Could it happen here? Moral panic, school shootings, and fear of crime among college students

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Abstract Originating in the early 1970s, the concept of moral panic has been used to describe the public's reaction to a real or perceived threat. Moral panic has been linked to well-known social problems, including muggings, drugs, juvenile 'delinquency, gangs, and terrorism. More recently, researchers have examined school shootings in this context. Notably absent, however, is a quantitative application of Goode and Ben-Yehuda's (1994a, 1994b) attributional model of moral panic. The present study examines the five key attributes of moral panic—concern, hostility, consensus, disproportionality, and volatility – as they relate to school shootings and fear of crime among college students. The results indicate that respondents' fear of crime is the best predictor of students' subscription to moral panic. Directions for future research, as well as limitations of the present study, also are discussed.

Prior to the late 20th century, fear of crime was associated with urban neighborhoods, especially those in inner cities. Residents of middle- and upper-class suburban and rural communities viewed their areas as safe, especially as crime rates, including the level of violence in schools, were declining [1–3]. The string of school shootings in the late 1990s, culminating with the 1999 Columbine High School shooting, changed the belief that these communities were immune to such violence. It was no longer limited to inner-city urban neighborhoods.

School shootings are relatively rare in the U.S., with an annual average of less than 10 events [4]. The disproportionate amount of attention they garner, however, particularly in the media, has made them appear to many to be almost epidemic [5–8]. As a result, school shootings have the ability to incite what Young [9] and Cohen [10] have famously referred to as a "moral panic." When an event, such as a school shooting, emerges as a perceived threat to social order [10], moral panic can ensue, and reactions are often disproportional to the actual threat [11].

School shootings, such as Columbine and the more recent tragedy at Sandy Hook Elementary School in Connecticut, have led to increased security in schools, including

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metal detectors, identification cards, and zero-tolerance policies. Politicians and pundits typically have focused their discourse following such tragedies on hot-button issues, such as gun control, mental health, and violent media, including video games, movies, and music. Several school shootings have generated legislative responses aimed at addressing these issues [12, 13]. On December 19, 2012, in response to Sandy Hook, President Obama announced the creation of a national committee on mass violence aimed at targeting gun violence [14]. Less than a month later, the State of New York passed the first gun-control measures after Sandy Hook, which included an assault-weapons ban [15].

In addition to school shootings, which have been examined by Burns and Crawford [2] and Springhall [16], other perceived social threats also have been considered through the conceptual lens of moral panic. These include juvenile deviance and crime [10, 17, 18], gangs [19, 20], drugs [21], and terrorism [22]. In 1994, Goode and Ben-Yehuda introduced an attributional model of moral panic to the growing body of literature [23–25]. This model identified five key attributes – concern, hostility, consensus, disproportionality, and volatility – that became the framework for many moral panic scholars [25–27]. The moral panic research to date, however, has relied exclusively on qualitative, historical data. What is notably absent is a quantitative assessment of Goode and Ben-Yehuda's [26, 27] five attributes. Also missing is any consideration of individual-level responses to a purported moral panic, such as that of school shootings. While moral panic generally is a collective, macro-level phenomenon, individual responses – both as a whole and based upon the individual attributes – to the panic still are likely without confirming or denying its existence, and thus also must be examined.

The present study seeks to fill this gap by examining these key attributes, using quantitative data, as they relate to college students' beliefs about school shootings. In the wake of tragedies, such as the shootings at the University of Texas at Austin (1966), Virginia Tech University (2007), and Northern Illinois University (NIU) (2008), the potential fear and panic generated among college students by these events are particularly relevant. Though these events typically receive less media attention than their elementary- or secondary-school counterparts, they still may invoke a belief among students that these events are possible on their campuses. As such, an examination of students' reactions to the moral panic of school shootings is particularly warranted. Using a survey instrument at a large southwestern university, questions were asked of students related to the attributes of moral panic related to these events and fear of crime, among other variables. This paper presents the results of the survey.

Review of the literature

Moral panics

Though Young [9] has been credited as first using the term "moral panic" in research, it is Cohen [10] who usually is credited with developing the concept as it is used today. Cohen [10] has defined moral panic as:

A condition, episode, person or group of persons emerges to become defined as a threat to societal values and interests; its nature is presented in a stylized and stereotypical fashion by the mass media; the moral barricades are manned by



editors, bishops, politicians, and other right-thinking people; socially accredited experts pronounce their diagnoses and solutions; ways of coping are evolved or (more often) resorted to; the condition then disappears, submerges, or deteriorates. (p. 9)

While these events emerge as *perceived* threats to the social order [10], it is often the responses that are more indicative of a moral panic. Reactions from officials, especially politicians and pundits, often are out of proportion with the actual threat of the person, group, or event [11]. Further, the greater the perceived threat to the social order, the harsher the responses to it [11]. It is a case where, as Jones, McFalls, and Gallagher [28] observe, "objective molehills have been made into subjective mountains" (p. 341).

Even as early as 1971, Young realized the central role that the media played in constructing social problems. For much of society, behavior acquires its meaning from specific social contexts [25]. These contexts often are played out in the media, which can increase public fears about behaviors [9]. As Miller [29] notes, "part of society is used to represent (or perhaps distort) a wider problem" (p. 38). In a risk-laden society, such as the U.S., people often think social problems are increasing when they are, in fact, decreasing [29]. This has been seen with a number of social problems, including juvenile crime [1–3].

