Volume 6 ● No.3 / 2010 *The Southwest Journal of Criminal Justice*

CONTENTS

The Southwest Journal of Criminal Justice Volume 6 ● No. 3 / 2010

EDITOR

Roger Enriquez.
University of Texas at San Antonio

MANAGING EDITOR

Valarie Mendez
University of Texas at San Antonio

ASSOCIATE EDITORS

Cyndi Banks, Ph.D.
Northern Arizona University

Ronald Burns, Ph.D.
Texas Christian University

Myrna Cintron, Ph.D.
Prairie View A&M University

Rolando del Carmen, J.S.D.
Sam Houston State University

James W. Golden, Ph.D.
University of Arkansas at Little Rock

W. Wesley Johnson, Ph.D.
Sam Houston State University

Tana McCoy, Ph.D.
University of Arkansas at Little Rock

Marilyn McShane, Ph.D.
University of Houston-Downtown

Mary L. Parker, Ph.D.
University of Arkansas at Little Rock

Clete Snell, Ph.D.
University of Houston-Downtown

Jonathan Sorenson, Ph.D.
Prairie View A&M University

William E. Stone, Ph.D.
Southwest Texas State University

Prabha Unnithan, Ph.D.
Colorado State University

Jeffrey T. Walker, Ph.D.
University of Arkansas at Little Rock

From the Editor

Dear Members,

In this our final issue of Volume 6, we are fortunate to publish an excellent variety of scholarship that addresses some of the most salient issues in our discipline. For example, in a manuscript that tackles the issue of false confessions, "Attitudes Toward Coerced Confessions: Psychometric Properties of New and Existing Measures in Jury Pool Samples," Drs. Clark, Boccaccini, and Turner describe their findings from three studies they conducted designed to examine the extent to which jurors vary in their willingness to question the validity of confession evidence. In Study 1, they examined the internal consistency and factor structure of the Confession Attitude Scale (CAS) in a large sample of real world jury pool members. The CAS is an 18-item self-report measure designed to determine how respondents view the nature of police interrogations and confessions by suspects. The CAS was published in a compendium of legal attitude measures but has not been examined in published research. In Studies 2 and 3, they developed and examined the psychometric properties of a new Attitudes Toward Coerced Confessions (ATCC) scale designed to address shortcomings of the CAS. The ATCC was constructed to measure two types of attitudes that could be associated with how people view confession evidence: a) support for the idea that defendants can be pressured into making false confessions, and b) support for coercive interrogation techniques. Interestingly, they found that although the CAS performed poorly, the ATCC showed potential as a brief measure of attitudes concerning coerced-compliant confessions.

In "An Exploratory Analysis of Guns and Violent Crime in a Cross-National Sample of Cities," Dr. Altheimer examines the relationship between gun availability and crime in a cross-national sample of cities. Altheimer utilizes data sets from the International Crime Victimization Survey to examine three competing hypotheses: hypothesis one suggests that increasing gun

availability increases crime; hypothesis two suggests that increasing gun availability reduces crime; hypothesis three suggests that increasing gun availability does not influence crime. The findings suggest that increasing city levels of gun availability in this cross-national sample of cities increases the likelihood that violent crimes are committed and that guns are involved in these crimes. Interestingly, these findings do not suggest that increasing gun availability reduces crime.

In "Elder Homicide in Urban America: An Exploratory Analysis of Chicago, Houston, and Miami," Titterington and Reyes examine eldercides in three heavily-populated cities between the years 1985-1994 to distinguish unique characteristics of lethal violence against persons age 65 or older. Their research demonstrates that, when compared to younger victims, older victims are significantly more likely to be female, to be killed by family members, and to be killed in the course of a robbery or other felony. Interestingly, their analysis also revealed significant differences among the three cities in victim-offender relationships, motivations, and methods for eldercide, as well as large differences in sex- and race/ethnicity-specific eldercide rates.

In "Facilitating Organizational Culture: New Chief Old Value Systems," Dr. Thomas depicts the challenges facing a new chief by providing a case study of a new chief who took office in May 2008 and the challenges he faced while attempting to introduce new values and a new culture to an old organization. The analysis of this case study reveals that in order for this chief to be successful he must become a master of history, understanding agency politics, community perceptions, and the prevailing power structures.

Finally, in "Perceptions of Risk, Need, and Supervision Difficulty in the Community Corrections Setting," Dr. Gould illustrates how criticisms of ineffectiveness over the past few decades have prompted probation agencies to increase their use of objective case classification systems. However, most correctional agencies still utilize the same risk assessment instrument for both male and female offenders with the assumption that these tools perform an adequate job of assessing risks for both populations. Gould asserts that a gender responsive approach should be applied in corrections that involve the recognition that there are meaningful differences between male and female offenders.

I trust that our membership will find this edition of the Journal an important and provocative addition to the field.

Regards,

Roger Enriquez, J.D.
Editor, Southwest Journal of Criminal Justice

Attitudes Toward Coerced Confessions: Psychometric Properties of New and Existing Measures in Jury Pool Samples

John W. Clark
University of Texas Tyler

Marcus T. Boccaccini
Sam Houston State University

Darrel Turner
Sam Houston State University

Abstract

We conducted three studies to examine the extent to which jury pool members varied in their willingness to question the validity of confession evidence and whether these attitudes were associated with how they viewed descriptions of confessions from real cases. Study 1 revealed poor psychometric properties for the Confession Attitude Scale (Wrightsman & Engelbrecht, 2004), an existing attitude measure. Studies 2 and 3 describe the development of the Attitudes Toward Coerced Confessions (ATCC) scale, a brief measure designed to assess two types of attitudes: a) support for the idea that defendants can be pressured into making false confessions, and b) support for coercive interrogation techniques. Both types of attitudes were associated with perceptions of defendant guilt and fairness of law enforcement interrogation practices in two recanted confession cases.

Key Words: coercion, false confession, interrogation practices, wrongful conviction

INTRODUCTION

A confession of guilt from a criminal defendant is one of the most compelling pieces of evidence that the prosecution can use to argue for a conviction. Indeed, Kassin and Neumann (1997) presented mock jurors with criminal case trial summaries in which the main evidence against the defendant was either a confession (later retracted), eyewitness identification, or character evidence. Defendants who had confessed and recanted were more likely to be seen as guilty than those for whom there was eyewitness evidence or character evidence. Even jurors

Clark, Boccaccini, Turner—Attitudes Toward Coerced Confessions: Psychometric Properties of New and Existing Measures in Jury Pool Samples. (2010)
Southwest Journal of Criminal Justice, Vol. 6(3). pp. 185–203.
© 2010 Southwestern Association of Criminal Justice

who are told that a confession has been coerced and are instructed by the court to disregard the confession evidence are still likely to see the defendant as guilty (Kassin & Sukel, 1997). The power of confession evidence for ensuring guilty verdicts can also be seen in studies of wrongful convictions. A 2003 review of 42 wrongful murder convictions in Illinois found that a confession from the defendant was used as evidence in 14 cases, and a confession from a co-defendant (implicating the defendant) was used in an additional 11 cases (Warden, 2003). Thus, 25 of the 42 cases (59%) used a confession as evidence against a defendant who was later determined to be innocent. Other research has shown that the conviction rate at trial for defendants who recant their confessions ranges from 73% to 81% (Drizin & Leo, 2004; Leo & Ofshe, 1998).

Although many confessions come from guilty defendants, innocent defendants do confess. Defendants who falsely confess must convince either a judge or jury that their confessions were false. Together, findings from mock jury research and wrongful conviction cases suggest that both mock jurors and real jurors usually see a confession as a sure sign of guilt, even when the confession is not true. The purpose of the current study was to determine whether potential jurors vary in their willingness to question the validity of confession evidence and whether these attitudes are associated with how they view descriptions of confessions from real cases.

Researchers have found that individual difference measures such as need for cognition and attributional complexity can be small, but statistically significant predictors of mock jurors' perceptions of defendant guilt in confession cases (Lassiter, Munhall, Berger, Weiland, Handley, & Geers, 2005; Lassiter, Slaw, Briggs, & Scanlan, 1992). However, attitudes toward specific legal issues, such as the insanity defense or death penalty, tend to be stronger and more consistent predictors of mock jurors' decisions than general individual difference measures (see Cutler, Moran, & Narby, 1992; Devine, Clayton, Dunford, Seying, & Pryce, 2001; Greene et al., 2002; Nietzel, McCarthy, & Kern, 1999; Robbennolt, Groscup, & Penrod, 2006). Given the power of confession evidence on jurors' decisions, accounting for even a small amount of variance in their decisions through the use of a confessions attitude measure may be a worthwhile goal.

This article describes findings from three studies designed to examine the extent to which jurors vary in their willingness to question the validity of confession evidence. In Study 1, we examined the internal consistency and factor structure of the Confession Attitude Scale (Wrightsman & Engelbrecht, 2004) in a large sample of real world jury pool members. The CAS is an 18-item self-report measure designed to "determine how respondents view the nature of police interrogations and confessions by suspects" (p. 57). The CAS was published in a compendium of legal attitude measures (Wrightsman, Batson, & Edkins, 2004), but has not been examined in published research. In Studies 2 and 3, we developed and examined the psychometric properties of a new Attitudes Toward Coerced Confessions (ATCC) scale designed to address shortcomings of the CAS. The ATCC was constructed to measure two types of attitudes that could be associated with how people view confession evidence: a) support for the idea that defendants can be pressured into making false confessions, and b) support for coercive interrogation techniques.

Study 1

Method: Study 1

Participants for Study 1 were 438 adults who reported for jury duty in a suburban county in a Southeastern state (Mean age = 42.0, SD = 13.6). All participants completed the CAS, which

asks participants to rate their degree of agreement (1 = *strongly disagree*, 5 = *strongly agree*) with 18 statements (eight are reverse scored) concerning circumstances under which confessions may be more or less likely to be valid (Wrightsman & Engelbrecht, 2004). Sample CAS statements include "Innocent people do not confess to crimes" and "A confession has to be extremely consistent with other evidence to be considered valid." The CAS was completed (no omitted items) by 423 of the 438 participants. Slightly more than half of the sample was female ($n = 236$, 55.8%), and most identified themselves as Caucasian/White ($n = 244$, 57.7%) or African American/Black ($n = 174$, 41.1%). Many participants reported their highest level of education as having a high school degree or equivalent ($n = 131$, 30.8%), while others reported having attended some college with no degree ($n = 157$, 36.9%), earning a college degree ($n = 121$, 28.5%), or no high school degree ($n = 10$, 2.4%). Six participants did not report their level of education.

Results and Discussion: Study 1

The internal consistency of the CAS was unacceptably low (Cronbach's $\alpha = .40$). Three items had negative corrected item-total correlations; each of these items was a reverse-scored item (items 7, 11, 17). We conducted a series of principal components analyses to determine whether the low internal consistency value might be a product of the scale providing a multidimensional measure of confession attitudes. Principal components analysis with varimax rotation identified six factors, with the strongest factor containing only five items with loadings greater than .40 (three items with positive loadings, two with negative loadings). Given that the CAS authors did not provide any information about potential CAS factors, we used an eigenvalues greater than 1.00 criterion to identify potential factors. The scree plot showed a sharp decline after the first factor, and a gradually negative slope for the remaining factors. When the number of components was constrained to one in the analysis, only six items had loadings greater than .40 on the single factor (items 2, 4, 10, 11, 13, 18). The internal consistency for a scale based on these six items was only .55. Together, these findings suggest that the CAS did not have a meaningful factor structure or contain a subset of items that provided an internally consistent measure in our sample of jury pool members.

Next, we examined intercorrelations between the 18 CAS items to further explore whether the poor internal consistency and principal components analysis findings for the CAS may have been attributable to only a small subset of poor items being included on the measure. The average correlation between the 18 CAS items was .04, with a range of -.25 to .36. Only 11 of the 153 correlations were greater than .20, suggesting that the poor factor structure and internal consistency were due to an overall pattern of minimal covariance between the items.

The poor psychometric properties of the CAS in our sample of more than 400 jury pool members suggests that the CAS is likely not a psychometrically sound measure of attitudes toward confessions. Although it is possible for scales with low levels of internal consistency to demonstrate predictive validity (e.g., measures with effect indicators as items), scales with high levels of internal consistency are more likely than those with low internal consistency to be useful for making real world predictions.

Study 2

Given the poor performance of the CAS in Study 1, we sought to develop a new measure of attitudes toward confessions: the Attitudes Toward Coerced Confessions scale (ATCC). We designed the new 5-point scale to measure attitudes that might predict juror decisions in cases

involving coerced-compliant confessions. Coerced-compliant confessions occur when suspects know they are innocent, but confess to stop the interrogation or gain a concession or reward (Kassin, 1997; Kassin & Wrightsman, 1985). For example, an innocent suspect may confess as part of a plea bargain if the police appear to have other strong evidence suggesting guilt (e.g., an eyewitness identification). Although truly innocent suspects can come to believe that they are guilty of crimes they did not commit (coerced-internalized confessions), it seems likely that most cases that would come to a jury would involve coerced-compliant confessions. Indeed, the defendant would need to recant the confession for its validity to become an issue at trial.

We designed the ATCC scale to measure two types of attitudes that might predict opinions about potentially coerced confessions. First, some people may be more willing than others to believe that innocent people can be pressured into confessing. Kassin and Gudjonsson (2004) and Kassin (2005) have argued that one reason why confession evidence is so compelling in the courtroom is because jurors underestimate the influence of situational factors on suspects' behavior (i.e., jurors make the fundamental attribution error). If potential jurors do vary in their openness to the idea that innocent people can be pressured into confessing, this variability may be associated with their decisions in recanted confession cases. We designed the ATCC Coerced Confession subscale to measure these attitudes (see Table 1, next page). Coerced Confession items ask participants to rate their degree of agreement (1 = Strongly disagree, 5 = Strongly agree) with statements such as: "I can see how people might confess to crimes they did not commit if it saved them from being charged with more serious crimes."

The second set of attitudes that might predict jurors' decisions in recanted confession cases is their beliefs about the appropriateness of coercive interrogation practices. Jurors who believe that interrogations should be stressful and that police need to have broad discretion in the methods they use during interrogations probably believe that these tactics have little impact on truly innocent suspects. We designed the ATCC Coercive Interrogation subscale to measure these attitudes (see Table 1). Coercive Interrogation items ask participants to rate their degree of agreement (1 = Strongly disagree, 5 = Strongly agree) with statements such as: "It is OK for police officers to lie to people during interrogations because their lies would not make innocent people confess."

We designed the ATCC to be relatively brief to increase its potential utility in trial settings, where there is often limited space on jury questionnaires (when allowed) or a desire to avoid redundant questioning during the jury selection process (voir dire). The ATCC measure examined in Study 2 contained only 12 items. Brief scales require strong item performance characteristics to achieve adequate levels of internal consistency. Study 2 focused on item performance and internal consistency for the ATCC subscales in a new sample of jury pool members.

Method: Study 2

Participants for Study 2 were 116 jury pool members (Mean age = 39.8 years, *SD* = 12.6) from the same county that was sampled for Study 1. Slightly more than half of the sample was female (*n* = 65, 56.0%), and most identified themselves as Caucasian/White (*n* = 76, 65.5%) or African American/Black (*n* = 38, 32.8%). All 116 participants completed the ATCC.

Table 1. Attitudes Toward Coerced Confessions (ATCC) Items Used in Studies 2 and 3

Study 2 (N = 116)	*Study 3 (N = 292)*
Coercive Interrogation items	Coercive Interrogation items
1. Police often have to use lies and deception in order to get a guilty person to confess.	1. Police officers should be allowed to do whatever it takes to get criminal suspects to confess.
2. Being questioned by the police is stressful, even for people who have not done anything wrong.	2. Police officers should try to make interrogations uncomfortable for criminal suspects.
3. It is OK for police officers to lie to people during interrogations because their lies would not make innocent people confess.	3. It is OK for a police officers to lie to a suspect during an interrogation because a truly innocent person would not be influenced by the officer's lie.
5. The police have a duty to make people uncomfortable during interrogations.	5. Police officers should try to make interrogations stressful for suspects.
10. Guilty people will not confess to crimes unless they are pressured to do so by the police.	*10. Police officers should be friendly to suspects during interrogations.
Coerced Confession items	Coerced Confession items
4. An innocent person could be pressured by the police into confessing to a crime he did not commit.	4. An innocent person could be pressured by the police into confessing to a crime he did not commit.
6. I can see how people might confess to crimes they did not commit if it saved them from being charged with much more serious crimes.	6. I can see how people might confess to crimes they did not commit if it saved them from being charged with much more serious crimes.
*7. A truly innocent person would never confess to a crime he or she did not commit.	7. I can see how people might confess to crimes they did not commit if they were threatened by the police.
8. I can see how people might decide to confess to crimes they did not commit if a great deal of other evidence suggested they were guilty.	8. I can see how people might decide to confess to crimes they did not commit if a great deal of other evidence suggested they were guilty.
9. Sometimes, people will confess to anything in order to stop a stressful interrogation.	9. Sometimes, people will confess to anything in order to stop a stressful interrogation.
*11. An innocent person will not confess, no matter what the police do to try to get a confession.	*11. An innocent person will not confess, no matter what the police do to try to get a confession.
*12. A confession given after many hours of interrogation is just as accurate as a confession made without any interrogation questioning at all.	*12. A confession given after many hours of interrogation is just as accurate as a confession made without any interrogation questioning at all.

Note. Items in bold were retained for the final ATCC subscales. Items with an asterisk (*) are reverse-scored items.

Results and Discussion: Study 2

Internal consistency for the seven-item Coerced Confession subscale was acceptable (α = .72). Item 7 (Table 1) had a low corrected item-total correlation ($r < .20$). Removing this item led to a small increase in internal consistency (α =.73). Internal consistency for the five-item Coercive Interrogation subscale was poor (α = .40). The average inter-item correlation for this scale was .12. Although all of the correlations were positive, none of the items were strongly correlated. The largest correlation between a pair of items was .24.

The low level of internal consistency for the Coercive Interrogation subscale suggested the need for revision. Although the Coerced Confession subscale showed adequate internal consistency, one item performed poorly, suggesting that revising this item might improve the subscale's internal consistency.

Study 3

For Study 3, we revised the ATCC scale by revising one item on the Coerced Confession subscale and rewriting all of the Coercive Interrogation items (see Table 1). Study 3 also sought to examine the construct validity of the ATCC in three ways. First, all participants completed the Juror Bias Scale (Kassin & Wrightsman, 1983) as a measure of convergent validity. The JBS is a 17-item self-report measure of jurors' predispositions toward viewing criminal defendants as guilty or innocent. High scores indicate pro-prosecution attitudes. The JBS is one of the most well-studied measures of juror attitudes, with several studies showing small to moderate sized statistically significant associations between high JBS scores (i.e., pro-prosecution) and perceptions of defendant guilt (Chapdelaine & Griffin, 1997; Dexter, Cutler, & Moran, 1992; Kassin & Garfield, 1991; Kassin & Wrightsman, 1983; Myers & Lecci, 1998; Tang & Nunez, 2003; Weir & Wrightsman, 1990). We expected that pro-prosecution attitudes, as measured by the JBS, would be associated with support for coercive interrogation practices and low levels of support for the idea that defendants can be pressured into falsely confessing.

Second, we asked jury pool members a series of questions about the characteristics of defendants who may be at risk for confessing to crimes they did not commit. These traits included being a juvenile, having a low level of education, and being poor. We expected that participants who tended to support the idea that defendants can be pressured into falsely confessing would see these defendant characteristics as being associated with a high likelihood of falsely confessing. We expected that support for coercive interrogation practices would be associated with a low likelihood of seeing the characteristics as associated with falsely confessing.

Finally, participants were asked to read two case summaries involving recanted confessions. The case summaries were based on actual wrongful conviction cases involving recanted confessions that are described on the Innocence Project website (www.innocenceproject.org). The Innocence Project is a litigation and public policy organization dedicated to exonerating wrongfully convicted people (www.innocenceproject.org). As of October 2007, there were more than 200 defendant profiles on the website, more than 40 of which involved a false confession. We expected moderate sized positive correlations (r = .20 to .40) between support for coercive interrogation practices and perceptions of the defendants' guilt in the two cases, and negative correlations between support for the idea that someone might falsely confess and perceptions of the defendants' guilt.

Method: Study 3

Participants. Participants for Study 3 were 292 jury pool members (Mean age = 39.8 years, *SD* = 12.6) from the same county that was sampled for Studies 1 and 2. Slightly more than half of the sample was female (*n* = 159, 54.5%), and most identified themselves as Caucasian/White (*n* = 160, 54.8%) or African American/Black (*n* = 122, 41.8%). Many participants reported their highest level of education as a college degree (*n* = 127, 43.5%), while others reported having attended some college with no degree (*n* = 103, 35.3%), having a high school degree or equivalent (*n* = 50, 17.1%), or no high school degree (*n* = 8, 2.7%). Four participants did not report their level of education.

Juror Bias Scale (JBS). Scores on the 17 JBS items are summed to provide a total score, with higher scores indicating pro-prosecution attitudes. Although more than 10 published studies have used the JBS, the only published reliability values for the 17-item total score are a split-half reliability coefficient of .81 and a five-week test-retest correlation of .67 (Kassin & Wrightsman, 1983). Kassin and Wrightsman (1983) separated the 17 JBS items into two subscales: Probability of Commission (PC, nine items) and Reasonable Doubt (RD, eight items). Probability of commission refers to the tendency to believe that defendants are guilty if they have been officially charged with a crime. Reasonable doubt refers to the "threshold of certainty" that a juror feels is necessary before rendering a judgment of guilt (Kassin & Wrightsman, 1983, p. 426). No researchers have reported reliability data for the original RD and PC subscales. Myers and Lecci (1998) and Lecci and Myers (2002) used confirmatory factor analysis in four samples to argue that the JBS should be divided into three subscales (Reasonable Doubt, Confidence, and Cynicism), but did not reported reliability coefficients for the subscales. The only study to have examined the reliability of the three Myers and Lecci (1998) subscales found poor internal consistency for each subscale ($\alpha < .48$ for all subscales; Watson, Ross, & Morris, 2003).

With respect to validity, JBS total scores tend to be moderately associated with perceptions of defendant guilt (Chapdelaine & Griffin; 1997 Dexter et al., 1992) and related measures of legal attitudes, such as authoritarianism (Kassin & Wrightsman, 1983) and support for the death penalty (Watson et al., 2003). Support for the original RD and PC factor scores has been mixed, with some studies finding support for both subscales (Chapdelaine & Griffin, 1997), others for only one subscale (Kassin & Garfield, 1991), and others for no subscales (Weir & Wrightsman, 1990). Proponents of the three-factor model initially found relatively equivalent support for both factor models in predicting perceived guilt (Myers & Lecci, 1998), but later found stronger and more consistent associations with perceived guilt for the three-factor model subscales (Lecci & Myers, 2002).

In the current study, 276 of the 292 participants completed the JBS. Internal consistency for the 17-item total score was poor ($\alpha = .47$). Three reverse-scored JBS items and one regularly scored item had negative item-total correlations with the total score. Although removing these four items led to a notable increase in internal consistency ($\alpha = .64$), both total scores (17 item and 13 item) performed similarly in the main study analyses, and we opted to report effects for the 17-item total score to facilitate comparisons with published JBS research. Internal consistency was also poor for the original JBS subscales (RD = .34, PC = .20) and the Myers and Lecci (1998) three-factor model subscales (RD = .25, Cynicism = .25, Confidence = .52). Given the low levels of internal consistency for the subscales and the equivocal support for their use in published studies, we opted to use only the JBS total score in the main study analyses.

Characteristics of defendants at risk for false confessions. Participants were asked to indicate their level of agreement (1 = Strongly disagree, 5 = Strongly agree) with three statements about the characteristics of defendants at risk for falsely confessing: a) A juvenile is more likely to confess to a crime he did not commit than an adult, b) Someone who is highly educated is less likely to confess to a crime he did not commit than a person who is less educated, and c) An individual who is poor is more likely to confess to a crime he did not commit than an individual who is wealthy.

Recanted confession case descriptions. Each participant read two brief descriptions of cases in which a criminal defendant confessed to a crime, but later recanted his confession. The case summaries were based on actual wrongful conviction cases involving recanted confessions that are described on the Innocence Project website (www.innocenceproject.org/). We selected two cases that involved coerced-compliant confessions and involved representative types of coercion reported in the false confession literature (lie about co-defendants confession, offer of leniency). In the first case, police lied to the defendant by telling him that two of his friends had confessed and identified the defendant as being involved.

> *Case 1*. Anthony Gray has been accused of murder and rape. The police told Anthony that two of his friends had confessed to the crimes and said that Anthony was involved. Anthony then confessed to both the murder and the rape. After Anthony confessed he found out that his friends had not confessed and that neither of them said anything to the police about Anthony being involved. Anthony now says that his confession was a lie and that he only confessed because he thought he would have no chance of being found innocent if his friends were saying that he was guilty.

In the second case, the defendant was offered a plea bargain whereby he could avoid a capital trial and receive a life sentence by confessing. Although courts usually see direct offers of leniency as overly coercive and grounds for excluding a confession (Kassin, 1997), offering a lesser sentence for a guilty plea is common in the prosecution process and is often referred to as sentence bargaining. Leo and Ofshe (1998) found that 12% of false confessions that have led to wrongful conviction occurred when defendants confessed to avoid harsh punishment, "typically the death penalty" (p. 479). The actual defendant in this case apparently did not attempt to claim that his confession was coerced until after his conviction. Indeed, his attorney reportedly encouraged him to accept the plea offer and confess.

> *Case 2*. Christopher Ochoa has been accused of the rape and murder of a Pizza Shop restaurant waitress. Christopher worked at the Pizza Shop with the victim. The murder happened after the restaurant was closed and the door to the restaurant was locked. The police believe that the murderer was an employee of the restaurant because he had to have a key to enter the building. There was also a piece of hair at the crime scene that matched Christopher's hair. The police brought Christopher in for questioning and told him that they thought he was guilty. The police told Christopher that the state had agreed to give him a life sentence if he confessed, but that they would try to have him sentenced to death if he did not confess. Christopher confessed to the crime, but now says that he is innocent and only confessed because he was scared of being sentenced to death.

Recanted confession case ratings. Participants made two ratings after each case description. First, they reported how likely it was that the defendant was guilty of the crime (1 = Not at all likely, 6 = Very likely). Second, they reported how fair it was for law enforcement officers to have pressured the defendant. Specifically, for Case 1, participants reported how fair it was for the police to have lied to the defendant about his friends confessing (1 = Not at all fair, 6 = Very fair). For Case 2, participants reported how fair it was for the police to tell the defendant that he could avoid the death penalty by confessing (1 = Not at all fair, 6 = Very fair).

Results and Discussion: Study 3

Final item selection for ATCC subscales. Internal consistency was .73 for the seven-item Coerced Confessions subscale and .56 for the five-item Coercive Interrogation subscale. Item-total correlations for the Coercive Interrogation scale suggested that item 10 (Table 1) was not clearly correlated with other items on the scale (corrected item total correlation of -.18). Item 10 was the one reverse-scored item on the subscale. Removing item 10 from the subscale led to a notable increase in internal consistency (.56 to .72).

Principal components analysis with varimax rotation was used to examine whether the 11 remaining ATCC items loaded onto two components (see Table 2, next page). Items 11 and 12 did not clearly load onto the Coerced Confession subscale. Both of these items were reverse-scored items. Both had only moderate loadings on the subscale component, and moderate cross loadings with the Coercive Interrogation component. Removing these two items led to an increase in internal consistency to $\alpha = .78$. Principal components analysis of scores on the nine remaining ATCC items showed that each had a clear loading on its expected factor (see Table 2). In addition, the scree plot showed two clear components, with a significant drop after the second component and a relatively flat line between the remaining components. Together, these two components accounted for 55.7% of the variance in item ratings.

The final five-item Coerced Confession subscale and the four-item Coercive Interrogation subscale were only moderately correlated ($r = -.23$, $p < .01$). Although the negative-correlation between the subscales may at first seem counter-intuitive for two subscales from the same measure, the negative correlation was expected, given that people who believe that false confessions are possible (high Coerced Confession scores) should express low levels of support for coercive interrogation practices. The negative modest correlation does mean that the two subscales should not be combined to calculate a total ATCC score.

We calculated Coerced Confession and Coercive Interrogation scores by averaging the individual item scores for items on the subscales. As a result, subscale scores could range from 1.00 to 5.00. The mean Coerced Confession score was 2.95 ($SD = .98$), and the mean Coercive Interrogation score was 3.00 ($SD = .98$). There was a small but statistically significant difference in Coercive Interrogation scores between African American and Caucasian participants, with African Americans ($M = 2.85$, $SD = .99$) reporting less support for coercive interrogation practices than Caucasians [$M = 3.11$, $SD = .97$; $t\ (280) = 2.18$, $p < .05$, Cohen's d = .27]. There was not a significant difference for Pressured Confessions scores, with African Americans ($M = 2.96$, $SD = 1.05$) and Caucasians ($M = 2.91$, $SD = .92$) reporting similar scores [$t\ (280) = .46$, $p = .65$, Cohen's d = .05). There were no significant differences between men and women for either subscale ($p > .05$, Cohen's d < .10).

Table 2. Component loadings for ATCC items in Study 3

ATCC Item	Model 1 (11 items)		Model 2 (9 items)	
	Coerced Confession	Coercive Interrogation	Coerced Confession	Coercive Interrogation
1	-.13	.66	-.12	.65
2	.06	.79	.03	.82
3	-.29	.64	-.31	.65
4	.72	.08	.73	.08
5	.07	.81	.07	.81
6	.74	.02	.75	.02
7	.77	-.24	.78	-.25
8	.72	.08	.73	-.09
9	.61	-.13	.62	-.14
11	.43	-.23	--	--
12	.27	-.35	--	--

Note. Loadings are from principal components analyses with varimax rotation. Bold loadings indicate the scale upon which the item should load. N = 292.

Construct validity for ATCC subscales. Correlations between the ATCC subscales and construct validity measures are reported in Table 3 (next page). As expected, Coerced Confession scores were negatively correlated with several study measures. Participants who tended to believe that false confessions could occur reported low levels of pro-prosecution attitudes (JBS), tended to believe that the two defendants who were pressured to confess were not guilty, and tended to report that the techniques used to pressure the two defendants into confessing were unfair. Also as expected, Coerced Confession scores were positively correlated with beliefs that defendants who are young, poor, or have a low level of education are at an increased risk for confessing. Most of these correlations for the Coerced Confession subscale were small in size, but generally large enough to reach statistical significance.

As expected, correlations were in the opposite direction for the Coercive Interrogation subscale. Those who tended to support coercive interrogation tactics reported high levels of pro-prosecution attitudes (JBS), tended to believe that the two defendants who were pressured

to confess were guilty, and tended to report that the techniques used to pressure the two defendants into confessing were fair. Coercive Interrogation scores were negatively correlated with beliefs that defendants who are young, poor, or have a low level of education are at an increased risk for confessing.

