

Reducing Firearm-Related Violence on College Campuses—Police Chiefs' Perceptions and Practices

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Abstract. **Context:** Firearms are used in the majority of college aged suicides and homicides. With recent efforts by various gun lobbying groups to have firearms more accessible to college students on campuses, there is the potential for more firearm-related morbidity and mortality. **Objective:** This study assessed university police chiefs' perceptions and practices concerning selected issues of firearm violence and its reduction on college campuses. **Participants:** The Directory of the International Association for College Law Enforcement Administrators was used to identify a national random sample of campus police chiefs ($n = 600$). The respondents were predominantly males (89%), 40 to 59 years of age (71%), Caucasian (85%), and worked for 21 or more years in law enforcement (75%). **Methods:** In the fall of 2008, a 2-wave mailing procedure was used to ensure an adequate response rate to a valid and reliable questionnaire. **Results:** A total of 417 (70%) questionnaires were returned. A firearm incident had occurred in the past year on 25% of campuses and on 35% of campuses within the past 5 years. The majority of campuses (57%) had a plan in place for longer than a year to deal with an "active shooter" on campus. Virtually all (97%) of the campuses had a policy in place that prohibited firearms on campus. The primary barrier (46%) to a highly visible campus plan for preventing firearms violence was the perception that firearms violence was not a problem on their campus. **Conclusions:** A greater awareness of the importance of a highly visible campus firearm policy and its potential for reducing firearm trauma on college campuses is needed.

Keywords: firearms, homicide, suicide, violence

The broader discussion of college campus security began after the September 11th, 2001, terrorist attacks. Following these attacks, the Director of the Federal

Bureau of Investigation referred to colleges and universities as soft vulnerable targets of terror.¹ Although acts of violence happen daily across college campuses, mass casualties resulting from shootings like Virginia Tech where 33 people died, including the shooter, continue to place campus safety at the forefront of campus issues.² Leading campus security issues debated on college campuses, in law enforcement agencies, the media, and legislatures include: access to firearms, prevention of gun violence, gun control, availability of mental health services to college students, release of information regarding at-risk students, public safety responses to active shooter situations, and reactions to "active shooter" situations.²

Violence on college campuses is a significant concern for students, parents, and university administrators. Despite this concern, little is known about the circumstances preceding violent events, the number of violent acts involving college students, and the role that firearms may play in those occurrences.³ In one of the few studies regarding college students and weapons (gun, knife, and clubs), it was found that 11% of male students and 4% of female students reported having carried weapons on campus.⁴ The study did not examine the number of students who specifically carried firearms.

One of the first studies that examined college student firearm possession found that 6.4% of male students, and 1.5% of female students had a working firearm at school.⁵ In a larger follow-up study of 10,000 undergraduate students attending 4-year colleges, approximately 4.3% of the students reported that they had a working firearm at college, and 1.6% of them had been threatened with a gun while at school.³ If these numbers are representative of firearm possession and firearm threats experienced by currently enrolled college students (population of 17.5 million students), this would equate to 752,500 firearms on college campuses and

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280,000 college students who had been threatened with a firearm.⁶ The American College Health Association has estimated that firearms are used in 9% of all violent crimes, 8% of assaults, and 31% of robberies against college students.⁷ Weapons were used in 34% of all violent college student crimes.⁸

In the wake of shootings that have occurred at campuses such as Virginia Tech and Northern Illinois University, college administrators, professors, and campus law enforcement officers are often criticized for not being proactive in preventing such firearm tragedies. With recent efforts by various gun lobbying groups to have firearms more accessible to college students, there is the potential for more firearm-related morbidities and mortalities. Research has found that higher rates of firearm possession and ownership are associated with more acts of violence and higher rates of homicide and suicide.⁹ Substance abuse and the presence of weapons can be an especially lethal combination. Data on college students' health risk behaviors have found increased risks for alcohol and substance abuse as well depression and suicidal thoughts.⁷ The aforementioned risk behaviors place college students at increased risk for engaging in both unintentional (eg, accidental discharge) and intentional injuries (eg, suicides and homicides) with firearms. Although many campuses have long had in place an informal network of individuals who work together to identify troubling situations involving students, the time for informal systems has passed. Colleges and universities should implement formal "threat assessment teams" to identify and address situations in which the behavior of students (or other members of the campus community) indicates they may be experiencing difficulty in functioning or may be a threat to self or others.¹⁰

