TECHNICAL REPORT

RE-ENTRY: DYNAMIC RISK ASSESSMENT

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Author(s): Robert D. Morgan, Ph.D., Daryl G. Kroner, Ph.D., and Jeremy F. Mills, Ph.D.

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Abstract

Much research has gone into the prediction of criminal and violent behavior. The majority of studies in this area of risk assessment have focused on risk factors that are defined through pre-incarceration behavior and background. With little exception, these historical risk factors are rated by a professional based upon interview and file review. Considerable time can elapse between initial incarceration and release and therefore the risk factors central to the risk assessment process represent old, albeit important information. The focus on historical variables precludes key factors of: (a) *current* psycho/social functioning, (b) predictors sensitive to measuring community functioning, and (c) details of the offender's social situation at release. The purpose of this prospective study was to evaluate recidivism as a process, focusing on the ability of dynamic factors to predict release performance. This project aimed to provide an initial step towards providing supervising staff with the tools to make meaningful assessments of a change in risk and hence change in likelihood to re-offend. Thus, this project emphasized re-entry as a dynamic process rather than an event (crime / no crime).

For this study we had the overarching goal to investigate the dynamic predictors of post-release performance in a correctional sample entering the community. Three specific goals led the investigation:

Goal #1: Replicate a predominantly mental health study that successfully measured dynamic change as it related to release incidents.

Goal #2: Expand the dynamic content to areas of psycho/social functioning.

Goal #3: Improve the methodology of previous studies, thereby allowing for stronger conclusions.

To accomplish these goals data were obtained from 133 male offenders paroled from Texas Department of Criminal Justice (TDCJ) correctional facilities from June 11, 2008 – January 31, 2011. Although we aimed to recruit 318 inmates, the actual sample size was significantly less largely due to fewer parolees released to Lubbock County, the home county of the researchers, than initially expected. Although some offenders declined to participate (refused participation), these refusals did not account for a significant decrease in the sample size. Participants had a mean age of 34.9 years (SD = 11.09 years) and were predominantly black (33.8%) or white (19.5%) with approximately one-half of participants of Hispanic ethnicity (45.9%). Participants completed, on average, 10.7 years of education and 38% of the sample graduate high school. Offenders that participated in this study were primarily convicted of non-violent offenses (84.3%), and 52% of participants failed a prior sentence of community supervision. Participants were recruited to participate in a 7-wave data collection procedure (upon community re-entry and monthly follow-up for minimum of 6 months) with measures designed to measure criminal risk or that have proven related to criminal outcomes.

Results indicated adequate internal consistency reliability and temporal stability; however, inter-rater reliability and convergent validity for the selected rated measures were unstable. Consequently, the inclusion of dynamic risk factors did not contribute to the predictive power of

static variables. Most notably, in this study changes in offenders dynamic functioning was not associated with changes in community outcomes. That is, measuring change in offenders functioning using rated measures did not increase our ability to predict community failure. Importantly however, offenders were able to self-report risk areas that were predictive of community failure suggesting that offenders should be involved in the criminal risk assessment. Finally, the results of this study support previous findings that current measures of risk prediction may not be culturally sensitive. That is, the measures appear to be better at predicting criminal risk for white offenders, but less accurate when predicting criminal behavior for non-white offenders (i.e., black and Hispanic offenders in this study). Implications of these findings for clinicians and policy makers are discussed.

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Executive Summary

Much research has gone into the prediction of criminal and violent behavior. The majority of studies in this area of risk assessment have focused on risk factors that are defined through pre-incarceration behavior and background. With little exception, these historical risk factors are rated by a professional based upon interview and file review. Considerable time can elapse between initial incarceration and release and therefore the risk factors central to the risk assessment process represent old, albeit important information. The focus on historical variables precludes key factors of: (a) *current* psycho/social functioning, (b) predictors sensitive to measuring community functioning, and (c) details of the offender's social situation at release. The purpose of this prospective study was to evaluate recidivism as a process, focusing on the ability of dynamic factors to predict release performance. This project aimed to provide an initial step towards providing supervising staff with the tools to make meaningful assessments of a change in risk and hence change in likelihood to re-offend. Thus, this project emphasized re-entry as a dynamic process rather than an event (crime / no crime).

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We anticipated that the results of this study would provide both practical/operational deliverables and theoretical advances for clinicians, criminal justice administrators, and policy makers alike. Although the results of this study did not produce the anticipated findings, two practical results were obtained. First, offenders offer an important piece of information when it comes to predicting successful re-entry; thus, incorporating offenders into the assessment process should become standard operating practice in all risk assessments. Secondly, it appears that our risk prediction measures are not culturally sensitive. Given arrest and conviction rates of non-white individuals, it is imperative that future research examine the utility of current risk prediction measures for non-white offender populations

Much research remains to be done in the field of criminal risk prediction. Future studies of this nature should utilize a less taxing research plan than was utilized in this study by assessing offenders at three month intervals for a minimum of 18 months. Notably, this would provide the same number of assessment contacts per offender as was sought in this study (i.e., 6 contacts post release). It is also recommended that future research use fewer self-report measures and rely on parole officer ratings. In addition to reducing offender attrition (including from time constraints and/or study burnout), it is possible that a revised methodology along these lines would produce greater dynamic predictive ability and more closely simulate real work risk prediction. Finally, it is recommended that future clinicians and researchers incorporate data guided follow-up assessment based on dynamic prediction (triage assessment plan) into their work and research protocols. Although we were unable to incorporate this strategy into this study, such a procedure would prove a significant advance for the field. Furthermore, it would likely produce the most reliable and valid measure of risk prediction and likely establish a new standard for evidenced-based risk assessment.

