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Campus Law Enforcement Use-of-Force and Conducted Energy Devices

A National-Level Exploratory Study of Perceptions and Practices

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Although many police departments throughout the nation have been quick to incorporate the use of conducted energy devices (CEDs) within their use-of-force policies, the use of these devices on college campuses has been relatively unexamined in the literature. This article addresses campus police agency decisions regarding CEDs as a less-than-lethal force alternative. This study utilized a stratified random sample of public 4-year universities and colleges throughout the United States. Respondents answered questions pertaining to multiple variables, such as political pressure, public opinion, officer safety, liability, and funding, as factors considered when deciding whether to acquire CEDs. The results suggest that a majority of the public institutions surveyed have not acquired CEDs due to public opinion. Furthermore, the results reveal that for institutions that have issued CEDs their acquisition can be attributed to the campus law enforcement agency's concern for officer safety. Suggestions for future research are discussed.

Keywords: *use of force; police; Taser; conducted energy devices; university; campus*

Although college campuses have historically been thought of as refuges from the problems of larger society, today, college campuses throughout the United States are viewed more as microcosms of the larger communities that surround them (Bromley, 2003; Bromley & Reaves, 1998a; Friedman, 2007). As such, college administrations have developed police departments that mirror closely the responsibilities and authority of their counterparts in municipal agencies, including the power to make arrests and use force when

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necessary (Bromley, 2000, 2003; Paoline & Sloan, 2003). As police departments, these campus agencies usually authorize officers to carry firearms but have historically been reluctant to authorize the use of less-than-lethal force alternatives, such as pepper spray, batons, or other incapacitating devices (Reaves & Goldberg, 1996), including conducted energy devices (CEDs).

The purpose of this study is to explore the varying perceptions of United States campus police agencies that have led to the issuance of CEDs to campus police officers. CEDs have only been discussed minimally in scholastic literature and not at all in recent research on campus police departments; in fact, the most recent nationwide research on campus police (Reaves & Goldberg, 1996) certainly justifies a more current survey on the prevalence of less-lethal weapons throughout American colleges. Therefore, it is the goal of the authors to conduct a broad review of the literature in criminal justice, education, and physiology in an effort to develop a multidimensional approach to understanding CED use by campus police agencies. A stratified random sample of 143 four-year public secondary institutions throughout the United States was selected to determine the extent of CED use, use-of-force policy decisions, and perceptions surrounding their adoption and deployment. The survey also asked agencies that do not approve of CED use about perceptions that led to that decision.

Literature Review

There is a small but growing body of literature that describes the historical, organizational, and procedural areas of campus policing. Although campus policing continues to evolve, recent literature has focused on similarities of these specialized police agencies to their municipal counterparts (Bromley, 2000; Bromley & Reaves, 1998a, 1998b; Lanier, 1995; Paoline & Sloan, 2003; Wolf, 1998). Many parallels have been found to exist between campus and municipal agencies; this includes but is not limited to the issuance of protective and defensive equipment, such as body armor, batons, and pepper spray. Research continues in regard to the advancement of professionalism in campus policing (Bromley, 2000).

Historical Context of Campus Police Departments

During the tumultuous 1960s, campus administrators began to realize the inadequacy of campus safety programs that were in place and were dissatisfied with reactionary local law enforcement (Paoline & Sloan, 2003; Wolf, 1998, 2001). This realization was in the context of the 1961 United States Supreme Court case *Dixon v. Alabama Board of Education* (1961), which gave college students adult rights and responsibilities, replacing the previously accepted norm of *in loco parentis*. The significance of this case was that it changed the relationship between students and campus administrators; although students were provided greater autonomy, administrators were tasked with the need to provide greater accountability of accepted behaviors. By the mid-1970s, many campuses had developed their own police departments with full arrest powers (Bromley, 2000; Reaves & Goldberg,

1996). College and university campuses no longer were havens from crime; by the 1970s and 1980s, there was a significant need for law enforcement presence on university and college campuses.