Campus police chiefs have the unique responsibility of ensuring student safety on campuses and assessing any imminent threats to the campus community. Campus police chiefs are charged with managing and directing all college security activities; preparing comprehensive security operations plans; managing ongoing assessments of the status of the college's entire campus security program; directing the investigation of criminal and/or violent incidents occurring on campus; and coordinating with other college administrative officials to assure that the college security plan is adhered to for securing persons and property and for preventing fire and crime.¹¹ With the increasing frequency of periodic firearm violence episodes on college campuses, it is unclear what types of prevention activities are being carried out to reduce firearm violence on college campuses. Moreover, the role campus police chiefs play in reducing potential firearm violence on campus has yet to be published in the scientific literature. Therefore, the purposes of this study were to determine the perceived roles of campus police chiefs/directors of public safety in reducing firearm-related violence as well as to examine their perceptions regarding the roles of other campus officials' involvement in reducing firearm-related violence. Institutionalization of firearm policies and

opinions of various potential firearm polices were also explored.

METHODS

The Directory of the International Association for College Law Enforcement Administrators (IACLEA) was used to identify a national random sample of campus police chiefs and directors of public safety at 4-year colleges and universities in the United States.¹¹ Of the 1,195 names on the IACLEA list, 196 (16%) were eliminated because they were campus officials at academic institutions outside the United States ($n = 11$), or because the official's title was something other than "Police Chief" or "Director of Public Safety/Campus Security" ($n = 185$) (eg, Associate Dean, Vice President for Student Affairs, or similar title). This yielded a final sampling frame of 999. The term campus police chief will be used throughout this study to represent both of the aforementioned groups.

An a priori power analysis was conducted for this study. Based on an eligible population of 999 police chiefs and a 50/50 split with regard to the practice of interest (ie, it was assumed that approximately 50% of police chiefs would report that their campus is regularly involved in activities to reduce firearm violence), it was determined that a sample of 278 police chiefs would be needed to make inferences to the total population with a sampling error of $\pm 5\%$ at the 95% confidence level.¹² Factoring in a potential nonresponse rate of approximately 50%, 600 police chiefs were randomly selected to receive surveys.

Following protocol clearance from the researcher's University Human Subjects Institutional Review Board, potential respondents were contacted by postal mail. A 2-wave mailing procedure was used to ensure an adequate response rate. The first mailing included (1) a personalized, hand-signed cover letter that introduced the study and requested the recipient's confidential participation; (2) a copy of the booklet survey instrument printed on colored paper; (3) a \$1.00 bill as an incentive for participation; and (4) a return envelope addressed to the principal investigator with a first-class postage stamp.¹³ A second mailing consisting of a revised cover letter, another copy of the survey, and a self-addressed stamped envelope was sent 2 weeks after the initial mailing. Return of the completed survey served as consent for use of the answers supplied.

A 4-page, 43-item questionnaire was developed to examine police chiefs' perceptions and practices of reducing firearm violence on college campuses. Specifically, items were designed to assess (a) opinions concerning the role that various groups (eg, administrators, campus police, professors, student affairs personnel, etc) should play in minimizing firearm violence on college campuses; (b) current practices at the respondent's academic institution in relation to the prevention of firearm trauma (eg, the institution's plan for dealing with an "active shooter" on campus); and (c) barriers to the implementation of such practices. Respondents rated their level of agreement with the items using Likert-type

(endorsement and frequency) scales as well as multiple choice formats. Demographic and background items were included for descriptive purposes (eg, location of university, size of student body, number of full-time campus police officers, whether or not the respondent's campus had experienced a firearm incident within the previous 5 years, the number of years the respondent has worked in law enforcement, as well as the respondent's sex, age, and race/ethnicity).

