

Who Watches Verbally Aggressive Shows?

An Examination of Personality and Other Individual Difference Factors in Predicting Viewership

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Abstract. A television-use questionnaire was completed by undergraduate college students ($N = 773$). Based on results from the television-use survey, respondents' popular television programs (33 shows) were content-analyzed for amounts of verbal aggression. A measure called the Verbal Aggression Television Consumption Index (VATCI) was calculated for each individual by combining the results of the content analysis with participants' reported viewing levels. We examined the effects of various personality factors on the VATCI (both overall and by genre). Additionally, the relationship between the VATCI and risk behaviors was evaluated. Both sensation seeking and viewer aggression positively predicted overall VATCI and, in particular, VATCI for animated sitcoms and political satires. Overall VATCI was positively associated with risky driving, fighting, delinquency, alcohol drinking, and drug use. Implications of findings are discussed.

Keywords: aggression, media content, risk-taking, sensation seeking, verbal aggression, television viewing

Introduction

Viewer characteristics influence the desire to locate and consume violent television content (e.g., Eyal & Rubin, 2003; Greene & Krcmar, 2005; Haridakis, 2002). Past research on viewer characteristics has focused on a host of audience-related factors that influence the preference for media violence such as personality traits (e.g., Eyal & Rubin, 2003; Greene & Krcmar, 2005; Haridakis, 2002), trait and/or predisposed aggressiveness (e.g., Comstock & Strasburger, 1990; Eyal & Rubin, 2003), problem behaviors (e.g., Greene & Krcmar, 2005; Krcmar & Greene, 2000), and viewer motivation (e.g., Greenberg, 1975; Greene & Krcmar, 2005; Haridakis, 2002). Taken together, these studies suggest that various psychological, demographic, and social factors influence the preference for viewing violent media.

Much research on media violence has focused on televised physical violence (e.g., Anderson et al., 2003; Bushman & Anderson, 2001; Haridakis, 2002; Hetsroni, 2007; Scharrer, 2005), yet comparatively little effort has focused on verbal aggression on television. Given the greater prevalence of verbal aggression over physical aggression on television (e.g., Potter, 1999; Potter & Vaughn, 1997) and lower levels of inhibition associated with imitation of aggressive communication (see Kaye & Sapolsky, 2001; Potter, 1997, 1999), Potter (1999) noted a need for increased attention to this form of television content.

Verbal Aggression

Verbal aggression has been defined as "an exchange of messages between two people where at least one person in the dyad attacks the self-concept of the other person in order to hurt the other person psychologically" (Infante & Wigley, 1986, p. 67). Verbal aggression may involve attacks or insults on the person's character, competence, background, or physical appearance, and it may be expressed as teasing, swearing, threats, profanity (directed at someone), or ridicule (Infante, Sabourin, Rudd, & Shannon, 1990; Infante & Wigley, 1986). However, it should be noted that verbal aggression has been conceptualized as being separate from physical aggression and indirect aggression (including social exclusion, malicious humor, and guilt induction) (see Coyne & Archer, 2004).

Verbal aggression has been linked with depression in spouses (e.g., Segrin & Fitzpatrick, 1992); reciprocal verbal aggression from the relational partner (e.g., Follette & Alexander, 1992; Shuntich & Shapiro, 1991); and conduct, academic, physical, social, and emotional problems in victimized children (e.g., Nansel et al., 2001; Spivak & Prothrow-Stith, 2001). Clearly, the physiological, emotional, and behavioral effects of receiving verbal aggression suggest that verbal aggression is noxious and causes great discomfort (Kinney & Segrin, 1998). Research on effects of exposure to verbally aggressive television programs has pro-

duced mixed results. Some research has demonstrated that such exposure predicts aggressive cognitive responses from the viewer including character attacks and competence attacks (e.g., Chory-Assad, 2004). Other research, however, has indicated that viewing verbally aggressive programs may actually result in decreased levels of aggressive communication (e.g., Chory-Assad & Tamborini, 2004).

Given the dubious nature of viewing verbal aggression, we wondered what prompts people to watch such media content. According to a uses and gratifications approach (Katz, Blumler, & Gurevitch, 1974), individuals look to mass media to fulfill certain needs and desires related to their psychological characteristics (see also Finn, 1997). Another theory that explains aggressive behavior is the General Aggression Model (Anderson & Bushman, 2002). This model describes a multistage process by which personality and situational variables lead to aggressive behavior via three internal states of cognition, affect, and arousal, and the outcomes of appraisal and decision processes. Because research devoted to examining the correlates of viewing verbally aggressive television is scarce (Chory-Assad, 2004), the present study may help to fill that gap in the literature. Specifically, this paper seeks to examine personality factors (e.g., sensation seeking and viewer aggression that have frequently been used to explain media choice) that influence college students' exposure to verbally aggressive shows. This paper is novel because, unlike past research that has measured respondents' response scores on a list of violent television shows/movies to estimate their media consumption/exposure (e.g., Greene & Krmar, 2005; Haridakis & Rubin, 2003), it utilizes a combination of content analysis and survey to calculate an individual's exposure to Verbal Aggression Television Content (henceforth termed Verbal Aggression Television Consumption Index or VATCI). Finally, because we are interested in specifically examining correlates of VATCI, we focus on a uses and gratifications framework and not on the General Aggression Model.

Theoretical Background: Uses and Gratifications Perspective

The uses and gratifications perspective (Katz, Blumler, & Gurevitch, 1974) proposes that not only do we utilize media to meet various social and psychological needs, but media-use motivations may moderate media effects (e.g., Haridakis, 2002). Several extensions in the uses and gratifications tradition have underlined the importance of personality factors in predicting media use, finding that personality factors such as sensation seeking (Conway & Rubin, 1991; Krmar & Greene, 1999) can act as predictors for media preferences. The uses and gratifications perspective also proposes that this media use may, in turn, affect outcome behaviors – with both intended and unintended effects.

