



Light drinking was associated with depressive symptoms in Hong Kong secondary school students

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Background:

Studies have found that depressive symptoms were associated with medium and high frequency drinking compared to low frequency drinking.¹ However, little is known about the association with low frequency drinking vs never drinking. The lack of data may be due to a relatively low prevalence of light drinking in Western countries. Specifically, the prevalence of weekly drinking approached 40% in some of European countries,² while it was as low as 4.4% in Hong Kong.³

Capitalising on the high prevalence of light drinking, we investigated the association of alcohol drinking, especially light drinking, with depressive symptoms in Hong Kong Chinese adolescents.

References:

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2. Gilligan C, Kuntsche E, Gmel G. Adolescent drinking patterns across countries: associations with alcohol policies. *Alcohol and alcoholism*. 2012;47(6):732-7.
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Methods

- **Year:** 2012/13 **Setting:** Hong Kong **Subjects:** 20951 secondary school students (aged 11-20 years, 48.7% girls)
- **Methods:** 44 secondary schools were randomly selected, and all secondary 1-6 students were invited
- **Data collected:** Self-administered anonymous questionnaires
- **Statistics:** Multilevel logistic regression accounting for school clustering, sociodemographic characteristics, academic performance, smoking and drug use

Drinking status

Never drinking - I have never drunk alcohol

Former drinking - I drank alcohol in the past, but not now

Current drinking – I drink alcohol now

Drinking frequency (How often do you have one standard drink or more?)

Less-than-monthly drinking

Monthly drinking

Weekly drinking



Drinking quantity (how many standard drinks do you have on a typical day when you are drinking?)

Drank less than half a drink

Half a drink

1-2 drinks
and more

3 drinks

Type of alcohol beverages

Fruit wine (e.g. cider), beer, red/white wine, spirits, Chinese wine, cocktail and other types

Depressive symptoms (Patient Health Questionnaire - 2)

How often have you been bothered by any of the following two problems over the past 2 weeks:

- 1) Little interest or pleasure in doing things;
- 2) Feeling down, depressed or hopeless.



Results and Conclusions

Table 1. Association of alcohol consumption with depressive symptoms (DS) among secondary school students

	n (%) of DS	Adjusted odds ratio (95%CI)
Drinking status		
Lifetime abstainers	1381 (14.8)	1
Former drinkers	163 (25.4)	1.57 (1.28, 1.94)***
Present drinkers	2427 (22.1)	1.45 (1.34, 1.57)***
P for trend		<0.001
Drinking frequency		
Less-than-monthly drinking	1094 (21.0)	1.37 (1.24, 1.51)***
Monthly drinking	409 (23.2)	1.46 (1.27, 1.68)***
Weekly drinking	256 (32.7)	2.13 (1.76, 2.58)***
P for trend		<0.001
Drinking quantity		
Less-than-half a drink	531 (19.5)	1.30 (1.15, 1.46)***
Half a drink	227 (20.7)	1.39 (1.17, 1.64)**
1-2 drinks	656 (24.3)	1.65 (1.47, 1.86)***
≥ 3 drinks	425 (29.6)	1.86 (1.59, 2.18)***
P for trend		<0.001
Types of alcohol beverages		
Fruit wine	449 (20.0)	1.28 (1.13, 1.46)***
Beer	792 (23.9)	1.58 (1.41, 1.76)***
Wine	274 (20.3)	1.38 (1.18, 1.61)***
Spirits	83 (29.7)	1.91 (1.42, 2.57)***
Chinese wine	39 (27.1)	1.81 (1.21, 2.70)**
Cocktail	32 (22.7)	1.37 (0.88, 2.12)
Others	107 (28.5)	1.99 (1.55, 2.57)***

Table 2. Adjusted odds ratio of depressive symptoms given the exposure of combination of drinking frequency and quantity, relative to never drinkers.

Quantity	Frequency		
	≤0.5 drink	1-2 drinks	≥3 drinks
Less-than-monthly	1.29 (1.14, 1.46)***	1.66 (1.44, 1.92)***	1.58 (1.25, 1.99)***
Monthly drinking	1.36 (1.06, 1.76)*	1.50 (1.24, 1.81)***	1.73 (1.36, 2.21)***
Weekly drinking	1.50 (0.92, 2.47)	1.99 (1.46, 2.71)***	2.67 (2.07, 3.44)***

Conclusions: All measures of alcohol consumption were associated with depressive symptoms in Hong Kong adolescents. Most associations remained significant in the sensitivity analysis after excluding 505 students who drank under unhappy/stressed/ bored mood, suggesting the possibility of alcohol drinking related depression.

Even drinkers who drank alcohol occasionally with half a drink had a 29% higher odds of depressive symptoms than lifetime abstainers, indicating an adverse effect of very low level of alcohol consumption. Prevention of any alcohol involvement in Chinese adolescents is of importance.

Conflict of interest: Not applicable

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