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Crime, capital punishment, and knowledge: are criminal justice majors better informed than other majors about crime and capital punishment?☆

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Abstract

Criminal justice agencies increasingly seek better educated employees, who should have greater knowledge of criminal justice issues. This has lead to an increase in the number of students majoring in criminal justice. This study employed a non-random, convenience sampling design of 730 college students of various ranks and majors at a mid-sized, 4-year public university in Michigan to determine what impact a criminal justice education had on knowledge of the death penalty and other criminal justice facts compared to students in other majors. It was found that there was a difference between criminal justice majors and other majors in knowledge about crime and capital punishment; however, the difference was neither widespread nor striking as the authors had hoped.

1. Introduction

During the past 30 years, there has been an increased emphasis on increasing the educational level of criminal justice workers (Carter & Sapp, 1990) in order to increase their professionalism and knowledge of the field. Preference or requirements for a college education have lead to an increase in enrollment in criminal justice programs. Today, over 350,000 students are majoring in the field of criminal justice in over 1,000 colleges and universities across the nation (Schmalleger, 1999).

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Most criminal justice majors find the subject interesting, relevant, and think that it will increase their job opportunities (Krimmel & Tartaro, 1999). Farnworth, Longmire, and West (1998) point out that many criminal justice students "aspire to positions as practitioners and administrators with an opportunity to influence or implement crime control policies" (p. 39). As practitioners and administrators, criminal justice graduates can help to educate the general public, who often has an inaccurate understanding of crime, punishment, and the criminal justice system.

Much of the general public obtains its information from media coverage (McAneny, 1993); however, the mass media tends to present inaccurate information concerning crime, punishment, and the U.S. criminal justice system (Lotz, 1991; Marsh, 1991; Vandiver & Giacopassi, 1997). This results in a public that is often ill-informed about crime, punishment, the death penalty, and the justice system in general (Kappeler, Blumberg, & Potter, 1996). Since criminal justice majors are presented in the classroom with factual information and current research findings on crime, punishment (including the death penalty), and the criminal justice system (Tsoudis, 2000), those entering into the field are expected to be knowledgeable about their chosen career field. Criminal justice graduates should be able use this knowledge to help the general public understand and respond rationally to crime.

One of the primary purposes of higher education is to provide students with knowledge and skills in their field of study (Astin, 1993). Similarly, it can be argued that one of the primary goals of criminal justice education is to increase students' knowledge and skills in the areas of crime, punishment, and the criminal justice system. Therefore, are criminal justice students more knowledgeable about crime and punishment, including the death penalty, than are students majoring in other subjects?

1.1. Literature review

Little research has been done comparing the attitudes and knowledge of criminal justice students with students majoring in other subjects (Farnworth et al., 1998). This is a serious oversight. It is important to compare criminal justice students with students majoring in other fields to see what, if anything, a college education in criminal justice accomplishes (Farnworth et al., 1998; Tsoudis, 2000). If criminal justice majors are not appreciably more knowledgeable about the facts and results of research in the field than other majors, one may reasonably ask whether criminal justice education is accomplishing its primary goals.

Veneziano and Brown (1994) provided an assessment test to 169 graduating criminal justice majors. They found that the average criminal justice senior scored about 69 correct answers out of 100. Similarly, Kelley and Stack (1997) tested the knowledge of criminal justice freshman and seniors by having them take a multiple choice introductory criminal justice achievement test. They found that the seniors scored significantly higher than did the freshman. More narrowly focused research in the capital punishment area has compared criminal justice and non-criminal justice majors and has found that neither group is highly knowledgeable in this context (Bohm, Clark, & Aveni, 1991). Thus, while criminal justice education appears to have some impact students' knowledge in the field, it is not known how criminal justice students compare, particularly outside of the death penalty context, in their knowledge of the discipline with non-criminal justice majors.

