

Pretrial Risk Assessment

Research Summary

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Research Summary: Pretrial Risk Assessment

Pretrial risk assessments are conducted to provide information about the risk of failure that a given defendant poses if released before disposition of his or her case and to provide standardized measures for determining pretrial dispositions. Current research indicates that actuarial risk assessment instruments provide significant predictive benefits for pretrial decisions. However, further refinement is required to introduce actuarial instruments to pretrial services across a majority of U.S. jurisdictions.

DEFINITION AND GOALS

Pretrial risk assessments are designed to provide information about the risk of failure that a given defendant poses if released before adjudication of his or her case. Typically, *failure* is defined as failure to appear (FTA) for the scheduled court date and/or re-arrest for further criminal violations prior to adjudication.

A *pretrial risk assessment instrument* (PRAI) can be used to classify defendants based on their flight risk and their threat to community safety. At the pretrial stage, defendants may be classified into one of four categories:

1. *Low risk*—individuals who can be released with little or no supervisory conditions with reasonable assurances that they will appear in court and will not threaten community safety.
2. *Moderate risk*—individuals who can be released with conditions placed on them with reasonable assurances that they will appear in court and will not threaten community safety.
3. *High risk*—individuals who can be released only with the most stringent conditions placed on them with reasonable assurances that they will appear in court and will not threaten community safety.
4. *Highest risk*—individuals who cannot be released with any reasonable assurance that they will appear in court or that they will not be a threat to community safety (VanNostrand and Rose, 2009).

PRAIs have two primary goals: (1) to standardize pretrial recommendations/decisions and (2) to maximize the number of successful pretrial decisions (Coopridner, 2009; VanNostrand and Keebler, 2009; Winterfield, Coggeshall, and Harrell, 2003).

Standardization

The goal of standardization is to make risk assessments and subsequent pretrial decisions more consistent across jurisdictions and regardless of which pretrial officers and judicial officers are involved. Without standardized metrics for risk assessment, defendants are categorized based on the subjective judgments of pretrial officers, which often results in inconsistent, disparate, and potentially arbitrary recommendations (Coopridner, 2009). These judgments are not consistent with the standards set out in the Bail Reform Act of 1984 and the pretrial recommendations of the American Bar Association (ABA), the National Association of Pretrial Services Agencies (NAPSA), and the National Institute of Justice (NIJ) (Lowencamp et al., 2008). PRAIs offer consistent standards regarding the factors that should be included in the decisionmaking process. *Actuarial pretrial risk assessment instruments* (APRAIs) provide a rating of risk factors based on their ability to predict failure to appear at the pretrial stage, thus further reducing the likelihood of subjective judgments and inconsistent outcomes (Lowenkamp and Whetzel, 2009). PRAIs provide greater transparency in pretrial recommendations by clearly outlining the factors to be considered (Lowencamp et al., 2008).

Success Maximization

The second main goal of PRAIs is to maximize pretrial decision success. This is done by maximizing the number of defendants who are released before they are tried, without negatively affecting appearance in court rates or public safety. This goal addresses community safety interests as well as the presumption of innocence that is afforded to the accused (Lowencamp et al., 2008). Because PRAIs comprise a set of risk factors that are consistently applied, and because the outcome of each pretrial decision is eventually known, it is possible to conduct empirical research to ascertain the efficacy of each of the factors. This represents a notable shift toward the use of evidence-based practices within pretrial services (VanNostrand and Keebler, 2009) and to the use of quantitative statistical techniques to evaluate the likelihood of an offender's pretrial failure based on factors that have been shown to be predictive of FTA and rearrest (Lowencamp et al., 2008).

WHAT WORKS—KEY RISK FACTORS AND FORMS OF PRAIS

Key Risk Factors

While the standardization of pretrial risk assessments is relatively new, several common risk factors have been identified as being correlated with a heightened risk of pretrial failures. By examining more than 500,000 legal cases that were processed through the Federal pretrial services system, VanNostrand and Keebler (2009) found several factors that were consistent indicators of pretrial risk: the nature of the charge(s) pending at time of arrest, history of criminal arrests and convictions, active community supervision at time of arrest (e.g., pretrial, probation, and parole), history of failure to appear, history of violence, residence stability, employment stability, community ties, and substance abuse (VanNostrand and Rose, 2009).

