

# AB033. Alcohol marketing exposure and alcohol drinking in university students in Hong Kong: an ecological momentary assessment

Minjin Zhang<sup>1</sup>, Derek Yee Tak Cheung<sup>1</sup>,  
Qi Wang<sup>1</sup>, Bonnie Xin Yan Wu<sup>1</sup>, Man Ping Wang<sup>1</sup>,  
Daniel Sai Yin Ho<sup>2</sup>, Tai Hing Lam<sup>2</sup>

<sup>1</sup>School of Nursing, The University of Hong Kong, Hong Kong, China; <sup>2</sup>School of Public Health, The University of Hong Kong, Hong Kong, China

*Correspondence to:* Derek Yee Tak Cheung, Assistant Professor, School of Nursing, The University of Hong Kong, Hong Kong, China. Email: derekcheung@hku.hk.

**Background:** Alcohol marketing, including advertisement and promotion of alcohol drinking culture, was ubiquitous and easily accessible by young adults in Hong Kong. This study used ecological momentary assessment to assess real-time temporal association between young adults' exposure to alcohol marketing and their drinking behavior in real-world setting.

**Methods:** We recruited students aged 18 to 35 who drank any alcohol during the past 30 days from universities. Consented participants were individually randomized to the EMA group or non-EMA group. Participants in the EMA group installed an EMA smartphone app in their smartphone for 5 time-based system-triggered EMAs for 14 consecutive days. In each EMA prompt, participants documented their exposure to alcohol marketing (yes/no), drinking (yes/no), and purchase of alcohol (yes/no) in the past 3 hours. Generalized estimating equation was used to assess the association between exposure to alcohol marketing (yes/no) and drinking behaviors (yes/no), adjusting for age, gender, AUDIT-C score. Further use lagged analyses to explore prospective association between daily alcohol marketing exposure (0, 1,  $\geq 2$  times) and daily drinking/purchase of alcohol (yes/no).

**Results:** Forty-nine current drinkers responded to 2,529 EMA prompts (compliance 73.3%). The mean episode of exposure to alcohol marketing, drinking, and purchase of alcohol was 3.8, 3.2 and 1.2 times. The

top three channels of alcohol marketing exposure were restaurants (n=45), social media (n=30) and point-of-sale display (n=16). Exposure to alcohol marketing in the past 3 hours was positively associated with drinking (AOR =2.52, 95% CI: 1.70–3.75) and purchasing alcohol (AOR =4.20, 95% CI: 2.66–6.61) in the past 3 hours. A significantly prospective association has also been found between daily alcohol marketing exposure and daily drinking/ daily purchase of alcohol.

**Conclusions:** Exposure to alcohol marketing is prospective positively associated with drinking behaviors. Further study with a larger sample size is needed to explore the mediation between exposure to alcohol marketing and drinking behaviors.

**Keywords:** Ecological momentary assessment; alcohol marketing; university students

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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