While no non-capital research studies have been found to test comparatively the knowledge base of criminal justice majors with that of non-majors, there have been a number of attitudinal studies that relate indirectly to the subject insofar as knowledge and attitudes are to some extent correlated. Researchers have found a wide range of attitudinal differences between criminal justice and other students. Tsoudis (2000) found that criminal justice majors were less supportive of harsh sentences, more supportive of a criminal defendant's rights, and more supportive of treating juvenile offenders differently than adult offenders than were non-criminal justice students. Class rank (i.e., freshman, sophomore, etc.) had no significant effect on these attitudinal differences between criminal justice and non-criminal justice majors. Tsoudis (2000) concluded, "Majoring in criminal justice influences perceptions about punishment, crime, and the criminal justice system" (p. 39). In a study of students at four Texas universities, Farnworth et al. (1998) found that when looking at all majors, there was less support for capital punishment among seniors as compared with freshman. They found a smaller attitudinal change between freshman and senior criminal justice majors, but, in all, the difference between criminal justice majors and non-majors was small. McCarthy and McCarthy (1981) concluded that criminal justice students were more likely to support due process principles as well as rehabilitative treatment of offenders. Fabianic (1979) found criminal justice majors had higher libertarianism scores than did non-criminal justice majors.

Criminal justice students have also been found to have higher levels of authoritarianism than students not majoring in criminal justice (Austin & O'Neill, 1985). Similarly, Austin and Hummer (1994) observed that male criminal justice students hold unfavorable views about females police officers. Merlo (1980) found that criminal justice majors were more dogmatic than were non-criminal justice students. On the other hand, criminal justice education may have a mitigating impact. In a study of undergraduate criminal justice students, Selke (1980) found that most beginning students scored significantly higher on punitive scales than did students in the upper classes. Other studies have found no attitudinal difference between criminal justice and non-criminal justice majors, and found that class rank does not always changes students' attitudes. For example, Byers and Potters (1997) found that there was no difference in the ethical orientations of criminal justice and non-criminal justice students at a Midwestern public university. Similarly, Giacopassi and Blankenship (1991) found that an introductory course in criminal justice does not effect student's attitudes towards the police.

While it appears that criminal justice education affects students' attitudes, it is unclear whether it reflects a significant increase in subject area knowledge. Therefore, it was decided to test the premise that students majoring in criminal justice should be significantly more knowledgeable on crime and capital punishment issues than students in other majors.

1.2. Hypotheses

Two hypotheses are formed:

Hypothesis 1: Criminal justice majors will be more knowledgeable about crime and death penalty issues than will be non-criminal justice majors.

Hypothesis 2: There will be even a greater degree of knowledge about crime and the death penalty issues among upper level criminal justice majors than there will be among upper level non-criminal justice majors.

2. Method

2.1. Participants

The data for this study is drawn from a survey of college students at a 4-year public university in Michigan, with a total enrollment under 10,000. A non-random, convenience sampling design involving more than two dozen academic courses in the Fall 1999 and Winter 2000 was utilized (Hagan, 1997). A convenience sample is when the researcher selects subjects who are available and willing to be part of the sample. Since it is not a random sample (i.e., based upon a mathematical probability of selection), the results from this study can not be generalized to the larger population.

Students were asked to participate in the study by voluntarily completing the survey during class time. The class sizes ranged between 20 and 50 students. Almost all of the courses were criminal justice and general education social science and English courses. Since social science and English courses are required as part of general education requirements for students pursuing a 4-year degree, the sample contained a wide variety of majors. All students were told not to complete the survey if they had previously completed one in another course. This was done to prevent double participation by criminal justice students in the general education courses. Approximately 45% were criminal justice majors and 55% were majoring in other areas.

While no student was required to participate, and all were told that they could decline without penalty, over 99% of the students completed the survey. A total of 747 surveys were completed and returned. Seventeen lacked responses on key variables and were omitted from the analysis. There were no significant demographic differences between the surveys that were omitted and those that were included. Twenty-one variables were selected; 5 variables measured demographics and 16 variables measured the respondent's knowledge about crime and death penalty issues. Since the survey was originally designed to measure knowledge about and support for capital punishment, this accounts for the emphasis on death penalty questions.

