

Binge gaming in kids associated with adverse mental, social and academic outcomes



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Binge gaming was associated with depression, anxiety, and poor sleep, with boys more likely to report binge gaming than girls, in Hong Kong survey of 2,592 children and adolescents.

A team of Hong Kong researchers has found that binge gaming correlates with poorer social, academic, and mental health outcomes in schoolchildren, with distinct patterns by gender.

Internet gaming occupies a central place in much of youth culture, with prior work documenting recognition of [internet gaming](#) disorder (IGD) in DSM-5 as a condition for further study and as a formal diagnosis in ICD-11.

East Asia has a high IGD prevalence, and surveys in Hong Kong identify adolescents as a key affected group, particularly boys. Evidence has linked prolonged play with depressive symptoms, anxiety, and sleep problems.

In the study, "The roles of binge gaming in social, academic and mental health outcomes and gender differences: A school-based survey in Hong Kong," published in *PLOS One*, researchers conducted a cross-sectional school-based survey to examine the prevalence of binge gaming, associated social, academic, and mental health outcomes, and gender differences.

The cohort included 2,592 primary and secondary students, 1,404 boys and 1,188 girls (mean age ~12), recruited from five primary and four secondary schools in Hong Kong.

Completing a self-administered classroom questionnaire, students indicated whether they had played internet games for five or more consecutive hours in the past month. Responses included checklists for DSM-5 IGD symptoms over the prior 12 months.

Results

Results indicate an overall binge-gaming prevalence of 31.7%, with 38.3% in boys and 24.0% in girls. Boys were less likely than girls to report poor sleep quality (58.6% vs. 65.5%).

No gender differences appeared in rates above mild thresholds for depression, anxiety, or stress.

Among boys, adjusting for age and gaming time, binge gamers showed higher adjusted mean differences in IGD, depression, anxiety, stress, and poorer sleep quality than non-binge gamers.

Among girls, binge gamers also showed higher IGD, depression, anxiety, stress, and loneliness, plus lower educational self-efficacy, sleep quality, and social support than non-binge gamers.

Compared with non-binge gamers, non-gamers had lower depression, anxiety, stress, and loneliness and higher educational self-efficacy in girls; in boys, lower stress and loneliness and higher educational self-efficacy, with no significant differences for depression/anxiety

Authors conclude that binge gaming may function as a behavioral indicator and potential risk factor for adverse social, academic, and health outcomes in school-age youth, with notable gender-specific features including greater loneliness and lower [social support](#) among female binge gamers.

Suggested public-interest actions include prevention targeting prolonged consecutive play, early identification using binge-gaming patterns in addition to total hours, and consideration of tailored psychosocial strategies.

More information: Nick Tse et al, The roles of binge gaming in social, academic and mental health outcomes and gender differences: A school-based survey in Hong Kong, *PLOS One* (2025). [DOI: 10.1371/journal.pone.0327365](https://doi.org/10.1371/journal.pone.0327365)

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