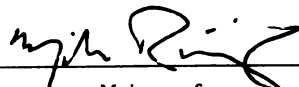This is to certify that the

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CORRELATES OF INMATE VICTIMIZATION

By

Charles L. Pratt

A THESIS

Submitted to
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In partial fulfillment of the requirements
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ABSTRACT

CORRELATES OF INMATE VICTIMIZATION

By

Charles L. Pratt

Victimization of inmates is a serious concern for prison administrators. Every year inmates are injured and killed while incarcerated. This study seeks to identify factors associated with inmate victimization. It is hypothesized that contact with the outside world by means of visits, letters, and phone calls will be inversely related to victimization.

Data for this study were collected by surveying inmates from maximum and medium security prisons throughout the United States. These data consist of several individual-level characteristics.

The results of this study failed to support the hypotheses that continued contact lessened the likelihood of victimization. The major finding in this study, however, was that inmates who were involved in criminal activity while incarcerated were more likely to be victimized than those inmates not involved in such activity.

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INTRODUCTION

Who are the victims of crime behind prison walls? What factors are associated with inmate victimization? These two questions are important given that victimization rates are quite high in American prisons when compared to the general population (Cooley, 1993; Maitland and Sluder, 1998). High rates of violence and victimization in correctional institutions reflect poorly on the performance of prison administrators (DiIulio, 1987). In addition, violence creates a more volatile environment where prison staff carry out their responsibilities of managing the inmate population on a daily basis.

There is considerable extant research concerning crime inside American prisons. Most research has been conducted using official prison records, and has focused on the inmate offenders (Flanagan, 1983; Mabli, Holley, Patrick, and Walls, 1979; MacKenzie, 1987; Myers & Levy, 1978; Sorensen, Wrikle, and Gutierrez, 1998; Toch & Adams, 1986). This study breaks from such tradition, and instead focused on inmates who were "victimized" inside maximum and medium security male prisons located throughout the United States. In so doing, the factors associated with inmate victimization were identified in an attempt to discover which are most salient.

The results from this research may help to generate much needed policy-oriented knowledge. For example, the findings may prove useful to prison administrators in the development and implementation of inmate classification systems. Also, if the factors that predict victimization can be identified, then these findings may be useful to prison administrators in the development of programs to address specific problem areas within their institutions. Third, if these results identify factors that reduce the probability of victimization, then decision-makers may use such information in the development of

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policies designed to reduce inmate victimization (e.g., contact with outside world). Another possibility is that no significant predictors will be identified. In this case the results may influence decision-makers to reduce or eliminate costly programs based on false assumptions about the correlates of victimization already in place or those being considered for implementation.

THEORETICAL FRAMEWORK

Over the years researchers have developed two general models to explain the inmate social system subcultures and assimilation process. These are referred to as the "deprivation model" and the "importation model." This review of the theoretical literature will outline these two models.

The traditional view, which is commonly referred to as the "deprivation model," holds that norms, language, and social roles developed among inmates reflect the "pains" associated with prison life (Clemmer, 1940; Sykes, 1958). These deprivations include lack of freedom, emotional relationships with family and friends on the outside, material goods and services, and heterosexual relationships. Other deprivations include the lack of personal autonomy and lack of security (Sykes, 1958: 65-78).

The term "prisonization" has been used to identify the process by which new inmates learn the norms and customs of prison society, what will be expected of them while incarcerated, and the extent to which they internalize and act upon these norms. The deprivation model holds that upon entry, inmates are stripped of their individual identities, and subjected to a rigid, controlled environment where they must often learn to fend for themselves. This process is believed to generate some degree of self-esteem through resistance to, and manipulation of, the prison's formal organizational structure

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(Clemmer, 1940).

In contrast, the "importation model" maintains that the inmate social system originates not so much from the prison environment, but rather from outside criminal subcultures (Irwin and Cressey, 1962; Thomas, 1973; Thomas and Foster, 1973). The importation model, which concedes that there is some influence of the deprivations associated with incarceration, goes beyond the immediate situation and looks at pre-prison factors, such as demographic characteristics and criminal history, to explain the inmate social system. All inmates enter prison with a lifetime of experiences that have shaped their personalities, and those experiences will determine how they react to life behind bars. The importation model considers past life experiences and relationships and the continuation of these relationships while incarcerated through contacts with those outside prison walls. In addition, the importation model also considers the inmate's perception of his/her post-prison life opportunities to be important determinants of future activities and associations (Sorensen et al., 1998; Thomas, 1973; Thomas and Foster, 1973).

Research has shown that continued contact with friends or family outside prison may affect an inmate's perception of his/her post-prison life opportunities (Grapendaal, 1990; Thomas, 1973, 1977; Thomas and Foster, 1973). Inmates who maintain contacts with the outside world are more likely to have positive expectations of life after release from prison. Positive post-prison expectations reduce the extent to which the inmate is likely to become entrenched in the prison subculture, and thus reduces the likelihood of involvement in criminal activity while incarcerated (Grapendaal, 1990; Thomas, 1973; 1977; Thomas and Foster, 1973).

For inmates with extensive involvement in criminal activity prior to incarceration, continued contact with the criminal element outside prison while incarcerated may have a negative effect. Grapendaal (1990) found that these inmates were more likely to exploit their fellow inmates.

