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VIOLENT VIDEOGAME SCREEN TIME OF CHILDREN: ASSESSING PARENTAL AWARENESS, EFFECTS OBSERVATION AND EXPOSURE MODERATION IN AWKA URBAN, NIGERIA

By

Charles Chukwuemeka Okika
Department of Mass Communication,
Nnamdi Azikiwe University, Awka,
Anambra State, Nigeria
Tel: +2348036358647
cc.okika@unizik.edu.ng

Gabriella Izuchukwu Nwakasi
Department of Mass Communication,
Nnamdi Azikiwe University, Awka,
Anambra State, Nigeria
Tel: +2348176288440
gabbynwakasi@gmail.com

ABSTRACT

The science on which the harmfulness of violent videogames to children is founded on is widely controversial, inconsistent and disputed among scholars and researchers. This study assessed parents' awareness of violent videogame screentime of children, their observation of effects as well as moderation of exposure in Awka urban, a state capital city in South-East Nigeria. This study intended the following; To ascertain parents' awareness of violent videogame screentime of their children, to find out from parents the effects of these violent videogame screen time observable in their children, to know if parents moderated their children's violent videogame screentime, to ascertain the effectiveness of measures adopted by parents to moderate the violent videogame screentime of their children. A survey of 400 parents in Awka urban whose children played violent videogames was conducted. Findings from the research showed that a less than a third of parents studied were aware of the violent video game screentime of their children while just a few parents observed certain effects of the violent gameplay on their children such as hostility and aggressiveness, insensivity to violence, use of violent gestures, use of profanity and swearing, mimicking of violent speech, hate catch phrases by game characters, poor academic performance as well as mimicking weapon sound effects. Results also showed that there was poor parental moderation of violent videogame screentime of children as well as checking videogame age ratings before play. The study also revealed that the violence exposure moderation measures adopted by these parents were usually effective in diminishing effects if sustained for longer periods. The study recommended long-term sensitization of parents on reading videogame disc pack age ratings and game reviews before purchase for children, mimimizing gameplay time and game developers incorporating in-game content filters in user interface.

Keywords: Video games; screentime violence; parental awareness; exposure moderation; effects observation;

INTRODUCTION

For decades videogame consoles and videogame software have become a must have for today's children and has come a long way to become the choicest toys or home gadgets to possess. However multiple researches have established a relationship between consumption of violence from video game screens and exhibition of violent traits such as increased aggressive thoughts, angry feelings, physiological arousal, aggressive behaviors and decreased helpful behaviors etc in children and young adults (Carnagey, Anderson & Bushman, 2007), while some other studies have discredited claims of a relationship between violent games and aggressive behaviour (Ferguson and Rueda, 2010).

Some of these studies have not ascertained the extent to which parents are aware of the violence in video games and why they allow their children such exposure. Violent video games have been blamed for harming ethical development in children especially if they stimulate in them sadistic fantasies like getting elated from observing other persons undergo inflicted suffering while they are unaffected by this suffering. Thus, the level of parents' awareness of the violent video game screentime of their kids, observation of effects of violent video game screentime on their kids and the moderation of exposure by parents forms the focus of this study.

BACKGROUND OF STUDY

In today's technologically fast-paced world, children spend a considerable mount of their time accessing and harvesting diferent types of data from different screen media eg. Television, home video, cinema films, computer games and the web (Okika & Agbasi, 2015). Averagely, children spend over 30 hours of a week consuming television content, listening to music, playing video games and even browsing the internet and most of the contents that they are exposed to are mostly unknown to their parents (Ahinda, Murundu, Okwara, Odongo, Okutoyi, 2014). Electronic games have become so common and easily accessible to gamers especially because of the evolution of mobile gaming tablets and smartphones unlike before where one required a video game console like the

PlayStation, Xbox or Nintendo to play video games, nevertheless some of these expensive consoles can now be acquired as preowned or retro at much affordable prices and game software can now be downloaded from video game sites. Many studies have shown that most video games have been found to include 89% violent contents and most users identify more with these violent video games than any other genre such as puzzles or other educational games (Dworak, Schierl, Bruns, Strüder, 2007).

Over the years children and young adults have become fans and addicts of violent video games, finding them more appealing and enjoyable. As such, videogames franchises such as Call of Duty, Grand Theft Auto, Assassin's Creed, Hitman, Gears of War, Halo, God of War, Manhunt, Uncharted, Battlefield, Far Cry, Resident Evil, Dark Souls, Doom and Mortal Kombat and among many others have become billion dollar hits because they are perceived as being more action packed. According to Engelhardt (2011) young children who have excessive violet video games screen time than any other form of media may become more accustomed to violent behaviour while their brains are still under development. Constant consumpton of violent video games according to various studies negatively affects children by way of anger, hostility, aggressive and in some cases, evolve to become physically violent (Ferguson, 2011).

The American Academy of Paediatrics (2016) warned that the violent media scandalized children and young adults and recommended that video game developers refrained from the use of human or other living targets or reward points for in-play murder, as this stimulates children and young adults to associate pleasure and success with the ability to cause pain and suffering to others. Children in elementary or pre-secondary schools are likely to be impacted by these video games. Those who try to identify with their protagonist in these games may become aggressive in reality especially when they are unable to stop their fantasies about their heroic themes (Carnagey & Anderson, 2005).

Multiple crime reports have cast a dark cloud on violent video games. In 1999, Eric Harris and Dylan Klebold killed 12 students and a teacher of Columbine high

school Colorado, United States as well as wounded 23 others before shooting themselves (Ferguson, 2008). They were known to be *Doom* gamers, a science-fiction and horror, first person shooter videogame licensed by the United States military to train military personnel to kill. Eric and Dylan created a video of a customized version, in which they wore trenchcoats, were armed with guns and murdered school athletes (Anderson & Dill, 2000). In 2016 in Germany, an 18 year old German-Iranian gunman who shot and killed 9 people was a fan of violent videogames especially *Counter Strike: Source* according to reports (CBNC, 2016). On January 19 2013, in South Valley New Mexico, 15 year old Nehemiah Griego killed his parents and three siblings. Police reports said Nehemiah wore camouflage clothes and despite his father's restriction of violent media, found ways to play violent video games like Call of Duty: Modern Warfare and Grand Theft Auto (The Albuquerque Journal, January, 2013).

In 2011, 33-year-old Anders Behring Breivik, a Norwegian extremist was convicted of the murder of 77 people in a bomb and firearm rampage. His attacks were considered the most violent outrage since the Second World War. Despite the pile of bodies left in his wake, Breivik was convicted of terrorism in 2012 and sentenced to 21 years in prison. In court, Breivik discussed his use of holographic sights of weapons in *Call of Duty: Modern Warfare* for aiming and shooting training (The Guardian April, 2012).

There have been other killings linked to violent video games and numerous studies have associated violent behaviour to consumption of violence in video games. Recent studies from Ohio State University have shown that violent video gamers may come to perceive the real world as a hostile and violent place. Bushman (2016) added that gamers perceiving the world as violent could have a cumulative effect in making them more aggressive and violent over the long term as well as over the short term. Gabbiadini, Riva, Andrighetto, Volpato, & Bushman (2016) in a study suggested how sexist games e.g Grand Theft Auto series and God of War series may reduce male empathy towards women.

Children who had extended violent video games screentime in a week have been noted to show higher levels of aggressiveness and violence compared to children who spent less time playing violent video games (Gentile, Swing, Lim, & Khoo, 2012). It is essential to understand the stand of parents on the impact these video game contents have on their children. Although some studies have showed that some parents use video games as a parenting mechanism in recent times, few studies have shown that parents use violent video games for the same purpose. How informed parents are of their children's violent videogames screentime and how they moderate this exposure which could have some critical effects forms the basis for this study.

PRESENT PROBLEM

For decades, major videogame console manufacturers such as Sony, Microsoft and Nintendo as well as hundreds of game developers and publishers have engaged in aggressive multiplatform marketing of their hit videogame consoles and franchises especially to children and young adults for whom videogames have become an indispensable form of entertainment. According to Newzoo's 2016 games market report, Microsoft and Sony generated more than $14 billion in combined revenues from first party games, third party game fees, and subscription revenues in 2016 (Newzoo, 2016).

The total sales revenue from console games, pc games, mobile games and virtual reality games in the same year was $99.6 billion (Newzoo, 2016). First and third-person action-adventure shooters, role playing, fighting, slasher, multiplayer and survival horror games spiced with graphic violence, gore, profanity and pornography have become the standard for the videogame industry. According to the Entertainment Software Association (ESA) the best selling videogame supergenre of 2016 was Shooters at 27.5% followed by Action games at 22.5%, Role-playing games was at 12.9%, 7.8% was adventure games and 5.8% was fighting games (ESA 2016 Sales, Demographic and Usage Data and Shack News, 2016).

Children are usually at a very active development stage and are open to absorb information or messages from anywhere and anything which sometimes could affect their attitudes, beliefs and ideas about the world in general. The amount of screentime devoted by children and young adults to playing videogames has made it a formidable and significant source of information, entertainment, networking and attitude change. This has more than ever necessitated conformity to the American Academy of Pediatrics (AAP) guidelines or recommendation of two hours or less of screen time per day for children.

