

# Provoking Punches: Factors Influencing Perceived Violent Reactions to Negative Situations

Lisa A. Eargle\*, Jessica L. Burke and Jessica M. Doucet

*Department of Sociology, Francis Marion University, USA*

**Abstract:** *Purpose:* Violence among college students is an important area of research as this group is at an increased risk of both engaging in and being a victim of violence. As such, the current research aimed to examine factors that may influence violent tendencies among a sample of college students.

*Method:* Data from 101 completed surveys were analyzed. Principal components factor analysis and Cronbach's alpha resulted in the creation of six independent variables (gun experience, weapons support, anger contagion, witness violence, violent community, and aggressive beliefs) and four dependent variables (competition for resources, social attacks, physical attacks, and unfair situations). OLS regression was used to estimate the impact of each variable on perceptions of reacting with violence to four negative situations.

*Results:* Gun experience and violent community significantly predicted responding violently to both social and physical attacks, while gun support was only predictive of violence in competition for resources. Additionally, aggressive beliefs predicted perceptions of violent responses to physical attacks and in unfair situations. Finally, anger contagion was associated with students reporting an increased likelihood of responding violently to social attacks.

*Conclusions:* While research shows the importance of understanding violence exposure and aggressive norms in creating and improving violence prevention programs and anti-violence strategies, the role that perceptions play is largely absent. Furthermore, this research supports the importance of implementing these programs and strategies among college students/young adults to potentially reduce violence and aggression within this age group.

**Keywords:** Violent reactions, aggression, negative situations, general aggression model, college students, provocation.

## INTRODUCTION

Violence is a major social problem among U.S. youth and young adults, and college students are no exception. According to the National Center for Education Statistics (2019), approximately half (54%) of the total criminal incidents (27,300) reported to authorities by students on college campuses were violent offenses. Most of those violent incidents involved forcible sex (11,800), aggravated assault (2,200), or robbery (800). With 20 incidents, murder was the least likely violent crime to occur on college campuses in 2019 (National Center for Education Statistics, 2019). These numbers (except murder) are likely an underestimate, given most crime is unreported to authorities (Thompson & Tapp, 2022). With most college students in the crime-prone age range (15-24), understanding the causes and correlates of these incidents is paramount to keep this population safe.

College students experience many different stressors and difficult situations, all with the potential to create conflict and escalate into violent outcomes. How they react to these situations, whether it includes violence or not, depends on a variety of factors.

Research has identified several correlates of aggressive behavior and violent responses. These include witnessing violence (Okour & Hijazi, 2009), the presence of weapons (Phillips & Maume, 2007), individual- and neighborhood-level poverty (Labella & Masten, 2018; Vanfossen *et al.*, 2010), beliefs supporting aggression or violence (Harris, 1994), and anger contagion (Spoor & Kelly, 2004). Additionally, regular portrayals of violence in the media may influence an individual's views on violence and when the use of violence is appropriate (Buss & Shackelford, 1997). Drawing insights from the General Aggression Model (GAM) and the extant literature, this research examines factors that predict the perceived use of violence as a response to three specific situations. These situations are competition over resources, encountering an unfair situation, and experiencing a personal attack. The factors considered to promote aggression include experience with and carrying weapons, anger contagion, exposure to violence, and possessing beliefs that support aggression. This research contributes to the literature by investigating perceptions among college students, a population not widely studied in this area. Specifically, this study improves upon current research by asking respondents to report their perceptions of what they would do in certain negative situations. Existing research typically focuses on general perceptions of violence in society

\*Address correspondence to this author at the Department of Sociology, Francis Marion University, PO Box 100547, Florence, SC 29502-0547, USA; Tel: 843-661-1653; E-mail: leargle@fmarion.edu

(Baldwin & White, 2021; Eargle & Burke, 2018) or actual aggressive responses to certain situations (Buss & Shackelford, 1997; Chapple, 2003; Harris, 1994). This study is also important for higher education stakeholders in terms of investing in anti-violence programs and providing students with anti-violence resources, such as counseling and anti-violence training across college campuses (Ballantine *et al.*, 2022; Hyman *et al.*, 2016).

## BACKGROUND

### Perceptions About Violence

Most of the research about perceptions and violence focuses on views about interpersonal violence (IPV) in general and on specific types of IPV. Larsen and Wobschall (2016) asked a sample of college students to evaluate a series of scenarios and identify which stories described IPV. Most students correctly identified scenarios of IPV, including controlling behavior, abusive language, spite work, and physical interactions. Examining students' perceptions about sexual assaults on campus, specifically, Schwarz and colleagues (2017) found many female students felt there was a climate of normalization of sexual assault. Relatedly, Baldwin-White (2021) revealed many students perceive there is a connection between excessive alcohol use and sexual assault incidents, especially if the victim has been drinking.

Other studies have explored circumstances under which students would engage in or agree with acts of violence. Ryan *et al.* (1993) found acts of violence were common in a study of school violence among a sample of public-school students. When students were asked what acts they would commit against other students if "they could get away with it", respondents indicated they would take another student's lunch money (36%), threaten someone with harm (17%), assault another student (22%), and sexually assault another student (2%).

A study on student views about inappropriate responses to controversial campus speech by the Knight Foundation (2018) revealed that 9 out of 10 students believed violence against speakers whose views they disagree with is not acceptable. Sixty-two percent said that shouting down speakers was unacceptable. Similarly, Eargle and Burke (2018) found that many college students view violent speech and negative political speech as contributing to violence in society.

There has been a great deal of research on perceptions and violence among college students. Much of its focus, however, has been on the identification and acceptability of violence. The current study aims to fill a gap in the literature by asking students to evaluate a situation and indicate *their* likelihood of engaging in violence. By doing so, the circumstances under which this population may be motivated to engage in violence can be ascertained.

### The General Aggression Model

Theoretical explanations for why people engage in violence abound in the research literature. Some of these theories are focused on macro-level community issues (e.g., social disorganization theory), while others focus on individual-level social psychological processes (e.g., social learning theory). Though these theories are used to predict actual violent outcomes (rather than perceptions of when violent outcomes would happen or be warranted), they can provide useful guidance about perceptions of violence. One micro-level theory that serves as a useful foundation for this study is the General Aggression Model (GAM) proposed by Anderson, Deuser, and DeNeve (1995).

The GAM posits that multiple factors influence how an individual responds to a situation. Some of these are characteristics that the individual brings to the situation, including his/her personal characteristics (e.g., age, gender, social class), internal cognitive and emotional states (e.g., ability to reason, positive or negative affect), and past experiences (e.g., experiencing violence). These characteristics, along with the physical setting in which a situation occurs (e.g., at home, in the office, in a restaurant, or on the street), the features of the other people present, and the nature of the relationship among those present (e.g., friends, family, co-workers, strangers, foes), create each person's interpretation of the situation. This interpretation is guided by the individual's scripts and knowledge structures. Scripts are tools an individual uses to organize information on how to act in a specific environment. Knowledge structures are mechanisms individuals use to identify physical objects, to define events, and to elicit one's beliefs about other people in the environment. Over time, scripts and knowledge structures become rehearsed to the point that individuals' responses to situations become automatic. When this occurs, alternative ways to successfully respond to a situation (including those that provoke violent responses) may not be considered (Wiedeman *et al.*, 2015).

