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Creation and Validation of an Inmate Risk Assessment for Violent, Nonsexual Victimization

Ryan M. Labrecque, Paula Smith, and John D. Wooldredge

University of Cincinnati, Cincinnati, Ohio, USA

Abstract: Recent prison studies have identified several factors associated with the odds of both committing and being victimized by inmate violence. Toward the end of developing an instrument for assessing an inmate’s risk of violent, nonsexual victimization, we examined predictors of victimization grounded in extant studies of the topic. The sample included 12,024 adult male inmates. Using a 25% random sample of these inmates, a risk assessment instrument was created to predict the likelihood of violent, nonsexual victimization during incarceration (the Inmate Risk Assessment for Violent Nonsexual Victimization [RVNSV]). The RVNSV was validated on the three additional random subsamples of inmates. Bivariate and multivariate analyses confirm the RVNSV as a valid predictor of institutional violent, nonsexual victimization. These findings support the further exploration of prison risk assessment tools that use measures of victimization as dependent variables.

Keywords: prison violence, violent victimization, risk assessment

Violence and physical victimizations are often thought of as features of prison life (Irwin, 1980). Inmate victimization appears to be an ever-present and persistent problem for correctional facilities worldwide (Perez, Gover, Tennyson, & Santos, 2010). The prevalence of victimization within prison systems may change over time and the frequency of occurrence may vary by institution; yet since at least the 1960s, North American prisons have experienced a very high level of physical violence (McCorkle, 1992). Evidence on the occurrence of physical victimization inside prison settings is mounting (Wolff, Shi, & Siegel, 2009), which underscores a need to address the number of violent victimizations happening inside prison walls. For example, Stephan and Karberg...
R. M. Labrecque, P. Smith, and J. D. Wooldredge (2003) estimate 28 of every 1,000 inmates in American state and federal prisons were victims of physical assault in 2000. According to Wolff, Blitz, Shi, Siegel, and Bachman (2007), 25% of male inmates in a mid-Atlantic state reported being physically assaulted or threatened by a fellow prisoner during their current sentence. In a study of British prisoners, O’Donnell and Edgar (1998) found 20% of inmates were physically assaulted within the last month. Further, male inmates may be as much as 18 times more likely to be physically assaulted compared to males in the general population (Catalano, 2005).

In more extreme cases, this violence even results in death. In 2000, the United States federal and state correctional systems reported 51 deaths occurred as a result of inmate-on-inmate violence (Wolff et al., 2009). More troubling, however, is the general lack of evidence to indicate institutional violence is decreasing on a systemwide level.

Considering the current state of prisoner victimization research, Wolff, Blitz, and Shi (2007) found more attention has been focused on measuring and documenting sexual violence than on other forms of physical violence (e.g., assaults). So while few studies even examine inmate victimization as a dependent variable, much of the available research limits its focus to one particular type of victimization: sexual victimization. The interest in sexual victimization was inevitably fueled by the passage of the 2003 federal legislation of the Prison Rape Elimination Act (PREA; Schuhmann & Wodahl, 2011). This shift in the prison victimization literature toward sexual victimizations—while certainly a noble cause—has left the study of other types of physical victimization in institutional settings with far less attention.

The offender prediction literature also abounds with studies focusing on the misconduct of inmates (Cunningham & Sorensen, 2006). However, far fewer empirical studies focus on the influences of being violently victimized while incarcerated (Wooldredge, 1998), and what is known about physical victimization tends to come primarily from small, localized studies (as reviewed by Wolff, Shi, & Blitz, 2008). This gap in knowledge is problematic because physical victimizations in prison settings pose problems for the successful control, treatment, and rehabilitation of inmates (Wooldredge, 1994). One of the responsibilities of prison officials is to separate inmates who are high-risk for perpetrating violence from inmates who are high-risk for victimization (Wooldredge, 1994). When violent offenses occur within the prison walls, it threatens the goals of institutional corrections (e.g., safety, security, rehabilitation). Therefore, in order to more effectively prevent crimes in prisons, institutions may need to not only identify which inmates are at high risk to engage in crime while incarcerated, but should also seek to identify which inmates are at high risk to be victimized while incarcerated. Here, we focus on the underresearched area of inmate violent victimization. The aim of this work was to create a risk assessment that was capable of predicting the odds that an inmate would experience a violent victimization while incarcerated.
MODERATORS OF VIOLENT VICTIMIZATION

The prison victimization literature has identified several factors associated with inmate violent victimization. Some of the most common variables explored by previous research include race, age, criminal history, and mental health status.

