Fighting Campus Crime: Perceptions of Police Canines at a Metropolitan University

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Campus police departments across the United States work conscientiously to maintain a friendly policing stance for the communities they serve; yet at the same time, many have been forced to take a more law-and-order approach to fight encroaching criminal activity. Although trained police canines are not the norm in the campus environment, they have been deployed as a method to assist police agencies in controlling illegal drugs, and as a proactive measure against explosives and acts of terrorism. Specifically, this paper examines student perceptions of the effectiveness of campus police canines following the implementation of such a unit trained in narcotics and explosives detection at the University of Central Florida. Findings indicate that students tend to view police dogs in a positive light. The results of three multiple regression models suggest that certain social construction variables were significant predictors of perceptions of canine effectiveness.

Introduction

While university and college police departments and campus safety agencies have largely escaped the light of public attention, violent encounters at centers of higher learning have prompted more awareness of campus safety and the tactics used by campus police. Many decades ago, the university campus was viewed as a haven from the violence and criminal activity of the outside world. However, over time, crime in various forms has begun to appear in this once sacred environment (Bromley, 2003; Paoline & Sloan, 2003; Trump, 1998; Wolf,

2001). Illegal narcotics, gang activities, acts of terrorism, and violent person-to-person crimes have been reported throughout the nation at institutions of higher learning (United States Department of Education, 2007). This growing threat has placed increasing responsibilities on campus police officers and campus law enforcement agencies to respond with better, more adept, proactive and reactive tactics. While violent crime and illegal drug use both continue to grow, so does the threat of civil litigation against the institutions that fail to meet every expectation to prevent victimization (Wolf, 2001).

The last several decades have yielded unprecedented growth both in physical size and enrollment at American higher education institutions. While this growth has provided new and expanding educational opportunities, campus crime has also matured. Crime problems that were once found only in large metropolitan cities have expanded to the college campus; institutions that label themselves as suburban and rural can no longer be viewed as sanctuaries from criminal activity (Bromley, 2003; Kingsbury, 2007). It is apparent that campus safety can no longer be provided through unarmed uniformed security in many locations; campus policing has evolved to provide police officers that have the training, investigation capability, and patrol tactics and practices often found only in the most progressive police agencies in the United States.

Municipal, county, state and federal law enforcement agencies around the country have successfully utilized canine units as an additional measure in their crime control strategy for decades. However, this option appears only very recently to be utilized in the college and university setting, possibly because of the fear administrators may have over the perception of police canines on campus. This paper will examine the problem of campus related crimes and analyze the impact of implementing a canine unit as a policing alternative, exploring the issue of a university campus as an extension of the larger community and investigating the issue of fear of crime on university campuses. The study focuses on the perceptions of students at a large, metropolitan university in Orlando, Florida.   The University of Central Florida (UCF) is one of only a handful of colleges and universities utilizing trained canines in some law enforcement function, however the trend is rapidly increasing across the United States (Mesloh & Wolf, 2002).

Review of the Literature

In recent years there have been a number of studies conducted about campus crime. Disturbing trends have been identified that have influenced policy decisions, and independent acts of violence may pave the way for additional changes in the future. The literature in this area tends to fall into distinct categories: crime, victimology, perceptions of police, and illegal drug use. As

these categories certainly do not exist in a vacuum, discussions on the facets of campus crime need to be multidisciplinary in the sense that they need to be able to address multiple problems simultaneously. An additional factor of importance to this study is the fact that campus police have struggled with the prevailing idiom of campus watchmen. Administrators often resist allowing campus police from acting too much like municipal police, while at the same time asking them to act as a deterrence of criminal activity and as professional investigators.

While the role of campus safety officers has slowly evolved from security to that of full-service police, this shift has been necessitated by the more serious crimes and investigations occurring on campus (Kingsbury, 2007; Wolf, 2001), in addition to a drive for professionalism (Bromley, 2003; Bromley & Reaves, 1998; Foster, 1986). Campus police have become largely autonomous, fully operational police departments, often with a strong resemblance to their municipal counterparts in administration, organization, resources, hiring practices, and training (Bromley, 2003; Wolf, Pressler, & Winton, 2009).

