were acquired from the Longitudinal Study of Australian Children (LSAC), a nationally representative, multi-stage stratified, clustered, study that tracks children's development and life course trajectories
- This study used the Child K cohort from T5 (baseline; data collected November 2013) to T8 (follow-up; data collected October 2020).
- Overall, 3956 children were included at Wave 5 when the children were 12-13 years old (48% female; 79% response rate). In Wave 8, 3037 individuals (18-19 years old) were successfully followed up.

Cohort	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8	Wave 9C*	
Year	2004	2006	2008	2010	2012	2014	2016	2018	2020	2021
Infant (B)	0-1 years	2-3 years	4-5 years	6-7 years	8-9 years	10-11 years	12-13 years	14-15 years	16-17 years	17-18 years
Child (K)	4-5 years	6-7 years	8-9 years	10-11 years	12-13 years	14-15 years	16-17 years	18-19 years	20-21 years	21-22 years

Note: *The first online survey for Wave 9C was called 9C1. Data for this survey were collected from October to December 2020. The second survey (9C2) is scheduled to begin in June 2021.

Methods

Predictor:

- Social media use at T5

Outcomes:

- Alcohol Consumption at T8

Past 7-day alcohol consumption (continuous variable) | Past month alcohol consumption (yes/no) |

Past year alcohol consumption (yes/no)

- Problem Drinking
- Drinking Initiation

Demographics Co-variables at Time 5:

Age | Gender | Indigenous Status | Birth Country | Parental Income | Peer alcohol use

Results

Snapshot of social media use and consumption

Table 2. Prevalence^a of social media (predictor) and alcohol consumption (outcome) in Wave 5 and 8 (n=2,625).

	Unweighted % or mean (N)	Weighted ^a % (95% CI)
I. Predictor at Wave 5		
How often do you use a computer to spend time on SNS? (% , N)		
Almost everyday	32.3 (818)	32.9 (30.8, 35.0)
Once or twice a week	18.7 (485)	19.1 (17.2, 21.0)
Infrequent ^b	12.5 (316)	12.8 (11.2, 14.3)
Never	34.6 (960)	32.3 (33.0, 37.6)
Missing	1.9 (46)	-
II. Outcomes at Wave 8		
Age when first have a full serve (a glass of alcohol		
Mean, N	16.7 (1490)	16.7 (16.6, 16.7)
Range (min-max)	9 -19	
Missing (% , n)	43.2 (1135)	
Past month alcohol consumption (% , N)		
Yes	70.7 (1856)	74.8 (72.4, 77.1)
No	21.1 (554)	25.2 (22.9, 27.6)
Missing	8.2 (215)	-
Risky alcohol consumption (% , N)		
Yes	14.7 (385)	15.2 (13.5, 16.9)
No	75.9 (1991)	84.8 (83.1, 86.4)
Missing	9.5 (249)	-
Problem drinking score		
Mean, N	14.3 (2077)	14.3 (14.1, 14.4)
Range (min-max)	12-32	
Missing (% , n)	20.9 (548)	

^a number of participants that responded to wave 5 and 8

^b a few times a month or once a month or less

Results: Drinking Initiation

Table 3. The association between frequency of SNS consumption at Wave 5 on age of drinking initiation

Social media use		Age of onset (first full drink)					
		Age of onset					
		Model 1 ^a			Model 2 ^b		
	<i>M(SD)</i>	β	<i>95% CI</i>	<i>p</i>	β	<i>95% CI</i>	<i>p</i>
Time spent on social media							
Almost everyday	16.3 (0.1)	-0.62	(-0.79, -0.45)	<.001	-0.56	(-0.74, -0.39)	<.001
Once or twice a week	16.6 (0.1)	-0.35	(-0.54, -0.16)	.0004	-0.34	(-0.52, -0.15)	<.001
Infrequent	16.7 (0.1)	-0.34	(-0.57, -0.10)	.006	-0.35	(-0.59, -0.11)	0.004
Never (<i>ref category</i>)	17.0 (0.1)	1.00	-	-	1.00	-	-

^b Model adjusted for age and sex

^c Model adjusted for age, sex, joint household income, peer alcohol use, study child's prosocial behaviour, hyperactivity, emotional symptoms, conduct problems, peer problem, and self-efficacy

Youth spending time on social media “almost every day” or “once or twice a week”, reported a significantly **younger age of alcohol initiation** compared to those who never spent time on social media

Results: Problem Drinking

Table 6. The association between frequency of SNS consumption at Wave 5 on problem drinking at Wave 8

