Video Game Nightmare Protection: An Experimental Enquiry
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Introduction

Previous research has shown that video gamer’s dreams are often associated with less threatening content and that they do not consider such dreams to be nightmares. It is likely that gamers who play combat centric action type video games, practice quick reactions that allow them to develop defensive maneuvers, so that when the gamer experiences a chase type threat in a dream, the most common nightmare scenario, it is empowering instead of intimidating.

One early research study was done using military personnel and found gamers better able to more effectively respond to threats in their dreams than their cohorts who rarely game when compared to former predictors of nightmares, emotional reactivity and history of trauma (Gackenbach, Ellerman & Hall, 2011). The nightmare protection element of gaming was confirmed in the most recent replication using first responders, where it was shown that males that engage in a high amount of gaming and preferred to play high action games, such as first person shooters, perceived much less threat in their dreams (Gackenbach & Flockhart, 2013). It should be noted that in one replication with students, the findings did not generalize to female gamers (Gackenbach et al., 2013).

Because all the previous work was done using correlational techniques, in the current study this thesis was examined using an experimental manipulation. It was expected that video game play would protect against nightmare imagery resulting from a high fear producing film clip relative to a neutral computer search task when nightmare prediction variables are controlled in males.

Methods

This study was conducted in the computer science play testing lab at a western Canadian University. Three computer stations were set up where participants engaged in the tasks. Participants were prescreened for gaming history (high and low), sex (male) and dream recall (high). The first survey that the participants filled out was a brief demographic questionnaire followed by a shorter version of Gackenbach and Rossie’s (2009) video game play history questionnaire.

The third survey was an emotional reactivity and numbering scale (Orsillo, Theodore-Okolta, Luterek, & Plumb, 2007). The fourth survey was a shorter version of the Trauma History Inventory (Eng, Kuken, Temme, & Sharma, 2005). Following the surveys the participants were forwarded into one of two conditions, watch a movie or engage in one of three computer activities; play a combat centric video game (Farcry), play a creative video game (Minecraft), or engage in a computer search. Everyone did one computer activity and saw the film clip. This was done in counterbalanced order.

The dream reports were content analyzed using Revenso and Vafi’s threat simulation method and a group x condition ANCOVA with previous nightmares, emotional reactivity, drama, time since dream, and dreamed the day before the dream as covariates was computed. There was a significant interaction, shown above, for threat simulation (ranging from no threat to objective threat). There was no difference in dream threat for the high end gamers but more threat for the low end gamers under the gaming conditions. Thus for those who do not game much, gaming relative to viewing a stressful film seemed to make their dreams worse.

The same ANCOVA’s with the same covariates were computed for the three self-reported negative emotions; fear, terror and anxiety. The results show significant interactions for fear and terror. The graph below shows that the intensity of fear reported in dreams which was also the same for terror. In high end gamers in the game condition we see the nightmare protection effect, while the same reverse effect is seen in the low end gamers. That is, the exposure to a stressful film when associated with any video game play increased the self reported fear/terror in their subsequent dreams relative to performing a search task associated with the stressful film session.

Discussion

This study primarily aim was to help us better understand the nightmare protection effect by using an experimental manipulation. We decided to use only males in order to limit the questions raised concerning the effect on females. Interestingly we ended up creating more questions for future studies.

This study did confirm for us the nightmare protection effect among high end male gamers playing video games, while also seeing an inverse reaction from the low end gamer participants. The question from this study is why did gaming result in an inflation of nightmares in two gamers? It could be that the combat centric game was frightening itself and thus added to the fear associated with the film. More research participants will allow us to separate the combat centric condition from the creative game condition and should answer this question.

Participant loss due to the lack of dream reports was the major limitation. Although selected as self reported high dream recall’s, it may have been that credit award issues interfered with their post lab session dream reporting.

References


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