The GAM suggests there are different stages involved in a person's response to a situation. First, an individual brings their characteristics and past experiences into the situation and environment. These individual, situational, and environmental factors interact to stimulate thoughts and emotions in a person. Based on their emotions, scripts, and knowledge structures, the person evaluates the situation and decides how to respond. Finally, the individual reacts to produce an outcome, which may be aggressive or non-aggressive (Wiedeman *et al.*, 2015).

An aggressive outcome may include violence, where physical action is taken to inflict serious harm or damage to another person. Violence occurs under selective circumstances where it is deemed necessary or appropriate by the aggressor. These may include competing for resources, defending oneself or somebody who is dear to them, achieving power or status (Buss & Shackelford, 1997), or addressing negative feelings (Eisner, 2009). Aside from responding to perceived wrongs, violence may also be used to accomplish a goal or purpose, especially when other methods (e.g., deceit, negotiation, or theft) are perceived to be less effective in achieving a desired outcome. Unlike other techniques that require an agreeable or "willing" victim, violence (or the threat of violence) forces compliance from the victim (Wikstrom & Treiber, 2009).

Violence is usually targeted toward the person(s) perceived to be causing the problem. Based on their interpretation of the situation, violence may be viewed as the aggressor's best and/or usual approach to address the issue at hand (Wikstrom & Treiber, 2009). Moreover, if the perceived benefit that the aggressor gains from violence outweighs the perceived costs of violence, then it may be the preferred method to addressing a situation (Cornish & Clarke, 1986).

### **Factors Influencing Violent Responses**

Existing research addresses several factors that can influence violent responses to certain situations. While none of this literature addresses perceptions *per se*, the factors revealed to be associated with actual acts of violence can provide a starting point in determining which predictors impact whether one perceives they would respond violently to a situation.

### **Weapon Effects and Gun Experience**

Research suggests weapons have a priming effect on aggressive thoughts and behaviors. Experiments

have verified this effect through lexical decision tasks, which gauge participants' response time to determine if a word is real or not. In these experiments, participants were presented with picture-word pairs. When primed with photos of weapons, participants more quickly recognized aggressive than nonaggressive words, thus revealing an association between weapons and aggression (Benjamin & Bushman, 2016).

Weapon use or experience with weapons at an early age may result in the development of violent scripts that guide behavior in later situations and interactions. Research supports this argument among adolescents, indicating that exposure to violence with a weapon and weapon use are correlated (Brennan & Moore, 2009). Additionally, the presence of weapons impacts the appraisal of the situation. Based on either a primary (initial) or secondary (reappraisal) assessment, an individual decides if the situation poses a danger or threat. If it is deemed to do so, it may yield an impulsive behavior to react aggressively or non-aggressively. Experiments have shown individuals react more rapidly to threatening than non-threatening stimuli. Weapons have been found to be associated with threats, eliciting the same reaction time as when presented with threatening animals or insects (like snakes or spiders) (Benjamin & Bushman, 2016).

Weapon carrying is also correlated with aggression. A longitudinal study examining a Hispanic, male adolescent sample in the US reveals a relationship between carrying a weapon and aggressive behaviors (Dijkstra *et al.*, 2010). According to Barlas and Egan (2006), a positive attitude towards carrying a weapon predicted having an aggressive identity among a sample of adolescents in the UK. Weapon carrying was also correlated with fighting among a sample of African American adolescents, with a stronger relationship among males (DuRant *et al.*, 1995).

### **Anger Contagion**

When emotions, including anger, spread between people, it is referred to as emotion or anger contagion. Moreover, negative threat-related emotions may be more contagious than non-threat emotions due to the messages characterized by threats (such as danger), which may result in an aggressive response (Spoor & Kelly, 2004). One experiment that investigated emotional contagion showed faces transforming from neutral to happy or angry. Participants watching faces that change from neutral to angry reported significantly more anger than participants who viewed faces changing from neutral to happy (Kelly *et al.*, 2016).

Also, Baumeister and colleagues (2001) suggest negative emotions have a stronger and greater influence than positive emotions, thus making contagion more likely. Furthermore, negative threat related emotions, specifically anger, occur automatically while positive emotions may be influenced by the context or environment. Such automaticity may further contribute to increased contagion of anger (Kelly *et al.*, 2016) that may, in turn, perpetuate aggressive behaviors.

### **Violence Exposure**

Studies have shown exposure to violence is linked to aggression and violent behaviors, where individuals exposed to violence are 1.5 times more likely to engage in violence compared to those without such exposure (Okour & Hijazi, 2009). Exposure to violence is commonly found in the family, the media, and the community. Family issues linked to aggression and violence among children, adolescents, and adults include parenting styles, family stress, household conflict, parental mental illness, substance abuse, and domestic violence (Farrington *et al.*, 2017; Fong *et al.*, 2019; Labella & Masten, 2018). Research has shown that children who witness intimate partner violence are more likely to engage in aggression and violence in general as well as in their later intimate partner relationships (Chapple, 2003).

Furthermore, consuming violent content in the media repeatedly or for extended periods of time increases the chance of aggressive and violent behaviors (Buss & Shackelford, 1997). The media acts as a socializing agent where viewers learn that responding aggressively or violently in situations is acceptable and, thus, may model the behaviors they see on television. Moreover, exposure to such media can desensitize viewers to violence, which may result in minimizing the impact of the violence and the suffering of victims. The media may also present reduced options for people to consider when responding to negative situations. As a result, viewers of violent media may be more inclined to respond using violence (Buss & Shackelford, 1997).

Finally, neighborhood or community violence predicts aggression and violence in children and adolescents. Neighborhood violence has been linked to the development of aggression among seventh graders (Vanfossen *et al.*, 2010), as well as increased self, peer, and teacher reported aggression (McMahon *et al.*, 2013). Moreover, research reveals the presence of violence in the community is considered an instrument

to exercise power and dominance over others as a response to various situations (Finley, 2006).

### **Aggressive Beliefs**

Research shows a relationship between beliefs that support aggression, such as having a positive attitude toward using aggression in specific situations and subsequent aggressive behaviors among children, adolescents, and adults (Harris, 1994). Campbell *et al.* (1993, 1997) found that aggressive beliefs were related to higher levels of aggression in a sample of adults. These results were replicated by Tapper and Boulton (2004) using a sample of children. Specifically, they found aggressive beliefs were a significant predictor of engaging in aggressive behaviors. Further studies on children reveal a link between normative beliefs about aggression and physical, verbal, and indirect aggressive actions (Lim & Ang, 2009). Moreover, Erdley and Asher (1998) suggest children with strong beliefs on the legitimacy of aggression tended to be more aggressive compared to children without such beliefs. Finally, self-reported data from a sample of young adults showed that positive views of aggression predicted an increase in aggressive behaviors (Harris, 1994).