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Introduction

Statement of the problem:

Much research has gone into the prediction of criminal and violent behavior. The majority of studies in this area of risk assessment have focused on risk factors that are defined through pre-incarceration behavior and background. With little exception, these historical risk factors are rated by a professional based upon interview and file review. Considerable time can elapse between initial incarceration and release and therefore the risk factors central to the risk assessment process represent old, albeit important information. The focus on historical variables precludes key factors of: (a) *current* psycho/social functioning, (b) predictors sensitive to measuring community functioning, and (c) details of the releasing social situations. The purpose of this prospective study is to evaluate recidivism as a process, focusing on the ability of dynamic factors to predict release performance. This project will provide an initial step towards providing supervising staff with the tools to make meaningful assessments of a change in risk and hence change in likelihood to re-offend. In addition, the content of the risk variables will be developed to correspond with realistic treatment/intervention targets. As such, the content areas will focus on current psycho/social functioning. To successfully monitor the re-entry process the functioning of the individual in the community needs to be the focus rather than a dichotomous crime/no crime outcome: Thus, the results of this project will emphasize re-entry as a dynamic process rather than an event (crime / no crime).

Literature Review:

Dynamic Variables and Recidivism

Advances in risk assessment have moved from clinical judgment (with accuracy often not much better than chance) to actuarial assessments based predominantly on historical risk factors. These assessment instruments drew on persistent personality psychopathology such as psychopathy (Psychopathy Checklist – Revised [PCL-R]; Hare, 2003), empirically derived static variables (Violence Risk Appraisal Guide [VRAG], Quinsey, Harris, Rice, & Cormier, 1998; Lifestyle Criminality Screening Form [LCSF], Walters, White, & Denney, 1991), or a risk/need conceptualization (Level of Service Inventory-Revised [LSI-R]; Andrews & Bonta, 1995) to determine the likelihood of recidivism (Holsinger, Lowenkamp, & Lattessa, 2006). These approaches rely heavily on static, unchanging, variables; however, more recent developments in risk assessment introduced dynamic factors through a structured-clinical judgment approach. The structured-clinical judgment approach has been developed in the area of violence risk (Historical-Clinical-Risk Management-20 [HCR-20]; Webster, Douglas, Eaves, & Hart, 1997), risk for spousal violence (Kropp, Hart, Webster, & Eaves, 1999) and risk for sexual violence (Boer, Hart, Kropp, & Webster, 1997). One particular advantage that the HCR-20 has over other risk assessment instruments is the use of 10 dynamic variables: five clinical variables (lack of insight, negative attitudes, active symptoms of major mental illness, impulsivity, and unresponsiveness to treatment) and five risk management variables (plans lack feasibility, exposure to destabilizers, lack of personal support, non-compliance with remediation attempts, and stress). Conceptually, changes in these dynamic variables reflect potential changes in risk. But the sensitivity of these dynamic variables to detect change over time has not been demonstrated. Acknowledging that circumstances and personal experiences change over time emphasizes offender re-entry as a dynamic process.

An extensive retrospective study by Zamble and Quinsey (1997) offered an introductory examination of the dynamic factors leading to recidivism. Their data showed that offenders were able to identify problem areas (e.g., employment, physical or emotional health, financial problems, family problems) that precipitated their slide into crime. Many significant differences between recidivist and non-recidivist groups were found for both static and dynamic variables. Most importantly, however, is that these differences remained between the groups for many more of the dynamic variables than static variables after criminal history and age were statistically controlled. For example, previous statistically significant differences between the groups on static variables such as highest school grade completed, accommodation, and age of first legal trouble disappeared when age and criminal history were controlled. However, dynamic self-report variables such as criminal socialization, life worries, problem indices (substance abuse, physical/emotional health, family, and friends) alcohol consumption, and emotional states (depression, anger, and loneliness) all remained significantly different between groups.

In spite of the retrospective research design, Zamble and Quinsey (1997) provided one of the few studies that attempted to identify dynamic variables leading to recidivism. Notably, the study clearly demonstrated that offenders can self-identify relevant problem areas associated with their recidivism and that psycho/social variables serve as an antecedent to crime. Further, the ability of dynamic variables to distinguish recidivist from non-recidivist underscores the importance of measuring proximal, relevant antecedents to crime immediately prior to the re-entry process.

Other research has examined the prediction of risk through the lens of static and dynamic variables (Beech, Friendship, Erickson, & Hanson, 2002, Hanson & Harris, 2000). Hanson and Harris (Hanson & Harris, 2000), for example, divided dynamic variables into stable dynamic factors (those expected to remain unchanged for months) and acute dynamic variables (those that

could change within hours or days) to predict sexual recidivism. Results showed that dynamic variables made the largest contribution to the prediction of sexual recidivism. Although these studies demonstrated that dynamic variables are important proximal antecedents in the prediction of criminal behavior, they were limited by their use of retrospective research designs.

