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## Editorial

## Adolescent Life in the Early Days of the Pandemic: Less and More Substance Use



Until recently, the future for adolescents appeared daunting. Climate change, global conflict, and economic crises challenged health and development worldwide. Even in high-income countries that rank in the top tiers in child flourishing indexes, adolescents faced educational inequalities, mental and physical health problems, and ever-slower paths to adulthood [1]. Meanwhile, the normative challenges of puberty, achievement, negotiating autonomy with parents, building friendships and romances, and preparing to earn a living continued [2]. In January 2019, Greta Thunberg, the climate change activist, captivated the world's attention with her speech at the World Economic Summit, asking delegates “to act as if the world is on fire. Because it is.” In February 2020, a World Health Organization–United Nations Children's Fund–Lancet Commission released a major report arguing for urgent, major worldwide investments in children and adolescents [1].

Within a few weeks, however, a new urgent global crisis loomed: the coronavirus disease 2019 (COVID-19) pandemic. Governments enacted emergency shutdowns that dramatically impacted daily life for over a billion children and adolescents [3]. In many countries, schools closed. Music, sports, clubs, restaurants, theaters, shops, pools, and gyms were inaccessible. Everyone needed to stay home, except for essential workers. Physically attending school was no longer essential. Staying inside with parents, siblings, or whoever was there—and no longer seeing friends, teachers, coaches, counselors, grandparents, or other supportive adults—became the new normal.

In this context, Dumas and colleagues' paper [4] on substance use among 14- to 18-year-old adolescents before and after the emergency stay-at-home order in Ontario is fascinating. How did adolescents respond to the abrupt end to the pursuits and pleasures of their daily lives? Specifically, how did their alcohol use, binge drinking, cannabis use, and vaping change in the first few weeks at home?

Notably, the number of 14- to 18-year old adolescents in this sample who used substances was significantly *lower* post shutdown, with a 1/5 to 2/5 reduction in the percent who binge drank, used cannabis, and vaped. There was no change (and no

increase) in the number who used alcohol. Adolescent and young adult substance use is volatile and opportunistic [5]. Most research on situational variations in substance use focuses on event-specific occasions when use and abuse spikes, for example, weekends or holidays such as Spring Break [5,6]. Although Dumas et al.'s work identifies an ebb, rather than a flow, in substance use, their finding of fewer users overall similarly highlights the importance of immediate context in providing opportunity and reward for substance use.

Conversely, among those who did use substances, the number of days of alcohol and cannabis use increased. Popularity and reputational worries about social distancing together predicted use of specific substances in specific contexts, as did depression and COVID-19 fears. These findings shed light on two motivations for substance use: social enhancement and coping. The authors interpret findings regarding links of popularity and reputation-related fears with substance use as reflecting normative social motivations, consistent with prior work [7]. Given the social *function* of (or at least the *context* of most) adolescent substance use [2,8], it makes sense that one fourth to one third of substance users reported having done so with peers in person, online, and/or shared via social media, even during the pandemic.

Regarding coping motivations for substance use, the results highlight solitary drinking as greater among youth with more depressive symptoms and COVID-19 concerns. Using substances to regulate affect is less common than to enhance social experiences [7,8], but under these challenging conditions (e.g., forced solitude, health, and dystopian fears), a subset showed a pattern consistent with coping-related use. Solitary substance use is unlikely to help, and this group is more vulnerable because of feelings of depression and anxiety.

Future research will examine explanations for and longer term impacts of the shutdown. Three possible hypotheses for impact on substance use are increased heterogeneity, simple opportunity, and exceptional thinking. First, widening achievement gaps because of extended time away from traditional schools are already a significant concern being debated in return-to-school cost–benefit discussions [3]. The same increased het-

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erogeneity or exacerbation of prior tendencies in substance use and mental health may occur. Consistent with this concern, in this study, although fewer adolescents used substances during the early weeks of the shutdown, those who did so reported using substances more often than before.

Second, studies with more intensive data collection may focus on changes in opportunities to use substances. Many peer contexts where substances might be available or consumed were curtailed. Perhaps as a result, cannabis use, vaping, and binge drinking—all behaviors parents tend to disapprove of for teens—decreased. However, family members had greater stress and altered routines, and parents may have been using more substances, particularly alcohol, themselves. [9] Older siblings may have facilitated teens' use by being home, legally purchasing products, or needing a companion during their own isolation [10]. How use patterns change when opportunity structures are further altered remains to be seen.

Finally, the finding that alcohol use was higher with parents post shutdown may suggest that parents viewed the pandemic period as exceptional, that is, challenging, nonprecedent setting, and generating needs for compromises and treats. COVID-19-related risks of adolescents rebelling and sneaking out may have seemed greater than risks of some relaxing of the rules, particularly if parents viewed the acute risks of substance use (e.g., injury and risky sex) as low with supervised home use [11]. The authors note that continued parent permissiveness is a risk, predicting, for example, faster escalations to heavier drinking [12]. Ongoing longitudinal studies should examine longer term sequelae of shutdowns, including exceptional permissiveness in other domains (e.g., screen time, sleeping, and eating patterns).

Finally, in the study by Dumas and colleagues [4], during the first 3 weeks at home, 8% of girls and 14% of boys used substances in the presence of peers (22% and 32% of substance users, respectively). This noncompliance with stay-at-home orders combined with illegal (i.e., underage) substance use is potentially very harmful, as the authors highlight. However, the vast majority did not report these behaviors, despite likely loneliness, anxiety, boredom, family conflict, and worse [1,3]. Adolescents' solidarity with the demands of a public health emergency deserves the positive attention of parents, professionals, and the media, along with our support.

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Jennifer L. Maggs, Ph.D.  
Human Development & Family Studies  
Pennsylvania State University  
University Park, Pennsylvania

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