2.2. Measures

2.2.1. Demographic variables

The five demographic variables measuring gender, race, age, rank, and major were selected to show that the criminal justice and non-criminal justice groups are similar to one another. Gender is a dummy coded variable, with males coded as 0 and females coded as 1, and is named *Gender*. Respondents also indicated their racial status. Seventy-seven percent stated they were white, 16% black, 2% Hispanic, and 4% other. Race was collapsed coded into a dichotomous variable representing if the respondent was white (coded as 1) or non-white (coded as 0) and is named *White*. Age was measured in years from birth date, and the variable name is *Age*. Rank

was measured by asking the respondent their college rank (e.g., freshman, junior, etc.). The measure was collapsed into a dummy coded variable representing upper level (i.e., junior status or higher) and lower level (i.e., sophomore status or lower). Lower level was coded as zero, and upper level was coded as 1. The variable name is *Upper-Level*. The criminal justice major measure is a dummy coded variable with criminal justice majors coded as 1 and non-criminal justice majors coded as 0. The variable name is *C.J. Major*.

2.2.2. Knowledge variables

A total of 16 questions were used to measure the degree of knowledge on crime and death penalty issues. Of the 16 measures, 14 were measured using a 5-point Likert-type response scale, ranging from strongly disagree (coded as 1) to strongly agree (coded as 5). The 14 Likert measures are as follows:

1. It costs more money to incarcerate someone for life without parole for the crime of murder than it does to execute that person. The variable name is *Know1*. This statement is false, since it generally costs more to execute a person than it does to imprison him/her for life (Acker, 1996; Cook & Slawson, 1993; Costanzo, 1997).
2. In a murder that involves two or more assailants, only the person who actually killed the victim can receive the death penalty. The variable name is *Know2*. This statement is false since, according to the U.S. Supreme Court, co-defendants who were present but did not actually kill the victim can receive a death sentence (Tison v. Arizona, 1986).
3. After the execution of a murder, violent crime in that state declines for several weeks. The variable name is *Know3*. This statement is false since research shows no impact of executions on reducing murders (Albert, 1999; Bailey, 1991; Decker & Kohfeld, 1990; Lempert, 1983) and may even actually increase violence from the brutalization effect (Bowers, 1984; Bowers & Pierce, 1980).
4. The death penalty is a more effective deterrent than life imprisonment. The variable name is *Know4*. This statement is false since the vast majority of research indicates that capital punishment has little, if any, deterrent effect (Bowers, 1984; Bowers & Pierce, 1980).
5. There is almost no danger of sentencing an innocent person to death. The variable name is *Know5*. This statement is false since there is a growing body of literature showing possibility of sentencing an innocent person to death is not remote (Radelet & Bedau, 1987; Radelet, Bedau, & Putman, 1992).
6. The poor are more likely to receive the death penalty than are the middle class and rich. The variable name is *Know6*. This statement is true since most people on death row are poor and the literature indicates the poor are more likely to receive the death penalty for the crime of murder than are middle class and rich murderers (Bright, 1994; Clark, 1997).
7. It is against the law to execute someone who was less then 18 years of age at the time of the crime. The variable name is *Know7*. This statement is false. The U.S. Supreme Court ruled that it is constitutional to sentence an offender who was 16 years or older at the time of the offense to death (Stanford v. Kentucky, 1988; Thompson v. Oklahoma, 1989).

8. The U.S. Supreme Court has ruled that it is illegal to sentence to death a mentally retarded individual convicted for the crime of murder. The variable name is *Know8*. This statement is false. The U.S. Supreme Court ruled, while mental retardation is a factor that may be considered by the jury in mitigation of the offense, there is no national consensus against the imposition of the death penalty for a person who is mentally retarded (Penry v. Lynaugh, 1989).
9. More people are murdered each year then are killed in motor vehicle accidents. The variable name is *Know9*. Based upon the Uniform Crime Reports (UCR, 1999) and the traffic fatality data from the Statistical Abstract of the United States (1999), this statement is false. From 1970 to 1999, far more people die in traffic accidents than are murdered.
10. Michigan has the death penalty. However, no person has been executed in the last 47 years. The variable name is *Know10*. This statement is false since Michigan abolished the death penalty by statute in 1846 and constitutionally in 1964 (Wanger, 1996).
11. Minorities are more likely to receive the death penalty. The variable name is *Know11*. This statement is true since research has found that minority offenders convicted of murder receive death sentences at a higher rate than do white murder defendants (Baldus, Woodworth, Zuckerman, Weiner, & Broffitt, 1998; G.A.O., 1990).
12. Most studies have found that states which have the death penalty have a lower murder rate then do adjoining states without the death penalty. The variable name is *Know12*. This statement is false (Bailey, 1983; Bowers & Pierce, 1980).
13. Violent crime rates have been increasing during the past 5 years. The variable name is *Know13*. This statement is false. According to UCR figures, violent crime rates have been declining for the past 5 years (Pastore & Maguire, 2000; UCR, 1999).
14. About twenty percent of people convicted of murder receive the death penalty. The variable name is *Know14*. The statement is false since only 2–4% of those convicted of murder receive a death sentence (Brown, Langan, & Levin, 1999).