The theoretical foundation for the survey included Stages of Change Theory, the key construct of the Transtheoretical Model (TTM).¹⁴ and two key components of the Health Belief Model (HBM). With regard to the HBM, a meta-analysis of its constructs found that the best predictors of health behaviors were perceived benefits and barriers, both of which were included in the current questionnaire.¹⁵

Face validity of the questionnaire items was established by way of a comprehensive literature review of firearm survey research. Content validity was established by sending the questionnaire to a panel of firearm and survey research authorities for review ($n = 4$). Minor revisions were made to the questionnaire based on the panel's recommendations. Only one subscale existed on the questionnaire which could be used to assess internal reliability.

The internal consistency reliability (Cronbach's alpha) for the "perceptions of firearms-related issues" subscale (Table 2) was $\alpha = .70$.

Data were analyzed using the Statistics Package for Social Science (SPSS) version 16.0. Descriptive statistics (percent in each category or mean and standard deviation) were calculated to describe the respondents and their responses to the questionnaire. Subsequent analyses involved the following independent variables: (1) whether or not the respondent's institution had experienced a firearm incident during the past 12 months (yes versus no) or 5 years (yes versus no); (2) campus location (rural, urban, or suburban); (3) size of enrollment ($\leq 3,500$; 3,501–11,000; or 11,001+ students enrolled); and (4) the number of years the respondent had worked in law enforcement (≤ 20 versus 21+ years). The dependent variables were (a) whether the respondent perceived firearms to be a problem on his or her campus (yes versus no); (b) whether or not the respondent's institution had enacted a policy that prohibited firearms on campus (yes versus no); (c) the total number of barriers to a visible plan for preventing or dealing with firearms on campus (range of 1 to 6 barriers); and (d) the number of full-time police officers employed by the respondents' institution (≤ 10 , 11–21, or 21+ police officers). Categorical data were analyzed using Pearson chi-square (χ^2) tests. Nonparametric procedures (ie, Mann-Whitney U and Kruskal-Wallis tests) were also used in relation to the following variables, which were not normally distributed: location of academic institution (disproportionately urban) and years of experience as a police officer (skewed toward more years of experience). A total of 14 statistical tests of significance were conducted. Therefore, we used the conservative Bonferroni correction method to adjust our alpha ($.05/14$), resulting in a $p \leq .003$.

TABLE 1. Demographics and Background Characteristics of Responding Campus Police Chiefs

Item	<i>n</i>	%
Sex	—	—
Male	372	89
Female	41	10
Age (years)	—	—
20–29	1	<1
30–39	33	8
40–49	110	26
50–59	186	45
60–69	80	19
70+	5	1
Race/ethnicity	—	—
African American	41	9
Caucasian	353	85
Hispanic	14	3
Asian	3	<1
Other	1	<1
Years worked in law enforcement	—	—
5 or less	11	3
6–10	9	2
11–15	23	6
16–20	60	14
21+	311	75
Location of College/University	—	—
Urban	190	46
Suburban	151	36
Rural	76	18
	<i>M</i>	<i>SD</i>
Number of students enrolled	10,764	14,362
Number of full-time police officers	20.65	28.10

Note. $N = 417$.

RESULTS

Demographic and Background Characteristics

Of the 600 questionnaires mailed to the sample of campus police chiefs, 417 (70%) were returned completed. The respondents were predominantly males (89%), 40 to 59 years of age (71%), Caucasian (85%), and worked for 21 or more years in law enforcement (75%). The universities averaged almost 21 police officers per campus at universities with an average enrollment of 10,764 students per campus (Table 1). The police chiefs were asked to identify if they had a firearm incident (eg, carrying a firearm on campus or an actual shooting) on their campus in the past year and 25% responded affirmatively. When asked the same question for the past 5 years, 35% reported having had a firearm incident on campus. Institutions that had experienced a firearm incident within the past 5 years employed a significantly higher number of full-time campus police officers ($\chi^2(4) = 27.12$, $p < .003$).