Race

It has long been believed that an inmate’s race is correlated with his or her likelihood for victimization inside prison (Irwin, 1980); however, the research to date has provided conflicting information on its impact. For example, some studies find nonwhite inmates are more likely to be victimized than white inmates (Irwin, 1980; Perez et al., 2010; Wooldredge, 1994), whereas other studies find white inmates more likely than nonwhite inmates to be victimized (Wolff et al., 2008; Wolff et al., 2009). There is other research that indicates there is no race relationship with inmate victimization at all (Wooldredge, 1998).

Age

An inmate’s age is also thought to predict victimization likelihood inside prisons. Most quantitative research finds younger inmates are at a greater risk for personal victimization (Wolff et al., 2009; Wooldredge, 1994, 1998); however, this research has been criticized for coming from only a small number of prisons with samples having few (if any) aging inmates (Kerbs & Jolley, 2007). Other qualitative research suggests it is older inmates that are at an increased risk for victimization (Kerbs & Jolley, 2007). The available qualitative studies have unfortunately limited their investigation to inmates over a certain age (e.g., 50 years old), and thus cannot rule out that younger inmates in those same institutions are not also at an increased risk of victimization.

Offense History

Inmate offense history is also a likely predictor of victimization. Offense history has been measured in many different ways, including type of crime, number of previous convictions, prior incarceration, prior felony convictions, and length of commitment (Perez et al., 2010; Wolff et al., 2009; Wooldredge, 1994, 1998). In general, inmates with a criminal history of violence are found to be at an increased risk for physical victimization (Wooldredge, 1994, 1998). Further, inmates sentenced for sex offenses may pose the greatest risk for victimization (Wolff et al., 2009). The length of time incarcerated has been shown to have an inverse relationship with victimization, where risk for victimization decreases as the length of sentence increases (Perez et al., 2010).
Mental Illness

Studies have consistently shown that inmates with histories of mental disorder are disproportionally represented as the victims of physical violence in prisons (Blitz, Wolff, & Shi, 2008; James & Glaze, 2006; Wolff, Blitz, Shi, Siegel, & Bachman, 2007). According to the U.S. Department of Justice, male inmates with a history of mental illness were twice as likely to be victimized compared to male inmates with no history of mental illness (James & Glaze, 2006). Similarly, Blitz et al. (2008) found male inmates with any type of mental disorder were 1.6 times as likely to be physically victimized compared to male inmates without any type of mental disorder. Specific types of mental illness may also increase an inmate’s risk for victimization. For example, Wolff et al. (2009) found inmates with nonserious mental disorders, (e.g., depression, anxiety, post-traumatic stress disorder [PTSD]) were more likely to self-report physical victimization.

CURRENT STUDY

The majority of the inmate risk assessment literature has focused on the prediction of perpetrators, while far less work has been devoted to the prediction of victims. This study seeks to add to this gap in the literature. This study was guided by the previous research on individual factors related to inmate physical victimization. Our objectives included the development and validation of a risk assessment instrument for predicting violent, nonsexual victimization among prison inmates.

METHOD

Participants

The participants in this study included a total of 12,024 adult male offenders who had served a minimum of six consecutive months in federal institutions. Generally speaking, the inmates in the study were predominantly white males in their early 30s who were not married and never graduated high school. Although most inmates had a criminal history of violence, far less had previously served time in the prison system. The average length of commitment before release was approximately two years.

Construction and Validation Samples

The purpose of this study was to develop a risk assessment instrument that would predict the likelihood of institutional violent, nonsexual victimization. Using SPSS 21.0, approximately 25% of the sample was randomly assigned to the construction sample (n = 3,002). The construction sample was used to create the composite measures of the risk assessment. Three more samples
of approximately 25% were randomly drawn with replacement (sample 1 $n = 2,954$, sample 2 $n = 2,975$, and sample 3 $n = 3,021$). The three validation samples served as validity tests for the instrument developed from the construction sample.

