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Digital poison? Three studies examining the influence of violent video games on youth

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ABSTRACT

The role of violent video games in the development of aggression and mental health issues in youth continues to be controversial in the scholarly community and general public. Compared to college students, few studies have directly examined the potential impact of violent video games on youth and current evidence is mixed. The current article attempts to address this with three studies examining violent game play in youth aged 12–18. In Study 1, youth were randomized to play closely matched action games with either violent or non-violent content. Youth were given the opportunity to act aggressively using an ice water task. Study 2 was a conceptual replication of Study 1, with slower narrative games rather than action games. Study 3 examined the issue in a correlational study of youth, contrasting exposure to violent video games in youth's personal lives to their exposure to violence in controversial books while controlling for other variables including family, peer and personality variables. None of the studies provided evidence for concerns linking video game violence to aggressive behaviors or reduced empathy in youth.

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1. Introduction

Video games (broadly defined here as games played through an electronic format such as computer, console or digital phone) as a form of immersive media have long been scrutinized for their potential influence on possible violent or aggressive behaviors in youth. Such scrutiny is based on the concern that children, through playing violent videogames (videogames that involve the player causing physical harm to another character as a feature of gameplay), learn violent or aggressive behavior and that this effect has reached a level of public health concern (see Hall, Day, & Hall, 2011 for review). Concern exists also regarding the potentially desensitizing nature of violent games, in which players become accustomed to and more accepting of violence and aggression and are less bothered by violence or aggression in real life or are less empathic. However, these concerns have become the source of considerable and often acrimonious debate within the scholarly community, among politicians and in the general public. A number of research studies have been conducted in this area but their results have been in conflict. So there continues to be room for

additional studies examining the relationship between violent video games and youth.

1.1. Who is concerned about video game violence and why?

Grimes, Anderson, and Bergen (2008) use the term 'causalists' to describe those who perceive violent video games as a direct cause of negative effects (psychosocial or otherwise) in game players. This category of researchers argues that laboratory and survey-based studies have shown players of violent video games to think, feel and behave more aggressively (Anderson et al., 2010). By contrast, optimists or skeptics hold the view that the research data remains contested and that links between video game violence and youth aggression or violence remain weak or limited by methodological issues (e.g. Adachi & Willoughby, 2010; Kutner & Olson, 2008). Although referring here to scholars, similar divides can be seen among politicians and the general public.

It is likely difficult to underestimate the degree to which concerns about video game violence are exacerbated by school shootings and other instances of mass violence perpetrated by adolescents, teens, and young adults. The social narrative linking mass shootings to video game violence likely crystallized by 1999 when it was revealed that the two shooters of the Columbine High School massacre were both avid players of the sci-fi/horror

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first-person shooter game *Doom* (Markey & Markey, 2010). Thus, it is not uncommon when violent acts are perpetrated by younger males to see media discussion about violent video games. However, when shooters are older or female, the issue is often ignored. The recent 2012 Sandy Hook shooting perpetrated by a 20-year-old male exemplifies this social phenomenon. Despite that the investigation was ongoing and little detail about the shooter official emerged, many politicians specifically targeted violent video games as a potential cause (e.g. Boleik, 2012). Similarly, some news reports highlighted “leaked” information suggesting that the perpetrator was a frequent player of violent games (e.g. Bates & Pow, 2013). However, the official investigation report (State’s Attorney for the Judicial District of Dansbury, 2013) did not substantiate these claims. Although the official report noted that both violent and non-violent games were found in the shooter’s home, the report noted that the perpetrator spent most of his time playing non-violent games such as *Super Mario Brothers* and *Dance, Dance Revolution*. This disconnect between the social narrative and investigative reports was seen also in the 2007 Virginia Tech Shooting in which the shooter was reported in the news to be an avid fan of violent games, but ultimately was found in the official investigation not to have played violent games at all (Virginia Tech Review Panel, 2007). In a recent review of mass shootings criminologists Fox and DeLateur (2014) specifically refer to linking such violent to video games a “myth.”

Such tragic events have sensationalized the video game debate, to the point that they are commonly referenced even in scholarly articles that do not directly pertain to mass shootings (e.g. Anderson, 2004; Anderson & Dill, 2000; Markey & Markey, 2010). This is not to be unexpected, given the high profile and emotional valence of the violent video game debate. However, even if links between violent video games and mass shootings may have more to do with social narratives than data and science, it is not unreasonable to hypothesize links between violent video games and other forms of aggression in youth.

1.2. Experimental research on video game violence

To date, the majority of research on video game violence has considered the issue in the context of college student samples. This body of research has often proven controversial due to common problems related to difficulty matching violent and non-violent game conditions to ensure internal validity (Adachi & Willoughby, 2010), lack of standardization and external validity of aggression measures used (Elson, Mohseni, Breuer, Scharkow, & Quandt, in press; Mitchell, 2012; Ritter & Eslea, 2005; although see Anderson & Bushman, 1997; Carlson, Marcus-Newhall, & Miller, 1989 for a more sanguine view) and difficulty in relating to real-life violence issues of interest to policy makers (Brown v EMA, 2011). In this section we briefly review typical examples of this research.

Most experimental studies of video game violence randomize participants to play either violent or non-violent games, and assess participants on some measure of aggressive thoughts, feelings or behaviors. For example, one study by Anderson and Dill in 2000 tested the effects of playing videogames in the lab on aggression. The results suggested that there was a causal relationship between violent videogames and laboratory aggression as measured by the commonly employed noise blast test (the Taylor Competitive Reaction Time Test or TCRTT). However, for aggressive behavior, significance was achieved for only one of four outcomes. A study of a similar design (Ferguson et al., 2008) also tested the relationship between playing videogames in a lab and aggression using the TCRTT. Results of this experiment suggested that there was no relation between violent videogames and short term aggression.

As noted, however, a common issue for much of this earlier work on video game violence was difficulty in identifying carefully

matched control conditions of non-violent video games that were similar to the violent games on qualities other than violent content. Scholars have identified as important several variables ranging from difficulty of the game, pace of the action, the competitiveness, and how complex the control for the game may be (Adachi & Willoughby, 2010; Przybylski, Rigby, & Ryan, 2010; Valadez & Ferguson, 2012). To address this issue Adachi and Willoughby (2011) designed two experiments using video games on the Xbox 360. In the first experiment they carefully matched two video games using pilot testing on criteria other than violent content. In the second experiment, they manipulated both violent content and competitiveness. The aggressive behavior using a hot sauce test was assessed for participants in their studies. Their results suggested that the competitiveness of a video game, but not its violent content, was predictive of aggressive behavior.

