Applying the Risk Principle to Sex Offenders

Can Treatment Make Some Sex Offenders Worse?

Brian Lovins
Christopher T. Lowenkamp
Edward J. Latessa

*University of Cincinnati, Ohio*

The risk principle states that higher risk offenders should receive more intensive services, whereas lower risk offenders should receive less intensive services. However, the criminal justice system routinely ignores the risk principle for sex offenders and treats them all the same with little regard for level of risk. This article explores the effects of different levels of treatment intensity on 238 sexual offenders who are on parole. The findings suggest that the risk principle does, in fact, apply to sexual offenders.

**Keywords:** sexual offenders; risk principle; treatment effects; correctional programming

Historically, treating sexual offenders has been much more an art than a science. Sex offender treatment has targeted areas ranging from the relationship an offender had with his mother to deviant sexual fantasies (Allam & Brown, 1998). Ineffective treatment, in conjunction with public opinion, has not only limited the opportunities sex offenders have for treatment but has also made sex offenders more susceptible to legislation that is driven by the “worse case” scenario (Lynch, 2002).

Following conviction, sex offenders often face many obstacles. For example, recent legislation has limited where some sex offenders can live, work, and who they can interact with in the community. Furthermore, some jurisdictions have placed sex offenders on lifetime supervision, mandated long-term sex offender treatment, and passed civil commitment laws to protect the community from future sex crimes. Although there is very little evidence to support these “get-tough” strategies, legislators and community
members alike tend to react emotionally to high-profile sexual abuse cases by developing even tougher strategies (Lynch, 2002). As such, the criminal justice system has begun to treat sexual offenders as a homogeneous group in which there exists little variation in risk to reoffend.

The Risk Principle

Although risk has been generally ignored in public policy, recent advancements in research have recognized the importance that risk plays in the management and treatment of offender populations. The principles of effective intervention, including the risk principle, were developed as a guide for evidence-based correctional programs (Gendreau, 1996). As delineated by Andrews et al. (1990), the risk principle suggests that treatment is most effective when intensive services are reserved for higher risk offenders. Furthermore, there is evidence to suggest that when intensive correctional interventions are applied to lower risk offenders, their likelihood of recidivism can actually increase (Andrews et al., 1990; Lowenkamp, & Latessa, 2002; Lowenkamp, Latessa, & Holsinger, 2006).

Lowenkamp and Latessa (2004) speculate that there are two reasons this can occur. First, exposing lower risk offenders to higher risk offenders may enhance negative social learning, thereby reinforcing antisocial attitudes and beliefs. Second, placing lower risk offenders into intensive programs can disrupt prosocial networks and opportunities. The question that remains is whether the risk principle can be applied to specialized populations, such as sex offenders.

Results of Sex Offender Treatment

Although some variation exists, most studies show that sex offender treatment has some effect in reducing new sex offenses as well as non-sexually related offenses. In a review of the literature, Craig, Browne, and Stringer (2003) found that 18 out of 19 studies published since 1995 found positive effects for sex offender treatment. Hanson et al. (2002), using meta-analytic techniques, found that the treatment groups had a 12.3% recidivism rate across studies, whereas the comparison groups had a 16.8% recidivism rate for new sex offenses. Moreover, cognitive–behavioral and systemic treatments demonstrated stronger treatment effects for both sexual recidivism (17% to 10%) and general recidivism (51% to 32%).

Similar to Hanson et al.’s (2002) findings that the type of treatment matters, Hall (1995) found that cognitive–behavioral treatments as well
as medical/hormonal treatments were effective in reducing recidivism. Although Gallagher, Wilson, Hirschfield, Coggeshall, and MacKenzie (1999) found methodological flaws in Hall’s (1995) use of medical treatments, they supported Hall’s findings regarding the effects of cognitive–behavioral treatments. Further review of the research by Polizzi, Mackenzie, and Hickman (1999) found that community-based cognitive–behavioral treatments were the most effective, whereas prison-based treatments had less positive results.