The present study utilizes the uses and gratifications framework to examine the relationship between personality factors, verbally aggressive television use/consumption, and negative behavioral outcomes. Because many of the personality factors that predict violent media exposure and liking have also been examined as factors influencing problem behaviors (such as sensation seeking), we utilize the combined approach proposed by Greene and Krmar (2005) to study preference for violent media. In this paper, we investigate (a) the effect of various personality factors on viewing of VATCI (both overall and by genre) and (b) the way in which VATCI (both overall and by genre) may be related to negative behavioral outcomes, particularly risk-taking.

Personality Correlates of Verbally Aggressive Television Viewing

Research examining the relationship between personality and media exposure has included (a) studies relating personality factors to different types of media exposure (e.g., Finn, 1997), (b) studies relating personality factors to viewing motivations (e.g., Haridakis & Rubin, 2003), and (c) studies relating personality factors to media exposure and/or liking (e.g., Greene & Krmar, 2005; Rubin, Haridakis, & Eyal, 2003). Taken together, these studies indicate that viewer personality characteristics can influence needs and desires, which in turn can influence media selection, use, and ultimately effects (see Haridakis, 2002). These findings are consistent with the uses and gratifications framework. Personality factors examined in this study include sensation seeking and viewer aggression.

Sensation Seeking

Sensation seeking is a personality trait that regulates the tendency to seek varied, novel, and intense sensations and experiences (Zuckerman, 1994). Several studies have examined the relationship between sensation-seeking traits and motivation to engage in risk behaviors such as alcohol consumption, drug use, and delinquency (e.g., Donohew et al., 1999; Greene, Krmar, Walters, Rubin, & Hale, 2000; Newcomb & Earleywine, 1996). In terms of media use, research has revealed that sensation seeking predicts exposure to and liking of action-oriented and violent media (e.g., Greene & Krmar, 2005; Hoffner & Levine, 2007; Slater, 2003), heavy metal music (Arnett, 1991), and media stimuli with high sensation value such as quick cuts and zooms or novel messages (Donohew, Finn, & Christ, 1988; Donohew, Palmgreen, & Duncan, 1980). We propose that verbally aggressive media may offer high sensation seekers the stimulation and visual excitement that is necessary to keep them interested in a show. It seems logical to propose that verbally aggressive television programs may attract

high sensation seekers because of the arousing content in such programs. Specifically, shows with verbal aggression often have warning labels that advise viewers about the use of profanity and curses in these programs (see Krmar & Sohn, 2004). Research has evidenced that the presence of warning labels and advisories is perceived as exciting and increases the enjoyment of such programs (e.g., Bushman & Stack, 1996; Cantor, Harrison, & Nathanson, 1997; Krmar & Sohn, 2004). We, therefore, propose that high sensation seekers will enjoy verbally aggressive programs even more because of the restrictive nature and/or the presence of extreme language. Therefore, it is hypothesized:

- *Hypothesis 1:* Controlling for overall television viewing, sex, and age, those who score higher on sensation seeking will also have a higher VATCI.

Verbal aggression may very well differ by genre (see Williams, Zabrack, & Joy, 1982). For instance, Coyne and Archer (2004) reported that verbal aggression was most likely to occur in soap operas and sitcoms. Other researchers have also examined the prevalence of aggression, both overall (see Hetsroni, 2007) and by genre, such as in reality-based police shows (e.g., Oliver, 1994), talk shows (Rubin et al., 2003), and police dramas (e.g., Scharrer, 2001); research suggests that the nature of portrayals of verbal aggression will differ by genre. Though not as abundant as research on physical aggression, researchers have examined the prevalence of verbal aggression on sitcoms (e.g., Chory-Assad, 2004; Chory-Assad & Tamborini, 2004), comedies (e.g., Glascock, 2001), and dramas (e.g., Glascock, 2001). Therefore, prior studies suggest that verbal-aggression content may differ between genres. Because we were also interested in examining how sensation seeking is related to viewership of verbally aggressive shows in different genres, we asked the following question:

- *Research Question 1:* Controlling for overall television viewing, sex, and age, does the relation between sensation seeking and VATCI differ by genre?

Viewer Aggression

Viewer aggression has been conceptualized as a multidimensional concept and assesses both overall aggression and subtraits of aggression (see Buss & Perry, 1992). Research has demonstrated that an aggressive disposition or aggressive personality contributes to media preference (e.g., Bogaert, 2001; Slater, Henry, Swaim, & Anderson, 2003), particularly violent media preference in terms of program liking, identification with violent characters, and/or parasocial interaction with violent characters (e.g., Eyal & Rubin, 2003). From a uses and gratifications perspective, it appears that an aggressive disposition and related needs can also predict viewing of verbally aggressive television content because, similar to physical aggression,

verbal aggression involves hurting or harming others (Buss & Perry, 1992). Therefore, viewers high in aggression will find such programs exciting, because these shows depict people engaging in behaviors deemed as aggressive (even though verbally). Thus, it is hypothesized:

- *Hypothesis 2:* Controlling for overall television viewing, sex, and age, those who score higher on aggression will also have a higher VATCI.

Again, because we were also interested in examining how aggressiveness is related to VATCI in different genres, we asked the following question:

- *Research Question 2:* Controlling for overall television viewing, sex, and age, does the relation between aggression and VATCI differ by genre?

VATCI and Risk-Taking Behaviors

Problem behavior theory (Jessor & Jessor, 1977, 1984) proposes that three systems of psychosocial factors influence problem behaviors: the personality system (e.g., self-esteem, sensation seeking), the perceived environment system (e.g., peer pressure, parental involvement), and the behavior system (e.g., school performance, other delinquent behaviors). Each of these explanatory systems includes variables that represent either instigations to engage in the risk behavior (also called risk factors) or controls to prevent such behavior (also called protective factors). The interplay of risk and protective factors reflects the overall likelihood of the occurrence of problem behavior (Jessor, Donovan, & Costa, 1991; Jessor & Jessor, 1977).