### **Summary of Expectations for Current Research and Hypotheses**

As evidenced in the prior literature, there are several factors capable of producing a violent outcome, including experience with and carrying weapons, anger contagion, exposure to violence, and aggressive beliefs. Hypotheses for how each of these is related to the perceived likelihood of engaging in violence are proposed. Based on the literature summarized above, gun experience and weapon carrying is related to aggression. Research supports the priming effect of guns, where the visibility and availability of guns results in acting more aggressively (Benjamin & Bushman, 2016). Thus, Hypothesis 1 proposes that respondents who report having experience with guns will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations.

While ample research indicating the relationship between carrying weapons and aggressive behavior exists (Barlas & Egan, 2006; Dijksra *et al.*, 2010; DuRant *et al.*, 1995), literature on how supporting the use of weapons impacts aggressive behavior is lacking. However, it stands to reason that those who carry weapons would most likely support their use.

Thus, Hypothesis 2 proposes that respondents who report supporting the use of weapons will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations.

Research also suggests anger contagion is related to aggression and violence. Given the literature shows the automatic nature of negative affect, such as anger, Spoor and Kelly (2004) argue that situations involving threats may result in more aggressive reactions. To examine this potential relationship, Hypothesis 3 states that respondents who report feelings of anger contagion will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations.

According to research, exposure to violence from the family, media, and community is strongly correlated with aggressive and violent behaviors (Buss & Shackelford, 1997; Chapple, 2003). To examine how exposure to or witnessing violence impacts perceptions, two hypotheses are proposed. Hypothesis 4 states that respondents who report witnessing violence will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations. Hypothesis 5 proposes respondents who report violence in their community will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations.

Finally, having aggressive beliefs or norms that support using aggression in certain situations is found among children, adolescents, and adults (Harris, 1994; Tapper & Boulton, 2004). Hence, Hypothesis 6 proposes that respondents who report having beliefs that support aggression will report increased perceptions of responding violently over (a) competition for resources, (b) a social attack, (c) a physical attack, and (d) unfair situations.

## DATA AND METHODS

### Data and Sample

The authors designed a self-administered, paper and pencil questionnaire examining a variety of viewpoints regarding violence and anti-violence strategies. Students' perceptions of the likelihood they would respond violently to different stressful situations, which is the focus of the current manuscript, were also

determined. In addition, respondents were asked to provide information regarding socioeconomic and demographic characteristics. Self-administered questionnaires or surveys are best used to gather perceptions, attitudes, and opinions of respondents. The anonymity that these surveys provide potentially yield more honest responses than other types of surveys, such as phone surveys (Nardi, 2014).

Prior to data collection, the study was approved by the university's Institutional Review Board. No identifying information was collected from respondents, thus maintaining anonymity and confidentiality. The survey was administered to a convenience sample of students enrolled in Sociology courses at a small, regional university in the southern United States in Fall 2016 and Spring 2017. All students present in the classes when the questionnaire was administered were invited to participate. This method yielded 282 responses. After listwise deletion for missing information, the sample used for the current analysis was reduced to 101 cases.

### Dependent Variables

The four dependent variables are competition for resources, social attack, physical attack, and unfair situations. These variables were created from a series of items that asked respondents to report the likelihood they would react violently in various situations. All items were rated on a 10-point scale ranging from not likely (1) to highly likely (10). Principal components factor analysis was conducted to reveal items capturing similar concepts. Items were combined based on factor loading scores (greater than 0.50) and the eigenvalue of the indices (greater than 1), yielding four dependent variables. Each was created into a scale by summing the scores for the respective items. The first scale measures the dependent variable *competition for resources*. It is comprised of the following six items: (1) "You lose a game"; (2) "Someone gets the parking space that you wanted"; (3) "Someone gets the last item that you wanted to buy in a store"; (4) "Someone is moving slow in the checkout line"; (5) "Someone cuts you off in traffic"; and (6) "Someone eats all your cookies or chips." This resulted in a scale ranging from 6 to 60 (Cronbach's  $\alpha = 0.916$ ).

Two distinct scales were created to capture two forms of personal attack. The first of these specifically measures the dependent variable *social attack* and was comprised of the following three items: (1) "Someone disrespects you"; (2) "Someone talks trash

about you on social media”; and (3) “Someone cheats you out of money.” The sum of responses to these items resulted in a scale ranging from 3 to 30 (Cronbach’s  $\alpha = 0.758$ ). The second scale, measuring the dependent variable *physical attack*, was comprised of two items: (1) “Someone hurts someone you love” and (2) “Someone tries to hit you.” The sum of responses to these items resulted in a scale ranging from 2 to 20 (Cronbach’s  $\alpha = 0.820$ ).

The final scale comprised of three items was used to measure the dependent variable *unfair situations*. These items were: (1) “You want to show that you are tough”; (2) “An elder questions your behavior”; and (3) “Someone refuses to date you.” The sum of responses for these items resulted in a scale ranging from 3 to 30 (Cronbach’s  $\alpha = 0.787$ ).

### Independent Variables

Six independent variables were used to capture factors that might contribute to a violent response. These variables were gun experience, weapons support, anger contagion, witness violence, violent community, and aggressive beliefs. To measure these variables, students were asked to provide their level of agreement to a series of statements using a scale ranging from 1 (strongly agree) to 7 (strongly disagree). For ease of interpretation all statements (unless otherwise noted) were reverse coded (strongly disagree=1 to strongly agree=7). Gun experience, anger contagion, and violent community variables are single item measures. Gun experience was measured using the statement, “I have experience using guns.” Anger contagion was measured using the statement, “When I see others acting angrily, I become angry myself.” Finally, violent community was measured using the statement “Fighting is common in my community.”

The remaining variables were measured using multi-item scales. As with the dependent variables, principal components factor analysis was conducted to determine which items measured similar concepts. Items were combined based on factor loading scores (greater than 0.50) and the eigenvalue of the indices (greater than 1). The variable weapons support was measured using a five-item scale consisting of the statements: (1) “People are less likely to be victims of violence when they carry weapons (other than guns)”;

(2) “Students should be allowed to carry weapons (other than guns) on campus”; (3) “Having more weapons (other than guns) on campus would make it

safer”; (4) “I feel safe when I or someone with me has a weapon (other than a gun)”;

and (5) “If allowed to carry a weapon (other than a gun) on campus, I would have one.” The sum of these responses resulted in a scale ranging from 5 to 35 (Cronbach’s  $\alpha = 0.907$ ).