Forms of PRAIS

PRAIs can be qualitative, quantitative (including APRAIs), or a mixture of both measures. Qualitative risk assessments have fallen out of favor because they are less consistent across multiple assessors, and they have been shown to have less predictive value than quantitative measures, particularly when compared with actuarial risk assessments (Harris, 2006).

Quantitative PRAIs assign numerical values to various risk factors and evaluate risk based on the total point values assigned to a given individual. Quantitative PRAIs offer the advantages of consistency, the potential to directly compare the risks posed by individuals, and an empirical examination of the selected risk factors and their relative weights in the PRAI (Cooprider, 2009; Harris, 2006).

Actuarial pretrial risk assessment instruments (APRAIs) are a type of quantitative PRAI that represents the direct application of evidence-based practice to the construction of PRAIs. They use statistical analyses of risk factors to determine (a) which factors are predictive of pretrial failure, (b) the degree to which they are predictive, and (c) the relationships between these risk factors. This process allows for the construction of risk assessment instruments that categorize individual defendants more accurately than more basic quantitative measures. To date, only a few APRAIs have been implemented in pretrial services. These include the Virginia Pretrial Risk Assessment; the Ohio Pretrial Assessment Tool; and APRAIs in Hennepin County (MN), Harris County (TX), Philadelphia (PA), and Lake County (IL).¹ APRAIs also have been developed based on data from the New York City Risk of Recidivism (ROR) system and the Federal Court system.

¹ See VanNostrand (2007) for discussions of Harris County, Texas; Hennepin County, Virginia; and Philadelphia. See Siddiqi (2009) for information about New York. See Cooprider (2009) for discussion of Lake County, IL. See Latessa et al. (2010) for discussion of Ohio (ORAS).

EFFICACY OF PRAIS

Despite 30 years of research, the efficacy of PRAIs of all types is still relatively unknown (VanNostrand, 2007). This is particularly the case for APRAIs, as they are not yet in widespread use within pretrial services. Recent research by Levin (2007) has provided evidence that quantitative risk assessment instruments provide more accurate information about a defendant's failure to appear and risk of reoffense than qualitative risk assessments. By examining a national sample of pretrial programs, Levin found that jurisdictions using quantitative assessments (or a combination of quantitative and qualitative assessments) had fewer FTAs and rearrests than jurisdictions that either did not have an assessment tool or relied solely on qualitative risk assessments (Levin, 2007). Thirty percent of the jurisdictions that used quantitative assessment tools operated in areas with jails that were over capacity, whereas 50 percent of jurisdictions that used a combination of quantitative and qualitative techniques experienced overcrowding. Overcrowding was highest (60 percent) in jurisdictions that used only qualitative techniques (Coopridner, 2009). Given the percentages of those incarcerated awaiting trial, this provides reasonable evidence that the use of more effective PRAIs could reduce jail populations.

APRAIs can be useful for evaluating the efficacy of pretrial practices even when not actively used for risk assessments. In comparison with the risk categories developed by VanNostrand and Rose (2009), Federal pretrial officers who relied solely on qualitative risk assessments significantly over-recommended detention for offenders in all risk categories and recommended unnecessarily high levels of supervision for low-risk offenders who were released (VanNostrand and Keebler,

2009).² Using quantitative risk assessment instruments may allow law enforcement to better allocate their resources to those offenders with the highest risk.

The use of APRAIs shows significant promise for improving these outcomes in pretrial services. The instrument developed by the Urban Institute for the D.C. Pretrial Services Agency achieved up to 80-percent accuracy in risk assessments for both FTA and rearrest (Winterfield et al., 2003). Findings from a study validating the Virginia Pretrial Risk Assessment Instrument (VPRAI) showed that eight risk factors could be used to reliably classify offenders by risk level:

1. Primary Charge Type
2. Pending Charge(s)
3. Criminal History
4. Two or More Failures to Appear
5. Two or More Violent Convictions
6. Length at Current Residence (reverse scored such that less time at a residence results in a higher score)
7. Employed/Primary Caregiver
8. History of Drug Abuse

Higher scores on these factors resulted in higher risk-level classification and were predictive of higher failure to appear rates (VanNostrand and Rose, 2009). Lowencamp and Whetzel (2009) developed a pretrial screening tool that successfully correlated pretrial assessment scores with risk for FTA and rearrest ($r=.26$ and $r=.24$, respectively). These correlations represent statistically significant improvement compared with the nonactuarial risk assessments made by pretrial officers. These instruments have the added advantage of being based on data and

² Additional supervision has been shown to *increase* pretrial failure rates for defendants at lower risk levels. For example, the pretrial failure rate for low-risk defendants is 11–33% higher if substance abuse treatment is added as a condition of release, 30–56% higher if third-party monitoring is required, and 46–112% higher if location monitoring is required.

methodologies that are open to peer review (Conroy, 2006).