As campus unrest waned, it appeared to be replaced by a new problem—namely, increased crime in the form of thefts, assaults, robberies, rapes, and the illegal use and sale of drugs. College and university campuses became prime targets for criminals who realized that a campus population was made up of mostly young people who had little concern for security or crime and administrators whose main interest was education, not protection or enforcement of the law. (Wolf, 1998, p. 13)

By 1995, American institutes of higher education had greatly expanded their campus police departments in size and scope of authority and responsibilities. According to statistics by the United States Department of Justice (DOJ), in 1995 there were 19 law enforcement agencies with 100 or more full-time employees serving 4-year college institutions. Of those institutions only one, New York University, did not employ sworn personnel. In addition, 3 in 4 of all the agencies surveyed were responsible for the investigation of serious violent crimes, including forcible sex offenses, robbery, or aggravated assault. More than half of the agencies (58%) were responsible for homicide investigations within their jurisdiction. Approximately, 96% of the agencies surveyed with a campus enrollment of 20,000 or more were responsible for drug enforcement investigations, and about 90% of agencies surveyed with a campus enrollment of 5,000 to 19,999 were responsible for drug enforcement investigations (Reaves & Goldberg, 1996).

Although this DOJ study revealed that a significant majority of the campus law enforcement agencies with sworn arrest powers were authorized to carry a firearm, many campus police departments showed reluctance to carry less-than-lethal force alternatives that were being widely accepted by their municipal police agency counterparts. The DOJ study revealed that of the agencies surveyed (public and private), 71% were authorized to carry a baton as a less-than-lethal force alternative “with the agencies serving the smallest campuses the least likely to allow their use” (Reaves & Goldberg, 1996, pp. 51-52). In 1995, only 2% of the agencies surveyed were authorized to carry a stun gun of any kind (this was, however, before the large nationwide increase in the use of these devices), though 56% were authorized to carry pepper spray (Reaves & Goldberg, 1996).

Although these statistics show that most campus police agencies in the nation are sworn and have arrest and investigative powers, many lack less-than-lethal alternatives for dealing with arrest situations or dangerous subjects. As controversy certainly remains in regard to the decision of whether to introduce firearms and/or less-than-lethal alternatives in a college environment, the authors of this current research attempted to determine the views of public 4-year campus police administrators. The type of less-than-lethal weapon of most interest to the authors was the conducted energy device. Recently, this device has received significant negative publicity and negative public opinion, as well as criticisms regarding its safety (Behr, 2007; Burtka, 2006; Nislow, 2005; Smith, Petrocelli, & Scheer, 2007; Taylor, 2006); however, police departments and police officers seem to disagree. Discussions concerning the device’s use on college campuses have been vacant in the literature.

Description of CEDs

A CED is a device designed to deploy electricity throughout the body of the target to temporarily cause loss of muscle control. In the history of law enforcement, there have been many devices that may fit this description, such as cattle prods or stun guns. Devices such as these allow electricity to be deployed on contact with the skin or within close distances. However, over the past several years, the technology for these devices has become more user friendly, allowing the user to apply the device from greater distances, with more accurate application.

Taser International, the company that produces the most common brand of CEDs, claims it provides an advanced nonlethal option for the use in law enforcement, private security, and personal defense. The product has become so well known that the name Taser[®] has become synonymous with CED.¹ Taser International uses the definition provided by the United States Department of Defense to define nonlethal weapons as “systems that are explicitly designed and primarily employed so as to incapacitate personnel or material, while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment” (Taser International Inc., 2004b; United States Department of Defense, 1998). The widespread deployment of these devices as a less-lethal weapon of choice suggests that police departments have “embraced the Taser in a manner not seen since the widespread introduction of pepper spray in the 1990s” (Smith et al., 2007, p. 399).

The TASER/Amnesty International (AI) Debate

CEDs are unquestionably effective (Downs, 2007); the device can incapacitate a subject for up to 5 seconds through the use of electrical shock, generally allowing the user enough time to apprehend a subject or retreat from confrontation. Police CEDs also may allow the user to continue the electric shock for longer periods by holding down the trigger, whereas civilian models on the market use a 30 seconds cycle. The voltage produced by a CED overwhelms the nervous system, forcing the muscles to contract, causing temporary incapacitation. Taser International has repeatedly stated that the company is so certain their electro-muscular device offers the best less-lethal option for law enforcement that they strongly encourage independent research, declaring that such research would only strengthen their claims (Taser International, Inc., 2004a, 2004b).