Crime on Campus

In the first half of the 20th century, college campuses were largely peaceful, crime-free havens. When campus security officers first became a part of the college environment, their role was that of watchman, to protect college property and keep students in order. Many factors, including the 1966 University of Texas-Austin tower sniper incident and the 1986 murder of Jeanne Clery at Lehigh University in Pennsylvania, influenced the shift from security department to police department. By 1990 forty-four states had granted at least some police authority at public-supported institutions (Bromley, 2003; Kingsbury, 2007; Wolf, 1998).

The amount of campus crime has a relationship to both campus and non-campus variables, the proximity of a campus to urban areas of high unemployment was determined to be a strong predictor of campus crime (McPheters, 1978). Fox and Hellman (1985) determined that the size of the campus was directly related to the crime rate, while the location of the campus was found to be correlated with the proportion of violent crime. This review of crime on college campuses began to shed light on an increasing problem in what was formerly considered a safe environment. Nourse (1991) examined the relationship between campus crime rates and certain demographic variables. A number of interesting relationships were found, including: 1) higher rates of FBI U.C.R. Part 1 Crimes were linked to the percentage of students living on campus; and 2) higher rates of robbery and burglary were associated with the location of the institution in relation to high-density populations of a city. Today, nearly half of all higher education institutions describe themselves as "urban," and

another 30% describe themselves as "suburban or metropolitan" (Wolf, 1998), making campus location important in the study of perceptions of police response to crime. While often linked by crime, campus police and municipal or county police often do not work closely together, and often do not follow similar policing models.

In 1990, the "Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act" passed, requiring any public and private college or university that receives federal student financial aid to report information on campus crime. Each year, eligible schools are required to report on their security policies and the most recent three years of crime statistics. The Cleary Act statistics are the standard for measuring reported crime in school environments, but have also been called "weak, confusing, and lacking aggressive enforcement" (Kingsbury, 2007, para. 6).

Sloan (1994) conducted a review of Congressional hearings on the problem of crime on college and university campuses. During the period of 1985-1989, campus crime had steadily increased and 80% of reported crimes involved students victimizing other students. Additionally, Sloan reviewed crimes reported to 494 campus law enforcement agencies during the 1989-1990 academic years. Burglary, theft and vandalism made up 83% of the reported crimes, while 6% were violent crimes. Further analysis showed drinking/drug offenses were significantly related to violent crime. This was followed by a report by Toch (1994) who documented that during 1992-93, reports of robberies on campuses climbed 12% over the previous year. During the same reporting period, auto thefts and aggravated assaults both rose 3 percent. Burglaries declined 4% while the number of murders dropped slightly from 18 to 17. The schools also reported 466 rapes and 448 forcible sex offenses in 1992-93 (see also: Bromley, 1996). Seymour and Sigmon (2000) corroborated these findings, for each of the years 1992 through 1994 violent crimes were reported by about 25% of postsecondary campuses. They also reported that on-campus arrests for liquor law violations, drug abuse violations, and weapons possessions were reported by about 10% of the institutions in each of the three years.

While crime continued to get more frequent and more violent on college campuses, many campus police agencies were unwilling or unable because of political and other pressures to change their policing methods. In fact, a 2009 report by Wolf, Pressler, and Winton disclosed that a majority of the campus police agencies at public institutions surveyed in that study did not acquire Conducted Energy Devices (CEDs), more commonly known as Tasers, due to public opinion about the weapons. Studies conducted by the Campus Violence Prevention Center at Towson State University report that 36% of students surveyed indicated that they had been victims of crimes perpetrated on campus.

Indicative of the need for campus administrators to prove their campuses as safe, however, college presidents did not perceive security as one of the more important campus issues (McConnell, 1997). This is particularly relevant to the current study as there is a void in the literature concerning student perceptions of campus police tactics to fight crime.

Bromley (2003) conducted a comparison of campus and municipal police agencies, their policing practices, and crime. His research showed that campus police agencies, like city police departments, often fail to provide Community Oriented Policing training. However, campus police agen-cies were more likely to assign officers to foot and bike patrol compared to their municipal counterparts, even in the same-sized departments. Bromley also reported that student participation in at-risk behaviors and the growing numbers of students on American college campuses would continue to contribute to student victimizations.