Descriptions of the four samples are presented in Table 1. No significant differences between the samples were observed on any of the seven characteristics based on t-tests and/or chi-square tests.

Missing data is an unavoidable problem in research. Due to missing assessment information, an RVNSV could not be completed on 27.1% of the sample ($n = 3,262$). A comparison of demographic characteristics was made between the inmates with and without enough information to complete an RVNSV assessment. The two groups were similar on race (84.1% of inmates with all information were white compared to 88.0% of those missing assessment information), marital status (42.5% were married compared to 39.9%), education (22.0% had a high school diploma compared to 20.4%), criminal history (29.1% were previously sentenced to the federal system compared to 25.8%), and age (the mean age at admission was 33.0 compared to 32.7) based on t-tests and/or chi-square tests.

**Measures**

**Violent, Nonsexual Victimization**

Violent, nonsexual victimization (“violent victimization” hereafter) included any institutional incident where an inmate was the victim of an assault by another inmate. This variable was operationalized as $1 = $ one or more violent victimizations and $0 = $ no violent victimizations. Property victimizations (e.g., theft, damage of property), sexual victimizations (e.g., sexual assault), and threats were not included.

**Inmate Risk Assessment for Violent, Nonsexual Victimization (RVNSV)**

The RVNSV was developed to predict the likelihood of an inmate being violently victimized while incarcerated. Initially, we considered a multitude of possible risk factors included in a number of inmate assessments (e.g., criminal history, classification, risk for recidivism, psychological, mental health, substance abuse), which were collected as part of the prison admission process and were intended for other purposes (e.g., to predict which inmates would be the perpetrators of misdeeds, who would reoffend if released, who needs mental health or substance abuse treatment). In total, there were 345 individual items collected from these assessments. It was hypothesized that some of these items might also predict violent victimization and so they were used to develop the RVNSV. The creation and validation process is described in detail below.
<table>
<thead>
<tr>
<th>Sample Type</th>
<th>White % (n)</th>
<th>Currently Married % (n)</th>
<th>Graduated High School % (n)</th>
<th>Prior Federal Sentence % (n)</th>
<th>History of Violence % (n)</th>
<th>Age at Admission Mean (SD)</th>
<th>Time Served (in Days) Median (QD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>85.2 (12,024)</td>
<td>41.8 (12,024)</td>
<td>21.9 (9361)</td>
<td>29.0 (9170)</td>
<td>68.4 (9157)</td>
<td>32.9 (10.3)</td>
<td>723.0 (401.4)</td>
</tr>
<tr>
<td>Construction</td>
<td>85.1 (3002)</td>
<td>40.6 (3002)</td>
<td>22.3 (2431)</td>
<td>29.1 (2305)</td>
<td>69.0 (2303)</td>
<td>32.7 (10.4)</td>
<td>729.0 (397.6)</td>
</tr>
<tr>
<td>Validation 1</td>
<td>86.2 (2954)</td>
<td>40.1 (2954)</td>
<td>22.9 (2393)</td>
<td>30.4 (2277)</td>
<td>68.4 (2277)</td>
<td>33.0 (10.5)</td>
<td>720.5 (405.9)</td>
</tr>
<tr>
<td>Validation 2</td>
<td>85.8 (2975)</td>
<td>42.1 (2975)</td>
<td>21.7 (2375)</td>
<td>30.8 (2277)</td>
<td>69.0 (2274)</td>
<td>33.1 (10.3)</td>
<td>727.0 (406.0)</td>
</tr>
<tr>
<td>Validation 3</td>
<td>85.9 (3021)</td>
<td>40.8 (3021)</td>
<td>22.1 (2436)</td>
<td>28.9 (2322)</td>
<td>68.9 (2318)</td>
<td>33.0 (10.5)</td>
<td>725.0 (415.8)</td>
</tr>
</tbody>
</table>

Note: All n’s reported are valid n’s.
After narrowing down the most relevant predictors (as described in the next section), the RVNSV ultimately included six indicators of an inmate’s criminal history, institutional history, and personality characteristics, which are now discussed in more detail (see also the Appendix for a copy of the RVNSV assessment and scoring guide).