Table 3. Correlations Between ATCC Subscale Scores and Measures of Construct Validity

Construct validity measure	ATCC Subscale	
	Coerced Confession	Coercive Interrogation
Juror Bias Scale Total Score	-.17*	.40**
Guilt Likelihood for Defendants who Recanted Confessions		
Defendant who was told that friends had confessed (AG)	-.19**	.29**
Defendant threatened with death penalty (CO)	-.12*	.28**
Perceived Fairness of Law Enforcement Tactics in Confession Cases		
Being told that friends confessed (AG)	-.26**	.38**
Being told that confessing would prevent death penalty (CO)	-.21**	.34**
Characteristics of Defendants Likely to Confess		
Juveniles are more likely to confess than adults	.20**	-.14*
Less educated are more likely to confess than highly educated	.18**	-.07
Poor more likely to confess than wealthy	.31**	-.20**

Note. AG = Anthony Gray case. CO = Christopher Ochoa case. N = 292 for all correlations except for the Juror Bias Scale (N = 280). **p < .01. *p < .05

Unique contributions of ATCC subscales for predicting case decisions. Although correlations between the ATCC subscales and construct validity measures tended to be small to moderate in size, the relatively small correlation between the two ATCC subscales (r = -.23) suggests that they may make independent contributions for predicting juror decisions. We used hierarchical multiple regression to examine the unique contributions of the two ATCC subscales for predicting jurors' decisions concerning defendant guilt and the fairness of the interrogation techniques in the two recanted confession cases. We conducted four sets of multiple regression analyses, one for each of these four outcome measures.

We also used the regression analyses to consider whether ATCC scores made a unique contribution to predicting decisions after juror demographic characteristics (sex and race) and pro-prosecution attitudes (JBS) had been taken into account.[1] Indeed, point-biserial correlations indicated men were somewhat more likely than women to see the defendants as guilty (AG r = -.17, p <.01; CO r = -.17, p < .01). African Americans were somewhat more likely than Caucasians to view law enforcement tactics as unfair in the Christopher Ochoa case (point-biserial r

1. Including JBS and race as predictors in the regression analyses limited the sample size to 263. Because most participants identified themselves as African American or Caucasian, the remaining 10 participants could not be included in the regression analyses. Of the remaining participants, 19 were excluded because they did not complete the JBS.

= .15, $p < .01$; $r < .10$ between race and other juror decision measures). JBS scores significantly correlated with perceptions of guilt likelihood (AG $r = .22$, $p < .01$; CO $r = .23$, $p < .01$) and fairness of law enforcement tactics (AG $r = .20$, $p < .01$; CO $r = .21$, $p < .01$).

Findings from the four sets of regression analyses are summarized in Table 4 (below). All four sets of analyses provided support for one or both ATCC measures as independent predictors of participants' opinions. Coercive Interrogation scores were significant predictors for all juror decisions, even after all other predictors had been entered into the models. Moreover, Coercive Interrogation

Table 4. Summary of Hierarchical Multiple Regression Results for Predicting Perceptions of Defendant Guilt and Fairness of Law Enforcement Interrogation Tactics

	Final Model Statistics			Improvement for adding predictor to the hierarchical model	
Outcome/predictor	β	b	SE	R2 change	R2 Model
Guilt AG: Told that friends confessed					
1. race	.00	.00	.15	--	.005
2. sex	-.13*	-.32	.14	.023*	.028*
3. Juror Bias Scale total score	.07	.02	.01	.035**	.063**
4. ATCC: Coercive Interrogation	.25**	.31	.08	.063**	.126**
5. ATCC: Coerced Confession	-.12*	-.15	.07	.014*	.140**
Guilt CO: Threatened with death penalty					
1. race	.00	.00	.16	--	.006
2. sex	-.15*	-.39	.15	.028**	.034*
3. Juror Bias Scale total score	.12	.02	.01	.044**	.078**
4. ATCC: Coercive Interrogation	.21**	.27	.09	.042**	.120**
5. ATCC: Coerced Confession	-.10	-.13	.08	.009	.129**
Fairness of telling defendant friends had confessed (AG)					
1. race	-.05	-.17	.22	--	.000
2. sex	.01	.04	.21	.000	.000
3. Juror Bias Scale total score	.05	.01	.02	.041**	.041*
4. ATCC: Coercive Interrogation	.34**	.63	.12	.112**	.153**
5. ATCC: Coerced Confession	-.15**	-.29	.11	.021**	.174**
Fairness of death penalty threat (CO)					
1. race	.11	.40	.22	--	.027**
2. sex	-.13*	-.48	.21	.023*	.049**
3. Juror Bias Scale total score	.00	.00	.02	.022*	.071**
4. ATCC: Coercive Interrogation	.31**	.58	.12	.095**	.166**
5. ATCC: Coerced Confession	-.14*	-.26	.10	.017*	.183**

Note. Final model statistics are those from the model with all five predictors entered. Improvement statistics indicate statistical significance for the predictor when it was first added to the previous model in the hierarchy, and the change in overall model performance as a result of adding that predictor. AG = Anthony Gray case. CO = Christopher Ochoa case. N = 263. *p < .05. **p < .01.

scores were the strongest predictors in each of the four final models. Pressured Confession scores were significant predictors in three of the four final models. JBS scores were significant predictors of all case opinions when they were first entered into the regression equations (model three), but failed to reach significance in the final models. This pattern of findings suggests that although general pro-prosecution attitudes were predictive of opinions in two confession cases, the confession specific attitude measures accounted for and added to this predictive effect.

Juror sex was a significant predictor in three of the four final regression models, with women being less likely than men to view the defendants as guilty and less likely to see threatening the defendant with a capital charge as fair. Race was not a significant predictor of case opinions in any of the final regression models.

GENERAL DISCUSSION

Although the CAS performed poorly, the ATCC showed potential as a brief measure of attitudes concerning coerced-compliant confessions. Both ATCC subscales showed acceptable levels of internal consistency and promising support for construct validity. The ATCC subscales made unique contributions to jury pool members' perceptions of law enforcement tactics and defendant guilt in two coerced-compliant confession cases. Jury pool members who tended to support coercive interrogation practices were likely to view both defendants as guilty and to see potentially coercive law enforcement tactics (lies, offer of leniency) as fair. In contrast, jury pool members who tended to believe that defendants could be pressured into falsely confessing were not likely to see the defendants as guilty, nor were they likely to see coercive law enforcement tactics as fair. Although both ATCC subscales correlated with pro-prosecution attitudes (JBS), ATCC measures were stronger unique predictors of all case decisions than pro-prosecution attitudes.

These promising findings are clearly in need of cross-validation research support. We used only very brief written descriptions of confessions in two criminal cases to examine the association between ATCC scores and case decisions. Research using more realistic trial materials, such as videotaped interrogations, is needed. Although the ATCC outperformed the JBS in predicting jurors' decisions, this does not necessarily mean that it would outperform other individual difference measures, including those of related legal attitudes (e.g., legal authoritarianism) or general individual difference measures (e.g., attributional style; see Lassiter et al., 2005).

If future research continues to support the ATCC as a predictor of perceptions of suspect guilt, this would not necessarily mean that ATCC scores should be predictive of making accurate decisions about when a confession is true or false. Indeed, existing research suggests that laypersons and law enforcement officers are generally poor at differentiating between true and false confessions (Kassin, Meissner, & Norwick; 2005). Even those who are open-minded about the possibility of false confessions will likely be poor at identifying false confessions; however, it is possible that those who refuse to believe that innocent people can be coerced into confessing (low ATCC Coerced Confession scores) would be especially inaccurate because they would see nearly all confessions as true. Indeed, Kassin et al. (2005) found that police investigators tend to make false-positive errors when judging confession evidence, seeing honest confessions as deceitful. As a group, police investigators would likely obtain low ATCC Coerced Confession scores.

Future research is also needed to examine the properties of the ATCC in geographically diverse samples of jurors. We conducted all three of our studies in one county, in a southern U.S. state. Nevertheless, the use of jury pool members as participants is a clear strength of the ATCC development studies described in this report. The use of jury pool members should help to encourage robust psychometric properties in new samples of jury pool members. The two existing attitude measures examined in our series of studies (CAS and JBS) were not developed using jury pool samples, which may be one reason why they had relatively poor psychometric properties in our studies. For example, both the JBS and CAS had multiple items with negative item-total correlations in our jury pool samples, which contributed to their poor levels of internal consistency. Many of these items were reverse-scored items. The original ATCC contained several reverse scored items, but these also performed poorly and were not included on the final subscales. Although reverse-scored items may work well in samples of undergraduate students (e.g., Kassin & Wrightsman, 1983),[2] researchers have found that the psychometric properties of reverse-scored items can vary due to factors such as verbal ability, geographic region, and race (Bachman & O'Malley, 1984; Marsh, 1996). Findings from the current study suggest that reverse-scored items may be problematic in jury pool samples comprised of people from ethnically diverse backgrounds and with varying degrees of education. Indeed, fewer than half of the participants in Study 3 reported having a college degree, and approximately 20% had only a high school education.

Test developers use reverse-scored items because people have a tendency to agree rather than disagree with survey statements regardless of their content (Barnette, 2000; Cronbach, 1950; McPherson & Mohr, 2005). Thus, scores on measures with no reverse-scored items may be inflated due to this "acquiescence" response set. Including reverse-scored items can help to ensure that respondents are attending to item content, as opposed to just agreeing with all statements. Nevertheless, use of these types of items can reduce internal consistency (see Barnette, 2000) and lead to factor analysis results with positively and negatively worded reverse-scored items loading onto different factors (see McPherson & Mohr, 2005; Spector, Van Katwyck, Brannick, & Chen, 1997). These findings have led some researchers to suggest that negatively scored items should not be used on survey measures (Barnette, 2000; Schriesheim & Eisenbach, 1995). Even methodologists who do not completely agree with this conclusion acknowledge that including reverse-scored items on a measure can lead to poor psychometric properties and problems with score interpretation (McPherson & Mohr, 2005). Although correlations in the current study may be inflated due to method variance (i.e., all self-report questions; Tepper & Tepper, 1993), the negative correlation between ATCC scores suggests that acquiescence was not the primary reason for these effects. If participants had generally agreed with all questions on the ATCC, then the two subscales would have been positively correlated.

Jurors' perceptions of confessions and defendants who confess are likely influenced by many factors, only one of which may be attitudes about coerced-confessions. For example, research has shown that some potential jurors can recognize coercive interrogation tactics, but that this recognition does not translate into recognizing false confessions (Kassin & Sukel,

2. Kassin and Wrightsman (1983) reported findings from three studies in their article describing the development of the JBS, two with undergraduates and one with community volunteers from jury lists. However, only 85 of 250 people who were contacted agreed to participate, and the researchers only reported item performance and reliability findings for undergraduates.

1997; Kassin & Wrightsman, 1980; 1981). Other recent research has shown that observers' perceptions of videotaped confessions are influenced by the camera angle used to record the confession (see Lassiter & Geers, 2004, for a review) and that this effect is not moderated by individual difference measures (Lassiter et al., 2005). The two ATCC subscales described in this report represent an attempt to add a brief coerced-confession attitude measure to this list of possible predictors. We hope that future research will examine the utility of the ATCC in studies with more realistic stimulus materials (e.g., videotaped interrogations and confessions) and experimental manipulations of potentially coercive interrogation practices.

REFERENCES

Bachman, J. G., & O'Malley, P. M. (1984). Yea-saying, nay-saying, and going to extremes: Black-White differences in response styles. *Public Opinion Quarterly, 48*, 491-509.

Barnette, J. J. (2000). Effects of stem and Likert response option reversals on survey internal consistency: If you feel the need, there is a better alternative to using those negatively worded stems. *Educational and Psychological Measurement, 60*, 361-370.

Chapdelaine, A., & Griffin, S. F. (1997). Beliefs of guilt and recommended sentence as a function of juror bias in the O. J. Simpson trial. *Journal of Social Issues, 53*, 477-485.

Cronbach, L. J. (1950). Further evidence on response sets and test design. *Educational and Psychological Measurement, 10*, 3-31.

Cutler, B. L., Moran, G., & Narby, D. J. (1992). Jury selection in insanity defense cases. *Journal of Research in Personality, 26*, 165-182.

Devine, D. J., Clayton, L. D., Dunford, B. B., Seying, R., & Pryce, J. (2001). Jury decision making: 45 years of empirical research on deliberating groups. *Psychology, Public Policy, and Law, 7*, 622-727.

Dexter, H. R., Cutler, B. L., & Moran, G. (1992). A test of voir dire as a remedy for the prejudicial effects of pretrial publicity. *Journal of Applied Social Psychology, 22*, 819-832.

Drizin, S. A., & Leo, R. A. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review, 82*, 891-1007.

Greene, E., Chopra, S. R., Kovera, M. B., Penrod, S. D., Rose, V. G., Schuller, R. et al. (2002). Jurors and juries: A review of the field. In J. R. P. Ogloff (Ed.), *Taking psychology and law into the twenty-first century* (pp. 225-284). New York: Kluwer.

Innocence Project. Retrieved on January 14, 2009, from www.innocenceproject.org/

Kassin, S. M. (1997). Psychology of confession evidence. *American Psychologist, 52*, 221-233.

Kassin, S. M. (2005). On the psychology of confessions: Does innocence put innocents at risk? *American Psychologist, 60*, 215-228.

Kassin, S. M., & Garfield, S. M. (1991). Blood and guts: General and trial-specific effects of videotaped crime scenes on mock jurors. *Journal of Applied Social Psychology, 21*, 1459-1472.

Kassin, S. M., & Gudjonsson, G. H. (2004). The psychology of confessions: A review of the literature and issues. *Psychological Science in the Public Interest, 5*, 33-67.

Kassin, S. M., Meissner, C. A., & Norwick, R. J. (2005). "I'd know a false confession if I was one": A comparative study of college students and police investigators. *Law and Human Behavior, 29*, 211-227.

Kassin, S. M., & Neumann, K. (1997). On the power of confession evidence: An experimental test of the fundamental difference hypothesis. *Law and Human Behavior, 21*, 469-484.

Kassin, S. M., & Sukel, H. (1997). Coerced confessions and the jury: An experimental test of the "harmless error" rule. *Law and Human Behavior, 21*, 27-46.

Kassin, S. M., & Wrightsman, L. S. (1980). Prior confessions and mock-juror verdicts. *Journal of Applied Social Psychology, 10*, 133-146.

Kassin, S. M., & Wrightsman, L. S. (1981). Coerced confessions, judicial instruction, and mock juror verdicts. *Journal of Applied Social Psychology, 11*, 489-506.

Kassin, S. M., & Wrightsman, L. S. (1983). The construction and validation of a juror bias scale. *Journal of Research in Personality, 17*, 423-442.

Kassin, S. M., & Wrightsman, L. S. (1985). Confession evidence. In S. M. Kassin & L. S. Wrightsman (Eds.), *The psychology of evidence and trial procedure* (pp. 67-94). Beverly Hills, CA: Sage.

Lassiter, G. D., & Geers, A. L. (2004). Bias and accuracy in the evaluation of confession evidence. In G. D. Lassiter (Ed.), *Interrogations, confessions, and entrapment* (pp. 197-214). New York: Kluwer.

Lassiter, G. D., Munhall, P. J., Berger, I. P., Weiland, P. E., Handley, I. M., & Geers, A. L. (2005). Attributional complexity and the camera perspective bias in videotaped confessions. *Basic and Applied Social Psychology, 27*, 27-35.

Lassiter, G. D., Slaw, R. D., Briggs, M. A., & Scanlan, C. R. (1992). The potential for bias in videotaped confessions. *Journal of Applied Social Psychology, 22*, 1838-1851.

Lecci, L., & Myers, B. (2002). Examining the construct validity of the original and revised JBS: A cross-validation of sample and method. *Law and Human Behavior, 26*, 455-463.

Leo, R. L., & Ofshe, R. J. (1998). The consequences of false confessions: Deprivations of liberty and miscarriages of justice in the age of psychological interrogation. *Journal of Criminal Law and Criminology, 88*, 429-496.

Marsh, H. W. (1996). Positive and negative global self-esteem: A substantively meaningful distinction or artifactors? *Journal of Personality and Social Psychology, 70*, 810-819.

McPherson, J., & Mohr, P. (2005). The role of item extremity in the emergence of keying-related factors: An exploration with the life orientation test. *Psychological Methods, 10*, 120-131.

Myers, B., & Lecci, L. (1998). Revising the factor structure of the Juror Bias Scale: A method for the empirical validation of theoretical constructs. *Law and Human Behavior, 22*, 239-256.

Nietzel, M. T., McCarthy, D. M., & Kern, M. J. (1999). Juries: The current state of the empirical literature. In R. Roesch, S. D. Hart & J. R. P. Ogloff (Eds.), *Psychology and law: The state of the discipline* (pp. 23-52). New York: Kluwer.

Robbennolt, J. K., Groscup, J. L., & Penrod, S. (2006). Evaluating and assisting jury competence in civil cases. In I. B. Weiner & A. K. Hess (Eds.), *The handbook of forensic psychology* (3rd ed., pp. 392-425). Hoboken, NJ: Wiley.

Schriesheim, C. A., & Eisenbach, R. J. (1995). An exploratory and confirmatory factor-analytic investigation of item wording effects on the obtained factor structures of survey questionnaire measures. *Journal of Management, 21*, 1177-1193.

Spector, P. E., Van Katwyck, P. T., Brannick, M. T., & Chen, P. Y. (1997). When two factors don't reflect two constructs: How item characteristics can produce artificial factors. *Journal of Management, 23*, 659-677.

Tang, C. M., & Nunez, N. (2003). Effects of defendant age and juror bias on judgment of culpability: What happens when a juvenile is tried as an adult. *American Journal of Criminal Justice, 28*, 37-52.

Tepper, B. J., & Tepper, K. (1993). The effects of method variance within measures. *The Journal of Psychology, 127*, 293-302.

Warden, R. (2003). The role of false confessions in Illinois wrongful murder convictions since 1970. Retrieved September 1, 2007, from www.law.northwestern.edu/depts/clinic/wrongful/FalseConfessions2.htm

Watson, P. J., Ross, D. F., & Morris, R. J. (2003). Borderline personality traits correlate with death penalty decisions. *Personality and Individual Differences, 35*, 421-429.

Weir, L. S., & Wrightsman, L. S. (1990). The determinants of mock jurors' verdicts in a rape case. *Journal of Applied Social Psychology, 20*, 901-919.

Wrightsman, L. S., Batson, A. L., & Edkins, V. A. (2004) *Measures of legal attitudes*. Belmont, CA: Wadsworth.

Wrightsman, L. S., & Engelbrecht, S. (2004). Attitudes toward confessions. In L. S. Wrightsman, A. L. Batson, & V. A. Edkins (Eds.,). Measures of legal attitudes (pp. 57-60). Belmont, CA: Wadsworth.

BIOGRAPHICAL SKETCHES

John W Clark, Ph.D., is an assistant professor of Criminal Justice at University of Texas at Tyler. He received his Ph.D from the University of Alabama in 2002 and has authored or co-authored two books and more than 20 articles in the area of psychology and the law.

Marcus T. Boccaccini, Ph.D., is an associate professor of psychology at Sam Houston State University. He received his Ph.D. from the University of Alabama in 2003 and has authored or co-authored more than 60 peer-reviewed articles in the area of psychology and the law.

Darrel B. Turner, M.A., is a doctoral candidate in the Clinical Psychology Ph.D. program at Sam Houston State University. He maintains an active research program examining jurors' perceptions of expert testimony in sexually violent predator trials and the validity of test scores that experts report in these cases.

An Exploratory Analysis of Guns and Violent Crime in a Cross-National Sample of Cities

Irshad Altheimer
Wayne State University

Abstract

This study examines the relationship between gun availability and crime in a cross-national sample of cities. Data from the International Crime Victimization Survey are used to examine three competing hypotheses. The results of the limited information maximum least squares regression analyses suggest that gun availability influences rates of assault, gun assault, robbery, and gun robbery. These findings suggest that increasing city levels of gun availability in this cross-national sample of cities increases the likelihood that violent crimes are committed and that guns are involved in these crimes. Importantly, these findings do not suggest that increasing gun availability reduces crime.

Key Words: gun availability, assault, robbery, homicide, crime reduction

INTRODUCTION

The relationship between guns and violent crime is an intensely debated topic. Competing theoretical claims have emerged that view guns as a cause of violent crime, a mechanism to reduce violent crime, or totally unrelated to violent crime. Myriad criminological studies have been published over the years concerning this relationship, but no clear consensus has emerged. For example, some studies have found a significant relationship between gun availability and homicide (Cook & Ludwig, 2006; Hoskin, 2001; Kleck, 1979; McDowall, 1991) while others have not (Kleck, 1984; Kleck & Patterson, 1993; Magaddino & Medoff, 1984). Additionally, at least one controversial study has found that increasing gun availability will reduce crime (Lott, 2000), but this study has come under considerable scrutiny, and its results have been challenged (Ludwig, 1998; Maltz & Targoniski, 2002; Martin & Legault, 2005; Rubin & Dezhbakhsh, 2003; Zimring & Hawkins, 1997). As such, the debate about the relationship between guns and crime at the macro level rages on.

A body of cross-national research has emerged that attempts to inform the debate about the relationship between gun availability and violent crime. Most of this research has found a significant association between gun availability and violence (Hemenway & Miller, 2000; Hoskin, 2001; Killias, 1993; Killias, van Kesteren, & Rindlisbacher, 2001; Krug, Powell, & Dahlberg,

Altheimer—An Exploratory Analysis of Guns and Violent Crime in a Cross-National Sample of Cities. (2010) *Southwest Journal of Criminal Justice*, Vol. 6(3). pp. 204–227.
© 2010 Southwestern Association of Criminal Justice

1998; Lester, 1991). Although findings from these studies have increased knowledge on this topic, our understanding of it is incomplete because many questions about the relationship between guns and violent crime at the cross-national level have gone unanswered. For instance, virtually all of the existing cross-national studies on this topic have examined homicide as the dependent variable. As such, little is known about how gun availability and violent crime operate in a cross-national context when crimes besides homicide are considered. Additionally, most studies have examined data from Western Developed nations and examined the nation state as the unit of analysis. This has limited what is known about the nature of the gun/crime relationship when levels of analysis besides the nation are explored and when data from nations besides Western Developed nations are examined. Further, only one existing cross-national study has accounted for potential simultaneity between gun availability and crime (Hoskin, 2001), thereby begging the question of whether significant associations between gun availability and crime indicate that gun availability affects crime or vice versa?

There are both theoretical and empirical justifications for addressing the questions raised above. First, theorists on both sides of the gun/crime debate have argued that gun availability can influence crimes other than homicide. For example, Lott (2000) has suggested that increasing gun availability can reduce overall levels of crime by enabling potential victims to deter or disrupt the actions of potential aggressors. Second, there is a small body of empirical research that has shown that gun availability is associated with crimes other than homicide. For instance, Cook (1979) found that gun availability was highly correlated with gun robbery in a sample of American cities. Third, there is evidence that some predictors of crime operate differently to influence crime at different levels of analysis (Land, McCall, & Cohen, 1990). All of the previous cross-national research on gun availability and violent crime has examined nation-level data. Thus, it is plausible that the significant association between gun availability and violent crime that has been found at the nation level does not hold at the city level. Finally, there is some evidence that the effects of some macro-predictors on crime vary across different types of societies. For example, Rosenfeld and Messner (1991) found that the effect of economic inequality on homicide is not generalizable across different types of societies. Economic inequality, one of the most powerful predictors of homicide in Western Developed nations, was not found to influence homicide in a sample of small, non-industrial societies. Existing research that has examined the relationship between gun availability and crime using cities as the level of analysis primarily has focused on the United States (Fischer, 1969; Kleck & Patterson, 1993; McDowall, 1991). It is plausible that the findings from these studies are not generalizable to different social settings.

Taken together, these points suggest that research that explores the association between guns and crime at a level of analysis that has not previously been explored, for types of crime that have not yet been examined, and using data that have not previously been considered is warranted. Towards that end, the objective of this paper is to explore the association between gun availability—as measured by household gun ownership levels—and assault, gun assault, robbery, and gun robbery in a cross-national sample of thirty-nine cities primarily located in nations in transition and developing nations. Using data from the International Crime Victimization Survey (ICVS), this study employs limited information maximum least squares regression analysis to test three competing hypotheses that account for the relationship between gun availability and rates of crime.

THEORY

No dominant theoretical perspective exists that explains the relationship between gun ownership and crime. The basis for such a perspective, however, has been proposed by Kleck and McElrath (1991) who suggest that weapons are a source of power used instrumentally to achieve goals by inducing compliance with the user's demands. The goals of a potential gun user are numerous and could include money, sexual gratification, respect, attention, or domination. Notably, most of these goals can be achieved by brandishing a gun but not necessarily discharging one. Unlike most criminological research, which assumes that the possession of weapons is inherently violence enhancing (i.e., Zimring, 1968; 1972), Kleck (1997) suggests that guns can confer power to both a potential aggressor and a potential victim seeking to resist aggression. When viewed in this manner, several hypotheses can be derived concerning the relationship between gun availability and crime. This first is that increasing gun availability increases total rates of crime and rates of gun crime. The second is that increasing gun availability reduces crime rates. A third hypothesis is that gun availability and crime are unrelated.

Hypothesis 1: Increasing Gun Availability Increases Crime.

Theoretical perspectives have emerged that suggest that gun availability increases both total crime rates and gun crime rates. The facilitation and triggering hypotheses focus primarily on the effects of gun availability on total crime rates, while the instrumentality hypothesis focuses primarily on the substitution of guns for other weapons during the commission of a crime and the implications that this has for gun crime rates.

The *facilitation* hypothesis suggests that increasing gun availability can increase total rates of assault and robbery when the availability of a gun provides encouragement to someone considering an attack or to someone who normally would not commit an attack. This encouragement is derived from the fact that the possession of a gun can enhance the power of a potential aggressor, thereby ensuring compliance from a victim, increasing the chances that the crime will be successfully completed, and reducing the likelihood that an actual physical attack (as opposed to a threat) will be necessary. This is particularly important in situations when the aggressor is smaller or weaker than the victim. In such cases, the aggressor's possession of a gun can neutralize the size and strength advantage of an opponent (Cook, 1982; Felson, 1996; Kleck, 1997). Guns can also facilitate crime by emboldening an aggressor who would normally avoid coming into close contact with a victim or using a knife or blunt object to stab or bludgeon someone to death. An additional way that guns can increase crime is by *triggering* aggression of a potential offender. This "weapons effect" is said to occur because angry people are likely to associate guns with aggressive behavior (Berkowitz & Lepage, 1967). Similarly, it has been suggested that the presence of a gun is likely to intensify negative emotions such as anger (Berkowitz, 1983).

When applied to the macro-level, the facilitation and triggering hypotheses suggest a positive association between gun availability and both the gun violence rates and total violence rates. Gun availability would be expected to have a positive association with gun assault and gun robbery because greater access to guns would lead more citizens of a respective city to believe that a crime can be successfully facilitated if a gun is used. Additionally, gun availability is expected to be positively associated with overall levels of assault and robbery because the availability of guns will trigger aggression among citizens of a respective city and encourage individuals who normally would not commit a crime to do so.

The weapon instrumentality hypothesis suggests that gun availability can increase the likelihood that gun crimes are committed. This occurs when increasing gun availability increases the likelihood that an aggressor substitutes a gun for another weapon or no weapon at all during the commission of a crime. The end result is the intensification of violence (Cook, 1991; Zimring & Hawkins, 1997). The basic premise of the weapon instrumentality perspective is that the use of a gun during the commission of an assault or robbery (1) increases the likelihood of death or serious injury; (2) provides aggressors with the opportunity to inflict injury at long distances; and (3) makes it easier to assault multiple victims than the use of other weapons that are commonly used to commit violent crime (i.e., knife or bat).

When applied to the macro-level, the weapon instrumentality hypothesis suggests that gun availability will be positively associated with gun violence. Increasing gun availability levels in a city will lead more city residents to substitute guns for other weapons during the commission of aggressive acts. In such situations, these crimes may be more likely to lead to death or violent injury. Notably, the weapon instrumentality hypothesis does not suggest that increasing gun availability increases total rates of assault and robbery. From this perspective, the substitution of a gun for another weapon does not necessarily increase the likelihood that an assault or robbery will be committed (although it may increase the likelihood that a homicide is committed), but it does increase the chances that the crimes that are committed involve guns.

Hypothesis 2: Increasing Gun Availability Reduces Crime

Another perspective on this issue suggests that the availability of guns actually can reduce levels of crime (Cook, 1991; Kleck, 1997; Lott, 2000; Lott & Mustard, 1997). From this perspective, increased levels of gun availability empower the general public to disrupt or deter criminal aggression (Cook, 1991; Kleck, 1997). Kleck (1997) suggests that gun availability can disrupt criminal aggression in two ways. First, an armed victim can prevent the completion of a crime by neutralizing the power of an armed aggressor or by shifting the balance of power in favor of the victim when confronted by an unarmed aggressor (Kleck, 1997; Kleck & Delone, 1993; Tark & Kleck, 2004). Second, an armed victim can use a weapon to resist offender aggression and avoid injury (Kleck, 1997).

Increased levels of gun availability may also reduce crime by deterring potential aggressors (Kleck, 1997; Wright & Rossi, 1986). Aggressors may refrain from committing crime due to fear of violent retaliation from victims. This deterrence can be both specific and general. For instance, a criminal may refrain from committing future attacks because they were confronted with an armed victim during a previous experience. Alternatively, an aggressor may refrain from committing a criminal act if they believe that a large proportion of the pool of potential victims is armed (Rengert & Wasilchick, 1985). When applied to the macro-level, this perspective suggests that gun availability should be negatively associated with both gun crime and crime. This is because in cities where residents have greater access to guns, potential victims will be better able to deter or disrupt the acts of criminal aggressors.

Hypothesis 3: Increasing Gun Availability does not Influence Crime

The third perspective discussed here suggests that gun availability has no overall effect on levels of crime (Kleck, 1997). The absence of an effect can be the result of two things. First, gun availability simply may not influence crime. From this perspective, the use of a gun simply may reflect an aggressor's greater motivation to seriously harm a victim (Wolfgang, 1958). If

true, lack of access to a gun will simply cause an aggressor to substitute another weapon to achieve a desired outcome. Second, an effect between gun availability and crime may not be detected because defensive gun use may offset the effects of guns being used for criminal aggression (Kleck, 1997). That is, any relationship might be cancelled out by offsetting or opposite effects. When applied to the macro-level, this perspective suggests that changes in the gun availability of a respective city will not influence or be associated with crime in that city.

PREVIOUS RESEARCH

A body of research has emerged regarding the relationship between gun availability and crime. Overall, the results of this research have been somewhat mixed (Kleck, 1997). Some studies have found support for the proposition that increasing gun availability increases crime, while others have not. Further, the manner in which guns influence crime seems to vary by the type of crime (e.g., violent crime, property crime, homicide, gun homicide).

Although scholars continue to disagree about the nature of the gun-crime relationship, there is at least some evidence that the use of guns intensifies violence; thereby suggesting a weapon instrumentality effect. For instance, several studies have found a significant positive relationship between levels of gun availability and rates of homicide (Brearley, 1932; Brill, 1977; Cook & Ludwig, 2006; Duggan, 2001; Fischer, 1969; Hoskin, 2001; Kleck, 1979; Lester, 1988; McDowall, 1991; Phillips, Votey, & Howell, 1976). To the extent that these homicides represented assaults and/or robberies where the initial intention of the aggressor was somewhat ambiguous, and an escalation in the conflict resulted in the killing of the victim, the presence of a gun during this altercation likely increased the probability of the victim's death.