Unique factors in Nigeria such as the accessability and affordability of preowned videogame consoles and software, the proliferation of illegally downloaded and pirated videogames software from China, Brazil, Mexico and Russia (Entertainment Software Association, 2016) as well as wide spread hacking and re-engineering of videogame consoles (Business Software Alliance, 2011) has increased the likelihood of extended videogame screen time exposure. This trend signals time away from constructive activities and wasted on the videogame screen with possibilty of breeding violence, aggression and addiction.

Currently, there is a gap of knowledge on Nigerian parents' awareness of the violent videogame screentime of their children, effects of violent videogame screentime observable in their children as well as their moderation of the exposure (Kutner, Olson, Warner & Hertzog, 2008).

Most studies in this area reveal parents are more concerned about the censorship of television and the home video content, especially how broadcast violence and pornography could harm their children (Kutner, Olson, Warner & Hertzog, 2008) often showing little interest to video game realism, content rating and how often their children play these games often associating them with toys and harmless playthings that help keep their children preoccupied with no effect and sometimes fail to see that some of the aggressive behaviours that their children exhibit may be according to some scholars linked to the violence that they are exposed to on their video games.

For decades there has been a gradual rise in videogame style violent crimes in Nigeria among children and young adult circles in primary and secondary schools despite more efforts to imbibe cultural and religious values in school curricula (Dailytrust, June 2016; Vanguard, September 2016). Could this worrying trend be linked with parents lack of awareness of the violent videogame screen time of their children, lack of observation of effects of violent videogame screen time and consequent lack of moderation of exposure to violent videogame screens? Or could other factors be at play here?

PURPOSE OF THE STUDY

The purpose of this study was to investigate parent's awareness of their children's violent video game screentime, the effects of this screentime they observe in their children as well as the measures adopted by these parents in Awka urban, to moderate their children's violent video game screentime. This research sought answers to the following questions:

1. Are parents aware of the violent videogame screentime of their children in Awka Urban?

2. What effects of these violent videogame screentime do parents observe in their childen in Awka Urban?

3. Do parents moderate their children's violent videogame screentime in Awka Urban?

4. How effective are measures adopted by parents to moderate the violent videogame screentime of their children in Awka Urban?

VIDEO GAMES: AN OVERVIEW OF A NEW MEDIUM

Video games are electronic, interactive entertainment systems (Crawford,2003) that enable play or interaction with a user interface to generate visual feedback on a display device such as a TV screen or computer monitor (Esposito, 2005). It usually consists of a dedicated hardware known as a console capable of showcasing animation, lighting, colors, visual effects, sound effects, 3D graphics

etc (Russell, 2004)). The first commercial video game was *Computer Space* released in 1971. However, it was not until the 1970s and 1980s that video games became mainstream and accessible to the public along with arcade games, consoles, joysticks, gamepads and other game controllers as well as displays (Kent, 2001; Kline, Dyer-Witheford and De Peuter, 2003). Video games are played with the use of audiovisual devices.

According to Zimmerman (2004) a game is a voluntary interactive activity, in which one or more participants adhere to instructions that limit their behavior, enacting an artificial conflict that culminates in a quantifiable result. Video in video game referred to a raster display device, but in the twenty-first century, it implied any type of display device that can render two dimensional or three dimensional graphics. Personal computers and virtul reality headsets are also used for virtual games. Sound effects, music and voice actor dialogue produced from loudspeakers or headphones are important elements of gameplay experience. Video game software are developed for specific platforms known as consoles; these are electronic systems used to play video games software the most popular examples are Sony's Playstation, Microsoft's Xbox and Nintendo's Wii U and Switch. Specialized video games such as arcade games, in which the video game components are housed in a large complex, are typically coin-operated. A video game can be based on a story, a real event, a book, historical accounts, toys or films (Juul, 2001). Video games now generally consist of any game software played on consoles with gamepads that incorporates an element of interactivity and outputs the results of the player's actions on display.

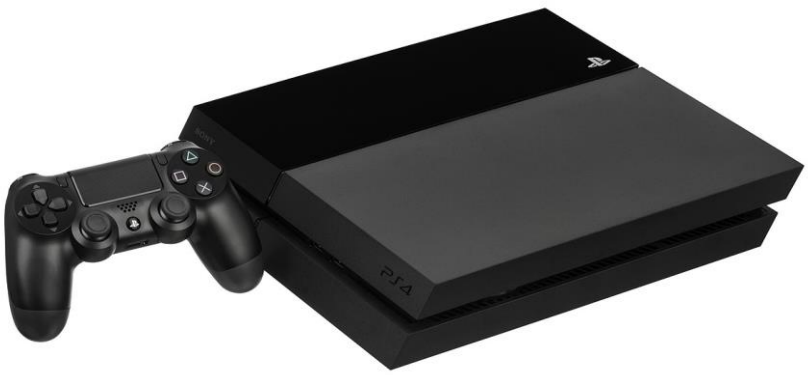

Figure 1: Sony's Playstation 4 videogame console and game controller

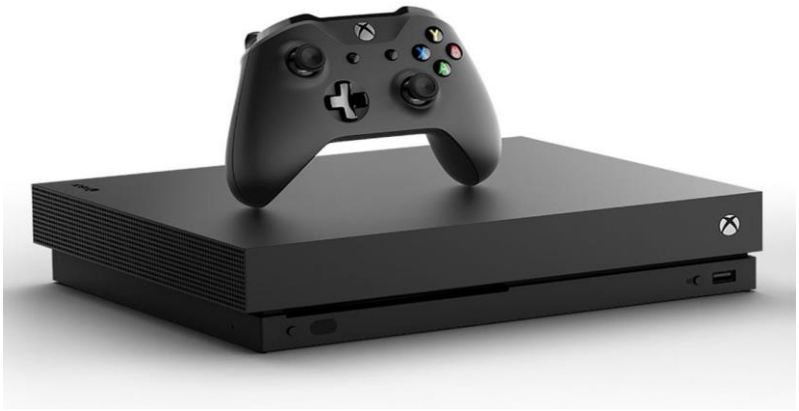

Figure 2: Microsoft's Xbox One Videogame console and game controller

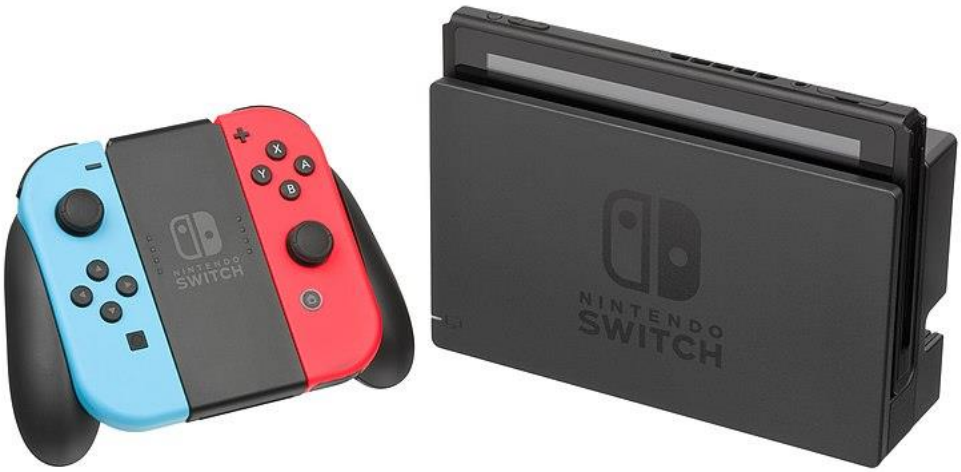

Figure 3: Nintendo's Switch Videogame console and controller

According to Adaja and Ayodele (2013) the new media is a collective name for different forms of electronic communication techniologies enabled by breakthroughs in computing that has facilitated the emergence of different platforms for human social interaction. The new media has endless possibilities for communication, networking, data sharing and exchanges and also interfacing. New media has reduced the globe into a village for easier social relationships (Croteau & Hoynes, 2003).

Videogames enable the transfer loads of electronic data such as graphics, audio, video and in some cases tactile feedback, its workflow makes it a remarkable medium. Video games, television, radio, music etc. among many other things serve as a form of escapism from reality (Diamond, 2010) or sports for audiences. Videogame consumers interact with games and analyse data by observing what it renders to the game display or screen. The game engine sometimes supported by artificial intelligence can make distinctions against particular actions thereby allowing gamers to decipher that an action executed can result in desired outcomes (Kline et al, 2003). Videogames though with communication capacity are often overlooked as a media type because it is not a part of the news media.

VIOLENCE IN VIDEOGAMES

The global acclaim of video games has been tainted with the controversy they have generated among parents, psychologists, and educators. The most prevalent criticism emanates from the portrayal of violent acts, sexual content and controversial characters that dominate most video games and the amount of time gamers spend on videogame screens (American College of Pediatricians, 2016).