TABLE 2. Campus Police Chiefs' Perceptions of Campus Firearms-Related Issues

Item	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly disagree (%)
Campus police should be called and included when dealing with an "active shooter" on campus.	93	7	0	0
College women who are physically assaulted need to be encouraged to report the assault to campus to police.	78	20	1	0
Students should be informed about a "no firearms" on campus policy.	76	23	0	1
It is the role of campus police to cultivate the trust of students and faculty so they will report students who threaten them.	63	35	1	<1
Parents should be informed about a "no firearms" on campus policy.	59	37	<1	1
The most effective (important) means of dealing with firearms use on campus is to prevent such use from occurring.	54	35	4	<1
It is the role of campus police to ensure students know where to go to share information about firearm rumors or suspicions of "seriously disturbed students."	53	39	5	<1
Students who bring a firearm onto campus should be expelled (zero tolerance) unless the firearm is part of their academic program or local laws permit the carrying of firearms on campus.	53	30	9	2
Public address systems should be available in classrooms, dormitories, and outdoor locations for communicating safety emergencies.	52	36	2	<1
It is the role of campus police to work closely with college administrators to help formulate appropriate firearm policies and maintain up-to-date solutions.	51	45	1	<1
It is the role of campus police to work closely with various student groups on campus to promote student safety as it relates to firearm violence.	46	49	2	<1
Campus police should have a well-trained and well-equipped special operations unit to intervene to end an "active shooter" crisis.	38	17	16	3
It is the role of campus police to regularly educate and work closely with dormitory administrators and floor monitors to help identify students at "high risk" for firearm-related violence.	37	49	7	1
When there is significant concern regarding troubling student behavior, contact with parent/family members should be made by the institution to elicit their help in assisting the student.	35	53	2	0
Email messages to students and staff regarding an "active shooter" on campus would be useful to students during a campus shooting.	32	50	6	2
It is the role of campus police to work closely with campus counseling centers to improve their skills in dealing with disturbed students who may have access to firearms.	32	46	10	2
Police officers have been adequately trained for overseeing an "active shooter" crisis.	24	42	17	7
It is the roles of campus police to train members of the faculty on strategies to deal with disgruntled students.	21	44	15	3
Because campus life is stressful to so many students, it is almost impossible to identify firearm violence-prone individuals.	3	16	57	14
Long term financial support for preventing firearm is available on my campus.	2	13	38	24
If students were allowed to carry concealed firearms on campus, it would prevent some or all campus killings.	2	3	25	61

Note. N = 417. The "Uncertain" response was not included for each item, which is why the total is usually less than 100%.

Perceptions of Campus Firearm Issues

The campus police chiefs were requested to rate (strongly agree, agree, uncertain, disagree, strongly disagree) their level of agreement regarding 21 topics dealing with campus firearm-related issues (Table 2). Ten of the items were strongly agreed to by the majority of police chiefs. There were no statistically significant differences found in the perceptions that firearms are problematic on the respondent's

campus-by-campus location ($\chi^2(2) = 1.41, p = .93$), enrollment size ($\chi^2(2) = 5.05, p = .08$), or years of work experience ($\chi^2(1) = .74, p = .39$).

Some police chiefs identified 2 disconcerting perceptions regarding firearms issues. First, almost one fourth (24%) of the police chiefs perceived that their police officers had not been adequately trained for overseeing an "active shooter" crisis. Second, most (62%) police chiefs perceived that there

TABLE 3. Role of Various Groups in Minimizing Firearms Violence on College Campuses

Group	Lead role	Major role	Minor role	No role
Campus police	81%	18%	<1%	0%
College administrators	53%	43%	3%	0%
Student affairs office	27%	53%	18%	2%
Counseling centers	15%	53%	27%	4%
Student body	14%	54%	28%	3%
Student health centers	8%	40%	42%	9%
College professors	7%	49%	39%	3%

Note. $N = 417$. Percentages may not equal 100% due to rounding and nonreported answers.

was not long-term financial support for preventing firearm violence on their campuses. However, the vast majority (86%) of the police chiefs believed that allowing students to carry concealed firearms on campus would not prevent some or all campus killings.

Additionally, the campus police chiefs were requested to rate (lead role, major role, minor role, or no role) the role that 7 different campus groups should play in minimizing campus firearm violence (Table 3). There were 2 groups that the majority perceived should play a lead role: campus police (81%) and college administrators (53%). Many perceived that the student health centers and the faculty should play a minor role (42% and 39%, respectively).

