

# PERSPECTIVES

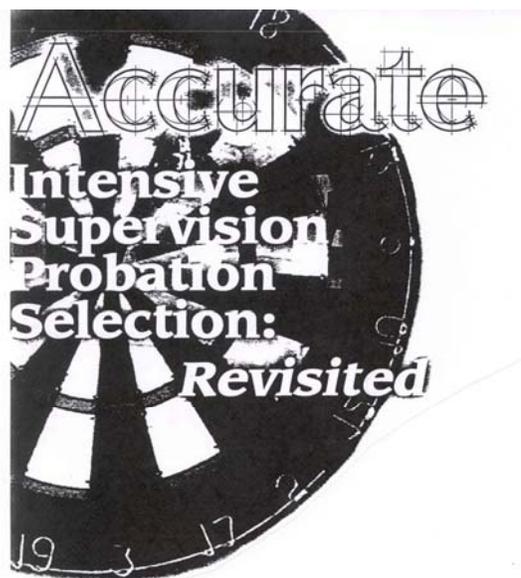
the journal of the American Probation and Parole Association

COMMUNITY JUSTICE  
& SAFETY FOR ALL

Volume 24

Number 4

Fall 2000



Accurate selection of probationers for intensive supervision probation (ISP) is important for efficient management of departmental resources, while providing needed services and concurrently avoiding the provision of unnecessary services. The first step in accurately identifying those probationers that will benefit from ISP is accurate and reliable offender assessment (Fulton, Gendreau & Paprozzi, 1995). Nebraska's Probation Department took this first step by evaluating their ISP offender selection worksheet, a variation of the Wisconsin Risk and Needs Rating Form. In addition to the ISP selection worksheet, self-report tests were used to determine the severity of attitudinal and behavioral variables important to ISP selection and recidivism. Measurements of severity and recidivism often dictate treatment, intervention and services needed. This information gives management what they need to match appropriate levels of supervision and to allocate resources.

The purpose of this study was to determine the optimal combination of worksheet variables for ISP selection. Statistical analyses identify those variables that contribute to accurate ISP selection. This statistical method for ISP selection is cost effective and accurate.

The four different automated (computer scored) offender assessment instruments or self-report tests administered with the Nebraska ISP worksheet include the Driver Risk Inventory-II which is used to screen DUI offenders, SAQ-Adult Probation III which evaluates adult probationers, the Domestic Violence Inventory which assesses domestic violence perpetrators, and the ACIDI-Corrections Version II which is used for juvenile offender screening. These tests provide objective and standardized assessment - a necessary prerequisite for accurate, reliable and valid ISP selection and recidivism prediction. Thus the measurement, prediction and selection cycle is basic to ISP selection.

## Method

Four different offender groups were used in this study. Each offender was administered a self-report offender assessment test and staff completed an ISP offender selection worksheet for each offender. The ISP worksheets and assessment instruments were completed as part of normal offender processing procedures. The offender groups and the assessment instruments or tests used were as follows: 1) DUI offenders completed the Driver Risk Inventory-II (DRI); 2) adult offenders were given the SAQ-Adult Probation III (SAQ); 3) juvenile offenders took the ACIDI-Corrections Version II (ACDI); and 4) domestic violence offenders completed the Domestic Violence Inventory (DVI). A fifth group of sex offenders was given the Sexual Adjustment Inventory (SAI) but there was insufficient data to analyze. Consequently, the SAI test data was not included in this study.

Information from both the worksheets and assessment tests were combined for the predictions of behavioral factors that include violence, driver risk and adjustment. These predictions were selected because they represent the attitudes and behaviors believed important in ISP offender selection and predicting change. The method used was multiple regression analysis, which determines the factors that contribute to accurate prediction. In

effect, each offender is given a score. These scores are then used to set cutoffs for ISP selection. For example, if an offender's score is above the threshold they are selected for ISP.

The accuracy of the predictions is represented by the Multiple R coefficients. This coefficient ranges from 0 for no prediction to 1 for perfect prediction. Multiple R coefficients of .7 or higher would be outstanding. Statistical reliability (coefficient alpha) was also measured for each scale of the assessment tests. For simplicity, the results for each offender group are presented separately.

## **Results**

The Driver Risk Inventory II (DRI) was administered to 130 DUI offenders. There were 110 males (85 percent) and 20 females (15 percent). The DRI-II is specifically designed for DUI offender screening and contains five measures or scales. The scales and their obtained reliability coefficients are truthfulness (.86), alcohol (.95), driver risk (.81), drugs (.91) and stress coping abilities (.93). For this offender group the prediction of interest for ISP DVI offender selection is driver risk. The DRI-II Driver Risk Scale is a measure of aggressive and irresponsible driving behavior. This prediction was much more accurate (Multiple R=.894,  $p<.001$ ) than criminal history predictions. The driver risk prediction shows that the following factors are important for ISP DUI offender selection: adult imprisonment, DUI arrests in the last five years, number of moving violations in the last five years, moving violations in one's lifetime, number of at-fault accidents in the last five years, number of parole revocations, DRI-II Truthfulness Scale scores and the DRI-II Alcohol Scale scores.