Multi-wave, Prospective Studies of Dynamic Risk Factors

Brown (2002) conducted a prospective study that examined a number of static and dynamic measures during the re-entry process. The dynamic variables were assessed pre-release, and again 1 month and 3 months post-release. A number of dynamic variables demonstrated change: employment problems, marital instability, financial problems, perceived stress, perceived problem level, negative affect, social support, criminal associates, coping ability, expected negative value of crime, and substance abuse. When static and dynamic variables were compared, the strongest dynamic variables outperformed the static variables in predicting conditional release failure. The greatest level of accuracy was achieved when both static and dynamic measures were included.

Within the set of dynamic variables, the strongest and most robust predictors were: employment and marital support, perceived problem level, negative affect, substance abuse, social support, and expected positive consequences of crime. Of these six robust predictors four were of a self-report nature. Within a sample of intellectual disabled individuals, Lindsay et al (2004) found negative affect to be predictive of institutional incidents.

Dynamic variables have also been used to assess the likelihood of mentally disordered offenders eloping from custody or re-offending (Philipse, Koeter, van der Staak, & van den Brink, 2006, Quinsey, Coleman, Jones, & Altrows, 1997). Quinsey et al., (1997) measured five problem areas six months before the outcome (psychotic behaviors, skill deficits, inappropriate

and procriminal social behaviors, mood problems, and social withdrawal) and four proximal indicators one month before the outcome (dynamic antisociality, psychiatric symptoms, poor compliance, and medication compliance/dysphoria). Of the combined nine areas studied, seven significantly differentiated between eloper/offenders and matched controls after controlling for static risk as measured by the VRAG. These same seven areas also differentiated the eloper/offender group at the time of the event as compared to the same individuals at a time prior to the event. Philipse et al (2006) also included static risk variables but found none of the six dynamic scales added to the static variables.

In a large, multi-wave study, Quinsey et al., (2006) developed a 29-item dynamic prediction scale to predict any incident (general risk) and violent incidents (violent risk). This scale was completed by the clients' caregiver and had a General Risk and Violent Risk sub-scales. With a substantial sample (n = 568), they conducted a truly prospective study. They assessed their clients (forensic mental health) monthly for an average of 33 months. During the follow-up period there were 256 incidents, which occurred both in the hospital and in the community. There was a linear relationship between the General Risk scores and incidents of any type, and a linear relationship between Violent Risk and violent incidents. For the General Risk scores, the probability of a high risk patient having an event in the next month increased by 3% for every unit in the General Risk score from the score of the previous month. Of note, the predictors appeared to perform similarly across hospital and community settings. Predictive cross-validation has been shown with both the General Risk and Violent Risk sub-scales in a very different sample, that of high-risk men with intellectual disabilities (Quinsey, Book, & Skilling, 2004).

The Role of Psycho/social Variables

Why focus on psycho/social variables? The key published studies examining the predictive nature of dynamic variables have focused on predominantly mental health/intellectual disability samples, with specialized item content (i.e., Quinsey et al., 2006; Lindsay et al., 2004). We proposed to expand dynamic assessment to psycho/social variables. Psycho/social variables are focused upon for the following reasons: (a) they can be evaluated to permit increased focus on interventions, which is consistent with the conceptualization that criminal offending is a process, (b) they have made a substantial contribution to the risk assessment enterprise, and (c) they have a long history in explaining behavior, including criminal behavior. Psycho/social variables are grouped according to personal, social and behavioral domains (Kroner, 2005). Within the personal domain, the four areas of impulsivity, boredom, negative affect, and criminal thinking are covered. For many, impulsivity is seen as central to criminal offending (Gottfredson & Hrschi, 1990) and is included as a predictor item in both the PCL-R (Hare, 2003) and the HCR-20 (Webster, 1997). Boredom, and the closely related area of excitement, distinguished recidivists from non-recidivists in the month prior to re-offending (Zamble & Quinsey, 1997), and have increased intensity during criminal activities (Cantor & Ioannou, 2004). In the studies that have examined dynamic variables, the presence of negative affect increases as failure grew temporally closer (Zamble & Quinsey, 1997; Hanson & Harris, 2000; Brown, 2002; and Lindsay et al., 2004). In fact, negative affect has consistently emerged as an important dynamic variable associated with criminal acts (Cantor & Ioannou, 2004). Criminal thinking has been postulated to support and maintain a criminal lifestyle, and thinking styles can be predictive of a variety of criminal outcomes, including recidivism (Walters, 2002). Similarly meta-analysis of sex offenders suggests that antisocial orientation is predictive of violent recidivism (Hanson & Morton-Bourgon, 2005).

Within the social domain, social pressure, social alienation, interpersonal and family concerns have had empirical support for their relationship with crime. Antisocial associates (social pressure) are predictive of recidivism, even after a statistical prediction tool has been accounted for (Mills, Kroner, & Hemmati, 2004). Compared with recidivists, Zamble and Quinsey (1997) found non recidivists to be more conventional and more likely to be a part of society, and less isolated. A meta-analytic review concluded that delinquency is 10 to 15% higher in broken homes than in intact homes (Wells & Rankin, 1991). Upon release, recidivists experience more family problems than non-recidivists (Zamble & Quinsey, 1997).