Campus Activities and Policies Regarding Firearms

The police chiefs were asked to indicate the stage (eg, Stages of Change) their campus was in with regard to having

a plan in place for dealing with an “active shooter” on campus by selecting from one of 6 statements. The majority (57%) indicated their institution had a plan in place for longer than a year (maintenance stage). An additional one fourth (25%) had a plan in place for less than 1 year (action stage). The rest of the academic institutions were planning to institute a policy in the next couple of months (preparation stage, 8%), had been seriously thinking about developing a plan (contemplation stage, 6%), or had not seriously thought about developing a plan (precontemplation stage, 4%).

Virtually all (97%) of the campuses had a policy in place that prohibited firearms on campus (Table 4). However, less than one third reported that their faculty were regularly trained as to what steps to take in the classroom during an “active shooter” situation (32%) nor were the faculty trained to identify troubled students, or who they should inform, and how to make referrals for troubled students (30%).

TABLE 4. Campus Activities and Policies Regarding Firearms

Item	Yes	
	<i>n</i>	%
Our institution has a policy that prohibits firearms on campus.	399	97
Has your campus decided how an “active shooter” on campus threat will be communicated to the students and staff?	380	92
Has your campus police met with either local or state police to inform them of your “active shooter” on campus policy?	338	82
Our campus has a “threat assessment team” that identifies and addresses situations in which the behavior of students is threatening, with the intent of assisting these students.	328	79
We have a campus committee that meets regularly to address campus safety concerns and includes firearm violence issues.	308	75
Has your campus developed template for what will be communicated to students and staff in the event of an “active shooter” threat on campus?	299	72
Are your police officers qualified annually on the use of deadly force?	296	72
Our campus police periodically practice in dealing with “active shooter” situations on campus.	264	64
My campus requires all incoming freshman to have a workshop/seminar, or as part of one of their courses, information on personal safety, including potential firearm violence issues.	145	35
Are the faculty regularly trained as to what steps or actions they should take in the classroom during an “active shooter” situation?	133	32
Are the faculty regularly trained on identifying troubled or distressed students, who to inform, and how to make referrals?	125	30

Note. $N = 413$.

TABLE 5. Police Chiefs' Perceived Barriers to Firearm Safety Management on College Campuses

Perceived barrier	n	%
Firearms violence is not a problem on our campus	191	46
Anxiety regarding the potential negative effect on enrollment	95	23
Administration does not see firearm violence as an important issue at this time	82	20
Apprehension over stereotyping "at risk" students	73	18
Concerns regarding parent reactions to such a plan	51	12
May create a problem in attracting college donors	26	6
Other (eg, budgetary constraints: $n = 11$; apathy: $n = 6$; legal/legislative issues: $n = 5$; fear of negative publicity: $n = 3$)	53	13

Note. $N = 417$.

Institutions that had experienced a firearm incident within the past 12 months were no more likely to have a policy prohibiting firearms on campus than were institutions that had not experienced such an incident ($\chi^2(4) = .84, p = .93$). The likelihood that a campus experienced a firearm incident did not vary significantly by campus location, regardless of whether the incident occurred within the past 12 months ($\chi^2(4) = 7.78, p = .10$) or 5 years ($\chi^2(4) = 7.06, p = .13$).

Experiencing a firearm incident on campus within the past 5 years, however, was significantly associated with having a "no firearms" policy ($\chi^2(4) = 22.78, p < .003$). In other words, those with a "no firearms" policy are more likely to have had a firearm incident within the past 5 years. There were no statistically significant differences found in policy by location of institution ($\chi^2(4) = 2.47, p = .64$), size of enrollment ($\chi^2(4) = 4.32, p = .36$), or the number of years the police chiefs had worked in law enforcement ($\chi^2(2) = 1.12, p = .57$).

Finally, the police chiefs were asked to identify from a list of 6 potential barriers and the open-ended option "other," all of the barriers they had encountered in having a highly visible campus plan for preventing and/or dealing with firearms on campus (Table 5). A plurality of respondents identified that firearms violence was not a problem on their campus (46%). Other barriers that were more likely to be identified were anxiety regarding the potential negative effect on enrollment (23%) and the college administration did not see firearm violence as an important issue at this time (20%). The total number of perceived barriers did not differ significantly by size of institution ($F(2) = 4.77, p = .009$), location of institution ($H(2) = 1.53, p = .46$), or number of years of work experience as a police chief ($Z = -1.44, p = .15$).