Some researchers have found evidence to suggest that the importation model better explains prison violence (Cao et al., 1997; Harer and Steffensmeier, 1996; Irwin and Cressey, 1962; Thomas, 1973; Thomas and Foster, 1973), while the work of others supports the deprivation model (Clemmer, 1940; Fry and Frese, 1992; Sykes, 1958). More recently, this "either-or" approach has been abandoned and studies have sought to integrate these two respective models (Grapendaal, 1990; Lawson, Segrin, and Ward, 1996; Sorensen et al., 1998). To date, existing studies have not focused on inmate victimization per se, but rather on the assimilation processes associated with the adoption of the inmate code. Even though these studies do not specifically address prison violence, the theoretical frameworks driving them are applicable to the study of inmate victimization given that violence and victimization are hypothesized to be adjustment processes.

An inmate's activities and personal relationships are associated with the likelihood of being victimized (Cohen, 1981; Felson, 1987; Wooldredge, 1998). At first glance, this appears to support the deprivation model. On the other hand, if it is true that past life experiences influence these activities and relationships as implied by the importation model, we must ask ourselves whether these two models are mutually exclusive. All inmates suffer deprivations, however, not all inmates are victimized at the same rate (Thomas, 1973). This indicates the presence of factors at work other than those imposed

by incarceration itself. These factors may very well include prior life experiences and relationships, the continuation of these relationships while incarcerated, and the inmate's perception of his/her post-prison life opportunities. If these factors are associated with the likelihood of becoming a victim of crime, then it follows that the importation model may aid in predicting which inmate's will most likely to be victimized. This study will attempt to test the importation model as it applies to the association between prior life experiences, existing personal relationships, and the continuation of such relationships while incarcerated and inmates' likelihood of victimization.

LITERATURE REVIEW

Several researchers have sought to assess the impact of various factors hypothesized to be associated with inmate victimization. As noted previously, most of these studies have focused on the perpetrators of inmate violence (Flanagan, 1983; McCorkle, Miethe, and Drass, 1995; Myers and Levy, 1978). In comparison, few studies have been conducted that attempt to identify factors that would predict the likelihood of an inmate being victimized during incarceration (Cooley, 1993; Wooldredge, 1994; Wooldredge, 1998; Wright, 1991). This section consists of a review of the few existing studies that have done so. In addition to identifying variables that have been used by researchers in the past, the author will seek to identify additional factors that have not yet been empirically assessed.

Dennis Cooley's (1993) study of victimization in Canadian federal prisons compared official victimization rates for the prisons studied to victimization rates calculated from victim surveys completed in these prisons. These results indicate that inmate victimization rates were nearly five times higher than the official victimization

rates published by the Canadian government (1). Cooley (1993) also compared victimization rates for assault. He found that inmates were more frequently victims of assault when compared to the general population (376 per 1,000 compared to 116 per 1,000). A sub-sample from the Canadian population consisting of urban males aged 20-59 with annual income less than $20,000 was also compared to inmate victimization. This comparison showed that approximately 60% more inmates were assaulted (376 per 1,000 compared to 227 per 1,000), but the number of assault incidents were actually slightly higher in the sub-sample (417 per 1,000 compared to 402 per 1,000). Cooley (1993) found that various factors, such as age, security level of the prison, and length of time spent in the facility significantly increased the odds of victimization. In other words, victims tended to be younger, housed in maximum-security facilities, and in the early stages of their sentence.

Wright (1991) argued that violence in prisons was not as prevalent ten or twenty years ago as it is today due in part to informal control mechanisms. These controls originated from an "inmate code discouraging exploitation of other inmates" (Wright, 1991:5). Informal social controls were commonly employed in the past. For example, prison staff granted privileges to certain inmates in exchange for assistance in the containment of disruptive behavior (Sykes, 1958). Wright (1991) suggests that recent federal court decisions have limited this practice to the point of eliminating its effectiveness (2).

In contrast to other studies (e.g., Lauritsen, Sampson and Laub, 1991), Wright (1991) concluded that victims and their attackers were distinctive groups. He found that violent inmates tended to be younger, unmarried, less educated, had a history of

unemployment prior to incarceration, had been involved in the criminal justice system at an early age, and had prior institutional experience. Victims, on the other hand, tended to have been less involved in crime prior to incarceration and were seldom charged with aggressive behavior in prison, although the data indicated that they are more likely to argue and fight with inmates and staff. Wright (1991) hypothesized that argumentative behavior may have been partly the cause of their victimization.

Wooldredge (1994) looked at pre-institutional variables and institutional variables in an attempt to predict victimization and the perpetrators of crime in prison. Using survey data from inmates housed in a medium security, adult male correctional facility located in a Southwestern state, Wooldredge (1994) concluded that various inmate characteristics (or pre-institutional variables) increased the likelihood of victimization. According to Wooldredge (1994), Mexican-American inmates were more likely to be victims of personal crimes than non-Mexican inmates. Further, younger inmates were more likely to be victimized than older inmates were. Inmates with histories of prior incarceration or commission of personal crime were also more likely to be victims of personal crime. Wooldredge (1994) found that several institutional variables were also important predictors of inmate victimization. For example, inmates who spent fewer hours in recreational activity had fewer friends in the facility and did not receive monthly visits from friends or families from outside the prison were also more likely to be victims of personal crimes. Unfavorable attitudes toward the facility were also significantly related to personal crime victimization.

