

Association Between Daily Use of Social Media and Mental Health Among Students in Ontario

This *eBulletin* describes mental health indicators according to hours spent daily either browsing or posting on social media websites, such as Facebook, Twitter, and Instagram, among students in Ontario. Data are from the 2013 *Ontario Student Drug Use and Health Survey* (OSDUHS). The OSDUHS is a repeated, cross-sectional, anonymous survey of students in grades 7 through 12 in Ontario, with the purpose of monitoring drug use, mental and physical health, gambling, and other risk behaviours. Conducted every two years since 1977, the OSDUHS is the longest ongoing school survey in Canada and one of the longest running in the world.

Daily Social Media Use

About one-fifth (19%) of students in grades 7–12 reported that they did not use/visit social media sites at all or not on a daily basis, 34% reported that they usually used social media for less than one hour or about an hour daily, 36% usually used between two to four hours daily, and 11% usually used five hours or more daily. As presented in Figure 1, females were significantly more likely to use social media for more hours per day compared with males (e.g. 15% of females used for at least 5 hours daily compared with 7% of males). There was also a significant difference by grade level. As presented in Figure 2, high school students were significantly more likely to use social media for more hours per day compared with elementary schools students (e.g., 12% of high school students used for at least five hours daily compared with 8% of students in grades 7 and 8).

Figure 1
Percentage of Ontario Students in Grades 7–12 Reporting Daily Use of Social Media by Sex, 2013 OSDUHS (n=10,272)

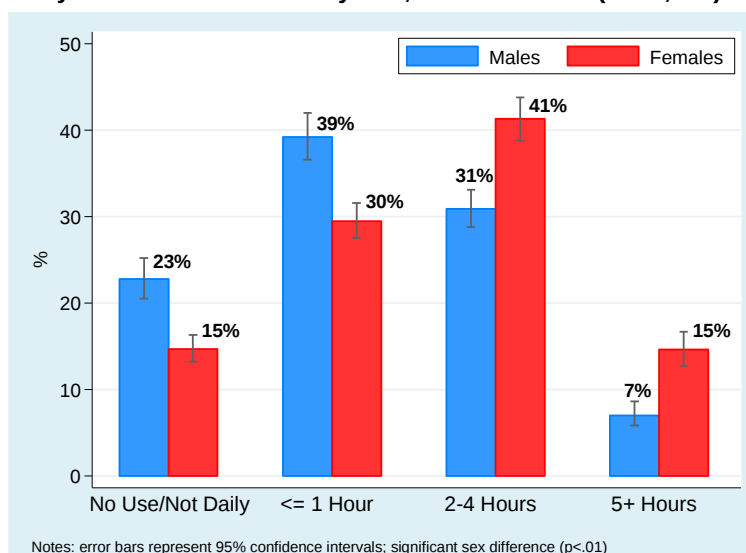
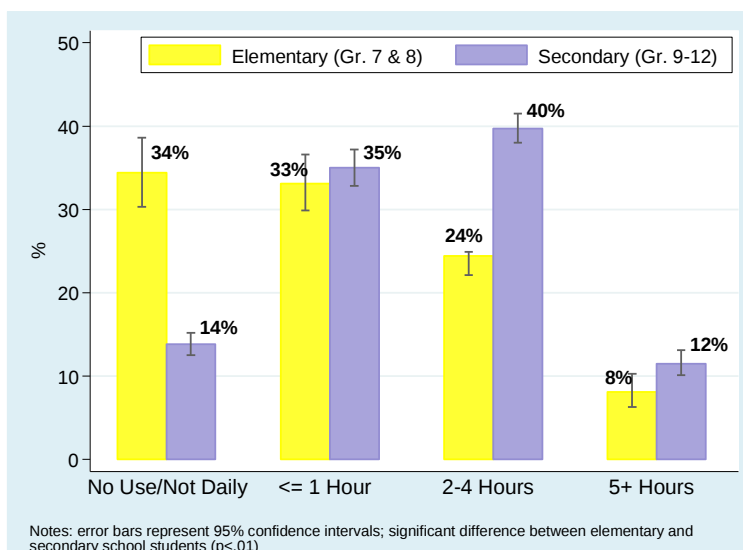