DISCUSSION

The findings of our study reinforce the fact that firearm-related events continue to be a problem on college campuses as 1 in 4 campus police chiefs reported having experienced some form of firearm event on their campus within the last year (eg, carrying a firearm on campus, firearm stored in the residence hall, or an actual shooting). Fortunately, the vast majority of college campuses have policies that prohibit

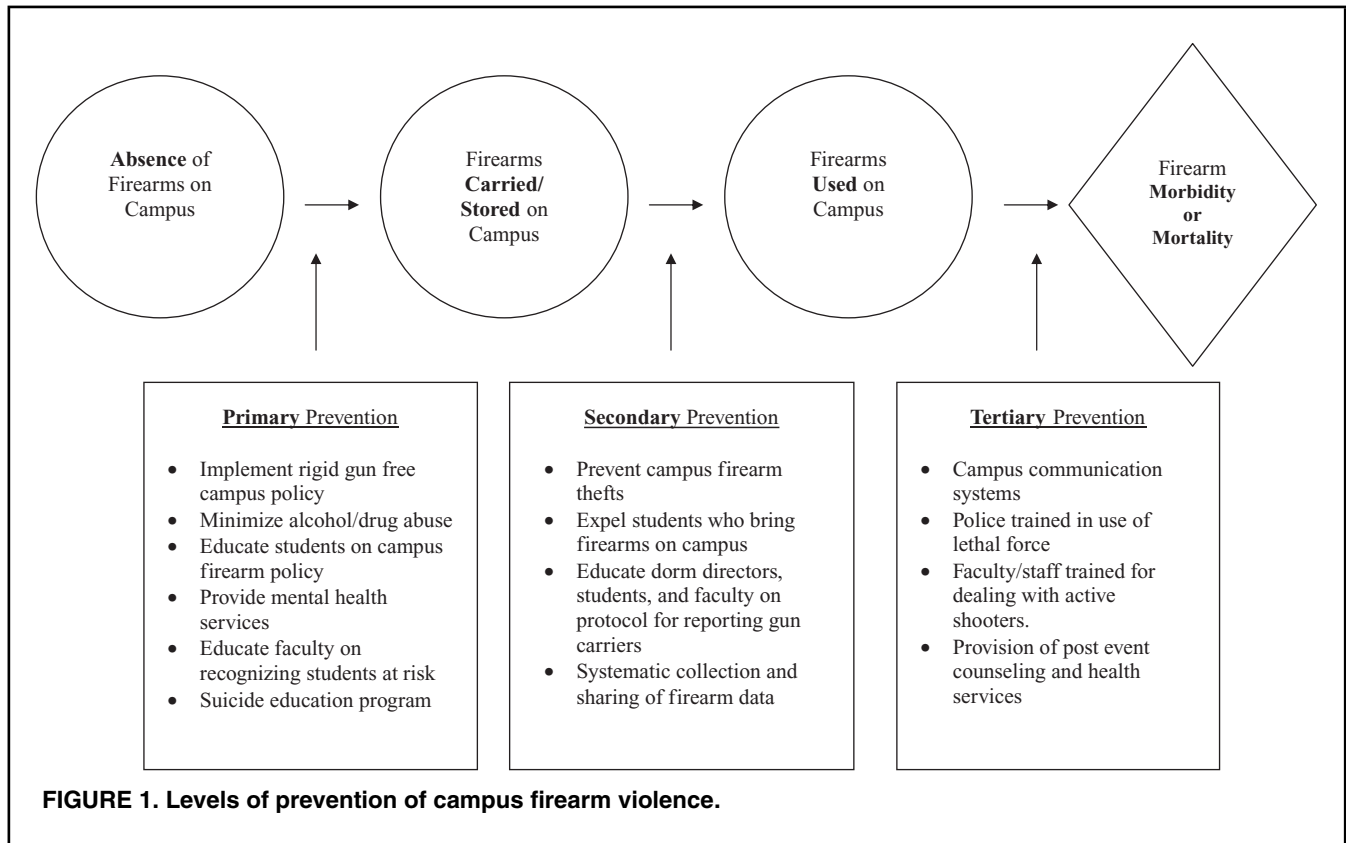
firearms on campus and most campus police chiefs recognize that allowing college students to carry concealed firearms on campus would not prevent firearm violence on campuses.