Although these studies found positive effects for treating sex offenders, Bilby, Brooks-Gordon, and Wells (2006) found less support for sex offender treatment. Using meta-analytic techniques to examine the effect of sex offender treatment, Bilby et al. found that only 7 of the 17 treatment programs showed a positive effect. Similar results have been found in previous studies, especially studies that have not taken into account the risk level of the offender.

Quinsey, Khanna, and Malcolm (1998) found that sex offender treatment actually increased recidivism with more than half of the sample being rearrested for a violent or sexual offense. Craig, Browne, and Stringer (2003) pointed out that Quinsey et al. (1998) failed to take risk into account, summing the treatment effects across a heterogeneous group of sex offenders ranging from low to high risk. Similarly, Rice, Quinsey, and Harris (1991) found that sex offender treatment was ineffective. In a later review of Rice et al., Marshall, Anderson, and Fernandez (1999) found that 80% of the offenders in the treatment group were identified as high risk, leading to inflated recidivism rates compared with the lower risk comparison group.

These contradictory findings, along with public misperceptions of sex offenders, have led to an overabundance of legislative acts that often assume that all sexual offenders are the same with regard to the risk they pose to reoffend (Quinn, Forsyth, and Mullen-Quinn, 2004). The effects of ignoring the risk principle as it applies to dosage or intensity of treatment and supervision may have dramatic effects on the results of outcome evaluations. For instance, Lowenkamp and Latessa (2002) found that halfway house programs treating all ranges of risk had no overall effect on recidivism, but when disaggregated by risk, the same programs averaged a 7% reduction in recidivism for high-risk offenders compared with a 9% increase in recidivism for lower risk offenders. Furthermore, Andrews and Dowden (2006) reported that the treatment effects for low-risk offenders were significantly lower than for higher risk offenders, and at times treatment was found to make lower risk offenders worse.
Mailloux et al. (2003) examined the risk principle as it applies to sex offender treatment. They examined the “dosage” of sex offender treatment and purported that low-risk sex offenders may have received too much treatment, declaring that treatment may have adverse affects on lower risk offenders. Although there were several assumptions that were rebutted by Marshall and Yates (2005), their message was clear that lower risk sex offenders should receive less intensive services. Although Mailloux et al. (2003) suggested that the risk principle applies directly to sex offenders, there is very little evidence to support their claim.

This article will further explore the relationship between the level of treatment intensity and risk of reoffending for sexual offenders being released from prison. This is the first study to examine the direct effects of the risk principle on sexual offenders. Based on the risk principle, the hypotheses to be examined are the following:

*Hypothesis 1:* Intensive treatment is more effective for higher risk sex offenders.

*Hypothesis 2:* Less intensive treatment has greater effects for lower risk sex offenders.

**Method**

**Sample**

The sample for this study was originally collected as part of a statewide halfway house evaluation project (Lowenkamp & Latessa, 2002). To answer the above hypotheses, data on all sex offenders were extracted and analyzed. Two sampling frames were used to draw the sample of sex offenders. The first comprised all sex offenders paroled from a state institution who were referred to a halfway house for residential sex offender treatment. For consideration in the study, the sexual offender had to be terminated from the halfway house between July 1, 1998, and June 30, 1999. Previous research has noted that offenders who drop out of treatment tend to be less successful than their counterparts who complete treatment (see Hanson & Bussiere, 1998). This study will therefore examine both successful and unsuccessful terminations, resulting in a treatment sample of 110 sex offenders, 84 of whom successfully completed the halfway house programs.

The second sampling frame comprised parolees who were released directly to the community on discharge from the institution. Out of the original 3,273 offenders in the comparison group, 238 had a sexual crime as their instant offense. These comparison offenders may have been mandated
to outpatient treatment in the community at release, but they did not receive the more intensive residential sex offender treatment. Hence, the treatment and comparison groups vary in terms of intensity of treatment. Thus, overall, 348 sex offenders were selected for this study, 110 of whom are in the treatment group, leaving 238 sex offenders in the comparison group.