Perceptions of Police

While perceptions of university police remain largely void from the literature, there have been studies on students in secondary education levels and their perceptions of police (Brown & Benedict, 2005). A study of perceptions at the secondary school level, Brown and Benedict's analysis focused on student perceptions of school police officers and security officers, and showed that the percentage of students who view the police favorably was less than the percentage of adults who viewed the police favorably. Several key factors analyzed in their study included gender, year in school, and race/ethnicity of the student. While gender had varying impacts on the measures of attitudes toward police officers, neither year in school or the student's race/ethnicity had an impact on perception. Earlier, Hopkins (1994) completed a qualitative analysis of eighty-one 14-year old students in group discussions regarding their perceptions of the police in schools. This review of student perceptions showed that students had different reactions to police officers who patrol on campus compared to those that patrol neighborhoods.

While scarce in the literature, there are several studies that examined college-level student perceptions of police and the perceptions of campus police officers. Goldhaber, Fossum, and Black (1972) studied the perceptions of students at the University of New Mexico and their perceptions of police in general, not campus police. Foster (1986), examined the perceptions of campus police officers and job satisfaction and community attitudes. As part of a larger study composed of many issues, Miller and Pan (1987) analyzed the perceptions of Purdue University college students on crime and their understanding of the university police. Their study found that men generally believed their campus to

be safe from crime, while women indicated that they were largely in fear for their safety. Both genders believed that the university police had inadequate resources for investigating crime. This study also found that students' opinions of the campus police were swayed by personal background and whether or not they had received a traffic ticket from the police. In 1998, Hummer, Austin, and Bumphus studied students, faculty, administrators, and staff at SUNY-Fredonia on perceptions of allowing the campus police to carry firearms. Their analysis indicated that those who feared crime on campus were the most likely to support arming the police.

A very important aspect of understanding the campus environment in relation to crime and crime theory, Davis (1995) examined the issue of unreported crime on the university campus. During qualitative interviews, student victims expressed shock at being a victim of a crime on campus after previously underestimating their likelihood for becoming victimized. These findings are at odds with Lamplugh and Pagan (1996) who found that people in general often overestimate the risk of crimes and violence. This feeling of safety from crime-on-campus may stem from the *en loco parentis* philosophy of many higher education institutions when dealing with criminal activity.

Turner (1998) studied the relationship between student perceptions of crime and involvement in campus activities. Turner showed that student perceptions of crime significantly impacted their extracurricular activities, and participation in nighttime activities was discovered to be the most significantly impacted by fear of crime. In 2000, del Carmen, Polk, Segal and Bing examined the perceptions of 561 students and their fear of crime. This study showed that race and gender were significantly related to the fear of violent crime, and students that claimed to be criminal justice majors were significantly less likely to fear crime than their non-criminal justice major counterparts.

Since the late 1990s, campus police departments have strived to reach a level of professionalism equal to that of other police officers. Most states now require that sworn campus police officers now have the same type of training, same certifications, and same continuing education as other police. After the Virginia Tech tragedy in 2007, Kingsbury described "the tools that have now become standard issue for campus police: bomb- and drug-sniffing dogs, stun guns, bulletproof vests, and pepper spray. And at some schools, select officers receive advanced weapons training…quite a departure from year's past." There is a void in the literature, however, of the perceptions that students have, as citizens and residents of the college community, of these advanced training and tactics.

Illegal Drug Use

Sloan's (1994) review of Congressional hearings on the problem of crime on college and university campuses during the period of 1985-1989 found that 95% of all reported offenses on campuses involved alcohol or drugs, thus supporting Nichols' (1987) earlier statement that a "significant number of drug-related crimes occur on campuses" (p.32). Extremely important for this current study, Fernandez, McBride, and Lizotte (1997) found a statistically significant relationship between the rate of drug violations on campus and the rate of weapon violations. Of 2,400 campuses, 18% reported at least one weapon violation on campus each year. Of those campuses reporting weapons violations, the average number was about 3.5 weapon violations and at some campuses as many as 40 such incidents each year. The authors stressed the need for clear and precise drug and violence prevention policies.

Page and Scanlan (1999) examined the prevalence of marijuana use among college students in the United States. They found that 35% of the males and 28% of the females surveyed had used marijuana in the past month. These results are consistent with the findings of Lucey, et al. (1999), who documented that 34% of the college students they surveyed had used marijuana in the year prior to responding. Seymour and Sigmon (2000) found that for each of the years 1992, 1993, and 1994, arrests for liquor law violations, drug abuse violations, and weapons possession were reported by about 10% of the institutions in the study.