Some researchers and activists, such as those employed by AI, are skeptical and outright disagree with Taser International’s reported findings. AI has been one of the loudest critics of CED use by the police. On November 30, 2004, the human-rights group released a report on “deaths and ill-treatment involving police use of tasers” (Amnesty International, 2004b, p. 1). The report particularly showed concern for the fact that Tasers have been utilized to subdue individuals who were not apparently a threat to officers and have been linked as a factor in the death of more than 70 people (Amnesty International, 2004b).

AI stated that (a) they are opposed to the sale of Tasers to citizens, (b) they are opposed to police departments that place Tasers on a lower level on the use-of-force continuum than batons or impact weapons, and (c) as the effects of Taser use on the human body has yet to be scientifically determined, all police use of the weapon should be banned. AI revealed that 30 departments surveyed for their report stated that CED devices were

placed at the active physical resistance level (which may or may not include aggression toward the officer, including bracing, tensing, or running away) on their use-of-force continuum. The AI argued that the “use of electro-shock weapons in such circumstances appear to breach international standards set out under UN Code of Conduct for Law Enforcement Officials and the Basic Principles on the Use of Force and Firearms” (Amnesty International, 2004b, p. 7).

AI’s newsletter *The Wire* stated that it “is concerned that many US police departments now issue tasers to every patrol officer, substantially increasing their potential for abuse” (Amnesty International, 2004a, p. 1). The newsletter article expanded on this statement by calling on all law enforcement agencies in the United States to suspend all use of Tasers and other CED devices until there could be more scientific analysis of their affect (Amnesty International, 2004a, 2004b). This negative opinion has swayed at least one federal agency not to use Tasers. To date, the Department of Homeland Security rejects the use of stun guns for its agents and officers due to questions about safety (Johnson, 2005).

Taser International argued the AI claims, stating that they were disappointed by AI’s lack of concern for the safety of police officers by implying that unarmed assailants were not a threat to law enforcement officers. Taser International argued that police officers should not have to resort to hand-to-hand combat or other possibly more dangerous devices, such as batons, to successfully subdue subjects who are physically resistant, even if they are not aggressive. Taser also stood behind its decision to sell CEDs to civilian populations since the 1990s, arguing that they were a safer alternative for defense than arming the public with firearms (Taser International Inc., 2004a).

The United States 11th Circuit Court of Appeals agreed with Taser International on the placement of the device in the use-of-force continuum. In *Draper v. Reynolds* (2004), the court found that the use of a Taser in response to a suspect’s passive resistance in a traffic stop was not excessive use of force. The court said that the use of the Taser may have kept a tense and difficult situation from progressing into a serious physical struggle.

On March 9, 2005, representatives from Taser International and AI met at Claremont McKenna College in Claremont, California, for a moderated debate on Taser use. Rick Smith, cofounder, CEO, and Director of Taser International openly discussed Taser use with William Schulz, executive director of Amnesty International, United States. Both men seemed to agree that Taser research needs to be continually conducted so that the affect of Tasers on human physiology can be better understood. Both men also seemed to agree that Tasers, or other options to firearms in possible deadly force situations, are needed for law enforcement officers. The speakers differed, however, on where the line should be drawn for acceptable Taser use on use-of-force continuums and whether Tasers should be available for the general public or sold to police agencies in countries with questionable human-rights histories (Haley, 2005).

Purpose of the Current Study

Although empirical research on policy decisions concerning CEDs throughout the nation is severely lacking, there is an even greater gap in the literature pertaining to campus policing and the use and perceptions of these devices by campus police chiefs or directors.