Measures

Demographic data as well as offender characteristics were collected from the state reporting system. Individual-level predictors for this study included race, age, marital status, and risk. Race was measured as a dichotomous variable because there were only Caucasians and African American offenders in this sample, with Caucasians coded as 1 and African Americans coded as 0. Age was measured in years, whereas marital status was measured dichotomously as either married or single. For the purpose of this study, “single” was defined as “not currently married” for any reason.

Risk scores were calculated using a modified version of the Salient Factor Score (SFS; Hoffman, 1994). As noted previously, it is important to understand the effects of risk on intensity of programming. Because there was no consistent measure of risk across programs and parole, the modified SFS was used to determine level of risk. The modified SFS includes the following risk factors: prior arrest, prior commitment, age at current offense, employed at arrest, history of community control violations, and history of drug use. The values for each variable are weighted and the total ranges from 0 to 10. Risk categories were developed based on the raw values. The modified SFS consists of four categories: low, low/moderate, moderate, and high. Each offender is then placed in a category of risk that is associated with his raw score. Table 1 provides the correlations between the sex offender’s risk scores and incarceration. The modified Salient Risk Score was significantly correlated to the entire sample (treatment plus comparison group), as well as the comparison group, but was not correlated to the treatment only group.

Recidivism data were collected through official record checks conducted by the state correctional department. Recidivism was coded as incarceration for any new offense, return to incarceration for a technical violation, and any new arrests for a misdemeanor or felony offense. For the purpose of this study, incarceration for any new offense and return to incarceration for a technical violation were collapsed into a single measure of return to incarceration for any reason. Reincarceration was selected because it provided the most reliable statewide measure of recidivism. Although return to the institution is a conservative estimate of reoffending (Fisher &
Thornton, 1993), reincarceration is generally accepted as an appropriate measure of recidivism (Barbaree, Seto, Langton, and Peacock, 2001).

Table 2 provides the demographics for both the treatment and comparison groups. Confidence intervals were calculated to determine if any significant differences exist between groups. If no significant differences exist the confidence intervals should overlap. There were significant differences between the treatment and comparison groups on categories of race and high-risk offenders, indicating that the comparison group comprised more African Americans and more high-risk offenders. In contrast, the comparison group was similar on all other categories of risk and marital status. The average age for the treatment group was 29.88 years, whereas the mean age in the comparison group was 35.74 years. There was a significant difference between the treatment group and the comparison group on both age and risk score, signifying that the comparison group was slightly older and was composed of higher risk offenders.

### Analysis

Several analyses were conducted to answer the research questions. First, logistic regression was used to determine if race, age, marital status, and risk predicted return to the institution for the treatment group. In addition, logistic regression was used to determine if any of the same variables were predictive of reincarceration for successful terminations only.

Second, adjusted probabilities were calculated from the logistic regression models. Logistic regression is a statistical technique that determines whether the variables in question can predict a dichotomous outcome. The outcome produced by the logistic regression equation can be calculated to determine the probability of an event to occur given the characteristics of interest. Of course, in the context of effective correctional treatment programs, it is very useful to know the likelihood of a person reoffending who

---

**Table 1**

**Correlations Between Risk Score and Incarceration**

<table>
<thead>
<tr>
<th>Group</th>
<th>Correlation</th>
<th>N</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>.30</td>
<td>348</td>
<td>.000</td>
</tr>
<tr>
<td>Comparison</td>
<td>.35</td>
<td>238</td>
<td>.000</td>
</tr>
<tr>
<td>All treatment</td>
<td>.16</td>
<td>110</td>
<td>.090</td>
</tr>
<tr>
<td>Successful treatment</td>
<td>.05</td>
<td>84</td>
<td>.672</td>
</tr>
</tbody>
</table>
has a particular characteristic. For the purpose of this study, the probability of reoffending was calculated for each risk category.