Problem behavior theory has been most commonly used to predict a variety of risk behaviors including drinking and drug use (Lo, 2000), exposure to violent television (Krmar & Greene, 2000), and high-risk sexual behavior (Doljanac & Zimmerman, 1998). Engagement in one problem behavior is generally positively associated with a person's engagement in other problem behaviors and negatively associated with socially acceptable behaviors. Problem behavior theory, then, asserts that both positive and negative behaviors are learned because they fit into an entire system of behaviors (Krmar & Greene, 2000). In the present study, we propose that an individual's viewing of programs high in verbal aggression will be associated with engagement in other risk behaviors. From the perspective of problem behavior theory, programs that are considered antisocial or aggressively arousing will be included in the environment system of an individual and the risk-taking behaviors will form the behavior system, thereby causing a higher association between the two systems. The relationship between the two may be bidirectionally causal, whereby viewing of programs high in verbal aggression may cause engagement in risk behavior; also, engagement in risk behaviors can act as an influencing factor for watching

programs high in verbal aggression. Therefore, in this study, we attempted to examine association (and not causality). It was hypothesized that:

- *Hypothesis 3*: VATCI (both overall and by genre) would be positively related to risk-taking behaviors.

However, the relationship between VATCI and risk-taking behaviors could be confounded by participants' sensation seeking and aggressiveness. For instance, a person high in sensation seeking may have more interest in watching programs with high verbal aggressiveness and also engage in higher risk-taking behaviors. Thus, in order to test if, in fact, personality factors confound the relation between VATCI and risk-taking behaviors, we asked the following question:

- *Research Question 3*: Controlling for overall TV viewing, sensation seeking, and aggressiveness, is there a significant association between VATCI and risk-taking behaviors?

Method

Participants and Procedure

The study utilized a twofold design including a survey and a content analysis of television shows. After receiving Institutional Review Board (IRB) approval, survey data were collected from a convenience sample of 773 undergraduate college students ($N = 773$), both male ($n = 260$) and female ($n = 487$), enrolled in a large public university in the northeast of the United States (26 people did not report their gender). The participants, ranging in age from 18 to 25 ($M = 19.81$; $SD = 1.19$), were recruited from introductory communication classes and received partial class credit for their participation. Students who were younger than 18 or older than 25 ($n = 82$) were excluded from analyses, as their television viewing patterns could deviate from a typical college population. The sample reported ethnicity that was predominantly Caucasian (60.3%) with 13% Asian/Pacific Islander, 6.7% African American, 5% Hispanic/Latino, 3.5% biracial/multiracial, 3.3% Caribbean, 2.6% Asian American, and other groups less than 2% each.

Participants completed the survey outside of regular class time, after signing an informed consent form. The questionnaire took about 30 min to complete and was anonymous. After completing the survey, participants were thanked and debriefed. The survey measured students' viewing of different TV shows, sensation seeking, viewer aggression, risk-taking behaviors, overall television viewing, and demographics.

Defining and Collecting the Media Sample

A combination of *message pool* approach and *exposure-based* approach was utilized for the content analysis in order to identify the appropriate television programs. The message pool approach defines the population as the set of messages available via a given medium at a certain time. The exposure-based approach focuses on defining the population as those messages most widely attended to by audience members (Neuendorf, 2006). In order to identify the appropriate widely viewed shows by university students aged 18 to 25, several pilot tests were conducted with students enrolled in undergraduate communication classes at two US universities (students were provided with extra credit for their participation). For the pilot tests, the authors made a list of all primetime shows on all national and basic cable networks to form a list of shows, thereby utilizing the message pool approach. Also utilizing the exposure-based approach, two groups of students were asked to list their favorite shows (in a free response format). The results obtained from these two approaches were combined to construct a list of 60 of the most popular shows.

The next step utilized the *specific audience* exposure-based approach, in which the population is defined as those messages most heavily attended by a specific audience (see Neuendorf, 2006). In order to further identify and refine the list of shows heavily viewed by university undergraduate students, a group of pretest students (undergraduates, aged 18 to 25 years) was asked to rate the aforementioned 60 shows on how often they watched them, using a Likert scale from 1 (*never*) to 5 (*almost always*). There was also a free response question asking about their favorite shows so as to capture any additional programs that may have been missed. Based on results of the pilot surveys, a list of 33 of the most popular television shows among university undergraduates was created with an effort to balance the range and type of programs. The final coding sample included two episodes of each television show, resulting in 66 television shows that were content analyzed. The recorded programs appeared in the fall-spring of the 2006–2007 television season.

The final content analysis sample was within range of previously reported content analyses of television programs. For instance, Pardun, L'Engle, and Brown (2005) analyzed one episode each of 71 television shows; Lauzen, Dozier, and Hicks (2001) analyzed one episode each of 64 television shows; and Lampman et al. (2002) analyzed two episodes of 36 programs leading to a sample size of 72 shows (with an average correlation higher than .74).

Unit of Analysis

The unit of analysis was a “nonbreak sequence or camera cut” (Pardun et al., 2005) measured in seconds. The mean was calculated for two episodes of each show to establish

Table 1. Means and standard deviations of viewing and exposure across program genres ($N = 691$)

	Political satire	Sports	Reality	Crime/action	Nighttime soap	Sitcom	Animated sitcom	Total
	$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$
Verbal aggression television content (in s)	249.25 (158.99)	0.00 (0.00)	193.83 (255.71)	251.08 (161.96)	267.68 (188.31)	301.5 (175.80)	239.33 (134.67)	1502.68 (197.22)
VATCI	319.23 (280.42)	0.00 (0.00)	181.61 (134.80)	126.94 (142.12)	214.91 (214.45)	412.33 (227.93)	351.94 (254.60)	229.41 (102.01)

the final verbal-aggression content score for a given program. Furthermore, average verbal-aggression-content variables were computed for program genres by summing and averaging the scores of relevant programs. A higher score indicated greater verbal-aggression content on a particular genre (see Table 1). Because programs varied in length, scores were adjusted so that all shows were comparable to the predominant hour-long programs. Next, we describe the measurement of verbal-aggression content followed by reliability estimation and television program genres created for analysis.

