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## Children and Violent Video Games: Are There "High Risk" Players?

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The popularity of violent video games has raised concern for many, and it has been suggested that playing these games may affect children in meaningful, lasting, and harmful ways. A large body of related media research suggests that exposure to media violence contributes to a general desensitization to real-life violence, as well as to an increased likelihood of aggression.<sup>1</sup> For example, links have been established between exposure to violent video games and increased aggression<sup>2</sup>.

It has been proposed that some children may be exceptionally vulnerable to negative influence from playing violent video games. This group has been called "high risk" players.<sup>3</sup> High risk players may be individuals who are drawn to violent video games because of preexisting adjustment problems. Game-playing may then have a causal role in either perpetuating preexisting problems or in contributing to the development of new problems. For example, some children with academic problems may use video games as either an escape from schoolwork or as an area in which they can excel. Although there could be temporary benefit such as an increase in self-esteem, over the long term academic problems may worsen because of this strategy, leading to a decrease in self-esteem.

High risk players could also be those children for whom even a small increase in the relative risk of aggressive behavior triggers aggression. These players would be children who are drawn to violent video games because playing fuels pre-existing violent fantasies. Even if playing violent video games is not the original cause of a child's tendency for aggression, there is no reason to believe that violent game-playing will decrease aggressive tendencies. Research clearly indicates that exposure to media violence does not result in catharsis, or emotional release.<sup>4</sup> Indeed, children consistently report that playing violent video games is exciting and arousing. As one fourth grade girl said during a focus group examining children's experience of game-playing " So, you gotta be like 'OK, I'm gonna have to win this game, or else I'm dead!' Boom! Kabash!" Another stated, "Yeah. It's like kick! Punch! Yeah. And I do that. And I go 'Come on! Come on! Come on! Come on! Yeah! Yeah ! Yeah!"<sup>5</sup> Obviously, there are more powerful influences on children's behavior than playing violent video games: family life and values are more important, poverty and peer influences are more important. But for some vulnerable children, playing violent video games could be one modifiable factor that contributes to aggressive or even violent behavior.

A child's early experiences are pivotal to his or her general tendency to be aggressive, and particularly to solve conflict in an aggressive manner.<sup>6</sup> There is a body of research which indicates that exposure to media violence does contribute to the acquisition and expression of aggressive behaviors and to desensitization to violence. For example, television research has demonstrated that people with a heavy exposure to television violence are less likely to take action to help another person who is being victimized.<sup>7</sup> Playing violent video games may affect both cognitive and emotional functioning in vulnerable children.

Most parents work hard to ensure that children develop positive moral emotions and behaviors, including the ability and inclination to take responsibility for their actions. Moral behavior is motivated by higher-order emotions such as empathy and guilt.<sup>8</sup> These are called "self-conscious emotions" because they require the capacity for the judgment of one's actions in the context of their effect on others.<sup>9</sup> For children, the development of such emotions may be influenced by playing violent video games. These games promote automatic aggression with no room for reflective, other-oriented, responsibility-taking reactions. The required violent actions are devoid of moral emotion and moral judgment. For some children, playing violent video games may impair moral development because the normal connection between the performance of violent actions and moral evaluation is missing.

### Identifying "High Risk" Players

Within a framework of moral development, it is possible to begin to consider characteristics which may increase the risk for negative impact as a result of playing violent video games. Younger children, and bullies and their victims may be "high risk" because of immature moral development. There is also reason for concern about children with defects in emotion regulation.

### Younger children

Because their moral scaffolding is a work in progress, younger children are more susceptible to negative impact from violent video games than older children. "Younger" is defined as less than age 11 or 12, or about fifth to sixth grade. The development and internalization of moral standards continues until the end of the elementary school years. Somewhere around ages 10 to 12, most children become able to measure their behavior by abstract moral rules and in comparison with the behavior of others.<sup>10</sup> They are then capable of feeling guilty over violating moral rules about how they are supposed to treat other people. However, there is emerging research which suggests that playing violent video games may short-circuit the process. A survey of fourth, fifth, and sixth graders in Japan found that more frequent game players had lower empathy.<sup>11</sup> In a study of seventh and eighth graders children with a preference for violent games were more aggressive.<sup>12</sup> Violent video games demonstrate violent actions, require that the actions be practiced, and provide no realistic feedback regarding the consequences of violent actions. For younger children, in the absence of counterbalancing influence from parents, other adults, or peers, the messages of violent video games could be internalized as moral imperatives: violence is fun, violence is acceptable, violence is without negative consequences, violence is necessary.

### Bullies and Victims

Because it is such a common experience, bullying has long been considered to be almost a rite of passage, for many if not most children.<sup>13</sup> Today, however, the intensity of victim outbursts has brought considerable public and professional scrutiny to the problem of bullying. It is now recognized that most bullies and victims have current adjustment problems. Bullying experiences also contribute to long-term emotional and behavioral problems.<sup>14</sup>

Bullies have various cognitive and emotional deficits. Social problem-solving is one example. Social problem-solving is defined as the individual's ability to successfully deal with everyday interactions.<sup>15</sup> Bullies seem to need to intimidate or take advantage of others in order to cope with the everyday demands of childhood. Bullies have low empathy for victims and this prohibits an understanding of the cost of their behavior to victims. Bullies also lack the sense that deliberately victimizing others is morally wrong; their lack of empathy and accompanying lack of guilt prevent any internalized moral principles from influencing their behavior. Some have proposed that bullies have a pervasive problem

with emotion regulation.<sup>16</sup> They may be chronically overaroused, perhaps looking for danger, which makes them too self-focused to be sympathetic to victims. Alternately, some may be desensitized and insufficiently aroused by a victim's distress.

