



H34 Video Game-Associated Deaths in the Tidewater District of Virginia (2015-2017)

Alison Bybee, BS*, Office of the Chief Medical Examiner, Tidewater District, 830 Southampton Avenue, Ste 100, Norfolk, VA 23510; and Wendy M. Gunther, MD, Office of the Chief Medical Examiner, Tidewater District, 830 Southampton Avenue, Ste 100, Norfolk, VA 23510-1046

The goals of this presentation are to examine the types of fatalities, in a medical examiner's system (forensic deaths), in which video games may have played a role and to consider the significance of video games, including distracted attention, in situations resulting in death.

This presentation will impact the forensic science community by examining and classifying deaths, via a medical examiner's system, that reveal a relationship to playing video games. Video game play may be an unrecognized contributor to forensic deaths; this presentation will provide an analysis of the types of cases encountered in one medical examiner's system and supports tracking whether video game play was present when monitoring forensic deaths.

Video games have been anecdotally reported in association with deaths from exhaustion or natural causes.^{1,2} This presentation investigates the types and occurrences of forensic deaths associated with video games in a medical examiner's system in southeastern Virginia.

Nine deaths were identified on initial review. The ages of decedents playing video games when they died ranged from 14 to 48 years, with a mean age of 33.875 years; three of the decedents were teenagers. Two decedents were female; seven were male. Five of the decedents were White, four were Black, and none were Asian or Hispanic. Black race is overrepresented in these video game deaths in comparison to the current population of Virginia, which is 70.0% White, and 19.80% Black. Five of the deaths were witnessed, and four were unwitnessed. Six deaths occurred either while a decedent was playing a video game or the decedent was last seen alive playing a video game and was found dead next to the game. Five of these deaths were eventually determined to have a natural manner; one death was attributed as accidental, having combined natural disease with a methadone and olanzapine overdose. Cardiac factors were significant in five of the six natural deaths, including all of the teenagers (causes of death included dilated cardiomyopathy, anomalous right coronary artery origin, and cardiomegaly). One of the remaining deaths was a witnessed suicide by gunshot that occurred while the decedent was playing a video game; one death was an unwitnessed accidental drowning of a toddler in a backyard swimming pool that occurred while the caretaker was playing a video game.

Representative cases include: a 35-year-old man who developed a myocardial infarction while playing video games; a 14-year-old boy with an unknown history who underwent a witnessed collapse while playing video games and was found at autopsy to have a pituitary stalk/hypothalamic lipoma, as well as cardiomegaly; and a 44-year-old woman with no known history, aside from obesity, who underwent a witnessed collapse while playing video games and was found at autopsy to have unsuspected hypertrophic cardiomyopathy.

Discussion: Video games in relationship to death have not previously been studied in the Virginia medical examiner's system. These cases demonstrate that video games may be associated with sudden collapse from cardiac causes in teenagers and young adults as well as middle-aged people; it is unknown whether the game itself plays a role. Suicide associated with video games has been reported previously in teens; in this study, it occurred only in a 35-year-old man.³ Questions raised by this case series include whether violent video games show any association with suicide, and whether video game addictive behavior is related to caretaker negligence.² These findings suggest that the association with and/or contribution of video games to sudden and unexplained death, particularly in childhood deaths, may need to be tracked for death review.

Reference(s):

1. Byun W., Dowda M., Pate R. Associations between screen-based sedentary behavior and cardiovascular disease risk factors in Korean youth. *Journal Korean Medical Science*. 2012 April; 27 (4): 388-394.
2. Sublette V.A., Mullan B. Consequences of play: A systematic review of the effects of online gaming. *International Journal of Mental Health and Addiction*. 2012 February; 10 (1): 3-23.
3. Messias E., Castro J., Saini A., Usman M., Peeples D. Sadness, suicide, and their association with video game and Internet overuse along teens: Results from the youth risk behavior survey 2007 and 2009. *Suicide and Life-Threatening Behavior*. 2011 June; 41 (3): 307-315.

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