Further research has continued to vary on whether violent video games do (Ivory & Kaestle, in press; Panee & Ballard, 2002; Williams, 2013) and do not (Ballard, Visser, & Jocoy, 2012; Charles et al., 2012; Elson, Breuer, Van Looy, Kneer, & Quandt & Kroger, 2013) provide evidence for the belief that violent games contribute to aggression in the laboratory. As such, it is difficult to make definitive statements about this research and interpretation of this research and what it means on a larger scale has often been acrimonious. A relatively smaller number of studies, both correlational and experimental, have more specifically examined the issue of video game violence in youth. It is to this group of studies that we now turn.

1.3. Video game violence and aggression among youth

A relatively smaller pool of studies, perhaps comprising several dozen, has examined the impact of video game violence exposure on aggression in youth. Several of these are experimental, although correlational and longitudinal studies are actually more commonplace for younger samples. As such we begin by considering the correlational work before discussing the few existing experiments.

A 2012 longitudinal study is among the best studies examining whether violent video games increase aggression (Willoughby, Adachi, & Good, 2012). The study included almost 1500 Canadian students followed from grade 9 through 12. After the study controlled for a number of possibly confounding variables, they found a small correlation ($r = .07$) between violent video games and later aggression across the four years. This result suggests that some predictive relationship may exist, but that it is quite small. The authors also noted that it may be difficult to separate out the violent content of video games from their competitiveness. A follow up analysis by the same authors suggested that competitiveness, more than violent content, may be the critical factor behind even that small effect (Adachi & Willoughby, 2013a).

Other longitudinal studies have been inconsistent regarding whether video game violence has a small predictive relationship with later aggression (e.g. Hopf, Huber, & Weiß, 2008; Möller & Krahé, 2009) or no predictive relationship at all (e.g. Ferguson, San Miguel, Garza, & Jerabeck, 2012; von Salisch, Vogelgesang, Kristen, & Oppl, 2011) or potentially an inverse relationship (Shibuya, Sakamoto, Iori, & Yukawa, 2008). These studies have varied in the sophistication of the use of control variables, the quality of aggression measures, and the degree to which issues such as single responder bias (Baumrind, Larzelere, & Cowan, 2002) may have influence results.

The question of whether the interactivity of video games makes them a more powerful influence on youth has also been an area of contention. Some scholars (e.g. Anderson & Dill, 2000) have raised his as a potential, although early meta-analyses (Sherry, 2007) suggested that the impact of video games on aggression has been, if anything, less than for television. A 2009 meta-analysis directly

compared video games to television effects on physical aggression outcomes and found little evidence for differences (Ferguson & Kilburn, 2009). However, direct tests of this hypothesis in individual samples have been few. One prospective study (Ferguson, 2011) found little evidence for either television or video game violence exposure effects on later youth violence.

In 2008, Polman, de Castro and van Aken examined whether watching as opposed to playing a video game had differential effects in a laboratory setting. They measured aggression in youth in the Netherlands aged 10–13. Results of the study suggested that boys acted in a more aggressive manner after playing the violent video game than watching the violent game. No significant difference was found between playing non-violent versus violent games, however. Girls' aggression was not affected by the different video game conditions. The study is limited in its ability to examine the interactivity hypothesis given no television condition was included and few people watch video games for pleasure, thus it is an atypical control condition. Given that no differences were seen between violent and non-violent games, and effects were not seen for girls, it is difficult to use this study to support the interactivity hypothesis.

Experiments with youth are, otherwise fairly few. One other notable example is that of Konijn, Nije Bijvank, and Bushman (2007) who examined violent video game effects in a sample of Dutch children. Their study suggested that playing violent games could increase aggression even if the kids were told that the "noise blast" TCRTT could even be harmful at the highest setting. Interestingly, however, the youths' actual experience playing games in real-life had no impact on TCRTT aggression. Thus, perhaps something unique about the laboratory environment primed behaviors that are not replicated in real-life exposure to games. This study, while quite sophisticated in many respects, also used an unstandardized version of the TCRTT which has been identified as problematic (Elson et al., in press).

1.4. The current study

At present, the research on video game violence remains conflicted. Some scholars have suggested that the evidence linking video game violence to aggression in youth is convincing (e.g. Anderson et al., 2010; Strasburger, 2007) and this appears to be consistent with the APA's current policy statement on video games and interactive media (2005). Other scholars appear to be less convinced by this however (e.g. Adachi & Willoughby, 2013b; Breuer, Scharkow, & Quandt, in press). The APA's policy statement has, itself, come under criticism (e.g. Quintero-Johnson, Banks, Bowman, Carveth, & Lachlan, 2014) and a group of approximately 230 media scholars recently wrote to the APA asking them to retire their policy statements on media violence (Consortium of Scholars, 2013).

From the contested and, for experimental studies, sparse nature of the literature on youth and video games, there is room for further scholarship. The current article employs three studies, two experimental and one correlational to advance the discussion in several ways. First, our experimental studies attempted to employ a more salient measure of laboratory aggression than previous studies which we hoped might decrease the potential for an artificial laboratory situation to induce demand characteristics. Second, our studies examine the issue of whether pre-existing mental health symptoms in youth might interact with video game violence in the production of aggression, an issue not well covered in previous literature. And third, our correlational study specifically compares video game violence to another medium, in this case, books with violence. In all cases the hypothesis that video game violence increases aggression in the lab and in real life was tested. Further the hypothesis that video game violence interacts with mental health symptoms was also tested.

2. Study 1

The first study examines the degree to which randomized video game violence exposure in a laboratory setting influences behavioral aggression in a sample of youth. Two hypotheses are tested, first that video game violence has a direct and general influence on increasing aggression and, second, that video game violence will interact with mental health symptoms to increase aggression in youth with pre-existing mental health symptoms. In the first study, action oriented games were employed.

2.1. Methods

2.1.1. Participants

Participants in the first study included 70 youth from a small, primarily Hispanic city in the southern US. 42 (60%) of the youth were male and 66 (94.3%) were Hispanic. This ethnic composition is typical for the city from which the sample was drawn and is a sample of convenience. The mean age of the youth was 14.69 ($SD = 2.17$) with a range of 12–18.

