

Changes in the clustering of health-related behaviors during the COVID-19 pandemic: examining predictors using latent transition analysis

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Abstract

The COVID-19 pandemic has had a significant impact on daily life, affecting both physical and mental health. Changes arising from the pandemic may longitudinally impact health-related behaviors (HRB). As different HRBs co-occur, in this study, we explore how six HRBs - alcohol (past-week and binge-drinking), tobacco, marijuana, benzodiazepine use, and unhealthy food consumption - were grouped and changed over time during the COVID-19 pandemic. A sample of 1038 university students and staff (18 to 73 years old) of two universities completed an online psychometrically adequate survey regarding their recalled HRB (T0, pre-COVID-19 pandemic) and the impact of COVID-19 on their behaviors during July (T1) and November (T2). Latent Transition Analysis (LTA) was used to identify HRB cluster membership and how clusters changed across T0, T1, and T2. Four clusters emerged, but remained mainly stable over time: 'Lower risk' (65.2–80%), 'Smokers and drinkers' (1.5–0.01%), 'Binge-drinkers and marijuana users' (27.6–13.9%), and 'Smokers and binge-drinkers' (5.6–5.8%). Participants who moved from one cluster to another lowered their HRB across time, migrating from the 'Binge-drinkers and marijuana users' cluster to 'Lower risk'. Participants in this cluster were characterized as less affected economically by the COVID-19 pandemic, with lower reported stress levels, anxiety, depression, and loneliness than the other clusters. Our results provide evidence of how HRBs clustered together and transitioned longitudinally during the COVID-19 pandemic. HRB clustering across time offers a valuable piece of information for the tailoring of interventions to improve HRB. © 2022, The Author(s).

Author keywords

Alcohol; Benzodiazepines; Clustering; Latent transition analysis; Marijuana; Smoking; Unhealthy food