The Effects of Media Violence on Adolescent Health

A research report written for Physicians for Global Survival (Canada) under its studentship program

by
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"Effects of Media Violence on Adolescent Health"
A research report written for Physicians for Global Survival
I. Introduction

A mass media explosion occurred in the 20th century and revolutionized the way people gain information about their world (Bushman and Anderson, 2001). The media plays a central part in the lives of North Americans, as they interact with it on a daily basis in the form of music, television, the Internet, or video games. Media is used for entertainment, information, and communication. Although people do not necessarily seek out violent content, violence is an integral part of the media landscape. Its influence is often subtle and always inescapable. As one researcher noted: “we don’t drive down the freeway in order to see billboards, but we see them and we acquire information from them anyway” (Strasburger and Wilson, 2002, p. 281).

The effects of violent media have been of public concern for over 50 years. During this time, hundreds of studies have been performed examining the effects. The research literature has demonstrated a clear and consistent positive relationship between viewing violent media and aggression.

This paper provides a qualitative overview of the various effects of media violence with a focus on three specific media that are frequently used by adolescents: television, music, and video games. Throughout this paper, “youth” and “adolescents” will specifically refer a specific culture of youth: North American.

Violent media is only one cause of aggressive behaviour. Human aggression is a complex subject. Its determinants are many: poverty, availability of guns, peer-group influence, as well as hormonal and neurological abnormalities (Strasburger and Wilson, 2002). However, 50 years of research have clearly demonstrated that a) violent media does contribute to aggression; b) it is a modifiable risk factor.

II. Adolescent Development and Media Usage

As North American children become youth, they increasingly turn to the media for information rather than their parents and their ideas, values and beliefs are profoundly influenced by the forum (Levine, 1996). Thus, the media plays a profound role in the socialization process, influencing youth’s ideas, values and beliefs.

Adolescence is a time of extensive cognitive, emotional, physical, and moral development. These biological and psychosocial changes have a double affect on adolescents’ relationship with mass media. They affect how adolescents approach the media, as well as how they are affected by the media. The relationship between adolescent development and the mass media is inter-dependent. For example, youth do not approach media as blank-slates, but rather as members of families and communities. The ideals and principles learned from these social institutions influence not only their media choices but also their interpretation of the media they consume (Arnett, 2001). Conversely, the messages conveyed by the media impact their development. For

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example, as youth develop relationships with the opposite sex, the media influence their understanding of gender roles.

A. Cognitive Development

During adolescence more complex forms of thinking emerge. Three main features characterize the intellectual development of youth: (1) the ability to think about possible occurrences rather than actual ones, (2) systematic problem solving, and (3) the development of hypothetico-deductive reasoning (Bee, 188). The intellectual development of youth changes their interpretation of the media. Although adolescents have the capacity to evaluate the media environment critically, when persons become habituated to looking at a medium that is as anti-intellectual as television largely is, they develop a non-critical attitude and a disposition to ‘look without seeing’ (Sebald, 1984).

Consumers and producers may want to believe that youth have sufficient cognitive development to buffer the negative effects of media violence. This belief is mere myth. Ample empirical evidence suggests that adolescents are susceptible to the effects of media violence. Indeed, even adults have difficulty distinguishing reality from media fantasy. Having more life experience is not a shield against the media’s influence (Potter, 2003). An adherence to this myth abdicates society of its responsibility to monitor adolescent media use.

B. Moral Development

Moral development during adolescence is characterized by a concentration on fundamental moral principles such as altruism and respect. Adolescents become more socially conscious; and, their moral principles can transcend conventional notions of right and wrong (Potter, 2003). Adolescence usually marks a shift from judgments based on external consequences and personal gain to judgments based on rules or norms of a group (e.g. family, peers, nation) to which they belong. What the chosen reference group defines as right or good is right or good. Generally, the adolescent internalizes these norms (Bee, 2000). The inescapable presence of the media makes it a source for social norms—a reference for moral standards. Because media presents a world consumed with violence, we must face the disturbing reality that our youth are consuming and internalizing violent moral standards.

C. Emotional Development

A primary feature of adolescent emotional development is identity formation. During adolescence, youth develop a sense of self that includes their values, abilities, and hopes for the future. The emerging sense of self is fragile, impressionable, and remarkably susceptible to the effects of the media.

The media provides information on issues such as violence and sex that youth may be relatively unfamiliar with. It is in the area of the unfamiliar, where parents have not yet made clear their own point of view, that TV influences impressionable beliefs and
attitudes (Sebald, 1984). Given the pervasiveness of media violence, youth cannot avoid incorporating some aspects of it into their behaviour patterns and identities.

Another feature of adolescent emotional development is risk-taking behaviour. Adolescents’ view themselves as unique and exceptional; this perspective can support a feeling of invulnerability to negative consequences (Strasburger and Wilson, 2002). Violence in the media is often presented without consequence. Presenting this incomplete relationship reinforces risk taking behaviour. For example, consider the album title of the popular band Tatu: “200 km/H in the Wrong Lane”. Tatu is not writing about the inherent risks of reckless driving or the pain associated with losing a loved one in a car accident. 200km/hr in the Wrong Lane is a song in which recklessness is associated with courage and independence. It presents a scenario in which risk-taking behaviour creates a feeling of superiority, albeit a false one. Youth exposed to large amounts of media violence may not have an appreciation for the true physical and emotional consequences of violence.

III. Effects of Media Violence

Adolescents use many different media including music, television, video games, the Internet, and movies, which play an important part of the daily lives of youth. Indeed, the typical American adolescent spends approximately eight hours a day using media, either as a primary activity or as background to other activities (Arnett, 2001). Due to the large role the media plays in the socialization process, there is a natural concern that its influence can be damaging. The media has been implicated in a number of societal ills beyond aggression and violence, including eating disorders, drug and alcohol abuse, and smoking.

Violence in the media has the capacity to influence behaviour, attitudes, and beliefs. Two of the well-known effects of violent media are: learning aggressive behaviours and desensitization to violence. However, newer research shows other effects are the normalization of violence, the cultivation of fear, dehumanization of others, and a distorted perception of reality.

If we accept that the media affects an individual’s behaviour, attitudes, and beliefs, then we must also accept that it affects the familial and societal structures of the individual. Media violence, then, supports cultures of fearful fantasy.

A. Learning

While there are a number of theories that help to explain the relationship between media violence and aggression, the most popular are learning theories.

It is believed that aggressive behaviour is a result of two forms of learning: enactive and observational (Carnagey and Anderson, 2003). Enactive learning occurs through hands-on or direct experience, where the learner forms a connection between behaviour and consequence. Behaviour is promoted or inhibited based on the reward or punishment received after the behaviour. Observational learning, also known as social learning.
theory, refers to changes in behaviour after observing the effects of others’ behaviour. Various modern theories have elaborated on these two types of learning, including social learning theory and script theory.