### Findings

Tables 3 and 4 present the results of the logistic regression models predicting the outcomes for sex offenders who participated in residential treatment. Table 3 represents all sex offenders who were released to a halfway house for treatment, whereas Table 4 provides the same analysis for successful terminations only. The estimated models predicted reincarceration for any reason.

Table 3 presents the results of the logistic regression model examining the relationship between variables of interest and reincarceration for all sexual offenders who attended treatment. As indicated in the table, race was the only variable that predicted reincarceration, indicating that African
Americans were significantly more likely to be reincarcerated than whites. Interestingly, exposure to treatment (group membership), risk, and the interaction between risk and group membership were not predictive of reincarceration for the entire treatment sample.

Table 4 provides the results from the second logistic analysis, which examined the relationship between reincarceration and successful completion of treatment. The previous model included any offender who was exposed to the treatment services, whereas this model has excluded those offenders who were terminated for any reason other than successful completion. Race was no longer a significant predictor of being reincarcerated, and neither was group membership nor risk. The only variable that was predictive of reincarceration for successful completers was an interaction term between risk and group membership. This relationship was in the expected direction, leading to the conclusion that higher risk offenders who successfully completed treatment were less likely to be reincarcerated.

Given that this relationship is significant, further investigation into the results may provide insight into why risk is not a significant predictor, but
the interaction between group membership and risk is significant. Table 5 provides the adjusted probabilities for risk by group membership. As the table indicates, sex offender treatment delivered in a halfway house setting appeared to be effective for all risk categories except for low-risk offenders. Figure 1 indicates that high-risk offenders who successfully completed the residential sex offender program were more than 2 times less likely to be

**Figure 1**

*Adjusted Probabilities of Incarceration by Risk Level and Group Membership (Visual Display of Table 5)*

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Comparison</th>
<th>All Treatment</th>
<th>Successful Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>19</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Low/moderate</td>
<td>32</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Moderate</td>
<td>47</td>
<td>43</td>
<td>29</td>
</tr>
<tr>
<td>High</td>
<td>64</td>
<td>50</td>
<td>29</td>
</tr>
<tr>
<td>All</td>
<td>47</td>
<td>39</td>
<td>27</td>
</tr>
</tbody>
</table>
reincarcerated than those who were released directly into the community and 1½ times less likely than offenders who were released to a halfway house but were unsuccessfully terminated. Moreover, recidivism rates for the entire sample of successful completers, as well as all sex offenders who were exposed to halfway house services, were significantly lower than those for offenders who were released directly to the community. Interestingly, low-risk sex offenders who successfully completed treatment were 27% more likely to be reincarcerated than sex offenders who did not receive halfway house services.

Discussion

The purpose of this study was to test the risk principle for sexual offenders and, in doing so, examine the interaction effects of treatment intensity by risk. The study compared sexual offenders who received intensive, residential sex offender treatment with sexual offenders who were released directly on parole and received less intensive services.

As noted previously, few studies have examined the application of the risk principle with sex offenders directly.

This study proposed two hypotheses. The first hypothesis was that intensive treatment should be more effective for higher risk sex offenders. In support of this hypothesis, recidivism rates for the comparison group were significantly higher than for similar offenders in the treatment group who received halfway house services. In fact, high-risk sexual offenders who completed intensive sex offender treatment were two times less likely to be reincarcerated than high-risk sex offenders who were released directly to the community.

This finding can be explained by the risk principle. High-risk offenders have multiple needs that can be addressed simultaneously in a residential setting. High-risk offenders are not identified as high risk because they have a single need that is high; instead, they have a cluster of criminogenic needs. Halfway house programs are designed to target a greater density of criminogenic factors and therefore are more capable of addressing high-risk offenders.

