

Video Game Use Confers Risk for Conduct Disorder Among Early Adolescent Girls

UCONN HEALTH

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BACKGROUND

- There is increasing concern regarding the longitudinal impact of frequent and prolonged video game use on adolescent psychosocial development.
- ❖ Recent evidence indicates that excessive video game use during adolescence may be linked to aggressive behavior and internalizing problems, especially among adolescent girls (Adachi & Willoughby, 2016; Ohannessian, 2018).
- Notably, few studies to date have examined the longitudinal relationship between video game use and increased risk for conduct disorder.
- Further, a breadth of prior evidence suggests that this maladaptive association may be greater for girls than boys.



OBJECTIVE

Primary Objective: To examine the longitudinal association between daily video game use and risk for conduct disorder among early adolescents.

Secondary Objective: To determine if this potential maladaptive relationship differs by gender.

METHODS

Participants:

- * 862 early adolescents from public middle schools located in the Northeast region of the United States
- 54% female
- ♣ Age: M = 12.75, SD = 0.71, Range = 11-14 years
- 51% Non-Hispanic White, 21% Hispanic or Latinx, 9% Black or African American, 3% Asian, 15% multi-racial/ethnic, and 1% other

Procedure:

- Self-report questionnaires were administered twice to students during school, separated by a 6-month interval between Fall of 2016 (T1) and Spring of 2017 (T2).
- Students received a \$10 movie pass as an incentive for completing the survey at each time point.

METHODS

Measures:

The following validated self-report measures were administered at T1 and T2:

Construct	Measure	Scales
Daily Video	Technology Use	Total number of hours
Game Use	Questionnaire (TUQ)	adolescents' spend playing console video games on a daily basis (αs=.6474)
Conduct Disorder (CD)	Delinquent Behaviors Scale (DBS)	DBS CD symptom count ≥3 (αs=.8990)

Analytic Plan:

- Logistic Regression Models
 - Independent Variable: Daily Video Game Use (T1)
 - ❖ Dependent Variable: CD Presence (T2)
 - Covariates: Age (T1), Race (T1), and CD Presence (T1)

RESULTS

Table 1. Results of Logistic Regression Analysis on Risk for Conduct Disorder

Variable	B	SE	p	OR _{adj}	95% CI
Boys (n = 389)					
Age (years)	.033	.210	.874	1.034	.69 - 1.56
Race (White)	.677	.298	.023	1.968	1.10 - 3.53
CD Presence (T1)	-2.243	.314	<.001	.106	.0620
TUQ (T2)	.026	.035	.465	1.026	.96 - 1.10
Constant	671	2.733	.806	.511	
Girls (n = 473)					
Age (years)	.298	.233	.200	1.347	.85, 2.13
Race (White)	.389	.326	.233	1.475	.78, 2.80
CD Presence (T1)	-2.750	.361	<.001	.064	.03, .13
TUQ (T2)	.142	.057	.012	1.153	1.03, 1.29
Constant	-3.961	2.990	.185	.019	

Note: Logistic regression models were run separately for boys and girls.

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RESULTS

- ❖ The logistic regression model predicating the probable presence of CD from daily console video game use (the main effects model) was significant for girls, $\chi^2(4)=73.30$, p<.01, $R^2=.28$, but not for boys.
- ❖ Girls who reported playing console video games daily had a significantly greater likelihood of meeting criteria for CD at T2, OR_{adj}=1.15, 95% CI=1.03-1.29, *p*<.01.</p>



CONCLUSIONS

- These findings indicate that daily video game use may increase risk for conduct disorder among early adolescent girls. Notably, this relationship was not present among boys in the current sample.
- These gender differences are in line with previous findings (Ohannessian, 2018), and suggest that playing video games may be distinctly maladaptive for girls, compared to boys, during early adolescence.

Implications:

- ❖ Findings from the present study suggest that parents and guardians should monitor and limit daily video game use among adolescents in order to decrease the risk for conduct disorder.
- Future studies should examine whether or not the genre of video game influences the link between daily video game use and subsequent risk for externalizing problems.