Violent videogames depict violence, injury, blood, human and nonhuman fatalities, the use of weapons to injure or kill characters or destroy objects for rewards or as a prerequisite to progress in the game (Haninger, Ryan and Thompson, 2004). These depictions are in the form of pre-rendered in-game cinematics or cutscenes and as playable actions or interactions executable by the gamer with a game controller (Gentile and Stone, 2005). These game violence in more detail usually include; shooting to kill game characters with firearms (Barlett, Harris and Baldassaro, 2007), stabbing and slashing game characters with sharp weapons, strangling, maiming and dismemberment of game characters, vehicular kill and any other in-game interaction that can result in death to human and non-human characters or the player, bleeding or loss of bodily fliud of game characters.

Violent video games have been suggested to be more influencing than broadcast and cinema violence as well as home video violence whose effects have been researched for decades (Roberts, Foehr, & Rideout, 2005). The highest grossing videogame titles are laden with pre-rendered and gameplay violence that studies suggest may cultivate violent behaviors (Rideout, Foehr, & Roberts, 2010). Two teenagers in Tennessee who shot at passing cars and killed one driver told the police that they got the idea from playing the popular sandbox crime game *Grand Theft Auto III*. *Mortal Kombat*, a *beat em up* game developed by *Midway games* in 1993 become the first video game to feature lifelike realistic violence, gore and blood.

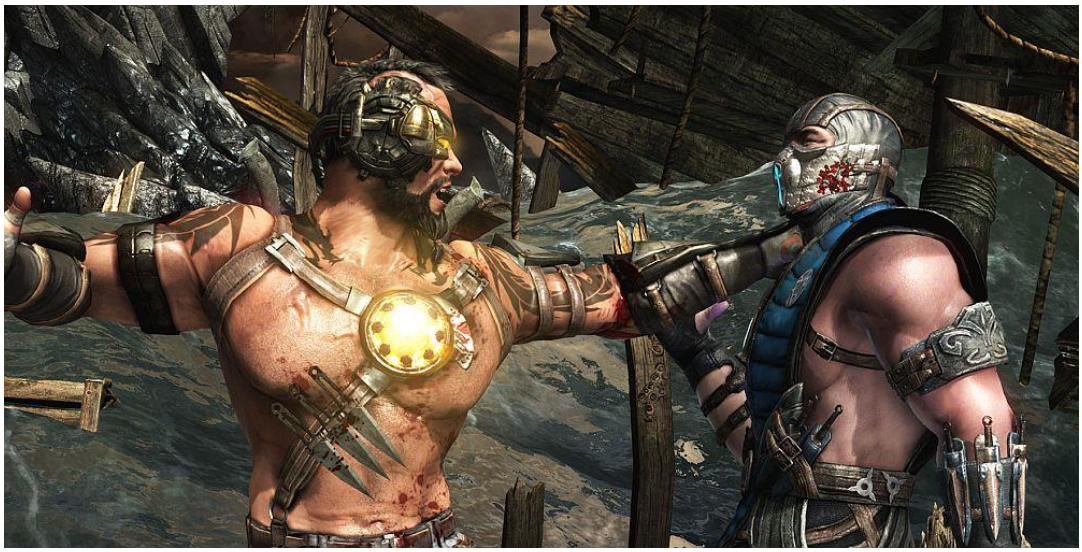

Figure 4. Screenshot from *Mortal Kombat* Gameplay

Extensive exposure to violent media represents a significant risk to the health of children and adolescents (American College of Pediatricians, 2016).A 1989 study by the National Coalition on Television Violence (NCTV) found that, of the 95 most popular video games, 58 percent were war games and 83 percent featured violent themes examples of such games franchises were *God of War*, *Grand Theft Auto*, *Resident Evil*, *Hatred, Call of Duty, Mortal Kombat, Postal 2*, *For Honor, Friday the 13th, Resident Evil 3: Nemesis, The Witcher 3: Wild Hunt etc.*

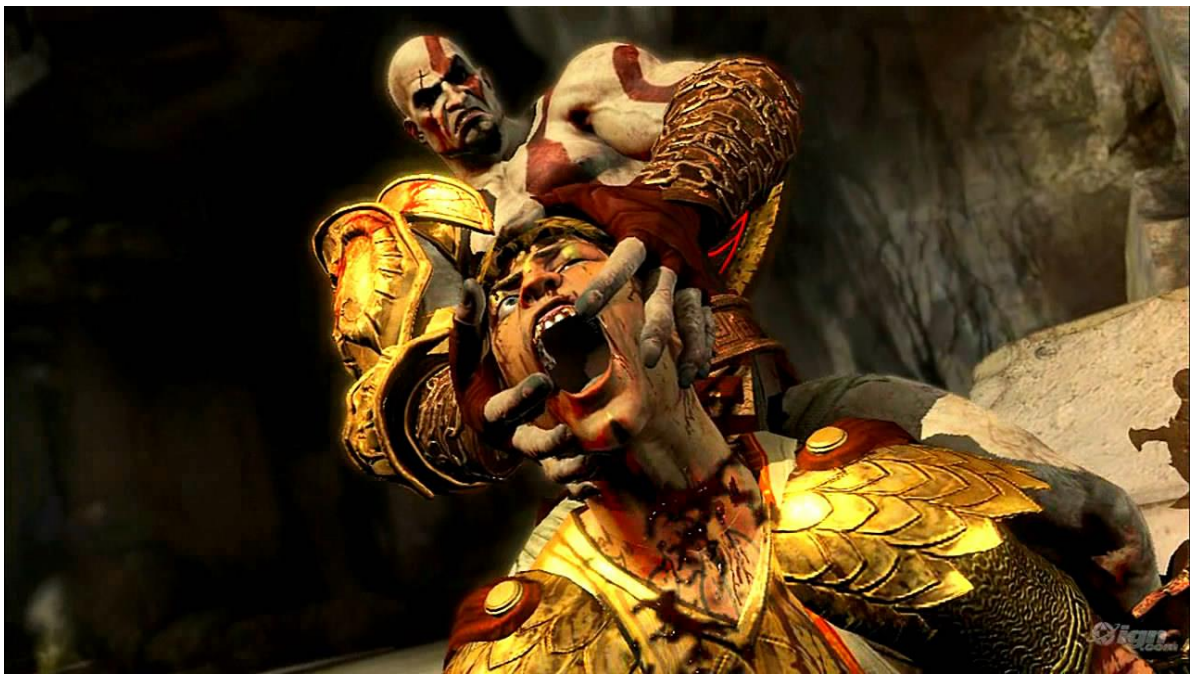

Figure 5. Screenshot from *God of War 3* Gameplay

Figure 6. Screenshot from *Call of Duty Mordern Warfare 2*; No Russian level Gameplay.

Figure 7: Screenshot of *Hatred* Gameplay.