Two other knowledge questions used different response categories. One question asked, “On average in the last 5 years the annual (i.e., yearly) murder/manslaughter rate has been?”. The response categories were under 10,000, 10,000 to 25,000, 25,001 to 40,000, 40,001 to 55,000, and 55,001 and over. The variable name is *Know15*. Based upon UCR data, the number of murders and non-negligent homicides has been roughly between 19,000 to 21,000 for each for the past 5 years (Pastore & Maguire, 2000; UCR, 1999). Therefore, the correct response is the category of 10,000 to 25,000. The other question asked the average cost to execute a person, including the trial and appeals, and had response categories of less than $500,000, $500,000 to $1 million, and more than $1 million. The variable name is *Know16*. According to empirical studies, it costs about $2 million to $3 million to execute a person (Cook & Slawson, 1993; Costanzo, 1997). Therefore, the correct response is the category of more than $1 million.

All 16 knowledge measures were recoded into dichotomous variables representing either answering correctly (coded as 1) or incorrectly (coded as 0). For the 12 Likert measures which were false statements, if the person marked agreed or neutral, they were coded incorrect (0);

if they disagreed, they were coded correct (1). Since marking the neutral category means that the person is unsure of the correct answer, neutral responses were coded as incorrect. For the variables on annual murder/manslaughter and costs of executing, there was only one correct response category. The other responses categories were incorrect. Therefore, if the respondent selected the correct response, he/she was coded as 1 for being correct and if the respondent selected one of the incorrect categories, he/she was coded as 0 for being wrong.

At the survey university, introductory criminal justice courses fully cover the information to answer correctly the knowledge questions on the survey and all of the criminal justice majors taking the survey had taken or were completing the course when the survey was administered. In addition, the material contained in the 16 knowledge variables are generally covered and reinforced in other upper level criminal justice courses.

2.3. Analysis techniques

Descriptive statistics (i.e., frequencies, means, and standard deviations) and the results of the independent *t*-test for statistical significance will be reported. The independent *t*-test examines the difference between the means on the dependent variable of two groups to determine if the difference is statistically significant (Green, Salkind, & Akey, 1997) and is frequently used for analyses such as those in this study.

3. Results

The descriptive statistics of the demographic variables are presented in Table 1 for the entire sample, criminal justice majors, and non-criminal justice majors. The two groups appear to be similar in terms of gender, race, and age. There is a difference between the two groups for the variable *Rank*. The criminal justice major group contains more upper level students than does the non-criminal justice group. Since both lower and upper level classes were surveyed for criminal justice students, but only general education classes, often taken early in students' course work, were surveyed for other majors, this outcome is not unexpected.

The 16 dichotomous variables representing correct or incorrect responses are presented in Table 2 for the entire sample, criminal justice majors, and non-criminal justice majors.

Table 1
Descriptive statistics for the demographic variables for the entire sample, criminal justice majors, and non-criminal justice majors

Demographic variables	Entire sample ($N = 730$)		Criminal justice majors ($N = 330$)		Non-criminal justice majors ($N = 400$)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Gender	0.45	0.50	0.41	0.49	0.48	0.50
White	0.77	0.42	0.77	0.42	0.76	0.42
Age	21.94	3.58	22.31	2.87	21.64	4.05
Upper-level	0.52	0.50	0.72	0.45	0.34	0.48
CJmajor	0.45	0.50	1.00	0.00	0.00	0.00

Table 2
Percentage correct and standard deviation scores on the 16 knowledge variables for the entire sample, criminal justice majors, and non-criminal justice majors