Next, the variable aggressive beliefs was measured using a three-item scale consisting of the statements: (1) “It is okay to destroy someone’s property if you don’t like them”; (2) “It is okay to steal from someone you don’t like”; and (3) “It is okay to tell lies about those you dislike.” The sum of these responses resulted in a scale ranging from 3 to 21 (Cronbach’s  $\alpha = 0.941$ ).

Finally, the variable witness violence was measured as a two-item scale consisting of the statements: (1) “Seeing violence on TV encourages violent behavior in real life”; and (2) “Violent music lyrics encourage violent behavior in real life.” Responses were summed across these items, resulting in a scale ranging from 2 to 14 (Cronbach’s  $\alpha = 0.837$ ).

### Control Variables

Several control variables are included in the analyses given their known or suspected relationship with aggression and violence. Research is mixed regarding the impact of race on aggression, with some studies showing an association (McMahon *et al.*, 2013), while others do not find a significant relationship (Bernat *et al.*, 2012). To ascertain the nature of this relationship (if any), race is included as a control variable in the current study where African American respondents were assigned a value of 1 and whites were assigned a value of 0 for the variable. More clearly, the literature indicates the use of aggressive/violent behaviors is influenced by gender (Bernat *et al.*, 2012). Thus, sex is included as a control variable where male respondents were assigned a value of 1 and females were assigned a value of 0.

Research also supports the relationship between aggression and measures of socioeconomic status, including unemployment (Fischer *et al.*, 2008), poverty (Labella & Masten, 2018; Vanfossen *et al.*, 2010), and income (Vanfossen *et al.*, 2010). Therefore, income and employment status are controlled in this study. Regarding income, respondents were asked to select the category that best describes their household income: (1) less than \$25,000; (2) \$25,000 to \$50,000; (3) \$50,001 to \$75,000; (4) \$75,001 to \$100,000; (5) \$100,001 to \$125,000; (6) \$125,001 to \$150,000; (7) \$150,001 to \$175,000; (8) \$175,001 to \$200,000; and

(9) more than \$200,000. Employment status was measured as a dummy coded variable where employed was assigned a value of 1 and unemployed was assigned a value of 0.

Aggressive behaviors tend to be reinforced through social networks and associations with aggressive and/or violent peer groups (Cohen, 1955). However, research shows having positive role models can attenuate the negative effects of these relationships (Hurd et al., 2009). Thus, for the role model variable, respondents were presented a list and asked to indicate anyone they considered to be a role model or to have a significant influence on them. Values range from 0 (no one was selected) to a possible maximum of 13 (everyone on the list was selected).

Political orientation was also controlled in this study due to the influence found on aggression and aggressive beliefs. Conservatives tend to be more aggressive and have aggressive ideology, including hostile expressions towards outgroups and favoring aggressive ways of dealing with threats (Holsti, 1996). To measure political orientation, respondents were

asked to select how liberal or conservative they are from a list of categories ranging from extremely conservative to extremely liberal, with less extreme categories listed in between (such as middle of the road). Each of these categories was assigned a numerical value, with extremely conservative being assigned a value of 1 and extremely liberal being assigned a value of 7.

In addition to using factor analysis and Cronbach's alpha to combine items into scales, descriptive statistics were produced. OLS regression was used to determine how respondent characteristics affect the likelihood that respondents would say they would engage in violence over competition for resources, social attacks, physical attacks, and in unfair situations.

## RESULTS

Table 1 presents the descriptive statistics for each variable. Turning first to the dependent variables, competition for resources has values that range from 6 to 53, with an average value of 12.82. In general, a typical respondent says they would not respond violently to the competition for resources. The

**Table 1: Descriptive Statistics for all Dependent, Explanatory and Control Variables**

	Means/Proportions	Standard Deviation	Minimum Values	Maximum Values
<b>Dependent Variables</b>				
Competition for Resources	12.82	10.87	6	53
Social Attack	10.09	6.38	3	30
Physical Attack	13.20	5.56	2	20
Unfair Situations	4.77	3.93	3	30
<b>Explanatory Variables</b>				
Gun Experience	4.06	2.44	1	7
Weapons Support	19.03	7.65	5	35
Anger Contagion	2.65	1.49	1	6
Witness Violence	9.75	2.92	2	14
Violent Community	3.57	1.87	1	7
Aggressive Beliefs	4.17	2.38	3	18
<b>Control Variables</b>				
Race (1=African American)	.55			
Sex (1=male)	.16			
Employed (1=employed)	.71			
Income	2.81	1.96	1	9
Role Models	4.50	2.74	0	13
Political View	4.01	1.35	1	8
N = 101				

dependent variables capturing forms of personal attack indicate a violent response is more likely for a physical attack than a social attack. Specifically, violent responses for social attack ranges from 3 to 30, with an average value of 10.09, while scores for physical attack range from 2 to 20, with an average of 13.20. The final dependent variable, unfair situations, has an average score of 4.77 and ranges from 3 to 30, indicating respondents are unlikely to respond violently in unfair situations. Of the four situations that might provoke a violent response, unfair situations are the least likely to do so among respondents.

An examination of the independent variables shows that the typical respondent has some experience with guns (mean=4.06) and there is some support for having weapons on campus (mean=19.03). The typical respondent does not experience anger contagion (mean=2.65). Regarding witnessing and being exposed to violence, on average, the typical respondent thinks witnessing violence (on tv, in music) encourages violence to some extent (mean=9.75) and that fighting sometimes occurs in their community (mean=3.57). Finally, the typical respondent does not hold aggressive beliefs (mean=4.17). In terms of control variables, approximately 55% of the sample is African American, 16% of the sample is male, and 71% of respondents are employed. Respondents generally have incomes less than \$75,000, have an average of 4

to 5 role models in their lives, and on average, are middle-of-the-road politically.

Table 2 presents the results from the regression analyses. Model 1 examines the results for the dependent variable competition for resources. Only one of the independent variables, weapons support, has a marginal statistical impact on the likelihood of a violent response to competition over resources. As respondents' support for weapons increases by one point, the likelihood of respondents saying they would be violent over the competition for resources increases by 0.275 points. Among the control variables, two variables are significant. Employed has a positive, marginally significant impact on the likelihood of a violent response to competition over resources. The likelihood of responding violently is 4.829 points higher for employed respondents than for those who are not employed. Income has a positive, statistically significant impact on the likelihood of a violent response. For each additional category increase in income, the likelihood of respondents saying they would respond violently to competition over resources increases by 1.221 points.