The list of significant indicators of property crimes provided by Wooldredge (1994) is much shorter than for personal crime. Mexican-American inmates were more

likely than non-Mexican and those inmates closer to the beginning of their sentence were most likely to be victims of these types of crime (3).

An interesting aspect of Wooldredge's (1994) findings is that the factors common among personal crime victims more than property crime victims, were associated more with activities of the inmate-victim while at the facility. Hours of recreation, television, number of friends at the facility, visits per month, are all significant indicators of personal crime. This combination of factors tend to support the lifestyle theory of inmate victimization (Wooldedge, 1998), routine activities theory of crime victimization (Felson, 1987), and the criminal opportunity perspective (Cohen, 1981).

Wooldredge (1998) has also examined inmate lifestyles and their relationship to victimization. The lifestyle theory asserts that people engage in vocational and leisure activities that tend to increase or decrease their likelihood of being victimized through their associations with potential offenders (see Hindelang, Gottfredson, and Garofalo, 1978). Wooldredge (1998) emphasized that all inmates are exposed to potential offenders, however, some are more or less likely to be victimized because of the activities they choose to be involved in or the type inmates they associate with. Inmates involved in a greater amount of structured activities were less likely to be physically assaulted, although this involvement showed a greater likelihood of victimization by theft. This higher likelihood of theft is presumed to be the result of inmates being unable to safeguard their property while at such activities. Several characteristics were correlated with physical assault, including number of hours spent in recreational activities, perceptions of alienation, visits, and income prior to incarceration. Age and number of hours spent in educational activity were negatively correlated with physical assault at

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significant levels. Characteristics positively correlated with theft include prior felony convictions, educational level, hours of vocational training and recreational activities (4).

Wooldredge (1998) concluded that his results validate the lifestyle theory of crime victimization. These same results also validate the importation theory because prior life experiences and relationships as well as demographic characteristics influence what an inmate does in prison. This point is supported by Wooldredge's (1998) findings that demographic and background characteristics as a group predicted the likelihood of physical assault.

In a study of victimization of younger inmates, Maitland and Sluder (1998) found that white inmates were more likely to be victims of mind games, extortion of property, physical injury and to have weapons used against them than non-whites (5). In general, victims were less psychologically healthy, feared victimization more and found prison more painful than non-victims. Conviction of violent crimes and amount of time spent in correction institutions were not significantly related to victimization. Age was not an issue in this study because the prison under observation housed only young inmates. A similar study of a facility housing a wider range of age groups may show age as a significant indicator of victimization. The size and design of the sample also present external validity problems preventing generalization of the results to the general population.

Previous research into inmate victimization has included such variables as age, race, ethnicity, marital status and number of children, education, criminal and incarceration history, and unemployment prior to incarceration. In addition, the amount of time spent at work, counseling and recreational activities while incarcerated, the

number of friends within the prison, visits from friends and family members, and inmates' attitudes towards prison administration, programs and correctional officers are included in various studies.

Some researchers have concluded that inmate victimization can best be explained by the routine activities theory of criminal victimization (Felson, 1987) or the criminal opportunities perspective (Cohen, 1981). These theories explain victimization based on the assumption that victims and victimizers share common characteristics. Other researchers reached the opposite conclusion (Wright, 1991), that victims and victimizers are distinctive groups that share few, if any, characteristics.

Extant research, although sparse, has included many characteristics of inmate crime victims. The current study attempted to include factors that were shown to be significant in past research, as well as add some other factors that may also increase the likelihood of victimization. For example, this study included sexual orientation as a control variable. It is possible that other inmates because of their sexual orientation may target inmates who are not heterosexual as victims (6).

RESEARCH OBJECTIVE

This study attempted to test a set of hypotheses derived from the importation model. Specifically, this study assessed the effects between prior life experiences, personal relationships, and the continuation of such relationships while incarcerated on the likelihood of victimization. To accomplish this task, "continued contact" with the outside world will be measured using information concerning the number of visits, number of personal letters received, and the number of phone calls made and received by inmates. With this in mind, the following hypotheses will be tested:

Hypothesis 1: Continued contact with those outside prison is inversely associated with victimization by serious threats of bodily injury.

Hypothesis 2: Continued contact with those outside prison is inversely associated with victimization by assault resulting in injury.

Hypothesis 3: Continued contact with those outside prison is inversely associated with victimization by theft.

In addition to traditional hypothesis testing, this study also seeks to explore the effects of other variables to determine which, if any, may be significant predictors of inmate victimization. Few studies have been conducted that have attempted to analyze several individual characteristics of inmate-victims in an attempt to identify which were significant when controlling for many additional factors (Wooldredge, 1994, 1998). Most studies have used only a small number of variables (Faulkner and Faulkner, 1997; Flynn, 1992; Johnson and Lazarus, 1989), whereas this study includes many variables on a wide range of topics. By doing so, this study seeks to advance our understanding of criminal victimization inside the prison walls.

DATA AND METHODS

Data for the proposed study were provided by the Inter-University Consortium for Political and Social Research at The University of Michigan. Data for the original study, which was entitled "Inmate Victimization in State Prisons, 1979," were collected by Jan E. Schreiber at the Social Science Research Institute under a grant from the National

Institute of Justice. The original study was conducted to determine the nature and extent of victimization in state prisons located throughout the United States (Schreiber, 1983).