Defining and Measuring Verbal-Aggression Content

The coding scheme for this study was based on prior content analysis of aggression on television (e.g., Eyal & Rubin, 2003). Verbal aggression was defined as insults (including swearing, bleeping, and name calling), verbal threats and hostile commands, arguments, and yelling (not arguments). Verbal aggression was conceptualized as a feature of plots and characters excluding production features such as cuts and zooms.

Reliability

Several undergraduate students were trained to conduct the content analysis. Training continued until each coder demonstrated adequate interrater reliability (.90). Each of the 66 episodes was independently coded by two coders. Percentage agreement indices, often used to assess reliability in content analysis studies (see Hardy, Jamieson, Romer, & Jamieson, 2006), were used to assess reliability. The interrater reliability for verbal-aggression-content coding had a minimum percentage agreement of .81 (approximating Cohen's κ of .87), and differences were resolved by another

coder, blind to the hypotheses, resulting in 100% final agreement.

Defining and Grouping Television Shows

In order to analyze verbal-aggression content in particular categories of programming, television programs were grouped into specific genres or categories. Program genres present a "bird's-eye view of some of the other aspects of content" (Signorielli, 2005, p. 283). Program categories were created based on a priori groupings related to genre. As a result, six groupings of fictional programs were created: political satire, sports, situation comedies (sitcoms), nighttime soap operas/drama, crime and action drama, and animated sitcoms. In addition, there was also a reality show category. Drawing on Nabi, Biely, Morgan, and Stitt's (2003) definition, reality shows were defined as ones that do not rely on a priori scripts, show footage of a documentary nature, and draw primarily on "real" people rather than actors.¹

Linking Content Analysis with Individual Data

Table 1 displays the means and standard deviations of verbal aggression content for the seven genres of television programming. Survey participants were asked to rate each of the 33 shows² on how often they watch them, using a Likert scale from 0 *never* to 4 *almost always*. In order to calculate a respondent's VATCI, data from the content analysis was combined with that from the survey. In the content analysis, the average of verbal-aggression content was computed in seconds to determine the total amount of verbal-aggression content for each program. Then, the resulting score was multiplied by each participant's self-reported viewing frequency for each program to get a verbal-aggression television viewing score for each partici-

¹ Political satire included two shows: *The Daily Show* and *Chappelle's Show*; sport included one show: *SportsCenter*; situation comedies or sitcoms included five shows: *Everybody Loves Raymond*, *Friends*, *Seinfeld*, *That 70's Show*, and *Will and Grace*; nighttime soap operas and drama included seven shows: *Desperate Housewives*, *ER*, *Gilmore Girls*, *Gray's Anatomy*, *One Tree Hill*, *Sex and the City*, and *The OC*; crime and action drama included six shows: *24*, *Alias*, *CSI*, *Law and Order*, *JAG*, and *Walker Texas Ranger*; animated satire consisted of three shows: *Family Guy*, *The Simpsons*, and *South Park*; and finally, reality TV consisted of nine shows: *America's Next Top Model*, *American Idol*, *COPS*, *Extreme Makeover*, *Fear Factor*, *Power Girls*, *Queer Eye for the Straight Guy*, *Real World*, and *The Apprentice*.

² Two fake shows, *Beautiful* and *New York Court*, were included in the survey to increase the validity of the data by reducing social desirability and response biases. Participants who reported viewing fake shows *often* or *almost always* were excluded from analysis ($n = 1$).

pant. These scores were then summed and averaged across programs to get an indicator of VATCI for each genre of programs (see Table 1). Furthermore, a composite VATCI variable was created that measured exposure to overall verbal aggression by summing and averaging VATCI for the seven genres ($M = 229.41$, $SD = 102.01$).

Measurement Instruments

Sensation Seeking

A short measure of sensation seeking (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002), based on Form V of Zuckerman's (1994) sensation-seeking scale, was used in this study. This measure is a 5-point Likert-type scale with eight items and responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability was moderate ($\alpha = .76$), and factor analysis indicated a single-factor structure (eigenvalue = 3.06, 38.24% variance) with all item loadings greater than 0.5 (one item, "I get restless when I spend too much time at home," was deleted to maintain a single-factor structure). Participants' responses were summed and averaged to create a composite score, with a higher score indicating a higher level of overall sensation-seeking ($M = 3.38$, $SD = .73$).

Viewer Aggression

Viewer aggression was measured with the Buss and Perry (1992) Aggression Questionnaire. The aggression scale is composed of four subscales: physical aggression, verbal aggression, anger, and hostility. Participants rated their agreement with 29 items on a 5-point Likert-type scale (1 = *extremely uncharacteristic of me*, 5 = *extremely characteristic of me*). Responses were summed and averaged to arrive at a composite score for viewer aggression ($M = 2.07$, $SD = .91$, Cronbach's $\alpha = .92$) and separate scores for verbal aggression ($M = 2.81$, $SD = 1.04$, Cronbach's $\alpha = .78$), physical aggression ($M = 1.79$, $SD = 1.21$, Cronbach's $\alpha = .87$), anger ($M = 1.96$, $SD = 1.16$, Cronbach's $\alpha = .85$), and hostility ($M = 2.05$, $SD = 1.22$, Cronbach's $\alpha = .86$).

