CENTRE DE RECHERCHE

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Social media use and television viewing associated with increased alcohol use in adolescents through their impact on social norms



MONTRÉAL, January 28, 2020 – A new CHU Sainte-Justine and Université de Montréal study has revealed that increases in social media use and television viewing are linked to increased risk for underage drinking through the effect of these forms of media on teens' social norms for underage drinking. The study, just published in the scientific journal *Preventive Medicine*, shows that, over and above a potential common vulnerability to both sets of behaviours, if a teen experienced an increase in their social media use and television viewing in a given year that surpassed their overall mean level of use, then their social norms towards alcohol also became more positive, resulting in increased alcohol use in that year. Thus, the more adolescents spend time on social media and in front of the television, the more positive their social norms towards alcohol use became and the more their alcohol use increased. Time spent video gaming was also included in the study, but was not found to predict social norms or alcohol use.

Previous studies have reported inconsistent findings on the relationship between screen time and alcohol use, but did not have the advantage of evaluating changes in behaviour over time and throughout adolescence (these studies were only cross-sectional). The first author, **Dr. Elroy Boers**, postdoctoral researcher at the Université de Montreal's CHU Sainte-Justine, argues that "the current study was also unique in that it was able to assess the relationship of different forms of screen time on alcohol-related behaviours, which might explain differences in findings."

The study findings suggest that social media outlets such as Facebook and Instagram, and television may promote positive social norms towards alcohol use, potentially increasing adolescents' drinking behaviour. The study findings are supported by previous studies showing that alcohol-related posts by youth on social media are mostly depicting alcohol use in a

positive social context. "Our study suggests that these positive alcohol-related posts, such as posts depicting other adolescents drinking while having a good time, may result in more positive social norms towards alcohol use among adolescents, subsequently increasing their alcohol use. The same might be true for how drinking is portrayed on television, from the perspective of the teenager," adds Dr. Boers.

This study could have important implications for how youth and families choose to regulate digital screen time in order to prevent and reduce alcohol use. The study findings indicate social media use and television viewing are important predictors of more positive social norms towards alcohol use and subsequent alcohol use in adolescence. "While our results are based on observational research design, the nature of the statistical approach that we used to test possible causal effects robustly controlled for any potential common underlying vulnerability to high levels of screen time and alcohol use," says **Dr. Patricia Conrod**, the Senior Investigator on the study, Professor of Psychiatry at the Université de Montréal, and Canada Research Chair in Preventative Mental Health and Addiction, CHU Sainte-Justine. "Nonetheless, more research is needed, including research that incorporates experimental designs, to confirm that it is exposure to social media and television that is causing more positive socials norms and elevated rates of alcohol use in young people," adds Conrod.

Screen Time, Social Norms and Alcohol Use

Dr. Conrod's team followed almost four thousand Canadian teenagers from age 12 to 17, as part of the Co-Venture Trial. Each year of high school, teens were asked to self-report time spent in front of digital screens and specify the amount of time spent engaging in four different types of screen-time activities (social media, television, computer use and video gaming).

In addition, the teenagers completed self-reported questionnaires on their alcohol use and their social normative opinions of peers engaging in alcohol use at ages 12-13 to 16-17. State-of-the-art multi-level statistical analyses were performed to assess the between-person and with-person associations between screen time, social norms and alcohol use in adolescence. These analyses augment standard analyses by modelling the year-to-year changes of both sets of problems, thus taking into account

possible common vulnerability and possible natural developmental changes in each set of behaviours or symptoms. Multi-level mediation analysis was also performed.

"Our research reveals that increased time spent using some forms of digital media in a given year predicts increased alcohol use within that same year." This is highly encouraging from a prevention perspective. "Schoolbased interventions that target problematic alcohol-related social norms can be effective, but yield small effects on behaviour, potentially due to the counteracting influences of screen time on youth attitudes. This research suggests that, with the introduction of newer digital media outlets, youth will potentially be exposed to more messages that promote underage drinking. In this new digital age, intervention strategies might need to directly address the problematic social norms that are being transmitted through social media and television, which might not be captured by current advertising regulations," Conrod added. "We need to revise and refine prevention strategies to address this new influence on teen behaviour. We also need to understand how these media outlets are also influencing other drug-related behaviours, in the context of an additional crisis in North America."

Conrod and her colleagues hope that this study helps guide the design of new intervention strategies for youth, before the symptoms become clinically significant.

About this study

Dr. Elroy Boers' salary was funded by a grant awarded to Dr. Conrod from the Canadian Institutes of Health Research and ERA-NET NEURON, and Professor Patricia Conrod was funded by a Tier 1 Canada Research Chair. The Co-Venture Trial was funded by a grant from the Canadian Institutes of Health Research (frn114887).

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treatments, as well as personalized approaches to medicine. The Center is part of the CHU Sainte-Justine, which is the largest mother-child centre in Canada and second pediatric center in North America. More on research.chusj.org

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