The social situation that an offender is released to or is living in is infrequently taken into account in risk assessment. The focus has been on person-based variables. Risk assessment instruments (e.g., PCL-R, LSI-R, HCR-20, LCSF, VRAG) do not take into account the nature of the social situation that an offender is being released to. For example, research has shown that the availability of resources (i.e., professional) makes a difference in the likelihood of violence among forensic patients (Estroff & Zimmer, 1994). There are certain social situations upon release for which an offender has no control. Some of these include; stability of family structure, strength of non-professional support, location of residence (i.e., high crime area), and work associates. These can change upon release and we plan to account for these with the Social Release Sheet.

Within the behavioral domain, substance abuse, financial/employment, and leisure are covered. The literature shows a relationship between re-offending and substance abuse (Zamble & Quinsey, 1997; Hanson & Harris, 2000; Friedman, 1998), financial/employment (Hanson & Harris, 2000; Brown, 2002), and leisure (Zamble & Quinsey, 1997). In addition, the LSI-R measures substance abuse, financial/employment, and leisure areas (Andrews & Bonta, 1995).

Methodologies Central in Assessing Dynamic Risk Variables

In examining dynamic risk among offenders, four areas are of central importance: (a) conceptual measure clarity (static vs. dynamic), (b) reliability, (c) source of data, and (d) study design/statistical analyses.

Distinguishing between static and dynamic variables has not consistently been applied to risk assessment inventories. For example, the Education/Employment scale on the LSI-R has some items of a static nature and others of a dynamic nature (Mills, Kroner, & Hemmati, 2003). Similarly, the SAQ (Loza, 2005) has both static and dynamic items embedded in a single subscale (i.e., Criminal Tendencies). The present study will explicitly differentiate between static and dynamic variables.

It is necessary that a dynamic item has sufficient reliability so that it will change only under the specific conditions contained in the content of that item (Lindsay et al., 2004). A recent study on dynamic risk predictors highlighted some of the practical issues of reliability and measurement (Philipse et al., 2006). Using clinicians as raters, they found difficulties in obtaining adequate reliability with dynamic items. This reduced reliability decreases the likelihood that a single rater can continuously make a reliable judgment, thereby concluding that the optimal method includes multiple raters. But in the applied community setting there is only one parole officer directly working with an offender, precluding multiple ratings on each offender. In addition, we want to ensure a maximum amount of information in the measures (less uncertainty) to indicate potential changes of the offenders. Thus, our attention to issues of reliability.

With regard to the source of the data, many forensic/correctional professionals believe that self-report questionnaires are either not valid when used to predict offender recidivism or that

they have inferior validity as compared to professionally rated measures. Specific concerns regarding self-report measures are their vulnerability to lying, manipulation and self-presentation biases (Gendreau, Irvine, & Knight, 1973; Holden, Kroner, Fekken, & Popham, 1992; Posey & Hess, 1984; Schretlen & Arkowitz, 1990). Despite the assumption that self-report measures are more susceptible to deception, evidence exists that self-report questionnaires can be accurate, valid (Kendall & Norton-Ford, 1982), and equivalent to traditional methods of predicting recidivism (Motiuk, Bonta, & Andrews, 1986; Quinsey, Khanna, & Malcolm, 1998). Self-reported psychopathology has also been shown to be predictive of institutional adjustment problems in samples of both violent and sexual offenders (Mills & Kroner, 2003). In addition, the SAQ (Loza, 2005), a self-report questionnaire which was designed specifically to predict offender general and violent recidivism, was repeatedly found to be at least as effective in predicting offender post-release outcome when compared to four other widely used and professional rated measures (Loza & Loza-Fanous, 2001; Kroner & Loza, 2001).

When research examining the relationship of offender completed psychometric testing is taken together with research demonstrating offender insight into the recidivism process it is our contention that involving the offender in anticipating (predicting) post-release performance is a potentially valuable adjunct to the current approach to risk assessment. Offender endorsement of anticipated antisocial activity has been predictive of later recidivism (Mills et al., 2004); however, our current approach is to have the offender anticipate difficulties during reintegration, not to predict his own criminal behavior. Therefore, the current research proposes to build on the previously established efficacy of offender self-report and extend the offenders' involvement into the self-prediction of reintegration problems or difficulties.

Apart from Quinsey and Lindsay studies, the research into dynamic variables has been retrospective (Zamble & Quinsey, 1997; Hanson & Harris, 2000) or measured a single incident (Walters, 2002; Philipse et al., 2006). The design of this study will involve multiple assessments, incorporating repeated and trajectory statistical procedures. This will allow us to determine not only which variables are dynamic, but those that are predictive over time.

Research Hypothesis

As noted above, this study was guided by three research goals. Specific hypothesis for each of these goals are listed below.

Goal #1: Replicate a predominantly mental health study that successfully measured dynamic change as it relates to release incidents.