Victims also have various cognitive and emotional deficits. They also tend to have poor social problem-solving, and in particular poor conflict resolution skills.<sup>17</sup> Many victims also demonstrate poor emotion regulation as they are highly emotionally reactive.<sup>18</sup> This reactivity may be reinforcing for bullies, initiating a cycle of bullying and maintaining a high level of victim distress. This chronically high distress may further interfere with appropriate responding during an anxiety-provoking bullying experience.

The reason that bullies and victims can be considered "high risk" players should now be obvious. Bullies already have many negative characteristics which may be strengthened by playing violent video games: cognitive scripts in which the underlying view is that violence is fun and the right way to solve problems, low empathy, low guilt, and insensitivity to victims. It seems clear that bullies should not be exposed to reinforcement of anti-victim attitudes and further arousal which may ignite violent fantasies. In the case of victims, it is very difficult to change roles once you have been defined as a victim. The fantasy roles available in violent video games may be appealing to victims as a way to change their identity, at least temporarily, by identifying with aggressive characters they can control. For victims, game play may also provide an escape from unpleasant reality, and a possible way to increase self-esteem through game prowess. However, being overly committed to game-playing may preclude corrective social interactions.

Playing violent video games probably will not turn a docile, well-socialized child into a bully. Such play will not turn a strong-minded self-confident child into a victim. But for children who are already bullies or victims there are no corrective messages or experiences in violent video games.

### Children with Problems in Emotion Regulation

Individuals with healthy emotion regulation skills are able to experience a range of positive and negative emotions, to control the intensity and duration of each emotional experience, and to express emotion in socially appropriate ways.<sup>19</sup> Individuals with good emotion regulation try to avoid the negative arousal associated with anxiety and guilt. However, individuals with impaired emotion regulation may not experience negative arousal, or may actually seek the arousal associated with causing distress.

Children who constantly seek stimulation have problems with emotion regulation. It has been proposed that some stimulation-seeking children may become addicted to playing video games because playing temporarily satisfies their arousal craving. There are several reports of samples which include small groups of children who actually meet clinical criteria for addiction because game-playing interferes with their normal activities, and when they cannot play, they experience a form of withdrawal.<sup>20</sup>

Even when their time commitment is not excessive, total immersion in game-playing is common. A child from the focus group related her experience: "Like say you started at 4:15, you wrote it down, and then it's like 6:17 and you're like 'Oh my God! I spent two hours and something something minutes! I just started'." Another child stated: "When I play video games, everything is like going away and stuff." Another said, "It's actually your mind. It's actually you going there" In violent games children become immersed in violent actions. This immersion may sometimes provoke a real-life aggressive response from the player. As one girl said about her experience playing a violent game: "I scream at these things. I can't help it."

Children with deficits in emotion regulation may also seek immersion in game-playing to avoid negative affect such as anxiety and depression. Immersion in violent games may give them a sense of control or power they lack in real life. In one recent study, children with a stronger preference for violent games had more clinically significant elevations on a standardized measure of emotional and behavior problems than those with a low preference for violent games.<sup>21</sup>

Although some players may seek control over arousal, it is clear that prolonged play can also be overarousing and frustrating.<sup>22</sup> For example, in the focus groups of fourth and fifth graders already cited, the following comments were made about what the child described as a nonviolent game: "It's like I get frustrated with it cause it's hard. You build like roller coasters and you have this park and you gotta try to like raise money... I get frustrated cause it's hard." Negative emotional states such as frustration undermine regulatory capacities, already impaired in the stimulation-seeking child.<sup>23</sup>

### Conclusions

The argument has been made that some children are especially vulnerable to exposure to violent video games because of pre-existing characteristics. This high risk group includes young children (ages less than 11 to 12), children who are bullies, victims, or bully-victims, and children with problems in emotion regulation. It has been proposed that these groups are especially vulnerable to the disruption of moral development and moral behavior.

Much more research is needed to understand children's interactions with violent video games. Children's responses to extremely realistic virtual reality games have not even begun to be systematically examined, although it is likely that increased realism will amplify impact. Multiplayer gaming over the Internet is increasingly popular, and the impact of this activity is essentially unknown.

Although a consistent relationship between exposure to violent video games and increased aggression is emerging,<sup>24</sup> the precise nature of the relationship between violent video games and violent behavior remains to be determined. Some insist that research can never prove that exposure to media violence causes negative social and behavioral outcomes. In a criminal court of law the evidence must be convincing "beyond a reasonable doubt" to prove that a defendant caused or committed the action under question. In civil court, convictions require evidence that the event is "more likely than not." Converging data indicate that playing violent video games, more likely than not, contributes to negative outcomes for vulnerable children.<sup>25</sup>

When children commit acts of violence, this behavior is determined by multiple influences. Many believe that violent media create a culture which can be toxic for children.<sup>26</sup> Violent video games introduce a unique feature: the individual creates and participates in the violence. However, a child, even a vulnerable child, is neither a sponge nor a blank slate. The message that violence is necessary, fun, acceptable and without negative consequences has become the norm in violent media, and particularly in violent video games. This message can be changed. Meanwhile, research to identify high risk as well as protective factors should proceed.

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