Model 2 displays the results for the dependent variable measuring social attack. In this model, three of the six independent variables are statistically significant. Gun experience, anger contagion, and

**Table 2: OLS Regression Results for the Dependent Variables: Competition for Resources, Social Attack, Physical Attack, and Unfair Situations (N=101 for all Models)**

	Model 1 Competition for Resources			Model 2 Social Attack			Model 3 Physical Attack			Model 4 Unfair Situations		
	b	S.E.	β	b	S.E.	β	b	S.E.	β	b	S.E.	β
Gun Experience	0.087	(0.529)	0.020	0.501†	(0.277)	0.192	0.472†	(0.266)	0.207	0.107	(0.195)	0.066
Weapons Support	0.275†	(0.159)	0.194	0.079	(0.083)	0.095	0.116	(0.080)	0.159	0.095	(0.059)	0.186
Anger Contagion	0.214	(0.744)	0.029	1.363***	(0.390)	0.319	0.518	(0.375)	0.139	-0.010	(0.274)	-0.004
Witness Violence	0.098	(0.420)	0.026	0.121	(0.220)	0.055	0.099	(0.211)	0.052	-0.031	(0.155)	-0.023
Violent Community	0.393	(0.593)	0.068	0.909**	(0.311)	0.267	0.516†	(0.298)	0.174	-0.030	(0.218)	-0.014
Aggressive Beliefs	0.797	(0.510)	0.175	-0.355	(0.268)	-0.133	-0.540*	(0.257)	-0.231	0.326†	(0.188)	0.198
Race (1=African American)	3.551	(2.651)	0.164	4.575***	(1.390)	0.359	3.320*	(1.334)	0.299	1.628†	(0.976)	0.208
Sex (1=male)	-3.022	(3.418)	-0.102	-0.916	(1.793)	-0.053	0.478	(1.721)	0.032	0.034	(1.259)	0.003
Employed (1=employed)	4.829†	(2.685)	0.202	-1.340	(1.408)	-0.095	-2.594†	(1.352)	-0.212	0.862	(0.989)	0.100
Income	1.221*	(0.570)	0.220	-0.372	(0.299)	-0.114	-0.229	(0.287)	-0.081	0.044	(0.210)	0.022
Role Models	-0.638	(0.407)	-0.161	-0.546*	(0.213)	-0.235	0.044	(0.205)	0.022	-0.257†	(0.150)	-0.179
Political View	-0.874	(0.824)	-0.108	-0.826†	(0.432)	-0.174	-0.305	(0.415)	-0.074	-0.193	(0.303)	-0.066
Adjusted R <sup>2</sup>	0.078			0.265			0.109			0.042		

Unstandardized coefficients reported with standard error in parentheses.  
 † p ≤ .10; \*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001.



violent community have positive impacts on the likelihood of violence in response to a social attack. As respondents' experience with guns increases by one point, the likelihood of respondents reporting they would act violently to a social attack increases by 0.501 points. Anger contagion appears to have a stronger impact, revealing a one point increase in this measure increases the likelihood of respondents saying they would react violently to a social attack by 1.363 points. Finally, as agreement with the statement that respondents live in a violent community increases by one point, the likelihood of respondents reporting they would act violently in a social attack increases by 0.909 points. Among the control variables, race, role models, and political view have statistically significant impacts. The likelihood of African American respondents saying they would react violently to a social attack is 4.575 points higher than for white respondents. For each additional role model reported by respondents, the perceived likelihood of responding violently to a social attack decreases by 0.546 points. Finally, though only marginally significant, the perceived likelihood of responding violently to a social attack decreases 0.826 points for each point increase in liberal viewpoints.

Model 3 displays the results for the dependent variable measuring physical attack. Three of the four independent variables are statistically significant in this model. Gun experience and violent community have positive, marginally significant impacts on the likelihood of responding violently to a physical attack. A one-point increase in gun experience results in a 0.472 point increase in the likelihood of respondents reporting they would act violently to a physical attack. Additionally, the likelihood of respondents reporting they would act violently in a physical attack increases by 0.516 points for each point increase in agreement with the statement that they live in a violent community. Conversely, aggressive beliefs have a negative impact on the likelihood of a violent response to a physical attack. A one point increase in this measure results in a 0.540 point decrease in the likelihood of respondents saying they would react violently to a physical attack. Among the control variables, race and employment status have statistically significant impacts. The likelihood of African American respondents saying they would react violently to a physical attack is 3.320 points higher than for white respondents. Those who are employed are 2.594 points less likely to indicate they would respond violently to a physical attack than those who are unemployed.

Model 4 displays the results for the dependent variable measuring unfair situations. Aggressive beliefs

is the only independent variable with a statistically significant impact. Each point increase in respondents' support for aggressive beliefs increases the likelihood of respondents saying they would react violently in an unfair situation by 0.326 points. Among the control variables, race and role models have statistically significant impacts. The likelihood of African American respondents indicating they would react violently to an unfair situation is 1.628 points higher than for white respondents. Finally, each additional role model decreases the likelihood respondents would react violently in an unfair situation by 0.257 points.

## DISCUSSION AND CONCLUSION

Drawing on GAM as a theoretical framework and the literature, several factors were hypothesized to predict perceptions of responding violently to certain situations. Regarding the impact of weapons, the results indicate experience with guns was marginally related to the perception that one would respond violently to both social and physical attacks, providing support for hypotheses 1b and 1c. However, this variable was not predictive of responding violently in reaction to competition over resources or in unfair situations. Experienced gun users likely understand the lethality and consequences of using guns. Thus, these individuals may only agree to use violence under what are perceived to be the most serious circumstances (i.e., a direct personal attack). Conversely, supporting the use of non-gun weapons only marginally predicted violent response perceptions to competition over resources, supporting hypothesis 2a. While the weapon measures are not predictive of the perceived use of violence in all situations, the findings are supportive of prior research that shows a relationship between weapons (use, carrying, and experience) and the propensity for violence in situations characterized as inciting or provoking violence (Barlas & Egan, 2006; Benjamin & Bushman, 2016).

The impact of the violent actions of others on one's own behavior was also evident in this study. Among this sample of college students, anger contagion was predictive of responding violently to a social attack, while the violent community measure predicted an increased likelihood of responding violently to both social and physical attacks. Thus, respondents who reported they were more likely to become angry from seeing others angry and those living in a community where fighting is common were more likely to perceive becoming violent if attacked. These findings support hypotheses 3b, 5b, and 5c, respectively, as well as the

prior literature. Research consistently shows that moods are contagious (Spoor & Kelly, 2004), particularly anger and other negative emotions (Kelly *et al.*, 2016). Additionally, exposure to violence in one's community has been shown to increase aggressive behaviors in young adults (Scarpa, 2003). However, no support was found for hypothesis 4 (a-d) regarding the relationship between witnessing violence and any of the negative situations. Some research suggests that parenting may play a moderating role in how children perceive violent media. Singer and Singer (1986) argue that children are less impacted by media content if their parents explain to them that such violence is not real. Nathanson's (1999) research reiterates these findings. Specifically, children have lower aggressive tendencies when parents explain that television violence is unacceptable or when they prevent their child's exposure to violent television shows. This sample of college students believes violent media encourages violent behavior; however, it is possible that they had parental involvement early in their lives that taught them that violent media was wrong. Perhaps this parental intervention explains why witnessing violence does not significantly impact their perceptions of acting violently in negative situations.