Goode and Ben-Yehuda's [26, 27] five attributes of moral panic were introduced to supplement Cohen's [10] original processual model by providing a comprehensive framework of characteristics emblematic of many moral panics [23–25]. The first indicator, *concern*, represents a heightened level of anxiety about a perceived social threat [26, 27]. *Hostility* in moral panics is often manifested through an "us-versus-them" mentality [2, 10, 26, 27]. *Consensus* occurs when people agree that a particular threat is "real, serious, and caused by the wrongdoing of group members and their behavior" ([26], p. 157). Moral panics are *disproportional* when the intensity of the public concern exceeds the actual threat of the social problem [11, 26, 27]. Finally, *volatility* occurs as a result of the sudden eruption and diminution of a moral panic [26, 27], which also may be witnessed in the amount of attention a particular phenomenon receives in the public discourse (see, for example, [30]).

Fear of crime

A considerable body of literature exists, spanning over 40 years, examining fear of crime. Although a direct link has yet to be proposed, research on moral panic clearly overlaps with research on fear of crime. Though researchers have utilized different approaches to study fear of crime, there are several consistent findings. Females are more fearful of crime than males, both in the general population [31–35], and among college students [36–41]. Early research [31, 33] suggests that elderly also are more afraid than youth, though more recently, it has been found that youth are more afraid [42, 43]. A third option has been presented – a curvilinear relationship between age and fear—with those in both the youngest and oldest groups expressing the greatest fear [44]. These groups often are concerned they will be victims of personal crime, such as homicide or assault, when property crimes such as burglary are more common [34, 44].



Several studies [45–48] specifically have examined college students' fear of crime in the aftermath of school shootings. Stretesky and Hogan [48] analyzed data collected as part of a campus dating-violence survey at the Rochester Institute of Technology one week before and after Columbine. Their findings indicated that respondents' perceived safety decreased following the shooting [48]. One significant limitation of the study, however, was that the sample only included females. Addington [45] also found that general fear of crime increased, albeit slightly, following Columbine. Still, the majority of respondents (77 %) reported not being fearful at school [45].

In their examination of fear of crime following the Virginia Tech and NIU shootings, Kaminski and colleagues [47] found that female students were significantly more fearful than their male counterparts. This held for fear of being murdered on campus and fear of being threatened with a knife or gun on campus, in addition to a general measure of fear of crime on campus [47]. These fears were significantly increased by both shootings [47]. Specific demographics of the students also were found to predict their fear. Younger students and those who lived on campus were more fearful than their respective counterparts [47]. White students were less fearful than minority students of being a victim of crime (attacked with a weapon or being murdered) on campus [47]. However, while the Virginia Tech shooting increased the fear of being a victim of both types of crime among minority students, only fear of being murdered increased following the NIU shooting [47]. Fallahi and colleagues [46] also analyzed reactions to the Virginia Tech shooting. Students who reported higher levels of fear and greater belief that a similar event would happen again expressed there was a lesser likelihood that a shooting could happen on their campus [46].

School shootings as moral panics

Burns and Crawford [2] conceptually applied Goode and Ben-Yehuda's attributional model of moral panics to examine Columbine High School's contribution to the panic over school shootings. This was especially relevant, not only because of the recentness of the event, but because the amount of attention the shooting received.

Increased attention to school shootings, especially by the media, allows such events to take on a life of their own [4, 49]. Columbine, for example, would go on to become the archetypal model to which all other school shootings would be compared [50–55], or as Goode and Ben-Yehuda aptly label such a moral panic that can be sustained over time, "a cultural legacy" ([26], p. 158).

Concern Goode and Ben-Yehuda [26] note that concern must be measured in concrete and explicit ways, and Burns and Crawford [2] suggest that the most accessible way is through media reports and event saliency. Considerable amounts of news coverage have been devoted to school shootings. The Pew Research Center for the People and the Press [69] found that coverage of the 2007 Virginia Tech shootings consumed 60% of network news airtime and 76% of cable news airtime. Schildkraut [4, 84] found that in the 30 days following the event, *The New York Times* and *The New York Post* published 63 articles and 50 articles respectively (excluding op-ed pieces). Similarly, Chyi and McCombs [59] observed that 170 articles were published in the same time frame following the Columbine shooting, and over 130 articles were published following the Sandy Hook tragedy [49, 84]. Interestingly, a Gallup poll conducted in March



2001 showed that 64% of Americans believed that the coverage devoted to school shootings by the media was the cause of later school shootings [61]. A more recent poll indicated that respondents believed the 2012 Sandy Hook shooting to be reflective of broader social problems in the nation [92].

Concern over school shootings also can be measured by the saliency of the event. Columbine, for example, attracted the most interest of any news story in 1999, with 68% of Americans saying they followed accounts of the shooting very closely [65]. It was the third most closely followed story of the decade behind the 1992 Rodney King verdict and the 1996 crash of TWA flight 800 [65]. Virginia Tech was similarly the biggest news story of its week, which also included news on the war in Iraq and a critical ruling by the Supreme Court on abortion [69]. On the day of the shooting, 1.8 million viewers tuned into Fox News, and an additional 1.4 million viewers tuned in to CNN to watch coverage of the shooting [76]. In the year prior to the shooting, Fox News had an average daily viewership of around 900,000 viewers, and CNN had an average daily viewership of 450,000 [82]. MSNBC.com registered 108.8 million page views [69], when it typically averaged around 400,000 page views per day [63].