**Criminal History**

Prior research suggests that sex offenders are often at a greater risk for victimization in prison (Wolff et al., 2009), so it is perhaps no surprise that one of the RVNSVs six items is related to sexual offending. However, what is interesting about this item in the RVNSV is that it is more specific than a dichotomous measure of whether or not an inmate was sentenced on a sex offense. Rather, for the RVNSV, inmates must meet three or more sex offense criteria (i.e., current offense was incest, previous incest conviction, current offense was pedophilia, previous pedophilia conviction, current offense was sexual assault, or previous sexual assault conviction) in order to be placed at greater risk. Arguably, an inmate that meets three or more of these criteria is a more serious sex offender and thus may be more reviled by inmates and staff alike. Such a criminal history may also be more difficult for an inmate to keep secret within the institution. Likewise, these inmates would be more easily identified and more deeply despised, which would place them at a much greater risk for being violently victimized.

**Institutional History**

Research also finds that individuals are placed at a greater risk for victimization when they antagonize others (Finkelhor & Asdigian, 1996). In prison, inmates who prey on other inmates (e.g., theft, assault) are likely to be retaliated against for their actions (Wooldredge & Steiner, 2013). There are two institutional history items in the RVNSV that are relevant within this framework. The first item assesses whether or not the inmate has ever been an instigator of institutional misconduct, and the second assesses whether or not the inmate has ever been placed in segregation for punishment. Given that both items reflect potentially serious inmate behaviors for which retaliation might be sought, perhaps it is not surprising that they make up one-third of the final pool of items in the RVNSV.

**Personality Characteristics**

The last three items of the RVNSV fall under the rubric of offender personality characteristics. Regarding two of these items, studies have consistently shown that inmates with histories of mental disorder and/or substance abuse are disproportionately overrepresented as victims of physical violence in prisons (Blitz et al., 2008; James & Glaze, 2006; Wolff, Blitz, Shi, Siegel, &
Bachman, 2007; Wood & Buttaro, 2013). Similarly, we also found that prior histories of mental disorder and substance abuse were relatively strong predictors of violent victimization.

Finally, we found that having a poor regard for others (i.e., acting without regard to the feelings of others) was predictive of violent victimization. Elsewhere, it has been suggested that offenders adhere to a criminal code, at the heart of which is the issue of respect (Anderson, 1999; Clemmer, 1940; Sykes, 1958). This code specifies that anyone who is disrespected must retaliate in order to maintain honor, or else be subject to further disrespect. The bottom line is that being respected in prison is important, and violators of this norm (e.g., those that hold a poor regard for the feelings of others) may place themselves at greater risk for being violently victimized as a result of their behavior.

Interestingly, there were some items that were anticipated to predict violent victimization that were not found to be significant. For example, placement in segregation for protective custody purposes is one that stands out because, theoretically, the nature of such a placement is for the protection of the inmate from harm. Of course, it is possible that those inmates most in need of protection may not ever leave the protective custody unit, which would prevent opportunities for victimization in the general population. Other notable surprises not making the cut for inclusion included characteristics related to education, employment, and other criminal history characteristics.

**Statistical Analyses**

Logistic regression was used to estimate the binary outcome in order to develop the RVNSV scale. Initially, a fishing technique (Fox, 2008) was used on the construction sample to assess which items correlated with violent victimization. The zero-order correlations between the 345 assessment variables and the dependent variable of violent victimization were examined. All variables found significant at the .01 level were placed into a multivariate logistic regression model predicting violent victimization. Nonsignificant variables (p > .01) were eliminated one at a time, until only significant variables remained. The final model included six items (see the Appendix for a full description of each item). RVNSV scores are computed by summing the unstandardized coefficient (b) values for all items an inmate meets the criteria for (for a review of the mathematics of risk classification, see Gottfredson & Synder, 2005). RVNSV scores range from 0 to 55.2 and were binned into three groups: low- (< 15.00), moderate- (15.01–25.00), or high-risk (> 25.01) for being violently victimized. After creating these risk categories, we then estimated zero-order correlations between the RVNSV risk groups and violent victimization for all four samples. Finally, a multivariate logistic regression analysis was performed for each of the four samples in order to assess the strength of the
RVNSV scores for predicting the odds of violent victimization while controlling for other theoretically relevant correlates of victimization. The purpose of these multivariate analyses is to determine if the RVNSV is capable of predicting violent, nonsexual victimization beyond those factors that are commonly associated with victimization risk in the current literature base.