Figure 2
Percentage of Ontario Students in Grades 7–12 Reporting Daily Use of Social Media by Grade Level, 2013 OSDUHS (n=10,272)



Mental Health According to Social Media Use

There are significant associations between hours per day spent on social media and various mental health indicators measured in the OSDUHS. Those students who reported spending two or more hours per day on social media – and especially those spending five or more hours per day – were significantly more likely to rate their mental health as “poor” or fair” (Figure 3), to report a moderate or high level of psychological distress (Figure 4), and to report low self-esteem (Figure 5) compared with students who spent less time on social media or none at all. These significant associations between heavy social media use and poorer mental health held even when adjusting for sex and grade. It is important to note here that, given the cross-sectional nature of the data, causality and temporality cannot be determined.

Figure 3
Percentage of Ontario Students in Grades 7–12 Rating Their Mental Health as “Poor” or “Fair” According to Daily Use of Social Media, 2013 OSDUHS (n=5,478)

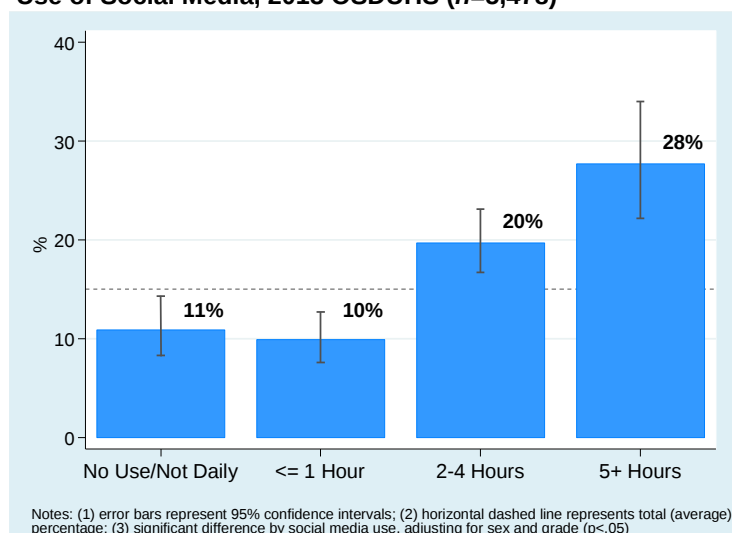


Figure 4
Percentage of Ontario Students in Grades 7–12 Indicating a Moderate or High Level of Psychological Distress According to Daily Use of Social Media, 2013 OSDUHS (n=5,478)

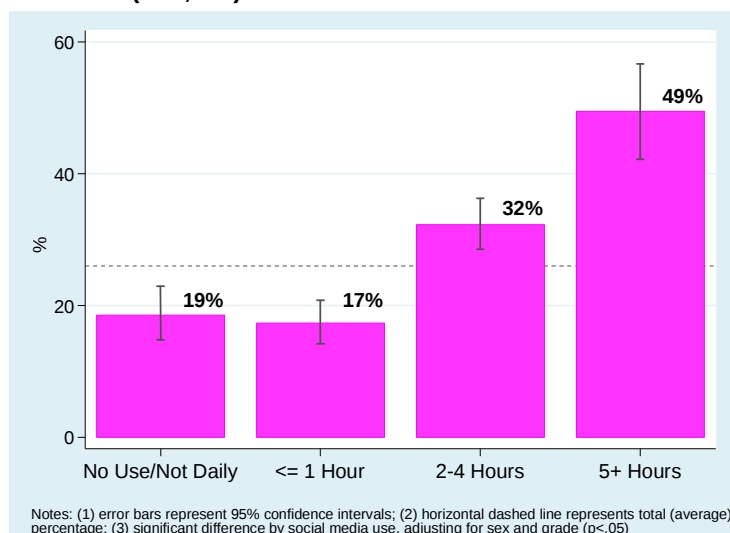
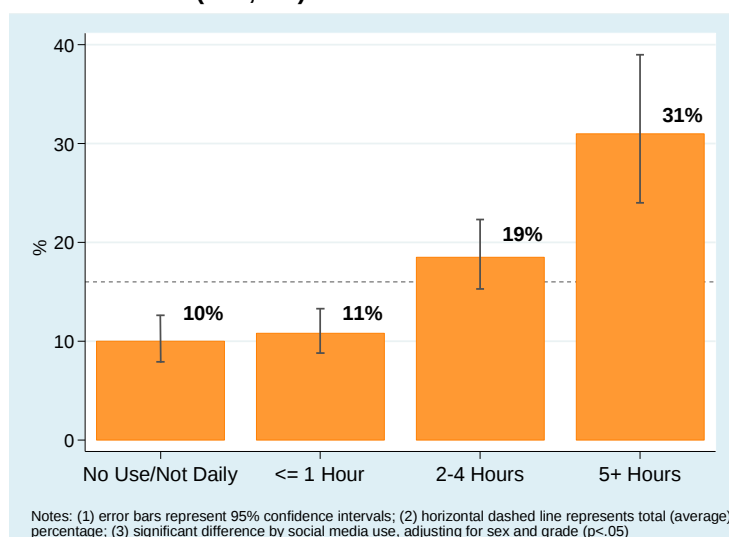


