

Video Game Addiction Among Adolescents: Associations with Academic Performance and Aggression

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Abstract

Video games have become a popular pastime among children and adolescents. The current study includes a self-report measure of video game habits completed by 607 8th and 9th graders for hand-held devices, video game consoles, and the computer. A scale of addiction was identified and separated into two groups (Non-Addicted and Addicted). The Addicted group revealed more reports of involvement in physical fights in the last year, more arguments with friends and teachers, higher hostile attribution scores, and lower grades. These results suggest that video game “addiction” is a problem among adolescents, particularly among males, and that addiction is associated with adjustment problems such as school performance and aggressive attitudes and behaviors.

Previous Research on Video Game Addiction

- Addiction questions for previous research were based on modified DSM-IV criteria for Pathological Gambling.
- Fisher’s (1994) results indicated: 6% of the sample (N=460, 48% male, 52% female) was defined as “pathological players”. Males played more video games overall, but a significant gender bias was not found in the group defined as “pathological players.”
- Griffiths and Hunt’s (1998) results indicated: One in five adolescents were “dependent” on computer games (N=387, 58% male, 42% female). Boys played significantly more regularly than girls, and were more likely to be classified as “dependent”.

Method

- 607 8th and 9th grade students participated in the study (52% male, 48% female)
- Participants completed several self-report measures, including a measure of video game habits.
- Included in the video game habits measure was a seven-item scale of addiction, rated on a 3-point Likert scale (no, sometimes, yes).
- Participants in the top 15% of the sample answered ‘yes’ to four or more of the addiction items (N=85) and were classified as “Addicted”.
- Participants who answered ‘no’ to a minimum of six items and ‘sometimes’ to a maximum of one item (N=265) were classified as “Non-Addicted”.
- All other participants were excluded from this study.

Results

- Addicted adolescents spend more time playing video games ($t(341) = -13.17, p < .000$) [Table 1]
- Males were significantly more likely to be addicted than females ($\chi^2(1,345) = 42.86, p < .000$). [Fig. 1]
- Addicted adolescents were significantly more likely to report having been in a physical fight in the last year ($\chi^2(1,342) = 18.475, p < .000$). [Fig. 2]
- Addicted adolescents had higher hostile attribution scores ($t(347) = -4.14, p < .000$) [Table 1]
- Addicted adolescents had more arguments with friends ($t(306) = -2.62, p < .01$) [Fig. 3] and more arguments with teachers ($t(257) = -3.37, p < .01$). [Fig. 4]
- Addicted adolescents reported lower academic grades ($t(337) = 5.035, p < .000$). [Fig. 5]

Take Home Message

These results suggest that video game “addiction” is a problem among adolescents, particularly among males, and that addiction is associated with adjustment problems such as school performance and aggressive attitudes and behaviors.