Knowledge variable	Entire sample ($N = 730$)		Criminal justice majors ($N = 320$)		Non-criminal justice majors ($N = 400$)		*t*-test value
	% Correct	S.D.	% Correct	S.D.	% Correct	S.D.	
Know1	26	0.44	32	0.47	21	0.41	−3.35**
Know2	36	0.48	37	0.48	35	0.48	−0.64
Know3	46	0.50	48	0.50	44	0.50	−1.11
Know4	33	0.47	33	0.47	32	0.47	−0.31
Know5	77	0.42	78	0.42	77	0.42	−0.10
Know6	65	0.48	64	0.48	66	0.48	0.35
Know7	21	0.41	26	0.44	16	0.37	−3.28**
Know8	9	0.29	10	0.30	8	0.28	−0.56
Know9	46	0.50	53	0.50	41	0.49	−3.18*
Know10	62	0.48	72	0.45	54	0.50	−5.20**
Know11	58	0.49	60	0.49	57	0.50	−0.67
Know12	30	0.46	36	0.48	26	0.44	−3.03*
Know13	28	0.45	33	0.47	24	0.42	−2.87*
Know14	48	0.50	49	0.50	46	0.50	−0.78
Know15	35	0.48	38	0.49	33	0.47	−1.53
Know16	29	0.45	32	0.46	27	0.44	−1.39

Note. Since each of the knowledge measures are dummy coded variables, the mean can be obtained by dividing the % correct number by 100. S.D. stands for standard deviation.

* $p \leq .05$.

** $p \leq .01$.

On 10 of the 16 knowledge variables, there was no statistically significant difference in the number of correct responses between criminal justice and non-criminal justice majors. On 6 of the knowledge variables (*Know1*, *Know7*, *Know9*, *Know10*, *Know12*, and *Know13*), however, criminal justice majors were statistically different from non-criminal justice majors, and on all six variables, more criminal justice majors answered correctly than did non-criminal justice majors. The difference, however, was not large, and did not mean that the majority of criminal justice majors answered correctly. While there is a difference in knowledge between criminal justice students and students in other majors, it is neither widespread nor striking.

To test the hypothesis that upper level criminal justice students would be more knowledgeable about crime and the death penalty, the results of the dummy coded 16 knowledge variables are presented in Table 3 for all upper level students, upper level criminal justice students, and upper level non-criminal justice students. Also in Table 3, *t*-tests are reported for upper level criminal justice and non-criminal justice majors. There was a slight increase in knowledge of crime and death penalty variables between criminal justice and non-criminal justice majors when the analysis was limited to upper level students. Specifically, there was a significant difference in correct answers on 8 of the 16 knowledge variables. Besides the significance differences observed on the 6 knowledge variables with all levels of students (i.e., *Know1*, *Know7*, *Know9*, *Know10*, *Know12*, and *Know13*), there is a significance difference between upper level criminal justice majors and upper level non-criminal justice majors on *Know2* and *Know3* variables.

Table 3
Percentage correct and standard deviation scores on the 16 knowledge variables for upper level students by the entire sample, criminal justice majors, and non-criminal justice majors

Knowledge variable	Entire sample of Upper-Level students ($N = 376$)		Upper level criminal justice majors ($N = 238$)		Upper level non-criminal justice majors ($N = 138$)		*t*-test value
	% Correct	S.D.	% Correct	S.D.	% Correct	S.D.	
Know1	30	0.46	38	0.49	16	0.37	−4.58**
Know2	36	0.48	41	0.49	26	0.44	−2.97**
Know3	46	0.50	51	0.50	39	0.49	−2.20*
Know4	35	0.48	36	0.48	34	0.48	−0.32
Know5	77	0.42	80	0.40	72	0.45	−1.90
Know6	70	0.46	70	0.46	71	0.46	0.17
Know7	22	0.41	28	0.45	11	0.31	−3.90**
Know8	7	0.26	8	0.28	6	0.24	−0.93
Know9	49	0.50	56	0.50	36	0.48	−3.73**
Know10	69	0.46	75	0.44	59	0.49	−3.14**
Know11	62	0.49	62	0.49	62	0.49	0.11
Know12	37	0.48	42	0.49	29	0.46	−2.45*
Know13	27	0.44	31	0.46	20	0.40	−2.28*
Know14	48	0.50	50	0.50	46	0.50	−0.81
Know15	34	0.47	37	0.48	28	0.45	−1.80
Know16	32	0.47	35	0.48	27	0.44	−1.62

Note. Since each of the knowledge measures are dummy coded variables, the mean can be obtained by dividing the % correct number by 100. S.D. stands for standard deviation.