The degree to which the findings from these studies reveal an instrumentality effect, however, has been challenged for several reasons. First, some of these studies failed to account for possible simultaneity between gun availability and homicide (Kleck, 1997), and the research that accounts for potential simultaneity effects has yielded mixed results. For example, four of these studies have found a significant relationship between gun availability and homicide (Cook & Ludwig, 2006; Hoskin, 2001; Kleck, 1979; McDowall, 1991) and three others have not (Kleck, 1984; Kleck & Patterson, 1993; Magaddino & Medoff, 1984). Additionally, some have argued that a statistically significant relationship between gun availability and homicide is not evidence of a weapon instrumentality effect, but instead a reflection of the greater motivation of people within certain macro-units to kill or seriously injure others (Wolfgang, 1958). Thus, some of the research examining the relationship between gun availability and homicide rates at the macro-level has suggested a weapon instrumentality effect, but these results have been challenged by alternative interpretations of the findings and conflicting results from other research.

Support for a weapon instrumentality effect also has been found in research that examines the relationship between offender possession of a weapon and the likelihood that a victim is killed during the commission of a crime (Cook, 1987; Kleck, 1991; Wells & Horney, 2002; Zimring, 1968; 1972). Zimring (1968), for example, compared the probability of homicide in assaults that involved guns to the probability of homicides in assaults that involved knives. This research indicated that "the rate of knife deaths per 100 reported knife attacks was less than 1/5 the rate of gun deaths per 100 reported gun attacks" (p. 728). Noting that 70% of all gun killings in Chicago involved single gunshot wounds to victims, Zimring (1968) interpreted

the results of this study to suggest that most homicides were ambiguously motivated assaults that resulted in a lethal outcome due to presence of a gun. Cook (1987) examined similar causal processes but focused on robberies rather than assaults. Cook found that murder robbery rates were more sensitive to variations in gun robbery rates than non-gun robbery rates. This led him to conclude that many homicides were an intrinsic by-product of robbery, where the initial intention of the aggressor was not to kill the victim, but the escalation of the conflict and the presence of a gun led to a lethal outcome.

More recently, research examining the relationship between gun possession and the outcome of a crime has been extended to also account for the probability of attack and injury. For example, Kleck and McElrath (1991) found that crimes committed with guns are less likely to result in attack or injury than crimes committed without a weapon or a weapon besides a gun, but more likely to result in death or serious injury if an attack occurred. The findings from Kleck and McElrath (1991) were substantiated by a recent study by Wells and Horney (2002), who also found that weapon instrumentality effects remained significant even after controlling for the intentions of the aggressor (see also Phillips & Maume, 2007).

Research examining weapon facilitation effects has not received much support in the research literature. A small number of experimental studies has found support for the proposition that the presence of guns elicits violent aggression (Berkowitz & Lepage, 1967; Leyens & Parke, 1975; Page & O'Neal, 1977). The results of these studies, however, have come under scrutiny. Several other studies have found no weapon's effect (Buss, Booker, & Buss, 1972; Ellis, Weinir, & Miller III, 1971; Page & Scheidt, 1971). Additionally, at least two other studies have found that the presence of a gun may inhibit, rather than facilitate, aggressive behavior (Fraczek & Macauley, 1971; Turner, Layton, & Simons, 1975). There is also some doubt about the generalizability of the findings from these experiments to real world settings. Some observers have suggested that the support for the weapon facilitation hypothesis seems to decline with increasing levels of realism in the experiment (Kleck & McElrath, 1991).

Additional evidence of lack of support for weapon facilitation effects can be found in macro-level studies that examine the relationship between gun availability and rates of violent crime. When applied to the macro-level, the weapon facilitation hypothesis suggests that macro-units with higher levels of gun availability will have higher overall rates of total violent crime (as opposed to gun crime). This proposition has not been supported in literature (Cook & Moore, 1999). Research has found that gun availability does not influence overall rates of violent crime (Kleck & Patterson, 1993).

At least two studies have found evidence to support the claim that increasing gun availability decreases crime (Lott, 2000; Lott & Mustard, 1997). These findings held under multiple model specifications, but increasingly have come under attack due to concerns about methodological weaknesses (Ludwig, 1998; Maltz & Targoniski, 2002; Martin & Legault, 2005; Rubin & Dezhbakhsh, 2003; Zimring & Hawkins, 1997). For example, two studies have taken issue with the use of state- and county-level UCR cross-sectional time series data in Lott's (2000) analysis (Maltz & Targoniski, 2002; Martin & Legault, 2005). Another study (Rubin & Dezhbakhsh, 2003) has argued that Lott's (2000) use of dummy variables to model the effects of concealed weapons permit laws was inappropriate and led to model misspecification. Finally, at least one study found that the manner in which gun availability influenced crime

was contingent upon whether gun possession was legal or illegal. Stolzenberg and D'Alessio (2000) found the illegal possession of firearms increased violent crime but legal possession of firearms had no such effect.

Cross-national research examining the relationship between gun availability and crime has been small in number but has found a significant association between gun availability and homicide (Hemenway & Miller, 2000; Hoskin, 2001; Killias, 1993; Killias et al., 2001; Krug et al., 1998; Lester, 1991). For example, Killias (1993) found a positive correlation between gun availability and national homicide rates. Of course, the primary limitation of the work of Killias and others who have used correlation coefficients to examine the relationship between gun availability and homicide is that these studies can say nothing about causal order. Therefore, a positive correlation between gun availability and homicide can be interpreted as evidence of gun availability influencing homicide, homicide influencing gun availability, or both. Hoskin (2001) accounted for potential simultaneity between gun availability and homicide by using two-stage least squares regression to examine this relationship in 36 nations. Hoskin (2001) found that gun availability influenced homicide rates at the cross-national level.

Taken together, the existing research on the relationship between guns and crime lends support to the weapon instrumentality hypothesis and to the proposition that increases in crime increase levels of gun availability. Much of this research, however, has been performed in the United States. Cross-national studies that have examined the relationship between gun availability and crime have been small in number, and the results of the studies have not been definitive. Two issues in particular have not been addressed in previous cross-national research. First, no previous cross-national study has examined whether gun availability influences crimes other than homicide. Second, the relationship between gun availability and crime victimization has not been explored when using data from cities in a cross-national sample. These issues will be addressed in this study.

METHOD

Data

Data for this study are drawn from the 1996 and 2000 waves of the International Crime Victimization Survey (ICVS).[1] This survey is administered by the United Nations Interregional Crime and Justice Institute. Originally designed to provide an alternative to official police counts of crime, the ICVS is currently the most far reaching source of comparable crime victimization data in different nations. For each wave, the ICVS provides nation-level data for developed nations and data for the largest city of nations in transition and developing nations.

This study uses only ICVS city-level data that is predominately from nations in transition and developing nations for three reasons. First, no study to date has examined the relationship between gun availability and crime in a cross-national sample of cities. Second, due to the differences in sample design, ICVS city-level data can not be used to estimate crime rates for the

1. To maximize the number of level 2 units, city level data from the 1996 and 2000 waves were pooled. The ICVS is different from more traditional longitudinal designs in that every new wave includes cities that had not previously participated in the survey. In the few cases where data were available for cities in both waves, data from the 2000 wave were taken.

nation in which each respective city belongs. As such, ICVS city-level data and ICVS nation-level data are not comparable, and analyses of ICVS data are limited to examining city- and nation-level data separately. Third, more observations are available using the city-level data from developing nations and nations in transition rather than the nation-level data from developed nations.

ICVS city-level data were collected using face-to-face interviews.[2] Interviews were translated to the local language by experts from the host country familiar with criminology, survey methodology, the local language, and English, Spanish, or French (original interviews were created in these three languages). Nations were asked to collect between 1,000 and 1,500 interviews. Most countries depended on an ad hoc (sometimes consisting of senior level students) group of interviewers for collection of data.

Sampling for the face-to-face interviews was generally hierarchical. It began with identifying administrative areas within the city, followed by a step-by-step procedure aimed at identifying areas, streets, blocks, and households. Thus, these data are expected to provide a reasonably representative city sample. A randomly chosen member of each household, above the age of 16, was interviewed and asked about his/her experiences with crime victimization. When deemed necessary, efforts were made to match interviewers and respondents in a manner deemed culturally appropriate for that specific locale.

Although they represent the best available, there are limitations to these data. For instance, despite the fact that efforts were made to standardize sampling and ensure generalizability, it is possible that certain subpopulations within each city were more likely to be interviewed than others, thereby calling into question the generalizability of the results from research using ICVS data. In fact, the United Nations Interregional Crime and Justice Institute only provides a vague description of the data collection techniques. This leads to questions about the veracity of the sampling methods. In addition, the fact that the interviews were face to face may have decreased the willingness of some respondents to admit that they owned a gun. This may be especially true in light of the fact that the United Nations Interregional Crime and Justice Institute has been a vocal advocate of international gun control. Under such circumstances, it is possible that the elite of each city were more likely to freely admit gun ownership than members of other groups. These issues may have biased the gun availability measure used here. Further, estimates of the reliability of this data are not yet available. This raises questions about the generalizability of these data. Despite these limitations, victimization surveys such as the ICVS provide the best chance for uniform and comparable crime data at the cross-national level (Bennett & Lynch, 1990). In all, the data used in this study consist of 45,913 individuals nested in 39 cities.[3] A list of the cities is provided in the Appendix.

2. Data for Ljubljana, Slovenia were collected using CATI.

3. Response rate information for data from developing nations collected in the 2000 wave are not available. According to the United Nations Interregional Crime and Justice Institute, systematic analysis of data collected in 1996 suggests that the response rates were very high. In 1996, the average response rate in African, Asian, and Latin American countries was 95%, while the average response rate in Central and Eastern European countries was 81.3%. It is not known if outside researchers have verified these response rates.

Measures

Endogenous variables.

Five endogenous variables were used in the analysis performed here: assault, gun assault, robbery, gun robbery, and gun availability. Assault was measured by asking respondents if they had been personally attacked or threatened by someone in a way that really frightened them, either at home (not including domestic violence) or elsewhere, such as in a pub, in the street, at school, on public transport, on the beach, or at their workplace during this year or the last year? Gun assault was measured by asking all respondents who had reported being the victim of an assault if a gun was present during the commission of the crime. Robbery was measured by asking the respondents if anyone had taken something from them, by using force, or threatening them, in this year or the last year? Gun robbery was measured by asking respondents who had reported being victims of a robbery if a gun was used during the commission of the crime. The four crime variables were operationalized by dividing the number of individuals in each city who reported being the victim of each of these crimes during this year or the previous year by the total number of respondents in the city and multiplying that number by 100,000. An analysis of the distribution of these variables reveals that each was skewed. As such, these variables were transformed. The natural log of assault and robbery and the base log of gun assault and gun robbery were used in this analysis.

Gun availability was operationalized as the percentage of respondents in each city who reported owning a firearm. This measure was created by aggregating the number of individuals in each city who reported owning a firearm and dividing this number by the total number of respondents for each city. An analysis of the distribution of this variable revealed that it was skewed. To control for this, the natural log of gun availability was used in the analyses performed here. The use of aggregated survey measures of gun ownership such as this one is common in research examining the relationship between firearms and crime. A recent study by Kleck (2004) found that aggregated survey measures of gun ownership provide a relatively reliable indicator of gun availability for macro-level aggregates. Despite this fact, this measure has some limitations. First, this measure only taps one of the three dimensions of gun availability. This measure does not assess gun law regulations or informal transfer of gun ownership. It is assumed here that a high level of gun ownership indicates high levels of overall gun availability in each respective city. Another limitation of this measure is that, for some cities, the number of gun owners was quite small. This could be due to some respondents being reluctant to report that they owned a gun. If this is so, it would underestimate any association between gun availability and crime. A third limitation is that this measure of gun availability may be biased if only the wealthiest residents of these cities were most likely to be interviewed. Fourth, this measure of gun availability does not distinguish between types of firearms. This is problematic because the type of gun counted in the gun availability measure may not be the type of gun commonly used in criminal activity. Thus, it is possible that measurement error is a problem with this indicator of gun availability.

Overall, gun ownership across the sample of cities was relatively modest. On average, 9.3% of respondents in each city reported owning a gun. There was, however, some interesting variability. For instance, only about 1.5% of residents in Seoul, Korea reported owning guns. On the other hand, 18.3% of residents in Johannesburg, South Africa, and 29.3% of residents of Asuncion, Paraguay, reported owning guns. Importantly, because we are unable to distinguish

between gun types, it is impossible to determine if the guns measured here represent guns commonly used in crime, or guns commonly used for other activities, such as hunting. Rates of all of the endogenous variables are reported in the Appendix.

Exogenous variables.

Exogenous variables were included in consideration of (a) the factors that influence crime at the macro-level, (b) the variables that can serve as instruments to gun availability, and (c) the challenges associated with performing analyses with small samples, most notably maximizing degrees of freedom and minimizing multicollinearity. In all, seven exogenous variables were included in this analysis. Five of these were posited to influence crime. These were unemployment, family disruption, age structure, sex ratio, and percent of residents who go out nightly.

Unemployment was operationalized as the percentage of respondents in each respective city who reported not having a job. *Age Structure* was operationalized as the percentage of the population of each city between the ages of 16 and 34. This measure was included as a control because previous research has found that nations with large cohorts of youth have higher levels of violent crime (Gartner, 1990; Pampel & Gartner, 1995). *Sex Ratio* represents the number of men per one hundred women in the population. This variable was operationalized by dividing the number of men surveyed in each city by the number of women surveyed and multiplying that number by 100. This measure was included as a control because previous research has found it to be associated with violent crime at the macro-level (Avakame, 1999; Messner & Sampson, 1991).

Family disruption represents the percentage of respondents in each city who where divorced. This variable was included in the analysis because previous research has found family disruption to be an important predictor of crime at the macro-level (Sampson & Groves, 1989). *Out nightly* represents the percentage of respondents in each city who reported that they go out almost every day. This measure was included because previous research suggests that crime victimization increases when the proportion of the population involved in activities outside of the home increases (Andresen, 2006; Cohen & Felson, 1979).

The two instruments posited to influence gun availability were concern about crime and percent of high income residents. These variables were included because previous research has found that both influence gun ownership levels (Cao et al., 1997; Kleck & Gertz, 1998; Lizotte & Bordua, 1980; McDowall & Loftin, 1983). *Concern about crime* was operationalized as the percentage of respondents in each city who believed that it was very likely that their houses would be broken into. *High income* was operationalized as the proportion of residents in each city who were in the top 25% income bracket for each respective city.

Analytic Technique

This study attempts to examine the relationship between firearm availability and crime in a cross-national sample of cities. OLS regression can not be used to test this relationship because non-recursive models violate the OLS assumption of no correlation between explanatory variables and disturbance terms. As such, using OLS to test such models would lead to biased and inconsistent estimators (Gujarati, 1978). This study used limited information maximum likelihood (LIML) regression to account for variable simultaneity. LIML is a form of two-stage least squares regression (2SLS) that takes into account the presence of weak instruments. There are

many different approaches to the derivation of 2SLS estimators, but all of these approaches are equivalent (Fox, 1979). In this paper, the standard approach outlined by Berry (1984; see also Gujurati, 1979; Hoskin, 2001) was used in the analysis.

LIML involves two successive applications of maximum likelihood regression analysis. In the first stage an instrumental variable is created to eliminate the likely correlation between firearm availability and the crime error term. This instrumental variable is created by regressing the gun availability variable on all exogenous variables in the model. That is, gun availability is regressed on the independent variables thought to influence crime and the instruments thought to influence gun availability. The value for the instrumental variable is the gun availability values predicted by the exogenous variable. The instrumental variable represents the most similar variable to gun availability that can be obtained by taking a linear combination of exogenous variables in the model. Additionally, this instrumental variable will be highly correlated with the actual gun availability values but not correlated asymptotically with the crime error term. Importantly, this instrumental variable is presumed not to be affected by crime. Stage two of LIML regression involves replacing the gun availability variable in the original equation with the predicted gun availability variable and regressing violent crime on predicted gun availability and the control variables. The estimators from this equation will be asymptotically consistent.

Regression Diagnostics

To ensure that the assumptions of the analysis were not violated, extensive diagnostics were performed. All models were examined for multicollinearity, heteroskedasticity, outliers, non-normally distributed errors, and non-linearity. Multicollinearity was viewed as problematic if VIFs exceeded four and levels of tolerance fell between .2 (see also Hamilton, 1992). Multicollinearity was not a problem in any of the models tested here. Outliers were encountered in the initial analyses performed, but the effects of these outliers were not large and decreased substantially after the gun ownership variable and the crime variables were transformed. Besides the issues mentioned above, the regression diagnostics did not detect any other problems in the models tested.

RESULTS

Results for the analyses performed in this study are reported in Tables 1 and 2 (next two pages). Table 1 reports descriptive statistics and bivariate correlations for the variables used in the analysis. These correlations suggest that gun availability is positively associated with all of the crime indicators, thereby lending support to the weapon facilitation and instrumentality hypotheses. In addition, the results from Table 1 indicate that the gun availability indicator has a significant positive association with residents' concern about crime. This suggests that residents of these cities may purchase guns when they believe that their homes are at-risk of being burglarized.

The bivariate correlations reported in Table 1 also find some notable relationships between crime and many of the exogenous variables. The age structure variable is significantly associated with three of the four crime variables. In addition, unemployment is associated with gun robbery. None of the other control variables are significantly associated with crime. Taken together, these correlation coefficients suggest that gun availability and crime are associated, but a more sophisticated analysis is needed to address issues of causality and model simultaneity.

Table 1. Correlations and Descriptive Statistics for Variables Used in this Study.

Variable	Mean	St. Dev	Correlation				
			Gun Availability	Assault	Gun Assault	Robbery	Gun Robbery
Gun Availability (log)	-2.71	.90	--				
Assault (log)	8.74	.64	.38*	--			
Gun Assault (log)	5.85	2.02	.48*	.37*	--		
Robbery (base log)	8.20	.91	.37*	.79**	.52**	--	
Gun Robbery (base log)	5.37	2.62	.39**	.46**	.50**	.54**	--
Unemployment	11.01	7.46	.15	.30	.30	.25	.34*
Sex Ratio	83.18	20.11	-.16	.23	-.18	.08	.22
Age Structure	45.16	14.03	.21	.67**	.09	.47**	.42**
Family Disruption	5.13	3.44	.14	-.08	.23	.06	.01
Out Nightly	12.39	5.27	.36*	.08	.12	.07	.41**
Concern About Crime	10.08	7.51	.53**	.49**	.43**	.41**	.39*
High Income	.28	.15	.31	.19	.18	.08	.24

*p < .05, ** p < .01

Table 2. LIML Regression of the Effects of Gun Availability on Violent Crime

Independent Variable	Stage One	Stage Two			
	Gun Availability	Assault	Gun Assault	Robbery	Gun Robbery
Gun Availability Instrument	--	.46**	1.97**	.21†	.66*
Unemployment	.00	.00	.03	.00	.02
Sex Ratio	-.01	.01**	.00	.00	.02†
Age Structure	.01	.03**	.00	.02**	.02
Family Disruption	.08†	.06*	.08	.04*	.06
Out Nightly	.03	-.04*	-.08	-.02	.02
Concern about Crime	.05**	--	--	--	--
High Income	2.05*	--	--	--	--
Constant	-4.47*	7.93**	11.50**	5.74**	1.01
r^2	.50	.55	.14	.37	.35
F statistic	4.36**	12.62**	15.52*	25.88**	26.99**

† $p < .10$, * $p < .05$, ** $p < .01$

Note: For the second stage results reported here the Wald Chi-Squared test was used rather that the F-test to evaluate model fit.

Table 2 reports stages one and two of the LIML regression analysis examining the relationship between gun availability and assault, gun assault, robbery, and gun robbery. As mentioned above, stage one of the analysis involves regressing gun availability on the exogenous predictors of crime. This is done to create an instrumental variable that is highly correlated with actual levels of gun availability but not correlated with the error terms of any of the crime indicators. Stage two of the analysis involves substituting the instrumental variable for the actual gun availability measure in an analysis of the effects of gun availability on crime. Because this study is interested in four separate crime variables, the results reported in stage two of Table 2 include models that examine the effects of the predicted gun availability variable on assault, gun assault, robbery, and gun robbery, respectively.

I begin the discussion with the effects of gun availability on assault. The results reveal that gun availability positively influences rates of assault in this sample of cities. This finding lends support to the facilitation hypothesis. In addition, sex ratio, age structure, and family disruption were found to positively affect levels of assault. One surprising finding is that individuals who report going out on a nightly basis are *less* likely to be victims of assault. This finding is opposite of what might be expected. One potential explanation is that the violence indicator used here taps into rates of domestic assault. If this is the case, it is plausible that some residents are safer outside of the home because leaving the home provides refuge from violent domestic disputes. Overall the model is robust, with 55% of the variation in assault being explained.

The results reported in Table 2 also reveal that gun availability influences gun assault. This finding lends support to the weapon instrumentality hypothesis. As levels of gun availability increase in this sample of cities, the rate of assaults involving guns also increases. This finding suggests that increasing the availability of guns increases the likelihood that a gun, as opposed to another weapon or no weapon at all, will be used in an assault. In all, 14% of the variation in gun assault is explained in this model.

I now turn to the effects of gun availability on robbery and gun robbery. The models examined are also reported in Table 2. The results reveal that gun availability influences both robbery and gun robbery. These findings also lend support to both the weapon instrumentality and facilitation hypotheses. Age structure and family disruption influenced robbery victimization while sex ratio was found to influence gun robbery. Both the robbery and gun robbery models are relatively robust. Thirty-seven percent of the variation in robbery, and 35% of the variation in gun robbery was explained by the models examined here.

DISCUSSION

This study was the first to examine the relationship between gun availability and crime in a cross-national sample of cities. Three competing hypotheses concerning this relationship were tested using LIML regression. The results lend some support to the weapon facilitation and instrumentality hypotheses. Gun availability significantly influenced the assault, gun assault, robbery, and gun robbery rates in these cities. Notably, no support was found for Lott's (2000; see also Lott & Mustard, 1997) hypothesis that increasing gun availability reduces rates of crime.

These results suggest that cities with high levels of gun availability will be characterized by more assaults and robberies. The fact that gun availability was found to influence total violent crime rates is surprising because it contradicts what has been found in previous research (Cook, 1991). Apparently, for the cities sampled here, increasing gun availability provides an incen-

tive for city residents to commit crime that they normally would not commit if guns were not available. Perhaps citizens in cities with high levels of gun availability feel emboldened by the power advantage afforded to them by the possession of a firearm.

The significant results between gun availability and gun assault and gun robbery lend support to the weapon instrumentality hypothesis. The availability of guns seems to increase the likelihood that city residents will substitute a gun for another weapon or use a gun rather than no weapon at all. Under such circumstances, assaults and robberies that occur in cities with high levels of gun availability may be more serious or deadlier than assaults or robberies carried out in cities with lower levels of gun availability. In addition, these gun assaults and gun robberies may be more likely to involve multiple victims. Although not directly tested here, these findings may also suggest that cities with higher levels of gun availability will be characterized by higher levels of homicide. This assertion seems plausible if one considers Zimring's (1968; 1972) argument that many violent altercations involve parties whose intentions are somewhat ambiguous, but where the introduction of a gun into the equation increases the likelihood that a violent dispute leads to death rather than injury (see also Phillips & Maume, 2007). When one considers the fact that gun availability was the most important predictor of both gun assault and gun robbery levels, it seems that Zimring's (1968; 1972) hypothesis is applicable here. Although this study did not control for the intentions of the individual aggressors, the city level controls such as unemployment account for the factors that motivate people to commit crime. The fact that most of these controls were insignificant, while gun availability was significant, suggests that for this sample of cities the primary factor that determines whether a gun is used in a violent crime is the availability of guns.

Perhaps the most important finding here is that all of the processes discussed above were occurring in a diverse cross-national sample of cities. This study analyzed data from 39 cities located in nations in Africa, Asia, Eastern Europe, and South America. It is likely that the culture of each city in the sample was somewhat distinct. That is, the cultures of the cities included in the sample were different from one another and differed with the culture of most cities in Western Developed nations. Despite the cultural variation among cities, the findings reported here are similar to those of similar studies that have examined the relationship between guns and crime in the United States and cross-nationally (Bordua, 1986; Bordua & Lizotte, 1979; Clotfelter, 1981; Hoskin, 2001; Killias et al., 2001; Kleck, 1979; Krug et al., 1998; Lester, 1974; McDonald, 1999; McDowall & Loftin, 1983; Southwick Jr., 1997). This suggests that the relationship between guns and crime operates in a similar fashion across space and time, even in dramatically different cultures. The findings would be further supported if future research examining the relationship between gun availability and homicide in a cross-national sample of cities generated results that mirrored those of studies examining this relationship in the United States.

The results from this study have numerous policy implications. First, these results suggest that the availability of guns has serious implications for levels of assault and gun assault in this sample of cities. These results suggest that serious discussions about the reduction of crime in these cities must consider methods to reduce levels of gun availability. Second, the results also show that, although guns are important, violence cannot be reduced unless other social problems, such as family disruption, are addressed. Therefore, policies should be developed to strengthen families or moderate the effect that family disruption has on violent crime.

Despite the contributions made in this study, it is not without limitations. First, this study did not test for the relationship between gun availability and homicide. This is due to the fact that homicide data were not available for the sample of cities examined here. As mentioned above, this limits the extent to which the results from this study can be used to inform if and how weapon instrumentality operates in cities in a cross-national sample. Second, only a small number of respondents in each city reported being victims of gun assaults and gun robberies. In fact, none of the respondents in Bucharest, Budapest, Ljubljana, Seoul, Ulaanbaatar, and Vilnius reported being victims of gun robbery. Although the sampling procedures used to collect ICVS data were designed to generate a representative sample of the residents of each respective city, it is possible that extremely rare gun crimes were undercounted. If this was this case, it is possible that some aspect of the relationship between gun availability and gun crime was underestimated. Third, the ICVS data were collected based on convenience sampling. There is no way to determine if the sample of cities examined here represents a random sample of all cities in the world. Therefore, the results here are not necessarily generalizable to other cities.

A fourth limitation of this study is that the gun ownership measure used here did not distinguish between different types of guns. In the United States most crimes are committed with handguns. Shotguns and other types of firearms, on the other hand, are rarely used in the commission of crimes. If we assume that similar dynamics hold in other nations, the failure to distinguish between gun type makes it possible to falsely conclude that weapon instrumentality effects are at work when other processes are actually causing levels of violence. This is especially true in nations such as South Africa, which have both high levels of violent crime and high levels of shotgun ownership among the middle class. A fifth limitation deals with the measurement of the exogenous variables used in this study. Due to the fact that questions have been raised about sampling procedures used in the ICVS, the exogenous measures used here may have been biased.

Despite the limitations mentioned above, the analyses performed here represent the first attempt to examine the relationship between gun availability and crime in a cross-national sample of cities. Although the research is exploratory in nature, it points to the continued need to examine the relationship between guns and violent crime at the cross-national level. If future research can find similar results, while controlling for the limitations mentioned above, the results reported here will be strengthened.

APPENDIX: GUN OWNERSHIP LEVELS AND CRIME RATES FOR CITIES IN THESE ANALYSES.

City	Nation	Percent Gun Owners	Assault Rate	Gun Assault Rate	Robbery Rate	Gun Robbery Rate
Tirana	Albania	14.29	5674.23	1735.65	5941.26	1134.85
Buenos Aires	Argentina	28.30	10500.00	5900.00	8800.00	5900.00
Baku	Azerbaijan	.86	2258.06	215.05	1827.96	107.53
Minsk	Belarus	5.53	2500.00	263.16	1513.16	263.16
La Paz	Bolivia	8.51	10010.01	300.30	9209.21	200.20
Gaborone	Botswana	4.01	13199.67	0.00	4344.19	501.25
Rio de Janeiro	Brazil	9.00	7700.00	200.00	13600.00	13000.00
Sofia	Bulgaria	6.98	3255.81	132.89	2126.25	132.89
Bogotá	Colombia	10.83	15157.48	3149.61	13779.53	3149.61
San Jose	Costa Rica	17.69	8701.85	1426.53	11126.96	998.57
Zagreb	Croatia	10.38	2284.60	783.29	1305.48	261.10
Prague	Czech Republic	9.33	6400.00	333.33	2000.00	466.67
Tbilisi	Georgia	6.90	3000.00	700.00	2700.00	200.00
Budapest	Hungary	4.82	4031.73	198.28	2379.38	0.00
Bombay	India	1.20	5905.91	300.30	2202.20	200.20
Jakarta	Indonesia	6.00	3500.00	0.00	1000.00	83.33
Seoul	Korea	1.57	2202.64	0.00	440.53	0.00
Bishkek	Kyrgyzstan	9.84	10107.10	200.80	2610.44	334.67
Riga	Latvia	3.59	5389.22	399.20	4491.02	499.00
Maseru	Lesotho	15.05	10693.07	2178.22	4554.46	396.04
Vilnius	Lithuania	6.09	6290.96	262.12	4783.75	0.00
Skopje	Macedonia	12.29	4714.29	285.71	1571.43	428.57
Ulaanbaatar	Mongolia	6.17	7597.34	94.97	4083.57	0.00
Windhoek	Namibia	22.15	11310.08	942.51	8765.32	1131.01
Lagos	Nigeria	1.58	10869.57	1482.21	8596.84	4051.38
Panama City	Panama	11.75	6541.02	1552.11	3436.81	1773.84
Asuncion	Paraguay	29.30	6132.88	1022.15	10221.47	340.72
Manila	Philippines	2.93	1333.33	266.67	466.67	66.67
Warsaw	Poland	2.36	6786.05	188.50	6126.30	282.75
Bucharest	Romania	1.79	5179.28	66.40	2257.64	0.00
Moscow	Russia	8.07	5400.00	800.00	3733.33	933.33
Bratislava	Slovak Republic	3.35	3619.91	181.00	1266.97	90.50
Ljubljana	Slovenia	5.24	4841.27	476.19	1746.03	0.00

(Table continued on next page)

City	Nation	Percent Gun Owners	Assault Rate	Gun Assault Rate	Robbery Rate	Gun Robbery Rate
Johannesburg	South Africa	18.34	14520.96	6137.72	10778.44	9655.69
Mbabane	Swaziland	10.83	16699.80	1590.46	9244.53	994.04
Kampala	Uganda	1.90	13927.86	1102.20	9819.64	1503.01
Kiev	Ukraine	5.90	4700.00	500.00	6600.00	300.00
Belgrade	Yugoslavia	28.61	9140.77	2468.01	1371.12	639.85
Lusaka	Zambia	8.98	18529.13	668.58	7736.39	668.58

Note: All crime rates represent the number of crimes that occurred per 100,000 population of each city.

REFERENCES

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: CA: Sage Publications.

Allen, M. (1997). *Understanding regression analysis*. New York: Plenum Press.

Andresen, M. A. (2006). Crime measures and the spatial analysis of criminal activity. *British Journal of Criminology, 46*, 258-285.

Avakame, E. F. (1999). Sex ratios, female labor force participation, and lethal violence against women. *Violence Against Women 5*(11), 3121-3141.

Bennett, R. R., & Lynch, J. P. (1990). Does a difference make a difference? Comparing cross-national crime indicators. *Criminology 28*(1), 153-181.

Berkowitz, L. (1983). Aversively stimulated aggression: Some parallels and differences in research with humans and animals. *American Psychologist, 38*, 1134-1144

Berkowitz, L., & Lepage, A. (1967). Weapons as aggression eliciting stimuli. *Journal of Personality and Social Psychology, 7*, 202-207.

Berry, W. D. (1984). *Nonrecursive causal models*. Beverly Hills: Sage Publications.