Regarding the aggressive beliefs variable, the current study revealed significant relationships in two of the four situations. There was a positive and marginally significant impact of beliefs that support aggression on perceptions of responding violently to unfair situations. This finding supports hypothesis 6d. Research shows having normative beliefs about aggression is related to aggressive or violent actions (Harris, 1994; Nelson, *et al.*, 2008) in certain contexts, such as in unfair situations (being rejected by a date) (Leary *et al.*, 2006). However, aggressive beliefs were negatively related to responding violently to a physical attack. This finding contradicts hypothesis 6c as well as the literature. Limitations of the survey may explain this discrepancy. One explanation may lie in the wording of the statements measuring aggressive beliefs. These statements capture unprovoked actions by asking if certain behaviors are okay to engage in simply because you do not like someone. Based on the descriptive statistics, this sample of students generally does not believe it is okay to vandalize, steal, or lie solely because you dislike a person (an average score of 4.17 in a scale ranging from 3 to 18). However, this same group is more likely to approve of a violent reaction when they are specifically targeted or provoked as measured by the physical attack

dependent variable (an average score of 13.2 in a scale with a maximum of 20). Thus, this contradictory result appears to highlight student views on what they consider justifiable actions. It is plausible this sample of students believes acting without provocation is less justifiable than responding to a direct physical attack.

### Limitations of the Current Study

The current study was exploratory in nature, thus there are several limitations to the data. First, the study utilized a convenience sample of college students. The data were gathered only from students enrolled in sociology courses, not broadly across the university. However, data were collected from a variety of sociology courses, ranging from the introductory course (typically comprised of students from diverse majors) to upper-level courses (which contain a higher concentration of sociology majors). Nonetheless, the sample is not a representative sample of all college students in the United States or at this university.

A second limitation involves the handling of missing cases. Listwise (or case deletion) was utilized in this study rather than mean imputation because imputing the mean value may result in a substituted value that is an incorrect representation of the population, creating sample size overestimation and variance underestimation (Little & Rubin, 1987). While there are issues with case deletion, including sample size reduction and affecting the generalizability of the results, it is the most common and simplest method (Howell, 2007). Moreover, the focus of the present study is not the generalizability of results to a larger population, but an exploratory investigation of perceptions of using violence in response to certain situations.

A third limitation involves the survey questions used in this study. The questionnaire was originally designed to examine student views about anti-violence strategies and situations contributing to violence in society in general, such as violent political rhetoric. As such, students were not asked questions about family backgrounds, the presence or absence of violence while growing up in their home, or their consumption of violent media. The omission of these measures is an important limitation given the robust literature indicating these variables are likely significant predictors of violence and aggression.

Finally, it is recognized that *perceptions* of how one would respond to a situation do not necessarily reflect

reality. Saying you would or would not engage in violent behavior when presented a hypothetical situation may be different from how you react when this is encountered in everyday life. As GAM suggests, a person's appraisal of the situation and the circumstances in which it is occurring influences how one responds to threatening situations. This reaction may contradict how they *believe* they would respond. Furthermore, social desirability, or the need to give a socially acceptable answer, has been found to influence respondents' answers (Holden & Passey, 2009). Thus, researchers must recognize that respondents may not answer honestly, especially when asked about undesirable behaviors.

### Future Directions

Given the limitations of the current study, several avenues of future research are proposed. First, the sample should be expanded beyond sociology courses to include a representative sample of students enrolled at the study university. Providing a more diverse sample (in terms of sex and racial/ethnic background) would make the results more generalizable to the university's student body population. Second, adding questions that gauge respondents' perceptions and knowledge of aggression and violence would provide an understanding of how students define violence. Relatedly, including questions about respondents' background, family experiences, interpersonal relationships, and exposure to violent media content would increase the scope of factors that may influence violence. Hence, future research can explore these predictors in conjunction with their perceptions of violence and aggression among college students. Third, future research should expand beyond perceptions and examine actual responses to potentially violent provoking situations among young adults. Research that incorporates perceptions and actual behaviors, along with the relationship between the two, can only serve to bolster this line of investigation. Finally, none of the six hypotheses were supported across all four negative situations. Future research should investigate why experience with guns, support for weapons, anger contagion, witnessing violence in the media, residing in a violent community, and having aggressive beliefs only predict perceived violent responses in some negative situations.

### Implications

A plethora of research documents the impact of violence exposure, aggressive norms, and weapons on

aggressive behaviors. However, the link between these concepts and perceptions of utilizing violence in response to negative situations is lacking. Thus, this study adds to an important area of research on aggression, violent behaviors, and violence prevention. Witnessing violence, having beliefs that support aggression, and the priming effect of weapons can be the impetus of developing such perceptions. Hence, understanding perceptions is an additional facet that can assist in strengthening existing and creating new anti-violence programs and strategies. To prevent violence, belief systems and perceptions must be changed at the individual and interpersonal levels. Such change can then expand to the societal level, yielding a widespread reduction of violence.

Violence is a public health issue that requires intervention from many areas. Hyman and colleagues (2016) suggest implementing legislative policies as well as community- and individual-based interventions to change social norms that support aggression and violence. Moreover, evaluation research to determine effective programs and strategies as well as funding to initiate and maintain successful anti-violence programs are also suggested to help alleviate the problem of violence (Hyman *et al.*, 2016). Though violence is among the leading causes of death for young people (Johnson, 2023), strategies to prevent violence have focused on children and adolescents to change negative behaviors early. These strategies involve efforts to reduce poverty and improve neighborhoods by increasing jobs and educational opportunities at the community/neighborhood level (Hyman *et al.*, 2016), changing how parents socialize boys by not encouraging hypermasculinity and aggressive means to solve problems (Collier, 2004), implementing early childhood intervention programs that focus on teaching positive parenting skills as well as the instruction and identification of at-risk children (Welsh & Farrington, 2007), and improving the education system at the national level by investing in better equipped schools and implementing anti-violence programs (Ballantine *et al.*, 2022).

While it is important to implement prevention strategies early in life, it is also imperative to recognize that college-aged students would benefit from many of these programs. For instance, more than one-third of this population struggles with housing and food insecurity as costs of higher education increase and funding decreases (Reppond, 2019). Thus, programs aimed at reducing poverty among college students may alleviate some of the stress they are facing that may

cause them to react aggressively. Furthermore, instituting higher education programs that highlight anti-violence school policies and strategies (e.g., workshops, courses, student organizations that aim to prevent violence) and providing resources to students who are at risk of using violence to solve issues and conflicts with others could assist with reducing violence among this crime-prone population.