2.1.2. Video games

For the first study, action oriented games with less narration were employed. Two games were selected in consultation with another research group that has experience on the issue of careful game matching and has done extensive game pre-testing in the past (Adachi & Willoughby, 2011). The games selected were *Mortal Kombat* and *Forza Racing* both for the XBOX 360. *Mortal Kombat* is a violent action game in which players fight one-on-one with other characters in the game, often resulting in gruesome "fatalities" or bloody finishing movies. *Forza Racing* is a high paced competitive racing game with no violent content at all. Both games are highly competitive, fast-paced and action oriented.

2.1.3. Parent forms

Parents were asked to fill out a demographic form as well as two measures of interest. The first of these was a 12-item Likert scale measure of parent media supervision strategies. This survey, included in its entirety as Appendix A was designed to assess parents' concerns toward violent media and their efforts to shield children from this media. Although not part of the study's main hypotheses this test is included to examine the impact of shielding youth from violent media on aggressive behavior and whether such strategies are effective. Coefficient alpha for this measure with the current sample (combined studies 1 and 2) was .77.

Parents also filled out the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). The CBCL is a well-validated clinical measure of mental health symptoms for youth containing several clinical syndrome subscales although these can be broadly grouped into internalizing and externalizing symptoms. With the combined samples of studies 1 and 2, the internalizing subscale had an alpha reliability of .93 and the internalizing subscale also had an alpha of .93.

2.1.4. Child forms

In addition to a demographic form, children were asked to fill out the 15-item short form of the Buss and Warren (2000) aggression questionnaire. This Likert scale survey is designed to measure trait aggression and served as a control variable in the current study. Coefficient alpha with the current sample was .83.

2.1.5. Aggressive behavior

Aggressive behavior was measured in this study using an ice water task. In the ice water task, participants are given the opportunity to immerse a male confederate's hand in a bucket of freezing ice

water for up to ten seconds. Participants are given the opportunity to test the ice water first to see that it is unpleasant. A cover story was used explaining that the experimenters were conducting a separate study on pain tolerance and needed an objective participant to tell the confederate how long to maintain their hand in the ice water for a 10-s maximum. The participant was also informed that, if they were uncomfortable with this task, they did not have to perform it (thus providing a no aggression option). A script was used for the confederate to exclaim about the discomfort he was feeling and asking to let his hand be removed from the ice water. This task improves upon previous aggression measures (see Ritter & Eslea, 2005 for discussion) by being more salient, involving a present victim who, due to the script, clearly wishes to avoid the discomfort of the ice water.

2.1.6. Empathy

Those participants who agreed to put the confederate's hand in ice water were also given a 6-item Likert questionnaire inquiring how bad (or conversely amused) they felt about putting the confederate's hand in ice water. A sample question for this measure is "I felt bad about how cold their hand felt." Coefficient alpha for this scale was .63. It was not administered to participants who declined to participate in the ice water task as the questions referred specifically to this task.

2.1.7. Procedure

Participants were welcomed to the lab and asked to read and sign the informed consent form. Youth were then separated from their attendant guardians and led into the video game lab. There they played their randomized game for a 45-min period. Following this they were escorted to a second area by a female researcher where they were given the cover story regarding the ice water task. Following the ice water task, the youth were given the youth surveys, then reunited with their guardian and debriefed. The empathy questionnaire was given last so that it did not interfere with other questionnaires or procedures. None of the youth reported suspiciousness about the study. Statistical analyses involve 2 × 2 ANCOVA designs (gender × video game condition with trait aggression as covariate) for the main analyses, with OLS regressions to test for the interaction of mental health symptoms with video game violence on aggression. The ice water task time immersion was the dependent variable.

2.2. Results

2.2.1. Main analyses

Results of the main analyses revealed no significant effects for violent video game condition, nor for gender, nor for their interaction on aggressive behavior. Youth in the violent game condition were not significantly more aggressive ($M = 3.50, SD = 4.56$) than were youth in the non-violent game condition ($M = 2.88, SD = 4.20$), [$F(1,65) = 0.57, p = .45, r = .07$.] Given that the effect size is near to zero, Type II error can be ruled out as a counter explanation. In a power analysis using G*Power it was estimated that a sample size of approximately 1600 would be required for a "statistically significant" result with this effect size.

Results for the empathy questionnaire were likewise nonsignificant for video game condition [$F(1,65) = 0.67, p = .42, r = .10$.]. In this case, those who played the violent video game were slightly more empathic ($M = 20.60, SD = 3.22$) than those who played the non-violent game ($M = 19.93, SD = 3.21$) meaning that the observed effect, though non-significant, was in the opposite direction hypothesized and can't be explained by type II error.

2.2.2. Regression analyses

The possibility of an interaction between mental health symptoms and video game condition were examined using OLS

regression including gender, trait aggression, parental shielding and interaction terms between the mental health symptoms and video game condition as predictors. Collinearity diagnostics revealed absence of collinearity issues (highest VIF = 2.11). The resultant model was non-significant [$R(5,64) = .33, R^2 = .11, p = .18$]. Neither the interaction terms involving video game condition with externalizing ($\beta = .09, p = .60$) or internalizing ($\beta = -.10, p = .55$) symptoms were significant. However, parental shielding was negatively associated with aggression at a level approaching significance ($\beta = -.22, p = .07$) with a small effect size.

2.3. Discussion

Results of study 1 lent little support for the hypothesis that violent video games increase aggressive behavior in youth, whether in general, or in interaction with mental health symptoms. Given the salience of the ice water task, it appears unlikely that short-term exposure to video games results in increased willingness to harm others. However, parental shielding was associated with slightly reduced aggression, so it is possible that parental involvement has some small positive influence.

Replication, however, is a key element of science. Not all video games are the same, and it is possible that, even if the games used in Study 1 had little influence on aggression, other types of games still may. Thus there is need to replicate these results with other video games.

3. Study 2

Study 1 found little evidence to link action games with violence to behavioral aggression in the lab. However, it may be erroneous to consider the concept of violent video games as unitary. Different violent games may have differing qualities such that some may increase aggression whereas others do not. Thus, in the second study, a conceptual replication is presented involving the use of more narrative games rather than action oriented games. Narrative games may involve more immersion and more identification with characters involved (see Konijn et al., 2007) and thus may have more impact than action oriented games. Thus Study 2 tests the hypotheses that violent video games may increase aggressive behavior either in general, or in interaction with mental health symptoms in a sample of youth.