These data were collected by way of personal interviews with prison inmates in maximum and medium security institutions over a six month period in 1979. The institutions included in the sample were stratified by size and sex of inmate population, and by region of the United States. This was done in order to include two large male facilities (population over 500) and one small male facility (population under 500) located throughout the country. From each facility, a maximum of 75 inmates were randomly selected from the prison roster. There were 487 inmates in the original study sample. Listwise deletion of missing data resulted in a sample of 323 inmates.

The more common method of data collection for this type of research has been official prison records. The potential under-reporting of crime inside prisons as well as the nature of some questions dealing with self-reporting of offenses committed by inmates makes the personal interview an attractive alternative (Hewitt, Poole & Regoli, 1981). Although surveys do provide access to information not available through official records, they are not infallible (Block and Block, 1984). Respondents may provide inaccurate information. For example, participants may not remember incidents or dates accurately. Another potential problem with obtaining information through the use of inmate surveys is that respondents may fear reprisals from prison administration if they give self-incriminating information. Questions of inmates remembering facts incorrectly or intentionally misrepresenting facts in self-reports of criminal activity and victimization may be an issue, although this type of data collection has become common in prison

studies in recent years (Cooley, 1993; Maitland and Sluder, 1998; Wooldredge 1994, 1998; Wright, 1991).

Dependent Variables

Dependent variables include specific types of inmate victimization. Three dependent variables will be included: (1) the number of times the inmate has been a victim of theft while incarcerated, censored with a ceiling of 40; (2) the number of times the inmate has been subjected to serious threats of bodily injury while incarcerated, censored with a ceiling of 32; and (3) the number of times the inmate has been a victim of assault resulting in injury (7).

Table 1 includes a summary of descriptive statistics for all variables used for this study.

Table 1

Variable Coding and Descriptive Statistics [a]

Variable	Description/Categories	Values	Mean	SD
Independent Variables				
Visits	# visits received per month		2.19	3.25
Letters	# letters received per month		12.40	14.49
Phone calls	# phone calls per month		3.59	7.06
Age	Inmate age in years		27.94	8.12
Race	Caucasian	0	.46	.50
	Non-Caucasian	1		
Education	Years of school completed		10.67	2.15
Inmate income	Income prior to incarceration		10,594.10	9646.42

Table1 (cont'd)

Variable	Description/Categories	Values	Mean	SD
Height	Less than 5'8"	1	1.99	.64
	Between 5'8" and 6'	2		
	More than 6'	3		
Build	Muscular	1	1.73	.51
	Average	2		
	Flabby	3		
Sexual orientation	Heterosexual	0	.96	.19
	Bisexual/homosexual	1		
Prior convictions	# prior felony convictions		1.07	1.56
Violent offense	No	0	.55	.50
	Yes	1		
Life sentence	No	0	.14	.35
	Yes	1		
Time incarcerated	# months in current prison		19.14	20.17
Treatment	# hours treatment per week		1.74	5.12
Work	# hours worked per day		4.98	3.75
Recreation	# hours recreational activity		10.04	11.71
Committed theft in prison	No	0	.06	.23
	Yes	1		
Made threats while in prison	No	0	.31	.46
	Yes	1		
Injured someone while in prison	No	0	.24	.43
	Yes	1		
Inmate friends	# inmates as good friends		6.65	11.20
Staff friends	# staff as good friends		1.89	4.21

Table1 (cont'd)

Variable	Description/Categories	Values	Mean	SD
Perceived personal safety	Very safe	1	2.43	.95
	Fairly safe	2		
	Occasionally unsafe	3		
	Not safe at all	4		
Perceived safety of property	Very safe	1	2.46	.98
	Fairly safe	2		
	Occasionally unsafe	3		
	Not safe at all	4		
<u>Dependent Variables</u>				
Theft	# times victimized by theft		1.46	4.53
Threats	# times seriously threatened		2.16	6.33
Injured	# times injured by assault		.35	1.14

[a] Descriptive statistics based on N = 323

Independent Variables

Several individual-level variables will be use. These independent variables include many that have been used by other researchers in various studies, including inmate demographic characteristics. Inmate contact with those outside the prison walls is of primary interest in this study. Other studies have identified such continued contacts as significant determinants of victimization among prison inmates (Grapendaal, 1990; Thomas, 1973; Thomas and Foster, 1973; Wooldredge, 1998). The number of visits an inmate received per month, how many letters received per month, and how many phone calls received or made by an inmate were used as indicators of contact with the outside.

Inmate age was measured in actual years as reported by the inmate respondent. Race will be taken into account using a dummy variable: 0 = Caucasian and 1 = non-

Caucasian. The non-Caucasian category includes Black, Hispanic, Asian, Pacific Islander, Native American and Alaskan Indian inmates. Education will be included as a control variable, and reflects the number of years of schooling completed. Inmate sexual orientation is a dummy variable with 0 = heterosexual and 1 = bisexual or homosexual. Height and build will be included as control variables to test for correlation between physical prowess and victimization. Height is an ordered categorical variable: 1 = under five feet eight inches tall, 2 = between five feet eight inches and six feet tall, and 3 = over six feet tall. Build is coded similarly: 1 = muscular, 2 = average, and 3 = flabby.

Wooldredge (1998) found income prior to incarceration to be a significant predictor of inmate victimization. This study included income prior to incarceration as another control variable.