One criticism of using APRAIs is that standard APRAIs may not be particularly effective at predicting the risks posed by certain types and subgroups of offenders. Some categories of sex offenders, for example, tend to be categorized as low-risk despite being likely to reoffend while awaiting trial because they score low on the Risk Prediction Index (RPI), which is a quantitative pretrial risk assessment measure (Muller, 2009).³ There is also substantial variation by demographic subgroups such as age, race, and gender that may indicate these measures are not equally effective for all groups (Siddiqi, 2009).

HOW TO SELECT/IMPLEMENT PRETRIAL RISK ASSESSMENT INSTRUMENTS

Selecting Appropriate Instruments

- ▶ PRAIs should be consistent with the jurisdictional standards of relevant criteria for bail considerations, particularly with regard to race, ethnicity, gender, and financial status (VanNostrand, 2007).
- ▶ Risk factors included in the PRAI need to be demonstrably related to FTA and rearrest rates, not solely to recidivism or general criminogenic factors (VanNostrand, 2007).
- ▶ Risk factors and assessment terms should be clearly and unequivocally defined to ensure consistent evaluations (Cooprider, 2009).
- ▶ The instrument should be simple enough to use under day-to-day circumstances. Instruments that require specialized knowledge or overly time-intensive data collection are likely to be too burdensome for most jurisdictions' use (VanBenschoten, 2008).

³ Muller's cautionary note is based largely on the failure of some post-conviction risk assessment tools to adequately show the risk posed by certain categories of sex offenders and two cases of pretrial failure with sex offenders despite pretrial monitoring efforts.

- ▶ APRAIs must be validated and/or revised for the implementing jurisdiction. Jurisdictional variations in risk factors are likely (Latessa et al., 2010).
- ▶ Pretrial risk assessment instruments should be relatively easy for criminal justice personnel to understand and administer (Latessa et al., 2010).

FURTHER ISSUES REGARDING THE USE OF PRAIS/APRAIS IN PRETRIAL CONTEXTS

Issues with Definitions and Goals

- ▶ Failure conditions are not standardized. For example, current instruments vary in whether or not technical violations are considered pretrial failure. Rearrest as generally used may not be the best measure of community safety, as offenders may not be rearrested but will instead face revised charges, plea bargains, etc. (Muller, 2009).
- ▶ Most current PRAIs provide only an assessment of the likelihood of failure. For a full evaluation of the risk to community safety posed by an offender, research is needed on the severity or type of risk identified by PRAIs (VanNostrand, 2007; VanBenschoten, 2008).⁴
- ▶ Risk assessment outputs should be linked to specific variables so that case officers can identify the risks posed and make the best pretrial recommendation (VanBenschoten, 2008).
- ▶ The role of professional discretion for pretrial officers using PRAIs should be clarified. Particular attention should be given to the possibility that heuristic and anchoring biases may skew professional judgments to give undue weight to certain risk factors.
- ▶ Current PRAIs focus almost exclusively on risk factors. Protective factors—those variables that can be shown to decrease the

⁴ See Siddiqi (2009) for some data on the severity of the risks posed by types of offender.

likelihood of failure—should be studied and considered for inclusion in the instruments to further clarify the risks posed by individual defendants (Campbell, 2003).

APRAI-Specific Issues

- ▶ Revalidation studies are needed for APRAIs that are currently in use to ensure validity over time within jurisdictions (Latessa et al., 2010).
- ▶ We should examine the possibility that current APRAIs include measurement errors. These instruments usually are based on structured interviews by professional researchers (rather than case officials) with offenders who agreed to participate (possible selection bias).
- ▶ APRAIs should incorporate oversampling of underrepresented groups (i.e., women, sex offenders, Native Americans) to adjust for small subsample sizes in initial samples (Latessa et al., 2010).
- ▶ Further research should be done on the portability of APRAIs across jurisdictions (VanNostrand, 2007). The VPRAI model has been adapted to Ohio and Lake County, Illinois, with validity intact. Additional portability studies should be conducted.
- ▶ For some APRAI packages, the initial validation was done on small sample sizes, which presents a base rate problem and raises issues with the representativeness of the construction sample (VanBenschoten, 2008).

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