3.1. Participants

Participants in the second study included 52 youth from two small cities in the southern US, one primarily Hispanic, one primarily Caucasian. 27 (50.9%) of the youth were male and 32 (60.4%) were Hispanic with the majority of the remainder (30.2%) Caucasian. The mean age of the youth was 15.07 ($SD = 2.23$) with a range of 12–18. For three participants, who were not included in the above totals, the video game console experienced significant glitching and freezing during their play, about which they expressed some frustration. Given that frustration can increase aggression (Przybylski, Deci, Rigby, & Ryan, in press) these participants were excluded from the remainder of the experiment.

3.1.1. Video games

For the second study, narrative games with less action and more plotline and characterization were employed. Two games were selected in consultation with the same research group as in Study 1 (Adachi & Willoughby, 2011). The games selected were *Walking Dead* and *Portal 2* both for the XBOX 360. *Walking Dead* is a story-based game in which the protagonist must help save a young girl from zombie hordes. *Portal 2* is a story-based game in

which robotic characters must escape an obstacle filled complex. Portal 2 is non-violent although characters do use a portal gun to make holes in walls and floors they can jump through. Thus Portal 2 has a particular advantage as a control game in that is mechanistically similar to many violent games despite not employing violence. Both games involve heavy narration and sophisticated development of the main characters.

3.1.2. Procedure

The procedure, including independent and dependent measures and statistical analyses were otherwise identical to Study 1.

3.2. Results

3.2.1. Main analyses

Results of the main analyses revealed no significant effects for violent video game condition, nor for gender, nor for their interaction. Youth in the violent game condition were not statistically more aggressive ($M = 4.83$, $SD = 4.63$) than were youth in the non-violent game condition ($M = 4.23$, $SD = 5.04$), [$F(1, 47) = 0.25$, $p = .62$, $r = .06$.] Given that the effect size is near to zero, Type II error can be ruled out as a counter explanation. In a power analysis using G*Power it was estimated that a sample size of approximately 2180 would be required for a “statistically significant” result with this effect size.

Results for the empathy questionnaire were likewise nonsignificant for video game condition [$F(1, 44) = 0.87$, $p = .362$, $r = .14$.] As with Study 1, those who played the violent video game were slightly more empathic ($M = 20.27$, $SD = 3.31$) than those who played the non-violent game ($M = 19.30$, $SD = 3.71$) meaning that the observed effect, though non-significant, was in the opposite direction hypothesized and can't be explained by type II error.

3.2.2. Regression analyses

The possibility of an interaction between mental health symptoms and video game condition were examined using OLS regression including gender, trait aggression, parental shielding and interaction terms between the mental health symptoms and video game condition as predictors. Collinearity diagnostics revealed slight collinearity between the interaction terms (highest VIF = 3.39). The resultant model was non-significant [$R(5, 37) = .27$, $R^2 = .07$, $p = .76$]. Neither the interaction terms involving video game condition with externalizing ($\beta = .15$, $p = .61$) or internalizing ($\beta = -.07$, $p = .82$) symptoms were significant, and given the collinearity issues, the effect sizes are likely inflated slightly. Unlikely Study 1, parental shielding was positively associated with aggression ($\beta = .14$, $p = .43$) although this effect was not statistically significant.

3.3. Discussion

Results of study 2 largely replicate the results of Study 1, albeit with a different class of video games. No evidence emerged that violent games cause aggressive behavior in youth short term, either generally or in interaction with mental health symptoms. Unlike Study 1, in Study 2, parental shielding was unrelated to aggressive behavior.

3.3.1. Follow-up analyses of studies 1 and 2

Parents in studies 1 and 2 were asked to fill out surveys regarding their attitudes toward violent video games and their efforts to shield their children from violent media. Their responses were used as a predictor variable in the regression equations in studies 1 and 2. However, there has been some recent interest in examining both scholars' and parents' attitudes toward violent media (Bushman & Cruz, 2013; Van Looy et al., 2013). There has also been

interest in examining the sociocultural factors that relate to fear of video games (Przybylski, in press). Thus, although descriptive, it was felt that our current data might shed some useful light on this question. As such, this follow-up analysis involves combined parent data from studies 1 and 2.

3.3.2. Participants

Participants in this follow-up analysis were 112 parents and guardians who completed the surveys regarding media and video game attitudes. Of these the majority (87% or 77.7%) were female, and the majority were Hispanic (98 or 87.5%) with the remainder Caucasian. Their mean age was 36.52 ($SD = 8.88$). In addition to these demographic variables, parents were also asked about their education level, family income, whether they owned a cell phone, hours spent using the internet, playing video games and playing video games with their children.

3.4. Results

3.4.1. Predictors of parental screening

In the first analysis, parental shielding was examined as an outcome in regression analyses. Predictors in OLS regression include parent gender, age, education level, family income, cell phone ownership, and hours spent on the internet, playing video games and playing video games with their children. Collinearity issues were absent in this model (highest VIF = 1.69). The resultant model approached significant [$R(8, 92) = .31$, $R^2 = .15$, $p = .06$]. Parent's own exposure to video games was strongly associated with less fear of media and shielding of their children ($\beta = -.47$, $p < .001$). Unexpectedly, and somewhat contrary to the results of Przybylski (in press), women were also less inclined to express fear of and shield their children from video games with violence ($\beta = -.22$, $p = .05$). This may, however, be due to the combination of video game use and gender in the same regression equation. Male gender was highly correlated with video game use among parents and guardians ($r = .44$, $p < .001$). Thus, it may be that women guardians who are also gamers are particularly disinclined to worry over video game violence even compared to their male counterparts. Overall gaming and gaming with family were also highly correlated ($r = .48$, $p < .001$) and outside of the context of gaming experience, gender was unrelated to parental shielding ($r = -.07$, $p = .50$). Thus, these findings are in line with those of Przybylski (in press) suggesting that the interaction between gender and gaming experience and concern about games is complex.

3.4.2. Parental attitudes toward violent media and shielding youth

The questions employed in the parental screening measure were used to create a continuous variable of parental screening. However, there may be some value in descriptively understanding how parents are relating to the issue of media violence, whether they are concerned and whether they are screening their children.

Table 1 presents descriptive information on the questions included in the parental screening measure. The item numbers correspond to the items on the survey in the Appendix A and are presented in the table in abridged form. As can be seen, parents tended to have very divergent views on media and shielding children from media. As such, no consensus among parents and caregivers is apparent. Most responses presented a fairly even or bell-shaped spread in responses. To highlight a few responses and the complexities of parents' views, a majority of parents agreed or strongly agreed (combined henceforth) that they monitor or restrict some objectionable content from their children (64.9%). However a majority of parents disagreed that children mimic violence seen in media (65.7%) with only 8.8% strongly agreeing with this concept. A majority of parents (62.3%) disagreed that letting children play M-rated games or watch R-rated movies was a part

Table 1
Descriptive details on parents' responses to media and shielding behavior questions.