Self-reported criminal activity committed by inmates will also be included as a series of dummy variables. More specifically, whether inmates committed theft while in prison is coded: 0 = no and 1 = yes. Serious threats of bodily injury made by inmates while incarcerated is coded: 0 = no and 1 = yes. The commission of assault resulting in injury while in prison will be included as well, coded: 0 = no and 1 = yes.

Daily activities of inmates will also be included as statistical controls. The number of hours inmates worked per day, the number of hours per week inmates were involved in some sort of counseling or treatment, and the number of hours inmates were involved in recreational activities per week, censored with a ceiling of 63 will be included. The number of inmates considered to be good friends, censored with a ceiling of 50, and the number of staff members considered to be good friends, censored with a ceiling of 25 will also be included in the analysis.

Two variables will be included that measured inmates' perception of personal safety within the prison as well as the safety of their property. Personal safety was operationalized by the variable, "as far as being assaulted is concerned, does R think that this prison is..." The response set to this statement included: 1 = very safe, 2 = fairly safe, 3 = occasionally unsafe, and 4 = not safe at all. Safety of the inmates' property was operationalized using the survey item: "Does R feel that R's property is...": 1 = very safe, 2 = fairly safe, 3 = occasionally unsafe, and 4 = not safe at all. Although the means and standard deviations for these two variables are quite similar, the correlation between them ($r = .19$) does not necessitate combining these items into a composite variable.

Data related to the respondents' prison sentence and offense history is also included as independent variables. Current conviction for violent offense was a dummy variable: 0 = non-violent offense and 1 = violent offense. The violent offense category includes the offenses of robbery, non-force sex offenses, forcible rape, first and second degree murder, murder, voluntary and involuntary manslaughter, manslaughter, kidnapping, simple and aggravated assault, assault, attempted rape, attempted robbery, attempted assault, attempted murder, accidental killing and killing in self-defense. The non-violent reference category includes the offenses of burglary, larceny, motor vehicle theft, receiving stolen goods, forgery, fraud, arson embezzlement, possession of drugs, sale of drugs, narcotic offenses, prostitution, and commercial vice.

The amount of time respondents have spent in the current prison is recorded in months with a censored ceiling of 131. Whether the inmate was serving a life sentence will also be included as a dummy variable with 0 = no and 1 = yes. Prior felony

convictions was operationalized as the number of times respondents reported that they had been incarcerated in prison prior to the current sentence (8).

Statistical Procedures

The appropriate bivariate and multivariate statistical procedures to use with these data are Pearson correlation coefficient analysis and multivariate linear regression. Multiple regression is useful for analysis when several control variables are included (Bachman and Paternoster, 1997: 455, 489).

ANALYSIS

To examine the association between victimization and inmate characteristics a correlation matrix was created. Relevant Pearson correlation coefficients from this matrix are presented in Tables 2 and 3.

As Table 2 shows, there are no significant relationships between any of the three hypothesized victimization variables and visits, letters or phone calls. This lack of relationships indicates that the hypotheses are not supported by the results of analysis. There were however, some significant relationships with the dependent variables. Criminal activity while incarcerated is associated with each of the hypothesized dependent variables. For victimization of theft, having committed theft ($r = .14$), having made serious threats of violence ($r = .12$), and having committed assault resulting in injury ($r = .13$) are significant. For victimization of serious threats of violence, having committed theft ($r = .23$), having made serious threats of violence ($r = .30$), and having committed assault resulting in injury ($r = .21$) are all significantly associated with one another. Finally, victimization of assault resulting in injury is associated with having

Table 2

Bivariate Associations[a]

	Victim of theft	Threatened	Injured
Visits	.070	-.081	.017
Letters	.037	.016	.085
Phone calls	.086	.067	.076
Age	.076	-.104	-.024
Race	-.143*	-.079	-.137*
Education	-.047	-.132*	-.092
Inmate income	.073	-.010	.094
Height	-.031	-.039	-.027
Build	-.044	.002	.042
Sexual orientation	.009	-.132*	.060
Prior convictions	-.028	.073	.004
Violent offense	.023	.067	.051
Life sentence	-.028	-.001	-.054
How long incarcerated	.270**	.073	.193**
Treatment	.004	-.052	-.056
Work	.014	.083	-.051
Recreation	-.009	-.015	.020
Committed theft	.142*	.226**	.354**
Made threats	.116*	.304**	.241**
Injured someone	.125*	.213**	.389**
Inmate friends	.122*	-.088	-.059
Staff friends	.034	-.067	-.067
Perceived personal safety	.096	.116*	.177**
Perceived safety of property	.252**	.125*	.151*

[a] Pearson correlation coefficient
** Correlation significant at .01
* Correlation significant at .05

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committed theft (r = .35), having made serious threats of violence (r = .24), and having committed assault resulting in injury (r = .39) . These result would suggest that offenders and their victims share common characteristics. The victims in this study have also been offenders themselves.

Victimization of theft is associated with perception of safety of property (r = .25). Victimization of serious threats of violence is associated with perception of personal safety (r = .12), and perception of property safety (r = .13). Victimization of assault resulting in injury is associated with perception of personal safety (r = .18), and perception of safety of property (r = .15). These results suggest that an inmate who has been victimized by any of the three offenses is likely to perceive a greater likelihood of future victimization of both personal and property crime than an inmate who has not been so victimized.

