



# Addictive behaviours among university students in Malaysia during COVID-19 pandemic

Chuong Hock Ting<sup>a,\*</sup>, Cecilia Essau<sup>b</sup>

<sup>a</sup> Department of Psychological Medicine, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia

<sup>b</sup> Department of Psychology, Roehampton University, London

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## ABSTRACT

**Introduction:** Preventative measures to stop the spread of the COVID-19 have affected university students in an unprecedented manner. During the pandemic, their well-being and mental health are being shaped by online learning, home confinement, and uncertainty about their future. The overall aim of this study was to examine the frequency of three addictive-like behaviors (i.e., eating, social media, and online gaming) among university students, and their associations with mental health and self-regulation.

**Methods:** This study was an online-based cross-sectional study involving 178 students from a public university in Sarawak. They were asked to complete a set of questionnaires that were used to measure substance, cigarette, and alcohol use, psychological distress, anxiety towards COVID-19, self-regulation, as well as food, online gaming, and social media addiction.

**Results:** There was a significant increment in the duration of time spent on online gaming and social media during the COVID-19 pandemic. The prevalence of substance use was low, with 3.9% and 12% of the students reported using cigarettes and alcohol, respectively in the last 30 days. Significant positive correlations were found between the three addictive-like behaviors (food, gaming, and social media addiction) and psychological distress. Significant negative correlations were found between self-regulation and the three addictive-like behaviors as well as psychological distress.

**Conclusion:** Multidisciplinary efforts are needed to mitigate potential pre-existing and potential worsening addictive behaviors among university students during the COVID-19 pandemic and future pandemics and natural disasters.

## 1. Introduction

Since the outbreak of coronavirus disease 2019 (COVID-19), the global healthcare system has focused primarily on the physical impact of this pandemic on humans. Inevitably, this global public health emergency had also triggered significant impacts on mental health (Brooks et al., 2020; Torales et al., 2020). A nationwide survey of 52,730 respondents in China revealed about one-third of them experienced some form of psychological distress, particularly among young adults (18–30 years old) (Qiu et al., 2020). Another study reported about half of the respondents had moderate to severe psychological impacts such as stress, anxiety, and depression during the outbreak (Wang et al., 2020). These negative emotions are likely associated with home quarantine and social distancing (Brooks et al., 2020; Qiu et al., 2020; Wang et al., 2020) (see Table 1).

As the COVID-19 outbreak causes prolonged disruptions of the normal routine, it was predicted the several mental health problems such as anxiety, acute stress, posttraumatic stress symptoms, depression, suicidality, and addictive behaviors would surface (Polizzi et al., 2020). Based on the self-medication theory (Khantzian, 1997), people who experienced psychological suffering may resort to abuse substances if they lack adaptive coping skills or low self-esteem. It was believed that the use of substances could ameliorate psychological pain, thereby temporarily improve mood. The preferred choice of a substance depends on its effects to regulate one's difficult emotions. In the early phase of the COVID-19 pandemic, numerous authors had anticipated and warned the authorities of the potential surge of substance misuse (Clay & Parker, 2020; Dubey et al., 2020).

Apart from substance misuse, there was also an increased risk of developing bad habits such as spending time excessively on watching

\* Corresponding author at: Jalan Datuk Mohammad Musa, 94300 Kota Samarahan, Sarawak, Malaysia.

E-mail address: [chting@unimas.my](mailto:chting@unimas.my) (C.H. Ting).

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