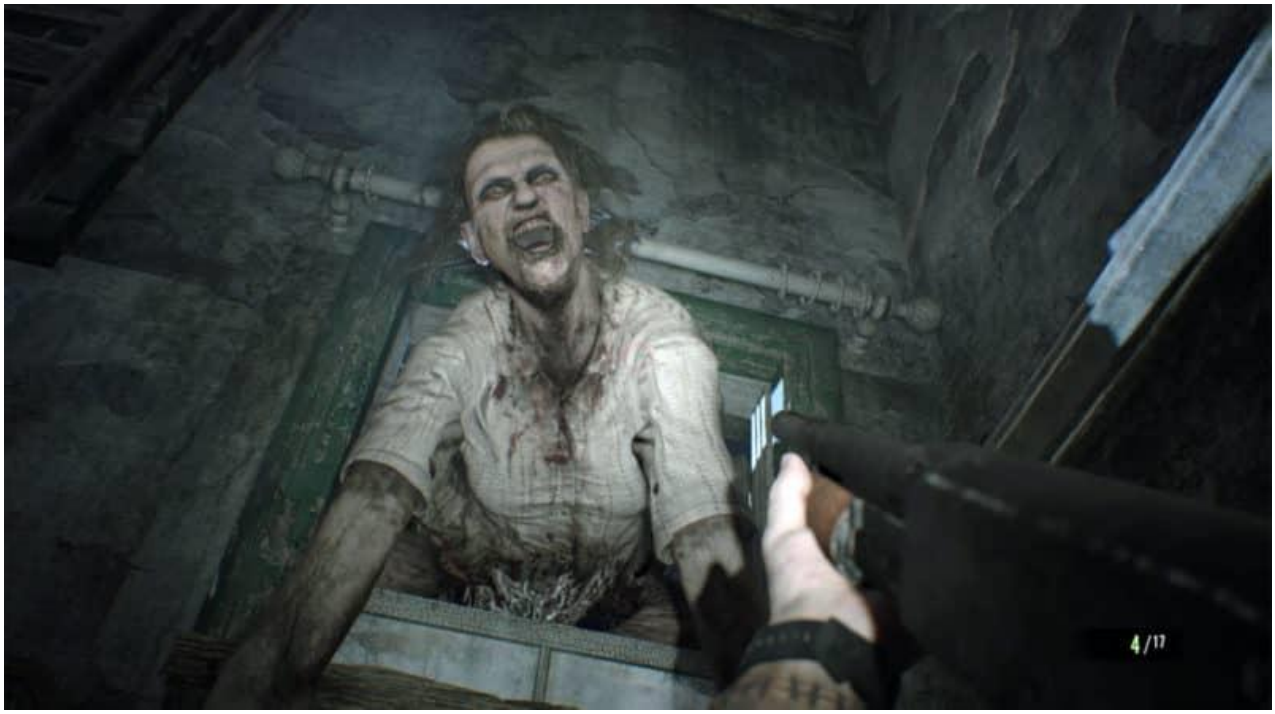

Figure 8. Screenshot from *Resident Evil 7: Biohazard* Gameplay

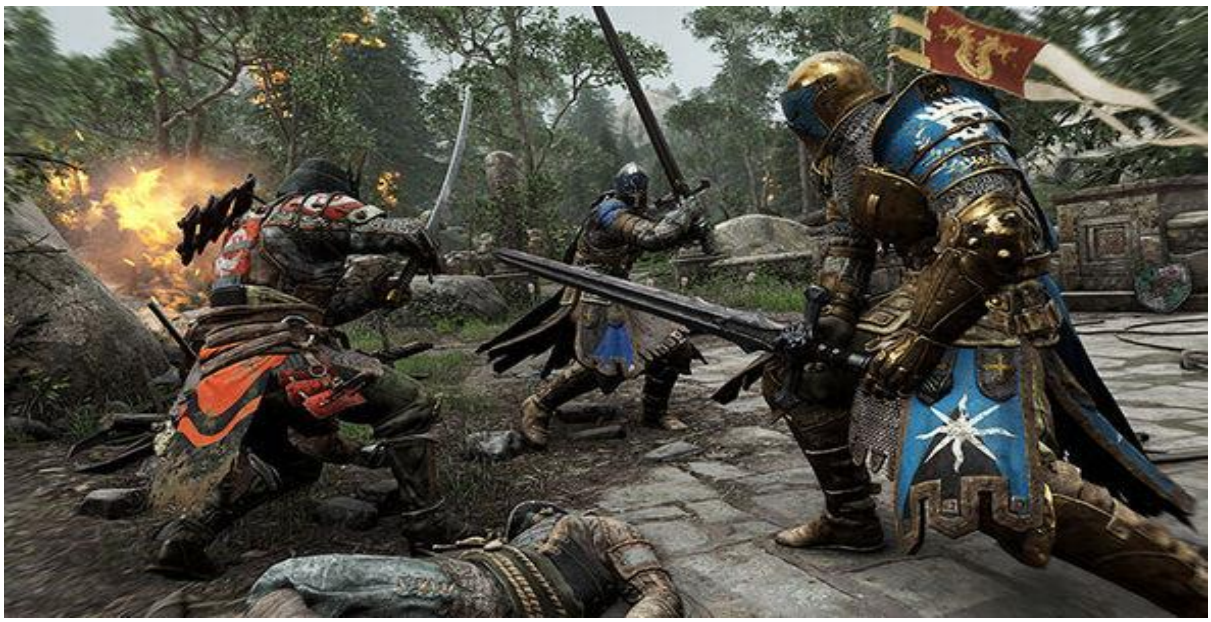

Figure 9. Screenshot from *For Honor* gameplay

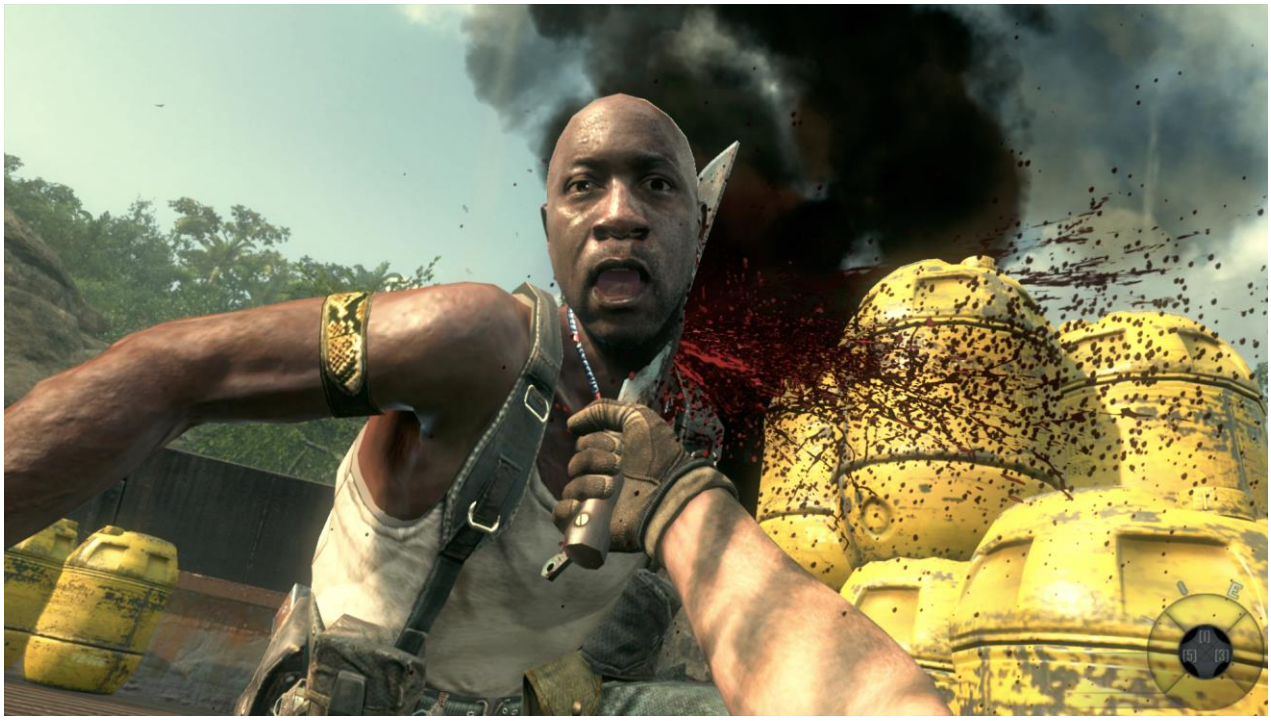

Figure 10. Screenshot from *Far Cry 3* Gameplay

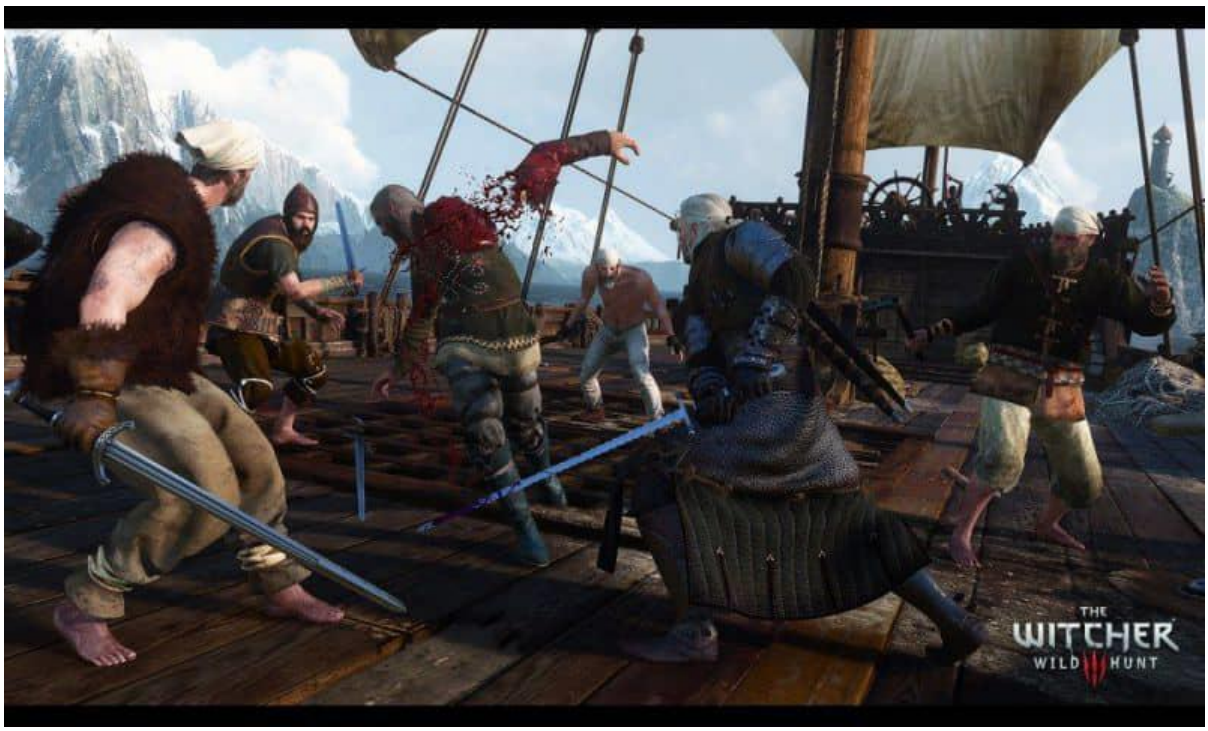

Figure 11. Screenshot from *The Witcher 3: Wild Hunt* Gameplay

According to Hastings, Karas, Winsler, Way, Madigan, Tyler (2009) the rise of video games and issues surrounding it has inspired multiple studies focused on video gaming. Statistics harvested by PC data (2000) showed the video gaming industry was now worth billions of pounds with retail sales revenue of almost $7.4 billion in 1999. According to NPD Group in 2016 the total videogame hardware (console and accessories) sales was $3.7 billion (Shack News, 2016). The massive videogame success could be attributed to broadband internet which made downloads and online multiplayer play of popular franchises easier thereby grossing over $29 billion in videogame business in 2005 (Wong, 2006).