Blau, J. R., & Blau, P. M. (1982). The cost of inequality: Metropolitan structure and violent crime. *American Sociological Review 47*, 114-129.

Bordua, D. J. (1986). Firearms ownership and violent crime: A comparison of Illinois counties. In J. M. Byrne & R. J. Sampson (Eds.), *The social ecology of crime* (pp. 156-188). New York: Springer-Verlag.

Bordua, D. J., & Lizotte, A. J. (1979). Patterns of legal firearms ownership. *Law & Policy Quarterly, 1*(2), 147-175.

Braithwaite, J., & Braithwaite, V. (1980). The effect of income inequality and social democracy on homicide. *British Journal of Criminology, 20*, 45-53.

Brearley, H. C. (1932). *Homicide in the United States*. Chapel Hill, NC: University of North Carolina Press.

Brill, S. (1977). *Firearm abuse: A research and policy report*. Washington, DC: Police Foundation.

Buss, A., Booker, A., & Buss, E. (1972). Firing a weapon and aggression. *Journal of Personality & Social Psychology, 22*(3), 296-302.

Cao, L. Cullen, F., & Link, B. G. (1997). The social determinants of gun ownership: Self-protection in an urban environment. *Criminology, 35*(4), 629-658

Clotfelter, C. T. (1981). Crimes, disorders, and the demands for handguns: An empirical analysis. *Law & Policy Quarterly, 3*(4), 425-441.

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review 44,* 588-608.

Conklin, G. H., & Simpson, M. E. (1985). A demographic approach to the cross-national study of crime. *Comparative Social Research, 8*, 171-185.

Cook, P. J. (1979). The effect of gun availability on robbery and robbery murder: A cross-section study of fifty cities. In R. H. Haveman & B. B. Zellner (Eds.), *Policy studies review annual* (Vol. 14, pp. 743-781). Beverly Hills, CA: Sage.

Cook, P. J. (1982). The role of firearms in violent crime. In M. E. Wolfgang & N. A. Weiner (Eds.) *Criminal violence* (pp. 236-289). Beverly Hills, CA: Sage.

Cook, P. J. (1987). Robbery violence. *Journal of Criminal Law and Criminology, 78*, 357-376.

Cook, P. J. (1991). The technology of personal violence. In M. Tonry (Ed.), *Crime and justice* (Vol. 14, pp. 1-71). Chicago: University of Chicago Press.

Cook, P. J., & Ludwig, J. (2006). The social costs of gun ownership. *Journal of Public Economics, 90*, 379-391.

Cook, P. J., & Moore, M. H. (1999). Guns, gun control, and homicide: A review of research and public policy. In M. D. Smith & M. A. Zahn (Eds.), Homicide: A sourcebook of social research (pp. 277-296). Thousand Oaks, CA: Sage Publications.

Duggan, M. (2001). More guns, more crime. *Journal of Political Economy, 109*(5), 1086-1114.

Ellis, D. P., Weinir, P., & Miller III, L. (1971). Does the trigger pull the finger? An experimental test of weapons as aggression—eliciting stimuli. *Sociometry, 34*(4), 453-465.

Felson, R. B. (1996). Big people hit little people: Sex differences in physical power and interpersonal violence. *Criminology, 34*(3), 433-452

Fischer, D. G. (1969). Homicide in Detroit: The role of firearms. *Criminology, 14*, 387-400.

Fox, J. (1979). Simultaneous equation models and two-stage least squares. *Sociological Methodology, 10*, 130-150.

Fraczek, A., & Macauley, J. R. (1971). Some personality factors in reaction to aggressive stimuli. *Journal of Personality, 39*(2), 163-177.

Gartner, R. (1990). The victims of homicide: A temporal and cross-national comparison. *American Sociological Review, 55*, 92-106.

Gujarati, D. (1978). *Basic econometrics*. New York: McGraw-Hill.

Hamilton, L. C. (1992). *Regression with graphics: A second course in applied statistics*. Belmont, California: Duxbury Press.

Hemenway, D., & Miller, M. (2000). Firearm availability and homicide rates across 26 high-income countries. *Journal of Trauma 49*(6), 3.

Hoskin, A. W. (2001). Armed Americans: The impact of firearm availability on national homicide rates. *Justice Quarterly, 18*(3), 569-592.

Killias, M. (1993). International correlations between gun ownership and rates of homicide and suicide. *Canadian Medical Association Journal, 148*(10), 1721-1725.

Killias, M., van Kesteren, J., & Rindlisbacher, M. (2001). Guns, violent crime, and suicide in 21 countries. *Canadian Journal of Criminology, 43*(4), 429-448.

Kleck, G. (1979). Capital punishment, gun ownership, and homicide. *American Journal of Sociology, 84*, 882-910.

Kleck, G. (1984). The relationship between gun ownership levels and rates of violence in the United States. In D. B. Kates, Jr. (Ed.), *Firearms and violence: Issues of public policy* (pp. 99-135). Cambridge, MA: Ballinger.

Kleck, G. (1991). *Point blank: Guns and violence in America*. New York: Aldine De Gruyter.

Kleck, G. (1997). *Targeting guns: Firearms and their control*. New York: Walter de Gruyter, Inc.

Kleck, G. (2004). Measures of gun ownership levels for macro-level crime and violence research. *Journal of Research in Crime and Delinquency, 41*(1), 3-36.

Kleck, G., & Delone, M. (1993). Victim resistance and offender weapon effects in robbery. *Journal of Research in Crime and Delinquency, 9*, 55-82.

Kleck, G., & Gertz, M. (1998). Carrying guns for protection: Results from the national self-defense survey. *Journal of Research in Crime and Delinquency, 35*(2), 193-224

Kleck, G., & McElrath, K. (1991). The effects of weaponry and human violence. *Social Forces, 69*(3), 669-692.

Kleck, G., & Patterson, E. B. (1993). The impact of gun control and gun ownership levels on violence rates. *Journal of Quantitative Criminology, 9*(249), 288.

Krug, E. G., K. E. Powell, & Dahlberg, L. L. (1998). Firearm-related deaths in the United States and 35 other high- and upper-middle income countries. *International Journal of Epidemiology, 7*, 214-221.

Land, K. C., McCall, P. L., & Cohen, L. E. (1990). Structural covariates of homicide rates: Are there any invariances across time and social spaces? *American Journal of Sociology, 95*(4), 922-963.

Lester, D. (1974). A cross-national study of suicide and homicide. *Behavior Science Research, 9*, 307-318.

Lester, D. (1988). Firearm availability and the incidence of suicide and homicide. *Acta Psychiatrica Belgium, 88*, 387-393.

Lester, D. (1991). Crime as opportunity: A test of the hypothesis with European homicide rates. *British Journal of Criminology, 31*, 186-188.

Leyens, J. P., & Parke, R. D. (1975). Aggressive slides can induce a weapons effect. *European Journal of Social Psychology, 5*(2), 229-236.

Lizotte, A. J., & Bordua D. J. (1980). Firearms ownership for sport and protection: Two divergent models. *American Sociological Review, 45*(2), 229-244

Lott, J. R. J. (2000). *More guns less crime: Understanding crime and gun control laws (2nd Ed.)*. Chicago: University of Chicago Press.

Lott, J. R. J., & Mustard, D. B. (1997). Crime, deterrence, and right-to-carry concealed handguns. *Journal of Legal Studies, 26*, 1-68.

Ludwig, J. (1998). Concealed-gun-carrying laws and violent crime: Evidence from state of panel data. *International Review of Law and Economics, 18*, 239-254.

Magaddino, J. P., & Medoff, M. H. (1984). An empirical analysis of federal and state firearm control laws. In D. B. Kates Jr. (Ed.), *Firearms and violence: Issues of public policy* (pp. 101-112). Cambridge, MA: Ballinger.

Maltz, M. D., & Targoniski, J. (2002). A note on the use of county-level UCR data. *Journal of Quantitative Criminology, 18*(3), 297-318.

Martin, R. A. J., & Legault, R. L. (2005). Systematic measurement error with state-level crime data: Evidence from the "more guns, less crime" debate. *Journal of Research in Crime and Delinquency, 42*(2), 187-210.

McDonald, J. F. (1999). An economic analysis of guns, crime, and gun control. *Journal of Criminal Justice, 27*(1), 11-19.

McDowall, D. (1991). Firearm availability and homicide rates in Detroit, 1951-1986. *Social Forces, 69*, 1085-1099.

McDowall, D., & Loftin, C. (1983). Collective security and the demand for legal handguns. *American Journal of Sociology, 88*(6), 1146-1161.

Messner, S. F., & Rosenfeld, R. (1997). Political restraint of the market and levels of criminal homicide: A cross-national application of institutional anomie theory. *Social Forces, 75*, 1393-1416.

Messner, S. F., & Sampson, R. J. (1991). The sex ratio, family disruption, and rates of violent crime: The paradox of demographic structure. *Social Forces 69*(3), 693-713.

Page, D., & O'Neal, E. (1977). 'Weapons effect' without demand characteristics. *Psychology Reports, 41*, 29-30.

Page, M. M., & Scheidt, R. J. (1971). The elusive weapons effect: Demand awareness, evaluation apprehension, and slightly sophisticated subjects. *Journal of Personality & Social Psychology, 20*(3), 304-318.

Pampel, F. C., & Gartner, R. (1995). Age structure, socio-political institutions, and national homicide rates. *European Sociological Review, 11*(3), 243-260.

Phillips, L., Votey, H. L., & Howell, J. (1976). Handguns and homicide. *Journal of Legal Studies, 5*, 463-478.

Phillips, S., & Maume, M. O. (2007). Have gun will shoot? Weapon instrumentality, intent, and the violent escalation of conflict. *Homicide Studies, 11*, 272-294.

Pratt, T. C., & Godsey, T. (2003). Social support, inequality, and homicide: A cross-national test of an integrated theoretical model. *Criminology, 41*(3), 611-644.

Rengert, G., & Wasilchick J. (1985). *Suburban burglary: A time and place*. Springfield, IL: Charles Thomas

Rosenfeld, R., & Messner, S. F. (1991). The social sources of homicide in different types of societies. *Sociological Forum, 6*(1), 51-70.

Rubin, P. H., & Dezhbakhsh, H. (2003). The effect of concealed handgun laws on crime: Beyond the dummy variables. *International Review of Law and Economics, 23*, 199-216.

Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology, 94*(4), 774-802.

Southwick, Jr., L. (1997). Do guns cause crime? Does crime cause guns? A granger test. *Atlantic Economic Journal, 25*(3), 256-273.

Stolzenberg, L., & D'Alessio, S. J. (2000). Gun availability and violent crime: New evidence from the national incident-based reporting system. *Social Forces, 78*(4), 1461-1482.

Tark, J., & Kleck, G. (2004). Resisting crime: The effects of victim action on the outcomes of crimes. *Criminology 42*(4), 861-909

Turner, C. W., Layton, J. F., & Simons, L. S. (1975). Naturalist studies of aggressive behavior: Aggressive stimuli, victim visibility, and horn honking. *Journal of Personality and Social Psychology, 31*(6), 1098-1107.

United Nations Development Programme. (1998). *Human development report 1998*. New York: Oxford University Press.

Wells, W., & Horney, J. (2002). Weapon effects and individual intent to do harm: Influences on the escalation of violence. *Criminology, 40*(2), 265-295.

Wolfgang, M. E. (1958). *Patterns in criminal homicide*. Philadelphia: University of Pennsylvania Press.

Wright, J., & Rossi P. H. (1986). *Armed and considered dangerous: A survey of felons and their firearms*. Hawthorne, NY: Aldine de Gruyter.

Zimring, F. (1968). Is gun control likely to reduce violent killings? *University of Chicago Law Review, 35*, 721-737.

Zimring, F. (1972). The medium is the message: Firearm caliber as a determinant of death from assault. *Journal of Legal Studies, 1*, 97-123.

Zimring, F., & Hawkins, G. (1997). Concealed handgun permits: The case of the counterfeit deterrent. *Responsive Community*, 46-60.

BIOGRAPHICAL SKETCH

Irshad Altheimer, Ph.D., is an assistant professor in the Department of Criminal Justice at Wayne State University. His current research examines the predictors of crime at the macro-level. His previous publications have appeared in the *Journal of Research in Crime and Delinquency*, the *Journal of Criminal Justice*, the *Western Criminology Review*, and the *International Journal of Comparative and Applied Criminal Justice*.

ELDER HOMICIDE IN URBAN AMERICA: AN EXPLORATORY ANALYSIS OF CHICAGO, HOUSTON, AND MIAMI

Victoria B. Titterington
Sam Houston State University

Napoleon C. Reyes
Sam Houston State University

ABSTRACT

In keeping with increasing attention to crime victimization among U.S. senior adults, the present study contributes to the research literature on the unique characteristics of lethal violence against persons age 65 or older. It is based upon an analysis of 1985-1994 eldercides in Chicago, Houston, and Miami, representing 4.8% (n=537) of all such homicides nationally for that time period. This research indicates that, when compared to younger victims, older victims are significantly more likely to be female, to be killed by family members, and to be killed in the course of a robbery or other felony. The analysis also revealed significant differences among the three cities in victim-offender relationships, motivations, and methods for eldercide, as well as large differences in sex- and race/ethnicity-specific eldercide rates. This work extends our understanding of the unique characteristics of homicide against persons age 65 or older, with implications for criminal justice practitioners, social service providers and policymakers.

Key Words: eldercide, victimization, homicide risks, persons age 65 or older

INTRODUCTION

Homicide victimization among the elderly is a historically understudied crime. This is accounted for, in part, by the fact that persons age 65 or older comprise only about 12% of the current U.S. population (U.S. Bureau of the Census, 2008). Also, senior adults are the least victimized from crimes in general, and homicide in particular, of all age groups (Eve, 1985; Fattah, 1993; Kennedy & Silverman, 1990; Johnson-Dalzine, Dalzine, & Martin-Stanley,1996). Specifically, from 1976-2005, an annual average of 1,014 persons age 65 or older were victims

Titterington, Reyes—Elder Homicide in Urban America: An Exploratory Analysis of Chicago, Houston, and Miami. (2010)
Southwest Journal of Criminal Justice, Vol. 6(3). pp. 228–249.
© 2010 Southwestern Association of Criminal Justice

of criminal homicide in the United States (FBI, 2006b). This compares to an annual mean of 1,204 victims ages birth through 15 and 8,486 victims ages 16 to 29. Available data from the Bureau of Justice Statistics show that for the ten-year period of the present analysis (1985-1994), there were an estimated 221,613 homicides in the United States. Of these, only 6.23%, or 11,598 involved victims aged 65 or older. The mean annualized elder homicide victimization rate of 3.7 per 100,000 compared to an overall U.S. homicide rate of 8.9 for this 1985-1994 time period (FBI, 2006b).

The present study adds to the limited city-specific research of lethal violence against elder persons in the U.S. by analyzing their victimization in the cities of Chicago, Houston, and Miami for the period of 1985-1994. Among the compelling reasons for doing so are that those age 65 or older are the fastest growing segment of the U.S. population, with projections that seniors will account for 20% of all persons by 2030 (U.S. Bureau of the Census, 2008). And, as this proportion of the population lives longer, the unfortunate expectation is that the incidence and prevalence of crimes against the elderly may increase as well (Bachman & Meloy, 2008; Chu & Krauss, 2004). The Panel to Review Risk and Prevalence of Elder Abuse and Neglect of the National Research Council (2003, p. xiii) predicts that "both the occurrence and severity of elder mistreatment are likely to increase markedly over the coming decades, as the population ages, care-giving responsibilities and relationships change, and increasing numbers of older persons require long-term care."

Another important objective for additional research of elder homicide is that, despite significantly lower overall risk, studies to date indicate that the characteristics of elder homicide (also referred to as "eldercide") are different from that of younger victims. For example, when compared to younger homicide victims, older persons are more likely to die, or sustain serious injuries, from violent attacks (Chu & Krauss, 2004). Among homicide victims, there is also empirical evidence that elders are more likely than younger victims to be female (Abrams, Leon, Tardiff, Marzuk & Sutherland, 2007; Shields et al., 2004), killed at home (Abrams et al., 2007; Nelsen & Huff, 1998), by strangers (Abrams et al., 2007; Nelsen & Huff, 1998), during the commission of another felony (Bachman, Meloy & Block, 2005; Fox & Levin, 1991; Nelsen & Huff-Corzine 1998).

By analyzing the characteristics of the homicide victimization of persons ages 65 or older across three of the ten largest U.S. cities during the 1980s and 1990s we are able to determine if findings from the limited previous research are comparable across three geographically and racially/ethnically diverse urban areas. As noted by Abrams et al. (2007, p.1666), "Clarification of the characteristics of elderly homicide victims could … inform the development of preventive, age-sensitive interventions by physicians, social workers, adult protective workers, and law enforcement agencies." Bachman and Meloy (2008) further accentuate the need for primary and secondary prevention efforts focused upon community dwelling elder persons who may be isolated or homebound and, thus, in need of unique protective interventions.

PREVIOUS RESEARCH

Eldercide research to date has revealed important findings which illustrate that these crimes are unique among homicide offenses. For example, homicide of elderly women is generally a rare phenomenon, accounting for a little over 3% of all homicides in the United States (Safarik,

et al., 2002). However, among elders as a subgroup, there is city-specific evidence that females represent a much larger proportion of victims (Abrams et al., 2007; Shields, 2004).

In relation to the race/ethnicity of homicide victims, and notwithstanding the overall decline in crime rates in the United States since the early 1990s, crime remains a major problem for African American elderly (Johnson-Dalzine et al., 1996). This is believed to be related to the deteriorating conditions in many of their neighborhoods and their close proximity to African American men aged 20 to 29 – a population found to be disproportionately involved in violent crimes. The U.S. Department of Justice statistics for 1994 indicated that older African Americans were victimized at a rate twice that reported for White American seniors in several crime categories, including community and household crimes. The overall rate of violent crime victimization among African American elderly was 7.6 per thousand, compared to 3.6 per thousand for White American elderly (Johnson-Dalzine et al.,1996). More recently, Chu and Krauss' (2004) analysis of NIBRS data to predict fatal assaults among the elderly revealed that elderly Whites were slightly more likely than elderly African Americans to be homicide victims. In the present city-level study, we compute sex- and race/ethnicity-specific rates of victimization among elderly homicide victims.

Based upon Supplementary Homicide Reports from 1976-1985, Fox and Levin (1991) found that, although the elderly are at the least risk for homicide generally, in the case of robbery, they were 3.36 times more likely to be fatally assaulted. Also, using data from the National Incident-Based Reporting System (NIBRS) for the period 1995 to 1996, Chu and Kraus (2004) studied the factors that could explain death as the outcome of assault with particular attention to the elderly age group. Their analysis indicated that the assault fatality rates (number of deaths per 100 assaults) for elderly victims were much higher than victims younger than 65, regardless of their relationship to the offender and weapon used (Chu & Krauss, 2004). This is consistent with research which indicates that the elderly are more likely than younger persons to suffer serious injury and require hospitalization from non-lethal assaults (Bachman, Dillaway, & Lach, 1998).

Previous studies also indicate that there are differences in methods used to commit homicide against older persons. According to Stevens et al.'s (1999) analysis of the 1996 Supplementary Homicide Report, a total of 35% of homicides among older adults for that year involved firearms, with 72% of these involving a handgun. But compared to homicides of younger victims, this was actually a smaller percentage. These researchers found that the other most common methods used for homicides against the elderly for that year were cutting (23%), blunt objects (14%), bodily force (11%), and strangulation (4%). In a follow-up analysis, using National Center for Health Statistics data, these same researchers (Stevens et al., 1999) found that the relative proportions of methods used changed only slightly from 1987 to 1996. Most recently, Bachman & Meloy's (2008) analysis of U.S. lethal and non-lethal elder violent victimization for the years 1976-2004 revealed that elder victims were more likely than younger victims to be killed by family members, by methods other than firearms, and in the course of another felony (primarily robbery).

We note that there are a small number of city-specific studies of eldercide which the current analysis is intended to augment. Using Chicago homicide data for 1975-1982, Nelsen and Huff-Corzine (1998) found that older homicide victims were significantly more likely to be socially distant from their offenders and to have been killed in theft-related incidents than their

younger counterparts. A more recent analysis of Chicago homicides also indicates that robbery- related homicides are significantly more prevalent for victims age 65 or older.(Bachman, Meloy, & Block, 2005). Block's (2006) research of the oldest old, those age 80 and older, in Chicago for the period of 1965 to 2000 indicated the vast majority of homicide victims were killed in their own homes. Specifically, this was the case for 67% of the 101 male victims and 74% of the 128 female victims.

Shields et al. (2004) examined autopsy cases of 74 persons age 60 or older, for the period of 1992-2001 in Louisville, Kentucky. Of these, 52 were classified as homicide, and 22 deaths were suspicious for neglect. Whereas, national statistics indicate that males account for 75-80% of homicide victims across all age groups, this city-specific analysis of eldercide revealed that almost 40% of the homicide cases and over 45% of death from neglect cases were female. The mean age of the homicide victims was 72.1 years. It is also important to note that the deceased neglect subjects were almost ten years older (an average age of 79.9 years) than the living victims of neglect, whose average age was 70.3 years. The method of killing among the 52 homicide cases (four of whom involved a combination of methods) included firearms (42.3%), beating (36.5%), stabbing (19.2%), and asphyxia (9.6%).

Another city-specific study is that of Abrams et al. (2007), who analyzed all 1990-1998 medical examiner-certified homicides in New York City, for victims aged 18 or older. They found that characteristics of homicide in non-elderly adults did not apply to the elderly. Those aged 65 years and older were more likely to be female, White, to have been killed by non-firearm injuries, and to have been killed in their own homes.

The three cities selected for the present study—Chicago, Houston, and Miami—share critical characteristics of interest yet are diverse enough to increase the generalizability of these research findings to other urban areas of the U.S. Their common features include dramatic homicide increases followed by decreases during the 1985-1994 period. Uniform Crime Reports (FBI, 1986-1995) indicated mean annualized overall homicide rates for the 10-year period of 8.9 persons per 100,000 nationally, compared to 27.66 for Chicago, 26.59 for Houston, and 34.49 for Miami. This mirrors the experience of other large U.S. cities, including New York City and St. Louis, during this time period (Riley, Lattimore, Leiter, & Trudeau, 1997)

The cities of Chicago, Houston, and Miami also differ in important ways of interest in this investigation. For example, they range in 1990 population from 360,000 in Miami to 1.6 million in Houston, to 2.8 million in Chicago. In turn, their differences in land mass account for wide variation in relative population density, a significant factor in previous macro analyses of homicide (Land, McCall, & Cohen, 1990). This density ranges from 12,300 persons per square mile in Chicago, to 10,000 in Miami, to only about 3,000 in Houston. Because we are also comparing race-specific homicide characteristics between older and younger victims, the variation in each of these factors across the three cities is noteworthy. Approximately two-thirds of the 1990 population of Miami was Hispanic, 25% were non-Hispanic Black, and 13% were non-Hispanic White/Other. In Houston, more than one-fourth of its residents were Hispanic, 27 percent were Black and 45 percent were non-Hispanic White/Other. The 1990 population of Chicago was 20% Hispanic, 39% Black, and 41% non-Hispanic White/Other (U.S. Census Bureau, 1993)

RESEARCH QUESTIONS

To learn more about city-level, age-stratified homicide characteristics of eldercide over a significant time period in U.S. homicide, we answer the following questions in this study:

1) What is the prevalence of eldercide victims nationally and within the cities of Chicago, Houston, and Miami for the period of 1985-1994?
2) How do the incidence and characteristics of homicide involving persons age 65 or older compare to those of younger victims?
3) Do the characteristics of eldercide vary significantly across the cities of Chicago, Houston, and Miami?
4) What are the relative sex- and race/ethnicity-specific homicide risks to elderly persons among the three cities?

METHODOLOGY

Data for this project are taken from the cities of Chicago, Houston, and Miami. A multi-city homicide data file for 1985-1994 was originally compiled under the auspices of the National Consortium on Violence Research (NCOVR) Data Center at Carnegie-Mellon University. The creation of this database was preceded by independent data collection efforts of researchers in the respective cities (Block, 1987; Block & Block, 1992; Brewer, Damphousse, & Adkinson, 1998; Martinez, 2000; Martinez & Lee, 1999; Titterington & Damphousse, 2003) Details of homicide incidents for each city were extracted from a combination of police murder logs and narratives, personal interviews, and newspaper accounts (For example, see Paulsen, 2003, for a discussion of this process in Houston). Along with reducing the amount of missing data in UCR *Supplementary Homicide Reports*, this three-city file also includes the motive and location (indoors/outdoors) for the majority of homicide incidents. Though these data were originally compiled for the spatial analysis of juveniles, gangs, drugs, and guns (Blumstein, 1995; Blumstein & Cork, 1995), the file provides a unique, and as yet untapped, data source from which to better understand eldercide as well. The resulting three-city data file includes 14,443 cases of homicide, accounting for 6.5% of all U.S. homicides for the ten-year time period. In 98.7% of these cases (n=14,262) victim age was known; these incidents include 537 victims and 146 offenders age 65 or older. Based on FBI SHR data, these 537 cases account for 4.8% of all eldercides nationally during this time period.

Variables and Coding

The unit of analysis in this study is the homicide victim. The deaths of these 14,443 crime victims were classified by the original law enforcement investigators as resulting from murder and non-negligent manslaughter, defined as "the willful (non-negligent) killing of one human being by another" (FBI, 2006a). The calculation for age, race/ethnicity, and gender-specific homicide rates is: Homicide Rate = I/P x 100,000, where I = the total number of homicide victims in the respective category (e.g., those age 65 or older) for the 1985-1994 time period, and P = the total population of that categorical group for 1990 (U.S. Bureau of the Census, 2000). These 1990 population figures represent the midpoint of the 1985-1994 time period and serve

as a proxy for a mean annualized number of persons for the respective age, race/ethnicity, and gender categories. As with other FBI crime statistics, each quotient is then standardized per 100,000 persons.

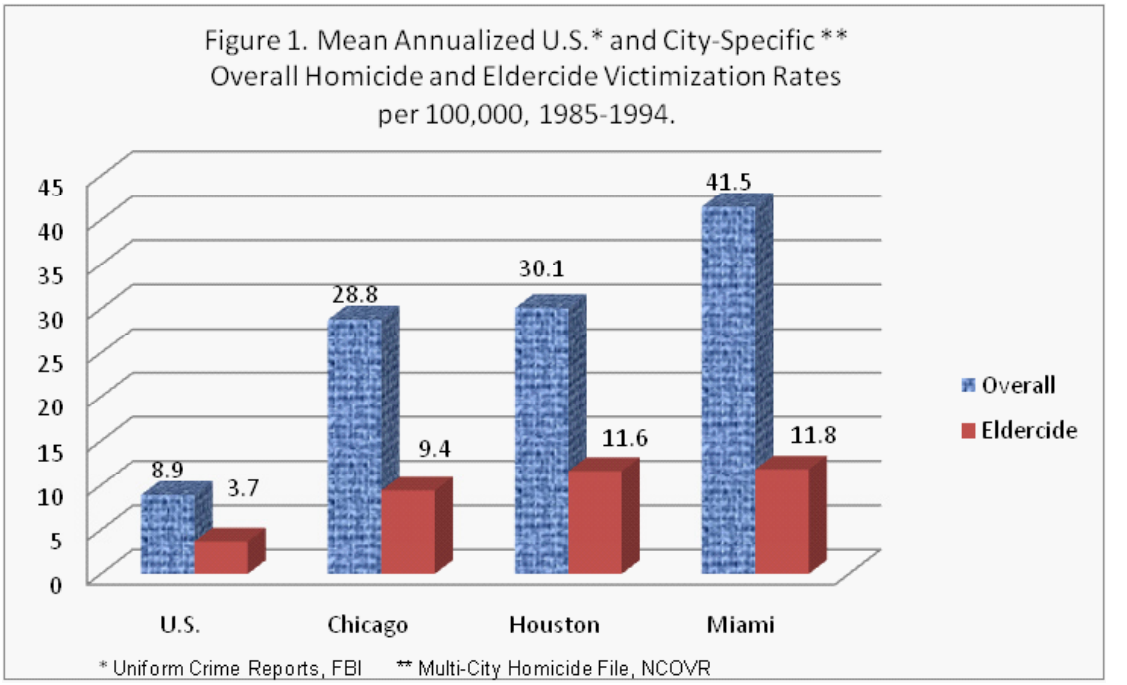
For this analysis of eldercide, dummy codes were created for each of the factors under investigation. Victim age was dichotomized as 0=younger than age 65, 1=age 65 or older; similarly, victim and offender gender was coded as 0=male and 1=female. Victim and offender race/ethnicity included codes of 1 = Non-Hispanic White, 2 = Black, 3 = Hispanic, and 4 = Asian/Other. Primary homicide motive was coded as 1 = domestic violence (intimate partner or family), 2 = argument, 3 = gang-related, 4 = drug-related, 5 = robbery, 6 = other felony (including aggravated assault and sexual assault), and 7 = other, unspecified. Offense location was also dichotomized as 0=indoors (including residence/apartment or house, residence/yard and retail settings) and 1=outdoors (including streets, alleys, parking lots, vacant lots, parks, and vehicles). The four categories of victim-offender relationship in this analysis include 1 = intimate partner, 2 = other family, 3 = friend/acquaintance, and 4 = stranger. The final factor under consideration in this analysis was weapon, coded as 1 = firearm, 2 = knife/sharp object, 3 = hands/feet, 4 = blunt object, 5 = strangulation/ligature, 6 = arson/vehicle/other, and 7 = unspecified (but not a missing value).

This study is conducted using SPSS, Version 15. We first determine the overall and eldercide victimization rates for Chicago, Houston, and Miami, relative to national rates. Next, descriptive analyses are performed to compare age-stratified homicide victimization across these three cities for the ten-year period under investigation. Pearson chi-square tests were employed to ascertain any significant differences between elder and younger victims, based upon victim sex, race-ethnicity, offender age, sex, race-ethnicity, victim-offender relationship, motive, method, and incident location. Finally, the 537 cases of eldercide are examined to see if there are significant differences in their characteristics across the three cities, including variation of sex- and race/ethnicity-specific rates.

RESULTS

Question 1: What is the prevalence of eldercide victimization nationally and within the cities of Chicago, Houston and Miami for the period of 1985-1994?

Figure 1 (next page) shows overall and age-stratified homicide rates for the U.S. and the three cities within this analysis for 1985-1994. As earlier noted, the annualized mean homicide victimization rate nationally was 8.9 per 100,000, according to Uniform Crime Reports data (FBI, multiple years). This compares to overall homicide rates of 41.5 in Miami, 30.1 in Houston, and 28.8 in Chicago, based on rate computations from the NCOVR homicide data. In looking at homicide victims age 65 or older, it is clear that their relative risk of victimization is also dependent upon homicide levels of the cities in which they live. Though their homicide victimization rates are small in these three high-crime cities, each is still 3-4 times greater than the mean annual rate for this age group nationally during the ten-year time period of this analysis. Specifically, whereas the mean eldercide rate nationally was 3.7 per 100,000, it was 11.8 per 100,000 elders in Miami, 11.6 in Houston, and 9.4 in Chicago. This serves to validate the contention that, though national rates of eldercide have remained at 3-5 per 100,000 for many years, this risk changes dramatically based upon the city in which these persons actually live.