	Not at all true			Very true
	1	2	3	4
<i>(1) Concerned about book content</i>				
Studies 1&2	38.6%	31.6%	15.8%	15.8%
Study 3	65.1%	23.8%	6.3%	4.8%
<i>(2) Comfortable letting child watch higher rated games/movies</i>				
Studies 1&2	21.1%	25.4%	31.6%	21.1%
Study 3	24.0%	32.0%	25.6%	18.4%
<i>(3) Don't let child consume some media due to content</i>				
Studies 1&2	16.7%	30.7%	20.2%	30.7%
Study 3	33.6%	30.4%	21.6%	14.4%
<i>(4) Parents worry too much about what children see on TV</i>				
Studies 1&2	14.9%	31.6%	21.1%	31.6%
Study 3	31.5%	29.8%	23.4%	15.3%
<i>(5) Parents should let children consume violent media</i>				
Studies 1&2	22.8%	32.5%	24.6%	19.3%
Study 3	27.0%	2.2%	21.4%	25.4%
<i>(6) Letting children watch objectionable media is an opportunity for dialogue</i>				
Studies 1&2	21.1%	28.1%	24.6%	26.3%
Study 3	21.3%	21.3%	33.9%	23.3%
<i>(7) Actively protect children from harmful media content</i>				
Studies 1&2	9.6%	24.6%	33.3%	31.6%
Study 3	24.4%	28.4%	28.3%	18.9%
<i>(8) Let child play M-rated games or watch R-rated movies</i>				
Studies 1&2	17.5%	23.7%	27.2%	31.6%
Study 3	36.5%	18.7%	27.8%	19.0%
<i>(9) Children mimic violence seen in media</i>				
Studies 1&2	28.9%	36.8%	25.4%	8.8%
Study 3	37.1%	29.8%	22.6%	10.5%
<i>(10) Letting kids watch R-rated movies or play M-rated games is normal</i>				
Studies 1&2	30.7%	31.6%	27.2%	10.5%
Study 3	37.3%	33.3%	22.2%	7.1%
<i>(11) Have very strict standards on what children can watch/play</i>				
Studies 1&2	16.7%	32.5%	27.2%	22.2%
Study 3	25.2%	33.1%	17.3%	24.4%
<i>(12) Trying to shield children from media can itself be harmful</i>				
Studies 1&2	14.0%	30.7%	36.8%	18.4%
Study 3	28.2%	28.2%	29.8%	13.7%

Note: Due to a small number of missing responses, proportions may not add to exactly 100%.

of normal development, and yet let their children consume such media anyway (58.8%). A majority of parents worried that shielding children from objectionable content could itself be harmful (55.2%).

3.5. Discussion

In this follow up analysis to studies 1 and 2 we examined guardians' attitudes toward violence in the media and their efforts to shield children from media violence. Results indicated that parents' attitudes toward violent media and shielding of children were predicted primarily by parents' own gaming experience. Parents who had more experience with video games were less likely to worry about media in general or attempt to shield their children from objectionable content. These results are well in line with previous data suggesting that inexperience with media is one driving force in variance in concerns about media (Ivory & Kalyanaraman, 2009; Przybylski, in press). This is not to say that one set of parents are right or wrong about their greater concerns or lesser concerns, just that a sociological analyses of these issues can help us understand the cultural forces that drive them.

Parents also were considerably mixed in their opinions about media violence and the degree to which children should be shielded from such media. Parents were generally skeptical about media violence effects, with only 8.8% strongly endorsing the statement that children mimic such behavior, and 65.7% disagreeing or strongly disagreeing. However, parents were mixed on the degree to which they let their children watch R-rated movies or play video

games with an M-rating or otherwise restrict their children's access to objectionable content. One possibility is that there is a discrepancy between parents' moral attitudes toward media, in which some parents may seek to restrict some content due to moral objections, and their beliefs about the harmfulness of such media. In other words, parents may morally disapprove of some media content even if they do not believe it is harmful. Many parents also appeared to worry that restricting children's access to media with objectionable content may itself be harmful and many preferred to dialogue with their children over objectionable content rather than necessarily restrict. Other parents felt differently and strongly endorsed various levels of restriction. Nonetheless, there does not seem to be a consensus among parents in this sample about whether media is harmful, or their approach to restricting their children's access to such content.

4. Study 3

In the third study we sought to examine the impact of violent video games on real-world aggressive behaviors using a survey research approach. As with studies 1 and 2 this study will concern itself with the interaction of mental health symptoms and violent game exposure. This study will also concern itself with exposure to violence in books to provide some comparison between video games and literature. Such a comparison would highlight arguments that the interactive nature of video games may make them more harmful (Sherry, 2001). In this study, three hypotheses are tested, namely that violent video game exposure will be correlated with youth violence and aggression, that video game violence will interact with mental health symptoms in predicting youth violence and that the influence of violent video games will be greater than for violence in books.

4.1. Methods

4.1.1. Participants

Participants in the third study included 133 youth from a small, primarily Hispanic city in the southern US. 59 (44.4%) of the youth were male and 130 (97.7%) were Hispanic. This ethnic composition is typical for the city from which the sample was drawn and is a sample of convenience. The mean age of the youth was 15.26 ($SD = 1.97$) with a range of 12–18.

4.1.2. Parent forms

In addition to the demographic questionnaire, parents were asked to fill out several forms. The first of these was the CBCL (Achenbach & Rescorla, 2001) discussed in study 1. With the current sample internalizing symptoms demonstrate an alpha reliability of .85 and externalizing symptoms .92.

Parents also filled out the parent media supervision questionnaire noted in study 1. With the current sample, this survey had an alpha reliability of .75.

4.1.3. Youth forms

In addition to a demographic survey, children were asked to fill out several forms. The first of these were three questions asking about their involvement in three civic behaviors, namely volunteering in the local community, raising money for charitable causes and participating or taking interest in political elections. Answers for these three measures were combined into a civic behavior outcome variable. Reliability of the combined variable ($\alpha = .56$) was low, so it will be interpreted with caution.