Therefore, the purpose of this current study is to examine the use of CEDs on college campuses throughout the United States, along with reasons for deployment by police administrators. In light of the literature discussed, the authors developed the following research questions to guide this exploratory analysis: (a) To what extent do campus law enforcement agencies employ CEDs? (b) Of the agencies that do employ CEDs, why did they decide to use the devices? (c) Of the agencies that do not employ CEDs, what was their reasoning? (d) Is there a concern about the safety of CEDs on college campuses? (e) To the extent that campus agencies provide CEDs for their officers, at what level on a use-of-force continuum are they utilized? and (f) Does the size of an institution affect whether campus law enforcement agencies utilize CEDs?

Methodology

This was an exploratory study initiated during the summer of 2005. The authors used surveys to gather information from campus law enforcement agencies on their less-than-lethal alternatives. The purpose of this information was to investigate the use—and nonuse—of CEDs in campus law enforcement departments, the reasons for their implementation or current concerns for not implementing CEDs, and the level of deployment of the devices.

Sample

The initial population of this study was 430 public institutions that offered a minimum 4-year degree. The unit of analysis was campus law enforcement agencies across the United States. The researchers used a stratified random sample of 4-year institutions within each individual state. A stratified random sample was utilized to reduce errors associated with disproportionality between states. First, each 4-year institution was identified within each state, and then a random sample of 4-year universities was selected within this group. Using random selection, three universities from each state were selected. However, though 48 states had three universities eligible for selection, 2 states, Delaware and Wyoming, had only one eligible university. In addition, out of the 50 states, 3 states—Rhode Island, Hawaii, and Nevada—had only two eligible universities. This resulted in a total survey size of 143 ($n = 143$) institutions. Once the sample size was selected, the researchers verified that each institution met the criteria (4-year public universities and/or colleges). The survey yielded a response rate of 60.8% ($n = 87$).

Instrumentation

The 143 institutions selected were sent a survey by electronic mail to their respective campus police and safety departments. The survey was self-administered and included a cover letter requesting that the chief of police or director of campus security participate in the survey. The researchers requested that either the chief of police or director of campus security complete the survey to specifically ascertain perceptions of the decision makers. The respondents were queried regarding their decision to acquire CEDs, the issues surrounding the acquisition of the devices, and enrollment size of their respective institution.

The survey included nine initial questions, with two subquestions. Explained in detail below, the questions focused on the less-lethal weapons, including CEDs, and weapon utilization by public university campus police departments and campus safety personnel (the survey instrument questions relating to this manuscript are found in appendix).

After 3 weeks, respondents were e-mailed a second time reminding them to respond to the survey if their institution's results had not yet been received. The final attempt to gather data by the researchers resulted in phone calls to the remaining institutions that had not responded.

Measures

The research questions were operationalized by the survey the authors created (as found in appendix). The rationale was to establish the use or nonuse of CEDs and the factors that influenced departmental decisions for use. Expanding on the use of CEDs, information was requested on the required level of force for deployment and the resulting effects on officer and suspect injuries. The survey began by establishing CED use; responses were set up nominally with yes or no as options. The primary concern of the authors was to differentiate between those campuses that utilized CEDs and those that did not. This gave a foundation for further assessment.

The campuses that did not issue CEDs were asked to rank, using a Likert-type scale (1 = *strongly agree* to 5 = *strongly disagree*), five factors set forth by the authors as reasons for not supplying their officers with CEDs. The factors listed for decisions not to use CEDs were drawn from the literature and were as follows: liability, questions of safety, funding opportunity, political reasons, and public opinion. The question also allowed for reasons not accounted for with the option of other.

The campuses that did issue CEDs were asked to rank, using a Likert-type scale, five factors set forth by the authors as reasons for supplying their officers with CEDs. The factors listed for decisions to use CEDs were as follows: level/threat of campus crime, level/threat of crime from off-campus environment, officer safety issues, funding availability, and political pressure. The question also allowed for reasons not accounted for with the option of other. Further measurement of CED use was conducted in the survey to clarify which officers were issued devices (i.e., patrol officers and/or supervisors). The purpose of these questions was to provide an understanding of who is eligible to carry a CED and why the agency decided to deploy them.

Once the authors ascertained reasons for CED use, they asked respondents to specify the lowest level of force that their agency allowed CED deployment. A mock force continuum was created for the respondents to follow (Table 1).