Figure 1. Analysis of Gender within Addiction Categories

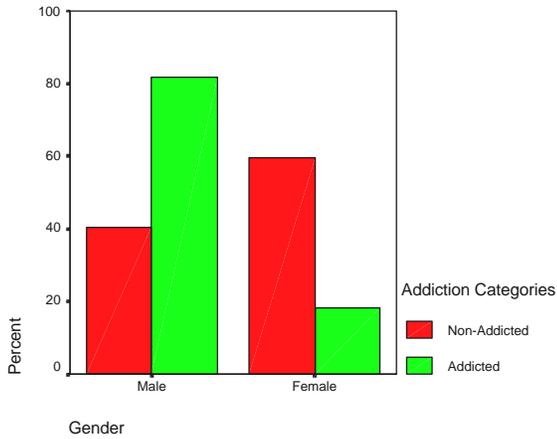


Figure 2. Analysis of Addiction Categories and Self-Report of Fighting

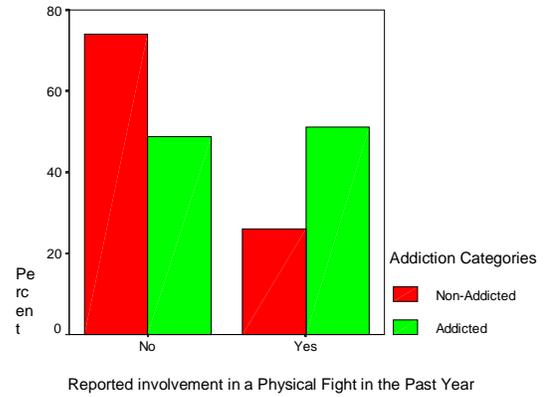


Figure 3. Analysis of Addiction Categories and Reported Arguments with Friends

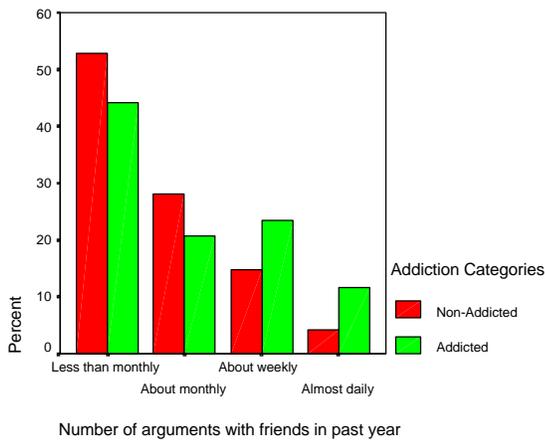


Figure 4. Analysis of Addiction Categories and Reported Arguments with Teachers

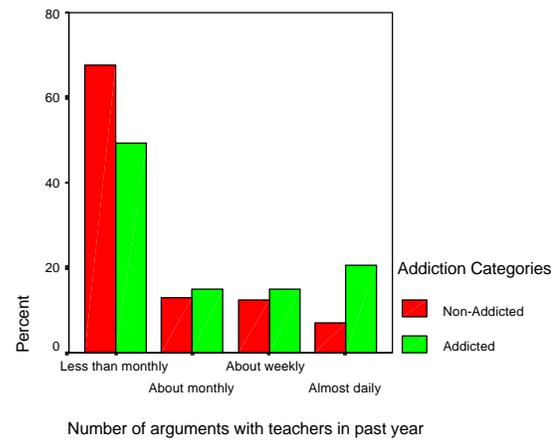


Figure 5. Analysis of Addiction Categories and Self-Report of Average School Grade

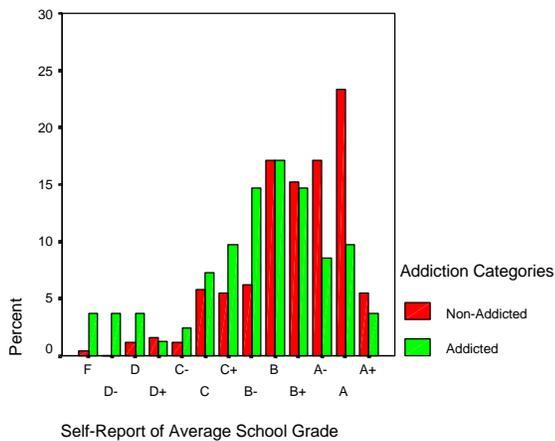


Table 1. Means (and Standard Deviations) of Variables

	Non-addicted group (<i>n</i> = 265)	Addicted group (<i>n</i> = 85)
Weekly amount of play	4.53(5.86) _a	21.65 (18.24) _a
Arguments with teachers	1.59 (.96) _b	2.07 (1.22) _b
Arguments with friends	1.71 (.87) _c	2.03 (1.08) _c
Arguments with parents	2.56 (1.02)	2.81 (1.08)
Hostile attribution bias	.32 (.20) _a	.43 (.26) _a
School grades	9.84 (2.27) _c	8.27 (2.98) _c

Note. Means with different subscripts differ significantly at $p < .01$ in the t-test of independent groups.

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