A worrying issue besides gameplay is in-game violence. Funk (2005) reported that most of the videogames played by first to third grade children contained violence which its exposure may lead to problematic mental health outcomes such as anger and agression (Vessey and Lee, 2000; Blake & Hamrin, 2007). According to Anderson (2004) many violent crimes have been associated with the influence of violent video game screens. It is easily observable that the video

game industry thrives on the sell of gratutious violence and sex. Game developers and publishers have acquired efficient tools needed to improve graphics, gameplay and immersive user experience of video games, whether it is characters in the game, environments, facial expressions, animation, motion capture, effects etc.

In a competitive industry, video game software developers and console manufacturers aim to get the most feedback from gamers and one approach to acheive this is to develop photorealistic graphics and game engines for games capable of rendering game resolutions ranging from High definition 1080p to 4k, this offers gamers an immersive experience into virtual worlds, giving them a realistic feel to the touch. Explicitly violent video games have evolved and become more sophisticated and immersive over the decades.

First person shooters, sand box and open world games have attracted millions of gamers globally because of the level of immersion they offer. Gamers get to become a virtual character eg hero or villian, interact with and learn about the virtual world. Game worlds which are fantasies do not apply the same principles of reality especially with consequences and outcomes of breaking federal or state laws or even becoming a felon in reality.

Gamers indulge in violent video games for virtual escapism (Zimmerman and Bell, 2010). However, sometimes gamers develop passive aggression, which is explained as an indirect expression of hostility towards anyone or anything (Ryan, 2010).

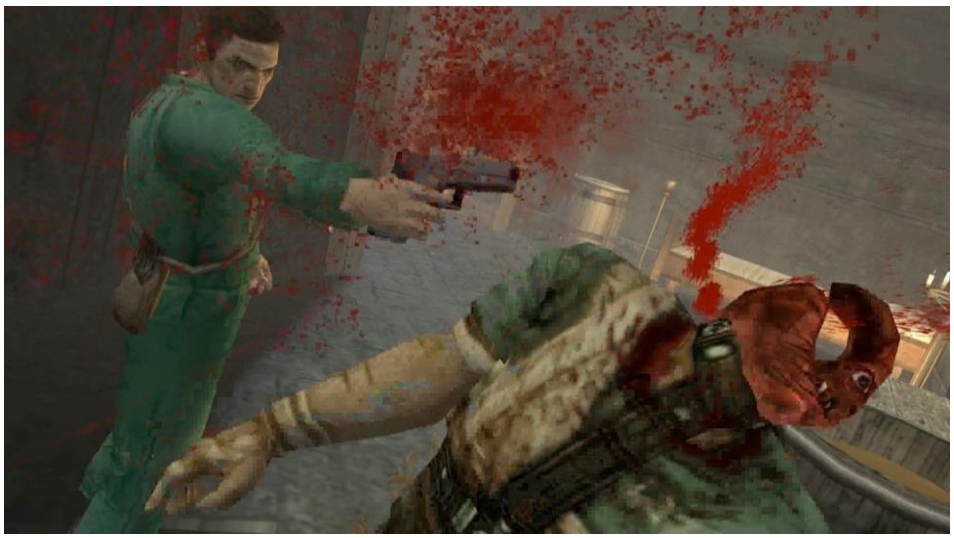

Figure 12. Screenshot from *Manhunt 2* for Sony's Playstation 2 Console.

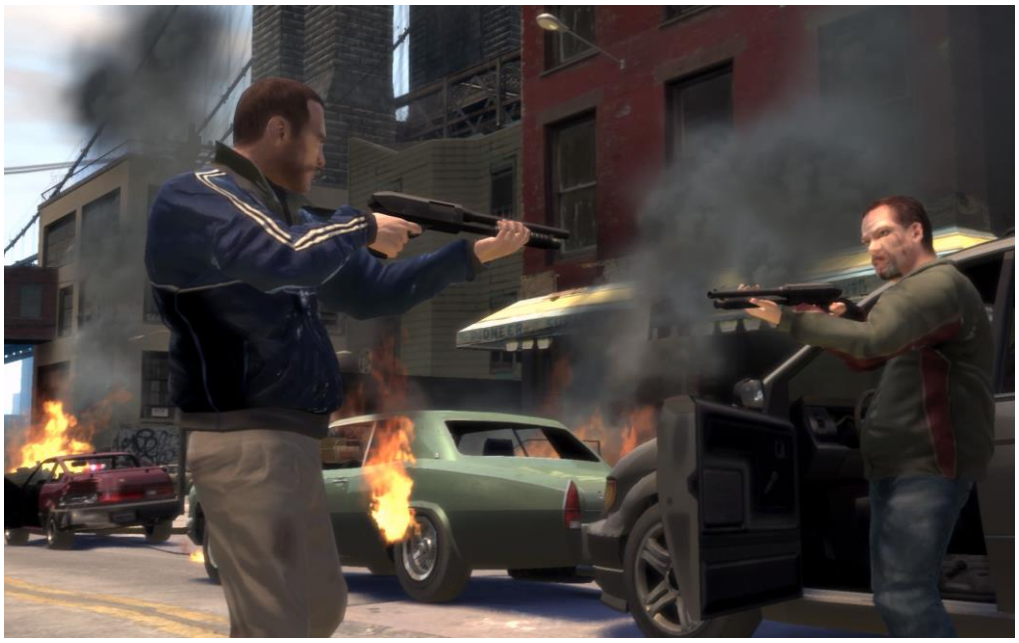

Figure 13. Screenshot from *Gran Theft Auto IV* Gameplay

Violent video games characters virtually portray human emotions of anger, hatred and can be considered to be a very realistic influence often having negative consequences. A question most researchers ask is how does an individual come to be influenced by something that isn't real? It would be logical to assume children could become passively aggressive from playing violent video game (Ryan, 2010).

Multiple researches on violent video games and behavior concluded that violent video games lead to increased passive aggressive behavior in people (Federman, 1998). Surveys have discovered that prologed violent videogame screentime will result in exhibiting passive aggressive attitude which are worrisome to parents.

Parents and guardians are just but a few of those that are concerned about their aggressive children. The seriousness of aggressive attitudes has gone to an extent that policy makers argue over the disciplines of children who play violent video games with blood. According to Ryan, (2010), violence varies from aggression. Passive aggressive behavior is often confused with violent behavior and as such parents and guardians become worried over whether their children could be influenced to become violent or criminal in their future. In a nutshell, children are not strictly violent, but can be influenced to become more hostile and physiologically aroused due to the prerendered and gameplay violent imagery.(Bartlett, Harris and Bruey, 2008)

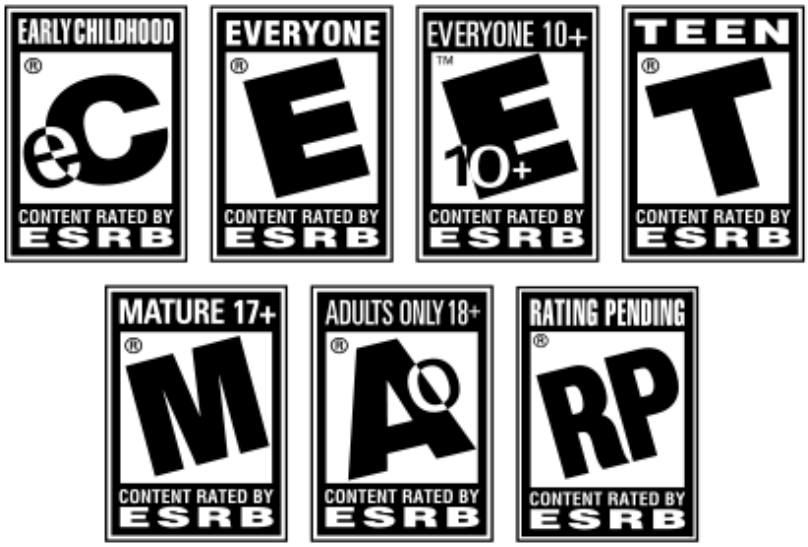

Figure 14; Videogame content rating label of the Entertainment Content Rating Board

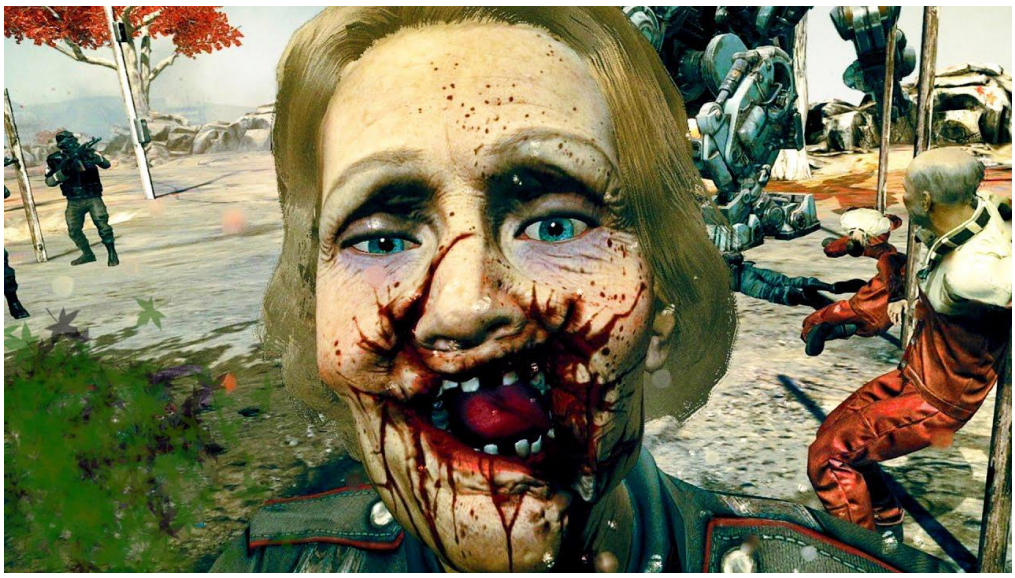

Figure 15. Screenshot from *Wolfenstein: The New Order* Gameplay.