Youth were also asked to respond regarding their readership of controversial books that are commonly challenged for their inclusion in public libraries due to objectionable content. This measure

of book readership is the same used in some prior research (Ferguson, in press). In this survey, participants indicate whether or not they have read any from among the 30 most commonly challenged books in the United States. These books were compiled from the American Library Association's (2013) list of top challenged books and represent 30 of the most commonly challenged books of recent years. However, books are challenged for a variety of reasons, ranging from sexuality to language to occult references to violence. As such, the list of 30 books was also parsed for books specifically challenged due to violent content. Eight books from the list were challenged due to violent content and readership of these eight books were summed to create a violent book exposure variable. Coefficient alpha for this variable was, perhaps unsurprisingly, a bit low at .57, as people do not tend to read books in clusters. Coefficient alpha for the entire list of books was higher at .82.

Youth also filled out several subscales of the Negative Life Events scale (NLE; Paternoster & Mazerolle, 1994). The NLE includes the following scales used as predictors in this study:

- (1) *Antisocial personality* (e.g., It's important to be honest with your parents, even if they become upset or you get punished. To stay out of trouble, it is sometimes necessary to lie to teachers, etc.; alpha = .77). This subscale included 11 items.
- (2) *Family attachment* (e.g., On average, how many afternoons during the school week, from the end of school or work to dinner, have you spent talking, working, or playing with your family, etc.; alpha = .83). This subscale included 7 items.
- (3) *Delinquent peers* (e.g., How many of your close friends purposely damaged or destroyed property that did not belong to them, etc.; alpha = .89). This subscale included 9 items.

This measure tapped multiple constructs related to family and peer environment as well as delinquent behavior and beliefs. The NLE has been widely used, particularly in the criminal justice literature and has demonstrated good reliability and validity (Paternoster & Mazerolle, 1994). Most scales described here are used as predictor variables, although those related to criminal behaviors (described below) function as outcome variables. There are no item overlaps between subscales.

Video game violence exposure was assessed using a commonly employed survey approach (e.g. Kutner & Olson, 2008; Lenhart et al., 2008) in which teens listed the top 3 games they have recently played and how often they have played them. Consistent with prior approaches, rating of violence were obtained using the standard Entertainment Software Ratings Board (ESRB) ratings for such games. Using the ESRB ratings eliminates the subjectivity and demand characteristics of asking youth themselves to rate the violent content of the games they play. This approach has also been found to be highly reliable and valid in prior research (Ferguson, 2011). The violent game variable was calculated by multiplying the game rating by time spent playing and summing across the three reported games.

Related to outcome measures, the NLE questionnaire has a subscale related to *general delinquency* (e.g., How many times in the following year have you stolen something worth more than \$50, etc.). The *general delinquency* scale can be further divided into non-violent (alpha = .83) and violent (alpha = .90) criminal activities.

4.1.4. Statistical analyses

Main analyses consisted of hierarchical multiple regression equations. Separate hierarchical multiple regressions were run for each of the outcome measures (violent crime, non-violent crime, civic behaviors). In each case, child age and gender were added on the first step, antisocial personality on the second step,

parental shielding, family attachment and delinquent peers were added on the third step, violent video game and violent book exposure on the fourth step and the interaction terms between mental health symptoms and hours spent playing violent video games on the final step. The video game violence variable was centered prior to creation of the interaction terms to prevent multicollinearity.

As with the follow up study for studies 1 and 2, parental attitudes about violent media and shielding of youth will also be assessed. As we had not asked parents about their own gaming habits for this survey, only descriptive data will be presented.

4.1.5. Procedure

Participants were recruited via snowball sampling. Families who were nominated were provided with parental informed consent and minor assent forms in both English and Spanish. When consent was given, they were then provided with the study forms which were taken in the home and returned to the university in a sealed envelope. All procedures were approved by local IRB and were designed to comport with APA standards for ethical research with human participants.

4.2. Results

4.2.1. Parental attitudes toward media and screening

Descriptive results regarding parents and guardians' attitudes toward media and shielding of youth are presented in Table 1. Overall results were consistent with the results from the follow up study for studies 1 and 2. Although specific answers to some questions showed more or less skepticism regarding media effects as compared to the previous sample of parents, overall results indicated similar spread in responses between parents. These results suggest that parents and guardians demonstrate wide variation in regards to their attitudes toward media violence and the necessity of shielding children. Doubts about media effects remained fairly common with 66.9% of parents expressing some level of doubt that children mimic what they see in the media and only 10.5% strongly agreeing with this possibility.

4.2.2. Bivariate games/outcomes correlations

Bivariate correlations between violent game exposure and outcome variables were, in all cases, small and non-significant. Violent game use correlated $r = -.10$ with civic behaviors, $r = .08$ with non-violent crimes and $r = -.04$ with violent crimes.

4.2.3. Main analyses

Main analyses for this study were hierarchical regressions as described earlier. When running these regressions, mild collinearity between the interaction terms became evident (VIFs approximately 3.4–3.7). Although this did not influence the binary "statistical significance" it did create a "bouncing beta" effect in which standardized regression coefficients were spuriously inflated in opposite directions. Thus, betas involving these variables will be examined more closely for possible inflation effects.

For the first outcome variable, civic behaviors, results are presented in Table 2. The model was significant only to the third step, eliminating the book and video game variables altogether. Only age was related to civic behavior ($\beta = .23$). Older children were more civically involved. No other variables were significantly associated with civic behaviors.

For the second outcome variable, non-violent crimes, results are presented in Table 3. The model was significant only at the third step and then only marginally ($p = .07$), eliminating the book and video game variables altogether once again. Only delinquent peer associations was related to non-violent crimes ($\beta = .32$). No other variables were significantly associated with non-violent crimes. As expected, given the collinearity issues, the regression

Table 2
Multiple regression results for media variables and control predictors on civic behavior.