Although 4 out of 5 campus police officers believed that they should play the lead role in minimizing firearm violence on college campuses and all respondents agreed that they should be called and included when dealing with an active shooter on campus, one fourth were not qualified annually on the use of deadly force. The vast majority of campus police also perceived that it was their role to regularly educate and work closely with residence hall administrators and floor monitors to identify high-risk students. However, only one third of incoming freshman were required to attend a workshop or seminar that included violence prevention and other firearm-related issues. These perceptions of what should happen do not seem to be congruent with what is actually happening on college campuses.

Almost one half of campus police chiefs indicated that college faculty should play a major role in minimizing firearm violence on campus however, only about one third of campus police officers reported that their faculty were trained to react during an "active shooter situation," and only 30% of faculty were trained in identifying troubled or distressed students. These findings underscore the need for campus police to provide firearm and violence prevention education and response training to university personnel. In addition, campus police need to provide clearer guidelines for providing assistance to "at risk" students.

Although the aforementioned recommendations are significant, we believe they must be coupled with improved cooperation from university counseling centers. Fifty-three percent of campus police indicated that college counselors should play a major role in minimizing firearm violence on college campuses; however, a recent study found that college counselors were unlikely to provide anticipatory guidance on firearms, chart/keep records on student client ownership/access to firearms, or to counsel the majority of student clients with various mental illness diagnosis regarding the dangers of firearms access.¹⁶

The public health approach to reducing firearm trauma in the academic community makes theoretical sense with an



emphasis on prevention (Figure 1). There are 3 levels of prevention: *primary prevention* includes a variety of measures that stop the conditions from occurring which could lead to firearm violence; *secondary prevention* includes a series of measures that lead to early awareness and intervention of conditions that already exist and that could escalate the potential of firearm violence; *tertiary prevention* includes measures conducted to contain the level of firearm trauma and rehabilitation of the academic community for dealing with the aftermath of firearm violence. Although this model makes theoretical sense, it needs to be empirically tested to see what parts of the model are of practical utility.¹⁷

Campus police, university administration, residence hall staff, mental health counselors, and public health academics need to work together to focus on the appropriate activities for the various levels of prevention that can maintain the safety of the academic community and minimize campus firearm violence. Successful deterrence of potential firearm violence by a small number of firearm policy offenders can be established by having appropriate resources available for at risk students and being prepared to effectively deal with firearms on campus. This means that not only must colleges have policies in place to prohibit firearms on campus, but they also need to educate the various segments of the campus community regarding these policies and the potential consequences for ignoring such policies. Increasing firearm violence prevention training for students and university personnel, and providing clear guidelines to faculty and residence hall staff for refer-

ral and follow-ups of students experiencing a crisis and who may be prone to violence are essential in reducing campus violence. Campus police need to be fully integrated into the processes and services offered by academic institutions to help ensure that colleges continue to be "...sanctuaries far removed from the violence that characterizes life outside the wall of higher learning."^{18(p94)}

The findings of this study need to be considered in light of several potential limitations. First, the study was based on a self-administered questionnaire and therefore some respondents may have responded to some of the questions in a socially desirable way. If so, this would be a threat to the internal validity of the findings. However, this was likely minimized because the survey was anonymous. Second, this study had a good response rate (70%). However, to the extent that the nonrespondents might have answered the questions differently could limit the external validity of the findings. Third, the sampling procedure targeted campus police chiefs and those respondents may have different views or practices than school administrators. Finally, the questionnaire was monothematic (covering only firearm safety issues), which may have created a mindset in responding to the questions that may not have been indicative of their true perceptions and practices. If so, this too could have been a threat to the internal validity of the findings.

Further research regarding firearms on campus is needed, including the perceptions of residence hall staff regarding their roles in minimizing firearm trauma on campus. In

addition, the behaviors college students would engage in if confronted with an active shooter situation on campus should be explored. This may give some insights on how best to educate residence hall staff and students regarding minimizing their risk of being a shooting victim. Until we are able to be more proactive and minimize handgun ownership, we must continue to find nonviolent defensive methods of reducing firearm trauma on college campuses.

NOTE

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