The United States Department of Justice (1999) released the findings of a 1995 study of violence against women on college campuses linking alcohol to 74% of the sexual assaults. Students who engaged in binge drinking were seven to ten times more likely to engage in unprotected and unplanned sexual activity (Rivers & Shore, 1997). Additionally, the use of drugs such as Rohypnol and GHB to subdue sexual assault victims has been documented and is on the rise, particularly in the Orlando area (Curtis & Johnson, 2000), which is the home to the University of Central Florida. As shown in the extant crime and drug literature, campuses suffer from the same ills that many cities do. As a result, campus administrators have sought new means and methods to reduce crime on their campuses.

The Use of Canines

The perception of police dogs have been exemplified in the personification of canines as equivalent to human officers with personalities and traits of heroism, sacrifice and loyalty (Mesloh & Surette, 2002). Around the country today, law enforcement agencies use specially trained dogs for a variety of purposes. A primary reason is that they are a cost-effective tool in crime

control (O'Block, Doeren, & True, 1979; Lilly & Puckett, 1997), which may also offer a great benefit to campus law enforcement. Prior research has quantified the cost of a non-aggressive narcotics detection dog ranging from $1.98 to $2.38 per hour (Mesloh & Wolf, 2002). While certainly not the norm in campus policing, there are universities and college campuses that have successfully implemented a police canine program.

Although the early history of the police dog as a violent means of social control may negatively affect current perceptions within institutions of higher learning, the modern paradigm is significantly different from the freely biting monster found in historical videos of military and police actions. Not only can canines be viewed as a modern cost-effective crime fighting instrument; utilized properly they can be viewed as public relations friendly, thereby making them an integral, and cost effective, part of any community policing endeavor. According to Williams et al. (1997), "the dog and its handler remain the most widely used, broadly sensitive, accurate, fast, mobile, flexible, and durable system available for detecting illegal drugs and explosives" (p.1). A trained dog's alert can be used as probable cause to search or obtain a search warrant (United States Drug Enforcement Agency, 1995). This was reaffirmed by the conclusions of Mesloh, Henych & Wolf (2002), and upheld in 2005 in *U.S. v Thirty Thousand Six Hundred Seventy Dollars ($30,670).*

The term "non-aggressive" refers to a canine that has not received training in apprehension (or bite techniques). While a multipurpose dog cross-trained in both apprehension and scent detection has more benefit to a law enforcement agency, this type of training may tend to not be as readily embraced by students, parents, administrators or staff at a university. Additionally, the use of non-aggressive canines offers the ability to gain student support through high visibility interaction in a public relation type role that has been documented at other university canine programs (Mesloh & Wolf, 2001). While many agencies utilize a non-aggressive canine for a singular purpose such as explosives or narcotics detection, it is also possible to train the dog for additional deployments such as tracking and evidence searches, thus increasing the utility and cost benefits of a canine program; this may result in reductions in related street crimes and their consequent liabilities.

Citizen perceptions of aggressive police tactics, including aggressive traffic stop strategies, have been the subject of prior research. For example, Chermak, McGarrell, and Weiss (2001) examined citizen support for aggressive traffic enforcement strategies. Their study showed that citizens were generally very supportive of aggressive patrol programs, and living in an area undergoing a crackdown did not decrease that support. There is no mention in the literature,

however, of perceptions of police canine tactics or training, particularly when related to campus policing.

Methodology

The current study seeks to add to this body of knowledge by examining the perceptions of students of one of the many tactical patrol advances made by campus police departments in the last several decades, that of a trained drug- and bomb-detection canine team. Although past studies have reviewed the perceptions of effectiveness of the police (Miller & Pan, 1987), crime and victimization on college campuses (del Carmen, et al., 2000; Fox & Hellman, 1985; McPheters, 1978), illegal drug use on college campuses (Fernandez, McBride, & Lizotte, 1997; Sloan, 1994), and the benefits of utilizing canines for crime prevention (Lilly & Puckett, 1997; Mesloh, Henych, & Wolf, 2002; Mesloh & Surrette, 2002), none have focused on the perceptions of potential police crime-fighting tools on a college campus, such as a canine unit.

Having reviewed the literature on campus crime, perceptions of police, campus use of illegal drugs, and police canines, this study sought to examine them in the context of campus police dogs being utilized and perceived as a deterrent for these factors. The current inquiry, using survey methodology, captures student perceptions of the use of police canines on the campus of the University of Central Florida.