Social Learning Theory

Social learning theory proposes that modes of response are acquired either through direct experience or through indirect observation of models—models such as those presented in the mass media (Strasburger and Wilson, 2002). The famous study by Albert Bandura illustrated the power of observational learning. In the study, the mere observation of aggressive models led children to imitate the aggression (Dubow and Miller, 1996). This effect, known as modelling, is affected by a number of factors. Modelling is more likely to occur when (1) the aggressive behaviour is performed by an attractive, respected, or prestigious model; (2) the model is one that the viewer identifies with; (3) the aggressive behaviour is rewarded; (4) the aggressive behaviour is perceived as “real”; (5) the viewer is physiologically aroused (Harris, 1994).

Social learning theory maintains that human behaviour is directed towards obtaining a reward. Accordingly, when a model is positively reinforced for aggression, the observers are more likely to behave in a similar manner.

Script Theory

Observational learning teaches youth not only specific behaviours, but also behavioural scripts. A behavioural script is a set of situation specific expectations and behavioural guidelines. Scripts guide behaviour in the following way: the person selects a script that most closely resembles the current situation and then assumes a role in the script (Carnagey and Anderson, 2003). Behavioural scripts help an individual to predict what will happen in a certain situation and to implement a pre-programmed sequence of behaviours without really thinking about it (Strasburger and Wilson, 2002).

Through the media, people learn behavioural scripts. In the media, conflict is often resolved through violence. Youth presented with conflict in their own lives may similarly select an aggressive script to guide their behaviour in resolving the situation.

B. Normalization

In the mass media, violence is often normalized as an ordinary or common occurrence. The danger in normalizing violence is that it is incorrectly portrayed as an acceptable option for dealing with conflict. A variation of normalization is routinization. Routinization transforms violence into routine, mechanical, highly programmed operations (Kelman, 1973). By normalizing violence, aggressive behaviour is disinhibited, and the psychological barriers that prevent people from engaging in violence are broken down.
C. Desensitization

A widely discussed phenomenon with respect to media violence is desensitization. The formal definition of desensitization is the attenuation of cognitive, emotional, and ultimately, behavioural responses to a stimulus (Funk, 2004). Cognitive desensitization becomes evident when one’s thinking shifts from a belief that violence is uncommon and unlikely to the belief that violence is inevitable (Funk 2004).

Believing that violence is inevitable creates two responses. First, less anxiety becomes associated with violence when it is seen as common and likely. Anxiety usually serves to inhibit violent behaviours (Carnagey and Anderson, 2003). Therefore, reduced anxiety might increase aggressive behaviour. Second, believing that violence is inevitable reduces the visceral emotional reactions elicited by violent scenes. Consequently, this cognitive desensitization undermines feelings of concern, empathy, or sympathy that viewers might have toward victims of real violence (Donnerstein and Smith, 1997).

Habituation is used to argue against the relevance of the desensitization effect. Habituation describes viewers of violent media who show a decreased physiological response to media violence and not real violent situations. Those who cling to habituation as an argument against desensitization claim that when faced with a real life act of violence, an average observer who has a decreased physiological response to media violence will have a heightened physiological response to a genuine act of aggression. This argument is based on the assumption that people can make clear distinctions between reality and the media world. However, to encourage consumers to identify with the scenes and characters presented in TV dramas, movies, books, and songs, the authors, songwriters, playwrights, and producers have often purposely tried to blur these divisions. As one researcher aptly noted, “we know that films and plays are ‘fake’ but these works still often profoundly affect us, and, can provide us with ‘powerful emotional experiences’” (Berger, 2002, p. 61).

A possible definition of a successful media experience is one that allows the observer to experience action and consequence that is not lasting because it is not real. With the advent of true crime/reality television shows, the distinctions between real experience and consequence versus media experience and consequence are becoming more and more difficult to distinguish. Habituation may have worked as an argument before shows like Survivor, Big Brother, and the Benefactor or before a time when youth consumed eight hours of media per day. However, with these changes in consumption, habituation cannot negate the dangers of desensitization.

D. Fear

Exposure to media violence can create fear in audiences that is stable over time. As one researcher noted, “the news media, rather than personal experience provide Americans with their predominate fears” (Glassner, xxi 1999). In general, the more exposure a person has to television, the more that person’s perception of social realities will match what is presented on TV (Harris, 1994). For example, in the early 1990’s
when the news media focused on crime, the percentage of Americans ranking violence
and crime as the main problem in their country rose from 9% to 49% (Potter, 2003).

Media executives may claim that media violence simply reflects societal violence.
Howard Singer of CBS claimed that the television industry is simply “holding a mirror to
American society” (West, 1993). In reality, the amount of violence on television is
greatly amplified compared to the amount of violence in our cities, countries, and
continents. Notably, if the murder rate on television reflected that of real-life, then in just
50 days the entire population of the United States of America would be dead Medved,
1995).

George Gerbner found that people who watch a lot of television are more likely than
others to believe their neighbourhoods are unsafe, to assume that crime rates are rising,
and to overestimate their own odds of becoming a victim (Glassner, 1999). He dubbed
this fear effect the ‘mean world syndrome’. These people may accept and even welcome
repressive measures such as more jails, harsher sentences, and capital punishment,---
measures that have never reduce crime but never fail to get votes – in the hopes that they
will relieve their anxieties (Glassner, 1999). The cultivation of fear is yet another
problem of violent media.

E. Dehumanization and Polarization

The narratives found in the media that use violence often contain a number of
common elements. These include (1) polarization of conflict by dividing the world into
good and evil, (2) dehumanization of the enemy characters, and (3) conflict resolution
through violence (Rosenberg and Santa Barbara, 2002).

Polarization

In the media, the world is often divided into good and evil. The only stories youth
come to know are the polarized good guy/bad guy conflicts that are solved through
violence. In general, the viewer identifies with the ‘good character’ that fights for justice.
Through the protagonist, the viewer opposes the enemy who represents greed,
persecution, or foul action. As she is separated and alienated from the enemy she herself
may begin to hate the “other”. This polarization allows the viewer to see the protagonists’
actions as moral—even if they are violent. If the viewer has identified with the
protagonist, she will resist condemning violent acts because she now has some ownership
of the acts, and may see the as morally good because it is action against an evil other.

Construction of the “other” as enemy – leads to fundamental attribution error.
Fundamental attribution error refers to the fact that whenever people are making
attributions about an action, they tend to over-emphasize dispositional factors about the
actor, and under-emphasize situational factors.

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Dehumanization

Dehumanization is a psychological process whereby opponents view each other as less than human, and, thus not deserving of moral consideration. In other words, the dehumanized group is viewed as outside the scope of justice and morality.

In the media, enemy characters are often dehumanized by being excluded from the community and denied an identity. Common criteria for exclusion include: ideology, race, creed, political group or cognitive capacity. They are often referred to iconographically; that is, a few verbal and visual traits are used to represent the character or group, and they tend to be static and unchanging (Dyer, 1993). For example, they are referred to by one term “e.g. the evildoers” and their total identity is absorbed by a single category (Kelman, 1973). This dehumanization of the “other” in the media is a dangerous phenomenon. Indeed, the refusal to acknowledge human similarity is one of the greatest obstacles in inter-group communication.

F. Unreality

Characteristically, violent media does not reflect reality, as it fails to show consequences, is couched in humour, and occurs with much higher frequency than in the real world. Violent media’s disconnection with the real world can reappear in an adolescent’s accurate perception of his own reality.