The length of time incarcerated in the current prison is significantly associated with two of the three hypothesized dependent variables. Victimization of theft (r = .27), and victimization of assault resulting in injury (r = .19) are both significantly associated with the length of time incarcerated in the current prison. These results suggest that as the length of incarceration increases, so does the likelihood of victimization.

Victimization of serious threats of violence and sexual orientation (r = -.13), and education (r = -.13) are also significantly associated. These results would indicate that less educated heterosexual inmates are more likely to be threatened with violence. Race is also found significantly associated with both victimization by theft (r = -.14) and injury by assault (r = -.14) indicating that Caucasian inmates are more likely to be victimized than non-Caucasian inmates.

The number of inmate friends is significantly associated with victimization by theft (r = .12). This indicates that as the number of inmate friends increases so does the likelihood of being victimized by theft. This suggests that the more trusting of other inmates an inmate becomes, the more likely he/she is to be victimized.

Table 3
Bivariate Associations[a]

	Victim of theft	Threatened	Injured
Victim of theft	1.00		
Threatened	.21**	1.00	
Injured	.38**	.41**	1.00

[a] Pearson correlation coefficient
** Correlation significant at .01
* Correlation significant at .05

Table 3 presents significant associations between the hypothesized dependent variables. Victimization of theft is associated with having been victimized by serious threats of violence (r = .21), and having been victimized by assault resulting in injury (r = .38). Victimization of serious threats of violence is associated with having been victimized by assault resulting in injury (r = .41). These results suggest that an inmate victimized by any one of the three offenses studied is more likely to be victimized by one or more of the other offenses than is an inmate who has not been victimized.

Pearson correlation coefficients were estimated for all of the independent variables in this analysis. None of these correlations, however were strong enough to suggest that multicollinearity was a problem.

Analysis will be continued through the use of multivariate linear regression. The analytic strategy was three pronged. First, the three dependent variables, number of times victimized by theft, number of times victimized by serious threats of violence, and number of times injured by assault were regressed onto the three independent variables, number of visits, number of letters received, and number of phone calls made and received (Model 1). Second, all dependent variables were regressed on the statistical controls (Model 2). Finally, a full model, which included the theoretical variables of interest and the statistical controls, was estimated (Model 3).

The results of these analyses, in the form of the standardized coefficient (β), are presented in Tables 4, 5 and 6. Table 4 presents the results for victimization by theft. In Model 1 there are no significant relationships among the hypothesized variables. This fails to support the hypotheses that victimization by theft is inversely related to continued contact with the outside world. Model 2 indicates significant relationships for four of the independent variables. More specifically: race ($\beta = -.17$, p<.01); length of time spent in the current prison ($\beta = .27$, p<.001); perceived safety of property ($\beta = .22$, p<.001); and the number of inmates considered as good friends ($\beta = .11$, p<.05) are all found to have significant relationships with victimization by theft. For model 3 the same four significant relationships are found: race ($\beta = .18$, p<.01); length of time spent in the current prison ($\beta = .26$, p<.001); perceived safety of property ($\beta = .22$, p<.001): and the number of inmates considered as good friends ($\beta = .12$, p<.05).

The results from table 4 suggest that Caucasian inmates are more likely to be victimized by theft than non-Caucasians. Also, the longer an inmate is incarcerated the greater the likelihood of being victimized by theft. As the number of inmates considered

Table 4

Multivariate Linear Regression Results for Victimization by Theft

Variable	Model 1	Model 2	Model 3
	β	β	β
Visits	.08		.06
Letters	-.03		-.01
Phone calls	.09		.10
Age		.02	.02
Race		-.17**	-.18**
Education		-.04	-.06
Inmate income		.08	.06
Height		.05	.04
Build		-.06	-.06
Inmate sexual orientation		.01	.02
Prior felony convictions		-.05	-.03
Current conviction for violent offense		-.01	.01
Life sentence		-.11	-.11
How long incarcerated		.27***	.26***
Treatment		-.04	-.04
Work		.00	.00
Recreation		-.04	-.05
Has inmate committed theft in prison		.10	.10
Has inmate made serious threats in prison		.04	.04
Has inmate injured someone in prison		-.05	-.06
Number of inmate friends		.11*	.12*
Number of staff friends		.03	.01
Perceived personal safety		.07	.09
Perceived safety of property		.22***	.22***
R^2	.02	.20	.21

* $p<.05$, ** $p<.01$, *** $p<.001$

as good friends increases, there also appears to be a slightly greater likelihood of victimization of theft. Inmates who had been victimized by theft are less likely to consider their property to be safe than ware those who have not been so victimized. A very weak coefficient of determination (R^2) for Model 1 explains only approximately 2% of the variance, while a moderate R^2 for Model 2, which consisted of the statistical controls, explains much more variation (20%). The full model, Model 3, explained 21% of the variance.

Table 5 presents the results of analysis for victimization of serious threats of violence. Model 1 again fails to support the hypotheses that visits, letters and phone calls are inversely related to being threatened. No significant relationships are found among the hypothesized variables. There are however, three significant relationships revealed in Model 2. The number of hours an inmate worked ($\beta = .11$, p<.05), the inmate's commission of theft while incarcerated ($\beta = .13$, p<.05), and having made serious threats of violence against someone while incarcerated ($\beta = .19$, p<.01) are all significantly related to receiving serious threats of injury. Model 3 contains the only significant relationship in this study for one of the hypothesized variables, this being the number of phone calls received and made ($\beta = .13$, p<.05). The remaining significant relationships are with the same variables as model 2: The number of hours an inmate worked ($\beta = .12$, p<.05); having committed theft while incarcerated ($\beta = .12$, p<.05); and having made serious threats of violence against someone while incarcerated ($\beta = .19$, p<.01).