Data and Method

To study the perceptions that students have of campus police canines and their impact on crime reduction and drug use, a self-report survey instrument was used to collect data on these concepts. Survey questions were designed to address the core concepts under study. The survey instrument was administered over a one-week period in March of 2002 to students in large general education courses at the University of Central Florida. The sampling method for the survey was convenience based; however, the researchers randomly selected general education courses to obtain a cross section of the University's student population. When the basic demographics from the survey sample were examined, they were representative of that of the university as a whole, indicating that this was indeed a valid sampling frame (see table 1). A total of 598 usable surveys were returned, out of approximately 725 (82.5%) total available respondents (this figure is approximate, as some students may not have been in class when the survey was administered; additionally, students were advised not to complete more than one survey if they happened to be in more than one class where they received the survey).

Table 1:
Comparison of Sample Demographics to University Population

| | Sample | | University Population | |
	N	%	N	%
Gender (n = 595)				
Male	255	42.6	18,416	44.8
Female	340	57.1	22,686	55.2
College Status (n = 593)				
Freshman	175	29.5	7,404	31.2
Sophomore	160	27.0	6,623	19.5
Junior	141	23.8	8,304	24.4
Senior	117	19.7	11,633	34.2
Race (n = 589)				
White	414	69.2	28,191	71.2
Black	74	12.4	3,302	8.4
Hispanic	47	7.9	4,580	11.6
Asian/Pacific Islander	26	4.3	1,948	4.9
Indian/Alaskan Native	2	.3	214	.5
Other	26	4.3	N/A	N/A

Note: Not all respondents completed every survey item. Percentages may not total 100% due to rounding.

The survey instrument consisted of 65 questions, which were designed to collect information about:
- Basic respondent demographics
- Drug and alcohol use
- Effectiveness of campus policing
- Fear of crime
- Perceptions of police dogs

A five-point Likert scale measured the majority of the responses and students were asked to rate their answers from: 1 "strongly agree" to 5 "strongly disagree". Indexes were then created to capture concepts for use in later regression analysis. Reliability coefficients were produced for these concepts, which indicated that the indexes accurately measured the same core concepts.

Dependent Variables

Three main dependent variables were identified that captured specific concepts related to the perceptions of police dogs. These variables were chosen

as they represent different aspects of campus related problems and can be used to measure the perceived effect of the K9 intervention.

Crime Reduction. This variable was operationalized with a five-point Likert scale (1 "strongly agree" to 5 "strongly disagree"). Respondents were asked whether they felt that a trained police dog would reduce crime on campus.

Drug Reduction. This variable was operationalized with a five-point Likert scale (1 "strongly agree" to 5 "strongly disagree"). Respondents were asked whether they felt that a trained police dog would reduce drug use on campus.

K9 is a Waste of Money. This variable was operationalized with a five-point Likert scale (1 "strongly agree" to 5 "strongly disagree"). Respondents were asked whether they felt that a trained police dog was a waste of money for the University.

Independent Variables

The independent variables selected were based upon the literature's identification of key factors related to crime control on campus.

Drug Use. These variables included self-reported drinking and use of marijuana, cocaine, amphetamines, sedatives, hallucinogens, opiates, GHB, steroids or ecstasy. Students were asked to respond to the question: "When have you consumed the following substance?" and were given the choices of "Never," "More than a Year," "Last Year," "Last 30 days" as possible choices.

Perceived Ability. Respondents were asked to rate (1 "strongly agree" to 5 "strongly disagree") their perception of a police dog to accurately locate and alert concealed drugs. This became a measure of the students' perceptions of the canine's ability.

Legal Knowledge. Respondents were asked to rate (1 "strongly agree" to 5 "strongly disagree") their perception of an exterior sniff of a motor vehicle as to whether this was considered to be a search. According to case law, a canine can be walked around a vehicle without a warrant and any subsequent alert provides probable cause to perform a warrant-less search. This was used as a measure of the respondent's knowledge of law.

Media Construction. Respondents were asked to rate (1 "strongly agree" to 5 "strongly disagree") their perceptions of the media's coverage of police dogs. The question asked if respondents believed the news media accurately portrayed police dogs.