Hostility Increased hostility can be directed toward a deviant or out-group with problematic behaviors [2, 64]. This may involve the demonization, criminalization, and alienation of certain youth [2, 72, 73], whom Becker [85] called "outsiders" and whom Chermak [56] suggests, "deviate from what is statistically normal" (p. 580). Burns and Crawford [2] further note that those who have been marginalized may not have the resources to overcome their stigmatization. School shootings have given way to the idea that it was no longer an issue of minority, inner-city kids who were the sole perpetrators of violence [66]. Rather, school shooters came from either middle-class, white suburbia or from rural areas that were predominantly white, Christian, and conservative [16, 50, 66, 67].

After Columbine, increased hostility was directed at youth who wore trench coats or listened to "Goth rock," such as Marilyn Manson, KMFDM, or Rammstein, all bands of choice for one of the Columbine shooters [15, 50, 67]. In fact, both politicians and some members of the public rallied after the shooting to have a Manson concert in Denver cancelled [16, 67]. Students who were in groups considered "subcultures" within high schools, those who were not the "jocks" or "elites" that ruled schools like Columbine, were routinely targeted as the next potential school shooters [50, 66, 67]. Anyone who exhibited traits similar to the Columbine shooters immediately were considered to be "alienated youth gone horribly wrong" and became immediate cause for apprehension ([67], p. 1387).

Consensus For consensus to occur, there must be a level of agreement that a given threat is "real, serious, and caused by the wrongdoing of group members and their behavior" ([26], p. 157). The panic must be widespread; however, it does not have to be accepted universally nor affect most people [2]. Altheide [55] further notes that a sense of disorder and lack of control are major impacts of a moral panic. Others (e.g., [2, 3, 5, 7, 8, 77]) have suggested that moral panics serve to amplify the public's fear for school safety. Following the Columbine shooting, school shootings became a cause of national concern [81]. Discourse about school safety expanded from Littleton to all suburban high schools [5, 55, 81].

In many instances, the consensus among members of society is to "do something" about the problem so that "moral order" broken down by violence can be restored ([2],



p. 149). Goode and Ben-Yehuda [27] note that a typical reaction "involve[s] strengthening the social control apparatus of the society, including tougher or renewed rules, increased public hostility and condemnation, more laws, longer sentences, more police, more arrests, and more prison cells" (p. 30). Following Columbine, 53 % of Americans believed that metal detectors should be installed in schools, 62 % called for stricter gun laws for teens, and nearly 50 % felt that stricter regulation of television and movie content, as well as Internet-access restriction, was also necessary ([57]; see also [2, 16]).

Additionally, many boycotted violent movies, such as *The Matrix*, *The Basketball Diaries*, and *Natural Born Killers*, following Columbine, and video games, such as *Doom* and, more recently, *Call of Duty*, were suggested to be instrumental in training individuals to become mass shooters ([60, 67, 78]; see also [5, 62]). Even non-violent video games, when linked to such extreme events, have been criminalized in the wake of school shootings (see, for example, [74], which includes the arcade-style video game *Dance*, *Dance Revolution* in the itemized list of evidence recovered from the Sandy Hook Elementary School shooter's home). Such reactions, combined with the increased introduction of legislation to address the problem and its perceived cause, also are indicators of hostility ([2]; see also [12, 13]). Yet, in reality, no causal link has been found between video games and violent crimes [5, 79, 87], though the myth persists.

Disproportionality The concept of moral panic is inherently subjective, as not everyone will subscribe to the same ideas about a particular phenomenon. A key to understanding how a moral panic exists is disproportionality. Moral panic concerning school shootings exhibits a high level of disproportionality between the amount of attention it garners and the frequency at which it occurs [2, 7, 8, 77]. This may be when the scale of the response received exceeds the actual magnitude of the problem [89]. The scale of the problem may be over-exaggerated by the media. Additionally, overly severe official reactions also inflate the problem [26, 89].

The series of school shootings in the late 1990s over a relatively short period also contributed to an inaccurate understanding of violence in schools [2]. Between the 1992–93 and 1997–98 school years, there were 226 school shooting-related deaths in the U.S. [71, 83]. During the same period, there were over 50 million students enrolled in over 80,000 schools nationwide [90]. Therefore, less than *five ten-thousandths* of students in the U.S. were killed in a school shooting over a six-year span. Donohue and colleagues [71] also point to the million-to-one odds of a student being killed at school, noting that the same student has a greater likelihood of being struck by lightning (see also [83]).

This has, in turn, led to increased fear and concern on the part of the public and widespread reaction [2]. In particular, the majority of the reaction stemming from these events typically centers on several high profile cases [2, 6–8, 91], such as Columbine and Virginia Tech [6]. Many cases do not garner the same attention ([88], p. 90; see also [89, 93]), as evident in the public's reactions (or lack thereof) to other school shootings, such as Pearl High School (Pearl, MS), Westside Middle School (Jonesboro, AR), Thurston High School (Springfield, OR), and NIU.