The SAQ-Adult Probation III (SAQ) was administered to 467 adult offenders, 367 males (79 percent) and 100 females (21 percent). The eight scales of the SAQ and their reliability coefficients are truthfulness (.87), alcohol (.95), drugs (.93), antisocial (.82), aggressivity (.86), violence (lethality) (.85), resistance (.84) and stress coping abilities (.92). Prediction of the SAQ Violence Scale was made. The SAQ Violence scale is a measure of offender potential for violence (lethality) and dangerousness toward self and others. The results show that, like the DRI-II, these SAQ predictions were highly accurate. The prediction of the SAQ Violence Scale had a Multiple R of .893, significant at the  $p<.001$  level. This is a very impressive prediction and it shows that the SAQ is a very accurate offender risk / need assessment test. The prediction of SAQ Violence Scale score shows that the following factors are important for ISP offender selection: number of parole revocations, age at first arrest, times sentenced to prison, number of DUI arrests, number of felony arrests, number of probation revocations, SAQ Alcohol Scale scores, SAQ Drugs Scale scores, SAQ Antisocial Scale scores, and SAQ Aggressivity Scale scores.

The ACDI-Corrections Version II was administered to 970 juvenile offenders, 772 males (80 percent) and 198 females (20 percent). The six scales of the ACDI and their reliability coefficients are truthfulness (.84), Alcohol (.90), adjustment (.83), drugs (.89), distress (.88) and violence (.83). The prediction of ACDI Violence Scale was made. The results show that, even with juvenile offenders predictions are extremely accurate. The prediction of the ACDI Violence Scale for juvenile offender ISP selection (Multiple R = .867) contains the following factors: age at first arrest, times in juvenile confinement, juvenile court hearings, adult imprisonment, prior violent felony convictions, alcohol arrests, misdemeanor convictions, felony convictions, probation, parole, total number of arrests, ACDI Alcohol Scale scores, ACDI Adjustment Scale scores, ACDI Drugs Scale scores, and the ACDI Distress Scale scores.

The Domestic Violence Inventory (DVI) was administered to 226 adult domestic violence offenders, 205 males (91 percent) and 21 females (9 percent). The six scales of the DVI and their reliability coefficients are truthfulness (.87), control (.83), violence (.90), alcohol (.95), drug (.92) and stress coping abilities (.93). The prediction of DVI Violence Scale Multiple R = .938,  $p<.001$ ) was the highest of all of the predictions. The prediction of the DVI Violence Scale score was extremely accurate. This prediction identified the following factors for domestic violence render ISP selection: prior violent felonies, age at first conviction, prison sentences, domestic violence arrests, assault arrests, misdemeanor convictions, felony convictions, times on

probation, number of parole revocations, DVI Alcohol Scale scores, DVI Control Scale scores, and DVI Stress Coping Abilities Scale scores.

## **Discussion**

The results of this study demonstrate that accurate ISP offender selection can be achieved through the combined use of criminal history information and behavioral factors from offender assessment instruments or tests. All four tests (DRI-II, SAQ, ACDI and DVI) were extremely accurate in identifying those factors that are important for ISP offender selection. Statistical reliability measures show that the four assessment tests are highly reliable. All coefficient alphas are well above the accepted .80 level.

Each offender assessment test identified many factors that were specific to that offender group. For the DUI offenders group, the most important factors that contributed to the predictions of driver risk were, DUI arrests in the last five years, moving violations in the last five years, fault accidents in the last five years and DRI-II Alcohol Scale scores. The three factors most important for predicting violence of domestic violence offenders were, DVI Control Scale scores, assault arrests and domestic violence arrests. For adult offenders, the three factors which contributed the most to predictions of violence were, SAQ Aggressivity Scale, SAQ Antisocial Scale and felony arrests. For juvenile offenders, predictions of violence found the following three factors were important, ACDI Adjustment Scale scores, age at first arrest and misdemeanor arrests. These results show that the right information is contained in these tests to make accurate ISP selection predictions.

Comparing ISP selection factors across offender groups, there were five factors that were common to at least three of the tests. These common factors were: age at first arrest, adult imprisonment, felonies, parole revocations and Alcohol Scale scores. These factors are consistent with previous research that also found age at first arrest and conviction history to be important risk factors.

## **Implementation**

Having identified the important factors for accurate ISP offender selection, the next step would be to identify the ISP target population. The prediction equations give each offender a score. A workable solution for determining which offenders should be placed in ISP is to establish which scores are used for ISP selection. A simple approach is to first obtain a cumulative percent distribution of scores. To implement an ISP selection procedure a decision is made for the threshold score for ISP inclusion as well as for the upper cutoff score. For example, scores associated with the 70th percentile could be used for the threshold score and scores at the 92nd percentile could serve as the upper cutoff. Offenders who scored below the 70th percentile would be classified for regular probation. Those offenders scoring from the 70th percentile to 92nd percentile (22 percent of all offenders tested) would be admitted into the ISP program. The top 8 percent of offenders screened would not qualify for ISP acceptance because of the severity of their score. These individuals would be individually reviewed for intensive intervention, incarceration or treatment.