The second hypothesis was that less intensive treatment will have greater effects for lower risk sex offenders. This hypothesis was also supported by the findings. Low-risk sex offenders who were released to the community without intensive interventions fared 27% better than low-risk offenders who were exposed to halfway house sex offender treatment.
Unlike high-risk offenders, low-risk individuals typically have one or two isolated criminogenic needs. As noted previously, providing intensive services to such offenders may disrupt prosocial networks and opportunities as well as reinforce negative social learning.

Conclusions

Although the public tends to view all sex offenders as high risk, clearly the research does not support this. This study found that ignoring the risk principle leads to a significant increase in recidivism for both low- and high-risk sexual offenders. Hence, legislators, as well as criminal justice agents, should recognize the importance of the risk principle in developing strategies for addressing sexual crimes.

Although this research is the first to directly test the application of the risk principle to sexual offenders, it is important to note the limitations of the study. First, although the sample was representative, future studies would benefit from a larger sample of offenders. This would provide statistical power to examine further interaction effects and provide more confidence in the results. Second, the follow-up period for the study was only 2 years. Barbaree and Marshall (1988) suggest that follow-up periods for sexual offenders should be a minimum of 5 years. Although 5 years is the standard for measuring sexual recidivism, a 2-year follow-up has been accepted as an appropriate measure of general recidivism. Finally, this study examined the effects of the risk principle on sexual offenders using general recidivism as the outcome measure rather than sexual recidivism. Thus, future studies should use a larger sample, increase the follow-up period to 5 or more years, and incorporate multiple measures of recidivism, including sex-specific offenses. Additional research in this area will assist the criminal justice community in designing effective intervention strategies for sexual offenders.

Note

1. See Lowenkamp (2004) for a detailed discussion of the modified version of the SFS.

References


Lowenkamp, C., & Latessa, E. (2002). *Evaluation of Ohio’s community based correctional facilities and halfway house programs.* Unpublished manuscript, Division of Criminal Justice, University of Cincinnati, OH.


Brian Lovins received his master’s in social work from the University of Cincinnati. He is currently a research associate for the University of Cincinnati, Division of Criminal Justice. He has worked in the field with youthful and adult offenders and has provided training and consultation to programs regarding risk assessment, treatment delivery, and quality assurance. Recent research projects have included evaluations on faith-based reentry programs, juvenile justice programs, and the development of a juvenile risk assessment.

Christopher T. Lowenkamp received his doctorate in criminal justice from the University of Cincinnati. He is currently an assistant research professor at the University of Cincinnati, Division of Criminal Justice, and the director of the Center for Criminal Justice Research. Prior to his appointment at the university, he was an adult probation officer and the emergency jail release coordinator in Akron, Ohio. Over the past several years, he has provided consultation and research services to multiple agencies and jurisdictions in more than 25 states. His research interests in risk and need assessment, evaluation of correctional interventions, and criminological theory have led to publications in some of the field’s top journals. Recent research projects have included evaluations of community-based correctional facilities, halfway house programs, and intensive supervision probation in Ohio.

Edward J. Latessa is a professor and head of the Division of Criminal Justice at the University of Cincinnati. He has published more than 110 works in the area of criminal justice, corrections, and juvenile justice. He is coauthor of seven books including *Corrections in the Community* and *Corrections in America*. He has directed more than 100 funded research projects including studies of day reporting centers, juvenile justice programs, drug courts, intensive supervision programs, halfway houses, and drug programs. He served as president of the Academy of Criminal Justice Sciences (1989-1990). He has also received several awards including the August Vollmer Award from the American Society of Criminology.
(2004), the Simon Dinitz Criminal Justice Research Award from the Ohio Department of Rehabilitation and Correction (2002), the Margaret Mead Award for dedicated service to the causes of social justice and humanitarian advancement by the International Community Corrections Association (2001), the Peter P. Lejins Award for Research from the American Correctional Association (1999), ACJS Fellow Award (1998), ACJS Founders Award (1992), and the Simon Dinitz award by the Ohio Community Corrections Organization.