* $p \leq .05$.

** $p \leq .01$.

4. Discussion

Before the discussion of the results, it must first be emphasized that a non-random sampling technique was used. As such, the results can not be generalized and only directly apply to the students surveyed. In terms of the results, there were two major findings. First, Hypothesis 1 is only weakly supported. Despite a stacked sample favoring upper level criminal justice students who should be more knowledgeable about the questions asked, criminal justice majors only scored statistically higher on 6 of the 16 (37.5%) knowledge variables as compared to other majors. For the majority of knowledge measures (i.e., 62.5%), criminal justice majors were no more knowledgeable than non-criminal justice majors.

The second major finding is that there is only moderate support for Hypothesis 2. There was a greater difference in knowledge between upper level criminal justice and upper level non-criminal justice majors. On 8 of the 16 knowledge variables, there was a small but statistically significant difference between upper level criminal justice and upper level non-criminal justice majors. Moreover, even in those areas where there was some difference, often only a small minority of even criminal justice students answered correctly. Thus, while small differences exist between criminal justice other majors, most criminal justice majors, including upper level students, answered incorrectly on most of the questions. Only on four measures did the majority of both groups answer correctly. The premise that the general public is

unaware about crime and punishment is also supported by the results of this study. Unfortunately, criminal justice students fared only slightly better.

This small difference suggests several possible explanations. One possibility is that the measures used in this study do not accurately reflect the knowledge of criminal justice students. The majority of the questions dealt with the death penalty. While the death penalty is covered in criminal justice courses at the survey university, Michigan does not have the death penalty, and, as such, the surveyed criminal justice students may place less of an emphasis on death penalty material. It should be noted that other studies have found that college students, including criminal justice majors, are not highly knowledgeable about the death penalty (Bohm et al., 1991). Therefore, if other measures of knowledge about the criminal justice system were used, there might be a significantly larger difference between criminal justice and non-criminal justice majors. This is an area that needs to be explored in future research.

A second reason is that there may be biased assimilation of knowledge, particularly in regards to death penalty information (Firment & Geiselman, 1997). Bohm (1999) argues that a person's position on the death penalty is probably based more on emotion than it is on facts. With emotionally based positions, it is difficult to change a person's position (Vidmar & Dittenhoffer, 1981). Lord, Ross, and Lepper (1979, p. 2099), write,

> This "polarization hypothesis" can be derived from the simple assumption that data relevant to a belief are not processed impartially. Instead, judgments about validity, reliability, relevance, and sometimes even the meaning of proffered evidence are biased by the apparent consistency of that evidence with the perceiver's theories and expectations. Thus, individuals will dismiss and discount empirical evidence that contradicts their initial views and derive support from evidence, of no greater probativeness, that seems consistent with their views.

Therefore, under this theory, criminal justice students were presented with the correct information in criminal justice classes but assimilated the information in a biased manner. Before this premise can be accepted or rejected, it needs to be further explored.

Biased assimilation may also stem from media constructions of crime in terms that "if it bleeds, it leads" bias that students (and others) are constantly subjected to by the mass media. There is a barrage of material presented on crime outside the classroom, such as television, newspapers, magazines, movies, etc. (Lotz, 1991; Marsh, 1991; Vandiver & Giacopassi, 1997). Much of this is inaccurate, exaggerated, and aimed more for sensationalism than for the purpose of knowledge (Selke, 1980). Criminal justice students, particularly at the lower level, may not be fully aware that everything presented in the mass media is not necessarily accurate. Vandiver and Giacopassi (1997) write, "Even good students may begin their study of criminal justice with many misperceptions about crime fostered by the popular culture. These false perceptions may be rooted in long-held beliefs based not only on fictionalized crime drama, but also on accounts of crime by the print and broadcast media" (p. 135). Therefore, based upon a long history of misleading presentations of crime in the mass media which is still reinforced during the college years, students learn faulty knowledge about crime, punishment, and the criminal justice system from non-academic sources, and this faulty knowledge remains with them regardless of what is taught in the classroom. Vandiver and Giacopassi (1997) contend, "The messages of the media are constantly repeated and reinforced. The lessons of the classroom are learned in context (if