Study variable	Beta	95% Confidence interval	T-value	Significance
Age	.23*	(.06, .39)	2.29	.02
Female gender	.19		1.61	.11
Step 1	$F(2, 114) = 6.27, p = .003$	$\Delta R^2 = .10$		
Antisocial personality	-.04		-0.33	.53
Step 2	$F(1, 113) = 0.03, p = .86$	$\Delta R^2 = .00$		
Parental shielding	.08		0.87	.39
Family attachment	.05		0.46	.65
Delinquent peers	.05		0.37	.71
Step 3	$F(3, 110) = 0.44, p = .73$	$\Delta R^2 = .01$		
Violent video games	.09		0.67	.51
Violent books	.07		0.76	.45
Step 4	$F(2, 108) = 0.43, p = .65$	$\Delta R^2 = .01$		
Games × externalizing	-.09		-0.52	.60
Games × internalizing	.00		0.01	.99
Step 5	$F(2, 106) = 0.23, p = .80$	$\Delta R^2 = .00$		
Total model	$F(6, 110) = 2.26, p < .05$	Adjusted $R^2 = .06$		

coefficients for the interaction terms involving externalizing behaviors ($\beta = .30$) and internalizing behaviors ($\beta = -.17$) were in opposing directions, despite the two interaction terms being highly correlated ($r = .80$). This is the common “bouncing beta” phenomenon due to multicollinearity. These regression coefficients were non-significant, but due to the moderately high VIF (3.7) it is likely these effect sizes are inflated. To make sure that these effect sizes were not misinterpreted, we examined for the effect of multicollinearity on these effect size estimates. Rerunning the regressions with each interaction term singularly in the equation reduced the standardized regression coefficients to .26 and .02 for the externalizing and internalizing interactions respectively. However some multicollinearity continued to exist between the externalizing interaction and the video game violence variable (VIF = 2.2) despite centering of the latter. Rerunning the analysis once again without the video game violence variable further reduced the externalizing interaction effect size to .15. The bivariate correlation between the externalizing interaction and non-violent crimes was $r = .07$.

For the third outcome variable, violent crimes, results are presented in Table 4. The model was not significant at any step, indicating that violent crimes were not predicted by any of the variables in the model. As expected with the previous regression the externalizing behavior regression coefficient ($\beta = .18$) looked to be inflated due to multicollinearity. Without the internalizing interaction term and the video game violence term the standardized regression coefficient for the externalizing interaction dropped to .11. The bivariate correlation between the externalizing interaction term and violent crime was $r = .06$.

Table 3
Multiple regression results for media variables and control predictors on non-violent crimes.

Study variable	Beta	95% Confidence interval	T-value	Significance
Age	-.06		-0.56	.58
Female Gender	-.03		-0.24	.82
Step 1	$F(2, 111) = 0.13, p = .88$	$\Delta R^2 = .00$		
Antisocial personality	.10		0.82	.42
Step 2	$F(1, 110) = 5.82, p = .02$	$\Delta R^2 = .05$		
Parental shielding	-.06		-0.62	.53
Family attachment	.04		0.36	.72
Delinquent peers	.32	(.15, .46)	2.68	.008
Step 3	$F(3, 107) = 1.95, p = .13$	$\Delta R^2 = .05$		
Violent Video Games	-.11		-0.77	.44
Violent Books	.04		0.40	.69
Step 4	$F(2, 105) = 0.13, p = .88$	$\Delta R^2 = .00$		
Games × Externalizing	.30		1.71	.09
Games × Internalizing	-.17		-1.00	.32
Step 5	$F(2, 103) = 1.47, p = .23$	$\Delta R^2 = .03$		
Total model	$F(6, 107) = 2.01, p = .07$	Adjusted $R^2 = .05$		

4.3. Discussion

Results, overall, provided little evidence for either a direct violent video game effect on criminal behaviors or civic behaviors, not for an interaction effect with mental health symptoms. Violent books also did not appear to influence outcome variables. Thus our results provide little evidence for the belief that violent video games have more impact than violent books, nor that either of these forms of media have a tremendous impact on behavior.

Parental shielding was also unrelated to outcome variables. This suggests that the traditional shielding approach often advocated by media “watchdog” advocacy organizations may have little practical impact on children’s welfare. This is not to say that parental involvement in their children’s media lives should not be encouraged, rather it remains unclear whether a shielding, negative approach is more beneficial than a more open, dialoguing approach. Nor was shielding associated with negative outcomes either. Thus it may be the case that parents are within reason to select the approach to media they decide best fits with their family’s moral approach rather than being concerned with practical outcomes.

5. General discussion

The potential impact of violent video games on youth behavior remains a controversial one. Scholars, politicians and parents continue to debate whether violent video games are a public health risk or a harmless form of entertainment. In the current article, three studies, two experimental and one correlational, with youth examined the impact of violent video games on behavioral

Table 4
Multiple regression results for media variables and control predictors on violent crimes.

Study variable	Beta	95% Confidence interval	T-value	Significance
Age	-.16		-1.56	.12
Female gender	.02		0.13	.90
Step 1	$F(2, 112) = 1.18, p = .31$	$\Delta R^2 = .02$		
Antisocial personality	-.14		-1.16	.25
Step 2	$F(1, 111) = 0.28, p = .60$	$\Delta R^2 = .00$		
Parental shielding	-.14		-1.45	.15
Family attachment	-.09		-0.84	.40
Delinquent peers	.15		1.23	.22
Step 3	$F(3, 108) = 0.64, p = .59$	$\Delta R^2 = .02$		
Violent video games	-.23		-1.57	.12
Violent books	.14		1.40	.16
Step 4	$F(2, 106) = 1.72, p = .18$	$\Delta R^2 = .03$		
Games × externalizing	.18		1.01	.32
Games × internalizing	-.05		-0.27	.79
Step 5	$F(2, 104) = 0.68, p = .51$	$\Delta R^2 = .01$		
Total model	$F(10, 104) = 0.93, p = .51$	Adjusted $R^2 = .00$		

aggression, empathy and (in the correlational study) youth violence and civic behaviors. Taken together, current results found little evidence for a causal or correlational relationship between violent video game play and behavioral outcomes. The current results also found little evidence to support the belief that violent video games may interact with mental health symptoms in some youth. Neither violent games nor violent books were associated with negative outcomes in the correlational study. And parental shielding of youth from violent media appeared to have a negligible impact on behavioral outcomes aside from a small correlation in the first study. Lastly, parents appear to have very divergent views on the issue of media and media violence, with parents who are less familiar with video games being more inclined to take a sterner approach to media.

Although debate is likely to continue on this issue and it is recognized that scholars could make good faith arguments both for and against the view that violent games increase aggressive behaviors, based on different pools of data, the current results fit with an increasing number of studies which indicate that the impact of violent games on aggression or other associated negative outcomes is minimal (e.g. Ballard et al., 2012; Bean and Groth-Marnat, in press; Charles, Baker, Hartman, Easton, & Kretzberger, 2013; Devilly, Callahan, & Armitage, 2012; Parkes, Sweeting, Wight, & Henderson, 2013; Przybylski et al., in press; Tear & Nielson, 2013). Coupled with a steady decline in youth violence by nearly 90% during the years in which video games soared in popularity (Childstats.gov, 2013) data is beginning to converge to suggest that perhaps there may be more productive avenues to consider when investigating youth's involvement with media rather than to focus on the moral issue of violent content.