Hypothesis 1: Dynamic domains can be reliably measured.

Goal #2: Expand the dynamic content to areas of psycho/social functioning.

Hypothesis 2: Concurrent Validity will be demonstrated

Hypothesis 2a: The dynamic domain will have stronger relationships among the dynamic measures than with the static measures.

Hypothesis 2b: Dynamic domains will account for additional variance above static variables.

Goal #3: Improve the methodology of previous studies, thereby allowing for stronger conclusions.

Hypothesis 3: Predictive Validity will be demonstrated

Hypothesis 3a: Dynamic domains will be predictive of post-release performance.

Hypothesis 3b: Changes in the dynamic measures will reflect changes in post-release performance.

Hypothesis 3c: Dynamic domains will account for additional variance over static variables in the prediction of post-release performance

Method

Participants

Participants consisted of 133 male offenders released from Texas Department of Criminal Justice (TDCJ) correctional facilities. The inmates had a mean age of 34.9 years (*SD* = 11.09) and were predominantly Hispanic (n = 61, 46.0%), African-American (n = 45, 33.8%) and Caucasian (*n* = 26, 19.5%). They completed, on average, 10.8 years (SD = 2.0) of education, and 52 (39% earned a General Equivalency Diploma; GED). Participants were incarcerated for a variety of crimes with the majority committing non-violent offenses (n = 107, 84.3%); 20 (15.7%) participants committed a violent offense. Only 14 participants (10.5%) were convicted of multiple index offenses. Participants were sentenced to an average of 193 months (16 years) in prison. A majority of participants had a criminal history as 86.2% were sentenced to incarceration prior to their current index offense. In addition, participants in this study were convicted, on average, of their first adult conviction at 20.5 years-of-age (SD = 4.9), and one-half (n = 71, 53.8%) failed a prior sentence of community supervision.

Several of the above demographics and status variables of the participants in this study were highly consistent with that of all offenders incarcerated in TDCJ prison facilities in 2005 (Texas Department of Criminal Justice, 2006), including mean age, years of completed education, and length of prison sentence for index offense (see Table 1). It is noted however, that this study included an over representation of Hispanic offenders and an under-representation of Caucasian offenders.

Materials

This study included a multimethod approach to data collection which is summarized in Table 2. Data were collected from information forms, rating measures (completed by Research Assistants), and self-report measures (completed by offenders under the Research Assistants' supervision).

Information Forms

Demographic Sheet. The Demographic Sheet requested basic demographic information from participants including their age, race, index offence, length of sentence, past psychiatric diagnosis (DSM-IV-TR Axis I and Axis II), and current psychotropic medication if any. The Demographic Sheet was completed by the researcher via semi-structured interview.

Incident Report Sheet (1). This sheet was completed in the community for any offender incident. This sheet requested the date, nature and type of incident (e.g., property, nonviolent, violent, sexual, etc.), record of victims, victim injury, charges, and place of residence (e.g., half-way house, home, etc.). The Incident Report Sheet was completed by a Research Assistant.

Rating Measures

Dynamic Risk Appraisal Scale (DRAS; Quinsey et al., 2006). The DRAS is a 29-item rating scale with two subscales. The General Risk subscale has 29 items and the Violent Risk subscale has 10 items. For purposes of this study we utilized the 16 "Frontline Staff" items (note: our research methodology did not allow for collecting data from clinical staff for the "Clinical Items"). All items were rated on a 5-point Likert-type scale ranging from 0 (no problem) to 4 (severe problem). Higher scores indicated a greater corresponding risk level. The DRAS was developed on sample of 595 psychiatric patients released over a 54-month period, and only items

that were predictive of dynamic risk were retained. The items have strong face validity and therefore minimal training was necessary for completion.

Level of Service Inventory – Revised (LSI-R; Andrews & Bonta, 1995). The LSI-R is a 54 item rating scale designed to measure criminal risk and need for treatment. Ratings of criminal risk include both static and dynamic risk. The instrument was developed primarily on probationers and briefly incarcerated offenders (sentenced to less than two years) for the purpose of determining supervision requirements or halfway house placement. The 10 empirically supported subscales of criminogenic factors include: Criminal History, Education/Employment, Financial, Family Marital, Accommodation, Leisure/Recreation, Companions, Alcohol/Drug Problem, Emotional/Personal, and Attitudes/Orientation. The items were scored following an interview and file review using a dichotomous rating format (0 = absent, 1 = present). Scores on the LSI-R range from 0 to 54. Inter-rater reliability coefficients range from .80 to .96 (Andrews & Bonta, 1995). Validity studies with samples similar to the initial validation sample show that higher LSI-R scores have been associated with parole failure and a return to custody (Motiuk, Bonta, & Andrews, 1986; Bonta & Motiuk, 1990) as well as institutional misconduct (Bonta, 1989; Bonta & Motiuk, 1987). Studies employing the LSI-R have been undertaken with samples other than those similar to the initial validation samples. Loza and Simourd (1994) reported on the validity of the LSI-R with Canadian offenders sentenced to two or more years in prison. Simourd and Malcolm (1998) showed the LSI-R to be valid with a sample of incarcerated sex offenders. The LSI-R and a variant of the LSI-R have also been shown to be predictive among native and young offender samples, respectively (Bonta, LaPrarie, & Wallace-Capretta, 1997; Jung & Rawana, 1999).