Though researchers have yet to explore why some school shooting events receive greater attention and response than others, a cursory examination of the case facts can provide insight. Columbine perhaps can be considered the most notorious school



shooting, primarily because it was believed to be the first of its kind. Though Columbine occurred in the midst of nearly a dozen other school shootings, those events did not have the high death tolls or the intense and methodical planning of the shooters. In most cases, these other events were more likely the consequences of snap decisions than a military-style operation. The 2008 NIU shooting followed the Virginia Tech shooting by nearly eight months. Though both events took place on university campuses, NIU had a considerably lower death toll (five as compared to 32), but also better emergency response notification. The NIU shooter also did not leave behind a multimedia manifesto later aired on news stations, as had the perpetrator at Virginia Tech. Further, much of the discourse related to NIU linked the event directly back to the Virginia Tech shooting. Most recently, the Sandy Hook Elementary school shooting also gained considerable notoriety, nearing (if not surpassing) the fear after Columbine. Unlike the aforementioned shootings, the majority of Sandy Hook's victims were part of the most vulnerable group—young children (see [91]). In sum, differences between the cases also can lead to differences in how they contribute to the moral panic about the particular phenomenon, with some events failing to make a noticeable contribution. Additionally, not everyone will subscribe to the responses (e.g., gun control, banning of violent video games) associated with school shootings, again impacting the disproportionality as it relates to the panic.

Volatility Although Burns and Crawford [2] omitted volatility from their analysis of moral panic and school shootings, Goode and Ben-Yehuda's [26] application of the concept is still relevant. Volatility refers to the sudden eruption of moral panic phenomena, which also can subside just as abruptly [26]. Simply stated, volatility refers to the unpredictability of these events in respect to where or when they will occur. Since volatility is a particularly difficult concept to measure, one way in which to examine the attribute is to consider the length of time in which public attention is focused on a specific issue. While many subjects that enter the public agenda have a lengthy issueattention cycle (see, for example, [30, 94]), school shootings generally receive limited attention before being replaced by other stories of interest. Chyi and McCombs [59], for example, found that the life span of the Columbine case was about a month, and both Schildkraut [4, 84] and Schildkraut and Muschert [49] reported similar findings in their examinations of the coverage of Virginia Tech and Sandy Hook, respectively. This abbreviated media attention can be attributed to what Downs [30] refers to as the "issue-attention cycle," whereby interest in a particular point fades, requiring the media and the public to focus on a new topic of interest.

What is important to consider with respect to volatility is the rapid succession of stories that may arise. For example, a mass shooting occurred at a mall just outside of Portland, Oregon only three days before the shooting at Sandy Hook Elementary. Therefore, the public focus shifted from one story of mass murder to another, though not all events within a specific panic will elicit the same reactions. With the continual transition *between* events, there may not be enough time for interest in an issue to subside. Rather, the panic from one event may simply be replaced with the panic from another. Additionally, the constant linkage of events in the media also keeps older events, such as Columbine and Virginia Tech, in the public awareness, which can make school shootings appear more continuous and streaming than they are. Still, as noted, not all panics, nor the events within each, are sustained or garner as much attention as others.



Methodology

Research question and hypotheses

The present study sought to expand on the growing body of literature pertaining to moral panic by quantitatively examining a phenomenon that has been researched previously only with qualitative, historical data. Specifically, the following question was the focus of this study: What characteristics of college students are the best predictors of reactions to moral panic over school shootings? Building on previous research, such as that on fear of crime (e.g., [33–35, 44]), it was hypothesized that (1) females, (2) younger respondents, (3) minorities, and (4) those reporting greater fear and perceived risk of personal crime and victimization would express heightened reactions to the school shootings panic, as compared to males, older respondents, whites, and fear and risk associated with property crimes. While these hypotheses were constructed for a general moral panic scale (the total measure of all questions assessing this phenomenon), it was posited that similar findings would emerge across the individual attributes (e.g., consensus).

Participants

The survey instrument was distributed to students during fall 2012 at a large southwestern university. Data collection began at the end of August and ended at the beginning of December. A convenience sample of undergraduate criminal justice classes was surveyed, and pen-and-paper instruments were administered. A total of 442 surveys were completed, and no student refused to participate.

Table 1 presents descriptive statistics for the survey responses. Males represented the larger share of respondents (58.1 %), as did Whites (48.6 %). Students ages 21 and under accounted for 57 % of respondents. The majority of respondents identified themselves as non-gun owners (58.8 %) and lived off campus (86 %).

Dependent variables

Nineteen Likert-scale questions operationalizing Burns and Crawford's [2] moral panic indicators as they relate to school shootings were included in the survey. Responses ranged on a five-point scale, from strongly disagree (1) to strongly agree (5). Maximum likelihood approach to factor analysis was utilized to determine if the questions loaded on the attributes they were originally intended to measure. While the majority of these questions did load on their designated attribute, several questions were determined to be better suited as measures of other attributes of moral panic. This is not unexpected, given substantial overlap between the theoretical concepts. Table 2 provides a complete list of the questions utilized in the survey, as well as their factor loadings.