Fear of Crime Index (Chronbach alpha = .92). Six fear of crime questions were modified from the National Criminal Victimization Survey. Each question was measured on a five-point Likert scale. Students were asked to rate how worried they were about the following scenarios: "Someone trying to attack you

while you are outside your current residence," "Someone trying to break into your residence while no one is there," "Becoming the victim of a violent crime on campus," "Becoming a victim of a violent crime in your residence," "Becoming a victim of a violent crime in your current residence," and "Someone stealing things that you might leave outside your residence overnight."

Effectiveness of Campus Police Index (Chronbach alpha = .89). Ordinal questions measured satisfaction with campus police efforts. These questions asked students to rate "The quality of the UCF Police Department's services to the public," "Response times for UCF police officers," and "Courtesy of UCF police officers."

Demographics. Basic measures of demographics were captured. This included age, gender, race, and major in college. A final variable *fear of dogs* (0= no, 1=yes) was utilized as a control variable since this may have had a potential to impact a student's perceptions.

Results

A total of 598 respondents completed the survey. Referring to Table 1, the sample closely approximates the demographic makeup of the University as a whole. Table 2 presents the correlations of the study's key variables. The table shows that the three variables utilized to measure police dog effectiveness are moderately correlated. The zero-order correlation between *crime reduction* and *canines deterring drug* use is .625 and the correlation between *crime reduction* and *canines are a waste of money* is -.465. Lastly the correlation between *canines deterring drug use* and *canines are a waste of money* is -.546.

As expected, a positive correlation exists between *crime reduction* and *drug reduction*, while *K9 as a waste of money* and *crime reduction* and *deterring drug use* are negatively correlated. In other words, those who feel that canines deter drugs and crime are less inclined to view them as a waste of money. This was corroborated by descriptive statistics, which revealed that sixty-seven percent of the students felt that the presence of the canine reduced crime, while seventy percent felt that the dogs deterred drug use. Conversely less than twelve percent viewed the dogs as a waste of money.

Table 2:
Correlation Between Measures of Police Dog Effectiveness

Variables	Crime Reduction	Deter Drug Use	K9 Is Waste of Money
Crime Reduction	1.00		
Deter Drug use	.625**	1.00	
K9 is Waste of Money	-.465**	-.546**	1.00

Note: **p < .01. (two tailed)

Table 3 provides the results of OLS regression of the three models exploring the nexus between canines on campus and crime control. This table displays the R^2, the unstandardized coefficients, intercept, and standardized regression coefficients for each variable. For these models, examining normal probability plots of residuals and scatter diagrams of the residuals tested assumptions necessary for regression. No violations of normality, linearity, or heteroscedasticity were noted. In addition, box plots revealed no evidence of outliers.

Table 3:
OLS Regression of Student Perceptions of Police Canine
Within Three Constructs of Effectiveness

Variable	Crime Reduction			Drug Reduction			K9 is Waste of Money		
	B	SE	ß	B	SE	ß	B	SE	ß
Marijuana use	.044	.033	.064	.146	.038	.185***	-.159	.039	-.204***
Underage drinking	-.034	.099	-.016	.085	.114	.035	-.059	.116	-.024
Cocaine use	.062	.102	.027	.054	.117	.021	.017	.120	.007
Perceived ability	.453	.052	.390***	.353	.059	.266***	-.363	.060	-.279***
Legal knowledge	.089	.032	.127**	.113	.037	.141**	-.080	.038	-102*
Media construction	.149	.042	.151***	.166	.049	.147***	-.033	.050	-.030
Fear of dogs	-.126	.122	-.046	-.221	.141	-.071	.213	.144	.069
Gender	-.089	.096	-.042	-.077	.111	-.032	.192	.113	.080
Major	.016	.097	.008	-.101	.112	-.042	.287	.113	.121*
Fear index	.036	.014	.116*	.027	.017	.077	.006	.017	.020
Police index	.052	.017	.138**	.070	.019	.163***	-.057	.020	-.134
White	.257	.169	.104	.238	.194	.084	-.071	.198	-.026
Black	.306	.227	.079	.567	.262	.128*	-.121	.266	-.028
Hispanic	.420	.226	.108	.348	.260	.079	-.101	.265	-.023
F	13.17***			12.15***			9.61***		
R	.569			.554			.509		
R^2	.324			.306			.259		
Adjusted R^2	.299			.281			.232		

NOTE: B = unstandardized coefficient, SE = standard error, ß = standardized coefficient.
*p < .05   **p < .01   ***p < .001 (two tailed)

For comparison purposes, Table 3 presents the three key models. It must be pointed out that directionality of *K9 is a Waste of Money* is influenced by the nature of the question, which was negatively phrased. Thus, negative betas in this model indicate support for canine programs, while positive betas indicate support in the other two models. Additionally, independent variables remain consistent in directionality across all three models, when this is taken into consideration.