Question 2: How do the incidence and characteristics of homicide involving persons age 65 or older compare to those of younger victims?

Table 1 (next page) provides the answers to this question. As earlier noted, we examine the 98.7% of 14.443 cases (n=14,262) for which victim age was known. Crosstabulations of all other factors with the dichotomous victim age category (< age 65 = 0; age 65+=1) were first conducted with only those cases for whom all values were known, and then with all cases, including those with missing values for particular variables. Because the variables shown to be significant, as well as their levels of significance, were the same in each instance, we describe the results using all cases, with the number of variable-specific missing values noted.

As shown in Table 1, there was a statistically significant ($p<.05$) difference across the three cities in the proportion of homicide victims who were age 65 or older, with fewer elderly victims in Houston and more than expected by chance alone in Miami. Persons age 65 or older accounted for 3.3% (n=157) of the homicide victims in Houston, 3.9% (n=310) in Chicago, and 4.7% (n=70) in Miami. For all other factors in this analysis, there were statistically significant ($p < .001$) differences in demographic and incident characteristics of these lethal events, based on the two victim age categories. Specifically, females accounted for almost 40% of the total (36.7%) among older homicide victims but only 16.5% of victims younger than age 65. As for the race/ethnicity of victims, the percentage of elder victims who were non-Hispanic White (34.9%) was almost three times greater than among victims younger than age 65 (12.7%). Also, only one-tenth (9.9%) of elder victims, but 22.5% of younger victims, were Hispanic.

Table 1. Frequency and Percentage of Age-Stratified Homicide Victimizationby Selected Characteristics in Chicago, Houston and Miami, 1985-1994 (N=14,262)

Variable	Age 65 or Older (n=537)		Younger Than 65 (n = 13,725)	
City*	Percentage	Number	Percentage	Number
Chicago	3.9	310	96.1	7,689
Houston	3.3	157	96.7	4,632
Miami	4.7	70	95.3	1,404
Victim Sex*				
Female	36.7	197	16.5	2,258
Male	63.3	340	83.5	11,465
(Missing =2)				
Victim Race/Ethnicity**				
White	34.9	187	12.7	1,735
Black	54.1	290	63.3	8,613
Hispanic	9.9	53	22.5	3,070
Asian/Other	1.1	6	1.5	198
(Missing =110)				
Offender Age**				
<16 Years	3.4	12	4.0	399
16-25	31.2	109	47.7	4,803
26-45	42.7	149	40.4	4,066
46-64	13.2	46	6.9	693
>65 Years	9.5	33	1.1	113
(Missing =3,839)				
Offender Sex**				
Female	16.1	61	10.3	1,105
Male	83.9	317	89.7	9,662
(Missing 3,117)				
Offender Race/Ethnicity**				
White	18.8	72	9.2	983
Black	68.8	264	66.8	7166
Hispanic	9.6	37	21.3	2282
Asian/Other	2.9	11	2.7	290
(Missing =3,157)				

(Table continued on next page.)

Table 1. Frequency and Percentage of Age-Stratified Homicide Victimizationby Selected Characteristics in Chicago, Houston and Miami, 1985-1994 (N=14,262) (continued)

Variable	Age 65 or Older (n=537)		Younger Than 65 (n = 13,725)	
City*	Percentage	Number	Percentage	Number
Victim-Offender Relationship**				
Intimate partner	8.2	26	11.2	912
Other family	23.6	75	13.7	1112
Friend/Acquaintance	35.5	113	47.0	3,819
Stranger	32.7	104	28.1	2,289
(Missing =5,812)				
Primary Motivation**				
Domestic Violence	8.1	37	9.2	1,086
Argument	24.2	111	36.9	4,368
Gang-related	0.0	0	9.8	1,158
Drug-related	6.5	30	13.6	1,614
Robbery	39.0	179	11.2	1,332
Other felony	6.1	28	2.0	235
Unspecified	16.1	74	17.4	2,056
(Missing = 1,954)				
Method**				
Firearm	24.4	130	56.0	7,639
Knife/sharp object	30.6	163	16.5	2,256
Hands/feet	12.6	67	4.3	581
Blunt object	14.3	76	4.4	595
Strangulation/ligature	2.8	15	.9	120
Arson,Vehicle,Other	15.2	81	18.0	2,452
(Missing = 87)				
Location**				
Indoors	81.5	422	44.9	5,903
Outdoors	18.5	96	55.1	7,239
(Missing = 602)				

*p < .05 ** p < .001

Based on the 73% of cases for whom offender age was known, this analysis also revealed significant differences in offender characteristics for these two age groups of homicide victims. Whereas, almost half (47.7%) of the victims younger than age 65 were killed by 16–25-year-olds, this age group perpetrated less than a third of the eldercides. Instead, almost one-fourth (22.7%) of known eldercide offenders were age 46 or older, including five offenders between 85 and 90 years of age. Offender sex was also significantly different between the two age

groups of homicide victims, with females representing 16.2% of eldercide perpetrators, compared to only 10.2% of persons committing homicide against younger victims. In terms of offender race/ethnicity, there were very similar percentages of both age groups of homicide victims who were killed by Black offenders, accounting for 68.1%of eldercides and 66.6% of homicides of younger persons. Yet, twice the percentages of elder victims (19%) than younger victims (9.8%) were killed by Non-Hispanic White offenders. As was the case for the racial/ethnic distribution of victims, Hispanics made up 22.2%of the perpetrators who killed non-elderly persons, but only 10.4% of the offenders of elder homicide victims.

We also examined age-specific differences in victimization based upon homicide motive and victim-offender relationship. Consistent with previous research (Bachman & Meloy, 2008), robbery or another felony was the motive in well over half (53.9%) of the eldercides in all three cities for this ten-year period. By contrast, only 16.8% of younger persons became homicide victims in the course of another felony. There were also significant differences in the distribution of victim-offender relationships of older versus younger homicide victims. Intimate partners and other family members, in combination, were the known offenders in 31.8% (n=101) of the cases of eldercide, compared to 24.8% of the cases involving younger victims. However, we note as well that intimate partners were the perpetrators in only 8.2% of eldercides, compared to 11.2% of homicides involving younger victims. Though the special circumstance of intimate partner homicide-suicide among older persons is of current interest in the research literature (Cohen, Llorente, & Eisdorfer, 1998; Malphurs & Cohen, 2005), there is empirical evidence of an inverse relationship between age and intimate partner homicide risk (Shackelford, Buss, & Peters, 2000).

For younger victims, the lower percentage of family perpetrators was offset by the finding that almost half (46.8%) were killed by friends or acquaintances, compared to this victim-offender relationship for one-third (33.9%) of older homicide victims. Research regarding the proportion of elders whose perpetrators were strangers has been equivocal, and, in this study, the two victim age groups had similar percentages of such offenders. We note, however, that the victim-offender relationship was not specified in 41% of the cases. Though this leaves open the prospect that an even larger proportion of eldercide victims were killed by strangers, research (Decker, 1993; Regoeczi & Miethe, 2003) suggests that it may be erroneous to assume that victim-offender relationships originally classified as "stranger" or "unknown" indicate that the perpetrator was a stranger.

Finally, a comparison was made of homicide method and incident location, and there were, once again, significant differences ($p < .001$) between the two age categories of victims. Firearms, which have long been the predominate method in homicides nationally, were used in almost two-thirds (64.6%) of cases with victims younger than age 65. Yet guns of any kind were used for only one-fourth (24.4%) of eldercide incidents. Alternatively, a larger proportion (30.6%) of eldercides were committed with knives, or a combination of hands/feet or blunt objects (26.9%). As for the location of these homicide incidents, those involving younger victims were fairly evenly divided between indoor and outdoor settings, at 44.9% and 55.1%, respectively. The case is significantly different for elder victims, for whom 81.5% of incidents occurred indoors.

Question 3: Do the characteristics of eldercide vary significantly across the cities of Chicago, Houston, and Miami?

While the findings to this point comport with previous research indicating that the characteristics of eldercide are often different from that of younger victims, we explore as well whether there are significant differences in this age-specific subgroup of homicide victims across three major U.S. cities. The answers to this question are shown in Table 2. As in the previous stage of this analysis, we analyzed these data both with and without cases that contained missing values. Using the full population of cases, offender sex ($p < .054$) fell just above the $p < .05$ delimiter for statistical significance. Otherwise, the same factors were significant in both the full and more limited files, so the full file is used in this stage of the analysis. The crosstabulation of eldercide characteristics indicated significant differences in the distribution of victim and offender race/ethnicity, victim-offender relationship, motive, and method based upon whether the victim was a resident of Chicago, Houston, or Miami.

Table 2. Comparative Characteristics of Eldercide across Chicago, Houston, Miami, 1985-1994

	Chicago (n=310)		Houston (n=157)		Miami (n=70)	
Variable	Percentage	Number	Percentage	Number	Percentage	Number
Victim Sex						
Female	38.1	118	36.3	57	31.4	22
Male	61.9	192	63.7	100	68.6	48
Victim Race/Ethnicity*						
White	31.6	98	44.2	69	28.6	20
Black	64.2	199	46.8	73	25.7	18
Hispanic	3.5	11	7.1	11	44.3	31
Asian/Other	.6	2	1.9	3	1.4	1
(Missing = 1)						
Offender Age						
<16 Years	4.9	11	1.1	1	0.0	0
16-25	32.1	72	31.5	29	24.2	8
26-45	44.6	100	37.0	34	45.5	15
46-64	11.2	25	16.3	15	18.2	6
>65 Years	7.1	16	14.1	13	12.1	4
(Missing = 188)						
Offender Sex						
Female	17.8	41	18.0	18	4.2	2
Male	82.2	189	82.0	82	95.8	46
(Missing = 159)						

(Table continued on next page.)

Table 2. Comparative Characteristics of Eldercide across Chicago, Houston, Miami, 1985-1994 (continued)

	Chicago (n=310)		Houston (n=157)		Miami (n=70)	
Variable	Percentage	Number	Percentage	Number	Percentage	Number
Offender Race/Ethnicity*						
White	16.3	37	30.2	32	5.9	3
Black	78.4	178	55.7	59	52.9	27
Hispanic	4.8	11	9.4	10	37.3	19
Asian/Other	.4	1	4.7	5	3.9	2
(Missing = 153)						
Victim-Offender Relationship*						
Intimate partner	10.1	23	4.8	3	9.7	0
Other family	14.5	33	58.1	36	21.4	6
Friend/Acquaintance	43.4	99	3.2	2	42.9	12
Stranger	32.0	73	33.9	21	35.7	10
(Missing = 219)						
Primary Motivation*						
Domestic Violence	7.0	17	9.6	15	8.5	5
Argument	32.5	79	12.1	19	22.0	13
Gang-related	0.0	0	0.0	0	0.0	0
Drug-related	7.8	19	7.0	11	0.0	0
Robbery	40.3	98	32.5	51	50.8	30
Other felony	5.8	14	5.1	8	10.2	6
Other, unspecified	6.6	16	33.8	53	8.5	5
(Missing = 78)						
Method*						
Firearm	14.2	44	38.3	59	39.7	27
Knife/sharp object	32.6	101	27.9	43	27.9	19
Hands/feet	16.1	50	7.1	11	8.8	6
Blunt object	15.2	47	13.0	20	13.2	9
Strangulation/ligature	0	0	7.8	12	4.4	3
Arson, Vehicle, Other	21.9	68	5.8	9	5.9	4
(Missing = 5)						
Location*						
Indoors	82.6	256	84.3	118	70.6	48
Outdoors	17.4	54	15.7	22	29.4	20
(Missing =19)						

*p< .05 ** p < .001

Whereas approximately one-third of Chicago's and Miami's eldercide victims were Non-Hispanic White, this group accounted for 44.3% of the victims in Houston. Almost two-thirds (64.2%) of the elder homicide victims in Chicago, less than half (46.8%) of those in Houston and only 25.7% (n=18) in Miami were Black. By comparison, Hispanic eldercide victims accounted for 44.3 percent of the total in Miami, but only 7.1% of victims in Houston and 3.5% of elder victims in Chicago. Because the racial/ethnic representation of eldercide victims and offenders across these cities is driven in part by their relative distributions within each city's population, we compute population-based rates for each sex- and race/ethnicity-specific subgroup of elders later in this study.

Among the 71.5% of cases where the race/ethnicity of the eldercide offender was known, there was also a significant difference among the three cities. The vast majority of known Chicago eldercide offenders (78.4%) were Black, whereas they comprised just over half of the offenders in Houston (55.7%) and Miami (52.9%). Hispanics represented only 4.8% of known offenders in Chicago and 9.4% in Houston, but 37.3% in Miami. We note that the relative racial/ethnic proportions of offenders track with those of eldercide victims in each city, with the notable exception of their being twice the percentage of Black eldercide offenders than victims in Miami. Though this finding could indicate a higher incidence of inter-racial events with Black offenders in that city, it may also be an artifact of more missing data for Non-Black homicide offenders.

This analysis also revealed statistically significant ($p < .001$) differences in the victim-offender relationships and motives for eldercide across these three cities. As shown in Table 2, victim-offender relationship data were available for 59.2% of all cases, and homicide motive was indicated in 85.5% of cases. Whereas intimate partners were the known perpetrators in approximately 10% of eldercides in both Chicago and Miami, they accounted for less than 5% of the incidents in Houston. By contrast, almost 60% of the known offenders of elder homicide in Houston were other family members. For both Chicago and Miami, over 40% of these elder homicides were perpetrated by friends or acquaintances of the victim, though these accounted for only 3.2% of the victim-offender relationships in Houston. In all three cities, approximately one-third of identified offenders were categorized as strangers.

In keeping with the distribution of victim-offender relationships, significant differences ($p < .001$) were also found in homicide motives. Though only 12.1% of Houston eldercides began as arguments, such incidents accounted for 22% of the total in Miami and almost one-third (32.5%) in Chicago. We note again that the original data file was created with an emphasis on gangs, guns, and drugs. For this reason, we are able to determine that 7.8% of Chicago eldercide incidents and 7.0% of those in Houston were classified as drug related. Future research will, ideally, allow for a closer examination of such incidents, to determine if they stem from interactions involving illicit (e.g., drug trade) or licit (e.g., stealing prescription medication) substances. Though the former is generally the basis for a drug-related classification by the police, the latter may be of increasing importance where an increased use of prescription medications among elders is concerned.

Our findings are in keeping with previous research on the disproportionate representation of elder victims in robbery-related incidents, in that these were the classified motives in over 40% of Chicago cases, 32.5% of Houston cases, and 50.8% of those in Miami. Importantly, the combination of drug-related, robbery, and other felony incidents account for almost half

(44.6%) of all eldercides in Houston and in Chicago (44.6%) and over half of those in Miami (61.0%). Previous research of eldercide in Chicago (Bachman, Meloy, & Block, 2005; Repp & Block, 2006) from 1965 forward has indicated that robbery was disproportionately the motive in cases involving the killing of senior adults. Similarly, McCabe and Gregory (1998), in their NIBRS-based analysis of elderly crime victimization in North Carolina, found that those age 65 or older were almost four times more likely to be victims of robbery than younger persons.

We noted in the earlier comparison of eldercides to homicides of younger persons that elders were significantly less likely to have been killed with firearms. In this subsequent examination of city-specific eldercide incidents, significant ($p < .001$) differences in homicide method were found. Though firearms accounted for only 14.2% of Chicago homicides, this was the method of killing in almost 40% of cases in both Houston (38.3%) and Miami (39.7%). Also, whereas approximately one-third of cases in all three cities involved knives or other sharp objects, a larger proportion of incidents involved hands/feet or blunt objects in Chicago (31.3%) than in Houston (20.1%) or Miami (22.0%). Finally, there was a significant ($p < .05$) difference by location of the homicide incident, with a larger than expected number of those cases in Miami occurring outdoors.

Question 4: What are the relative sex- and race/ethnicity-specific homicide risks to elderly persons among the three cities?

We have noted the racial/ethnic diversity across these three cities, as well as the higher proportion of female elder homicide victims when compared to the sex distribution of younger victims. In the last stage of this exploratory analysis, to more precisely assess elders' relative sex- and race/ethnicity-specific risk of homicide victimization, we have computed homicide rates for each of these subgroups within the cities of Chicago, Houston, and Miami. In this case: Sex- and Race/Ethnicity-Specific Eldercide Rate = I/P x 100,000, where I = the total number of elder homicide victims in the respective category (e.g., Hispanic male) in each city for the 1985-1994 time period and P = the total elder population of that categorical group for 1990 (U.S. Bureau of the Census, 2006). Each quotient is then standardized per 100,000 persons, and the annualized mean eldercide rate for the ten-year period is computed. The results are shown in Table 3.

Table 3. Mean Annualized City-Specific Eldercide Rates by Sex and Race/Ethnicity of Victims: Chicago, Houston, Miami, 1985 – 1994.

	Chicago	Houston	Miami
Overall 1990 Population	2,783,726	1,630,553	358,548
Population Age 65+	330,182	136,684	59,347
Elderly Homicide Victims 65+	310	157	70
Overall Eldercide Rate	9.39	11.49	11.80
White Elder Male Popluation	73,258	30,416	17,664
White Elder Male Victims	47	34	11
White Male Eldercide Rate	6.42	11.18	6.23

(Table continued on next page.)

Table 3. Mean Annualized City-Specific Eldercide Rates by Sex and Race/Ethnicity of Victims: Chicago, Houston, Miami, 1985 – 1994. (continued)

	Chicago	Houston	Miami
White Elder Female Popluation	123,468	47,945	26,149
White Elder Female Victims	51	35	9
White Females Eldercide Rate	4.13	7.30	3.44
Black Elder Male Popluation	37,902	12,983	2,712
Black Elder Male Victims	136	54	14
Black Male Eldercide Rate	35.88	41.59	51.62
Black Elder Female Population	60,279	19,603	4,372
Black Elder Female Victims	63	19	4
Black Female Eldercide Rate	10.45	9.69	9.15
Hispanic Elder Male Population	8,310	6,295	17,311
Hispanic Elder Male Victims	8	8	22
Hispanic Male Eldercide Rate	9.63	12.71	12.71
Hispanic Elder Female Population	10,973	9,008	26,399
Hispanic Elder Female Victims	3	3	7
Hispanic Female Eldercide Rate	2.73	3.33	2.65
Asian/Other Elder Male Population	7,031	5,414	1,039
Asian/Other Elder Male Victims	1	3	1
Asian/Other Male Eldercide Rate	1.42	5.54	9.62
Asian/Other Elder Female Population	8,961	5,020	1,411
Asian/Other Elder Female Victims	1	0	2
Asian/Other Female Eldercide Rate	1.12	0.00	14.17

When controlling for the number of persons age 65 or older in each of the three cities of this investigation, the overall eldercide rates ranged from 9.39 per 10,000 in Chicago to 11.49 in Houston and 11.80 in Miami. This compares to the previously-reported overall U.S. eldercide rate of only 3.7 for this time period. We also found that the relative risk by sex and race/ethnicity varies widely.

In Chicago, elder Black males and females were each at greater risk of homicide victimization than all other sex- and race/ethnicity-specific groups. More specifically, the Black male eldercide rate in this city was almost six times higher than that of Non-Hispanic White males, 3.7 times greater than the Hispanic male rate, and exceeded the rate for Asian/Other males by

a factor of 25. For Black elder females in Chicago, their relative risk of homicide victimization was 2.5 times greater than that of elder White females, 3.8 times greater than for non-Hispanic females and exceeded the rate for Asian/Other elder females by a factor of nine.

As shown in Table 3, the story in Houston is one in which the elder Black male eldercide rate was 41.59 per 100,000, over three times greater than the risk for Hispanic (12.71) and Non-Hispanic White (11.18) males. Also, the homicide rates of both Black and Non-Hispanic White elder females (9.69 and 7.30, respectively) were higher than those of Hispanic females (3.33) as well as Asian/Other males (5.54). There were no female Asian/Other eldercide victims recorded for this time period in Houston.

In Miami, contrary to what some might except in this predominantly Hispanic city, but consistent with our findings for Chicago and Houston, the rate of Black male homicide far exceeded that of all other groups of eldercide victims. The relative risk to Black males, at 51.62, was four times greater than for elder Hispanic males (12.71) and over eight times greater than the rate for Non-Hispanic White males (6.23). We also note that, though their were only two Asian/Other female eldercide victims and one Asian/Other male eldercide victim, the low numbers of these two subgroups among the Miami population resulted in rates of 14.17 and 9.62 per 100,000, respectively. For the ten-year period covered by this analysis, the relative risk to elder non-Hispanic White and Hispanic females was only a fraction of that for all other sex- and race/ethnicity-specific subgroups.

SUMMARY AND DISCUSSION

Empirical work on the incidence of homicide against older persons has been slow to develop, and even less has been conducted at the city level. For these reasons, and to examine a previously untapped database, this exploratory study has examined eldercide across the cities of Chicago, Houston, and Miami, for the period 1985-1994. These data included victim age for 98.7% (n=14,262) of the total 14,443 recorded homicide victims. Among these three cities, there were 537 recorded cases of criminal homicide against persons age 65 or older.

Our findings indicate that, though the relative homicide victimization rate of elders was small in these three high-crime cities, it was still 3-4 times greater than the mean annualized rate for this age group nationally for the ten-year period of this analysis. Also, when compared to younger persons, there was a significantly larger proportion of eldercide victims who were female and Non-Hispanic White as well as a larger than expected number for whom the offender was also Non-Hispanic White and female. We also found that elder victims were more frequently killed by middle-aged to older offenders. Among known victim-offender relationships, similar proportions of older and younger victims were killed by strangers, but twice the proportion of elder versus younger victims were killed by family members. Among all eldercides, over half of the incidents were motivated by robbery or another felony, compared to less than 20% of such incidents with younger victims. Yet only 25% of eldercides, compared to 65% of other homicides, were committed with guns. For elders across all three cities, 30% were killed with knives or other sharp objects, and 25% were killed with hands/feet or blunt objects. Our findings also revealed that over 80% of elder victims were killed indoors.

In a city-by-city examination of eldercide cases across these three major urban areas we found that almost half of the eldercide victims in Houston were killed by family members, whereas friends and acquaintances accounted for the largest proportions of offenders in Chi-

cago and Miami. Among cases where the victim-offender relationship was available, approximately 30% of eldercide victims in all three cities were killed by strangers. Also, though elders were significantly less likely than younger homicide victims to have been killed with firearms, this was the method used against almost 40% of eldercide victims in both Houston and Miami. Among the 310 eldercide cases in Chicago, 20% of victims were killed with their assailants' hands and feet.

By examining the sex- and race/ethnicity-specific rates of eldercide across these three major U.S. cities, additional important findings emerged. When controlling for the respective population of these subgroups in each city, there were notable differences in risk. In all three cities, the eldercide rates of Black males far exceeded those of all other sex- and race/ethnicity- specific subgroups. Also, in Chicago elder Black females had a higher victimization rate than White, Hispanic, and Asian/Other elder males; and the elder Black female rate in Houston was higher than for any other female racial/ethnic subgroup. In Chicago and Houston, the next highest eldercide rates were for elder Hispanic males, whose eldercide rate was the third highest in Miami. In that city, controlling for each group's base number within the city's population, the two cases of elder Asian/Other female killing resulted in a somewhat higher victimization rate for them over that of elder Hispanic males. In all three cities, the rates for Hispanic elder females were among the lowest; this was also the case with rates for both male and female Asian/Other elders in Chicago and Houston and the rate for non-Hispanic White females in Miami.

Along with a profile of eldercide for three of the largest U.S. cities over a decade, this research also contributes to our understanding of eldercide more generally. Our findings lend support to those of other researchers in terms of the overall predominance of eldercide indoors by means other than firearms and disproportionately in the course of a robbery or other felony, each of which is significantly different from the characteristics for homicides of younger victims. But, as this research also indicates, the risk to elders and the characteristics of these events are widely disparate from one U.S. city to another. Even more detailed city-specific studies should follow to determine risk by sex and race/ethnicity as well as what community-level factors may be significant. Given the consistent evidence in the criminological literature of the significant relationship of social disorganization upon crime generally, its impact upon elders as well as their caregivers also deserves empirical investigation.

The need for continued research of the eldercide risk and dynamics at a micro level is also compelling. Specifically, continued research which analyzes morbidity and mortality statistics may provide for a more complete picture of the circumstances of these homicides. An example is that of Abrams et al. (2007), who analyzed medical examiner data (including police reports) for all homicides in New York City from 1990 to 1998. Results of toxicological testing within these data indicated that approximately 20% of the elderly victims had recently consumed alcohol, and these researchers very cautiously point out that this could have potentially contributed to elder victims' vulnerability by way of reduced alertness or slower reaction times.

The value of assuming this multi-disciplinary approach to our knowledge of lethal violence against elders is also illustrated by Shields et al. (2004) who analyzed elder abuse and neglect by examining both postmortem and living cases at the same State Medical Examiner's Office. Among their findings were that a higher percentage of males were victims of homicide and died due to neglect as compared with a greater number of deceased women who were victims of physical and sexual assaults and neglect. They argue that "A multi-agency collaboration con-

sisting of the forensic pathologist, coroner, law enforcement, and Adult Protective Services is paramount in the investigation of elder abuse and neglect cases" (Shields et al., 2004, p. 126), given that each brings a unique and vital perspective and set of skills to such cases.

Additional future research may also focus specifically upon elder female victims. Just as Lauritsen and Heimer (2008) have noted differences between trends in lethal versus non-lethal female violent crime victimization, a comparative look at how this manifests itself among older females is also called for. For example, McCabe and Gregory's (1998) NIBRS-based analysis revealed that, among the elder crime victims in North Carolina, elderly females were two times more likely to be victims of murder, rape, and kidnapping than were elderly males, whereas elderly males were more often the victims of the property crimes burglary, larceny, vandalism, and motor vehicle theft.

It also behooves researchers to continue to focus upon the oldest old and changes in the risk and dynamics of eldercide over this old-age time span. For example, Shields et al. (2004, p. 126) found that the mean age of deceased neglect subjects was almost ten years older than the survivors of neglect, at 79.7 years and 70.3 years, respectively. From all of the perspectives just cited, and as recently discussed by Bachman & Meloy (2008), in order to protect our oldest citizens, the need for continued research of eldercide risk and dynamics must be met.

REFERENCES

Abrams, R. C., Leon, A. C., Tardiff, K., Marzuk, P. M., & Sutherland, K. (2007, September) "Gray murder": Characteristics of elderly compared with nonelderly homicide victims in New York City. *American Journal of Public Health, 97*(9): 1666-1670.

Bachman, R., Dillaway, H., & Lachs, M. S. (1998). Violence against the elderly: A comparative analysis of robbery and assault across age and gender groups. *Research on Aging, 20*(2), 183-198.

Bachman, R., & Meloy, M. (2008). The epidemiology of violence against the elderly: Implications for primary and secondary prevention. *Journal of Contemporary Criminal Justice 24,* 186-197.

Bachman, R., Meloy, M., & Block, R. (2005, November). Examining violence against the elderly: Lethal and nonfatal patterns of robbery and assault. Paper presented at the annual conference of the American Society of Criminology, Toronto, Ontario, Canada.

Block, C. R. (1987). *Homicide in Chicago*. Chicago: Loyola University of Chicago, Urban Insights Series.

Block, C. R. (2006). When an elderly person is murdered: Circumstances of homicides against the elderly in Chicago, 1965-2000. Paper presented at the Homicide Research Working Group Annual Meeting, Richmond, VA.

Block, C. R., & Block, R. L. (1992). Overview of the Chicago homicide project. In C. R. Block & R. L. Block (Eds.), *Questions and answers in lethal and non-lethal violence: Proceedings of the first annual workshop of the homicide research working group*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 1992.

Blumstein, A. (1995). Youth violence, guns, and the illicit-drug industry. *Journal of Criminal Law and Criminology, 86*(4),10-36.

Blumstein, A., & Cork, D. (1995). Linking gun availability to youth gun violence. *Law and Contemporary Problems, 59*(1), 5-24.

Brewer, V. E., Damphousse, K. R., & Adkinson, C. D. (1998). The role of juveniles in urban homicide: The case of Houston, 1990-1994. *Homicide Studies, 2*(3), 321-339.

Chu, L. D., & Kraus, J. F. (2004). Predicting fatal assault among the elderly using the national incident-based reporting system crime data. *Homicide Studies, 8*(2), 71-95.

Cohen, D., Llorente, M., & Eisdorfer, C. (1998). Homicide-suicide in older persons. *American Journal of Psychiatry, 155*(3), 390-396.

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review, 44*(4), 588-608.

Copeland, A. R. (1986). Homicide among the elderly: The Metro Dade County experience, 1979-83. *Medicine, Science and the Law, 26*(4), 259-262.

Decker, S. H. (1993). Exploring victim-offender relationships in homicide: The role of individual and event characteristics. *Justice Quarterly, 10*(4), 585-612.

Eve, S. B. (1985). Criminal victimization and fear of crime among non-institutionalized elderly in the United States: A critique of the empirical research literature. *Victimology, 10*(1-4), 397-408.

Falzon, A. L., & Davis, G. G. (1998). A 15 year retrospective review of homicide in the elderly. *Journal of Forensic Science, 43*(2), 371-374.

Fattah, E. (1993). Victimisation and fear of crime among the elderly: A possible link? Paper presented at the Conference of the Australian Institute of Criminology, February 23-25, 1993.

Federal Bureau of Investigation. (2006a). Crime in the United States: Uniform Crime Reports 2006. Retrieved November 20, 2008, from: http://www.fbi.gov/ucr/cius2006/offenses/violent_crime/murder_homicide.html

Federal Bureau of Investigation. (2006b). Supplementary Homicide Reports, 1976-2006. Retrieved from: http://www.ojp.usdoj.gov/bjs/homicide/tables/elderrtstab.htm.

Fox, J., & Levin, J. (1991). Homicide against the elderly: A research note. *Criminology, 29*, 317-327.

Hochstedler, E. (1981) Crime against the elderly in 26 cities. Retrieved from http://www.ncjrs.gov/App/Publications/abstract.aspx?ID=76709

Johnson-Dalzine, P., Dalzine, L., & Martin-Stanley, C. (1996). Fear of criminal violence and the African American elderly: Assessment of a crime prevention strategy. *Journal of Negro Education, 65*(4), 462-469.

Jones, J. S, Veenstra, T. H., Seamon, J. P., & Krohmer, J. (1997) Elder mistreatment: National survey of emergency physicians. *Annals of Emergency Medicine, 30,* 463-72.

Kennedy, L. W., & Silverman, R. A. (1990). The elderly victim of homicide: An application of the routine activities approach. *Sociological Quarterly, 31*(2), 307-319.

Land, K. C., McCall, P. L., & Cohen, L. E. (1990). Structural covariates of homicide rates: Are there any invariances across time and social space? *American Journal of Sociology 95*(4), 922-963.

Lattimore, P. K., Trudeau, J., Riley, J. K., & Edwards, S. (1997). Homicide in eight U.S. cities: Trends, context and policy implications (NCJ 167262). Washington, DC: U.S. Department of Justice.

Lauritsen, J. L., & Heimer, K. (2008). The gender gap in violent victimization, 1973-2004. *Journal of Quantitative Criminology, 24,* 125-147.

Malphurs, J. E., & Cohen, D. (2005). A statewide case-control study of spousal homicide-suicide in older persons. *American Journal of Geriatric Psychiatry, 13*(3), 211-217.

Martinez, R., Jr. (2000). Immigration and urban violence: The link between immigrant Latinos and types of homicide. *Social Science Quarterly, 81*, 363-374.