## REFERENCES

- Anderson, C. A., Deuser, W. E., & DeNeve, K. M. (1995). Hot temperatures, hostile affect, hostile cognition, and arousal: Tests of a general model of affective aggression. *Personality and Social Psychology Bulletin*, 21(5), 434-448. <https://doi.org/10.1177/0146167295215002>
- Baldwin-White, A. (2021). College students and their knowledge and perceptions about sexual assault. *Sexuality & Culture: An Interdisciplinary Quarterly*, 25(1), 58-74. <https://doi.org/10.1007/s12119-020-09757-x>
- Ballantine, J. H., Stuber, J., & Everitt, J. G. (2022). *The sociology of education: A systematic analysis*. (9<sup>th</sup> ed.). New York: Routledge.
- Barlas, J., & Egan, V. (2006). Weapons carrying in British teenagers: The role of personality, delinquency, sensational interests, and mating effort. *Journal of Forensic Psychiatry & Psychology*, 17(1), 53-72. <https://doi.org/10.1080/14789940500407692>
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323-370. <https://doi.org/10.1037/1089-2680.5.4.323>
- Benjamin, A. J., Jr., & Bushman, B. J. (2016). The weapons priming affect. *Current Opinion in Psychology*, 12, 45-48. <https://doi.org/10.1016/j.copsyc.2016.05.003>
- Bernat, D. H., Oakes, J. M., Pettingell, S. L., & Resnick, M. (2012). Risk and direct protective factors for youth violence: Results from the National Longitudinal Study of Adolescent Health. *American Journal of Preventive Medicine*, 43(2 Suppl 1), S57-S66. <https://doi.org/10.1016/j.amepre.2012.04.023>
- Buss, D. M., & Shackelford, T. K. (1997). Human aggression in evolutionary psychological perspective. *Clinical Psychology Review*, 17(6), 605-619. [https://doi.org/10.1016/S0272-7358\(97\)00037-8](https://doi.org/10.1016/S0272-7358(97)00037-8)
- Brennan, I. R., & Moore, S. C. (2009). Weapons and violence: A review of theory and research. *Aggression and Violent Behavior*, 14(3), 215-225. <https://doi.org/10.1016/j.avb.2009.03.003>
- Campbell, A., Muncer, S., & Gorman, B. (1993). Sex and social representations of aggression: A communal-agentic analysis. *Aggressive Behavior*, 19(2), 125-135. [https://doi.org/10.1002/1098-2337\(1993\)19:2<125::AID-AB2480190205>3.0.CO;2-1](https://doi.org/10.1002/1098-2337(1993)19:2<125::AID-AB2480190205>3.0.CO;2-1)
- Campbell, A., Sapochnik, M., & Muncer, S. (1997). Sex differences in aggression: Does social representation mediate form of aggression? *The British Journal of Social Psychology*, 36(2), 161-171. <https://doi.org/10.1111/j.2044-8309.1997.tb01125.x>
- Chapple, C. L. (2003). Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims*, 18(2), 143-159. <https://doi.org/10.1891/vivi.2003.18.2.143>
- Cohen, A. K. (1955). *Delinquent boys: The culture of the gang*. Free Press.
- Collier, R. (2004). Masculinities and crime: Rethinking the "Man Question"? In C. Sumner (Ed.), *The Blackwell companion to criminology* (pp. 285-308). Blackwell Publishing. <https://doi.org/10.1002/9780470998960>
- Cornish, D. B., & Clarke, R. V. (Eds.). (1986). *The reasoning criminal: Rational choice perspectives on offending*. Springer-Verlag.
- Dijkstra, J. K., Lindenberg, S., Veenstra, R., Steglich, C., Isaacs, J., Card, N. A., & Hodges, E. V. E. (2010). Influence and selection processes in weapon carrying during adolescence: The roles of status, aggression, and vulnerability. *Criminology*, 48(1), 187-220. <https://doi.org/10.1111/j.1745-9125.2010.00183.x>
- DuRant, R. H., Getts, A. G., Cadenhead, C., & Woods, E. R. (1995). The association between weapon carrying and the use of violence among adolescents living in and around public housing. *The Journal of Adolescent Health*, 17(6), 376-380. [https://doi.org/10.1016/1054-139X\(95\)00030-V](https://doi.org/10.1016/1054-139X(95)00030-V)
- Eargle, L. A., & Burke, J. L. (2018). Student perceptions concerning political speech's association with violence. *Race, Gender & Class*, 25(3/4), 85-104. <https://www.jstor.org/stable/26802886>
- Eisner, M. (2009). The uses of violence: An examination of some cross-cutting issues. *International Journal of Conflict and Violence*, 3, 40-59. <https://doi.org/10.4119/UNIBI%2FIJCV.47>
- Erdley, C. A., & Asher, S. R. (1998). Linkages between children's beliefs about the legitimacy of aggression and their behavior. *Social Development*, 7(3), 321-339. <https://doi.org/10.1111/1467-9507.00070>
- Farrington, D. P., Gaffney, H., & Ttofi, M. M. (2017). Systematic reviews of explanatory risk factors for violence, offending, and delinquency. *Aggression and Violent Behavior*, 33, 24-36. <https://doi.org/10.1016/j.avb.2016.11.004>
- Finley, L. L. (2006). Examining school searches as systemic violence. *Critical Criminology*, 14, 117-135. <https://doi.org/10.1007/s10612-006-9002-4>
- Fischer, P., Greitemeyer, T., & Frey, D. (2008). Unemployment and aggression: The moderating role of self-awareness on the effect of unemployment on aggression. *Aggressive Behavior*, 34(1), 34-45. <https://doi.org/10.1002/ab.20218>
- Fong, V. C., Hawes, D., & Allen, J. L. (2019). A systematic review of risk and protective factors for externalizing problems in children exposed to intimate partner violence. *Trauma, Violence & Abuse*, 20(2), 149-167. <https://doi.org/10.1177/1524838017692383>
- Harris, M. B. (1994). Gender of subject and target as mediators of aggression. *Journal of Applied Social Psychology*, 24(5), 453-471. <https://doi.org/10.1111/j.1559-1816.1994.tb00593.x>
- Holden, R. R., & Passey, J. (2009). Social desirability. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 441-454). The Guilford Press.
- Holsti, O. R. (1996). *Public opinion and American foreign policy*. Ann Arbor, MI: University of Michigan Press.
- Howell, D. C. (2007). *Statistical methods for psychology* (6th ed.). Belmont, CA: Duxbury Press.
- Hurd, N. M., Zimmerman, M. A., & Xue, Y. (2009). Negative adult influences and the protective effects of role models: A study with urban adolescents. *Journal of Youth and Adolescence*, 38(6), 777-789. <https://doi.org/10.1007/s10964-008-9296-5>
- Hyman, I., Vahabi, M., Bailey, A., Patel, S., Guruge, S., Wilson-Mitchell, K., & Wong, J. P. (2016). Taking action on violence through research, policy, and practice. *Global Health Research and Policy*, 1(6). <https://doi.org/10.1186/s41256-016-0006-7>