RESULTS

Table 2 presents the final multivariate logistic model for the construction group. Six risk factors were identified through this process: (1) meeting three or more of the sex offense criteria, (2) ever being an instigator of institutional misconduct, (3) ever being placed in segregation as a punishment, (4) using drugs as a means to cope with stress, (5) having a poor regard for others, and (6) having a past history of mental illness \((p < .001)\). The values of the unstandardized coefficients \((b’s)\) were used as weights in the calculation of the overall RVNSV score. The best predictor of violent victimization was whether or not an offender has ever been placed in segregation as a punishment, followed closely by whether an offender had a sex offense history that met three or more criteria. These two factors made up more than 50% of the total possible RVNSV score.

Table 3 displays values for two binary predictive accuracy measures, the Pearson product moment correlation \((r)\) and the area under the Receiver Operating Characteristics Curve, or Area Under the Curve (AUC). In the construction sample, an inmate’s RVNSV score was significantly correlated with violent victimization \((p < .001)\). Next, the empirical validity of the RVNSV was examined using the three validation samples. In this context, empirical validity refers to how well the RVNSV will work when applied to samples other than

<table>
<thead>
<tr>
<th>Item</th>
<th>(b)</th>
<th>S.E.(_{(b)})</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three or more sex offense criteria</td>
<td>1.17∗</td>
<td>.32</td>
<td>3.21</td>
</tr>
<tr>
<td>Ever an instigator of institutional misconduct</td>
<td>.84∗</td>
<td>.22</td>
<td>2.31</td>
</tr>
<tr>
<td>Ever placed in segregation as a punishment</td>
<td>1.73∗</td>
<td>.20</td>
<td>5.64</td>
</tr>
<tr>
<td>Use drugs when stressed</td>
<td>.46∗</td>
<td>.20</td>
<td>1.59</td>
</tr>
<tr>
<td>Poor regard for others</td>
<td>.62∗</td>
<td>.22</td>
<td>1.85</td>
</tr>
<tr>
<td>Mental health diagnosis (past)</td>
<td>.70∗</td>
<td>.24</td>
<td>2.01</td>
</tr>
<tr>
<td>Constant</td>
<td>−4.71∗</td>
<td>.27</td>
<td>.01</td>
</tr>
</tbody>
</table>

Model Chi-Square \((df)\) \(163.16(6)\)

\(−2\) Log Likelihood \(824.82\)

Nagelkerke \(R^2\) \(.20\)

Note: ∗\(p \leq .001\).
Table 3: Correlations and AUC for RVNSV on violent, nonsexual victimization.

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>r (95% CI)</th>
<th>AUC (95% CI)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>.28 (.24, .32)</td>
<td>.78 (.74, .82)</td>
<td>2203</td>
</tr>
<tr>
<td>Validation 1</td>
<td>.22 (.18, .26)</td>
<td>.73 (.68, .78)</td>
<td>2172</td>
</tr>
<tr>
<td>Validation 2</td>
<td>.23 (.19, .27)</td>
<td>.74 (.69, .79)</td>
<td>2162</td>
</tr>
<tr>
<td>Validation 3</td>
<td>.22 (.18, .26)</td>
<td>.73 (.68, .78)</td>
<td>2281</td>
</tr>
</tbody>
</table>

the one used for its construction. The three validation samples served as validity tests for the RVNSV. In all three samples, the RVNSV was a statistically significant predictor of the odds of violent victimization (p < .001).

It should be noted that the Pearson r and AUC values for the RVNSV assessment in the validation samples are lower than in the construction sample (r = .28 compared to .22, .23, and .22; AUC = .78 compared to .73, .74, and .73). Gottfredson and Snyder (2005) refer to this difference as “shrinkage,” which is a result of overfitting the model to the construction sample. A smaller amount of shrinkage gives greater confidence that the validity of the risk instrument will hold up on repeated applications to other samples. There are no rules for determining what amount of shrinkage is tolerable; however, in any given situation, less is preferable.