An adolescent watching television more than 4 hours a day has to do an extraordinary amount of switching back and forth between the real and the virtual worlds. This oscillating existence does not contribute to his or her ability to concentrate on real problems or tasks (Sebald, 1984). An extreme example of this phenomenon occurs when a youth loses touch with reality and refuses to be bound by the rules of the social environment (Sebald, 1984).

G. Catharsis

Catharsis theory was first proposed by Aristotle. He described it as the purging of the emotions of pity and fear that are aroused in the viewer of a tragedy (Potter, 2003). The application of catharsis theory to media violence predicts that exposure to such content can cleanse one’s feelings of anger and frustration. Presumably, watching others engage in aggressive behaviour enables people to fantasize about their own aggressive actions. Having engaged in the fantasy, the viewer’s need to act out her anger is reduced (Potter, 2003).

The empirical evidence supporting catharsis is virtually non-existent. However, catharsis continues to be a popular theory, perhaps, because of its intuitive appeal. Initially, some studies showed support for catharsis theory, but they suffered from various flaws (Potter, 2003). Overwhelmingly the empirical evidence shows that exposure to media violence increases one’s aggressive tendencies. As one researcher noted “in over
40 years of research there has been no substantiation of the catharsis theory” (Strasburger and Wilson, 2002, p. 78).

H. The General Affective Aggression Model (GAAM)

The General Affective Aggression Model was developed by researchers in the field to explain how exposure to violent media can result in aggressive behaviour. It is a useful framework for interpreting the scientific evidence on violent media and aggressive behaviour. It is founded on the idea that the enactment of aggression is largely based on knowledge structures (e.g. scripts) created by social learning processes (Anderson and Dill, 2000). The GAAM describes a multi-stage process where aggressive behaviour is the result of both situational and personological variables. Situational variables are context specific (e.g. the nature of a specific social encounter) while personological variables refer to an individual’s personal characteristics (e.g. anger management). These situational and personological variables influence related internal states and the outcomes of automatic and controlled decision processes (Anderson and Dill, 2000).

Input Variables

Both personological and situational variables can influence internal states. For example, an individual with the personological variable of aggressive personality has social perception schemas that lead to hostile perceptions; s/he thinks aggressive thoughts more frequently.

Situational variables such as playing violent video games may lead to the “learning, rehearsal, and reinforcement of aggression related knowledge structures, conceptualized as “aggressive scripts” (Anderson and Dill, 2000).

The three internal states (cognition, affect and arousal) that are affected by these personological and situational variables are all inter-related and activation of one will activate the other two.
Appraisal and Aggressive Behaviour

The appraisal processes of the GAAM can be automatic (e.g. impulsive) or controlled (e.g. thoughtful). These appraisals involve an evaluation of the environment and the internal states of the individual. “Whether an aggressive behaviour is emitted depends on what behavioural scripts have been activated by the various input variables and the appraisal processes” (Anderson and Dill, 2000). In Figure 1, the GAAM outlines how exposure to violent media can increase aggression in the short-term.

Figure 1: Single episode General Affective Aggression Model (Anderson, 2000)
GAAM: Long Term Effects

The long-term effects of violent media are due to the development, over-learning, and reinforcement of aggression-related knowledge structures (Anderson and Dill, 2000). These knowledge structures include aggressive beliefs and attitudes, aggressive perceptual schemata, aggressive expectation schemata, aggressive behaviour scripts and aggression desensitization. In essence, these knowledge structures lead to an increase in aggressive personality which then affects both personological and situational variables. This process is outlined in Figure 2.

Figure 2: Multiple Episode General Affective Aggression Model (Anderson and Dill)
IV. Television

“The following cartoon is rated CFFA, cartoons for f***** adults; not for kids" The advisory that appears on the screen before TNN airs episodes of its new stripper based cartoon Stripperella (Parents Television Council, 2004, website)

A. History

Television was first introduced in 1939 at the New York World’s Fair. Interestingly, the first broadcasted image was the dollar sign (Levine, 1998). Since its introduction, television has become an important part of our culture: television is everywhere. While only 9 percent of households owned a television in the early 1950’s, that percentage has since increased to 98 percent of all households (Levine, 1998). Noteworthy is the fact that in 1965, the U.S. crime rate began to rise dramatically. This coincides with the time when the first generation of children raised on television reached their prime age for committing violent crime (Bushman and Anderson, 2001).

Television and movies are a large part of our culture. As a central part of modern life, they often serve as a common thread between people. Indeed, during the Persian Gulf War when President Bush invited the Iraqis to “make my day” the majority of the Western world understood the reference (Levine, 1998).

B. Level of Violence

Adolescents are exposed to an enormous amount of violence through television and movies. According to the American Psychological Association, an American child or teenager watches approximately 10,000 murders, rapes, and aggravated assaults per year on television alone (Strasburger and Wilson, 2003).

Research indicates that the Canadian media landscape is becoming more violent. A study performed between the years of 1993 and 2001 showed that the incidents of physical violence on Canadian television networks increased by 387 percent (Deguise and Paquette, 2002). The incidents of psychological violence increased 325 percent from 1999 to 2001 (Deguise and Paquette, 2002).

C. Nature of the Violence

The context within which media violence is presented determines how viewers interpret that violence. The key factors that determine how the view interprets the content: efficacy (whether the violence results in the achievement of desired goals), and normativeness (whether the violence portrayed is socially acceptable) (Strasburger and Wilson, 2002). The presence of these factors increases the likelihood that the violence will be accepted or even imitated.
Evidence suggests that one of the most potent ways to teach aggression to young viewers is to couch the behaviour in a moral context. Notably, on television and film, nearly 40% of the violent acts are perpetrated by the “good” characters (Strasburger and Wilson, 2002).

In television and film, 71% of the violent scenes show no remorse, criticism or penalty (Strasburger and Wilson, 2002). Because there are no implications or consequences shown in these violent scenes, we can state that violence is being presented as an activity that is not anti-social. It is presented as a part of the natural fabric of society. In addition, approximately half of the violence on television shows no physical harm or pain to the victim (Strasburger and Wilson, 2002).

While omitting consequences from a violent scene denies the injustice of the act, adding humour to a scene with violence, camouflages the injustice. For example, although cartoons are some of the most violent programming on television, people rarely describe them as violent. It appears that humour tends to remove the threat of violence (Potter, 2003).

D. Appeal of violence

Regardless of our opinion on the morality of media violence, violent imagery is incredibly popular. Understanding the appeal of violent imagery is a complex endeavor. Exposure to violent media results in physiological arousal (ie. increased heart rate and blood pressure). One of the many reasons people enjoy violent entertainment is that it satisfies their need for arousal. Violent imagery can arouse strong emotions in youth and increase the likelihood that they will behave violently or fearfully. According to Potter, habitual viewing of violence over time can lead people to crave the arousal they get from violent exposures (2003). The violence acts like a drug, and people can become more dependent on it (Potter, 2003).

Witnessing the violation of social norms is also a reason why people enjoy violent entertainment. People are fascinated by the blatant and extraordinary violation of social norms because they rarely see these larger-than-life transgressions in everyday experience (Zillman, 2000) An interesting hypothesis regarding violent entertainment is that it gives males the opportunity to demonstrate their mastery over various violent images (Zillman, 2000). The social purpose of violent entertainment may be to show to their peers “that they are man enough to take it” (Goldstein, 215, 1998).