Risk Behaviors

Seven kinds of risk-taking behaviors were measured including fighting, delinquency, risky driving, smoking, drinking, risky sex, and drugs (see Krmar & Greene, 1999, 2000). A higher score on all scales indicated greater engagement in the risky behavior.

Fighting was measured by four items, with the Likert-type responses ranging from 1 (*never*) to 5 (*very often*). For instance, one item asked, "How often have you been

in a physical fight?" These items were summed and averaged to form a fighting score ($M = 1.86$, $SD = .68$, $\alpha = .80$), with a higher score indicating more fighting. Delinquency was measured by six items, with the Likert-type responses ranging from 1 (*never*) to 5 (*very often*). For instance, one item asked, "How often have you cheated on a test in school?" These items were summed and averaged to form a delinquency score ($M = 1.74$, $SD = .58$, $\alpha = .74$), with a higher score indicating more delinquency. Risky driving was measured by three items, with the Likert-type responses ranging from 1 (*never*) to 5 (*very often*). For instance, one item asked, "How often have you driven over 80 miles per hour?" These items were summed and averaged to form a risky driving score ($M = 2.54$, $SD = 1.00$, $\alpha = .82$), with a higher score indicating more risky driving. Smoking was measured by one item that asked, "How many cigarettes have you smoked in the past 30 days?" and the response was written down ($M = 1.74$, $SD = 20.87$, *Range* = 0–540). Drinking was measured by three items that asked, "On average, how many alcoholic drinks do you consume when you socialize in a setting with alcohol?," "On average, how many alcoholic drinks do you consume in a week?," and "In the last 2 weeks, how many times have you had five or more drinks in a sitting?" These items were first converted into z-scores and then added ($M = -.03$, $SD = 2.75$, *Range* = -2.84–11.20, $\alpha = .71$). Risky sexual behavior was measured by two items. The first item asked, "How many different sexual partners have you had in the past 2 years?" and the number was entered (those never sexually active scored 0). The next item asked, "How often do you (does your partner) use a condom when you have sexual intercourse?" The 5-point Likert responses ranged from 1 (*always*) to 5 (*never*). These items were multiplied to form a risky sex score ($M = 4.27$, $SD = 7.18$, *Range* = 0–65), with a higher score indicating more risky sexual behavior. Finally, drug use was measured by two items, with the Likert-type responses ranging from 0 (*never*) to 5 (*more than 10 times*). The items asked, "In the past 3 months, how many times have you used marijuana?" and "In the past 3 months, how many times have you used other illegal drugs?" These items were summed and averaged to form a drug use score ($M = .81$, $SD = 1.20$, $\alpha = .50$), with a higher score indicating more drug use.

Overall Television Viewing

Overall television viewing was measured by two items that asked respondents to rate how many hours and minutes they watched TV on average weekends and weekdays. These data were first converted to minutes and, finally, overall television viewing (in minutes) was created by averaging television viewing on weekdays and weekends ($M = 196.55$, $SD = 165.79$).

Table 2. Zero-order correlation matrix for all variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. VATCI	1.00												
2. Sensation seek	.16**	1.00											
3. Aggression	.18**	.17**	1.00										
4. Risky driving	.11*	.39**	.20**	1.00									
5. Fighting	.20**	.23**	.65**	.32**	1.00								
6. Delinquency	.21**	.31**	.40**	.45**	.50**	1.00							
7. Risky sex	.02	.25**	.19**	.31**	.24**	.32**	1.00						
8. Drinking	.27**	.40**	.19**	.37**	.32**	.46**	.35**	1.00					
9. Smoking	-.02	.05	.03	-.02	.02	.05	-.01	.08	1.00				
10. Drugs	.20**	.38*	.19**	.32**	.28**	.43**	.38**	.45**	.08	1.00			
11. TV viewing	.28**	-.04	.18**	.02	.15**	.06	-.02	.06	-.04	.03	1.00		
12. Age	-.03	-.02	.03	.11*	.04	.08	.08	.10*	-.06	.04	.05	1.00	
13. Sex	-.12*	-.14**	-.26**	-.27**	-.39**	-.40**	-.06	-.28**	-.05	-.11*	-.02	-.09	1.00

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Results

Analyses

A zero-order correlation matrix for all variables is presented in Table 2. Hierarchical linear regressions were performed to test hypotheses, with level of significance set at $p \leq .05$. In all regressions, age, gender, and overall television viewing were entered as control variables in Step 1 and the variables of interest entered in Step 2. The results are organized by hypothesis and presented next.

Hypotheses 1 and 2 and Research Questions 1 and 2

Hypothesis 1 and Research Question 1 examined the effect of sensation seeking and Hypothesis 2 and Research Question 2 examined the effect of viewer aggression on viewing of verbally aggressive television shows (both overall and by genre) after controlling for overall television viewing, age, and gender. Eight regressions were run, first predicting overall VATCI followed by VATCI for the seven genres of television programming. Overall television viewing, age, and gender were added in Step 1 as control variables, and

sensation seeking and viewer aggression were added as predictors in Step 2.³

Overall Verbal Aggression Television Viewing Score

For overall VATCI, the first step was significant, as was the change for the second and final step, $F(5, 610) = 16.43$, $p \leq .001$, $Adj. R^2 = .11$. The final model indicates that overall television viewing ($\beta = .25$, $p \leq .001$), sex ($\beta = -.08$, $p < .05$, male), sensation seeking ($\beta = .15$, $p \leq .001$), and viewer aggression ($\beta = .10$, $p \leq .05$) predicted higher overall VATCI. Thus, Hypotheses 1 and 2 are supported, and results indicated that higher sensation seeking and viewer aggression were associated with higher VATCI after controlling for overall television viewing and for gender, but not for age.