Figure 1 depicts the percentages of inmates who were violently victimized for each of the three risk categories of the RVNSV (low-, moderate-, and high-risk) in the construction and validation samples. The figure reveals a
trend—increases in offender risk are associated with substantively higher odds of violent victimization. This finding is consistent across all four samples.

Higher proportions of inmates fell into the lower-risk groups across all four samples. The construction sample included 1,464 low-risk, 461 moderate-risk, and 278 high-risk inmates; the first validation sample had 1,422 low-risk, 466 moderate-risk, and 284 high-risk inmates; the second validation sample consisted of 1,485 low-risk, 430 moderate-risk, and 247 high-risk inmates; and the third validation sample included 1,507 low-risk, 456 moderate-risk, and 255 high-risk inmates. The RVNSV predicted approximately one out of every eight inmates was at high risk for violent victimization.

**Table 4** presents multivariate logistic models to assess the effect of the RVNSV on the odds of violent victimization controlling for an inmate’s race, marital status, education, criminal history, violent history, age, and length of sentence. In this model, the RVNSV categories are separated by risk for violent victimization. The moderate- and high-risk categories are included in the model, with low-risk inmates as the reference group. Both the moderate- and high-risk RVNSV categories were statistically significant across all four samples ($p \leq .001$). In all four models, the high-risk group’s odds ratios are much larger than the moderate-risk group’s odds (17.07 compared to 7.15, 9.42 compared to 5.14, 10.37 compared to 6.40, and 9.02 compared to 4.73). Moderate- and high-risk inmates were clearly at higher risk of victimization compared to the low-risk inmates, with the high-risk inmates at greatest risk. An inmate’s race and age were also significant in the second validation sample only, where younger inmates and white inmates were more likely to be victimized.

**Table 4**: The effect of RVNSV on violent, nonsexual victimization controlling for other factors.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Construction</th>
<th>Validation 1</th>
<th>Validation 2</th>
<th>Validation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>.61</td>
<td>.73</td>
<td>.51*</td>
<td>.80</td>
</tr>
<tr>
<td>Marital status</td>
<td>1.05</td>
<td>1.19</td>
<td>1.14</td>
<td>1.17</td>
</tr>
<tr>
<td>Education</td>
<td>1.05</td>
<td>1.53</td>
<td>1.44</td>
<td>1.41</td>
</tr>
<tr>
<td>Criminal history</td>
<td>.80</td>
<td>.69</td>
<td>1.03</td>
<td>.77</td>
</tr>
<tr>
<td>Violent history</td>
<td>1.08</td>
<td>1.20</td>
<td>1.04</td>
<td>1.04</td>
</tr>
<tr>
<td>Age</td>
<td>.99</td>
<td>.99</td>
<td>.99</td>
<td>.99</td>
</tr>
<tr>
<td>Length of sentence</td>
<td>1.08**</td>
<td>1.00</td>
<td>1.11*</td>
<td>1.09</td>
</tr>
<tr>
<td>IRAVV moderate-risk</td>
<td>7.15**</td>
<td>5.14**</td>
<td>6.40**</td>
<td>4.73**</td>
</tr>
<tr>
<td>IRAVV high-risk</td>
<td>17.07**</td>
<td>9.42**</td>
<td>10.37**</td>
<td>9.02**</td>
</tr>
<tr>
<td>Constant</td>
<td>.03**</td>
<td>.03**</td>
<td>.03**</td>
<td>.03**</td>
</tr>
<tr>
<td>Model Chi-Square (df)</td>
<td>159.05(9)</td>
<td>104.78(9)</td>
<td>115.27(9)</td>
<td>100.50(9)</td>
</tr>
<tr>
<td>$-2 \log$ Likelihood</td>
<td>820.59</td>
<td>843.94</td>
<td>746.32</td>
<td>830.70</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>.19</td>
<td>.13</td>
<td>.16</td>
<td>.13</td>
</tr>
</tbody>
</table>

*Note: Reported values are odds ratios. **$p \leq .001$; *$p \leq .05$. 
DISCUSSION AND CONCLUSIONS