Video game age ratings and parental advisory labels do not fully sensitize parents of their total content so many parents tend to be easily persuaded by their children's requests for videogame titles. A study by Parents Television Council showed that 19% of 109 game retailers still sold M-rated video games to children (Parents Television Council, 2010). Moderating video game screen time and ensuring children dont play games not rated for them are other helpful measures in curbing the effect violent video games could have on children. Videogame developers and dealers perceive themselves as without blame with regards to children playing inappropriate video games and have successfully waged legal battles across many courts in the United States according to Parents Television Council. Focusing on videogame violence has not been helpful with legal and public policy (Elson and Ferguson, 2013).

EFFECT OF VIOLENT VIDEOGAME SCREENTIME ON GAMEPLAYERS

For decades researchers have disagreed on the link between violent behavior and violent gameplay with several studies not arriving at any consensus. However researchers like Carlsson and von Feilitzen (2006); Ferguson (2013); Elson and Ferguson (2013) etc have warned about the possible negative effects of violent video games on children. Anderson & Dill, (2000); Anderson (2004) &

Bushman(2013) even described mass shooters as perverse people who played violent video games; a good example being *Adam Lanza,* a 20-year-old violent video game fan (Call of Duty, Grand Theft Auto, Left for Dead, Dead Rising, Vice City ,Doom and School Shooting video games were found in his bedroom)who shot and killed twenty young children and six faculty staff at the Sandy Hook Elementary in Connecticut, United States on December 14, 2012 (The Guardian, 2013).

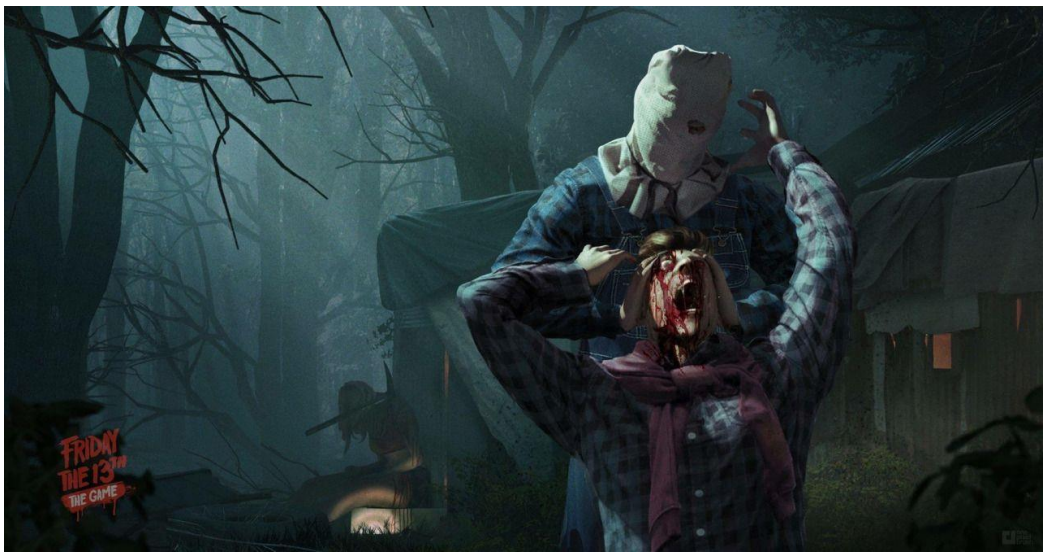

Figure 15. Screenshot from *Friday the 13th* Gameplay

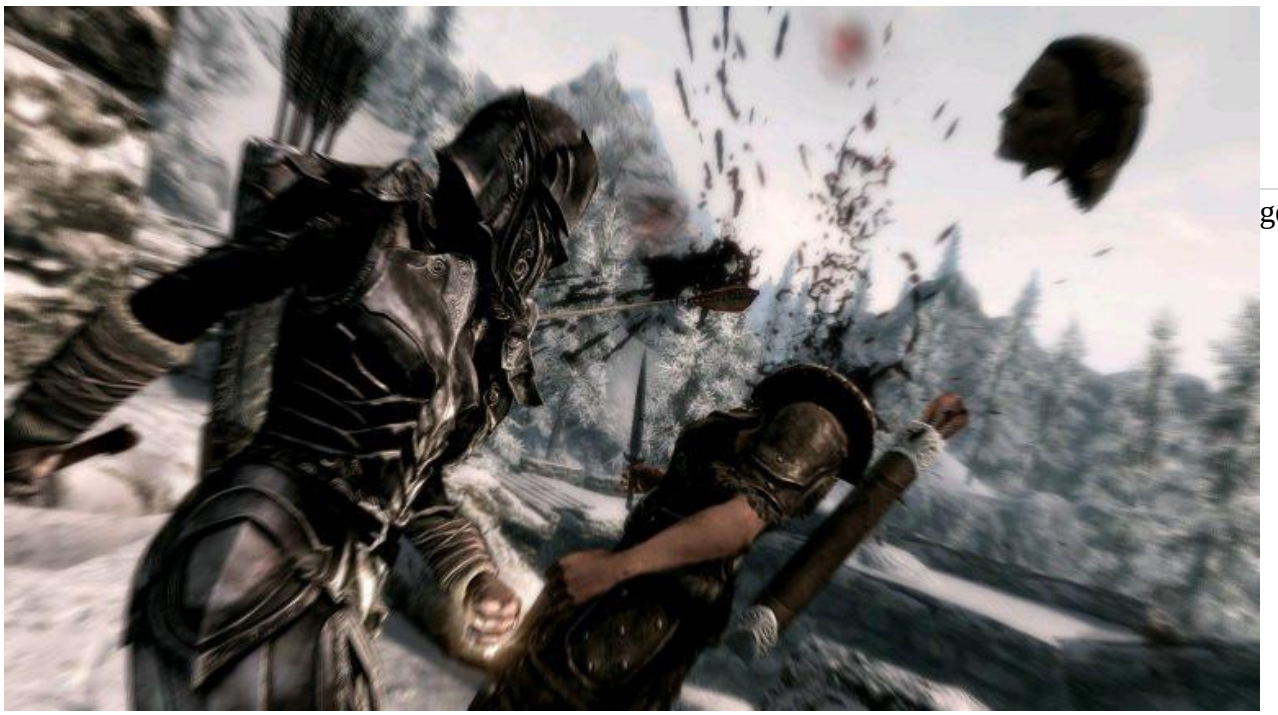

Figure 16. Screenshot from *Resident Evil 3:Nemesis* Gameplay

The likely impact of violent videogames has inspired research work from Carnagey, Anderson, & Bushman (2007) who studied how videogame violence psychologicaly desensitizes gamers to real life violence. The study examined the heart rate and galvanic skin response of gamers who were exposed to violent and non violent video games as well as a videotape containing scenes of real-life violence. The findings revealed that gamers who previously played a violent video game had lower heart rate and galvanic skin response while viewing filmed real violence, demonstrating a physiological desensitization to violence.