The continuum was compiled from various agency policies across the country to provide the respondents with a common defining parameter, as use-of-force continuums can be markedly different from agency to agency and from state to state. The respondents were instructed to mark only the lowest level of force that CED use would fall within their agency's policy. Due to this simplification, the authors coded this dichotomously: either the agency allowed the deployment of the CED at a certain level or they did not. The importance of this question was to enhance the research by offering an explanation of when CED use was authorized.

Table 1
Sample Use-of-Force Continuum as Listed on Survey

Verbal resistance	Subject defies an officer's attempt to control a situation through verbal statements.
Passive resistance	Subject braces or attempts to defeat an officer's attempt at control, by refusing to comply with commands.
Active physical resistance	Subject uses active (nonviolent) resistance to attempt to avoid arrest (i.e., running away).
Aggressive physical resistance	Subject uses overt attacking movements to attempt to avoid arrest (i.e., punches, strikes, kicks, etc.).
Aggravated physical resistance	Subject uses overt attacking movements to attempt to avoid arrest with or without a weapon that may cause bodily injury (i.e., bat, pipe, karate strikes, etc.). This may include perceived deadly force of the subject.

An additional question was constructed regarding perceptions of the effects of CED use. It specifically addressed whether the use of CEDs resulted in a reduction of officer and suspect injuries. The respondents were asked to specify with whom they saw the reduction of injuries (i.e., only suspect, only officer, officer and suspect, neither, or no data available).

The final measures in the survey were included to compile data regarding institution enrollment sizes. The authors felt that population was a mitigating factor that directly affected the decision to acquire/not acquire CEDs. To answer this, information was gathered regarding the number of students enrolled at the university.

Results

Of the original 143 institutions surveyed, 87 agencies responded to this survey (60.8% response rate). This is a reasonable response rate, and there is no reason to believe that those that responded were different from those that did not. When asked whether CEDs were deployed to their law enforcement officers, 73.6% ($n = 64$) of the responding agencies reported that they did not deploy CEDs, compared to the 26.4% ($n = 23$) of the respondents that said they did. Table 2 illustrates the distribution of the responding agencies. These responses allowed a foundation for further analysis.

In an attempt to differentiate between the reasons why certain universities did and did not acquire CEDs, they were asked to rank their agreement or disagreement with particular factors that were thought to affect their decision. These questions were exploratory in nature and not meant to be a mutually exclusive rank order of factors influencing their decision to deploy CEDs to the campus police agencies. The respondents had the option of ranking the factors associated with CED adoption between 1, *strongly agree*, and 5, *strongly disagree*. To simplify analysis, the authors combined the responses of 1 and 2, *strongly agree* and *agree*, interpreted 3 as *neutral*, and combined 4 and 5, *disagree* and *strongly disagree*. Table 3 shows the breakdown of the respondent's decisions.

Of the respondents who answered they did not acquire CEDs, they attributed their decisions to liability, 59% ($n = 26$); questions of safety, 58% ($n = 26$); political, 57% ($n = 25$);

Table 2
Distribution Table

	<i>M</i>	<i>SD</i>	<i>n</i>	Minimum	Maximum
Dependent variable					
CED acquisition	0.264	0.444	87	0.00	1.00
Independent variables					
Reasons for acquiring CEDs					
Level/threat of campus crime	2.88	1.22	17	1.00	5.00
Level/threat of off-campus crime	2.41	1.33	17	1.00	5.00
Officer safety issues	1.7	1.40	19	1.00	5.00
Funding availability	3.00	1.41	18	1.00	5.00
Political pressure	3.65	1.54	17	1.00	5.00
Reasons for not acquiring CEDs					
Liability	2.39	1.45	44	1.00	5.00
Questions of safety	2.40	1.42	45	1.00	5.00
Funding	2.93	1.55	46	1.00	5.00
Political reasons	2.50	1.39	44	1.00	5.00
Public opinion	2.51	1.32	45	1.00	5.00
Institution variable					
Size of university	13,661.00	12,230.23	85	2,000.00	60,000.00

Note: CED = Conducted energy devices.