Martinez, R., Jr., & Lee, M. T. (1999). Extending ethnicity in homicide research: The case of Latinos. In M. D. Smith & M. Zahn (Eds.), *Homicide: A sourcebook of social research* (pp. 211-220). Newbury Park, CA: Sage.

Maxfield, M. G. (1989). Circumstances in Supplementary Homicide Reports—Varity and validity. *Criminology, 27*(4), 671-695.

McCabe, K. A., & Gregory, S. S. (1998, May 20). Elderly victimization: An examination beyond the FBI's index crimes. *Research on Aging, 10*(3).

Messner, S., & Tardiff, K. (1985). The social ecology or urban homicide: An application of the "routine activities" approach. *Criminology, 23*(2), 241-267.

National Consortium on Violence Research. (2000). Multi-city Homicide File, NCOVR Data Center. H. John Heinz III School of Public Policy & Management. Pittsburgh, PA: Carnegie-Mellon University. Additional information at: http://www.andrew.cmu.edu/user/jc63/NCOVR%20Data%20Center%20Capabilities.pdf

National Research Council. (2003). Elder mistreatment: Abuse, neglect, and exploitation in an aging America. Panel to review risk and prevalence of elder abuse and neglect. Richard J. Bonnie and Robert B. Wallace, Editors. Committee on National Statistics and Committee on Law and Justice, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Nelsen, C., & Huff-Corzine, L. (1998). Strangers in the night: An application of the lifestyle-routine activities approach to elderly homicide victimization. *Homicide Studies, 2*(2), 130-159.

Paulsen, D. J. (2003). Murder in black and white: the newspaper coverage of homicide in Houston. *Homicide Studies, 7*(3), 289-317.

Repp, M., & Block, C. R. (2006, Summer). Elder risk trends and victim characteristics revealed in homicide dataset. *The Compiler, Illinois Criminal Justice Information Authority, 6-7*. Retrieved on August 2009 from http://www.icjia.state.il.us/public/pdf/Compiler/Summer 2006.pdf

Riley, K. J., Lattimore, P. K., Leiter, J., & Trudeau, J. (1997, February). Homicide trends in eight U.S. cities. *Homicide Studies, 1*(1), 84-100.

Safarik, M. E., Jarvis, J. P., & Nussbaum, K. E. (2002).

Sexual homicide of elderly females: Linking offender characteristics to victim and crime scene attributes. *Journal of Interpersonal Violence, 17*(5), 500-525.

Shackelford, T. K., Buss, D. M., & Peters, J. (2000). Wife killing: Risk to women as a function of age. *Violence and Victims, 15*(3), 273-282.

Shields, L., Hunsaker, D., & Hunsaker J. (2004) Abuse and neglect: A ten-year review of mortality and morbidity in our elderly in a large metropolitan area. *Journal of Forensic Sciences, 49*(1).

Silverman, R. A., & Kennedy, L. W. (1987). Relational distance and homicide—The role of the stranger. *Journal of Criminal Law & Criminology, 78*(2), 272-308.

Soos, J. N. (2000). Gray murders: Undetected homicides of the elderly plus one year. *Victimization Elder Disabled 3*, 33-34.

Stevens, J. A., Hasbrouck, L. M., Durant, T. M., Dellinger, A. M., Batabyal, P. K., Crosby, A. E., Valluru, B. R., Kresnow, M., & Guerrero, J. L. (1999). Surveillance for injuries and violence among older adults. *Morbidity and Mortality Weekly Report/CDC Surveillance Summaries, 48*(8), 27-50.

Titterington, V. B., & Damphousse, K. R. (2003). Racial and ethnic factors in a half-century of homicide: Houston, 1945-1995. In D. F. Hawkins (Ed.), *Interpersonal violence: The ethnicity, race, and class nexus* (pp. 67-68). New York: Cambridge University Press.

U.S. Census Bureau. (1993). Census of the United States: Social & economic characteristics 1990. Washington, DC: U.S. Government Printing Office.

U.S. Census Bureau. (2008). Decennial census, Population estimates and projections. Retrieved from http://agingstats.gov/agingstatsdotnet/Main_Site/Data/2008_Documents/Population.aspx

BIOGRAPHICAL SKETCHES

Victoria Brewer Titterington received her Ph.D. in Sociology from Tulane University in 1995. She also holds master's degrees in clinical social work and business administration and is currently a professor in the College of Criminal Justice at Sam Houston State University. Her research interests include the intersection of aging and crime and women as homicide victims or offenders.

Napoleon C. Reyes, J.D., is a Ph.D. student in the College of Criminal Justice at Sam Houston State University. He obtained his Baccalaureate in Psychology from the University of Santo Tomas (1994) and his law degree from the University of the Philippines (2000). Before leaving for post-graduate study in the United States, he worked as an associate of Roque & Butuyan, handling criminal, civil, and trade litigation cases. He currently works as a research associate in the Institute for the Study of Violent Groups.

FACILITATING ORANIZATIONAL CULTURE: NEW CHIEF OLD VALUE SYSTEMS

David J. Thomas
Florida Gulf Coast University

ABSTRACT

Anyone who desires to be Chief of Police *has to know and understand it is a daunting task. This is a case study of a new chief who took office in May 2008 and the challenges he faced while attempting to introduce new values and a new culture to an old organization. Some of the greatest challenges facing a new chief are the deeply entrenched values and a culture which dates back years and involves many artifacts and/or roadblocks. The analysis of this case study reveals that, in order for this chief to be successful, he must become a master of history, understanding agency politics, community perceptions, and the prevailing power structures. History offers insight into the missing elements and why predecessors have failed or succeeded. The limitation of this case study is it involves one agency. This study is of interest to police administrators, police officers, and academics who are faced with the challenges of facilitating cultural change within a police organization.*

Key Words: Leadership, Organizational Culture, Socialization, Organizational Stressors

INTRODUCTION

A new police chief is selected for a variety of reasons, the most common being the predecessors who were asked to step down. Unlike in a traditional police career where the tenure is 20 or 30 years, police chiefs can expect their tenure to last approximately five in one half years (Rainguet & Dodge, 2001; Tunnel & Gaines, 1997; Wienblatt, 1999). Examine the average tenure of a police chief and compare it to the longevity of an officer, and it is conceivable that an officer who serves 20 years could work for four different police chiefs during his or her career. Each new chief brings with him new philosophies, ideas, value systems, and beliefs he would like to see incorporated into the agency. The challenge is implementing a new way of thinking and doing.

Thomas—Facilitating Organizational Culture: New Chief Old Value Systems. (2010)
Southwest Journal of Criminal Justice, Vol. 6(3). pp. 250–266.
© 2010 Southwestern Association of Criminal Justice

LITERATURE REVIEW/ORGANIZATIONAL CULTURE AND SOCIALIZATION

With an agency being subject to change every five years there are several constants: policing is policing, crime doesn't stop, and the agency will still be there long after this new chief has come and gone. What this means to a new chief is that he inherits the old command staff, an organizational culture that is deeply entrenched with an old set of values, and many roadblocks that hinder change. Alvesson (2002) notes that organizational culture should not always be seen as something which has consensus and harmony, but it should be viewed as a dynamic in terms of contradiction, hidden agendas, and conflict (p. 121). Schein (2004) argues that we cannot see the forces which cause certain types of organizational behavior and offers three different types of culture inherent in every organization:

a. Artifacts. These consist of everything one sees, hears, and feels when they encounter a new group or an unfamiliar culture (pp. 25-26). Applying this concept to a new chief who has taken over an agency plagued by officer misconduct, the chief has the arduous task of analyzing the climate which bred such behavior.

b. Espoused beliefs and values. These are developed in response to a problem or a series of problems which require a solution. Often times the solution is based on someone's belief of what is right/wrong, and believing their position will create leaders (p. 28). In response to the issue of officer misconduct the new chief may determine the problem lies in the new employee selection process and there needs to be more stringent standards. However, the issue may be associated with supervision or the lack thereof. The answer for many of the problems can be found in the history and past practices of an organization. History is often dismissed in exchange for a quick fix.

c. Basic underlying assumptions. These are associated with solutions to a problem, and when applied they repeatedly work, and yet they are only supported by a hunch or one's belief system (p.30).

It is interesting to note that within one agency there are multiple organizational cultures which are defined by rank, specialization, and even division or bureau. Each of these will have an impact on an officer's performance because they define an organizational and operational standard. Organizational culture affects how people think and feel, but more importantly it defines identification, loyalty and commitment, and the concepts of value and self-worth within an organization (Cameron & Quinn, 2006; Druckman, Singer, & Van Cott, 1997; Schein, 2004). Harigopal (2006) argues that change creates stress and challenges the organizational value system as well as its effectiveness (p. 274). The success or failure of an organization hinges on management and employees having their needs met, or at least finding a healthy compromise (Gilley, Quatro, Hoekstra, Whittle, & Maycunich, 2001; Kurke, 1995). Gilley et al. (2001) describes this type of leader as a servant leader (p. 210). Whereas Kurke (1995) outlines the needs of the both the management and employees:

- Management's needs include: operations, administrative, performance, costs containment, political pressures, and interagency cooperation.
- On the other hand employees needs include: self–esteem, personal performance record, compensations, job security, opportunities for advancement, personal time/family, and the intangible benefit of membership in a police organization (p. 395).

However, before a chief can facilitate change within an organization it must be determined if the organization is ready for change. Cohen (2005) argues the only way to truly understand if the agency is ready for change is by collecting data from a change readiness assessment (p.209). A readiness assessment should include an assessment of the following areas: the external environment, mission, policies and procedures, culture, structure, practices, leadership, and climate (Hitchcok & Willard, 2008; Proehl, 2001; Russell & Russell, 2006). Here it is important to note that before any administrator can institute change he/she must first assess their personal readiness. In fact, before this process can begin, an administrator should determine: if the organization is ready for change; the key issues and challenges; if they have the skill set to overcome fear, resistance, and complacency; and identify the stakeholders and engage them (Cohen, 2005; Holland, 2000).

The most significant obstacles to organizational change within a law enforcement agency are the organizational stressors. Collins and Gibbs (2003) support this argument and note that occupational stressors associated with policing were more closely associated with organizational stressors than with daily operational stressors (p. 265). Some of the organizational stressors in policing have been identified as: poor policies and practices of the department, excessive paperwork, a lack of communication, organizational structure, a strict chain of command, lack of control over workload, agency politics, nonparticipation in decision making, inadequate support, and lack of consultation (Bartol & Bartol, 2008; Brown & Campbell, 1994; Coman & Evans, 1991; Golembiewski & Kim, 1991; Reiser, 1974; Zhao, He, & Lovrich, 2002).

To overcome the organizational barriers, it is important to establish an open line of communication. If a chief wanted to effect change and send the agency in a new direction, it then becomes incumbent upon him/her to create a vehicle of open communication at all levels of the organization. Collinson and Cook (2006) argue that leaders must overcome their own assumptions and present their subordinates with open, meaningful forums for dialogue and an exchange of ideas. In fact, they note that in order for an organization to renew itself it must articulate its values through discussion, argument, and joint decision making (p.201).

Reale (2005) posits that in order for change to be meaningful and effective it must involve stakeholders, a guidance team(s), or committee(s) (p.147). The stakeholders should come from every facet of the organization, and in policing it depends on the size of the organization, with each division having their own guidance team. In smaller agencies it could be as simple as having one or two representatives from each division. The key to the success in breaking down the barrier is the chief taking the time to meet with the guidance teams; this establishes trust and fosters an open line of communication between all personnel and the chief. In some organizations this committee is ongoing and is known as the *Chief's Council* which meets monthly and only with the chief.

To be successful, it is important to select team members who are trusted and respected by their colleagues, care about the organization, and are not afraid to be candid. In selecting a leader or a series of leaders to be successful, the individual must be task oriented and willing to accept the demands of leadership. In addition to the establishment of such committees, officers appreciate a chief, not a representative, who comes to briefings to discuss difficult decisions or challenges the agency faces.

A group of officers who are respected but removed from agency politics are the informal leaders. Informal leaders obtain their status because of their knowledge and skills; the suc-

cessful outcome of an internal investigation; successfully challenging the administration or winning a grievance; and/or their knowledge of policy and law (Thomas, 2010). However, convincing this group to participate may be more difficult than one could imagine because informal leaders are viewed as non-conformists and are trusted by their peers as well as members of the administration. For this group to participate in such a process could mean that they are selling out (Adlam & Villiers, 2003; King, 2005).

Reflective Question: As an administrator how would you go about getting this group involved in the process? Or is getting them involved worth the effort?

Leadership Styles

Policing has many styles of leadership, but the most often discussed are authoritarian/autocratic, laissez-faire, and democratic (Bennett & Hess, 2007; Dantzker, 1998; Panzarella, 2003; Schroeder & Lombardo, 2004). However, Whitfield, Alison, and Crego (2008) contend it should be impossible to pigeonhole a leader because the dynamics of policing are ever changing or fluid (p. 81). Although their discussion focuses on critical incidents, they offer an answer to an employee feeling valued within an organization with the following observation: "Individuals remain productive and positive when their expertise is acknowledged, and officers need to be supported and monitored by leaders that are adaptive, participative, and empathetic" (p. 91).

The discussion by Whitfield et al. is supported by Hersey, Blanchard, and Johnson (2001) in their discussion of the situational leader in which they offer three components of the leadership process: the leader, the follower, and the situation (p. 108). They are careful to note that if a leader only offers one style of leadership for every circumstance the leader is putting the accomplishment of their stated objectives in jeopardy, because the leader has failed to recognize the needs of their employees (p.231).

Another leadership style which meets the needs of the individual is the transformational leadership. Bass and Riggio (2006) note that a transformational leader is one who inspires by helping followers grow and empowering individuals within the organization, with the ultimate goal of aligning individual beliefs with the organizations stated goals and objectives (p. 3). A transformational leader understands the importance of the individual and if they don't buy into the necessary changes, ideals, or philosophies, then the organization will remain status quo or fail in its stated objectives. The goal of transformational leadership is described as a breakthrough improvement and breaking the bonds of old ties to create a step up in performance (Hacker & Roberts, 2003). Posner (2008) suggest that a leader must lead by example by having shared values which are a convergence of individual values and organizational values. Simply put, a leader must be willing to walk the walk (p.77).

Political Climate

It is clear there are a number of hidden pitfalls for a new chief, and two keys to change are politics and communications. In essence they go hand in hand. It could be argued that the greatest stumbling blocks can be found in a lack of communication with city government, the community, the agency, and police labor organizations (Rainguet & Dodge, 2001; Sossin, 2007). For any chief this is a tough balancing act. The vehicle of organizational culture is organizational communication, and the same message must be transmitted externally to the public (Braunstein, 1999; Keyton, 2005). For an agency to be truly effective it needs to reach out to

the community through the use of surveys and quality control phone calls to assess the public's opinion of the agency just like any other business (Braunstein, 1999; Keyton, 2005).

Although failure to communicate may be political suicide with the city commission and the public, it may be seen by officers as support for their actions and misdeeds, no matter the cost. Such was the case with the Los Angeles Police Department prior to the Rodney King incident. In the *Christopher Commission Report (1991),* Assistant Chiefs Jesse Brewer and David Dotson noted that the excessive force problem was a major issue and was not addressed even though the problem officers were known. The supervisors were not held accountable (p. ix). The Commission also discovered the agency ignored officers who displayed disturbing patterns of behavior and gave them favorable evaluations (p. x). The Commission Report reflects a trend where the agency did not meet the needs of the community, and their style of policing was outdated. For a chief to be successful he must be willing to have open communication with city fathers and the community, and must also be a risk taker (Bennis, 1989; Bolman & Deal, 2008; Schein, 2004; Sutherland, 2000).

Developing a New Value System

Organizational values are most often associated with ethics and/or morals. It is important to note that a community may appear to have several different value systems, and this is often how police enforce the law. Cities are composed of multiple value systems built upon issues of race, community, and conflict (Massey, 2002; Rex, 1973). For police to be effective they must understand each of these value systems is in play and know the differences.

Agency and individual police values seem to be challenged with every new case of police misconduct. The question for every new chief goes beyond the agency's internal value system. Rather the value systems which come into question are those the agency has communicated publicly. The most common forms of communication of an agency's value system are the actions of agency personnel. It should be noted that this does not happen in a vacuum. Personnel actions are coupled with administrative decisions which solidify organizational values and public opinion (Barrett & George, 2006; Manning, 2003; Mawby, 2002).

The concepts of crime, crime prevention, and police are relative to the community, and the perception is different based on the department's efforts and communication. Any response to crime must take into account the diversity of circumstances characterizing each locality (Levine, 2007; Lewis & Salem 1988). Failing to make such adjustments allows different segments of the community to view police practices as biased, which was noted by Weitzer and Tuch (2006). A 2006 survey administered by Weitzer and Tuch determined the following: 77% of the African Americans, 63% of Latinos, and 47% of Whites surveyed believed socio-economic status was synonymous with the type of police service an agency provides (p.80). The data reflects the notion that a community's perception is their reality.

AGENCY CASE STUDY:

This is a case study which was conducted in the fall of 2008 after a new chief of police sought assistance in examining the organizational culture of his department. The agency is located in the southeastern region of the United States. The chief sought to implement change and stated: "This agency needs to move from the dark ages to the twenty-first century."

Definitions and Population

A. The new chief will be known as Chief Change (Chief C): Prior to becoming chief he had served at the local sheriff's department for 25 years. The agency has over 800 employees, which includes the jail. Chief C had worked and served as a supervisor in every division of the department except communications. Since taking this new position as chief, in casual conversations with his civilian and sworn personnel, each expressed support for him as well as his new initiatives. The most common sentiments expressed were: "We have a leader who supports us and is looking to move the department in the right direction."

B. The ex-chief will be known as Chief Tradition (Chief T): Chief T had worked at the department for 30 years. He worked himself up from patrol through the ranks to become chief. He served as chief for 15 years. Chief T was slated to retire in August of 2008 but was forced to retire five months early because he failed to discipline the deputy chief for multiple acts of misconduct. The last act of misconduct involved the deputy chief kicking a hole in the wall of the police department. The deputy chief's anger was due to the city manager's continual meddling in police department affairs and decision making.

C. The city manager will be known as the Manager. The Manager has a long history with the city. He began his career with the police department and worked there for over 22 years, and the last position he held before becoming city manager was deputy chief. He has served as city manager for 8 years and has been the longest sitting city manager in the last 20 years. The city government is a council-manager style government with an elected city council and mayor and an appointed city manager. The city has approximately 6,000 residents with a median income of $44,000 (U.S. Census, 2000).

D. Concerning agency demographics, the department employs 7 civilian personnel, 22 sworn personnel, and the deputy chief's position remains vacant.

Inherited Problems:

This organization had always promoted the chief from within, and as a result the culture of the agency was stagnant and remained unchanged for years. The agency did not collaborate with other agencies and had practiced a self imposed form of isolationism. To outsiders and city fathers, it appeared the organization had been managed properly and was successful at meeting its objectives and promoting its value system.

During the chief's first six months in office he assessed department personnel, equipment, budget, and the political climate of the organization. In this time he discovered:

1. A poor communication system which is not compatible with adjoining jurisdictions. Not only is the communication system incompatible, it also provides poor or no radio reception at one end of the city because of antenna placement. In addition, the laptops have no internet capability and, as a result, can't communicate with dispatch via the laptops.
2. The department participates in the Indianapolis Take Home Car Plan and its fleet has 30 vehicles. Most of the patrol vehicles have in excess of 100,000 miles and are in constant need of repair. There has been funding in the police department budget each of the last five years for the purchase of two new vehicles. However, money was returned to the general fund as unspent capital.

3. The agency firearms are 15 years old, and some are inoperable. Some officers have been forced to purchase weapons for duty use.
4. The agency policies are outdated and need to be rewritten.
5. Officers and investigators were not allowed to go to training unless it was radar certification, intoxilyzer operator's course, or a Taser instructor's course. There are investigators who have never been to an investigators school, FTOs who have never been to FTO training, and supervisors who have never been to a first line supervisor's course. If training was conducted to meet state standards, the trainer was brought to the organization. The agency maintained an annual training budget of $15,000, not to mention second dollar funding received from the state. In fact, training monies were returned to the city's general fund and the state as unused each year.
6. All intermediate weapons were taken away from the officers except the Taser, the philosophy being the Taser was to replace all intermediate weapons. The agency use of force options are empty hand control, Taser, and lethal force.
7. The two midnight sergeants who were assigned to night shift did not work an entire shift with their assigned squads. Patrol works 12-hour shifts which run from 7:00 am – 7:00 pm and 7:00 pm – 7:00 am. The two night shift supervisors began their shift at 2:00 pm and ended at 2:00 am, leaving no supervisory coverage between the hours of 2:00 am and 7:00 am.
8. During approved overtime details officers were paid cash while using the department vehicle and wearing their police uniform. Their earnings were never channeled through the city finance office, and officers did not pay taxes or social security on the income they earned.
9. During Christmas for the last 20 years a local wrecker company took orders for alcohol and gave each employee a fifth of their choosing as a Christmas present, including the retired chief and his deputy chief.
10. The agency had a history of hiring officers who had been terminated by other agencies for some form of misconduct but were not stripped of their standards by the Police Officer Standards and Training (POST) supervisory body. The hiring of these officers was ordered by the Manager.
11. It was common knowledge to everyone except the Chief C that one officer was addicted to amphetamines and came to work impaired daily. His addiction was discovered after being involved in a car accident during the subsequent drug test. An internal investigation uncovered who had knowledge of the officer's amphetamine problem.

Political Climate

1. The city manager refused to fill the deputy chief slot after there were over 30 applicants. The city manager did not like Chief C's first choice, and they remain at an impasse over this issue. To date the position remains vacant. In addition, the city manager will not allow the chief to promote anyone either temporarily or permanently and offers no explanation for his decisions. The funding for the deputy chief's position or an internal promotion is available and remains in the police department budget for the

2009 fiscal year. As an alternative, the Manager offered to handle any questions the officers may have when Chief C is not available.

2. The city manager demanded that the department hire officers who were terminated by other agencies. In many of the cases the Manager ignored or had suppressed the internal investigations of these officers. In doing so, he ordered Chief T and later Chief C to hire the officers despite their objections and in spite of their history. This action divided the personnel's loyalty, with some loyal to the Manager and others the chief. In fact, the Manager's action created a climate which pits the officers against Chief C.
3. Most recently Chief C attempted to purchase Dodge Chargers to diversify his fleet, and the city manager advised the chief he needed approval, denied the purchase of the Chargers, and ordered the chief to purchase the traditional Crown Victorias.

Data Collection: Data for this study was collected through personal interviews, newspaper accounts, and consultations with Chief C.

- The personal interviews were unstructured and held within two weeks of Chief C being sworn in. The first series of interviews was conducted of everyone in the organization at the time, which included 7 civilians, 18 officers, and 4 supervisors. All supported Chief C, describing the need for change and yet were reluctant to discuss Chief T.
- A second set of unstructured interviews were held two months later after Chief C began to experience problems and behavior he classified as passive aggressive. During this set of interviews only two civilian employees, four officers, one patrol supervisor, and one detective supervisor participated. Those interviewed stated support for Chief C had fallen off and described the department as divided. Central to the lack of support and the passive aggressive behavior was Chief C's demand for change and his holding everyone accountable for their actions. One supervisor advised there were several comments lamenting the good old days, and during his interview he revealed that some officers and supervisors were meeting with Chief T trying to find a way to get Chief C fired and Chief T rehired.
- There were weekly consultations with Chief C for a period of six months. The focus of the consultations dealt with personnel matters, leadership style, initiatives to motivate employees, training, communications, interagency cooperation, new vehicles, and budget.
- There were several stories in the local newspaper which were precipitated by Chief T. Chief T attacked the Manager describing his continued meddling in police department affairs and blamed the Manager for the current state of the department. Chief T also attacked the credentials of Chief C, arguing that Chief C was not qualified.

Chief C Initiatives

When Chief C took office he met with every employee in the organization and allowed them to express what they felt were the shortcomings of the agency. Chief C was also interested in their vision for the future. The officers unanimously stated that they felt behind the times because they had not received any formal training since graduating from the academy. The only courses officers had attended at the local academy were: *Intoxilyzer Operators Courses and a Radar*

Operators Course. In addition to the individual and group meetings, Chief C went on patrol to get a feel for the city, community perceptions, and to ascertain each patrol officer's skill set.

His initial assessment of the agency was that the officers needed training and lots of it, so he opened the door to allow them to attend. This was a calculated move on Chief C's part, who believed this would be the first step in changing the agency's culture. To enhance the change and solidify his desire to change, Chief C currently meets with supervisors weekly to discuss *his* value system and *his* vision for the department. His values were based on these three concepts:

1. Partnerships—Chief C wanted his employees to develop meaningful partnerships with the community, business, industry, and other law enforcement agencies.
2. Commitment—Chief C wanted his staff to be committed to their jobs and the community. He stressed that he wanted his staff to view their positions as more than just jobs but careers, and the community as customers.
3. Excellence—Chief C believed through training and proper supervision the agency should reach a level of excellence and be viewed by their partners as such.

Chief C believed that if he provided his officers with the necessary training, allowed them to participate in interagency operations, and met with the supervisors weekly discussing the challenges ahead that this would be enough to change the agency culture and values. Chief C's view of what was needed was personal, and he did not seek the input of his employees other than the initial meeting with each. By not involving his employees Chief C discovered that the more he attempted to transform the department's values the more resistance he encountered. Out of frustration Chief C developed and administered two surveys—one for the department and another for the community with the following results:

A. Step One/In-house Survey:

This survey was administered to the supervisors first and later to all of the employees:

1. What is our role in this community? You cannot use the famous words "Protect and Serve." N=5 and no one knew the answer.

2. What is our mission statement or the agency values using either the old ones or the new ones which have been developed since I have taken office? N=5 and no one knew the answer.

Chief C became so disgusted with the supervisors' lack of knowledge that he surveyed the entire department and no one knew the answers.

B. Step Two/Neighborhood Survey, Business, and Industrial Surveys:

Chief C felt that since he was new and the department had been isolated, it was important to understand the community's perception of the agency. A survey was developed, and each patrol officer was asked to interview 10 residents in one of 13 subdivisions. This was not put out as an order to the officers, but the officers were asked to participate in a letter written by Chief C (see Appendix A). The surveys were limited to 10 questions and were designed to break the ice and for the community to get to know the officers, as well as allowing the officers to get to know members of the community. Excluding the supervisors there are 15 officers x 10 surveys each = 150 surveys. The officers completed 60 surveys. The supervisors were to oversee this task and report to the chief weekly, but this did not happen.

The patrol supervisors were tasked with contacting local business owners and setting up meetings with industry leaders to complete surveys which were specifically designed for busi-

ness and industry. There are 3 supervisors x 10 surveys each = 30 surveys. One supervisor completed 20 surveys of the local businesses. However, not one survey was completed of the city's 30 industrial partners.

The lack of participation sent a clear message to the chief that a few members bought into his desire to change the organization. The officers were given 30 days to complete the 10 surveys, and it took two months to get the 60 returned. One supervisor supported Chief C and was responsible for all of the completed surveys. Ultimately less than 50% of the officers participated in this event. The same held true for the supervisors; one supervisor was responsible for the 20 surveys. Missed was a golden opportunity for the agency to begin forging partnerships with the community and especially the industry partners who are vital to the city's tax base.

After the failed attempts to get most of the agency to buy into Chief C's vision and values, he began to investigate and found many of the members remained loyal to Chief T. Chief T was holding weekly meetings at local restaurants, and officers would attend while on and off duty. This information supported what the researcher discovered in his second set of informal interviews.

CONCLUSION AND RECOMMENDATIONS:

There is a great deal of resistance to Chief C's desire to change the vision and values of the organization. This is supported by the actions of the officers, supervisors, and the city manager. In interpreting the data, it is apparent that the manager has a problem with trust and control. However, this mindset is baffling since he was the one who interviewed and chose Chief C. In the final analysis, the Manager has one agenda, which is to control the police department, and he has used a number of tactics to do so.

Chief T was a major stumbling block in the beginning. His efforts were minimized when Chief C confronted the officers. What needs to be noted here is that there are still some residual effects from the past administration, with some officers and civilian employees displaying passive aggressive behavior. In each of these cases, Chief C has counseled the employee. If there is no behavior change, Chief C will document and ultimately terminate the employees who continue to sabotage his efforts. As of this writing Chief C has terminated three employees.

The literature review notes that Chief C failed to complete two key assessments: a self assessment and an organizational readiness assessment. Beyond the assessments, he failed to identify the stakeholders or provide them with instructions and a series of objectives, which would be the beginning of organizational change. By adopting such a process, it becomes the employees, not the chief, who are the change agents. The concept of change is something which makes many uncomfortable. In fact it disturbs complacency because it presents new challenges (Bond, 2007; Chambers, 1998). As Chief C seeks to move forward, it is important to note that whole organizations rarely change themselves. There must be specific initiatives which drive performance and change (Burke, 2008; Dooley, 2004; Smith, 1996).

Leaders who are looking for growth and establishing values should be willing to: learn from past mistakes; not withhold information; recognize that all topics and ideas are open for discussion and debate; allow those participating in the discussion to speak openly and freely without fear of reprisal or being ostracized; and avoid participating in groupthink (Dantzker, 1998; Hitt, Ireland, & Hoskisson, 2009; Kapardis, A., 2003; Malloch & Porter-O'Grady, 2009).

Finally, as one interviews for a new chief's position, it is important to have a set of prepared questions for the Manager or mayor as to their expectations and what type of latitude a new chief will have. More importantly it is imperative for new chiefs to become masters of history to learn everything they can about an organization. History will show how and why things have changed and provide some insight into the current state of affairs in every police agency.

APPENDIX A: LETTER TO OFFICERS SURVEYS

October 3, 2008

Dear Colleagues:

As you know I have a strong sense of community. A few weeks ago I asked the supervisors in a staff meeting what the mission of the department was in relationship to the community. The only answer I would not accept was "Protect and Serve." Ironically, no one had an answer. However, my inquiry was not limited to the supervisors, and it seems that no one in the agency knew the answer.

I want each of you to understand that the Police Department is entering a new era, one that I will call *professionalism*. Not to say that you weren't professional before, but the goal is to become more efficient, meet your needs in regards to training and supervision, and meet the needs of the community. Keep in mind that we are only an effective agency as long as the community supports us. Without their support we become an occupying army, and everyone loses in the process.

Conducting this survey is the beginning of this new era. There will be three different kinds of surveys: one for the residents, one for businesses, and one for industry. As an agency, we need to find out what each of these community members thinks of us and how we can best serve them.

I have developed a new mission statement for the organization, and this survey is the beginning of the first segment: **Partnerships.** The term **Partnerships** is all inclusive, meaning citizens, business, and industry. When we have successfully completed this task I will unveil part two of our Values and Mission.

Finally, I know that you think knocking on doors and meeting with the public is not your job. As police officers we often forget that our real job is customer service; failing to meet that need often creates a disconnect between us and the community. With that said, I am asking that each of you take this assignment seriously, knock on doors, and be cordial to our partners.

Respectfully,

Chief Change

REFERENCES

Adlam, R., & Villiers, P. (2003). *Police leadership in the twenty-first century: Philosophy, doctrine and developments*. United Kingdom: Waterside Press.

Alvesson, M. (2002). *Understanding organizational culture.* Thousand Oaks, CA: Sage Publications.

