

## Chapter 84

# Relationships Among Violent and Non-Violent Video Games, Anxiety, Self- Esteem, and Aggression in Female and Male Gamers

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### **ABSTRACT**

*This study examines the differences in anxiety, self-esteem, and aggression levels between players of violent and non-violent video game and its connection to gender and age. This survey-based research utilizes survey data from 851 video gamers. The study included 61% men and 39% women. The ages of the participants ranged from 18 to 45. Participants were administered an anonymous survey including demographics, a questionnaire for video game habits, Rosenberg's self-esteem scale, a state anxiety inventory (STAI-S), and the Buss-Perry Aggression Questionnaire (BPAQ). The results revealed significant differences between males and females, as well as between younger and older gamers. Despite the majority of research showing a positive relationship between violent video game exposure and aggression levels, the results suggest that of the preference for a violent video game over a non-violent one is not, in itself, a cause for increased anxiety, self-esteem, and aggression levels.*

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## INTRODUCTION

The effects of violent video games on the aggressive behavior and mental health have been of great concern to researchers and public policy makers for several years. In the present study we explore the psychological correlates and potential consequences of violent video gaming use investigating the impact of age and gender.

Video games have been commercially distributed since the 1970s (Becker & Parker, 2011). Initially, gaming locations were public, usually halls where adolescents and young people spent their time in a social context and would pay to use the arcade machine cabinets. Gradually, gaming locations switched from public to domestic spaces, where the players would use the Internet to play and socialize, with video games becoming more realistic and more engaging (Ferguson & Olson, 2013; Funk, Baldacci, Pasold & Baumgardner, 2004; Granic, Lobel, & Engels, 2014). Nowadays, video games have become an important means of entertainment for young and adult people (Braun et al., 2015), and the impact of such games on society has appealed to many researchers across the world (Tear & Nielsen, 2014).

Past research has mostly focused on the application of video games in different areas, such as education, health, and entertainment, and on their moral and social costs.

In recent years, there has been dispute about the relationship between violent video-game use and aggression in the real world (Bushman & Huesmann, 2014; Elson & Ferguson, 2014). Particularly, the negative effects of exposure to video games and the violent content in some of these games have critically influenced the academic dialog on the topic (Ferguson, 2010). The literature underlines that protracted exposure to violence in video games is associated with low levels of empathy, high desensitization to violence, and enhanced frustration and anger (Anderson et al., 2010). Moreover, some results have demonstrated that gamers who play violent video games show short-term hostile attribution bias, ascribed aggressive intent toward others, and wrongly perceive social interactions as malevolent and intentional (Furlow, 2017; Kirsh, 1998). Other studies have pointed out that violent games are associated with both the internalization (as anxiety, depression) and externalization of problems (as aggressiveness) (Holtz & Appel, 2011). Negative effects have also been observed for all video games, regardless of violent content, such as addictive or excessive gaming that may decrease academic performance, decreased physical activity resulting in obesity, (Berkey et al., 2000; Toker & Baturay, 2016), and psychological problems such as Internet gaming disorder (King & DelFabbro, 2014; Laconi, Pires, & Chabrol, 2017).

Some studies have shown that violent video games may be helpful to their player improving some psychological dimensions. For example, in a study conducted by Ferguson and Rueda (2010), the results underlined that those who play violent video games on average had lower hostility and lower levels of depression. Another study contended that exposure to violence in video games is related to increased prosocial behavior (Ferguson & Garza, 2011).

In a meta-analytic study, Ferguson (2007) showed that these positive effects have often been unnoticed because of the stigma and bias against violence in video games. In fact, violent video games may help children and young adults master fear and experience being afraid, helping young people improve their ability to negotiate rules, experiment, and identify latent leadership skills, along with testing the limits of tolerable social behavior (Barnett & Coulson, 2010; Olson, 2010; Yee, 2006).

In clinical settings, some video games have been used to help treat severe diseases: for example, the violent first-person shooter game, *Re-Mission*, has been shown to improve cancer treatment adherence, self-efficacy, and knowledge in young people (Kato, Cole, Bradlyn, & Pollock, 2008), while the game *SnowWorld* reportedly helps people suffering from burn trauma manage the pain (Kato, 2010). Video

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