In the model where canines are used to reduce overall campus crime, five variables were significant at the .05 level or better. In terms of individual relationships between the independent variables and the crime reduction variable, perceptions of ability ($p < .001$), media construction ($p < .001$), fear of crime ($p < .05$), legal knowledge ($p < .01$) and perceptions of police ($p < .01$) each significantly predicted perceptions of crime control.

In the second model where canines are used to reduce drug use on campus, six variables were significant at the .05 level or better. In terms of individual relationships between the independent variables and the drug use reduction variable, marijuana use ($p < .001$), perceptions of ability ($p < .001$), legal knowledge ($p < .01$), media construction ($p < .001$), perceptions of police ($p < .001$), and black students($p < .05$) each significantly predicted students perceptions of drug use reduction.

In the third model where canines were viewed as a waste of money, five variables were significant at the .05 level or better. In terms of individual relationships between the independent variables and the perceptions that canines are a waste of money, marijuana use ($p < .001$), perceptions of ability ($p < .001$), legal knowledge ($p < .05$), college major ($p < .05$), and perceptions of police ($p < .01$) each significantly predicted students' perceptions of the canine as a waste of money.

Overall, marijuana use, perceptions of ability, legal knowledge, media construction, and the perceptions of police index were the most important predictors in at least two out of the three models. Perceptions of canine ability to locate drugs was the only variable to be significant across all three models at the $p < .001$ level. Consequently, this is the most reliable predictor when examining perceptions of police canines on campus. The influence of the other factors varied across the three models. Furthermore, the police index and legal knowledge were also significant predictors across all three models, albeit at different levels of significance.

A number of variables had little or no significant predictive value in the analysis of these models. Underage drinking and cocaine use (two of the three drug use variables) were not significant predictors in any of the models. Race was a poor predictor (although black respondents were significant in one model)

as was gender and college major. The fear of crime index was surprisingly a predictor in only one model implying that canine deployments may have little affect on students' general fear of crime.

Conclusions

This study shows the perceived value by students of police dogs to fight and deter various crimes in the college and university environment. This is emphasized through the role that canines fill in reducing violent crime and drug use on campus and students' perceptions of whether canines are worth the investment. This exploratory research was successful in identifying a number of key variables that were consistent across the three models. This finding alone may offer other researchers a starting point when exploring the perceptions of canines and their nexus with social order on campuses.

Another initial finding indicates that race was not a major predictor across the three models. Little variation in scores was present between the race categories. This is encouraging when considering the early history of the police dog as a violent means of social control. Furthermore, it would appear that the utilization of canines on campus as a crime control mechanism offers campus and law enforcement administrators not only a cost-effective means to reduce crime but also a politically sensitive one.

The results also revealed that certain key factors in the social construction of canines are associated with the perceptions that police dogs reduce crime and drugs. It is acknowledged that most individuals in society have little or no interaction with a police dog, especially in an academic environment. Consequently, consistency across the three models indicates that the perception of police dogs is a socially constructed concept that may be produced by the different forms of media. Three variables, *perception of ability*, *legal knowledge*, and *media construction*, relate directly to this concept and are almost universally significant across all three models.

No research is completely without flaw. If this study were to be replicated, the researchers suggest the inclusion of additional measures which could have added to the overall models. Prior contact with law enforcement and police dogs were not addressed in the survey instrument and their contribution to the model should be addressed in future research. Randomization of respondents would have been ideal. However, due to logistical issues, this was not a possibility. Despite this caveat, the sampling frame did in fact closely represent the University as a whole.

Although the present study was able to identify factors that were predicttive of crime reduction, drug reduction, and perceptions of cost effectiveness, it generates as many questions as answers. Clearly additional research on canines

on campus is needed to develop a more complete picture. This study provides a good foundation and starting point for future research and details some of the key variables which would need to be incorporated into that examination.

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