Indeed, interesting studies have been done to assess the differences in how men and women enjoy violent entertainment. In one study, researchers altered a film by removing scenes of graphic violence (Berry, Gray and Donnerstein, 1999). Students were either exposed to the original film or the film with the violence removed. It was found that women preferred the film without the violence, while men’s ratings of the film did not change.

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Certain personality types are drawn to violent imagery. In general, aggressive personality types have stronger preferences for violent entertainment. In a study of grade eight students, boys who were rated as more aggressive by their teachers also watched more violent films (Aluja-Fabregat 2000). It has been hypothesized that aggressive individuals use violence in the media to understand and justify their own behaviours (Strasburger and Wilson, 2002).

The appeal of violent imagery is a multifaceted topic. Indeed, it reflects the complexity of human nature: “one may be attracted to something while at the same time experiencing negative emotions, such as disgust and anxiety” (Goldstein, 1998, 64). Since violent media is often tied to other engaging literary and film techniques such as suspense, action, and drama, in teasing apart the exact reasons for the popularity of violent imagery becomes even more difficult. Clearly, further research needs to be done in the area.

E. Business of Violence

Media is big business. In the United States, popular culture products are the biggest export (Media Awareness Network, 2003, website). Many of these products, including television programming and movies, contain violence.

In the U.S. and Canada, movies rated "G" (General) and "PG" (Parental Guidance) consistently generates more revenue than those rated “R”, where admittance is restricted to persons 18 years of age or older. However, American media corporations earn at least half of their profits from foreign sales; and, action movies are easily exported to foreign markets. Action movies don't require complex plots or characters. Instead, to captivate their audiences, they rely on special effects, explosions, fights, and killings (Media Awareness Network, 2003, website). The simplistic stories in action movies are universally understood. Violence is an international language, where action heroes such as Sylvester Stallone and Arnold Schwarzenegger move easily across cultural, national and linguistic borders. (Strasburger and Wilson, 2002).

Another reason why violent entertainment is so popular is that it is marketed heavily. In September 2000, the Federal Trade Commission (FTC) showed that 80 per cent of R-rated movies were being marketed to kids under 17 (Media Awareness Network, 2003, website).

F. Empirical Evidence

Experimental Research

Experimental studies were some of the first to link televised violence to aggression. Although experimental research is the best method to elucidate the causes of behaviour, there are a number of weaknesses associated with it. Common problems in this form of violent media research are: (1) unrealistic measures of aggression, (2) assessments of
only short-term effects, and (3) actions in artificial settings. Nevertheless, some of the pioneering research in this area used the experimental method.

One of the earlier studies on adolescents came from Berkowitz in 1966. In the study, male college students were first aggravated by a peer, then shown a brief film. One group of subjects was shown a violent fight scene, while the other group was shown a non-aggressive track race. Immediately after the film, the subjects were provided with a socially-sanctioned opportunity to give electric shocks to the person who had provoked them. The results showed that subjects who viewed the aggressive film gave more shocks than those who had seen the non-aggressive film. Many variations of this type of study have subsequently been carried out. These studies indicate a clear link between media violence and aggression in a laboratory setting. The findings are applicable as the variables known to influence aggression in the real-world have the same effects on laboratory measures of aggression (Anderson, 2003, website).

**Correlational Research**

Since the 1970’s, there have been many correlational studies assessing the relationship between media violence and aggression. The primary weakness of correlational research is that it does not provide evidence for causal relationships. That is, it is not known which variable comes first: Are aggressive youth drawn towards violent imagery in the media, or do violent media promote aggression in youth? One of the strengths of correlational research is that behaviour is assessed in its natural setting. This characteristic enables researchers to be more confident that their findings are applicable to the general population.

The correlational evidence is remarkably consistent and shows a positive relationship between exposure to media violence and aggression (Strasburger and Wilson, 2002). An interesting example of this type of research is a study of 2,300 high school students. It was found that youth who had a preference for violent television were more likely to defy their parents and engage in delinquent behaviour (McIntyre and Teevan, 1972).

**Longitudinal Research**

Similar to experimental research, longitudinal studies examine causality. In contrast to experimental work, they examine long term exposure and are conducted in the natural environment. Due to the cost, complexity, and time commitment associated with longitudinal studies, there have been relatively few. However, the data they do provide is of great importance as they help to measure long term or cumulative effects of an exposure.

In the area of media violence, the most influential longitudinal study was carried out over a period of 10 years (Eron and Huesmann, 1972). In the study, the researchers assessed the participants at the ages of 9 and 19. The information collected about the participants fell into 3 categories: (1) television viewing habits, (2) measures of
aggression (e.g. starting fights), and (3) potential predictors of aggression (e.g. child’s I.Q.). It was found that a preference for violent television at an early age was predictive of aggressive behaviour ten years later. This relationship remained even when IQ, childhood aggression, parenting variables and socio-economic status were controlled. The weakness of this study is that of the 875 original participants, only 427 remained at the final assessment. Nevertheless, it still provides invaluable information on some of the long term effects of violent media.

Comparing Communities With and Without Television

A unique experiment was conducted in Canada in 1986 to assess the impact of television on a community (Williams, 1986). At this time, there were three communities within proximity of one another that either had access to television or not. Children in communities with no television access were compared with children in neighboring communities with only one station or multiple stations. The communities were of similar size and socioeconomic status. The children were assessed on measures of physical and emotional aggression. After the introduction of television in the experimental group, the children showed increases in physical and emotional aggression. The children in the other two communities showed no significant change in aggressive behaviour during this time period.

Meta-Analyses

A meta-analysis is a statistical analysis of a large collection of studies. Meta-analyses give a statistical summary of a large body of research. In a meta-analysis, each study becomes a data point in a new, combined “super-study” (Strasburger and Wilson, 2002). Several meta-analyses have been conducted in the area of television violence. All of them have found support for the hypothesis that exposure to television violence increases the likelihood of subsequent aggressive or anti-social behaviour.

V. Music

Music is spiritual. The music business is not.
Van Morrison

The history of rock ‘n’ roll has traditionally been anti-establishment and provocative. From the Cole Porter song “The Lady is a Tramp” to Eminem, popular music has a history of being controversial. Music has an enormous impact on youth, and it forms a large part of their culture. For youth, “music preferences and tastes are used to form and solidify friendships, express resistance against adult authority, identify subcultures, and mark psychological and physical boundaries both within youth culture and between youth and adult worlds” (Christenson, 1998, p. 101).

Youth spend a substantial amount of their time listening to music and watching music videos. The average amount of time an adolescent spends listening to music, including
background music, is about 3-4 hours per day (Christenson, 1998). Because it is solely an aural medium, music is different than other media. In addition, listening to music is usually not a primary activity, but rather part of the background, as youth are engaged in other activity. Thus, the actual exposure of youth to music may be lower than the numbers suggest.

A. Uses of Music

Adolescents use music for a variety of reasons. Music is used to gain information about the adult world, to help in identity formation, and to facilitate friendships and social settings. One of the primary uses of music is to intensify and alter moods. According to Christenson, popular music use is motivated primarily by the desire to control mood and enhance emotions (1998). There is a gender difference in terms of mood management. Males are more likely to use music to increase their energy and stimulation while females are more likely to use music to improve their mood or work through a negative one (Christenson, 1998).