Banks, C. (2008). *Criminal justice ethics: Theory and practice, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Barrett, K., & George, W. (2006). *Race, culture, psychology and law*. Thousand Oaks, CA: Sage Publications.

Bartol, C.R., & Bartol, A.M. (2008). *Introduction to forensic psychology: Research and application, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership, 2nd ed*. Mahwah, NJ: Lawrence Erlbaum Associates.

Bayley, D. H. (1996). *Police for the future*. New York: Oxford University Press.

Bennett, W. W., & Hess, K. M. (2007). *Management and supervision in law enforcement, 5th ed*. Belmont, CA: Thomson-Wadsworth Publishing.

Bennis, W. (1989). *On becoming a leader.* Reading, MA: Addison-Wesley Publishing Company.

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership, 4th ed*. San Francisco, CA: Jossey-Bass.

Bond, M. A. (2007). *Workplace chemistry: Promoting diversity through organizational change*. Lebanon, NH: University Press of New England.

Braunstein, S. (1999). Are ethical problems in policing a function of poor organizational communications? In J. D. Sewell (Ed.), *Controversial issues in policing* (pp. 123-131). Boston, MA: Allyn and Bacon.

Brown, L. P. (2001). Community policing: A practical guide for police officials. In S. L. Gabbidon, H. T. Greene, & V. D. Young (Eds.), *African American classics in criminology & criminal justice* (pp. 213-226). Thousand Oaks, CA: Sage Publications.

Brown, J. M., & Campbell, E. A. (1994). *Stress and policing: Sources and strategies*. New York: John Wiley.

Burke, W. W. (2008). *Organization change: Theory and practice, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Butler, R. (1991). *Designing organizations: A decision-making perspective*. New York, NY: Routledge Publishing.

Cameron, K. S., & Quinn, R. E. (2006). *Diagnosing and changing organizational culture*. San Francisco, CA: Jossey-Bass.

Chambers, H. E. (1998). *The bad attitude survival guide: Essential tools for managers*. Cambridge, MA: Perseus Books Group.

Cohen, D. S. (2005). *The heart of change field guide*. Boston, MA: Harvard Business School Publishing.

Collins, P. A., & Gibbs, A. C. (2003). Stress in police officers: A study of the origins, prevalence and severity of stress-related symptoms within a county police force. *Occupational Medicine*, 256-264.

Collinson, V., & Cook, T. F. (2006). *Organizational learning: Improving teaching, learning, and leading in school systems*. Thousand Oaks, CA: Sage Publications.

Coman, G., & Evans, B. (1991). Stressors facing Australian police in the 1990s. *Police Studies, 14*, 153-165.

Dantzker, M. L. (1998). Police organization and management: Yesterday, today, and tomorrow. Boston, MA: Butterworth-Heinemann.

Dooley, K. J. (2004). Complexity science models of organizational change and innovation. In M. S. Poole & A. H. Van de Ven (Eds.), *Handbook of organizational and innovative change*. New York, NY: Oxford University Press.

Druckman, D., Singer, J. E., & Van Cott, H. P. (1997). *Enhancing organizational performance*. National Academy of Science: Washington D.C.

Fielding, N. G. (1995). *Community policing*. New York, NY: Oxford University Press.

Gabbidon, S. L., & Greene, H. T. (2008). *Race and crime, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Gilley, J. W., Quatro, S. A., Hoekstra, E., Whittle, D. D., & Maycunich, A. (2001). *The manager as change agent: A practical guide to developing high performance people and organizations*. Jackson, TN: Perseus Publishing

Golembiewski, R. T., & Kim, B. S. (1991). Burnout in police work: Stressors, strain, and the phase model. *Police Studies, 14*, 74-80.

Hacker, S., & Roberts, T. (2003). *Transformational leadership: Creating organizations of meaning*. Milwaukee, WI: American Society of Quality.

Harigopal, K. (2006). *Management of organizational change: Leveraging transformation, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Hatch, M. J. (2004). Dynamics in organizational culture. In M. S. Poole & A. H. Van de Ven (Eds.), *Handbook of organizational change and innovation* (pp. 190-212). New York: Oxford University Press.

Hersey, P., Blanchard, K. H., & Johnson, D. E. (2001). *Management of organizational behavior: Leading human resources, 8th ed*. Upper Saddle River, NJ: Prentice Hall.

Hitchcok, D., & Willard, M. (2008). *The step by step guide to sustainability planning: How to create and implement sustainability in any business or organization*. Sterling, VA: Earthscan.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2009). *Strategic management: Competiveness and globalization concepts, 8th ed*. Mason, OH: South-Western Cengage Learning.

Holland, W. E. (2000). *Change is the rule practical actions for change: On target, on time on budget*. Chicago, IL: Dearborn Financial Publishing.

Janis, I. (1972). *Victims of groupthink: A psychological study of foreign-policy decisions and fiascos*. Boston, MA: Houghton Mifflin Company.

Kapardis, A. (2003). *Psychology and law: A critical introduction*. New York, NY: Cambridge University Press.

Kerner Commission. (1968). Report of the national advisory commission on civil disorders: Summary of report. Washington D.C.: Author.

Keyton, J. (2005). *Communication and organizational culture: A key to understanding work experiences*. Thousand Oaks, CA: Sage Publications.

King, W. R. (2005). Toward a better understanding of the hierarchical nature of police organizations: Conception and measurement. *Journal of Criminal Justice, 33*(1), 97-109.

Kurke, M. I. (1995). Organizational management of stress and human reliability. In M. I. Kurke & E. M. Scrivner (Eds.), *Police psychology into the 21st century* (pp. 391-416). Hillsdale, NJ: Lawrence Erlbaum Associates.

Levine, K. L. (2007). Can prosecutors be social workers? In A. Sarat (Ed.), *Studies in law, politics, and society, 40* (pp. 125-152). San Diego, CA: Elsevier Press.

Lewis, D. A., & Salem, G. (1988). *Fear of crime incivility and the production of a social problem, 2nd ed*. New Brunswick, NJ: TransactionBooks.

Malloch, K., & Porter-O'Grady, T. (2009). *The quantum leader: Applications for the new world of work*. Sudbury, MA: Jones and Bartlett Publishers.

Manning, P. K. (2003). *Policing contingencies*. Chicago, IL: University of Chicago Press.

Massey, D. S. (2002). Residential segregation. In D. T. Goldberg & J. Solomos (Eds.), *A companion to racial and ethnic studies* (pp. 348-354). Malden, MA: Blackwell Publishers.

Mawby, R. C. (2002). *Policing images: Policing, communication, and legitimacy*. Portland, OR: Willan Publishing.

Panzarella, R. (2003). Leadership myths and realities. In R. Adlam & P. Villiers (Eds.), *Police leadership in the twenty-first century* (pp. 119-133). Winchester, UK: Waterside Press.

Partington, D. (2002). *Essential skills for management research*. Thousand Oaks, CA: Sage Publications.

Posner, B. Z. (2008). *The leadership challenge, 3rd ed*. Daryaganj, India: John Wiley and Sons.

Proehl, R. A. (2001). *Organizational change in the human services.* Thousand Oaks, CA: Sage Publications.

Rainguet, F. W., & Dodge, M. (2001). The problems of police chiefs: An examination of the issues in tenure and turnover. *Police Quarterly, 4*(3), 268-288.

Reale, R. C. (2005). *Making change stick: Twelve principles of transforming organizations*. Park Ridge, NJ: Positive Impact Associates.

Reiser, M. (1974). Some organizational stress on policemen. *Journal of Police Science and Administration, 2*, 156-159.

Rex, J. (1973). *Race, colonialism and the city*. Boston, MA: Routledge Publishing.

Russell, J., & Russell, L. (2006). *Change basics*. Alexandra, VA: American Society for Training and Development.

Schein, E. H. (2004). *Organizational culture and leadership, 3rd ed*. San Francisco, CA: Jossey-Bass.

Schroeder, D. J., & Lombardo, F. A. (2004). *Police sergeant exam, 4th ed*. Hauppauge, NY: Baron's Educational Series.

Scott, B. (2000). *Consulting on the inside: An internal consultant's guide to living and working inside organizations*. Alexandra, VA: American Society for Training and Development.

Skogan, W. G., & Hartnett, S. M. (1997). *Community policing Chicago style*. New York, NY: Oxford University Press.

Smith, D. K. (1996). *Taking charge of change: 10 principles for managing people and performance*. New York, NY: Basic Books.

Sossin, L. (2007). The oversight of executive-police relations in Canada: The Constitution, the courts, administrative processes, and democratic governance. In M. E. Beare & T. Murray (Eds.), *Police and government relations: Who's calling the shots?* Toronto, Canada: University of Toronto Press.

Sutherland, M. D. (2000). Communication: An agency imperative. In W. G. Doerner & M. L. Dantzker (Eds.), *Contemporary police organizations and management: Issues and trends,* (pp. 65-88). Boston, MA: Butterworth-Heinemann.

The City of Los Angeles. (1991). Independent commission on the Los Angeles police department. Los Angeles: Author.

Thomas, D. J. (2010). *Professionalism in policing: An introduction*. Clifton Park, NY: Delmar Cengage Learning.

Tropman, J. E. (2003). *Making meetings work: Achieving high quality group decisions, 2nd ed*. Thousand Oaks, CA: Sage Publications.

Tunnell, K. D., & Gaines, L. K. (1997). Political pressures and influences on police executives: A descriptive analysis. In M. McShane & F. P. Williams III (Eds.), *Criminal justice: Contemporary theory and practice*, (pp. 323-338). New York, NY: Garland Publishing.

United States Census Bureau. (2000). United States Census 2000. Washington D.C.: Author.

Weinblatt, R. B. (1999). Shifting landscape of chief's job. *Law and Order, 47*(10), 49-51.

Weitzer, R. J., & Tuch, S. A. (2006). *Race and policing in America: Conflict and reform*. New York, NY: Cambridge University Press.

Whitfield, K., Alison, L., & Crego, J. (2008). Command, control, and support in critical incidents. In L. Alison & J. Crego (Eds.), *Policing critical incidents* (pp. 81-91). Portland, OR: Willan Publishing.

Winright, T. (2007). Community policing as a paradigm for international relations. In G. Schlabach, D. Christiansen, & I. Kauffman (Eds.), *Just policing, not war: An alternative response to world violence* (pp. 130-152). Collegeville, MN: Liturgical Press.

Zhao, J. S., He, N., & Lovrich, N. (2002). Predicting five dimensions of police officer stress: Looking more deeply into organizational settings for sources of police stress. *Police Quarterly, 5*, 43-62.

BIOGRAPHICAL SKETCH

David J. Thomas currently serves as an assistant professor in the College of Justice Studies at Florida Gulf Coast University where he teaches in the Behavioral Sciences Program. Dr. Thomas has a Ph.D. in Forensic Psychology and a Masters of Education. He retired from the Gainesville Police Department after 20 years of service. His research interests include: police, police/forensic psychology, serial homicide, victimology, violence, and terrorism. Dr. Thomas donates his time to the local police academy mentoring and training new officers. He is also a certified expert in the Florida courts in the use of force.

Perceptions of Risk, Need, and Supervision Difficulty in the Community Corrections Setting

Laurie A. Gould
University of Texas at Arlington

Abstract

In the past few decades, shifts in client population and criticisms of ineffectiveness have prompted probation agencies to increase their use of objective case classification systems. Most correctional agencies utilize the same risk assessment instrument for both male and female offenders, and the assumption is that these tools perform an adequate job of assessing risks for both populations. However, research indicates that female offenders pose a much lower risk and have different need factors compared to their male counterparts. Despite the prevalence of risk assessment instruments in the community corrections setting, it is still unknown how gender influences risk and need. As such, the goal of the present study is to examine issues of risk and need in the classification and supervision of women in the community corrections setting. Furthermore, this study seeks to explore the difficulties that officers may encounter when supervising both male and female offenders in the community.

Key Words: risk assessment, gender, probation, supervision difficulty

INTRODUCTION

In the past few decades, shifts in client population and criticisms of ineffectiveness have prompted probation agencies to increase their use of objective case classification systems (also referred to as actuarial risk assessment tools, instruments, or techniques) (Jones, Johnson, Latessa, & Travis, 1999). Underlying much of the objective classification are actuarial statistics. Actuarial tools aggregate offenders with similar characteristics to better predict and plan risks (Simon, 1987, p. 62). The driving force behind current actuarial risk assessment tools is the idea that scientific research-generated guidelines are superior to professional opinion. The most popular version of these assessments includes both measures of risk (to determine security level) and need (to determine treatment program referrals).

The body of literature that is primarily responsible for documenting and interpreting the role of risk and the criminal justice system comes under the heading of the "new penology," risk

Gould—Perceptions of Risk, Need, and Supervision Difficulty in the Community Corrections Setting. (2010) *Southwest Journal of Criminal Justice*, Vol. 6(3). pp. 267–285.
© 2010 Southwestern Association of Criminal Justice

penology, or postmodern penology.[1] This literature highlights the purported shift away from the reliance on rehabilitative techniques and a move toward the management, custody, and control of dangerous offenders, often through actuarial techniques (Feeley & Simon, 1992; 1995). The general question of risk is discussed primarily in terms of specifying markers that demonstrate the shift to increasing reliance on actuarial risk assessment tools (Feeley & Simon, 1992) and increasing the severity of punishments. While the terminology employed to characterize this presumed shift is varied, as evidenced in postmodern penality (Feeley & Simon, 1992) or late modernity (Garland, 1995; Lucken, 1998), the debate is one of interpreting current penal trends in the context of their departure from conventional practice.

Much of the punishment literature on risk has tended to focus on identifying and interpreting broad trends in punishment, and most researchers have identified risk as a relevant feature of punishment. While generalized explanations of penal trends are important for clarifying what are often complex and contradictory structures, meaningful variations in penal trends may be lost in the process or unrepresented. For instance, many correctional systems assume that risk is genderless, classless, and raceless (Hannah-Moffat, 1999). This is exemplified in the reliance on the same risk assessment instruments to determine institutional risk for all types of inmates and risk to the community for all types of offenders supervised in the community. However, Beck (1992) does concede that the growth of risk will likely affect some people more than others, thereby creating social risk positions. Similarly, research on crime has established that crime and victimization are not evenly distributed across all groups (Farrell, 1992; Garland, 1996; Polvi, Looman, Humphries, & Pease, 1990). Current Uniform Crime Report (UCR) data indicates that males account for 76.2% of all arrests and 82.1% of arrests for violent crime (FBI, 2007). Given this, it is clear that the likelihood of being victimized by a female offender is much lower than that of a male offender, thereby supporting the idea that risks are not equal and may not operate the same across gender.

Despite the prevalence of risk assessment instruments in the community corrections setting, it is still unknown how gender influences risk and need. As such, the goal of the present study is to examine issues of risk and need in the classification and supervision of women in the community corrections setting. Furthermore, this study seeks to explore the difficulties that officers may encounter when supervising both male and female offenders in the community.

Given the unprecedented increases in the female offender population in recent years (Harrison & Beck, 2003; United States Department of Justice [USDJ], 1998), and the unique needs that female offenders have, with regard to motherhood (Greenfield & Snell, 1999; Kim, 2001; Temin, 2001), substance dependency (Greenfield & Snell, 1999), and physical and sexual abuse (Florida Corrections Commission [FCC], 2000; Greenfield & Snell, 1999), it is important to expand the current level of research to include female offenders in discussions of risk.

LITERATURE REVIEW

With regard to risk, examination of female offenders typically takes the form of analyzing the efficacy of gender-neutral risk assessment tools to adequately predict risk for women (Bonta, Pang, & Wallace-Capretta, 1995; Farr, 2000; Funk, 1999; Harer & Langan 2001; Holsinger,

1. Risk is considered a postmodern issue in criminal justice even though others outside of the discipline may not necessarily characterize it in this way.

Lowenkamp, & Latessa, 2003; McShane, Williams, & Dolny, 2002; Van Voorhis & Presser, 2001). The vast majority of this empirical research has focused on female correctional inmates, thus neglecting how risk operates for women in the community setting. This gap in the empirical research is problematic given that approximately 85% of female offenders are supervised in the community under probation and parole authorities (Greenfeld & Snell, 1999).

The unique issues of female offenders

The past few decades have witnessed unparalleled growth of females in the correctional system (Chesney-Lind, 1997; Gilliard & Beck, 1998; Harrison & Beck, 2003; Morash, Bynum, & Koons, 1998; USDJ, 1998). Recent figures indicate that nearly one out of every 109 adult women in the United States is under some form of correctional supervision on any given day (Greenfield & Snell, 1999). While female offenders make up 7% of the state and federal correctional populations, 23%of probationers, 12.7% of the local jail population, and 12% of the parole population (Glaze & Bonczar, 2006; Harrison & Beck, 2006), the rate of increased involvement in the system has prompted concern. Between 1981 and 1991, the number of female inmates increased by 254%, compared to a 147%increase for male inmates during the same period (Blomberg & Lucken, 1998). Between 1990 and 1998, the number of women under some form of correctional supervision increased dramatically. According to Greenfield and Snell (1999), the female prison and jail incarceration rates increased 88% and 40%, respectively. Similarly, community corrections witnessed large per capita increases of females under supervision, with probation supervision increasing by 40% and parole supervision increasing by 80% (Greenfield & Snell, 1999). The rate of growth in incarceration continues, and, since 1995, the annual growth rate of female incarceration has averaged a 4.7% increase, compared to the 3% increase for male prisoners (Harrison & Beck, 2006).

The boom in the female incarceration rate can be attributed to a number of factors, including determinate sentencing and tougher sanctions for drug offenses (Kim, 2001; USDJ, 1998; Young & Smith, 2000). Notably, there is no evidence to suggest that the increase in female incarceration occurred in response to a more dangerous and more disenfranchised violent breed of female offender (Mullings, Pollock, & Crouch, 2002; Snider, 2003), which has been cited as a general cause for the shift to a risk based penology (Feeley & Simon, 1992). The majority of women under correctional supervision have committed offenses such as theft, prostitution, and/or drug offenses (Covington, 2001; Greenfield & Snell, 1999; Young & Smith, 2000), which are not associated with fear of crime and risk. The Bureau of Justice Statistics Special Report on Female Offenders indicates that of the 721,400 women under probation supervision in 1999 only 9% were convicted of a violent crime, with the remaining 91% having been convicted for property, drug, or public order offenses (Greenfeld & Snell, 1999).

Clearly these figures suggest that "risk" as far as women are concerned rarely indicates violence. The unique needs of women in the system also challenge conventional assumptions about risk and dangerousness. Consider, for example, that most women under correctional supervision are mothers, with approximately 70% having at least one child less than 18 years of age, (Greenfield & Snell, 1999). The vast majority of these women were the primary caretakers of their children and more than two-thirds had lived with their children prior to incarceration (Greenfield & Snell, 1999; Kim, 2001; Temin, 2001). It is estimated that only 44 percent of male offenders in state prison lived with their minor children prior to arrest (Greenfield & Snell, 1999).

Approximately 6% of female inmates will also enter prison/jail pregnant and will give birth behind bars (Bloom & Steinhart, 1993). Children born in prison are typically removed from their mother's care two to three days after birth (Temin, 2001). Once separated from their mother, only 25% of these children will live with their father, 51% will live with their grandparents, 20% will live with other relatives, 4% will live with a family friend, and 11% will be placed in foster care (Dressel, Porterfield, & Barnhill, 1998; USDJ, 1998).

Gender is further relevant to the question of risk considering that many female offenders are victims in their own right. Female offenders suffer physical abuse, sexual abuse, and drug addiction at much higher rates than do male offenders. Nearly 60% of women being held in state prisons reported experiencing some type of severe abuse in the past (Greenfield & Snell, 1999). In a Florida study, 57% of female offenders versus 16% of male offenders, reported physical or sexual abuse prior to their incarceration (FCC, 2000). Drug addiction also poses a significant problem for female offenders. In a study on drug use, female offenders reported using drugs more frequently than male offenders—40% compared to 32% (Greenfield & Snell, 1999).

HIV infection and AIDS present another problem for female offenders. In the prison population, females suffer from the disease at much higher rates than males (Anderson, Rosay, & Saum, 2002). In 1995, the incidence of HIV infection among women inmates was almost double that of male inmates—4% compared to 2.3% (Gowdy, Cain, Corrothers, Katsel, Parmley, & Schmidt, 1998). The high rates of the disease among female offenders are attributed to a number of factors, including drug use, trading sex for drugs and money, sexual abuse, prostitution, and living in impoverished conditions (Anderson et al., 2002; Decker, 1992; Snell & Morton, 1994; DeGroot, Leibel, & Zierler, 1998; Kane & DiBartolo, 2002; Zaitzow, 2001).

A final problem that factors into discussions of risk and women is the prevalence of mental illness among the female offender population. Numerous studies have found high rates of mental health problems among incarcerated women (Kane & DiBartolo, 2002; Scott, Hannum, & Ghrist, 1982; Teplin, Abram, & McClelland, 1996). While mental illness also affects the male offender population, research has shown that women suffer at higher rates (Anderson et al., 2002; Ditton, 1999; Harlow, 1999; Harrison & Lawrence, 1998). According to the Bureau of Justice Statistics, 24% of female prison and jail inmates and 22% of female probationers were identified as mentally ill (Ditton, 1999). This is compared to only 16% of male prison and jail inmates and 15% of male probationers being identified as having a mental health problem (Ditton, 1999). It must be noted, however, that female offenders may be more readily diagnosed as mentally ill for problems such as depression, therefore creating a potential clinical bias. Female inmates are much more likely to be medicated while in prison (Morris, 1987; Ross & Fabiano, 1986). For example, female inmates are administered psychotropic drugs (tranquilizers) at ten times the rate of male inmates (Culliver, 1993).

The prevalence of mental health issues can again be correlated to the high levels of sexual abuse and drug use found in the female offender population. The interrelated nature of mental illness and drug abuse is difficult to characterize because the drug abuse may exacerbate otherwise hidden mental health problems or occur as a result of mental health problems. For example, research has shown that females tend to view their substance abuse problems more negatively than men, thus creating feelings of depression and low self esteem (Anderson et al.,

2002; Jainchill, Hawke, & Yagelka, 2000). There is also some evidence to suggest that female offenders use drugs in attempts to self-medicate for an undiagnosed mental health problem (Covington, 2001; Galbraith, 1998; Holtfreter & Morash, 2003).

Given the unique demands and needs of female offenders, it should not be assumed that risk and need function the same for females as they do for males. Furthermore, it should not be assumed that male and female offenders present the same types of difficulties for their officers.

Empirical Research

The supervision of women in the community corrections setting is an underexplored area of research. However, there are some notable studies that have examined issues of risk and need as they relate to female probationers. Norland and Mann's (1984) study of gender differences in violation of probation (VOP) reports is the first to examine the possible gendered nature of supervision in the community. The researchers examined VOPs and conducted interviews with probation officers to determine differences in the type and rate of VOPs, as well as issues of supervision difficulty.

While most officers in the study were reluctant to file violations of supervision for either gender, male offenders were more likely than female offenders to incur violations. When asked to explain the gender differences in VOPs, probation officers noted that they were hesitant to issue violations for female offenders because they typically have family responsibilities. Paternalistic beliefs toward women also factored into the low rates of violations filed by officers. One respondent stated that s/he was less willing to issue violations to a woman because "men are stronger than women … you see them as little creatures, real delicate" (125). Differences in the type of violation were also noted, with male offenders being more likely to commit new offenses while on probation and female offenders being more likely to incur technical violations.

Difficulties in supervision were also explored in the study, and officers generally reported that female offenders tend to take up more of the correctional officers time, compared to male offenders. Additionally, probation officers reported that females tend to have more complex problems, compared to their male counterparts. Because of this, probation officers generally stated that they prefer to work with male offenders.

More recently, Seng and Lurigio (2005) examined probation officers' perceptions about the risks and needs of female offenders and the difficulties associated with the supervision of women on probation. When asked if they believed that male and female probationers had different needs, most probation officers (71%) reported that female offenders presented different needs compared to males, particularly in the areas of parenting, employment, abusive relationships, and substance abuse. Next, a subsample of the officers were asked if they felt prepared to address the various needs of female probationers. Most officers felt that they were not prepared to deal with the financial, housing, and medical needs, but about half of the sample believed they were at least somewhat prepared to address mental health problems. Finally, most felt prepared to deal with needs relating to domestic violence, substance abuse, and education/employment.

When asked about probation violations, most officers (61%) believed that male and female offenders presented equal risks in this area, 23% believed that women were less likely than men to violate, and 15% believed that females were more likely than men to violate conditions of supervision. While officers reported that the nature of probation violations were

similar for male and female offenders, they did believe that the motivations behind the violations were often different.

Lastly, officers were asked about the supervision difficulties associated with female offenders, compared to male offenders. Over half of the officers (55%) stated that female offenders were harder to supervise, 7% rated female offenders as being easier to supervise, and 38% believed that the level of difficulty between male and female offenders was about the same. The main reasons cited by officers for the increased supervision difficulty of female offenders were issues relating to parenting, addiction, and personal problems; however, a few officers cited difficulties with aggression and "attitude" among female offenders.

Results from this study suggest that men and women present different risks and needs while on probation, and gender can influence the perceived level of supervision difficulty. While this study represents an important contribution to the literature, more research is needed in this area. Specifically, it is unknown how issues such as communication, lying, and aggression influence the perceived level of supervision difficulty for both male and female offenders in the community corrections setting.

METHODOLOGY

The data for the current study consisted of survey responses gathered from community corrections officers from Orange County, Florida. The Orange County community corrections department supervises an average daily population of over 8,000 offenders and employs 104 community corrections officers and supervisors. Data collection took place over a three-month period and consisted of a self-administered questionnaire designed to measure community corrections officers' perceptions about the classification and supervision of male and female offenders.[2]

The researcher traveled to all community corrections units on multiple occasions to administer the survey to groups of officers. The researcher attended staff meetings and shift briefings for the units and distributed the survey to the officers at the conclusion of the meetings. Some officers were not present at these meetings so it was necessary to make appointments with those officers and administer the survey individually. Instructions were provided to all respondents prior to the administration of the questionnaire, and the researcher was present during the completion of the survey to answer any questions. The survey was confidential, and respondents were informed that all personal identifiers would be removed prior to data analysis. Respondents were also assured that none of their individual responses would be shared with the county management. In total, 93 officers and supervisors completed the survey, representing a response rate of 89%. The demographic characteristics of the respondents are reported in Table 1 (next page).

2. The researcher developed two versions of a questionnaire to measure the perceived differences between male and female offenders in the areas of risk, need, and supervision difficulty. While many questions were identical on each survey, one version of the survey contained questions about female offenders, and the other version contained identical questions but with the gender in some of the questions changed to assess the officers' experience with male offenders.

Table 1. Descriptive Statistics of Survey Respondents

	N	%
Gender		
Female	66	71
Male	27	29
Total	93	100
Race		
African American	27	31.0
Asian	2	2.3
Caucasian	49	56.3
Hispanic	6	6.9
Other	3	3.4
Total	87	100
Educational Attainment		
Some junior college, but did not earn a degree	8	9.1
Associates degree (AA)	2	2.3
More than 2 years of college, but did not earn a bachelors degree	11	12.5
Bachelors degree	38	43.2
Some graduate courses, but did not earn graduate degree	16	18.2
Graduate degree	13	14.8
Total	88	100
Department of Employment		
Work Release	5	5.4
Community Surveillance Unit	7	7.5
Pre-trial Services	26	28.0
Diversion Services	7	7.5
Probation	31	33.3
Intake Unit	8	8.6
Alternative Community Service	5	5.4
Administration	4	4.3
Total	93	100.0
Employment at another correctional agency		
Yes	29	34.1
No	56	65.9
Employment as a community corrections officer for another agency		
Yes	8	27.6
No	21	72.4

(Table continued on next page.)

Table 1. Descriptive Statistics of Survey Respondents (continued)

	Mean	*SD*
Age	43.88	9.09
Employment Characteristics		
Number of years employed by OCCD	12.02	8.69
Number of years employed as a correctional officer by OCCD	9.53	8.04
Number of years employed by another correction agency, besides OCCD	10.79	8.24
Number of years employed as a correctional officer at another agency besides OCCD	8.44	5.17

RESULTS

Perceptions of Differential Risk

A variety of approaches to the measurement of perceptions of differential risk are examined. First, respondents were asked if they believe that the risk posed by male and female offenders is generally the same. Given the previous research on offending patterns and recidivism, it was expected that most officers would indicate that the likelihood of recidivism is not equal across gender. Results from this question supported that expectation, as 72.5% of officers responded that they do not believe that men and women present an equal risk of recidivism (Table 2).

Table 2. Perceptions of Differential Risk Descriptive Statistics

	N	*%*
Do you believe that the risk of recidivism posed by male and female offenders is generally the same?		
No	66	72.5
Yes	25	27.5
Total	91	100
Do you feel more comfortable decreasing the supervision level of a male or a female offender?		
Female	7	8.4
Male	2	2.2
No Difference	74	89.2
Total	83	100
On average, which factors (risk or need) most affect the way you supervise offenders?		
Risk	64	79
Need	17	21
Total	81	100

Next, respondents were asked if they feel more comfortable decreasing the supervision level of a male offender or a female offender, assuming that relevant factors such as offense history and current offense are the same. An overwhelming majority of respondents (89.2%) reported that gender does not play a role in the decision to increase or decrease an offender's supervision level as long as all other factors are identical (Table 2).

When asked which factors, risk or need, most affect the way they supervise offenders, most respondents (79%) reported that risk factors have the largest influence on supervision (Table 2). Respondents were provided with space to explain their answer to this question, and some officers were able to shed additional light on these findings. According to one officer, "the department has deemed [that] offenders will be supervised first based on risk and then the only needs addressed are employment." Another respondent stated, "our system does not take the 'needs' into account, which is why there is such a high violation rate. Often needs outweigh the risk, but we supervise based on risk only."

A differential risk index comprised of three Likert scale questionnaire items provided the next measure of differential risk. Respondents were asked how strongly they agreed or disagreed with the following statements: 1) female offenders are more likely than male offenders to successfully complete their term of supervision; 2) male offenders are more likely than female offenders to incur a technical violation of supervision; and 3) male offenders are more likely than female offenders to violate their term of supervision with a new arrest. To determine whether the items could be combined to form an index, a reliability analysis was run, and results revealed an alpha coefficient of .69, which is above the acceptable cut-off point of .60 (Gronlund, 1981). As shown in Table 3 (below), 31% of respondents agreed somewhat, and 4.6% agreed strongly with the statement that female offenders are more likely than male offenders to successfully complete supervision, and there was a high level of agreement among respondents when asked about new arrest violations, with 50.6% of respondents agreeing somewhat and 12.6% agreeing strongly with that statement.

Table 3. Differential Risk Descriptive Statistics

	Disagree Strongly	Disagree Somewhat	Uncertain	Agree Somewhat	Agree Strongly
Female offenders are more likely than male offenders to successfully complete their term of supervision.	6.9%	16.1%	41.4%	31.0%	4.6%
Male offenders are more likely than female offenders to incur a technical violation of supervision.	8.2%	25.9%	29.4%	34.1%	2.4%
Male offenders are more likely than female offenders to violate their term of supervision with a new arrest.	2.3%	13.8%	20.7%	50.6%	12.6%

Perceptions of Differential Need

To measure differential need, respondents were first asked if they believe that the needs posed by male and female offenders are generally the same. The distribution was almost equally divided, with 50.5% reporting that they *do not* believe the needs are the same and 49.5% responding that the needs of male and female offenders are the same. This finding was somewhat unexpected given that previous research in this area, albeit limited, has noted that most officers believe that female offenders present different needs than their male counterparts (Seng & Lurigio, 2005).