- Johnson, S. R. (2023, June 15). CDC study: Rates of violent death up among U.S. youth. *U.S. News & World Report*. <https://www.usnews.com/news/health-news/articles/2023-06-15/cdc-study-shows-rise-in-violent-death-rates-among-u-s-youth#:~:text=For%20those%2020%20to%2024%20years%20old%2C%20the%20homicide%20rate,19.4%20per%20100%2C000%20in%202021>
- Kelly, J. R., Iannone, N. E., & McCarty, M. K. (2016). Emotional contagion of anger is automatic: An evolutionary explanation. *The British Journal of Social Psychology, 55*(1), 182–191. <https://doi.org/10.1111/bjso.12134>
- Knight Foundation. (2018). Free expression on campus: What college students think about first amendment issues. Retrieved from [https://knightfoundation.org/wp-content/uploads/2020/01/Knight\\_Foundation\\_Free\\_Expression\\_on\\_Campus\\_2017.pdf](https://knightfoundation.org/wp-content/uploads/2020/01/Knight_Foundation_Free_Expression_on_Campus_2017.pdf)
- Labella, M., & Masten, A. S. (2018). Family influences on the development of aggression and violence. *Current Opinion in Psychology, 19*, 11–16. <https://doi.org/10.1016/j.copsyc.2017.03.028>
- Larsen, D., & Wobschall, S. M. (2016). Perceptions of intimate partner violence among university students: Situational and gender variables. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1173748.pdf>
- Leary, M. R., Twenge, J. M., & Quinlivan, E. (2006). Interpersonal rejection as a determinant of anger and aggression. *Personality and Social Psychology Review, 10*(2), 111–132. [https://doi.org/10.1207/s15327957pspr1002\\_2](https://doi.org/10.1207/s15327957pspr1002_2)
- Lim, S. H., & Ang, R. P. (2009). Relationship between boys' normative beliefs about aggression and their physical, verbal, and indirect aggressive behaviors. *Adolescence, 44*(175), 635–650.
- Little, R. J. A., & Rubin, D. B. (1987). *Statistical analysis with missing data*. New York: Wiley.
- McMahon, S. D., Todd, N. R., Martinez, A., Coker, C., Sheu, C. F., Washburn, J., & Shah, S. (2013). Aggressive and prosocial behavior: Community violence, cognitive, and behavioral predictors among urban African American youth. *American Journal of Community Psychology, 51*(3-4), 407–421. <https://doi.org/10.1007/s10464-012-9560-4>
- Nardi, P. M. (2014). *Doing survey research: A guide to quantitative methods*. Third Edition. Boulder, CO: Paradigm.
- Nathanson, A. I. (1999). Identifying and explaining the relationship between parental mediation and children's aggression. *Communication Research, 26*(2), 124–143. <https://doi.org/10.1177/009365099026002002>
- National Center for Education Statistics. (2022). Criminal incidents at postsecondary institutions. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved from <https://nces.ed.gov/programs/coe/indicator/a21>
- Nelson, D. A., Springer, M. M., Nelson, L. J., & Bean, N. H. (2008). Normative beliefs regarding aggression in emerging adulthood. *Social Development, 17*(3), 638–660. <https://doi.org/10.1111/j.1467-9507.2007.00442.x>
- Okour, A. M., & Hijazi, H. H. (2009). Domestic violence and family dysfunction as risk factor for violent behavior among university students in north Jordan. *Journal of Family Violence, 24*(6), 361–366. <https://doi.org/10.1007/s10896-009-9235-6>
- Phillips, S., & Maume, M. O. (2007). Have gun will shoot? Weapon instrumentality, intent, and the violent escalation of conflict. *Homicide Studies, 11*(4), 272–294. <https://doi.org/10.1177/1088767907306507>
- Reppond, H. (2019, December). Many college students struggle to have their basic needs met. *The SES Indicator, 12*(3). <https://www.apa.org/pi/ses/resources/indicator/2019/12/college-students-needs>
- Ryan, C., Mathews, F., & Banner, J. (1993). Student perceptions of violence: Summary of preliminary findings. U.S. Department of Justice: Office of Justice Programs. Bureau of Justice Statistics. Retrieved from <https://www.ojp.gov/ncjrs/virtual-library/abstracts/student-perceptions-violence-summary-preliminary-findings>
- Scarpa, A. (2003). Community violence exposure in young adults. *Trauma, Violence & Abuse, 4*(3), 210–227. <https://doi.org/10.1177/1524838003004003002>
- Schwarz, J., Gibson, S., & Lewis-Ar, C. (2017). Sexual assault on college campuses: Substance use, victim status awareness, and barriers to reporting. *Building Healthy Academic Communities Journal, 1*(2), 45–60. <https://doi.org/10.18061/bhac.v1i2.5520>
- Singer, J. L., & Singer, D. G. (1986). Family experiences and television viewing as predictors of children's imagination, restlessness, and aggression. *Journal of Social Issues, 42*(3):107-124.
- Spoor, J. R., & Kelly, J. R. (2004). The evolutionary significance of affect in groups: Communication and group bonding. *Group Processes & Intergroup Relations, 7*(4), 398–412. <https://doi.org/doi/10.1177/1368430204046145>
- Tapper, K., & Boulton, M. J. (2004). Sex differences in levels of physical, verbal, and indirect aggression amongst primary school children and their associations with beliefs about aggression. *Aggressive Behavior, 30*(2), 123–145. <https://doi.org/10.1002/ab.20010>
- Thompson, A., & Tapp, S. N. (2022). Criminal victimization, 2021. U.S. Department of Justice: Office of Justice Programs. Bureau of Justice Statistics. Retrieved from <https://bjs.ojp.gov/content/pub/pdf/cv21.pdf>
- Vanfossen, B., Brown, C. H., Kellam, S. G., Sokoloff, N., & Doering, S. (2010). Neighborhood context and the development of aggression in boys and girls. *Journal of Community Psychology, 38*(3), 329–349. <https://doi.org/10.1002/jcop.20367>
- Welsh, B. C., & Farrington, D. P. (2007). Save children from a life of crime. *Criminology & Public Policy, 6*(4), 871–879. <https://doi.org/10.1111/j.1745-9133.2007.00465.x>
- Wiedeman, A. M., Black, J. A., Dolle, A. L., Finney, E. J., & Coker, K. L. (2015). Factors influencing the impact of aggressive and violent media on children and adolescents. *Aggression and Violent Behavior, 25*, 191–198. <https://doi.org/10.1016/j.avb.2015.04.008>
- Wikstrom, P. H., & Treiber, K. H. (2009). Violence as situational action. *International Journal of Conflict and Violence, 3*(1), 75–96. <https://doi.org/10.4119/ijcv-2794>

Received on 12-08-2023

Accepted on 16-09-2023

Published on 07-10-2023

<https://doi.org/10.6000/1929-4409.2023.12.13>

© 2023 Eargle et al.; Licensee Lifescience Global.

This is an open-access article licensed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the work is properly cited.