Table 3
Factors Affecting Decisions Not to Acquire CEDs

Factors	Agree		Neutral		Disagree		Did Not Answer
	Response	Percentage ^a	Response	Percentage ^a	Response	Percentage ^a	
Liability	26	59.1	9	20.5	9	20.4	20
Questions of safety	26	57.8	9	20.0	10	22.2	19
Political	25	56.8	7	15.9	12	27.3	20
Public opinion	25	55.5	8	17.8	12	26.7	19
Funding	19	41.3	9	19.6	18	39.1	18

Note: CED = Conducted energy devices.

a. Valid percent: Does not include responses of did not answer (*n* listed above) or not applicable (*n* = 23).

public opinion, 56% (*n* = 25); and funding, 41% (*n* = 19). For those respondents who attributed CED acquisition to a variable not provided, the authors allowed an open comment section for answers to this question. Of these respondents, eight reported that in addition to other concerns listed, they were waiting on research. This option will be addressed in detail in the discussion portion, but preliminary results illustrate the need for further research on the topic of CED acquisition on college campuses.

Table 4
Factors Affecting Decision to Acquire CEDs

Factors	Agree		Neutral		Disagree		Did Not Answer
	Response	Percentage ^a	Response	Percentage ^a	Response	Percentage ^a	
Officer safety issues	15	79.0	1	5.3	3	15.8	4
Level/threat of off-campus crime	10	58.8	4	23.5	3	17.7	6
Level/threat of campus crime	7	41.2	5	29.4	5	29.4	6
Funding availability	7	38.9	5	27.8	6	33.3	5
Political pressure	5	29.4	2	11.8	10	58.9	6

Note: CED = Conducted energy devices.

a. Valid percent: Does not include responses of did not answer (*n* listed above) or not applicable (*n* = 64).

When asked why the agencies did employ CEDs, more than three quarters of the respondents (79%, *n* = 15) that acquired CEDs attributed their decision to their concern for officer safety. Additional factors, as shown in Table 4, included the following: the level/threat of off-campus crime, 59% (*n* = 10); level/threat of campus crime, 41% (*n* = 7); funding availability, 39% (*n* = 7); and political pressure, 29% (*n* = 5). These results show that though officer-safety issues prevailed as the main driving force behind CED acquisition, the threat of off-campus crime was very influential in the decisions to acquire CEDs.

Understandably, knowing at what point during the officer/suspect confrontation in which CED deployment is authorized by the department is crucial to this analysis. Of the 26.4% of respondents that issued the CED, the largest group (39%, *n* = 9) of agencies allowed the deployment of the device only when a suspect asserted aggressive physical resistance toward a law enforcement officer, that is, when a suspect demonstrated overt attacking movements to attempt to avoid arrest. This finding specifically addressed the third research question: To the extent that campus agencies provide CEDs for their officers, at what level on a use-of-force continuum are they utilized? As shown in Table 5, some university police departments permit CED use as low as the passive resistance level (17%, *n* = 4). However, 69% (*n* = 16) of respondents who authorized CEDs allowed their use only at the highest levels of force, when the suspect asserted aggressive physical resistance (39%, *n* = 9) or when a suspect acted with active physical resistance (30%, *n* = 7). This is important because this suggests that university police agencies may not place CEDs in the same categories where other less-than-lethal alternatives (i.e., pepper spray, take-down maneuvers, or baton strikes) are typically placed by their municipal counterparts (Wolf, Mesloh, Henych, & Thompson, 2007) but on the conservative end of guidelines established by the Police Executive Research Forum on the use of CEDs (Cronin & Ederheimer, 2006).

To clarify which officers were issued devices, the next question asked whether patrol officers, supervisors, or patrol officers and supervisors were issued CEDs. Of the respondents that answered the question, a majority (87%, *n* = 20) of the agencies issued the devices to both patrol officers and supervisors.

Table 5
Lowest Level of Force for CED Use

Level of Force	Response	Percentage
Verbal resistance	3	13
Passive resistance	4	17
Active physical resistance	7	30
Aggressive physical resistance	9	39
Aggravated physical resistance	0	0
Total	23	100

Note: CED = Conducted energy devices.