Current Problem Checklist (CPC). This 9-item checklist was developed for purposes of this study for two reasons. First, not all of the items comprising the LSI-R and SAQ "dynamic" scales are explicitly dynamic. For example, the Family/Marital subscale (LSI-R) has an item, "Criminal-Family/Spouse," which if endorsed cannot change with the passage of time. Second, as noted in the Introduction, psychosocial dynamic areas have not been used with repeated assessments. The items included in the CPC include the same nine domains covered in the Release and Reintegration Inventory (described below) and are theoretically separated into one of three categories (Personal, Social, and Behavioral). CPC-Personal items include: Impulsivity, Excitement, and Negative Affect. CPC-Social items include: Social Pressure, Social Alienation, and Interpersonal and Family Concerns. CPC-Behavioral items include: Substance Abuse, Financial/Employment, and Leisure. Each item has bi-polar adjectives with a 9-point Likert-type rating scale. See Figure 1 for a copy of the CPC.

Social Release Sheet (SRS). This 11-item checklist (Figure 2) was developed for purposes of this study to assess the social situation that an offender was released to or was currently residing. Various facets of the offender's social situation were assessed, including situations that were beyond the offender's control. Thus, items measure stability of family structure (SRS-Lifestyle), strength of non-professional support (SRS-Support), and location of home, services etc. (SRS-Structures). As with the CPC, the items are rated on 9-point Likert-type rating scales with descriptors along the 9-points. All the items were changeable and therefore of a dynamic nature.

Self-Report Measures

Self-Appraisal Questionnaire (SAQ; Loza, 2005). The SAQ consisted of 72 “True” or “False” items and results in one validity subscale and seven clinical subscales. The validity sub-scale, designed to predict careless responses or other problems associated with responding to

self-report measures, consists of eight items that are included in the seven clinical sub-scales. The Clinical subscales are: Criminal Tendencies (antisocial attitudes, beliefs, behaviors, and feelings), Antisocial Personality Problems (characteristics similar to those used to diagnose Antisocial Personality Disorder), Conduct Problems (assesses childhood behavioral problems), Criminal History, Alcohol/Drug Abuse, Anti-Social Associates (the offender's perception of the effect of his associates on his criminal activities), Anger (measures reaction to anger). Offender responses are compared to the criminal record sheet to check for inaccuracies in responding. The reliability, construct, and concurrent validity of the SAQ have previously been demonstrated (Loza, 2005), as has the predictive validity of the SAQ over a 2-year (Loza & Loza-Fanous, 2001; Kroner & Loza, 2001) and 5-year period (Loza & Loza-Fanous, 2003). Also, the SAQ was found to be effective for the prediction of recidivism (Loza & Loza-Fanous, 2001). Further, the SAQ has been cross-validated with an Australian, British, and Singaporean samples (Loza et al., 2004).

Psychological Inventory of Criminal Thinking Styles - Historical and Current Scales (PICTS; Walters, 2002). The PICTS is a self-report measure of thinking styles that support a criminal lifestyle. Two recently developed scales, Historical and Current scales, from the PICTS were utilized in this study. These rationally developed scales were derived from the 64 items that make up the eight PICTS thinking styles. The rational procedure involved expert ratings, distribution analyses, comparisons among custody level groups, principal component analysis, and internal/external scale correlations. This resulted in a 13-item Current scale and a 12-item Historical scale. As expected, the test-retest stability was strong (.77) for the Historical scale and (.73) for the Current scale (2).

Release and Reintegration Inventory (RRI; Kroner & Mills, 2003). The RRI was developed to assess areas that may be of difficulty for individuals released from a correctional institution or hospital. These areas have been shown to be a precursor to antisocial and criminal activity. The RRI has nine subscales under the three domains: RRI - Personal (Impulsivity, Excitement, Negative Affect), RRI - Social (Social Pressure, Social Alienation, Interpersonal and Family Concerns), RRI - Behavior (Substance Abuse, Financial/Employment, Leisure). The instructions for the RRI are of a self-prediction nature, "The following statements describe some thoughts, feelings, and situations that people deal with when released. Read each statement and indicate whether you agree or disagree that the statement will apply to you upon release to the community." The instructional set for the RRI was changed for the community administrations. The last phrase was changed to, "...will apply to you in the next month of community living."

Outcome Performance Measures.

Outcome performance measures included: unscheduled changes in reporting frequency, parole rule violations, suspensions, revocation, arrests, and convictions for new offenses. The number of occurrences within each of the six categories and the date of the occurrence was recorded. Thus, the count of each type of incident is calculated. From the dates, the number of days an offender was released (opportunity to re-offend) was calculated. For certain analyses, the data are collapsed into incident vs. no incident (Quinsey et al., 2006). This data was collected by the research assistant on the days that the offender was scheduled to meet with his Parole Officer.