While Goode and Ben-Yehuda's [26, 27] model of moral panic included five attributes, the factor analysis suggested that six factors were better suited for the data.



| Table 1 | Descriptive | statistics | for |
|-----------|-------------|------------|-----|
| responder | nts | | |

| Variables | Respondents (N=442) | |
|------------------|---------------------|------|
| | N | % |
| Gender | | |
| Male | 257 | 58.1 |
| Female | 182 | 41.2 |
| Race / Ethnicity | | |
| White | 215 | 48.6 |
| Black | 40 | 9.0 |
| Hispanic | 159 | 36.0 |
| Other | 13 | 2.9 |
| Age | | |
| 21 and younger | 252 | 57.0 |
| 22 and older | 186 | 42.1 |
| Gun ownership | | |
| Owns | 145 | 32.8 |
| Does not own | 260 | 58.8 |
| Residence | | |
| On campus | 49 | 11.1 |
| Off campus | 380 | 86.0 |

Variable frequency percentages may not total to 100.0% due to rounding error or missing data

The additional factor is the result of the concern attribute being split into two dimensions. The first concern attribute focused on defense, and includes questions that focus on gun rights. This attribute had two variables, both with high loadings (>0.75). Conversely, the second concern attribute, prevention, included questions that measure respondent attitudes towards gun control. Variables included were factored in with moderately high (>0.55). Essentially, these attributes represent opposite ends of the same spectrum (concern).

The majority of questions pertaining to consensus loaded on this attribute with moderate scores (>0.40). Disproportionality, an attribute created from six questions, was dominated by moderately high (>0.60) loadings. The questions comprising the hostility attribute were split in their loadings, with two questions loading high (0.81 and 0.85) and two questions loading only moderately (0.59 and 0.34). The final attribute, volatility, is comprised of two questions. While one of the questions loads high (0.74), the second question, pertaining to media coverage of school shootings, loads weakly (0.22). While this loading is considered weak across all attributes, the loading score for the question on the volatility attribute is still the strongest. This likely reflects how the media can fixate on a particular event for a short period of time before moving on to another story [30].

Independent variables

Dummy codes were created for each independent variable except for those involving fear of crime. For the dummy variables, one category was omitted from each to serve as



Table 2 Moral panic indicator likert questions (with factor loadings)

| Question | Loading | Cronbach's Alpha |
|--|---------|---------------------|
| Consensus | | .356 |
| School shootings are premeditated events. | .615 | |
| I feel safe on campus. | .216 | |
| Attention to a school shooting event does not last very long before another news story replaces it. | .402 | |
| Concern (Defense) | | .802 |
| I believe professors should be able to carry a firearm on campus if they have a concealed handgun license. | .855 | |
| I believe students should be able to carry a firearm on campus if they have a concealed handgun license. | .797 | |
| Concern (Prevention) | | .534 |
| I believe that people should have to pass a criminal background check to purchase a firearm from a private dealer or a gun show. | .622 | |
| I believe that there should be very stiff penalties assessed for guardians who fail to keep firearms out of the reach of their minor children. | .580 | |
| Disproportionality | | .778 |
| School shootings are a major problem in the U.S. | 735 | |
| I believe school shootings are a major issue worldwide. | 671 | |
| I believe a school shooting could happen at my school. | 628 | |
| I believe that juvenile crime over the last 20 years is on the rise. | 520 | |
| I believe that school shootings are on the rise. | 715 | |
| The odds of being a victim of a school shooting are greater than being struck by lightning. | 416 | |
| Hostility | | .749 |
| I believe my school should have more rigorous safety procedures in place. | .338 | |
| I believe that someone who brings a firearm to school should be expelled. | .850 | |
| I believe that someone who brings a firearm to school should serve time in jail. | .808 | |
| I believe that someone who brings a firearm to school should receive a mental health evaluation. | .593 | |
| Volatility | | .241 |
| School shootings are unpredictable. | .738 | |
| I believe the media devotes too much coverage to school shootings. | .224 | |

the reference category. For each variable, 1 represented the presence of the characteristic, and its absence was coded as 0.

Females were coded 1, with males as the reference category. Three individual dummy variables—black, Hispanic, and other (including respondents reporting they were Asian or biracial) were created to measure race and ethnicity, with whites serving as the reference category. It is especially important, given the location of the school, to account for Hispanics, as the university recently was designated as a Hispanic-Serving Institution, meaning that at least 25 % of the student body identifies with this group [86]. Age was dichotomized into two categories: 21



and under and 22 and older, ¹ and the 21-and-under group was used as the reference category.

Two additional demographic independent variables were included in the analysis. Respondents were asked whether they owned a handgun, rifle, or shotgun. Those reporting ownership of at least one firearm were coded as being a gun owner, which was used as the reference category. Respondents also were asked whether they lived on or off campus, as previous research (see, for example, [68]) suggests that people who are spatially more distant from a crime locale also will be less fearful. Those reporting that they lived on campus served as the reference group.