One question on the survey specifically addressed visible or statistical reductions in officer and suspect injuries. A little more than half of the agencies (52%, $n = 12$) reported no data available; 26% ($n = 6$) reported reduced suspect and officer injuries; 17% ($n = 4$) stated they did not see a reduction in officer or suspect injuries, and 4% ($n = 1$) reported only seeing a reduction in officer injuries. Multiple respondents that answered this question commented on the device's effectiveness. A few anecdotal comments are mentioned in the discussion.

Of specific importance to the authors, an inquiry was made to determine the possible effect that campus student enrollment could have on CED adoption. On average, the group issuing Tasers reported a larger size of their university ($M = 18,815$, $SD = 15,156$) than the group that did not issue Tasers ($M = 11,748$, $SD = 10,459$), $t(30) = -2.061$, $p = .048$. Therefore, the size of the institution has a significant effect on CED adoption; as the enrollment of students increases, the more likely a university will adopt CEDs. There were no statistically significant differences between the issuing of Tasers and the violent campus crime rate or the property campus crime rate.

Discussion

The researchers hypothesized that the off-campus crime (i.e., the area surrounding the university) would be the main driving force in the acquisition of CEDs. Although a large majority of the respondents (59%) reported that this was a factor, almost two thirds (79%) of the respondents agreed that the safety of their officers was the main reason for the adoption of CEDs.

This current study was also concerned with agencies that did not adopt CEDs and why they were not being utilized. The researchers hypothesized that public opinion would be the most plausible limiting factor for a campus law enforcement agency to not utilize CEDs; however, public opinion was identified by 56% of the respondents. A slightly larger number of respondents (59%) attributed the lack of acquisition to liability concerns and almost equal concern for issues of safety and politics. As mentioned earlier, many universities that responded to the survey added additional information to the survey stating that they were still waiting on research, or on preliminary tests, on the use of CEDs.

The common theme among respondents that did not employ CEDs was that of caution. The uncertainty of the device and its possible harm has led many administrators to be cautious and consider the liability issues that could be associated with a nonlethal device. In addition, 39% of departments that did utilize CEDs only allowed deployment at a very high level on the use-of-force matrix, aggressive physical resistance. Although this may seem to protect the agency from liability, questions about the effectiveness of the weapon to reduce officer injuries should be addressed. Future research needs to focus on the impact CEDs have on officer and suspect injury taking into account the number of CEDs issued on a college campus, their deployment, and possibly even when officers threaten to use the device on a suspect to gain compliance. For current research purposes, the lack of this data might account for the responses of no data available.

For those agencies who reported having CEDs on their campuses, in some instances, personal experiences were additionally reported. A police chief from a university in the northwest region of the United States remarked on the reliability of the CED as a less-lethal weapon: "I have been impressed with what it has done for all the agencies in the area and the empowerment/confidence it gives an officer." Four other university respondents also felt compelled to elaborate further on their satisfactory experiences with their less-lethal devices; these campuses also self-reported a significant reduction in both officer and suspect injuries.

Along with any other research, this current study exhibits measurement limitations. Many of these limitations were not of grave concern due to the fact that this study was only exploratory in nature. The small sample size ($n = 143$) relative to the population ($n = 430$) was of some concern. However, the researchers were able to yield a reasonable 60% ($n = 87$) response rate. One recommendation for future research is to expand the sample size to allow for more complex multivariate statistical analysis and reliability analysis of the questionnaire.

For this study, an independent t test was conducted for CED acquisition and size of university. The authors were interested in the effect university size (i.e., number of students enrolled) had on CED adoption. Indeed, the university size was a significant factor when considering the adoption of CEDs by campus law enforcement agencies. From this perspective, the researchers conclude that if more large universities had been selected for this study, then the number of universities utilizing CEDs might have been drastically different.