Music plays an important part of the socialization process. It can function in peer interaction or in the establishment of a group identity. Specifically, music is used to “form friendships, to provide atmosphere for parties, to make conversations and interactions flow more smoothly, and to serve as grist for the conversation mill” (Christenson, 1998, p. 54).

B. Violence

Violence appears quite frequently in certain genres of music, specifically, heavy metal and “gangsta rap”. Heavy metal music is characterized by a loud, pulsating, distorted sound with themes of chaos, the occult, violence, and death (Strasburger and Wilson, 2002). Some of the popular heavy metal bands include Marilyn Manson, Korn, and Cannibal Corpse. Below is an example of violent lyrics from the Cannibal Corpse Song “An Experiment in Homicide” from the album “The Bleeding”:

Decomposition,
The body rots
Rotting, rotting body parts
I killed the first
To experiment
I don't want to hurt you
I just want to kill you

Heavy metal is considered to be on the fringes of rock and roll, although 13% of adolescents identify it as their favourite type of music (Strasburger and Wilson, 2002).

Gangsta rap music is characterized by rhyming lyrics spoken over a musical backdrop, and it specifically focuses on themes of violence, drugs, and sex. Some popular artists in this genre include Snoop Doggy Dog, Dr. Dre and 50 cent. Notably, all of these artists have had encounters with the law. Consider the song “Cop Killer” by Ice-T with the
following lyrics:

I’m bout to bust some shots off
I’m bout to dust some cops off
….Die, Die, Die Pig, Die.

Rap music is cited by 18% of teenagers as their favourite music type. However, the different sub-genres of rap vary. There is a vast difference between the violent messages in gangsta rap and the pro-social messages in the music of rap artists such as De La Soul or a Tribe Called Quest. However, a sense of the popularity of violent rap can be garnered from the sales of Eminem’s album, The Marshall Mathers LP, which sold 7.92 million copies in 2000 despite homophobic, racist, and sexist lyrics (Strasburger and Wilson, 2002).

Empirical Evidence

Although published studies that examine the relationship between violent songs and aggression are relatively sparse, a few interesting experiments have been performed. A recent study by Anderson and Eubanks (2003) found that exposure to violent music prompted feelings of hostility and an increase in aggressive thoughts.

In one experiment, youth listened to contemporary rock songs with either violent content or not. Their level of hostility was then assessed using the State Hostility Scale (SHS). The groups exposed to violent lyrics reported greater levels of hostility.

In a second experiment to assess aggressive cognition, the researchers again exposed participants to contemporary rock songs with either violent content or not. The dependent variable was participants’ ratings of a large number of word pairs. Ten words with aggressive connotations (blood, butcher, choke, fight, gun, hatchet, knife, hurt, kill, and wound) and ten words with ambiguous meanings (alley, animal, bottle, drugs, movie, night, police, red, rock, and stick) were chosen. The researchers then exposed participants to all possible pairs of the 20 words after listening to music. The aggressive-aggressive and ambiguous-ambiguous pairings were used as controls. The results indicated that participants who listened to the violent lyrics interpreted ambiguous words in an aggressive way.

C. Suicide

One of the primary uses of music is to alter emotional states. Just as music has “the power to elevate, it may also have the power to depress, or at least exacerbate negative emotional states” (Christenson, 1998, p. 204). For the majority of the adolescent population, mood management through music is healthy. However, there exists a certain subset of youth that may use this characteristic of music to promote negative affective states. Indeed, it was found in a study by Arnett that metal fans use metal music when they are angry or in a bad mood – even going so far as to accentuate a bad mood (1991). Thus, music with suicidal themes poses a distinct set of problems. Consider the lyrics of
the song “Suicide Solution” by Ozzy Osbourne:

Where to hide, suicide is the only way out
Don’t you know what it’s really about
Ozzy Osbourne’s Suicide Solution

Lyrics with suicidal themes are most often found in heavy metal music. Unfortunately, the audience of heavy metal tends to be drawn from social groups with a higher than average risk of suicide (Christenson, 1998). For youth at risk, namely those contemplating suicide, the messages in the music may be particularly harmful.

**Empirical Evidence**

A study by Scheel and Westefeld (1999) found that heavy metal fans had weaker reasons for living and had more thoughts of suicide compared to fans of other musical genres. In the study, a group of 121 students were assessed using the suicide risk questionnaire (SRQ), the Reasons for Living Inventory (RFL), and a music survey. The SRQ is used to measure past, current, and future suicidal risk, while the RFL Inventory measures participants’ reasons for not killing themselves (thus a higher score indicates a lower suicide risk). The music survey was used to assess musical preference. The findings indicated that youth who had a preference for heavy metal music had a higher risk of suicide and a lower RFL score than fans of other musical genres (pop/rock, country, alternative, and rap).

**D. Music Videos**

The combination of music and visual images found in music videos is a powerful one. Music videos are found on networks such as MuchMusic or Music Television (MTV), and are popular among youth. MTV is watched by 73% of boys and 78% of girls in the 12 to 19 years of age group (Cromie, 1998, website).

There are two main types of videos: performance videos and concept videos (Strasburger and Wilson, 2002). In performance videos, the artist or group simply performs a song without a storyline. In concept videos a story is presented along with the music. In general, performance videos are fairly innocuous, while concept videos often present very disturbing images. In one study, 44% of concept videos contained nihilistic images such as destruction, death, ridicule of social institutions, and aggression against authority (Strasburger and Wilson, 2002).

**Empirical Evidence**

In a study by Hansen and Hansen, a group of undergraduate students were shown either a neutral or antisocial video (1990). The neutral videos had no antisocial themes while the antisocial videos contained scenes of rebellious behaviour such as stealing cars or defying police. After watching the video, the subjects were asked to evaluate two applicants for a job hosting a television show about rock music. The students then
“accidentally” observed a scene where one applicant told a joke to the other, and then was warned by an authority figure to calm down.

At this point, the subjects saw either the applicant make an obscene gesture to the authority figure after he left the room, or they saw the applicant adjust his clothes. The subjects then watched the interview of both applicants and evaluated them according to how much they like them personally.

The subjects who viewed the neutral video rated the job applicant less favourably if he made the obscene gesture. Interestingly, the subjects who watched the antisocial video rated the job applicant the same regardless of whether he made the obscene gesture or not. Therefore, the viewing of a video with an antisocial theme nullified the natural tendency to perceive negatively those who exhibit antisocial behaviour.

E. Violence against Women

A substantial proportion of music videos present a restricted view of women. The most common subjects of music, love, and courtship are often framed from a male perspective. Approximately 90% of music videos are directed by men: these videos reinforce mainstream male sexual fantasies (Jhally, 1995, video). Often, the images in music videos objectify women by deconstructing them into a series of body parts. “Consequently, the viewer sees erotic images, but not a whole person: sex without the humanity” (Strasburger and Wilson, 2002, p. 293).