Figure 5
Percentage of Ontario Students in Grades 7–12 Indicating Low Self-Esteem According to Daily Use of Social Media, 2013 OSDUHS (n=5,478)



Methods

The Centre for Addiction and Mental Health's Ontario Student Drug Use and Health Survey (OSDUHS) is an Ontario-wide survey of elementary/middle school students in grades 7 and 8 and secondary school students in grades 9 through 12. This repeated cross-sectional survey has been conducted every two years since 1977. The 2013 survey, which used a stratified (region by school level) two-stage (school, class) cluster design, was based on **10,272 students in grades 7 through 12** from 42 public and Catholic school board districts, 198 schools, and 671 classes. Self-completed questionnaires, which promote anonymity, were group administered by staff from the Institute for Social Research, York University in classrooms between November 2012 and June 2013. Sixty-one percent (61%) of selected schools, 87% of selected classes, and 63% of eligible students in participating classes completed the survey. The 2013 total sample of 10,272 students is representative of just under one million students in grades 7 through 12 enrolled in Ontario's provincially funded schools.

All estimates were weighted, and variance and statistical tests were accommodated for the complex survey data. Logistic regression tests of significant differences according to daily use of social media adjusted for sex and grade. The mental health measures were asked of a random half sample of students and therefore those analyses were based on $n=5,478$.

Measures & Terminology

- **Daily use of social media** was measured with the question "About how many hours a day do you usually spend on social media websites such as *Facebook*, *Twitter*, *MySpace*, *Instagram*, either posting or browsing?" Response options ranged from "Don't use the Internet" to "7 or more hours a day."
- **Poor/fair self-rated mental health** was measured with the question "How would you rate your mental or emotional health?" Response options were "excellent," "very good," "good," "fair," or "poor."
- **Psychological distress** (symptoms of depression and anxiety during the past four weeks) was measured with the *Kessler-10 Psychological Distress Scale* (K10). A moderate or high level of distress was defined as a score of 22 or higher of a maximum 50.
- **Low self-esteem** was measured with five items from the *Rosenberg Self-Esteem Scale* and was defined as indicating low esteem on four or all of the five items.
- **95% confidence interval** shows the probable accuracy of the estimate – that is, with repeated sampling, 95 of 100 sample CIs would contain the "true" population value. Design-based confidence intervals account for characteristics of the sample design (i.e., stratification, clustering, weighting).
- **Statistically significant difference** refers to a difference between (or among) estimates that is statistically different at the $p<.05$ level, or lower, after adjusting for the sampling design. A finding of statistical significance implies that any differences are not likely due to chance alone; it is not necessarily a finding of public health importance

Source

Boak, A., Hamilton, H. A., Adlaf, E. M., Beitchman, J. H., Wolfe, D. & Mann, R. E. (2014). *The mental health and well-being of Ontario students, 1991–2013: Detailed OSDUHS findings* (CAMH Research Document Series No. 38). Toronto, ON: Centre for Addiction and Mental Health. [Available online at <http://www.camh.ca/research/osduhs.aspx>]

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