The percentage of offenders selected for ISP could be adjusted upward or downward by simply lowering or raising the cut-off scores. If more offenders are to be selected for ISP inclusion then the threshold could be lowered to the 65th percentile for instance. This would allow another 5 percent or a total of 27 percent of offenders would be placed in ISP. Likewise, if fewer offenders selected for ISP were desired then the threshold for inclusion could be raised to the 75th percentile. The advantage of this method is that the percentages of offenders that are selected for ISP is known ahead of time. The actual percentage of offenders placed in ISP is a cognitive one.

Research has shown that lower risk offenders can be assigned to the least restrictive correctional settings (Andrews, et al., 1990). Furthermore, recent research has shown that low risk offenders who receive programming have a higher likelihood of re-offending (Carey, 1995). Placing a low risk offender in ISP would waste limited resources because these offenders are not likely to re-offend and return to the criminal justice system. At the other end, there are serious offenders (extreme cases) who would not be appropriate for ISP. They warrant individualized and often more intensive treatment services. Therefore, the ISP selection process

involves a rational decision of the threshold for inclusion to ISP as well as what an upper cutoff should be. These thresholds for ISP inclusion were established for the four tests (DRI-II, SAQ, DVI & ACDI) used in this study. Studies have shown that correctional intervention such as ISP does work with proper selection (Gendreau, 1994). Such intervention reduces recidivism by 15 percent on average (Carey, 1997).

This study demonstrates that both criminal history information and offender risk/need assessments are important for accurate ISP target population identification. The logical final step in the ISP offender selection process is the automation of a combined ISP offender worksheet and offender risk/need assessment instrument or test. This was done for all four of the tests (DRI-II, SAQ, DVI and ACDI) used in this study. Incorporation of the best ISP offender worksheet items into the computer scoring procedure completes the ISP offender selection process for the tests represented herein. The best features of the ISP offender selection worksheet were kept to maintain continuity and for research purposes. Automating the worksheet and including the items that contribute most to selection and prediction in the modified tests benefits staff by eliminating hand scoring (improving accuracy), requiring less staff time, while providing computer generated reports (objective assessment) on-site.

Nebraska Probation has made great strides toward improving their ISP offender selection process. Predictions make possible an objective means of quantifying offender risk for ISP selection. Offender assessment tests now enable highly accurate predictions for ISP offender selection. The Driver Risk Inventory II accurately predicts DUI offender driver risk. The SAQ-Adult Probation III accurately predicts violence or lethality in adult offenders. The ACDI-Corrections Version II accurately predicts violence in juvenile offenders. The Domestic Violence Inventory accurately predicts violence in domestic violence offenders. This study helps achieve several objectives, accurate ISP offender selection, enhanced program efficiency, maximizing department resources and concurrently provide for reduction of recidivism.

## **Conclusions**

Accurate ISP offender selection has been achieved by combining the strengths of Nebraska Probation Department's existing risk and needs worksheet with selected criminal court history and an automated assessment instrument or test. Variables such as test scale scores contribute significantly to this selection process. This research demonstrates how relevant court history, psychometrics and cognitive (criminogenic) factors can be combined into a self-report assessment instrument or test. The four tests used in this study (DRI-II, SAQ, DVI and ACDI) were shown to accurately predict offender violence, driver risk and adjustment. These predictions involved combinations of criminogenic needs variables such as alcohol abuse, antisocial attitudes, adjustment, control, driver risk and criminal history such as age at first arrest, probation and parole revocations. These results help establish procedures accurately identifying ISP target populations.

Automating the ISP offender selection procedure aids in the selection process, enhances its efficiency and prediction validity. The offender assessment tests were highly reliable. All reliability coefficients were well above the accepted level of .80. The very high predictions (Multiple R) establish the validity of the assessment tests. These results strongly support the reliability, validity and accuracy of the four assessment tests: DRI-II, SAQ, DVI and ACDI.

Another product of this research has been the development of two concise structured interview forms (adult and juvenile) that augment test results with additional cognitive and criminogenic information. The Automated Criminogenic Structured Interview can supplement violence predictions, whereas the Juvenile Violence Interview can enhance violence predictions for juvenile offenders.

In conclusion, an objective approach was taken to review Nebraska Probation Department's ISP selection process. Existing selection procedures (Nebraska's risk and needs selection worksheet) and established self-report tests were studied, with the intent of identifying factors contributing most to ISP selection and violence as well as recidivism prediction. These factors were identified and incorporated in updated automated self-report

tests. Advantages include more accurate assessment, improved prediction, reduced staff time, and a built-in database for future research.

Program research and development is an ongoing process. Offender risk/needs assessment must be amenable to change. Research in this area encouraged and emphasis should be placed on identifying factors that contribute to accurate risk/needs assessment while enhancing treatment effectiveness. The goal is to promote positive change in offender behavior while concurrently reducing recidivism.

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