Dehumanization of women is amplified when aggression is paired with erotica. “When aggressive and sexual themes are coupled, the conditioning of aggressive acts to sexual arousal can occur. The viewer may learn to expect sexual rewards as a consequence of the aggressive behaviour portrayed, thereby increasing the likelihood of engaging in such aggressive behaviour” (Peterson and Pfost, 1989, p. 319). Examples of such pairings include the song “Evil Dick” by Body Count:

Evil dick likes warm, wet places
Evil dick don’t care about faces,
Evil dick likes young, tiny places,
Evil dick leaves gooey telltale traces

Empirical Evidence

In a study by Peterson and Pfost (1989), a group of undergraduate males viewed a set of three videos, consisting of one of four content categories: erotic-violent, erotic-non-violent, violent-nonerotic, non-violent-nonerotic. After viewing the videos, the subjects were assessed on their aggressive attitudes towards women via four measures: rape myth acceptance, interpersonal violence acceptance, adversarial sexual beliefs, and sex-role stereotypes. Interestingly, it was found that the portrayal of aggression contributes more to aggressive attitudes towards women than the portrayal of erotica or erotica plus violence. It was hypothesized that the erotica arouses pleasurable reactions that may moderate the negative reactions induced by the aggression.
A study by Barongan and Hall, evaluated the effect of misogynous rap music on sexual aggression against women. In this study, the subjects were divided into two groups and either listened to misogynous or neutral rap music. The subjects then viewed neutral, sexual-violent, and assaultive film vignettes. Finally, they had to choose one vignette to show to a female confederate.

In the misogynous music condition, 30% of the subjects shown the assaultive vignette and 70% showed the neutral vignette. In the neutral music condition, 7% showed the sexual-violent or assaultive vignette and the remaining 93% showed the neutral vignette. These findings suggest that misogynous music may promote aggressive behaviour towards women.

F. Parental Advisory Labels

In 1990, the Recording Industry Association of America adopted the black and white sticker indicating “Parental Advisory: Explicit Lyrics”. This label indicates explicit violent or sexual content. It is voluntary for recording companies and artists. For the most part, the warning is consistently applied; however, it was found in a random sample of 500 youth that only 30% of 6th through 8th graders, and 23% of the 9th through 12th graders had parents who forbid them to have albums with a “parental advisory” sticker (Christenson, 1998). Regardless of labelling practices, youth are still able to gain access to music with explicit lyrics. In addition, the music industry heavily markets potentially inappropriate music to youth. A study by the Federal Trade Commission in 2001 found that all five major recording companies placed advertising for explicit music on television programs and magazines with substantial under-17 audiences (Strasburger and Wilson, 2002).

VI. Video Games

“America is full of run down, broken rust-belt towns where nobody cares and anything goes. In Carcer City, nothing matters anymore and all that's left are cheap thrills. The ultimate rush is the power to grant life and take it away, for sport” Advertisement for the game Manhunt (PC GameWorld, 2004, website).

A. Introduction and History

Video games are a relatively new medium. The first video game, Pong, a computer simulation of table tennis, appeared on the market in 1972 (Anderson, 2003). In the past 30 years, there has been a tremendous growth in the electronic gaming market.

The history of video games can basically be divided into three eras. During the first era of video games from 1977 to 1985, the company Atari dominated the market (Anderson, 2003). The games were simplistic with limited graphic capabilities. The games during this era contained little violence. The violence that was present was largely abstract, consisting of, for instance, violence against spaceships or aliens rather than against another human being.
The second era of video games (1985-1995) was dominated by the company Nintendo (Anderson, 2003). The games produced during this time contained more realistic violence due to the increase in computing power of the home console systems. The different archetypes of video games began to emerge such as the third-person fighter (Mortal Kombat) and the first person shooter (Wolfenstein 3D). As it became apparent to the video gaming industry that violent games sold well, the level of violence in the games also increased (Anderson, 2003). For example, Nintendo released a sanitized version of Mortal Kombat that removed the more graphic violent scenes while Sega released the full version. The nation’s appetite for violence became apparent when the Sega version outsold the Nintendo version by about three to one (Anderson, 2003).

The third era of video games (1995-present) has been dominated by Sony, which produces the Playstion I and II home console systems (Anderson, 2003). This era too has seen an increase in violence, and, again, the graphic quality of the violence has increased with computing power.

There is a wide array of video games available; however, the most heavily marketed, sold and played video games are extremely violent, involving brutal mass killings as the primary goal in winning the game (Anderson, 2003).

B. Video Game Consumption

Video games are a very popular form of media, especially among adolescents. A Canadian survey of 650 students aged 11-18 concluded that 93% had played video games, with 24% of those being characterized as “heavy players” (Morton, 1998, website). Heavy player was defined as one who played video games for at least one hour per day, every day of the week.

Video game production is a massive industry. In Canada, such games generated revenues of 746 million dollars in 2003 (ACNielson, 2003, website). While many different types of video games are produced by the industry, 80% of the most popular ones are violent (Kirsh, 2003).

C. Video Games and Aggression

Public concern is growing over the relationship between video game violence and aggressive behaviour. The school shootings in Paducah, Kentucky; Jonesboro, Arkansas; and, Littleton, Colorado, have brought the issue to the forefront, as all of the shooters were players of violent video games.

More than any other medium, violent video games may be more detrimental to adolescent health. This is due to a number of specific features: (a) they provide direct rewards for aggressive actions (e.g. points, promotion to the next level), (b) they facilitate the rehearsal of specific behavioural skills (such as hitting a target with a firearm), and (c)
they facilitate identification with the aggressor by allowing players to choose from a range of characters (Krahe, 2004).

**Empirical Evidence**

Although there is less research into the effects of violent video games than for other forms of violent media, the empirical evidence does yield a positive correlation between playing violent video games and real-world aggression. The effects of such games are typically measured on five outcome variables: physiological arousal, aggressive cognition, aggressive emotions, aggressive behaviour and pro-social behaviour.

**Physiological Arousal**

Playing violent video games is associated with an increase is physiological arousal. It has been shown that “unexplained arousal can lead to a search for environmental cues to which the arousal can be attributed. Salient cues, such as a provocateur, can lead to the misattribution of arousal that was actually caused by playing a violent video game to anger at the salient provoking person, which in turn could increase the likelihood of an aggressive behavioural attack” (Anderson and Dill, 2000, p. 774).

For example, Segal and Dietz (1991) found that playing video games significantly increased heart rate, systolic and diastolic blood pressure, and oxygen consumption. With respect to violent video games, a study by Ballard and Wiest (1996) found that video game violence increased cardiovascular reactivity. In the study, a sample of undergraduate males played either a violent version of the video game Mortal Kombat or a less-violent version. Those who played the more violent version showed greater systolic blood pressure reactivity (Ballard and Wiest, 1996).

**Aggressive Cognitions**

Aggressive cognitions have been found to increase upon exposure to violent video games. A study by Anderson and Dill (2000) found that violent video games primed aggressive thoughts. In the experiment, they measured the relative speed with which participants could read aggression related words which they termed aggression accessibility scores. Participants playing violent video games had higher aggression accessibility scores than participants playing non-violent video games.