Keeping inmates safe from being violently victimized is a responsibility of correctional facility administrators. In addition, safety is an issue of basic human rights and appeals to notions of morality (Wolff et al., 2009). The goal of rehabilitating offenders in correctional settings is likely much more difficult when violence is pervasive. This means institutions must pay close attention to the safety and security needs of inmates to help meet the goals of rehabilitation. Prison officials also have to make difficult classification decisions regarding inmate housing and work assignments. Officials must determine which inmates will receive treatment and the levels of supervision for particular offenders. The issue of whether or not an inmate is likely to be victimized should be an important component in this decision-making process. An understanding of offending risk is more useful for proactive approaches to prevent the escalation of motivations to commit crime, while an understanding of victimization risk might be more useful for crime prevention strategies designed to reduce opportunities for motivated offenders. Reducing victimization risk, in turn, will create an environment that is more conducive to treatment, and may ultimately have an impact in reducing crime.

Presently, many prison systems rely largely on professional judgment to determine which offenders are at high-risk of being victimized within the institution. This is unfortunate because actuarial approaches have been found to be empirically more reliable and valid than clinical judgments (Grove, Zald, Lebow, Snitz, & Nelson, 2000). It is suggested here that an actuarial approach to the assessment of victimization risk is the first step toward the reduction of prison violence. Informed by prior research, this study used official inmate assessment data from a federal correctional system to develop one such risk assessment instrument (the RVNSV). We found that RVNSV scores were significantly correlated with violent victimization. We also found that the RVNSV was capable of dividing offenders into manageably sized groups: Only one in eight inmates were identified as being high-risk for violent victimization. The key finding, however, was that virtually all of the predictors found to be significant in other victimization research (race, marital status, education, criminal history, violent history, age, and length of sentence) were rendered nonsignificant when the risk categories of the RVNSV were added into the multivariate model.

Taken together, these findings suggest that the adoption of victimization risk assessment instruments such as the RVNSV are important for correctional agencies to consider, especially when coupled with the extent of evidence in support of the use of other prediction tools (e.g., Level of Service-Revised [LSI-R], Psychology Checklist-Revised [PCL-R], Violent Risk Appraisal Guide [VRAG], Wisconsin Risk and Needs Tool [WRN]) (for a review see Andrews & Bonta, 2010). The addition of a victimization prediction tool would provide
a substantial benefit to prisons because unlike most other risk assessment instruments, the RVNSV approaches prediction with a different theoretical question. Where most assessment tools predict who is more likely to offend (or recidivate), the RVNSV predicts who is more likely to be victimized. The intent of the RVNSV is not to replace the LSI-R or any of the other commonly used assessment instruments; rather, it might serve as a compliment to these assessments. Through the use of both assessment types, prison officials would have at their disposal information on both potential offenders (those high-risk for perpetration) and potential victims (those high-risk for victimization), which according to the routine activity theory are two of the three elements necessary for a crime to occur (Cohen & Felson, 1979).

It is suggested here that the RVNSV can be used to provide prison officials with reliable information on the likelihood of inmate violent victimization in a systematic and objective manner (Latessa & Lovins, 2010). The RVNSV was created using inmate assessment information that was already being collected by prison officials as part of their current admission process. Therefore, the adoption of the RVNSV would take only a minimal amount of training to cover the rules for scoring the six items. Ideally, the RVNSV would be used during the institutional classification process and could assist prison officials in determining the appropriate amount of surveillance necessary for particular inmates and the degree of physical separation needed between certain groups of inmates (i.e., high risk of perpetration and high risk of victimization). Despite the contributions made by this study, there is still much to learn from investigating the predictors of violent victimization among inmates. There are several limitations of the current study that should be understood before proceeding with any potential policy changes. The results of this study were derived from the investigation of adult male inmates from one federal prison system, and so the conclusions reached here do not necessarily generalize to other prison systems. The generalizability of the findings on other groups in other systems warrants further empirical investigation. Future work in the area of risk assessment for violent victimization may benefit from the exploration of staff-inmate relationships (Wooldredge, 1994), institutional climates (Bottoms, 1999), and other characteristics specific to correctional facilities (Wolff, Blitz, Shi, Siegel, & Bachman, 2007). It is possible that combining organizational and individual-level variables in a multilevel model may also improve the prediction of violent victimization beyond what is possible from using exclusively individual-level variables.