A differential need index comprised of a series of Likert scale questionnaire items dealing with issues salient for female offenders provided another measure of differential need. Respondents were asked to rate their level of agreement with the items on a five-point scale. The following items were included on the survey: 1) Compared to male offenders, female offenders are more likely to require some form of substance abuse treatment. 2) Compared to male offenders, female offenders are more likely to require some form of parenting treatment. 3) Compared to male offenders, female offenders are more likely to require some form of mental health treatment. 4) I am more likely to refer a male offender for vocational programming than a female offender. 5) I have more knowledge about female offenders' personal/family relationships than male offenders' personal relationships (α for this index equals .685). As shown in Table 4 (below), respondents tended to disagree with the statements. The exception to this, however, is the item pertaining to parenting treatment, with 49.4% of respondents agreeing somewhat or agreeing strongly with the statement.

Table 4. Differential Need Descriptive Statistics

	Disagree Strongly	Disagree Somewhat	Uncertain	Agree Somewhat	Agree Strongly
Compared to male offenders, female offenders are more likely to require some form of substance abuse treatment	14.6%	37.1%	31.5%	13.5%	3.4%
Compared to male offenders, female offenders are more likely to require some form of parenting treatment.	11.5%	19.5%	19.5%	35.6%	13.8%
Compared to male offenders, female offenders are more likely to require some form of mental health treatment.	13.8%	21.8%	36.8%	21.8%	5.7%
I am more likely to refer a male offender for vocational programming than a female offender.	31.0%	27.6%	24.1%	14.9%	2.3%
I have more knowledge about female offenders' personal/family relationships than male offenders' personal relationships.	11.6%	24.4%	23.3%	36.0%	4.7%

Supervision Difficulty

To measure supervision difficulty, officers were first asked how challenging female offenders were to supervise compared to male offenders.[3] The provided responses ranged from 1 (Fe/males are much less challenging) to 5 (Fe/males are much more challenging). Table 5 (below) reports the descriptive statistics and bivariate analysis for supervision difficulty. Officers reported that female offenders are slightly more challenging to supervise, compared to male offenders (μ=3.24 for females and μ= 2.97 for males). However, bivariate analysis revealed no statistically significant relationship between gender and supervision difficulty on this item.

Table 5. Supervision Difficulty Descriptive Statistics and Bivariate Correlation

	Female Survey			*Male Survey*				
	Mean	*SD*	*N*	*Mean*	*SD*	*N*	*r*	*sig.*
Overall difficulty	3.24	1.01933	41	2.97	1.07771	38	-0.140	.109
Communication	2.32	.93443	44	3.52	1.04153	42	0.543	.000**
Emotional expression of problems/needs	3.14	1.32228	44	2.86	1.27970	42	-0.112	.153
Lying	3.12	.54377	43	3.29	.74980	41	0.155	.080
Manipulation	3.12	.74980	41	3.07	1.17026	41	-0.060	.296
Possessing Loose Morals	2.83	.44173	41	3.07	.72077	41	0.166	.069
Complexity of needs	3.58	.76322	43	2.57	.85946	42	-0.548	.000**
Verbal Expressions of aggression	2.54	.73513	43	3.71	.91826	42	0.584	.000**
Physical Expression of aggression	2.25	.78132	44	3.93	.97262	42	0.709	.000**

**Correlation is significant at the 0.01 level (1-tailed)

Officers who reported that offenders were much less or much more challenging to supervise were asked to explain their answer. The majority of the open-ended responses to this question (n = 12) came from officers who believed that females are more difficult to supervise, compared to males. The following are a few explanations from officers:

- They [females] "try to use their children to manipulate, and they cry much more than males."
- "Females tend to be more emotional, make snap decisions, and family matters often interfere with good decision making."
- "Male offenders don't arrive on supervision with 'emotional baggage' like female offenders."

3. This question was paired by gender, and the male version of the survey asked respondents: Based on your experiences, how challenging, compared to female offenders, is supervising male offenders?

A few respondents did indicate that females were much less challenging to supervise than their male counterparts. For example, one officer stated, "females in my opinion are less of a threat physically. Females generally have much less violent charges or histories than males." Finally, one officer expressed an ambivalence in responding stating that "overall, many women are more apt to cooperate and not confront officers, but as a male officer in the field the issue of sexuality makes some females more challenging."

The next measure of supervision difficulty took the form of an index in which respondents were asked how difficult offenders were to supervise in specific dimensions of supervision (α = .653). Differences in the level of supervision difficulty were noted in several areas. Respondents reported that male offenders are more challenging to supervise than female offenders in the areas of communication (μ = 3.52 for males and μ = 2.32 for females), verbal expressions of aggression (μ =3.71 for males and μ =2.54 for females), and physical expression of aggression (μ =3.93 for males and 2.25 for females). Conversely, respondents reported that female offenders are more difficult to supervise than male offenders due to the complexity of their needs (μ = 3.58 for females and μ = 2.57 for males).

As shown in Table 5, bivariate analysis revealed a relationship between gender of the offender and perceived supervision difficulty in the areas of *communication* (p <.0001), *verbal expressions of aggression* (p <.0001), *physical expressions of aggression* (p <.0001), and *complexity of needs* (p <.0001). Results from an independent samples t-test (see Table 6, below) revealed significant differences in the perceived level of supervision difficulty between male and female offenders in the aforementioned areas, as well as the *possessing loose morals* item (p =.034).

Table 6. Supervision Difficulty Independent Samples T-Test

	t	*df*	*Sig. (2-tailed)*	*Mean Difference*
Overall difficulty	1.145	77	.128	.27022
Communication	-5.656	84	.000	-1.20563
Emotional expression of problems/ needs	.994	84	.162	.27922
Lying	-1.239	82	.110	-.17640
Manipulation	.206	82	.419	.04311
Possessing Loose Morals	-1.847	80	.034	-.24390
Complexity of needs	5.732	83	.000	1.00997
Verbal Expressions of aggression	-6.545	83	.000	-1.17940
Physical Expression of aggression	-8.843	84	.000	-1.67857

In summary, respondents reported that there are differences in the level of supervision difficulty for male and female offenders, though the findings run contrary to the proposed expectation and previous research in this area (see for example Seng & Lurigio, 2005). Respondents revealed that male offenders pose more challenges than their female counterparts. Communication was defined as the willingness to share details of their personal life, and respondents reported that male offenders are more difficult in this area. This difficulty seems to arise because male offenders do not share such details and are generally reluctant to communicate with their officers. As one officer stated in a conversation following survey completion,

"Male offenders do not tell us that they are having a problem until it is too late." This finding was unanticipated because previous research has found that correctional workers in the juvenile setting find males to be more open and straightforward than females (Baines & Adler, 1996). Unexpected findings also occurred when respondents were asked how challenging female offenders were to supervise in the area of manipulation. On the surface, it appears that respondents believe that there are no differences between male and female offenders in this area; however, previous research indicates that correctional staff generally perceive females to be more manipulative than their male counterparts (Bains & Adler, 1996; Bond-Maupin, Maupin, & Leisenring, 2002; Gaarder, Rodrigueaz, & Zatz, 2004).

DISCUSSION/CONCLUSION

It was hypothesized that community corrections officers would perceive female offenders as posing less risk than male offenders, and the results support that assumption. Many officers (41.4%) were uncertain when asked whether female offenders were more likely to successfully complete their term of supervision compared to male offenders. However, when asked about violations of supervision that involved new arrests, the majority of officers (63.2%) believed that male offenders were more likely than female offenders to incur that type of violation. Differential need was also examined, and some needs are considered more important for female offenders, compared to male offenders. For example, when asked whether female offenders are more likely than male offenders to require some form of parenting treatment, almost half (49.4%) of the respondents agreed that females present more need in this area. Results also indicate that men present difficulties for their officers due to a lack of communication and a propensity for violence, both verbal and physical. Women present difficulties for officers as well, but mainly due to their complex needs. These differences could signal that a gender-responsive approach to supervision might be warranted.

A gender responsive approach in corrections involves recognition that there are differences between male and female offenders, both in their pathways to criminality and in the needs presented by each group (Berman, 2005; Bloom, Owen, & Covington, 2003). Additionally, the gender responsive approach to supervision involves providing services to female offenders to best address their often complex needs (Berman, 2005).

A gender responsive approach to the supervision of female offenders in the community could manifest with specialized caseloads for female offenders. Given the resource limitations of most community corrections departments, providing specialized training to a handful of officers charged with the supervision of female offenders may prove to be a more viable option than providing training for all officers. These caseloads would resemble specialized caseloads that are common in felony state probation for drug offenders and sex offenders. With specialized caseloads, only officers with gender responsive training would supervise female offenders. These caseloads would aid in effective supervision and treatment of female offenders in the community, while still making the most efficient use of departmental resources. Some states have begun to implement these types of caseloads, and the results seem favorable. The Missouri Department of Corrections reports that recidivism rates for female offenders on gender specific parole caseloads are less than 10% (Berman, 2005).

This research represents a starting point in an important area of research and serves as a foundation for future investigations into how gender shapes the supervision of offenders in the

community. There is still much that we do not know about the supervision of female offenders in the community. As such, further research is needed to explore how gender shapes the process of classification, as well as how the difficulties involved in the supervision of both men and women shape the supervision experience of offenders in the community.

REFERENCES

Anderson, T., Rosay, A., & Saum, C. (2002). The impact of drug use and crime involvements on health problems among female drug offenders. *The Prison Journal, 82*, 50-68.

Baines, M., & Adler, C. (1996). Are girls more difficult to work with? Youth workers perspectives in juvenile justice and related areas. *Crime & Delinquency, 42*, 467-485.

Beck, U. (1992). Risk society: *Towards a new modernity*. Mark Ritter, Trans. London: Sage Publications.

Berman, J. (2005). *Women offender transition and reentry: Gender responsive approaches to transitioning women offenders from prison to the community*. Washington DC: National Institute of Corrections.

Blomberg, T., & Lucken, K. (1998). *American penology: A history of control*. New York: Aldine de Gruyter.

Bloom, B., Owen, B., & Covington, S. (2003). *Gender-responsive strategies research, practice, and guiding principles for women offenders*. Washington, DC: National Institute of Corrections.

Bloom, B., & Steinhart, D. (1993). *Why punish the children: A reappraisal of the children of incarcerated mothers in America.* San Francisco: National Council on Crime and Delinquency.

Bond-Maupin, L., Maupin, J., & Leisenring, A. (2002). Girls' delinquency and the justice implications of intake workers' perspectives. *Women & Criminal Justice, 13*, 51-77.

Bonta, J., Pang, B., & Wallace-Capretta, S. (1995). Predictors of recidivism among incarcerated female offenders. *The Prison Journal, 75*, 277-294.

Chesney-Lind, M. (1997). *The female offender: Girls, women, and crime*. Thousand Oaks, CA: Sage.

Covington, S. (2001) Creating gender-responsive programs: The next step for women's services. *Corrections Today, 63*, 85-87.

Culliver, C. (1993). Females behind prison bars. In C. Culliver (Ed.), *Female criminality: The state of the art*. New York: Garland.

Decker, S. (1992). *Drug use forecasting in St. Louis: A three-year report*. Rockville, MD: National Institute of Justice.

DeGroot, A. S., Leibel, S. R., & Zierler, S. (1998). A standard of HIV care for incarcerated women: A northeastern United States experience. *Journal of Correctional Health Care, 5*, 139-176.

Ditton, P. (1999). *Mental health and treatment of inmates and probationers*. Washington, DC: Bureau of Justice Statistics.

Dressel, P., Porterfield, J., & Barnhill, S. (1998). Mothers behind bars. *Corrections Today, 60*, 90-95.

Farr, K. (2000). Classification for female inmates: Moving forward. *Crime & Delinquency, 46*, 3-17.

Farrell, G. (1992). Multiple victimisation: Its extent and significance. *International Review of Victimology, 2*(2), 85-102.

Federal Bureau of Investigation. (2007). *Uniform crime reports*. Washington DC: United States Department of Justice.

Feeley, M., & Simon, J. (1992). The new penology: Notes on the emerging strategy of corrections and its implications. *Criminology, 30*, 449-474.

Feeley, M., & Simon, J. (1995). True crime: The new penology and public discourse of crime. In T. G. Blomberg & S. Cohen (Eds.), *Punishment and social control*. New York: Aldine De Gruyter.

Florida Corrections Commission. (2000). Annual Report. Retrieved on May 23, 2002, from http://www.fcc.state.fl.us

Funk, S. (1999). Risk assessment for juveniles on probation: A focus on gender. *Criminal Justice & Behavior, 26*, 44-68.

Gaarder, E., Rodriguez, N., & Zatz, M. (2004). Criers, liars, and manipulators: Probation officers' views of girls. *Justice Quarterly, 21*, 547-578.

Galbraith, S. (1998). *And so I began to listen to their stories.....Working with women in the criminal justice system*. Delmar, NY: GAINS.

Garland, D. (1995). Penal modernism and post-modernism. In T. G. Blomberg & S. Cohen (Eds.), *Punishment and social control*. New York: Aldine De Gruyter.

Garland, D. (1996). The limits of the sovereign state: Strategies of crime control in contemporary society. *British Journal of Criminology, 36*(4), 445-471.

Gilliard, D., & Beck, A. (1998). *Prison and jail inmates at midyear 1997*. Washington, DC: United States Department of Justice.

Glaze, L., & Bonczar, T. (2006). *Probation and parole in the United States, 2005*. Washington, DC: Bureau of Justice Statistics.

Gowdy, V. B., Cain, T., Corrothers, H., Katsel, T. H., Parmley, A. M., & Schmidt, A. (1998). *Women in the criminal justice system—A twenty year update*. Washington, DC: National Institute of Justice.

Greenfield, L., & Snell, T. (1999). *Women offenders*. Washington, DC: Bureau of Justice Statistics.

Gronlund, N. (1981). *Measurement and evaluation in teaching*. New York: MacMillian.

Hannah-Moffat, K. (1999). Moral agent or actuarial subject: Risk and Canadian women's imprisonment. *Theoretical Criminology, 3*, 71-94.

Harer, M., & Langan, N. (2001). Gender differences in predictors of prison violence: Assessing the predictive validity of a risk classification system. *Crime & Delinquency, 47*, 513-36.

Harlow, C. W. (1999). *Prior abuse reported by inmates and probationers*. Washington, DC: Bureau of Justice Statistics.

Harrison, P. & Beck, A. (2003). *Prisoners in 2002*. Washington, DC: Department of Justice.

Harrison, P. & Beck, A. (2006). *Prison and jail inmates at midyear 2005*. Washington, DC: Department of Justice.

Harrison, P., & Lawrence, J. E. (1998). Health care for women offenders: Challenge for the new century. In T. Alleman & R. L. Gido (Eds.), *Turnstile justice: Issues in American corrections* (pp. 176-191). Upper Saddle River, NJ: Prentice Hall.

Holsinger, A., Lowenkamp, C., & Latessa, E. (2003). Ethnicity, gender and the Level of Service Inventory-Revised. *Journal of Criminal Justice, 31*, 309-320.

Holtfreter, K., & Morash, M. (2003). The needs of women offenders: Implications for correctional programming. *Women & Criminal Justice, 14*, 137-160.

Jainchill, N., Hawke, J., & Yagelka, J. (2000). Gender, psychopathology, and patterns of homelessness among clients in shelter-based TCs. *American Journal of Drug and Alcohol Abuse, 26*, 553-567.

Jones, D., Johnson, S., Latessa, E., & Travis, L. (1999). Case classification in community corrections: Preliminary findings from a national survey. Annual Issue 1999: Classification and risk assessment. Washington, DC: National Institute of Corrections.

Kane, M., & DiBartolo, M. (2002). Complex physical and mental health needs of rural incarcerated women. *Issues in Mental Health Nursing, 23*, 209–229.

Kim, J. (2001). In-prison day care: A correctional alternative for women offenders. *7 Cardozo Women's Law Journal 221*.

Lucken, K. (1998). Contemporary penal trends: Modern or Postmodern. *British Journal of Criminology, 38*(1), 106-124.

McShane, M., Williams III, F., & Dolny, H. (2002). Do standard risk prediction instruments apply to female parolees? *Women & Criminal Justice, 13*, 163-182.

Morash, M., Bynum, T., & Koons, B. (1998). *Women offenders: Programming needs and promising approaches*. Washington, DC: U. S. Department of Justice.

Morris, A. (1987). *Women, crime and criminal justice*. New York, NY: Blackwell.

Mullings, J., Pollock, J., Crouch, B. (2002). Drugs and criminality: Results from the Texas women inmates study. *Women & Criminal Justice, 13*, 69-96.

Norland, S., & Mann, P. (1984). Being troublesome: Women on probation. *Criminal Justice and Behavior, 11*(1), 115-135.

Polvi, N., Looman, T., Humphries, C., & Pease, K. (1990). Repeat break-and-enter victimization: time course and crime prevention opportunity. *Journal of Police Science and Administration, 17*(1), 8-11.

Ross, R, & Fabiano, E. (1986). *Female offenders: Correctional afterthoughts*. Jefferson, NC: McFarland.

Scott, N., Hannum, T., & Ghrist, S. (1982). Assessment of depression among incarcerated females. *Journal of Personality Assessment, 46*, 372–379.

Seng, M., & Lurigio, A. (2005). Probation officers' views on supervising women probationers. *Women & Criminal Justice, 16*, 65-85.

Simon, J. (1987). The emergence of a risk society: Insurance, law and the state. *Socialist Review, 95*, 61-89.

Snider, L. (2003). Constituting the punishable woman. *British Journal of Criminology, 43*, 354-379.

Snell, T., & Morton, D. (1994). *Women in prison*. Washington, D.C.: U.S. Bureau of Justice Statistics.

Temin, C. (2001). Let us consider the children. *Corrections Today, 63*, 66-68.

Teplin, L., Abram, K., & McClelland, G. (1996). Prevalence of psychiatric disorders among incarcerated women. I: Pretrial jail detainees. *Archives of General Psychiatry, 53*, 505–512.

United States Department of Justice. (1998). *Women in criminal justice: A twenty-year update*. Washington, DC: United States Department of Justice.

Van Voorhis, P., & Presser, L. (2001). *Classification of women offenders: A national assessment of current practices*. Washington DC: National Institute of Corrections.

Young, D., & Smith C. (2000). When moms are incarcerated: The needs of children, mothers, and caregivers. *Families in Society, 81*, 130-141.

Zaitzow, B. (2001). Whose problem is it anyway? Women prisoners and HIV/AIDS. *International Journal of Offender Therapy and Comparative Criminology, 45*(6), 2001 673-690.

BIOGRAPHICAL SKETCH

Laurie A. Gould is an Assistant Professor in the Department of Criminology and Criminal Justice at the University of Texas at Arlington. Her research interests include gender issues in community corrections and comparative penology. Her published works include research on the use of technology by state departments of correction, the use and perceived effectiveness of strategic planning among state correctional agencies, and jail visitation policies.

BOOK REVIEW

Gage, Beverly. (2009). *The Day Wall Street Exploded: A Story of America In Its First Age of Terrorism*. New York: Oxford University Press.

Willard M. Oliver, Sam Houston State University

On September 16, 1920, a horse drawn wagon pulled up alongside the Morgan Bank and the Federal assay office on Wall Street. Unobtrusively, it stopped and the passersby paid little attention. At approximately twelve noon the wagon, having been loaded with dynamite, exploded, sending shrapnel flying through the windows of the bank and assay office and hurling the mangled corpse of the horse into the middle of the street. When the smoke cleared and the flying debris settled, 38 innocent bystanders were killed and hundreds of people were wounded and bleeding. It was, up to that time, the worst terrorist act in the nation's history. Not since the Haymarket bomb had there been so much destruction from such an act, and not until the Oklahoma City bombing would America experience another such large scale calamity. Thus opens Beverly Gage's new book, *The Day Wall Street Exploded.*

Gage, a Yale University historian, describes in the opening chapter the actual bombing on Wall Street that took place on September 16, 1920. She begins with the activities of J. P. Morgan and his bank that morning and builds the story of both these icons of Wall Street (Morgan and his bank) throughout the opening chapter. In Chapter 2, Gage vividly details the bomb, a crude device consisting of dynamite tied to iron sash weights so that when detonated it would create very deadly shrapnel, which it did. When it exploded at lunch time, the shrapnel tore the fingers, hands, feet, and legs off many of the bystanders and passersby. Some were beheaded, while others eviscerated, their entrails spilling onto the ground. The force of the explosion caused windows all along Wall Street to blow inward, into the buildings where people were going about their business one minute then lying shredded and bleeding from the flying shards of glass the next minute. People panicked, horses drawing carts panicked, and what ensued was sheer pandemonium that caused yet more injury.

Gage's juxtaposition between the opening two chapters—the first depicting the hard working office of J. P. Morgan's bank, the second the chaos, death, and destruction caused by the bombing—shocks and engages the reader. If for nothing else, the first 37 pages is a fascinating story and worth the price of the book. But Gage goes far beyond the events of September 16, 1920, to provide a social, economic, and political history that not only establishes the causes of the Wall Street bombing, but what happened in the aftermath and during the investigation of this most heinous crime. And it is there that the story becomes even more interesting, for Gage leads us through the investigations into the crime, chasing leads, running up against competing bureaucratic interests and politics, without ever forcing a specific and directed explanation for "whodunit" in regard to this homicide writ large. Perhaps that is why Gage's book is even more of an engaging read: one cannot help but want to solve this crime from the armchair in which they read.

Initially there were many who believed that the explosion was simply an accident. They thought the wagon was from a local construction site, that it had been loaded with supplies,

dynamite and iron weights, and perhaps the nitroglycerin had grown unstable and the rough paved street triggered the explosion. It did not take long, however, to rule out the explosion as an accident. Evidence recovered suggested it was in fact a crime. Finding out who was responsible, however, became far more difficult than ruling the explosion no accident.

The first suspects were the labor unions. There had been more than 37,000 labor strikes in the United States between 1881 and 1905 alone, and many of these had turned violent and bloody. Wall Street was the perfect representation of the "evils of capitalism" and, therefore, the perfect target for disgruntled members of the Unions. In particularly, it was well known that the 1886 Haymarket Bombing in Chicago, Illinois, had been committed by union radicals, so why not the Wall Street bombing? At the time of the Wall Street Bombing, it was only a few years earlier that William D. "Big Bill" Haywood, head of the Industrial Workers of the World ("Wobblies") Union, had been convicted of federal charges of espionage for ordering strikes during war time (WWI). Relations between big business, namely those represented on Wall Street, and the labor unions was poor, and tensions continued to run high. Labor unions, however, were not commonly known to resort to such extreme measures, and so it was extremists that many investigators would begin to pursue.

If the perpetrators of the Wall Street bombing were not union members, they were probably from a closely related group—the anarchists. While many anarchists found themselves joining labor unions or becoming members of the Socialist party under the likes of Eugene Debs, many of these individuals became radicalized and saw violence as the only way to overthrow an establishment wholly rooted in capitalism. One only had to look back 20 years to the assassination of President McKinley to see that, on occasion, anarchists like Leon Czolgosz, could rise to extreme measures in order to attempt changing the entire structure of American institutions. Yet, the actions of anarchists in America were usually related more to talk than action, and only a handful of such large scale or high profile crimes could be attributed to them. Thus, investigators began to look elsewhere.

At the time of the Wall Street bombing, America's soldiers had just recently come home from World War I, and the Bolsheviks Revolution had brought Lenin to power. Less isolationist, America was growing concerned with international events, and the Communist activities in Russia would lead to the first "Red Scare" of 1919 to 1920. When a bomb had exploded the year before at the home of Woodrow Wilson's Attorney General, A. Mitchell Palmer, Palmer ordered a series of raids conducted by federal agents. Commonly referred to as the "Palmer Raids," these would eventually round up approximately 10,000 individuals—the largest mass arrest in American history. The most common means of dealing with these suspected communists and radicals was deportation hearings. Although most of those arrested were ultimately released, information was collected on each of the individuals, and approximately 550 were actually deported back to their country of origin. The bombings, however, continued for another decade, many of them perpetrated by the *Galleanists*, followers of a radical Italian, Luigi Galleani. Needless to say, the *Galleanists* were prime suspects in the Wall Street Bombing.

The *Galleanists*, were already highly radicalized, and their leader was a self-avowed anarchist. Not only was retribution a motive for the Palmer Raids, but it was also believed that the Wall Street Bombing may have been retaliation for the indictments of Sacco and Vanzetti, two Italian immigrants living in Massachusetts who were accused of robbing a payroll delivery and killing a security guard. Further suspicion fell on this group because one of the *Galleanistas*,

Mario Buda (alias Mike Boda), was an associate of Sacco and Vanzetti and was known as an expert in the use of dynamite. It was determined that Buda was in New York City at the time of the bombing, but returned home to Italy shortly thereafter and never returned.

The Bureau of Investigation, later named the Federal Bureau of Investigation, pursued these types of leads but continued to come up short. Its ineptitude, however, in bringing the suspects to justice would ultimately lead to changes in the leadership of the F.B.I. William J. Burns of the Burns Detective Agency and a former Secret Service agent was brought into the Bureau of Investigation as its next director to assist in the pursuit of the Wall Street Bombers. He too would see his reputation damaged by his inability to bring the bombers to justice, but it was his involvement in the Teapot Dome Scandal that would ultimately lead to his downfall as director, followed by his replacement with J. Edgar Hoover. Attorney General Palmer also found himself criticized for his ineptitude and, even worse, vilified for the excessive roundup of American immigrants. Once a possible contender for the White House, he would leave office in 1921, a politically broken man.

A bevy of powerful leaders was heavily damaged by their inability to find the perpetrators of the Wall Street Bombing. Although Gage never claims to know who did it, she offers up some compelling arguments for several key suspects. Interestingly, however, she does present an adequate description as to why the suspects were never caught. The federal agents, engaged in such a heavy-handed round up of suspected communists, socialists, and anarchists with the Palmer raids most likely either deported or drove the suspect(s) into hiding, if not back to Europe. The same could most likely be said for witnesses to the crime as well. Although a number of trips were made to Europe and Russia by investigators throughout the 1920s, the case became inactive in the 1940s and remains unsolved to this day.

The Day Wall Street Exploded is a book that delivers far more than it promises. While the details and the investigation of the crime provide the background to the book, Beverly Gage takes the reader on a journey through an era of immigration, labor strikes, Communist scares, anti-capitalist sentiments, violations of civil liberties, class conflict, bombings, and other acts of violence. Along the way we meet a number of central figures in criminal justice history: A. Mitchell Palmer, William J. Burns, Harry M. Daugherty, and J. Edgar Hoover. And although we never learn who orchestrated and carried out the bombing, we are given a line-up of possible suspects and the evidence to support their possible role. All of this makes for an engaging read and one that brings the Wall Street Bombing into the context of its time.

BOOK REVIEW

Ferguson, C. (2009). *Violent Crime: Clinical and Social Implications*. Thousand Oaks, CA: Sage Publications, Inc.

Lucia E. Juarez, Texas A&M International University

Relevant research on violent crime has generally provided one-sided explanations such as scientific or socially oriented research, yet the text *Violent Crime: Clinical and Social Implications* successfully offers a battleground for scholars of different fields to explain the varying and complex influences of violent crime. The scholars contributing to this reader derive explanations and interpretations of violent crime from their own prospective disciplines and prior research. The book is divided into 16 well-structured chapters with a nicely framed introduction by the editor Dr. Christopher J. Ferguson. The 16 chapters are further divided into three parts: "Part I-Causes of Crime," "Part II-The Offenders," and "Part III-Victims, Prevention, and Treatment."

Part I, which consists of the first six chapters, analyzes, evaluates and explains the possible causes of violent tendencies/crime. Chapter 1 serves as an introduction to violent crime and helps prepare the reader for relevant content in the upcoming chapters. Chapter 2 offers readers a detailed look at the available theories which help explain violent behaviors. Authors draw from family and social influences to determine future criminality. Chapter 3 offers insight into a very controversial topic—that of Media Violence (as seen in video games and television) and its influence on teenagers and adults. This chapter is truly entertaining, and thanks to the extensive analysis, results reveal that the media is not entirely at fault for aggressive behaviors. The use of real-life case studies/scenarios in these chapters facilitates comprehension of the material presented. Chapters 4 through 6 introduce readers to new terminology and provide an explanation of relevant theories. Chapters 4 through 6 also cover the scientific reasoning underlying the theories available as explanation for violent criminal acts/tendencies.

Part II, The Offender, is composed of eight chapters, and this section delivers exceptional information that is currently not available in other works. If readers are looking for information or scholarly work on the characteristics of offenders, this chapter provides a detailed analysis. Chapter 7 examines violence among youths. Authors zoom in on school, gangs, dating, and sexual violence, which are all usually common with this particular age group. Much more interesting is the discussion on preventive strategies employed by schools, communities, and parents aimed at each of these types of violence. Chapters 8 through 10 touch the on much more sensitive issues of elderly, female, and child abuse. Chapter 8 precisely details the frequency of elderly abuse, points out the abusers, and identifies the most vulnerable victims. It also outlines the legal statutes that protect the elderly against abuse. Chapter 9 covers domestic violence and its victims. Domestic violence is universally associated with women; however, men can also experience violent acts from female partners. This chapter provides readers with a deeper understanding of domestic violence, as it provides the reader with a list of the different types of domestic violence, such as sexual violence, financial abuse, and stalking. This chapter also discusses applicable theories that help clarify the basis for violence. Lastly, it contains

overviews of available programs/strategies that aid in eradicating the propensity of domestic violence. Chapter 10 effectively informs readers of the common factors which tend to lead to physical child abuse, and, like the two prior chapters, it too discusses prevention strategies. In Chapter 11, characteristics of sex offenders are listed and examined (such as their psychological background). This chapter also lists a number of appropriate theories which can be applied to sex offenders to help explain their sexual transgressions with children or other individuals. Chapter 12 deals with hate crime trends in America and, most importantly, answers the causes of hate crime violence. Chapter 13 and 14 discuss murder; however, Chapter 13 generously offers appropriate definitions of murder, manslaughter, and homicide. Chapter 14 deals with the issue of serial murderers. Particularly, this chapter keeps the reader wanting to know more about what motivates an "average-Joe" to kill. Additionally, this chapter offers insight into the practice/process of offender profiling which helps investigators link several offenses to one particular offender.

Part III, Victims, Prevention, and Treatment, contains the last two chapters of the text. In Chapter 15, the reader examines the propensity and vulnerability of victims and discusses the two main measures in the United States for gathering crime statistics and data. One can learn, for example, that a life can be altered tremendously through criminal victimization because the victim suffers not only physical and emotional damage but also a financial burden. Chapter 16 is the last chapter, and it certainly gives hope for rehabilitating at-risk youth. This chapter discusses that not all treatments will effectively work; instead youths must be evaluated and matched with a treatment that better suits their needs. As the authors point out, these intervention programs should not be limited to youth; adults too can participate. Through therapy and much needed guidance, these individuals can successfully avoid a criminal lifestyle.

Overall, *Violent Crime: Clinical and Social Implications* is a superb textbook that leaves readers with a wealth of well-constructed and rational arguments. After reading the various research-based arguments by field-work professionals, it is certainly difficult to disagree with their findings. This book is great for a graduate-oriented course on violent crime and/or one particularly directed at offender profiling.