The final independent variables relate to fear of crime and perceived risk of victimization. Though often mistaken for being synonymous, perceived risk of victimization is conceptually and empirically distinct from fear of crime [70], in that the former is proposed to be a cause of the latter [80]. Further, both are conceptually distinct from moral panic. While the latter is considered a macro-level response to a perceived problem, both fear and risk related to crime are more indicative of individual-level responses to a perceived problem [95]. In this study, two identical panels of survey items—one for fear of crime and one for perceived risk of victimization – were created using 10 crimes and public order violations [70, 80]. Respondents were asked about their fear or perceived likelihood of being approached by a beggar or panhandler on the street, being conned out of money, having someone break into their home while they were present and while they were away, being raped or sexually assaulted, being murdered, being attacked with a weapon, having their car stolen, being mugged, and having one's property vandalized [70, 80]².

Responses ranged from 1 (not at all likely/afraid) to 10 (very likely/afraid). Additive scales were then created to differentiate between personal and property crime. Personal crime included questions about having one's home broken into while away, being murdered, and being attacked with a weapon [70]. Though Ferraro's [70] additive scale included a question about rape, it was omitted in the present study. Initially, a question about rape was included in the analysis as a separate variable, but it was highly collinear with fear and perceived risk of personal crime, which would be expected if fear of rape drives fear of overall crime, albeit only for women [34, 35]. Hence, fear of rape was dropped from the analysis. The fear of personal crime scale resulted in a Cronbach's alpha of .916 and the perceived risk of personal victimization scale produced a Cronbach's alpha of .847. Property crime was composed of the questions about being conned, having one's home broken into while away, having one's car stolen, being robbed or mugged, and having property vandalized [70]. The fear of property crime scale resulted in a Cronbach's alpha of .876 and the perceived risk of *property* victimization scale produced a Cronbach's alpha of .799.

² LaGrange and Ferraro [44] included an eleventh item—rowdy youth. This was later omitted by Ferraro [70], the model which was used in the present study.



¹ Due to IRB restrictions, the researchers were not allowed to ask respondents the numeric value of their age, but instead were required to ask respondents where they fell in the following age groups: 18-21 (255 total respondents), 22-25 (195 total respondents), 26-29 (7 total respondents), 30 and older (1 respondent). These were then collapsed into 21 and under and 22 and over categories.

Analysis and findings

Table 3 presents the results of OLS regression analysis. In order to understand how the regression results relate to the phenomenon of moral panic, it is important to examine it within the framework of each hypothesis. The first hypothesis focuses on the impact of gender on the attributes of moral panic, predicting that females have higher levels of moral panics than males. When inspecting the effects of being female on each of the individual attributes (e.g., concern), two significant effects were found. The regression results indicate that being female is negatively correlated with the defense dimension of the concern attribute, as well as on volatility. Females, as compared to males, were *less* likely to say that licensed students and faculty should be able to carry guns on campus (B=-0.028, p<.01). Females also were *less* likely than males to believe that school shootings are unpredictable events (B=-0.197, p<.01). Being female, however, was not found to be significantly correlated with consensus, the prevention dimension of concern, hostility, or disproportionality.

The second hypothesis centers on the effects of age on the individual attributes of moral panic. Specifically, it was hypothesized that younger respondents have higher levels of moral panic compared to older respondents. The results of the regression analysis, however, did not indicate that age is significantly correlated with any of the individual attributes.

The third hypothesis examines the impact of race/ethnicity on moral panic, predicting that minorities exhibit higher levels of moral panic as compared to whites. Race/ethnicity was found to have a significant correlation with two of the individual attributes of moral panic. With respect to the defense dimension of the concern attribute, blacks were significantly *less* likely than whites to believe that CHL holders should be permitted to bring firearms on campus (B=-0.195, p<.01). Additionally, as compared to whites, Hispanics offered *greater* support for volatility (B=0.170, p<.01). The remaining attributes of moral panic (consensus, concern prevention, hostility, and disproportionality) were not found to be significantly related to race/ethnicity.

The final hypothesis focuses on the effect of respondents' fear of personal crime on their subscription to moral panic. Specifically, it was hypothesized that those who report greater levels of fear of *personal* crime and victimization (as opposed to property crime) would express heightened reactions to the school shootings panic With regard to hostility, respondents who reported greater levels of fear of personal victimization express *more* punitive attitudes about school shootings (B=0.179, p<.05). A significant effect of fear of personal crime on the disproportionality attribute also was found. Respondents who reported greater fear of personal victimization also believed school shootings are *more* likely to occur than they actually are (B=0.290, p<.01). Fear of personal crime, however, was not found to be significantly correlated with consensus, either dimension of concern, or volatility.

It is important to look at moral panic as it relates generally to school shootings. To accomplish this goal, a general moral panic scale was employed, comprised of all 19 questions used in the different moral panic attribute measures resulting in a Cronbach's alpha of .370. These findings are presented in Table 4. Only one variable, fear of personal victimization, was significantly correlated with the general moral panic scale. Respondents who expressed greater levels of fear of personal victimization were *more* likely to report greater moral panic over school shootings (B=0.288, p<.01).