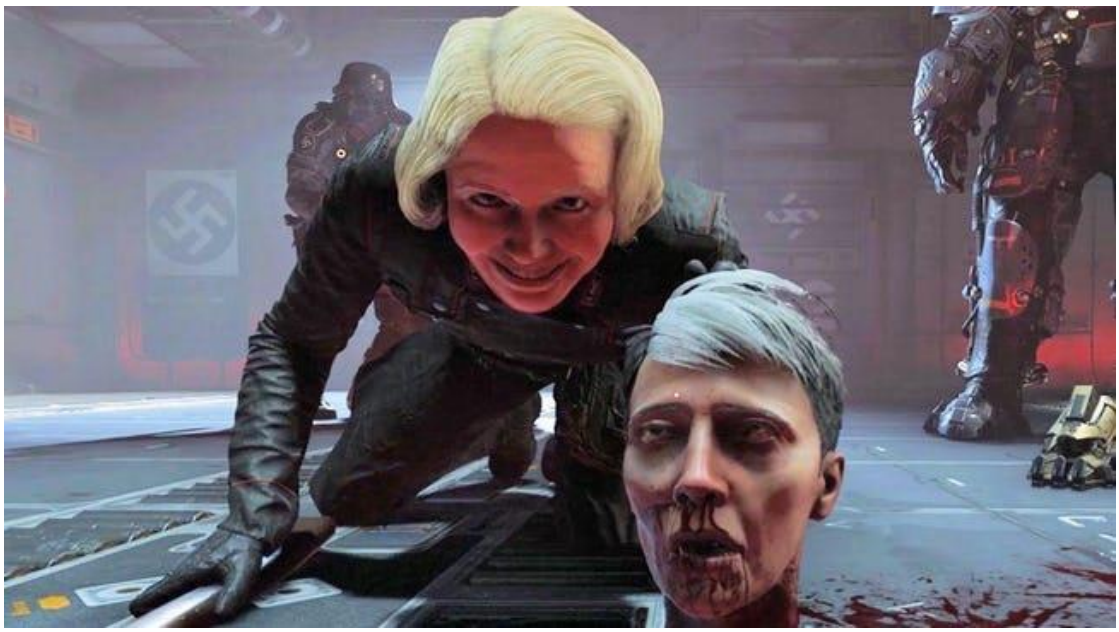

Figure 17; Screenshot of the beheading scene of Caroline In *Wolfenstein II: The New Colossus.*

According to a 2004 survey by *SOM Institute*, a survey research organisation at the University of Gothenburg, Sweden on public perceptions of the influence media violence and pornography exert on young people, and views regarding various measures that have been proposed to protect children and young people from becoming exposed to harmful content on television and the Internet and in films and computer games. 70% of the respondents believed video and computer games played significant roles in the increase of violence among children and young people (SOM Institute, 2004).

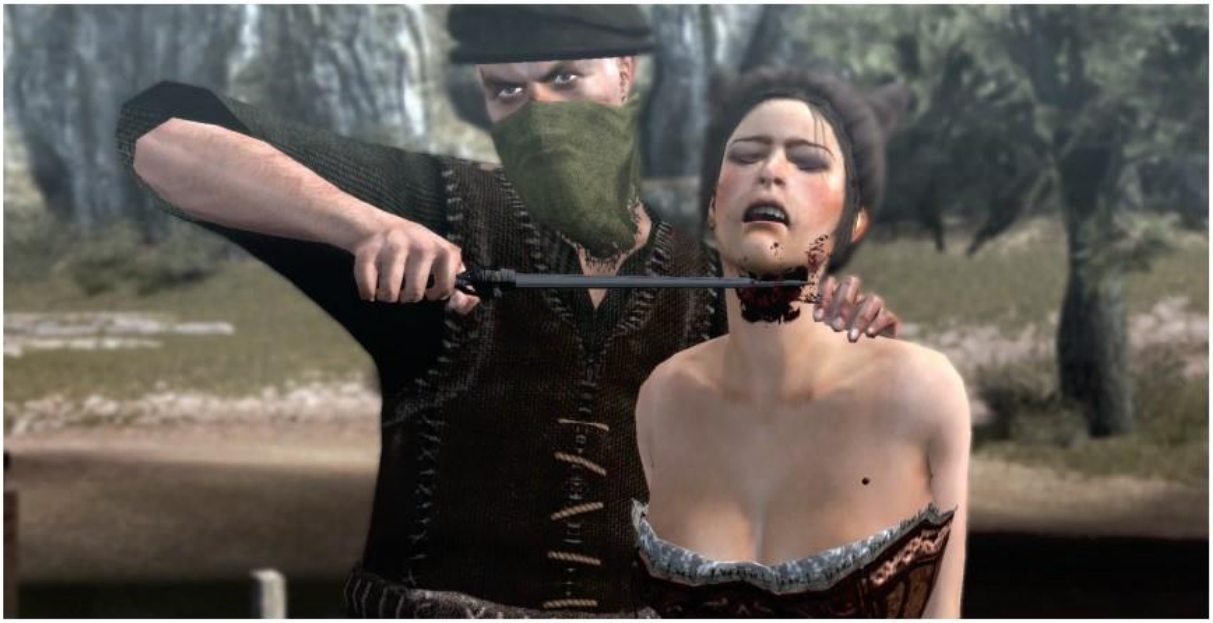

Figure 18; Screenshot from *Assassins Creed Brotherhood* Gameplay

A research by Hastings et al (2009) which examined the amount and content of children's video game playing in relation with behavioral and academic outcomes which also explored relationships among playing context, child gender, and parental monitoring using parent report of child's game play, behavior and school performance found out that violent games, and a large amount of game play, are related to troublesome behavioral and academic outcomes.

A similar study of 607 8th-and 9th-grade students from four US schools by Gentile, Lynch, Ruh Linder and Walsh (2004) which aimed at documenting the video games habits of adolescents and the level of parental monitoring of adolescent video game use likewise examining associations among violent video game exposure, hostility, arguments with teachers, school grades, and physical fights found out that Adolescents who expose themselves to greater amounts of video game violence were more hostile, reported getting into arguments with teachers more frequently, were more likely to be involved in physical fights, and performed more poorly in school.

In the absence of mandatory legally binding standards to limit the nature and extent of gameplay violence, Vessey and Lee's study in 2000 which associated

increased aggression to exposure to media violence advocated concerned adults and parental oversight to buffer the influence of violent games which is unfortunately preferred by child gamers (Vessey and Lee, 2000).

Numerous studies indicated that young children who were constantly exposed to video games tend to act aggressively towards others, demonstrate addictive behavior, exhibit anti social tendencies and create social problems in both short and long terms.Exposure is a significant risk factor for aggressive and violent behavior.

However, there are studies which contradict other findings regarding violent videogames and aggressive behavior of gamers and scholars who do not agree with the violent video game equals real life violence debate such as (Ferguson, 2007a; Olson, 2004; Sherry, 2007; Unsworth, Devilly, & Ward, 2007; Williams & Skoric, 2005; Colwell & Kato, 2003; Ferguson, et al., 2008; Unsworth et al., 2007; Williams & Skoric, 2005). A published research by Ferguson (2007) showed that many video games violence researches had publication bias added into the reports and even then multiple studies did not establish any causal link between violence in video games and violence in real life of gamers. Ferguson's study was a meta-analysis designed to correct the oversight of the state of extant literature in videogame violence effects that had not yet been examined for publication bias.

Another study by Ferguson and Rueda (2010) codenamed the *Hitman Study* which looked at violent video game exposure effects on aggressive behavior, hostile feelings and depression, examined 103 young adults who were given a frustration task and then randomized to play no videogame, a nonviolent videogame, a violent videogame with good versus evil theme (playing as a good character or protagonist or hero fighting evil or the antagonist), or a violent game in which they played as a bad guy, villian or antihero. Findings showed that randomized video game play had no effect on aggressive behavior. However real-life violent video game-playing history was predictive of decreased hostile feelings and decreased depression following the frustration task. The findings did

not support a link between violent video games and aggressive behavior, but suggested that violent games reduced depression and hostile feelings in players through mood management.

A US Department of Justice funded Harvard study on effects of videogame violence on teenagers conducted by Lawrence Kutner and Cheryl Olson and published in the book *Gran Theft Childhood* found out that there was no evidence to support the argument that violent video gameplay could turn a child violent. *Gran Theft Childhood* unraveled the politics, advertising, advocacy and defective or misconstrued studies that shaped parents concerns earlier.

A research on young gamer boys by Olson, Kutner and Warner (2008) revealed that gamers expressed calmer feelings, less aggression and less angrier after violent video gameplay. Sherry (2007) discovered that the effect size for researches in violent video game playing and aggression decreased with extended video game screentime.

The non consensus and confusion among scholars' findings in relation to video game violence and real life aggression was made more glaring following the Virginia Tech Shootings in the United States where controversial lawyer and anti video game activist Jack Thompson and TV personality Philip McGraw a.k.a. Dr. Phil quickly blamed it on video game violence (McGraw, 2007)but a review panel on the case found out that the killer Seung-Hui Cho, had no violent gameplay history (Virginia Tech Review Panel, 2007).

PARENTAL MODERATION AND VIOLENT GAMEPLAY

The global acclaim and embrace of advanced video game hardware and software that were practically non existent or not attractive during the childhood and adolescence years of many parents has taken them by surprise in today's technologically advanced world of electronic interactive entertainment (Kutner, Olson, Warner & Hertzog, 2008). As such many parents are not equipped with the fore knowledge of violence possibilities of videogames.

Furthermore, the failure of legislation to regulate sale of videogames with violent and sexual content to minors because of it being blocked or overturned by Federal District Court judges (Child-Responsible Media Campaign, 2007) has necessitated parental moderation or control of children's exposure to videogame violence and sex. Most studies of parental efforts to influence children's media use have focused on television.

While a few number of studies examined how parents mediated media use of their children (Cheng, Brenner, Wright, Sachs, Moyer, Rao 2004; Asplund, Kair, Arain, Cervantes, Oreskovic and Zuckerman, 2015) fewer studies focused on parent's monitoring or mediation in violent videogame consumption (Hastings et al, 2009). A study by Cheng et al (2004) which examined 830 parents revealed that 53% of them always limited only violent television viewing while 81% usually or always limited viewing of sexual content on television and 45% of the parents say they usually or always watched television with their youngest child.