In a study by Bushman and Anderson (2002), they found that playing violent video games produced a hostile expectation bias (the tendency to expect others to react to potential conflicts with aggression). Participants played either a violent or a non-violent video game and then were presented with ambiguous scenarios about potential interpersonal conflicts. Those participants who played the violent video game were more likely to describe the main character as behaving, thinking and feeling more aggressively than those who played the non-violent game.
Aggressive Emotions

Playing violent video games has been shown to increase negative emotions. In a study by Anderson and Ford (1987), they determined that aggressive video games can have a short-term negative effect on the player’s emotional state. In the experiment, they assessed hostility, anxiety, and depression in youth after playing a highly-aggressive game, a mildly aggressive game, or a no-game control. They found that playing a violent video game led to increased hostility and anxiety relative to a no-game control. The mildly aggressive game led to an increase in hostility only.

Aggressive Behaviours

There have been many studies indicating that playing violent video games is correlated with aggressive behaviour. In a study by Gentile et al. (2004), they found that adolescents who exposed themselves more often to violent video games reported getting into more physical fights and arguments with teachers even when sex, trait hostility and weekly amount of video game play were statistically controlled. An interesting finding is that low-hostile students who have the highest exposure to violent video games are more likely to have been involved in fights than their high-hostile peers who have the lowest exposure to violent video games.

In another study by Anderson and Dill (2000), participants were placed in a competitive reaction time task after playing a violent or a non-violent video game. If the subjects won a time trial, they would be able to deliver a blast of noise (determining intensity and duration) to their opponent; if they lost a time trial, they would receive a noise blast from their opponent. Participants playing the violent video game were more likely to deliver longer noise blasts after lose trials than those who had played the non-violent game.

Decrease in Pro-social Behaviours

In response to playing video games, it has been shown that pro-social behaviours decrease. An experiment by Ballard and Lineberger (1999) examined reward and punishment behaviour after violent and non-violent video game play. The participants played either a non-violent video game or one of three violent video games (varying degrees of violence). They then participated in a teacher/learner paradigm where they either rewarded or punished a fellow participant. Participants rewarded others more in the non-violent video game condition than in the violent video game condition. Likewise, participants punished others more in the violent video game condition than in the non-violent video game condition.

D. Addiction

As video games have become embedded in our culture, their addictive potential has become clear. The definition of addiction is a behaviour pattern characterized by (1) recurrent failure to control the behaviour (powerlessness) and (2) continuation of the...
behaviour despite significant negative consequences (unmanageability) (Goodman, 1990).

Video game addiction manifests itself in a variety of ways, such as frequency of play, relapse (unsuccessful attempts to reduce playing time), withdrawal symptoms, and conflict (playing interferes with other activities) (Griffiths, 1998). There are a number of theories to explain the addictive qualities of video games including reinforcement, flow, and the narcotizing effect.

**Reinforcement**

To reinforce means to strengthen. The term is used in psychology to refer to any stimulus that increases the probability of a specific response. Video games offer reinforcers such as beating a previous high score, gaining additional ‘lives’, and exterminating the enemy.

Video games operate on a partial reinforcement schedule; that is, the reward is provided intermittently. A partial reinforcement schedule leads to behaviour that (1) occurs more rapidly and (2) is more resilient to extinction than does a continuous reinforcement schedule (Loftus and Loftus, 1983). Essentially, the behaviour continues because the player believes that the next reward is around the corner.

**Flow**

Flow is a state of optimal experience, whereby a person is so engaged in activity that self-consciousness disappears, time becomes distorted, and complex, goal-directed action is taken not for external rewards, but simply for the exhilaration of the act (Squire, 2001, website). According to Berger, “computer and video games offer all the essential features that we know are likely to result in a “flow” experience: closely matched skills and challenges in an activity, and, rapid feedback regarding one’s performance (2002, p. 64).” If an individual develops a strong desire to remain in this altered state, it may be one factor that increases the probability of developing an addiction to electronic game playing.

**Empirical Evidence**

The empirical evidence for the addictive nature of electronic games started to emerge approximately ten years ago. Although different studies report different rates of prevalence, the addictive capacity of these games has been demonstrated. Video games have changed immensely in the past decade; it is likely that modern video games “with their increasingly realistic graphics and their requirement for complex skills may be more liable to lead to psychological dependence and thus more harmful addictive behaviour” (Phillips et al., 1995).

In a study by Griffiths and Hunt (1998), it was found that 19.9% of adolescent gamers were currently dependent upon computer games. The study used a version of the DSM-
III-R criteria for pathological gambling and adapted it for video game use. In their analysis they found that the dependent players were significantly more likely to be boys and to have started playing at an earlier age than non-dependent players. In addition, dependent players were more likely to report aggressive feelings as a direct result of their computer game playing.

E. Interactive Narratives

Video games are interactive stories that incorporate the narrative elements of character, theme, and plot. Prior to the advent of interactive media, mass-mediated stories were found in both print (e.g. magazines) and electronic (e.g. television) forms (Berger, 2002). Narratives are a fundamental part of human culture. Every society has stories that reflect its values, ideas and nature. Bruner has argued that one of the ways in which people understand their world is through the "narrative mode" of thought. Narratives help people to understand the world around them; indeed, they “frame and nourish an identity” (Bruner, 1996, p. 41). Narratives are important in the structuring of an individual life.

The Nature of Video Game Narratives

The narrative theorist Ronald B. Tobias argued that there are 20 master plots that all stories draw upon. They are (Berger, 2002):

- Adventure
- Forbidden Love
- Quest
- Temptation
- Ascension
- Love
- Rescue
- The Riddle
- Descension
- Maturation
- Revenge
- Transformation
- Discovery
- Metamorphosis
- Rivalry
- Underdog
- Escape
- Pursuit
- Sacrifice
- Wretched Excess

In comparison to printed narratives, the range of plots in interactive narratives is quite limited. In video games plots of love, maturation, and sacrifice are non-existent. Subtle moral dilemmas are not presented in interactive narratives. For the most part, video games “appeal to young adolescents’ lowest level of thinking rather than encouraging abstract and complex thought” (Levine, 1996, p. 169).

In games with adventure, quest, or discovery themes, violence is an integral part of the narrative thread. For example, in Tomb Raider, an adventure game, violence drives all action in the narrative. Notably, the consequences of these violent actions are never recognized. The grief, destruction, sadness and anger associated with death are not explored or acknowledged.

Since narratives are a way of disseminating cultural values in a society, the restricted plots, ubiquitous violence, and stereotyped images do not promote a wide range of values. It is important to stress that this is not an anti-video game argument but rather an acknowledgment of the limited scope of these narratives and the danger of interactive media replacing other forms.
F. Militarism

From chess to battleship, many games throughout history have had war themes. Video games, however, have taken militarism to a new level, mostly because of their ability to produce graphic, realistic images.

Video games are recreated with meticulous detail to the technological aspects of warfare. However, these games focus solely on technology and do not acknowledge the deleterious effects of war. Youth playing these games are not prompted to consider the destruction and suffering that inevitably accompanies warfare, or the peaceful alternatives to war.

Military

In 1997, the Marine Corps signed a deal with MÄK Technologies to create a combat-simulation video game. Since then, numerous links between the American military and the gaming industry have been made. The purpose of these electronic war games is twofold: (1) to create warfare simulations to train soldiers, and (2) to develop a recruitment tool.