Genre-Related Verbal Aggression Television Viewing Score

Table 3 presents the results of hierarchical regression analyses for genre-related VATCI from sensation seeking and verbal aggression (the final step). Results for RQ 1 revealed that, after controlling for overall television viewing, sex,

³ Eight more regressions were performed to examine the effect of different types of viewer aggression on VATCI (both overall and by genre). For these regressions, the control variables were entered in Step 1 followed by sensation seeking, verbal aggression, physical aggression, anger, and hostility scores in Step 2. For overall VATCI, the first step was significant, as was the change for the second and final step, $F(8, 607) = 12.51$, $p \leq .001$, $Adj. R^2 = .13$. The final model indicated that increased television viewing ($\beta = .23$, $p \leq .001$), sensation seeking ($\beta = .13$, $p \leq .001$), higher verbal aggression ($\beta = .11$, $p \leq .05$), higher physical aggression ($\beta = .17$, $p \leq .01$), and lower anger ($\beta = -.17$, $p \leq .01$) predicted more overall VATCI. For genre-related VATCI, results showed that, after controlling for overall television viewing, sex, age, and sensation seeking, higher viewer verbal-aggression predicted VATCI for crime and action drama ($\beta = .10$, $p \leq .05$), nighttime soap operas ($\beta = .13$, $p \leq .01$), and sitcoms ($\beta = .10$, $p \leq .05$). Similarly, higher viewer physical-aggression predicted VATCI for reality TV ($\beta = .13$, $p \leq .05$), animated sitcoms ($\beta = .15$, $p \leq .01$), and political satire ($\beta = .22$, $p \leq .001$). Lower viewer anger predicted VATCI for crime and action drama ($\beta = -.14$, $p \leq .01$) and political satire ($\beta = -.10$, $p \leq .05$). Finally, higher viewer hostility predicted VATCI only for crime and action drama ($\beta = .12$, $p \leq .01$). These data suggest that different patterns of relationship exist between types of viewer aggression and genre-related VATCI. For the sake of brevity, these results are omitted from the main text.

Table 3. Results showing standardized betas for the final step of hierarchical regression analysis predicting genre-related vatci from sensation seeking and viewer aggression

Variables	Reality TV	Crime and action drama	Nighttime soap operas	Sitcoms	Animated sitcoms	Political satire	Sports
	β	β	β	β	β	β	β
<i>Demographic</i>							
Overall TV viewing	.17***	.17***	.03	.19***	.12***	.15***	N/A
Female	.14***	.06	.46***	.14***	-.36***	-.42***	N/A
Age	.01	.06	-.06	.01	.01	.00	N/A
<i>Sensation seeking</i>	.07	.06	.03	.09*	.13***	.12***	N/A
<i>Viewer aggression</i>	.07	.08*	-.02	.02	.09*	.10**	N/A
Adjusted R ²	.05***	.04***	.21***	.05***	.20***	.27***	N/A
R ² change	.01*	.01*	.00	.01*	.03***	.03***	N/A

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

and age, higher sensation seeking was associated with VATCI on sitcoms ($\beta = .09, p \leq .05$), animated sitcoms ($\beta = .13, p \leq .001$), and political satires ($\beta = .12, p \leq .001$) but not on reality TV, nighttime soap operas, or crime and action drama. Results for RQ 2 reveal that after controlling for overall television viewing, sex, and age, higher viewer aggression was associated with VATCI for crime and action drama ($\beta = .08, p \leq .05$), animated sitcoms ($\beta = .09, p \leq .05$), and political satires ($\beta = .10, p \leq .01$) but not for reality TV, nighttime soap operas, or sitcoms. Because there were no instances of verbal aggression on sports, results were not computed for the sports genre.

Hypothesis 3

Hypothesis 3 examined the associations between VATCI (both overall and by genre) and risk-taking behaviors (smoking, alcohol consumption, drug use, unsafe sex, delinquency, fighting, and risky driving). Partial correlations were performed to test the relationship between VATCI and risk-taking behaviors after controlling for overall television viewing. Canonical correlations were performed to test the association between the set of VATCI (by genre) and risk-taking behaviors. The results for the canonical correlation are summarized in Table 4.

The results of partial correlations showed that overall VATCI was significantly associated with risky driving ($r_p = .12, p < .01$), fighting ($r_p = .16, p < .001$), delinquency ($r_p = .21, p < .001$), drinking ($r_p = .25, p < .001$), and drug use ($r_p = .21, p < .001$) but not with risky sex and smoking.

The canonical correlation was also significant ($F(42, 2789.56) = 4.66; p < .001$). The first function was significant. The first canonical root yielded a canonical correlation of 0.48 ($F(42, 2770) = 4.77; p < .001$) with an eigenvalue of .30, capturing 81.24% of the standardized variance in the risk behaviors. Only correlations of 0.3 or greater are reported (Garson, 2008). For the first function, viewing of verbal-aggression content on differ-

Table 4. Standardized and structure coefficients for canonical results for function 1

	First canonical root	
	Standardized	Structure
<i>Drama and satire VATCI</i>		
Reality TV	-.15	-.19
Crime and action drama	.00	-.15
Nighttime soap operas	.27	.47
Sitcoms	.03	-.17
Animated sitcoms	-.26	-.77
Political satire	-.69	-.94
<i>Violent and health risk</i>		
Smoking	.10	.03
Drinking	-.25	-.60
Drug use	-.23	-.54
Risky sex	.27	-.12
Fighting	-.49	-.79
Delinquency	-.48	-.82
Risky driving	.08	-.37

ent television genres, nighttime soap operas ($r = .47$), animated sitcoms ($r = -.77$), and political satire ($r = -.94$) loaded highest on Function 1 (but not reality TV, crime and action drama, and sitcoms). This latent factor was labeled Drama and Satire VATCI. For the risk behaviors, risky driving ($r = -.37$), fighting ($r = -.79$), delinquency ($r = -.82$), drinking ($r = -.60$), and drugs ($r = -.54$) loaded highest on Function 1 (but not risky sex and smoking). This latent factor was labeled Violent and Health Risk.