The results from table 5 suggest that inmates who have committed theft and made serious threats of violence while incarcerated are more likely to receive serious threats of

Table 5

Multivariate Linear Regression Results for Victimization by Threats

Variable	Model 1 β	Model 2 β	Model 3 β
Visits	-.05		-.09
Letters	-.02		.02
Phone calls	.07		.13*
Age		-.08	-.09
Race		-.06	-.08
Education		-.07	-.07
Inmate income		.01	.00
Height		-.04	-.05
Build		-.01	.00
Inmate sexual orientation		-.10	-.09
Prior felony convictions		.09	.10
Current conviction for violent offense		.02	.03
Life sentence		-.02	.00
How long incarcerated		.02	.01
Treatment		-.07	-.07
Work		-.11*	.12*
Recreation		-.04	-.05
Has inmate committed theft in prison		.13*	.12*
Has inmate made serious threats in prison		.19**	.19**
Has inmate injured someone in prison		.06	.06
Number of inmate friends		-.05	-.04
Number of staff friends		.01	.00
Perceived personal safety		.08	.08
Perceived safety of property		.08	.08
R^2	.01	.18	.20

* $p<.05$, ** $p<.01$, *** $p<.001$

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violence. Serious threats of violence also increase as inmates work more hours and talk longer on the telephone. The coefficient of determination (R^2) for Model 1 is very weak and explains only 1% of the variance. Model 2, which consists of the statistical controls, explains 18% of the variance, while model 3, the full model explains 20% of the variance.

Table 6 presents the results for victimization by assault resulting in injury. Once again, none of the hypotheses are supported. No significant relationships are found among the hypothesized variables in Model 1. Model 2 reveals five significant relationships with injury by assault, including: Income prior to incarceration ($\beta = .11$, $p < .05$); the commission of theft while incarcerated ($\beta = .27$, $p < .001$); having committed assault resulting in injury ($\beta = .25$, $p < .001$); perceived personal safety ($\beta = .13$, $p < .05$); and perceived safety of property ($\beta = .10$, $p < .05$). For model 3, there are also five significant relationships. Race is now significant ($\beta = -.11$, $p < .05$), but inmate income is not. The remaining four significant relationships are the same as for model 2: The commission of theft while incarcerated ($\beta = .27$, $p < .001$); having committed assault resulting in injury ($\beta = .24$, $p < .001$); perceived personal safety ($\beta = .13$, $p < .05$); and perceived safety of property ($\beta = .10$, $p < .05$).

Results from Table 6 suggest that inmates who have committed theft or assault resulting in injury while incarcerated are more likely to be injured by assault. These are some of the strongest relationships found in this study. Inmates who have been injured by assault also have lower expectations of personal safety and to a lesser degree lower expectations for the safety of their property. Caucasian inmates are slightly more likely

Table 6
Multivariate Linear Regression Results for Victimization by Injury

Variable	Model 1	Model 2	Model 3
	β	β	β
Visits	.00		.00
Letters	.08		.05
Phone calls	.05		.10
Age		-.01	-.01
Race		-.10	-.11*
Education		-.03	-.05
Inmate income		.11*	.10
Height		.01	.00
Build		.06	.06
Inmate sexual orientation		.09	.10
Prior felony convictions		-.01	.00
Current conviction for violent offense		-.01	-.00
Life sentence		-.10	-.09
How long incarcerated		.09	.09
Treatment		-.04	-.04
Work		-.02	-.02
Recreation		-.02	-.03
Has inmate committed theft in prison		.27***	.27***
Has inmate made serious threats in prison		.02	.02
Has inmate injured someone in prison		.25***	.24***
Number of inmate friends		-.06	-.05
Number of staff friends		.03	.01
Perceived personal safety		.13*	.13*
Perceived safety of property		.10*	.10*
R²	.01	.29	.31

* p<.05, ** p<.01, *** p<.001

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to be injured by assault than non-Caucasian inmates and as inmate income prior to incarceration increased, so does the incidents of injury by assault.

The coefficient of determination (R^2) for Model 1 is also very weak and only explains 1% of the variance, while the other two models in this table explain the highest percentage of variation in this study. Model 2, the statistical controls model explains 29% of the variation, and model 3, the full model, explains approximately 31%.

There is only one significant relationship among the three hypothesized variables. The number of phone calls received and made is significantly related to threats of injury in the full model of Table 5.

DISCUSSION

The results from this analysis, as pointed out, did not support the three hypotheses that inmates' continued contact with the outside world by way of visits, letters and phone calls reduces the likelihood of victimization inside prison. Support was also not found for either the importation or deprivation models. Variables supporting both models were included in the significant as well as non-significant categories. This failure to clearly differentiate between deprivation and importation models supports the contention stated in this study that these are not exclusive models.

There were, however, some results that stood out in regression analysis. Inmate involvement in criminal activity while incarcerated appeared to be the most important determinant of victimization involving serious threats of injury and injury by assault. The commission of theft while incarcerated was significantly related to both threats of injury as well as injury by assault for both Models 2 and 3. Having made serious threats

of violence while incarcerated was significantly related to receiving serious threats of violence for Models 2 and 3. Commission of assault resulting in injury while incarcerated was significantly related to injury by assault for Models 2 and 3 as well.