An additional limitation was found in specific responses to the survey. An example can be found in the question regarding factors affecting decisions not to acquire CEDs. Although 64 agencies reported that they did not use CEDs, 20 of the 64 respondents did not respond to the simple survey questions as to why they have not deployed them. It cannot be ascertained why a responding agency would elect not to answer this simple question in such a short survey.

Conclusion

Collectively, studies tend to agree that CEDs are effective and safe (Downs, 2007). Nonetheless, the purchase of CEDs for university law enforcement agencies can be deterred due to the negative public opinion they attract and fear of agency liability. The absence of CEDs on many college campuses could be attributed to the social stigma they have received. This stigma can be promulgated in society because, collectively, society

expects law enforcement to be accountable; consequently, law enforcement policies and procedures have reflected this societal expectation. The researchers believe that this issue is increasingly controversial on college campuses, more so than in noninstitutional law enforcement agencies. However, though only 26.4% (23 of the 87) of the campus police agencies surveyed in this study reported utilizing CEDs, this is comparable with the reported 23% of small police departments nationally (Hickman & Reeves, 2006).

This study is one of the first to look at the use of CEDs on college campuses. Although the use of force and nonlethal weapons on college campuses has been researched, none have been as specific as this study in attempting to ascertain not only who has decided to acquire devices but also why. Even though the current study was exploratory in nature, it is nonetheless a basis for future research.

Appendix Conducted Energy Devices Questionnaire

1. Are any of your campus security/police issued Tasers (or any other electro-muscular devices)?
 _____ Yes or _____ No (if you answer yes to this question, please skip to Question 2)

(a) If Tasers are not used by your institution, has the use of Tasers by law enforcement officers ever been discussed?
 _____ Yes or _____ No

(b) If your university decided not to issue Tasers, state your level of agreement with each of the following as to the reason why:

(1) *agree the most* and (5) *agree the least*

Liability	1	2	3	4	5	
Questions of safety	1	2	3	4	5	
Funding	1	2	3	4	5	
Political	1	2	3	4	5	
Public opinion	1	2	3	4	5	
Other	1	2	3	4	5	Please state: _____

(Once you complete this question, please skip to Question 7)

2. What is the reason your agency decided to acquire Tasers? State the level of agreement with each of the following as to the reason why:

(1) *agree the most* and (5) *agree the least*

Level/threat of campus crime	1	2	3	4	5	
Level/threat of crime from off-campus environment	1	2	3	4	5	
Officer safety issues	1	2	3	4	5	
Funding availability	1	2	3	4	5	
Political pressure	1	2	3	4	5	
Other	1	2	3	4	5	Please state: _____

3. If your sworn officers are issued Tasers (or any other electro-muscular devices), are nonsworn officers issued them?

_____ Sworn only _____ Nonsworn only _____ Both

(continued)

Appendix (continued)

4. Are your patrol officers or supervisors issued Tasers?
 _____ Patrol officers _____ Supervisors _____ Both
5. What is the lowest level of force that your agency allows Taser deployment? (choose only one).
 _____ Verbal resistance:
 Subject defies an officer's attempt to control a situation through verbal statements.
 _____ Passive resistance:
 Subject braces or attempts to defeat an officer's attempt at control, by refusing to comply with commands.
 _____ Active physical resistance:
 Subject uses active (nonviolent) resistance to attempt to avoid arrest (i.e., running away).
 _____ Aggressive physical resistance:
 Subject uses overt attacking movements to attempt to avoid arrest (i.e., punches, strikes, kicks, etc.).
 _____ Aggravated physical resistance:
 Subject uses overt attacking movements to attempt to avoid arrest with or without a weapon that may cause bodily injury (i.e., bat, pipe, karate strikes, etc.). This may include perceived deadly force of the subject.
6. Have you seen a reduction in officer and/or suspect injuries since you began deploying Tasers?
 _____ Suspect _____ Officer _____ Suspect and Officer _____ Neither
 _____ No data available
 (a) If you have seen a reduction, can you elaborate on your data? _____
-

Note

1. The Taser International device, which fires two darts with trailing wires and discharges 50,000 volts of electricity on contact with the target, is the most widely accepted conducted energy device on the market by law enforcement agencies (Taser International, 2004b).

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