Thus, overall results showed that Hypothesis 3 was partially supported. Higher overall VATCI is associated with more risky driving, fighting, delinquency, alcohol drinking, and drug use. Higher VATCI for animated sitcoms and political satire and lower VATCI for nighttime soap operas were associated with more risky driving, fighting, delinquency, alcohol drinking, and drug use.

Research Question 3

Research Question 3 inquired about a significant association between VATCI and risk-taking behaviors (smoking, alcohol consumption, drug use, unsafe sex, delinquency, fighting, and risky driving) after controlling for overall TV viewing, sensation seeking, and aggressiveness. Partial correlations were performed to test the relationship between VATCI and risk-taking behaviors after controlling for overall television viewing, sensation seeking, and viewer aggressiveness.

The results of partial correlations showed that, after controlling for overall TV viewing, sensation seeking, and viewer aggression, overall VATCI was significantly associated with delinquency ($r_p = .14, p < .001$), drinking ($r_p = .19, p < .001$), and drug use ($r_p = .14, p < .001$) but not with risky driving, fighting, risky sex, and smoking.

Discussion

Summary of Findings

The present study utilized a uses and gratifications framework to examine if personality factors (sensation seeking and viewer aggression) influence college students' exposure to verbally aggressive television shows. Additionally, the association between exposure to verbally aggressive television and risk behaviors is examined. It should be noted that this study does not utilize the classic measures for viewing motivations. Uses and gratifications theory was used to frame the research to allow for an exploration of how personality differences might be related to self-directed media exposure of a particular nature (verbally aggressive). Given that we were interested in creating a verbal aggression consumption score for each individual, we did not focus on examining motivations.

First, we found that sensation seeking was positively related to VATCI, and in particular VATCI for sitcoms, animated sitcoms, and political satires; however, sensation seeking did not predict VATCI for reality TV, nighttime soap operas, and crime and action drama. These findings are consistent with research that has demonstrated a positive relation between sensation seeking and a desire to engage in physical and verbal aggression (Joireman, Anderson, & Strathman, 2003). Prior research has shown that high sensation seekers report an affinity for media content that contributes to arousal such as suspense, destruction, action, violence, or death (Zuckerman, 1996). A current meta-analysis also found that high sensation seekers enjoy fright and violence (Hoffner & Levine, 2007). Verbal aggression on television may be particularly attractive to high sensation seekers, because exposure to insults, bleeping, arguments, and swearing portrayed on television increases media enjoyment (see Krcmar & Sohn, 2004); also the

“loud” nature of this media content might make it more arousing for high sensation seekers.

Exposure to verbal aggression on political satires may be especially arousing for high sensation seekers, because it appears to be based on reality and, therefore, is more exciting. Similarly, verbal aggression on sitcoms and animated sitcoms may be arousing for high sensation seekers, because the aggression occurs in a humorous context including character attacks and competence attacks (Chory-Assad, 2004); it also portrays unconventional behaviors, which are appealing to high sensation seekers (Zuckerman, 1994). Consumption of verbal aggression on reality TV was not associated with sensation seeking, because the verbal aggression on reality TV may be censored and the kind of content broadcast on TV may be much less “real” than what occurs in real life. Watching verbal aggression on crime and action drama was not associated with the personality trait of sensation seeking, because verbal aggression is “expected” to occur in crime and action drama (see Reith, 1999) and so loses its appeal for high sensation seekers. Also, nighttime soap operas and drama (in general) are not an enjoyable genre for high sensation seekers, because they may not be optimally arousing for them (see Krcmar & Greene, 1999; Potts, Dedmon, & Halford, 1996).

Second, we found that higher viewer aggression is positively associated with higher VATCI. In terms of specific genres, we also found that higher viewer aggression predicts VATCI for crime and action drama, animated sitcoms, and political satires but not for reality TV, nighttime soap operas, and sitcoms. The results are consistent with prior studies that have noted that aggressive tendencies influence viewing preferences, particularly violent content (e.g., Bogaert, 2001; Eyal & Rubin, 2003; Haridakis & Rubin, 2003; Slater et al., 2003). Reasons for these findings could be attributed to uses and gratifications theory and the selective exposure hypothesis. From the perspective of uses and gratifications, media viewers utilize media to meet various social and psychological needs (see Rubin, 2002). Prior research has shown that aggressive viewers are more tolerant of media violence and react to such violence as humorous and exciting (Gunter, 1985). Similarly, aggressive viewers may be enjoying verbally aggressive television and finding it humorous and exciting. Selective exposure hypothesis, on the other hand, supposes that people selectively choose what they will be exposed to in the media (see Eyal & Rubin, 2003). The present paper only demonstrates that people high in aggression expose themselves to more verbal aggression on television. Whether these viewers intentionally seek such content or just happen to view it because of its easy availability on television should be addressed in future research (also see Haridakis & Rubin, 2003).

The present study clearly indicates that higher viewer aggression predicts VATCI for crime and action drama, animated sitcoms, and political satires but not for reality TV, nighttime soap operas, and sitcoms. Verbal aggression on reality TV does not have an appeal for participants high in viewer aggression, because the editing may have made the

language on the show less “real” than off the show. Nabi, Biely, Morgan, and Stitt (2003) noted that media consumers are certainly savvy and realize that reality shows, even with their “real people” casts and allegedly real situations, depend heavily on editing and montage; however these shows are still viewed as moderately real. The “reality” of the language used may not have been optimal for the viewers high in verbal aggression to be drawn to the shows. Verbal aggression on nighttime soap operas did not have an overall appeal because of the gendered differences, with women demonstrating a clear preference for soap operas (e.g., Ang, 1985; Brunson, D’Acci, & Spigel, 1997). Verbal aggression shown on sitcoms tends to be much less violent and includes insults and remarks made in a humorous context (Chory-Assad, 2004). Viewers high in aggression may not have perceived this as aggressive and, therefore, did not report increased viewing of this genre of television. Eyal and Rubin (2003) found that participants in their study did not conceive of verbal aggression as aggression, suggesting that verbal aggression may be considered a normative response in American society.