Part of the issue may have been the assumption that a given type of media has a general and predictable effect on many or most consumers, possibly with some moderating or mediating effects from other variables. In essence, current models of media effects explicitly work from the direction of stimulus to consumer to behavior. However, increasing research is indicating that player motivations are a driving force behind the media/consumer relationship (Quandt & Kroger, 2013; Przybylski, Weinstein, Murayama, Lynch, & Ryan, 2012; Tamborini et al., 2013). Thus, research may be more effective by placing the consumer in the role of the driving force, rather than content. Similarly, qualitative research may be valuable in getting deeper into the complexity of gamers's experiences than has been possible to date (Colwell, 2007; Oswald, Prorock, & Murphy, in press).

There is also research to indicate that aspects of game structure such as narrative quality (Przybylski, Ryan, & Rigby, 2009), feelings

of competence (Przybylski et al., in press), competition (Adachi & Willoughby, 2011), cooperation (Velez & Ewoldsen, 2013) or frustration (Breuer et al., in press) may be more crucial in understanding how players and games interact, than is content. The issue is not so much that examining content was unreasonable or that scholars could not construct reasonable arguments both for and against the belief that content is important to consider. Rather, it might be argued that the focus on content has domineered the discussion on video games, and arguably prevented our understanding of video games from becoming as sophisticated as it might otherwise have been (Ivory, 2013).

The issue of parents' opinions about violent games and other media is also an interesting one to consider. The current research indicated that parents' opinions on violent games and other entertainment are diverse, but impacted by their own exposure to video games. It is possible that encouraging parents, grandparents and other to become more directly involved in their children's media lives may have a variety of benefits. Not only is the direct interaction between guardians and children likely to be beneficial, but exposure to games may both reduce parents' fears of games in the abstract (Ivory & Kalyanaraman, 2009) but also give them more credibility with their children should they seek to restrict certain games.

5.1. Rethinking 'violent video games'

One further issue to consider is whether the category of 'violent video games' remains, at this point, terribly constructive. That is to say, an assumption appears to exist that 'violent video games' represents a category of games that shares universal characteristics and can be distinguished from other sorts of games. This approach may also have led to the false dichotomy between violent and prosocial games, despite that many games arguably fit into both those categories (Tear & Nielson, 2013). At present the meaning of 'violent video games' is so broad and ill-defined that this category would potentially include games ranging from mild 1980s family friendly fare such as *Pac Man* (see Rushton, 2013) through modern shooters such as *Grand Theft Auto*. Indeed, most existing meta-analyses (e.g. Anderson et al., 2010) treat these widely varying games identically with the assumption that 'violent video games' represents a meaningful construct.

This is an assumption that has not been tested clearly with existing data. Indeed, scholars have forged ahead with the concept of violent video games, often shifting games used in studies as technology changed (games such as *Centipede* or *Zaxxon* were currently employed as 'violent video games' in older studies despite their perception as being quaint by modern standards) despite

926 little careful construct analysis. Usage of the term 'violent video
927 game' is also weakened by the emotional valence of the term itself,
928 which can prime researcher expectancy effects. Scholars in the
929 future may wish to consider the adoption of more specific terms
930 for specific games whilst employing less emotional valence in their
931 selection of terms.

932 5.2. Limitations and future directions

933 As with all studies, the current studies detailed in this article
934 have limitations. The samples included are non-random and, par-
935 ticularly in study 1 and 3, restricted in ethnicity, limiting general-
936 ization. Laboratory aggression measures continue to be a source
937 of controversy (Elson et al., in press; Mitchell, 2012) and the ice
938 water task used in studies 1 and 2 is no exception to this although
939 we felt it was somewhat more salient than aggression tasks used in
940 many other studies. Study 3 is limited by its correlational nature
941 and no causal attributions can be made from those results. The
942 collinearity issue also proved difficult to undo in study 3 despite
943 centering of the video game violence variable.

944 For future directions, scholars may wish to shift away from con-
945 tent-based hypotheses to those based on player motivations and
946 game structure. Further, qualitative research that is able to more
947 deeply probe player experiences would be very valuable. Finally,
948 it may be valuable to take a sociological view on the field itself.
949 Specifically to understand how politics, social narratives and
950 morality have influenced the way in which scholars have perceived
951 this debate and how scientific decision have been influenced by
952 these outside forces.

953 6. Concluding statements

954 When new media are introduced into society, it is not uncom-
955 mon for them to go through a period of intense scrutiny. During
956 such periods, claims about both their harms and benefits may be
957 exaggerated, including by the scholarly community. The current
958 research suggests that concerns about video game violence may
959 have fallen into a similar pattern and that the influence of such
960 games on youth is more modest than originally thought. Natu-
961 rally, we expect that future research will continue to address
962 this issue, and that scholars will continue to debate video game vio-
963 lence effects from multiple perspectives. It would be desirable that
964 such debates can continue in a manner that is productive and with
965 less acrimony than has sometimes been the case in the past. We
966 hope the current article contributes positively to such debates.

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977 Appendix A. Parental media supervision

Directions: for the following questions, please rate the following statements from 1 to 4 with the following scale: Not at all true 1.....2.....3.....4 Very True

- 1) I am concerned that some of the books my child reads might have too much sex, violence or strong language.....1 2 3 4
- 2) I am comfortable letting my child watch videos or games rated for older ages as I know my child won't be harmed1 2 3 4
- 3) There are many TV shows, video games or books I don't let my child watch, read or play because of their content1 2 3 4
- 4) Parents worry too much about what their children see on TV1 2 3 4
- 5) Parents shouldn't allow their children to watch violent television programs and movies or play violent video games1 2 3 4
- 6) Letting children watch media with violence, strong language or sex gives parents an opportunity to talk with children about these things1 2 3 4
- 7) I actively protect my child from sex, strong language or violence in media because such content can be harmful to children1 2 3 4
- 8) I have let my child watch R-rated movies or play M-rated video games.1 2 3 4
- 9) Children readily mimic violence that they see in media.....1 2 3 4
- 10) Letting kids watch R-rated movies or play M-rated games is a normal part of their development and doesn't hurt them1 2 3 4
- 11) I have very strict standards for what my children can watch or play.....1 2 3 4
- 12) It is foolish to shield children from violent or sexual content and may even be harmful to shield them from and not to prepare them to deal for these topics.....1 2 3 4

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