Table 3 OLS regression results for moral panic attributes

| | Consensus | Concern (Prevention) | Concem (Defense) | Hostility | Disproportionality | Volatility |
|-------------------------|-------------|-------------------------|---------------------|---------------|--------------------|---------------|
| Gender Female | 064 (.228) | 028 (.208) | 127 (.285)** | .016 (.431) | .077 (.518) | 197 (.208)** |
| Age | | (601) | (620) 030 | (017 / 410) | 016 (404) | (801) (290 |
| Race/Ethnicity | .040 (.117) | (061:) 000: | 000 (.272) | (014.) (00. | 010 (.494) | .002 (.190) |
| Black | 025 (.375) | 066 (.342) | 195 (.469)** | .073 (.709) | 034 (.853) | .016 (.345) |
| Hispanic | 045 (.233) | .118 (.213) | 042 (.292) | 022 (1.103) | 019 (.532) | .170 (.212)** |
| Other | .057 (.584) | .102 (.533) | 032 (.730) | 019 (1.125) | .013 (1.325) | .002 (.531) |
| Gun ownership | | | | | | |
| Non-owner | 056 (.234) | .040 (.213) | 385 (.294)** | .200 (.442)** | 021 (.532) | .008 (.213) |
| Residence | | | | | | |
| Off-campus | .037 (.334) | .030 (.305) | .103 (.417)* | .089 (.630)* | .009 (757) | .008 (.303) |
| Fear/Risk of crime | | | | | | |
| Fear (Personal) | .071 (.020) | .068 (.019) | 027 (.026) | .179 (.039)* | .290 (.047)** | .140 (.019) |
| Fear (Property) | 087 (.017) | .128 (.015) | .029 (.021) | .105 (.031) | .064 (.037) | .014 (.015) |
| Risk (Personal) | 116 (.034) | 209 (.031)* | 088 (.043) | .009 (.064) | .042 (.077) | .051 (.031) |
| Risk (Property) | .000 (.021) | 003 (.019) | .099 (.027) | .042 (.040) | .126 (.048) | 054 (.019) |
| \mathbb{R}^2 | .052 | .082 | .280 | .175 | .217 | 920. |
| Adjusted R ² | .022 | .054 | .257 | .150 | .192 | .047 |
| | | | | | | Ī |

Note: Results are presented as the standardized coefficients with the standard errors in parentheses





| ender |
|------------|
| Female |
| ge |
| 22 and old |
| |

| | Moral panics |
|-------------------------|---------------|
| Gender | |
| Female | 033 (.987) |
| Age | |
| 22 and older | .023 (.943) |
| Race/Ethnicity | |
| Black | 051 (1.637) |
| Hispanic | .014 (1.015) |
| Other | .020 (2.516) |
| Gun ownership | |
| Non-owner | 041 (1.016) |
| Residence | |
| Off-campus | .098 (1.438) |
| Fear/Risk of crime | |
| Fear (Personal) | .288 (.089)** |
| Fear (Property) | .101 (.071) |
| Risk (Personal) | 067 (.147) |
| Risk (Property) | .118 (.092) |
| R^2 | .167 |
| Adjusted R ² | .141 |

Results are presented as the standardized coefficients with the standard errors in parentheses * p<.05. ** p<.01

There were a number of unanticipated results that emerged that do not directly relate to the four hypotheses. Interestingly, in examining consensus (Table 3), none of the independent variables were significant. When examining the concern prevention attribute (Table 3), only one variable, the perceived risk of personal victimization, was significant. Students who report having a higher perceived risk of personal victimiza-

tion express less concern over prevention (B=-0.209, p<.05).

Along with the significant effects directly relating to the hypotheses, the results indicate that lack of gun ownership and residing off-campus impact the defense dimension of concern (Table 3). Not surprisingly, respondents who did not own firearms also indicated *less* support for carrying firearms on campus than gun owners (B=-0.385, p<.01). Finally, respondents who lived off-campus offered *more* support for being able to carry firearms on campus than those who resided in on-campus housing (B=0.103, p<.05). This last finding may be attributable to a weapons ban at the university.

The model for hostility, the attribute that represents punitive attitudes toward school shootings on campus, yields two interesting findings not anticipated by the hypotheses (Table 3). Compared to the gun owners, respondents who reported not owning a firearm reported significantly *more* punitive attitudes regarding school shootings (B=0.200, p<.01). Further, students living off-campus expressed *more* punitive attitudes than those living in on-campus housing (B=0.089, p<.05).

While additional variables have been shown to be significant among the different attributes of moral panic, the results suggest that moral panic about school shootings is driven by several key variables. Fear of personal victimization was the most consistent predictor of moral panic. Specifically, the greater the respondent's fear of personal



victimization, the more they expressed support for the attributes of hostility, disproportionality, and moral panic overall. Both females and non-gun owners had lower levels of concern over defense measures, as compared to respondents who were male or owned guns. Females also expressed less support for volatility as compared to males, while non-gun owners reported greater levels of hostility towards would-be school shooters than respondents who own guns. Finally, respondents who live off campus expressed greater levels of hostility and concern related to defense measures, as compared to students who reside on campus. This is discussed further in the next section.

Discussion

Since the early 1970s, beginning with Young [9] and Cohen [10], research on moral panic has continued to evolve. From the "Mods and the Rockers" and muggings to the drug epidemic of the 1980s, satanic day care centers, and more recently school shootings, the moral panic literature (e.g., [2, 16, 21, 72, 89]) often has examined issues of special importance. These studies, however, typically have been conducted with qualitative, historical data. Notably absent from this research is a quantitative assessment of the concept of moral panic, specifically as it relates to a current issue of heightened concern. This is the important gap in the literature the present study sought to fill.