Despite these limitations, this study hopes to inspire other researchers to investigate the advantage of developing and using victimization risk assessment instruments. Although additional research is needed, this study provides evidence favoring the use of RVNSV in a prison setting. The initial findings from the construction sample and the similar results for the three validation samples lend credibility to the RVNSV as an effective assessment tool.
for violent victimization. Here we have described just one method for quantifying correlated factors into such an assessment scale; however, there are other statistical techniques available that might also be explored in future studies of the topic (e.g., bootstrapping, classification trees, random forest modeling).

Inmates who are victimized while incarcerated have a more difficult time adjusting to the institution, as well as reintegrating back into society (Perez et al., 2010). In addition, they may be placed at greater risk to recidivate once released (Walters, 2003). Violence may be a part of prison life (Irwin, 1980), but its prevalence can be reduced. The reduction of violent victimizations should be an important priority for correctional agencies. Effective institutional policies for reducing inmate victimization must start with the knowledge of which factors influence risk. The RVNSV is one such tool that provides institutions with information on which factors elevate inmate victimization risk—some of which are also dynamic (i.e., changeable)—so this information could also be used in preventative strategies. Victimization risk assessment tools have the potential of predicting which inmates are more likely to be violently victimized. Surely any attempt to protect these inmates would result in some degree of less institutional violence, which is after all a goal of all correctional institutions.

REFERENCES


Appendix:
Inmate Risk Assessment for Violent, Nonsexual Victimization (RVNSV).

Inmate Name:  
Date of Assessment:  
Name of Assessor:  

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Risk Factor</th>
<th>If Yes, Add</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Meets three or more of the sex offense criteria</td>
<td></td>
<td>11.7</td>
</tr>
<tr>
<td>2</td>
<td>Ever an instigator of institutional misconduct</td>
<td></td>
<td>8.4</td>
</tr>
<tr>
<td>3</td>
<td>Ever placed in segregation for punishment</td>
<td></td>
<td>17.3</td>
</tr>
<tr>
<td>4</td>
<td>Uses drugs when stressed</td>
<td></td>
<td>4.6</td>
</tr>
<tr>
<td>5</td>
<td>Poor regard for others</td>
<td></td>
<td>6.2</td>
</tr>
<tr>
<td>6</td>
<td>Mental health diagnosis (past)</td>
<td></td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Score</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suggested Nominal Risk Categories

<table>
<thead>
<tr>
<th>Score:</th>
<th>Risk Category:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.00 or fewer</td>
<td>1: Low-risk</td>
</tr>
<tr>
<td>15.01–25.00</td>
<td>2: Moderate-risk</td>
</tr>
<tr>
<td>25.01–55.20</td>
<td>3: High-risk</td>
</tr>
</tbody>
</table>

Group Category
## INMATE RISK ASSESSMENT FOR VIOLENT, NONSEXUAL VICTIMIZATION (RVNSV): SCORING GUIDE

### Item 1: Meets Three or More of the Sex Offense Criteria

Score yes if inmate meets three or more of the following criteria:
- Current offense is incest
- Previous incest conviction
- Current offense is pedophilia
- Previous pedophilia conviction
- Current offense is sexual assault
- Previous sexual assault conviction

### Item 2: Ever an Instigator of Institutional Misconduct

Score yes if there is official record of inmate as the perpetrator of institutional misconduct. Incidents include, but are not limited to:
- Physical or sexual assault
- Theft or damage to property
- Possession of contraband
- Escape

### Item 3: Ever Placed in Segregation for Punishment

Score yes if there is official record of inmate placed in segregation as a punishment:
- Include placements for misconducts, incidents, or disturbances
- Do not include placements for safety reasons, housing needs, or awaiting transportation

### Item 4: Uses Drugs When Stressed

Score yes if inmate uses alcohol or other drugs as a means to cope with stress. Indicators include, but are not limited to:
- Uses alcohol or other drugs when overwhelmed with work, school, family members, relationships, or other reasons

### Item 5: Poor Regard for Others

Score yes if the offender displays a limited or poor regard for others. Indicators include, but are not limited to:
- Places self-interests in front of the interests of others
- Acts without considering the feelings of others

### Item 6: Mental Health Diagnosis (Past)

Score yes if there is official record of the offender having a mental health diagnosis in the past, or if the offender admits to having been diagnosed in the past.
- Include all types of diagnoses