they are learned at all) and may not easily prevail against the media" (p. 142). Furthermore, there is an over concentration on violent crime by the mass media (Lotz, 1991; Marsh, 1991; Vandiver & Giacopassi, 1997). This may explain why more than two-thirds of both criminal justice and non-criminal justice majors felt that the violent crime rate had been increasing for the past 5 years. Because both groups are likely to be exposed equally to the mass media, there would not necessarily be a large difference between criminal justice and non-criminal justice majors on the 16 knowledge items. This may also account for the finding that most students in both groups were incorrect on many of the knowledge measures. The degree that the mass media impacted the knowledge of students in this study is unknown. Future research should directly examine the impact of the mass media on the attitudes and knowledge of criminal justice students.

A third possible explanation is the innumeracy theory (Paulos, 1988; Vandiver & Giacopassi, 1997). This theory holds that many people lack the skills to properly use and understand numerical values when applied to estimation of and responding to social problems (Paulos, 1988; Vandiver & Giacopassi, 1997). This theory may explain why the majority of students were incorrect on the knowledge questions that had numerical values (i.e., *Know1, Know15*, and *Know16*). For example, over two-thirds of both criminal justice and non-criminal justice majors incorrectly estimated the annual number of murders/manslaughters during the past 5 years, and most overestimated the number. Vandiver and Giacopassi (1997) found in their study that students in an introductory criminal justice course extremely overestimated the number of homicides in the United States. They also found that criminal justice seniors overestimated the number of homicides in the United States, but not nearly by the amount overestimated by the introductory students. This was not the case in this study. There was no significant difference between lower and upper level criminal justice majors on this measure, both overestimated. However, the innumeracy theory is only applicable to those questions that required specific numerical knowledge. This theory does not explain the results on those knowledge variables that did not involve specific numerical values.

The fourth, and (one hopes) the least plausible, explanation is that for many students, criminal justice education does not have a significant impact. The authors have heard comments from other academic disciples that criminal justice is an easy major that fails to attract the brightest and best students. However, a review of ACT scores and college grade point averages of the students at the survey university fails to support this position. Likewise, the criminal justice students at the survey university may be unique. Similar findings may not be found with criminal justice majors at other universities and colleges.

Regardless of the explanation selected, the results indicate that many students who major in criminal justice at the survey university are not overwhelmingly more knowledgeable than students majoring in other areas. While there was some difference in knowledge about crime and the death penalty between criminal justice and non-criminal justice majors, the difference was not great. In addition, for many of knowledge measures, the majority in both groups answered incorrectly. This is not a comforting finding. It means that both criminal justice students and non-criminal justice students are not highly knowledgeable about crime and the death penalty issues.

Many of the criminal justice majors will work in the criminal justice system and move up the administrative ladder. As such, they will help shape the future of criminal justice in the

United States. Additionally, the non-criminal justice students will become citizens who will also help shape the criminal justice system.

5. Conclusion

The major impetus of this study was to test whether there is a sizable difference in knowledge about crime and death penalty issues between criminal justice and non-criminal justice majors, and if the difference was even greater for upper level students. From a survey of criminal justice and non-criminal justice students at a mid-size, Michigan university, it was observed that there was some difference in knowledge about crime and the death penalty issues. Nonetheless, the difference was not striking. Moreover, the majority of the surveyed students, regardless of their major, were not highly knowledgeable about crime and death penalty issues. However, before these results can be applied to students at other universities, it is critical to reemphasize that the sampling technique used was non-random. As such, the results can not be generalized. The results only apply to the students surveyed. Nevertheless, the findings warrant further study in the area. The question whether criminal justice students are more knowledgeable about crime, punishment, and the criminal justice system can not be conclusively answered at this time. The area needs to be explored in more depth. If future research finds that the majority of criminal justice students are knowledgeable about their field and are more knowledgeable that students in other majors, then one of the major bedrock foundations of having a criminal justice major will be supported. If the opposite is found, then the questions of why and what can be done must be answered.

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