In November 2002, the American military released the video game, America’s Army, costing six million dollars to develop but offered on the internet for free (Huntemann, 2004, website). This recruitment tool is both an introduction to the army and a first person shooter game. The PC software consists of two separate titles: Soldiers a role-playing game that simulates army life--and Operations, a first-person shooter game that takes the player on missions to attack enemies.

In the spring of 2004 the game Kuma War was released. It is a shooter game based on American military missions. Kuma War was developed by Kuma Reality Games in cooperation with the Department of Defense. In the game, players can re-enact the raid that killed Saddam Hussein's two sons or the capture of Saddam Hussein. The game blends real video footage of the Iraq war with digital images. Unlike any other game, Kuma War blurs the line between war and entertainment.

For example, as the United States is currently engaged in a ‘war on terrorism’, it is important that this war is accurately documented and recorded. The game Kuma War is misrepresenting history as it presents the war through the lens of a militaristic and imperialist culture. The war is brought into public consciousness for entertainment purposes; and, people are not made aware of the devastating emotional, environmental, and physical consequences of war.

Power

In video games, the player exerts a certain amount of control over the actions of the character they are playing. However, the range of choices offered to a player in any given situation is limited. In addition, video games continually reward violent behaviour that is
performed quickly and without thought. Video games make killing a conditional response, and they give youth both the mental skill and the physical ability to kill (Grossman, 2000, website). Indeed, they do not encourage players to consider the implications or functions of the skills they are attaining (Grossman, 2000, website).

Many violent video games emphasize the anonymity of the main character through whom the player acts. The character is not presented as being part of a larger community and, therefore, is placed purposely in a de-individuated state. De-individuation can result in a psychological state of decreased self-evaluation, a loss of self-awareness and a “tendency to engage in behaviours that are not normally considered appropriate” (Toles, 1985, p. 68). Anonymity allows characters/players to diffuse responsibility for their actions.

G. Gender in Video Games

The majority of video games advance very limited notions of femininity and masculinity and instead, reinforce gender stereotypes. Typical male characters in violent video games have exaggerated physiques – muscular and large (Huntemann, 2004). This hyper-masculinity comes to be associated with violent behaviour.

Female characters in video games are not as prevalent as male characters. Their presence in video games is often peripheral and passive. However, when females are the primary character in video games (e.g. Lara Croft), they are often portrayed as sex symbols with disproportionate body measurements (e.g. big chest and tiny waist).

Sexual Violence

Even more disturbing than the gender stereotyping perpetuated by video games is the sexual violence portrayed. The game Duke Nukem was the first to pair extreme violence and sex. Players are awarded bonus points for killing bound naked women who are tied to posts pleading 'Kill me, Kill me.' In Grand Theft Auto 3, the top-selling game of 2002, the player can beat prostitutes to death with baseball bats after having sex with them. In Panty Raider, the goal is to strip women to their underwear against their will. These games are not innocuous: they promote and reward violence against women. Despite the fact that such video games occupy a small percentage of the market, they remain very harmful to society, and particularly women, because they advance dangerous ideas regarding violence and sex.

H. Video Game Ratings

In Canada, video games are rated by the Entertainment Software Rating Board (ESRB). Established in 1994 by the Entertainment Software Association, the ESRB is an industry sanctioned classification system for electronic games. In effect, the industry is self-regulated as it independently implements it’s own classification system for video games. The ESRB video game ratings have two components: (1) a rating symbol to
suggest age appropriateness and (2) a content descriptor. The rating symbols are as follows (Entertainment Software Rating Board, 2004, website):

- **Early Childhood** – Content that may be suitable for ages 3 and older.
- **Everyone** – Content that may be suitable for ages 6 and older. Games may contain minimal violence, some comic mischief and/or mild language.
- **Teen** - content that may be suitable for ages 13 and older. Games may contain violent content, mild or strong language, and/or suggestive themes.
- **Mature** - content that may be suitable for ages 17 and older. Games may contain mature sexual themes, more intense violence and/or strong language.
- **Adult** – Content is suitable for ages 18 and older. Games may contain graphic depictions of sex and/or violence.
- **Rating Pending** – The game has been submitted to the ESRB for rating.

**Rating Differences**

It is important to note that games given the ESRB rating of E (Everyone) can contain the following content: mild animated violence, mild realistic violence, animated violence, realistic violence, animated blood and realistic blood. In a study by Thompson and Haninger (2001), an analysis of E-rated video games played on home consoles revealed that 35 of the 55 games sampled involved intentional violence for an average of 30.7% of gameplay. Injuring characters was rewarded or required for advancement in 33 games. The content of these games was deemed suitable for children aged 6 and older. In the same study, an analysis of a random sample of 81 games rated T for Teen identified 51 observations of content that could warrant a content descriptor in 39 games in which the ESRB had not assigned a content descriptor (Thompson and Haninger, 2001).

A study performed by Funk et al. (1999) found that for games with obviously non-violent or very violent content, there is agreement between consumers and the ESRB system. However, there is considerable disagreement about violent content in games with cartoon-type violence. Although the industry rating system had not recommended restrictions on these games, a large percentage of the study participants classified them as violent.

**Canadian Classification Systems**

Until recently, Canada had used the ESRB ratings system. However, in the spring of 2004, Ontario and Manitoba introduced legislation that will regulate video games by through a classification system, in an effort to ban the rental or sale of violent and graphic video games to minors.

These provincial legislations emerged due to rating disagreements between Canadian regulatory bodies and the ESRB. For example, the ESRB classified the video game Manhunt as Mature, meaning that it is suitable for those 17 and older. In contrast, the Ontario Film review Board classified it as Restricted, meaning that no one younger than the age of 18 can legally buy or rent the game (Trichur, 2004). Notably, this game was banned in New Zealand being deemed injurious to the public good.

“Effects of Media Violence on Adolescent Health”
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Effectiveness of the Ratings System

Unfortunately, the ESRB ratings system is not enforced. A study by the U.S. Federal Trade Commission found that unaccompanied children between the ages of 13 and 16 were able to purchase M-rated games 85 percent of the time (FTC, 2000, website). In addition, the ratings system does not seem to affect the marketing strategies used by the companies that produce the games. In the same study, the FTC found that 70% of the violent M rated games studied were marketed to children under the age of 17 (FTC, 2000, website). If games are restricted there can be a boomerang effect in which the attractiveness of the restricted commodity is heightened. Thus, this rating system can serve as an exploitative marketing strategy used by the industry that ensures that adolescents will seek out the games.

VII. Conclusion and Recommendations

Violence in the media continues to be an issue of public concern. The empirical evidence suggests that this concern is warranted. However, media violence is a complex issue with many different facets. As there remains a market for violent media, the issues does not look as though it will go away any time soon, and thus, must be addressed. Perhaps a more judicious use of violence, limited exposure, and a critical evaluation of the media environment can attenuate some of its negative effects.

Recommendations:

• Youth need to develop skills to evaluate their media environment critically.

• Parents need to monitor the media that their adolescents are exposed to.

• The public needs to be educated about the risks involved in viewing media violence.

• A more effective rating system must be in place, and that system needs to be enforced.
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“Affects of Media Violence on Adolescent Health”
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