The present study was designed to assess the attributes of moral panic proposed by Goode and Ben-Yehuda [26, 27] and later conceptualized in relation to school shootings by Burns and Crawford [2]. School shootings, though rare, are considered by many to be occurring much more frequently than they actually are. With events, such as the shootings at NIU, and perhaps more infamously Virginia Tech, school shootings graduated to a concern and threat for college students, in addition to elementary, middle, and high school students. In particular, the present study sought to determine what characteristics of college students would predict individual beliefs reflective of the moral panic over school shootings. It was hypothesized that females, minorities, and those with greater levels of fear of personal victimization would express such attitudes indicative of these events. The results of the study offer mixed support for these propositions.

Fear of crime is the most salient predictor of respondents' subscription to moral panic about school shootings. What is important to note is that it is the fear of *personal*, rather than *property*, victimization that is correlated with the overall moral panic about school shootings. Given the particularly violent nature of school shootings, this is understandable. Respondents who report greater fear of personal victimization also expressed greater hostility and disproportionality. In sum, those people who fear for their personal safety are more likely to believe that school shootings are occurring much more frequently than they actually are, and are more likely to want punitive action to be taken against would-be school shooters.

The independent variables included in the models are most predictive of the defense dimension of the concern indicator, explaining 28 % of its variation. While it is expected that respondents who do not own guns would be less likely to favor gun rights, it is the other significant predictors that are especially interesting. The results



indicated that females and blacks showed less support for the right to carry guns on campus. Similar to the finding on non-gun owners, ownership of firearms may be driving these results. Typically, females are less likely to own guns, as compared to males [96]. Further, blacks are less likely to own guns than both whites and Hispanics [96].

In addition to respondents' gender, race, and status as gun owners, location of residence also is significantly correlated with the level of one's concern over defense measures. Respondents living off campus were more likely to support carry-on-campus measures than those living on campus. This may be due, in part, to the campus ban on concealed handguns, requiring that all weapons remain off campus during one's attendance. In addition to illustrating respondents' concern over defense measures, two independent variables also may be used to underscore respondents' hostility towards would-be school shooters. Non-gun owners, as compared with respondents who own firearms, expressed greater levels of hostility toward would be school shooters. Taking the negative relationship between gun ownership and concern over defense mechanisms into account, it is plausible that respondents may exhibit more hostile attitudes when they believe their safety is threatened and safety practices are not in place. Further, one could attribute the greater level of hostility for off-campus residents, as compared to respondents living on campus, to the stringent screening and security measures in place at the dorms that are not necessarily in place at publicly managed facilities.

Overall, the findings of the present study not only garner support for the application of Goode and Ben-Yehuda's [26, 27] attributional model of moral panics, but also its quantitative application to the phenomenon of school shootings. School shootings, as the results indicate, have the ability to generate *concern* over the phenomenon. Interestingly, support was found not only for the use of concern as an indicator, but also for the use of opposite dimensions of the attribute (defense and prevention). School shootings also can elicit *hostility* in the form of punitive responses, and can ultimately paint school shooters as folk devils. The response to school shootings also was shown to be *disproportional* to how frequently the events actually occur—by and large, respondents believed that school shootings are much more common than they actually are, which correlates with their perceived likelihood of being a victim. This is shown to be due, at least in part, to the *volatility* that is characteristic of school shootings. Media coverage of these rare events often erupts as suddenly as the shootings, but dissipates nearly as quickly once the news organizations find their next big story [30]. Finally, the results indicate that, at least in part, a *consensus* exists about the nature of school shootings as a social problem.

While the study yields a number of interesting considerations with respect to individual-level correlates of moral panic about school shootings, there are several limitations that must be considered. First, this test of moral panic was conducted at a single university. Moreover, convenience sampling was used for data collection, which can limit the generalizability of the results. In order to validate this study's findings, it must be replicated at other universities. Additionally, future studies may wish to include perceptions of the moral panic of school shootings from other groups in the college community, including faculty, staff, and on-campus law enforcement.

Future studies also may wish to consider different questions that assess Burns and Crawford's [2] application of moral panic to school shootings. While the majority of the questions were adapted directly from their article, there is a plethora of additional questions that could be used to measure moral panic. Researchers also should examine



additional predictors of moral panic, such as media consumption and behavioral patterns. Media consumption is a particularly relevant variable, given its ability to influence public opinion and drive policy changes. At the same time, however, reactions from groups, such as college students, also may create a demand for more news coverage of these events. Such considerations also should be investigated through future research.

Despite the limitations, this study contributes to the body of literature on moral panic in several ways. First, the information gleaned in the present study is beneficial, as it is among the first quantitative applications of moral panic, particularly in the context of looking at individual reactions to a specific phenomenon. Additionally, the findings support the use of Goode and Ben-Yehuda's [26, 27] attributional model, which teases out different possible reactions to the same issue. Further, the findings of this study have potential policy implications that must be considered, both for universities and the media alike. Universities may wish to use this information when determining how best to educate students on the threats and responses to shootings on campus. In a broader sense, these findings also may be useful to media producers in determining how best to present the content related to school shootings in an attempt to mitigate potential fear caused by these events. In sum, the findings of this study pave the way for additional moral panics, whether over terrorism, drugs, or the next wave of "Mods and Rockers," to be tested to offer greater insight into them.

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