Bivariate correlation results showed that the commission of all three offenses studied, theft, threats or assault, were significantly correlated with all three types of victimization, theft, threats and injury by assault. These results appeared to support the assumptions of the criminal victimization theory (Felson, 1987), the criminal opportunities perspective (Cohen, 1981), and the lifestyle theory (Wooldredge, 1998) that offenders and their victims shared common characteristics. It appears that for this sample the same inmates were the victims and the victimizers. This is contrary to Wright's (1991) conclusion that victims and offenders are distinctive groups sharing few characteristics.

Inmates that had been victims of theft, as well as injured by assault, were more likely to be less secure in the safety of their property than those who had not been so victimized. Inmates that had been injured by assault felt less secure from assault than did non-victims. These results may very well have been caused by their victimization, but it is also possible that these inmates were insecure about their safety prior to being victimized, and this insecurity may have contributed to the victimization by making them appear more vulnerable.

The results from the regression analysis suggest that Caucasians were more likely to be victims of theft and to a lesser degree injury by assault than non-Caucasians. Inmates that work longer hours were more likely to be threatened with violence. Inmates that had higher income levels prior to incarceration appear to be injured by assault at a

higher rate. One result that was unexpected, is that inmates who had been incarcerated in the current prison for a longer period of time had higher incidents of victimization by theft and injury by assault. It is also curious that this study revealed no significance between age and victimization. Many studies have showed this to be a significant relationship (Cooley, 1993; Wooldredge, 1994, 1998).

The single significant correlation among hypothesized variables is phone calls and receiving serious threats of violence, this is a positive relationship, not negative as was hypothesized.

Even though the hypothesized relationships were not supported, these findings may be useful to prison decision-makers. The strongest relationships were found between victimization by threats and injury and the commission of theft and assault. This suggests for one thing, that inmates with a history of theft and assault are more likely to be injured by assault, possibly out of revenge. Policies may be developed that place these inmates in a more closely monitored section of a prison. By doing this, prison personnel may reduce the likelihood of that inmate committing theft or assault as well as reducing the likelihood of him/her being injured by assault resulting from revenge. The relatively strong relationship between injury by assault and commission of assault resulting in injury may also be of use to prison decision-makers. These results suggest that victimizers are likely to become victims, possibly also motivated by revenge. Therefore, inmates with histories of assaultive behavior are likely to be assaulted, perpetuating a cycle of violence. Prison policy could be set to disperse these types of inmates among the prison population. This would limit contact between assaultive inmates, hopefully reducing the likelihood of confrontations. Results also reveal that Caucasian inmates are

more likely to be victimized by theft and to a lesser degree, injured by assault than non-Caucasian inmates. The racial issue is always of concern for prison officials. With this in mind, prison decision-makers need to address this potentially explosive issue. Policies and directives need to be developed and enforced which attempt to eliminate any preferential treatment of, as well as discrimination against any group by prison staff. If inmates perceive racial discrimination from prison staff, this will escalate the problem. Other measures could also be taken, such as race relation training, in an attempt to eliminate racial discrimination.

The amount of research into inmate victimization has only begun to scratch the surface of what needs to be done. This study and others like it have left many questions unanswered as well as bringing up new questions regarding the victimization of prison inmates. Significant relationships that surface need further in-depth study. From the results of this study, it appears that the inmate involvement in criminal activity while incarcerated is a major area of concern that needs more study.

NOTES

1. Cooley (1993) randomly selected inmates who had served at least twelve months in one of five federal prisons in Canada. The total number of cases is 117, although only 97 were used in the analysis due to missing data,

2. Wright (1991) used official records and self-report surveys in this study. He identified violent and victimized inmates from these sources. Data were collected from ten male prisons in New York, five maximum security and five medium security. The prisons were randomly selected. The total sample consisted of 942 inmates randomly chosen from a list of inmates incarcerated in these facilities.

3. The prison in Wooldredge's (1994) study housed such a low number of African-Americans that he did not include them as a category of race in his data analysis.

4. Wooldredge (1998) used surveys administered to inmates in three correctional facilities. These included one medium and two high security facilities. Inmates were chosen for the study by their respective wardens with a final count of 581.

5. Maitland and Sluder (1998) sampled 111 inmates from a medium security, male prison designed for 17-25 year old inmates. This prison had a population of approximately 1,100 inmates. A non-probability sampling procedure was employed, and 111 inmate volunteer research subjects completed surveys.

6. Other factors, which may be significant, include gang membership and religious affiliation. These variables were not included in this study because this data were not available in the data set used. More research is needed to assist in predicting which inmates are most likely to be victimized.

7. Ceilings for the dependent variables in this study were set based on natural breaks in groupings of occurrences. All ceilings were set above the 95th percentile. For the number of times victimized by theft the 95th percentile was 5 and for the number of times victimized by threats the 95th percentile was 10.

8. Ceilings for the independent variables in this study were set based on natural Breaks in groupings of occurrences. All ceilings in this study were set above the 95th percentile. For the number of hours involved in recreational activity per week the 95th percentile was 39; for the number of inmates considered friends, the 95th percentile was 30; for the number of staff members, the 95th percentile was 9.6; for number of months incarcerated in current prison, the 95th percentile was 61.8.

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