Social media use		Problem drinking					
		Problematic drinking					
		Model 1 ^a			Model 2 ^b		
	<i>M(SD)</i>	β	<i>95% CI</i>	<i>p</i>	β	<i>95% CI</i>	<i>p</i>
Time spent on social media							
Almost everyday	14.7 (0.1)	0.63	(0.29, 0.97)	.003	0.48	(0.13, 0.83)	0.008
Once or twice a week	14.3 (0.2)	0.32	(-0.05, 0.69)	.092	0.33	(-0.04, 0.69)	0.082
Infrequent	14.3 (0.2)	0.26	(-0.19, 0.72)	.260	0.22	(-0.20, 0.64)	0.307
Never (<i>ref category</i>)	13.8 (0.1)	1.00	-	-	1.00	-	-

^a Model adjusted for age and sex

^b Model adjusted for age, sex, joint household income, peer alcohol use, study child's prosocial behaviour, hyperactivity, emotional symptoms, conduct problems, peer problem, and self-efficacy

Youth(12-13 years old) who spent time on social media **every day**, compared to those who never used social media, **reported more problem drinking** (at 18-19 years of age).

Results: Alcohol Consumption

Table 4. The association between frequency of SNS consumption at Wave 5 on past month alcohol consumption at Wave 8

Social media use		Alcohol consumption					
		Past month alcohol consumption					
		Model 1 ^a			Model 2 ^b		
	% (<i>SE</i>)	<i>OR</i>	<i>95% CI</i>	<i>p</i>	<i>OR</i>	<i>95% CI</i>	<i>p</i>
Time spent on social media							
Almost everyday	73.8 (1.9)	1.20	(0.76, 1.89)	.439	1.06	(0.66, 1.73)	0.794
Once or twice a week	70.3 (2.6)	0.84	(0.53, 1.35)	.476	0.89	(0.55, 1.42)	0.605
Infrequent	66.0 (3.1)	0.89	(0.53, 1.49)	.652	0.89	(0.53, 1.52)	0.684
Never (<i>ref category</i>)	64.2 (1.8)	1.00	-	-	1.00	-	-

^a Model adjusted for age and sex

^b Model adjusted for age, sex, joint household income, peer alcohol use, study child's prosocial behaviour, hyperactivity, emotional symptoms, conduct problems, peer problem, and self-efficacy

No association was found between youth (12-13 years old) social media use and later past-year nor past-month drinking was found

Results: Alcohol Consumption

Table 4. The association between frequency of SNS consumption at Wave 5 on past

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Table 5. The association between frequency of SNS consumption at Wave 5 on past week
risky alcohol consumption at Wave 8

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Social media use		Alcohol consumption					
		Risky alcohol consumption ^a					
		Model 1 ^b			Model 2 ^c		
	% (SE)	OR	95% CI	p	OR	95% CI	p
Time spent on social media							
Almost everyday	15.3 (1.4)	1.70	(1.11, 2.59)	.013	1.61	(1.06, 2.46)	0.024
Once or twice a week	15.5 (1.9)	1.04	(0.66, 1.67)	.846	1.03	(0.63, 1.68)	0.904
Infrequent	12.6 (2.3)	0.90	(0.47, 1.74)	.762	0.9	(0.47, 1.71)	0.759
Never (<i>ref category</i>)	11.8 (1.1)	1.00	-	-	1.00	-	-

^a Risky alcohol consumption was defined as consuming ten or more drinks in the past week.

^b Model adjusted for age and sex

^c Model adjusted for age, sex, joint household income, peer alcohol use, study child's prosocial behaviour, hyperactivity, emotional symptoms, conduct problems, peer problem, and self-efficacy

No association was found between social media use and **risky alcohol consumption**
($\alpha < .01$)

Discussion

- **After controlling for factors known to be associated with adolescent alcohol use:**
 - Young people (aged 12 to 13 years) who engaged with social media daily subsequently reported greater experiences of problem drinking, including alcohol-related troubles, injuries, and fights.
 - Young people who engaged in social media use most days were more likely to initiate alcohol use at a younger age than those that had not used social media.
 - The use of social media can expose youth to media of risk taking behaviours and alcohol-related content is often portrayed in a positive light, facilitating a skewed perception of what drinking alcohol is like and eluding the harms of alcohol use [2,3,11-15].
- **Exposure to social media, especially alcohol-related media, can trigger alcohol-related cravings and desires in individuals through its use of vivid imagery [16-18]**
- **These finding can inform prevention approaches e.g., social media counter marketing approaches, breaking alcohol-related myths and false information, advocacy for greater alcohol advertisement enforcement**

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Thank you very much!

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