Procedure

All procedures utilized in this study were approved by the Texas Tech University (TTU) Institutional Review Board for the Protection of Human Subjects TTU Committee, TTU Health

Sciences Center Institutional Review Board, and the Texas Department of Criminal Justice. Research assistants were trained by the primary investigators prior to the initiation of data collection. This study incorporated a 7-wave assessment process to assess participants in prison prior to their release and for a minimum of 6 monthly follow-up assessment sessions. See Tables 3a and 3b for frequency statistics regarding the number of participants that completed each wave of assessment.

Participants for this study were initially recruited from Texas Department of Criminal Justice (TDCJ) correctional facilities within approximately 120 mile radius of Lubbock County, Texas (the home county of the principal investigator). TDCJ is the Texas organization that operates state prisons, state jails, parole, and provides funding and certain oversight of community supervision for primarily adult offenders (persons aged 17 or older) (Kroner & Loza, 2001). Although TDCJ is responsible for prison, jail, and parole/community supervision services, for purposes of this study, only participants incarcerated (or released, as noted below) within TDCJ prisons were recruited for participation. Offenders incarcerated in TDCJ prisons have been convicted of a felony (i.e., first degree, second degree, third degree, or capital felony) and sentenced to prison.

All inmates within the 120 mile catchment area scheduled for release to Lubbock County were identified as potential participants in this study. These potential participants were identified from the TDCJ administrative database which provides a roster of all inmates incarcerated in TDCJ prisons, and includes a variety of data elements on each inmate including: gender, age, crime, institutional assignment, security classification, and Priority Designation Alert Code. Participants were contacted for the recruitment and initial data collection session approximately one month (30 days) prior to their scheduled release. Logistical complications (e.g., research

assistants traveling to a facility to learn inmates were moved prior to the scheduled release date, had their release date rescinded or delayed, were no longer releasing to Lubbock, County) resulted in delayed participant enrollments for participants from prison facilities within 120 mile radius of Texas Tech University (TTU; home institution of the principal investigator and research assistants). Thus, the investigators began including recruitment of offenders from outlying prisons as they presented to the Lubbock County Parole Office for their first parole meeting (within 24 hours of release from prison). Although these offenders were not recruited within the prison system as initially planned, they were assessed within 24-hours of release (the exception being offenders released late on a Friday or over the weekend who were scheduled to report by 8:00 am Monday morning may have been released for as long as 60 hours pre participation recruitment).

Participants recruited in prison (n = 9) were met at a scheduled appointment time. Scheduled appointments were coordinated with TDCJ staff to prevent instances of the potential participant being unavailable (e.g., participating in external work assignments). These scheduled appointments took place in a designated area per the institution (i.e. visitation room, administrative office, group room) and were approximately 90 minutes in duration. Participants recruited at the parole office (following their release from prison) were escorted to the researchers by the assigned parole officer or escorted by the researcher from the waiting area at the conclusion of the first parole officer meeting. This initial session in the parole office generally lasted approximately 60 minutes. TDCJ staff and parole officers were not informed of the results of recruitment sessions. At the scheduled assessment times, researchers associated with this study provided inmates a verbal explanation of the nature and purpose of the study and provided them an opportunity to volunteer their participation. Individuals agreeing to participate

were provided a consent form. They were asked to review the consent form individually (or the consent form was read to them by the researcher). They were then provided an opportunity to ask questions, and after all questions were satisfactorily answered, they were asked to sign the consent form and were provided the study instruments. Each consenting offender participated in a semi-structured standardized interview, after which they were instructed to complete the remaining instruments. The Wave 2 – Wave 7 sessions were scheduled to coordinate with each participant's next monthly parole officer meeting with each follow-up session generally lasting 45 minutes in duration. Session times varied marginally across participants due to work commitments of the offender or verboseness in responding. All sessions including recruitment took place in a private office with the door closed to ensure confidentiality, with only the participant and researchers present. On rare occasions, due to staffing and office availability limitations, participants would complete the written questionnaire portion of the assessments in the presence of another participant. In such cases, verbal consent was received from each offender and no identifying information, communication, or data was exchanged between the participants. Interviews were never conducted in the presence of other offenders

All participants were enrolled in the study by doctoral level research assistants from the American Psychological Association accredited doctoral program in Counseling Psychology at TTU. All data was collected by the principal investigator and/or research assistants (primarily doctoral level research assistants) trained in research methodology and the ethical principles for psychologists (American Psychological Association, 2002). All data was maintained at TTU in a locked file cabinet in the principal investigator's secure laboratory data storage closet that requires the passage of two locked doors to enter. Security of the data on the computer used for

data analysis was ensured by the use of a security pass code available only to the principal investigator and research assistants.

Although basic demographic information was obtained for describing the sample we did not request identifying information. No identifying information was provided on research forms with the exception of the consent from which was maintained separate from the research forms. For purposes of follow-up data collection, a research log was used to track inmate name and research number. To protect participant's confidentiality, this research log was maintained in a secure file cabinet in the secure research lab separate from the location of data and only accessed by the primary researcher.