A Kaiser Family Foundation national survey of 8-18 year olds (Roberts, Foehr, & Rideout, 2005) showed that 21% of the children admitted their parents had regulations about which video games they could play; 24% reported regulations for videogame screentime. 16% admitted their parents checked the parental warning of the videogames they played.

Another Kaiser Family Foundation study (Rideout et al, 2010) which investigated 1,001 parents who had children aged 2-17 years revealed that 52% of parents had read video game age ratings, in like manner as television program ratings. When asked which type of media concerned them more with regards to violence and sex portrayed in content, video games media was the least of their worry at 5%, lower than television which was at 34%.

METHOD

This study was designed as a survey. The area of study was Awka urban, the capital city of Anambra state, located in Awka South local government area,

which is in the South East geo-political region of Nigeria. It has a fairly large mass divided between urban areas. This study focused on the autonomous communities of the urbanized area of Awka. There are a total number of 7 autonomous communities in Awka urban; Ayom-na-Okpala, Nkwelle, Amachalla, Ifite-Oka, Amikwo, Ezi-Oka and Agulu which are further sub divided into 33 villages namely; Umuayom, Umunnoke, Umuoramma, Umuokpu, Achallaoji, Umunamoke, Agbana, Umudiaba, Amachalla, Amudo, Umuzocha, Enu-Ifite, Ezinato-Ifite, Agbana-Ifite, Umudiana, Okperi, Igweogige, Isiagu, Obunagu, Omuko, Umueri, Umuogwal, Umuogbunu 1, Umuogbunu 2, Umudioka, Umukwa, Umuogbu, Umubele, Umuanaga, Umuike, Umujagwo, Umuenechi and Umuoruka. The estimated size of the target population of Awka urban according to 2006 National Population Commission Census is 301,657. A sample of 400 parents was drawn from the population.

Multi-stage sampling was adopted for this study. 4 autonomous communities were randomnly sampled, these were; Ayom-na-Okpala, Nkwelle, Amachalla and Ezi-Oka. 2 villages each were randonmly selected from each autonomous community. In Ayom-na-Okpala community, Umuayom and Umuoramma villages were randonmly selected; in Nkwelle community, Achallaoji and Agbana villages were randonmly selected; in Amachalla community, Amachalla and Umuzocha villages were randonmly selected and in Ezi-Oka community, Umuogwali and Umudioka villages were randonmly selected.

50 parents whose children had videogame consoles were purposively sampled from each of the two villages under each of the four sampled autonomous communities and surveyed with the questionnaire as a measurement instrument.

FINDINGS

The total number of copies of the questionnaire returned and found usable for analysis was 390, representing a 97.5% return rate. Quantitative data harvested from copies of the questionnaire was analyzed and interpreted. Since

accommodation for contingencies such as non-response or recording error was estimated, the response rate was considered appreciable for the aim of the research. There were a total of 135 male parents and 255 female parents representing 34% and 66% of the sample under investigation respectively having an age bracket of 36-60 years. 86% of the parents were married while 14% were single parents. 54% of the parents had children between the age ranges of 7-18 years.

Only 28% of the parents were aware of the violent videogame screen time of their children collaborating findings of the study by the American Academy of Pediatrics (AAP) which revealed that more than 90 % of parents don't monitor ratings of the video games played by their children while a majority are unaware of the existence of a videogame rating system. This fact also supported the survey of 2000 parents conducted by the British website Childcare.co.uk that more than half of mothers and fathers allowed their children to play violent video games rated for ages over 18. According to Carlsson (2006) many parents know rather little about how their children use the new media. This pointed further to the argument by Kutner, Olson, Warner & Hertzog (2008) that issues surrounding the technologically advanced videogames of today have taken many parents by surprise with kids being more knowledgable than parents in videogame issues. This also evident in a Kaiser Family Foundation national survey on 8-18 year olds in which only 16% of the children studied admitted that their parents checked the parental warning of the videogames they played (Roberts, Foehr, & Rideout, 2005).

A minority of the parents admitted to observing varying violent videogame screen time effects in their children; 8% of parents observed real life hostility and aggressiveness in their children which supported Vessey and Lee's study in 2000 which associated increased aggression to exposure to media violence and also videogame violence studies of children by Irwin & Gross (1995); studies on adolescents' anger and videogame violence by Rozi & Muhyiddin (2013); Lin & Lepper (1987) study of children's use of video and computer games, then

studies of young adults videogame play and real life aggression done by Bartholow & Anderson(2002) and particularly long-term experiments by Hasan, Bègue, Scharkow, & Bushman (2013) on cumulative violent video game effects on hostile expectations and aggressive behavior of 70 participants in which aggressive behavior and hostile expectations increased over 3 days for violent game players.

5% of parents admitted observing their children exhibit insentivity to violence, which supported a research by Carnagey, Anderson, & Bushman (2007) which showed videogame violence psychologicaly desensitizes gamers to real life violence. 29% of parents observed the rise of profanity and swearing in their gameplaying children's speech buttressing the claims of scholars at Brigham Young University, United States led by Professor Sarah Coyne who studied 223 middle school students aged between 11-15 years and found out that exposure to video game profanity was associated with acceptance and use of profanity, which in turn influences both physical and verbal aggression (Coyne, Stockdale, Nelson and Fraser, 2011). This observation also supported the survey findings by Childcare.co.uk that 22 of the 2,171 parents researched said their kids now understand and use negative or offensive language since playing violent videogames games. 6% of parents observed children constantly mimicked violent speech by game characters, hate catch phrases and weapon sound effects.

26% of parents admitted that their children constantly mimicked violent acts of game characters with various gestures such as shooting or trigger hand gesture, slashing, ripping apart and stabbing gestures, realistic and fantasy fighting gestures (punching, kicking, jumping, headbutting or various close quarter combat styles) which further supported study by Hasan et al (2013) and that by Adigwe (2012) who found out that out of 600 mothers researched in Lagos, South-West Nigeria for their perception of the influence of interactive media on children cognitive and social development, 39% said their kids tend to get excited and emulated most of the graphic violent actions seen in most of the

video games thereby activating the innate aggressive traits. 11% observed poor academic performance in their children that played the violent games the most, this correlated the work of Hastings (2003); Choat (2004); Roberts (2011).

The study further showed that only a few parents moderated exposure in a number of ways; 2% of parents checked the age and content rating of the videogame software disc pack before their children has access to play, supporting the findings of studies by American Academy of Pediatrics (AAP), Kaiser Family Foundation national surveys and Childcare.co.uk survey which revealed that out of 2000 parents, four fifths of them admitted that they did not follow age restrictions on video games (Childcare.co.uk). 11% of the parents survey for this work admitted to regulating the violent gameplay screentime of their children while 4% have banned such gameplay completely correlating the findings of Nikken & Jansz (2006) and Adigwe (2012) that parents applied more restrictive and active mediation of children's videogame play when they feared negative behavioral effects.

The measures adopted by parents to moderate violent gameplay screentime exposure were more effective on long term; 6% of parents observed a decline in aggressiveness and hostility in children supporting a 2016 study by Laczniak, Carlson Walker & Brocato (2016) that children of parents who employ restrictive mediation efforts tend to play less violent video games, a mediation effect that also extends to reduce children's engagement in negative behaviors in school. 8% of parents noticed improvement of academic performance of the children while 3% noticed a loss of interest in videogames. 9% of parents noticed a decrease in use of profanity and swearing in children's speech, 2% observed a decline in mimicking of violent game action, 3% of parents said there was a reduction in mimicking of violent speech and hare catch phrases by game characters and weapons sound effects by their gameplaying children.

CONCLUSION

This study has informed us that parental awareness of children's violent videogame screentime, effects observation as well as moderating exposure of children to this form of media violence can undeniably among many other things be vital steps towards keeping potential real life aggression and violent behaviour under check. Unfortunately, the videogame industry, government policy and legislation seem to have little or nothing to answer for with regards to the choice of violent videogame screentime of children and how it plays out in reality. Parents must develop a strong relationship with the videogame hubbies or habits of their children, always using resources at their disposal to keep themselves at brace with the ever evolving world of videogame content and technology. This research is a call to action.

RECOMMENDATIONS

This study recommends the following:

1. Long-term sensitization of parents and guardians on the need to read game software age ratings on disc packs before purchase of videogames for their children as well as monitoring game software gotten from outside the home especially from friends and from school.
2. Educating of parents to read reviews of videogame content before they make purchase decision.
3. The American Academy of Pediatrics (AAP) guidelines of not more than 2 hours videogame screen time daily for children should be encouraged among parents.
4. Further research in parental awareness of videogame pornography and its effect on child gamers is vital.
5. Stakeholders in videogame industry should encourage videogame publishers and developers to incorporate interactive in-game censorship or content filters in a game user interface when writing gamecode so as to give parents more precise gatekeeping power over inappropriate in-game play(violent play intensity, blood, gore, substance use and interactive sex minigame), inapproriate in-game cinematics and cutscenes (violent acts,

sex, nudity, drug and achohol use), inappropriate in-game language (vulgarity, profanity, swearing, hate speech, blasphemy) and non-verbal inappropriate gestures.

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