Third, we examined the association between VATCI (both overall and by genre) and risk behaviors. Higher overall VATCI was associated with more risky driving, fighting, delinquency, alcohol drinking, and drug use. It should be noted that after controlling for overall TV viewing, sensation seeking, and viewer aggression, overall VATCI is positively associated with delinquency, alcohol drinking, and drug use. This finding is consistent with research that suggests that media representations may increase a variety of problem behaviors (e.g., Greene & Krmar, 2005; Paik & Comstock, 1994). Media images of violence have been found to relate to increasing levels of delinquency, drinking, drug use, and risky driving (Krmar & Greene, 2000). Because verbal aggression is defined as a behavior that is intended to hurt a person psychologically (Infante & Wigley, 1986), it can be framed as a form of antisocial behavior. Individuals who engage in a variety of violent and risk behaviors are engaging in behaviors that are considered extreme or that are refuting conventional norms and affirming independence (Jessor, 1987). Greene and Krmar (2005) suggest that “if two distinct behaviors carry the same meaning for someone, the modeling of one can result in increases of another” (p. 76). This rationale provides credence to our finding that increases in consumption of verbally aggressive media positively relate to an increase in violent and risk behaviors, even after controlling for personality factors such as sensation seeking and viewer aggression.

Fourth, results demonstrate that higher VATCI for animated sitcoms and political satire and lower VATCI for nighttime soap operas are associated with higher amounts of risky driving, fighting, delinquency, alcohol drinking, and drug use. Although these findings indicate that mediated messages of aggression are related to violent and risk behaviors, they do not indicate those particular characteristics of verbal aggression on animated sitcoms and politi-

cal satire that correlate with an increase in violent and risk behaviors. This area needs more exploration.

Finally, we would like to note that correlational results do not establish causality. As reported by Reith (1999), the possibility that an unidentified extraneous variable may be responsible for reported correlations cannot be excluded. Additionally, the causal effect may be in either direction. For instance, viewers high in aggression may enjoy watching verbally aggressive shows, because such shows provide an outlet or catharsis for them. On the other hand, viewers who watch verbally aggressive shows may be primed into acting out aggressively. Because of the correlational nature of the present study, interpretations about causality can be misleading. However, one cannot deny the strong associations that are evident in this study, for instance, between VATCI and risk behaviors even after controlling for personality factors. Further exploration into these associations would explain how they work in accordance with each other.

Limitations

There are a number of potential limitations in the present study that should be noted. First, the study included a limited number of shows with only two episodes per show being analyzed, although some studies have only utilized one episode. Among ever-changing programming, there are currently many new shows popular among young people. However, the pilot tests to determine what shows were watched by young people the most at the time of the study should have ensured that all relevant shows were included in the sample, whereas random selection of two episodes should have minimized systematic biases in the data. Second, participants were asked primarily about TV programs broadcast on public/basic cable channels while leaving out some other programs and shows (e.g., programs on Showtime and HBO channels). However, the present study includes some of the most popular shows from cable channels such as Comedy Central (e.g., *Chappelle’s Show* and *Daily Show*) and ESPN (*SportsCenter*). Third, data were collected from a large northeastern university and the results may not be generalizable, because patterns of exposure to different verbal-aggression content on TV might differ in various parts of the country and for different demographic groups. Fourth, we only examined the presence of violence but did not analyze the context of verbal aggression as it relates to imitative outcomes. However, social cognitive theory (Bandura, 1986) argues that it is not only the presence of violence that causes an increase in aggression but the context of that portrayed violence. Applied to verbal aggression, this means that if a program portrays verbal aggression that is sanctioned and/or rewarded, it would be more likely to cause imitative verbal aggression than a show that punishes the demonstrated verbal aggression. Fifth, the effect sizes reported in the study are small, which limits the claims made about associations.

Finally, only two personality characteristics were examined as predictors of verbally aggressive television. Other personality characteristics such as argumentativeness, religiosity, androgyny, and self-esteem could be examined as predictors in future studies.

Implications and Future Research

This study has many implications, particularly related to media research. First, we developed a tool for measuring verbal aggression television consumption, the VATCI. Combining content analysis and survey data yield a particular benefit, because the combination allows the researcher to calculate the amount of verbal aggression that an individual is watching (both overall and by genre). Future studies could utilize this measurement when calculating an individual's exposure to different media content.

Second, the study demonstrates that examination of personality predictors provides interesting results, and findings are consistent with the uses and gratifications literature. Because both sensation seeking and viewer aggression are related to VATCI, the study suggests that searching for personality dimensions that explain consumption of media content, particularly verbally aggressive media, may be useful. Given the scarcity of studies examining correlates of verbally aggressive media content on television, this study tries to fill that void in the literature.

Third, this study examines correlates of VATCI across program genres. Different television genres are popular among young adults, and this area needs further exploration to examine their appeal and effects on viewers. Future studies on verbally aggressive media content have the potential to broaden understanding of how people make media choices and, ultimately, the effects of these choices.

Finally, this study demonstrates the association between VATCI and violent and risky behaviors. This finding implies that viewing verbally aggressive television may "fit in" with the environmental system of individuals who also engage in violent and risky behaviors. Therefore, a system of risky behaviors goes hand-in-hand with a system of verbally aggressive television consumption. Whether this association implies a causal relationship or merely an association is an aspect that needs to be addressed in future work.

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