Results

Missing Data

On occasion offender files had missing data. To address the problem of missing data multiple imputation was used to provide a statistical estimate of the missing values. Multiple imputation fills in the missing variables from each participant's observed values, with random noise added to keep a correct amount of variability within the distribution (Graham, 2009; Schafer & Graham, 2002). Using a single imputation tends to underestimate levels of uncertainty, whereas multiple imputations better reflect levels of uncertainty in the missing data (King, Honaker, Joseph, & Scheve, 2001). Thus, multiple imputations were run to construct multiple data sets. This consisted of using an expectation-maximization algorithm. In the expectation phase, the current guess of the parameters is used to fill in the missing data. The maximization phase uses both observed and the current guess to estimate the completed data parameters. The final step pools the multiple results. An R-based program, Amelia II (Honaker, King, & Blackwell, 2009) was used to conduct the multiple imputations. As recommended, between eight and ten (m)

imputations were conducted and the average of the *m* estimates was used as the point estimate. In the final data set the observed values remained unchanged.

A. Statement of Results

Hypothesis 1: Dynamic domains can be reliably measured.

Internal Consistency. Cronbach's Alpha coefficient (α) was used as a measure of internal consistency reliability for both self-report and rating instruments, and was calculated at the institutional phase (i.e., first contact) as well as the first community phase (i.e., second contact). At the institution phase, self-report instruments (i.e., PICTS, SAQ, RRI) demonstrated excellent total scale internal consistency (α ranged from .90 to .92; see Table 4a). Additionally, subscale internal consistency was generally good for all self-report instruments (see Table 4a). With regard to rating instruments, the DRAS demonstrated acceptable total scale internal consistency (α = .62), while the majority of the LSI-R subscales (with the exception of the Family/Marital subscale, α = .07) demonstrated acceptable internal consistency at the institution phase (α ranged from .36 to .73; see Table 4b). At the first community phase, self-report instruments evidenced similar internal consistency reliability, with total scales demonstrating excellent internal consistency (α ranged from .91 to .92) and subscales demonstrating good internal consistency (see Table 4c). With regard to rating instruments, the DRAS and CPC demonstrated acceptable internal consistency (α = .62 and .63, respectively). The LSI-R Dynamic scales (with the exception of the Accommodation scale, α = -.02) evidenced generally acceptable internal consistency (α ranged from .40 to .92).The CPRG total scale (α = .56) and subscales (α ranged from .17 to .42), however, evidenced poor internal consistency (see Table 4d).

Temporal Stability. Temporal stability was calculated using Pearson's correlation coefficient. Temporal stability for all self-report instruments (i.e., PICTS, SAQ, RRI) was

measured by calculating test-retest reliability at Wave 1 (community re-entry) and Wave 2 (first monthly follow-up). Test-retest reliability for self-report measures was generally acceptable, with PICTS scales ranging from .39 to .68, SAQ scales ranging from .38 to .76, and RRI scales ranging from .40 to .70 (see Table 5a). Temporal stability for all rating instruments (i.e., DRAS, LSI-R, CPRG, CPC) was measured by calculating test-retest reliability at Wave 2 (first monthly follow-up) and Wave 3 (second monthly follow-up). The DRAS General Risk scale demonstrated acceptable test-retest reliability (r = .70); however, test-retest reliability for the remaining rating instruments was generally unacceptable (see Table 5b).

Inter-rater Reliability. Inter-rater reliability was calculated using Pearson's correlation coefficients. Inter-rater reliability statistics for all rating instruments at both institution and community phases are presented in Table 6. At the institution phase, the DRAS Total scale demonstrated strong inter-rater reliability (r = .82), while the DRAS Violent scale yielded adequate inter-rater reliability (r = .68). The LSI-R Total score demonstrated excellent inter-rater reliability (r = .96), while inter-rater reliability for the LSI-R subscales was generally strong (r ranged from .73 to .98). In the community phase, inter-rater reliability was adequate for the DRAS Total scale (r = .69), but poor for the DRAS Violent scale (r = .37). The LSI-R Total score demonstrated excellent inter-rater reliability (r = .96), while inter-rater reliability for LSI-R subscales ranged from marginal to strong (r ranged from .32 to 1.0). Inter-rater reliability for CPRG subscales was generally adequate (r ranged from .38 to .78), while the CPC items demonstrated generally strong inter-rater reliability (r ranged from .63 to .87).

Hypothesis 2: Concurrent Validity will be demonstrated

Hypothesis 2a: The dynamic domain will have stronger relationships among the dynamic measures than with the static measures.

Concurrent validity was examined using a series of bivariate correlation analyses. Inter-correlations among dynamic scales were compared to those of static scales. Additionally, the relationship among dynamic scales was compared to the relationship between dynamic and static scales. Dynamic and static scale inter-correlations at each wave of the study are presented in Tables 7a through 7q. A summary of scale inter-correlations across all waves is presented in Table 7r. Mean inter-correlations between both dynamic and static variables were generally weak (see Table 7r); however, on average, dynamic scales (r = .29) were more closely related to one another than were static scales (r = .26). This trend was repeated across all waves of the study (see Table 7r). Additionally, the mean dynamic scale inter-correlation (r = .29) was notably higher than the relationship between static and dynamic scales (r = .22). These findings are consistent with our predictions though less strongly correlated in absolute terms than expected.

Hypothesis 2b: Dynamic domains will account for additional variance above static variables.

The next analytic steps sought to test the hypothesis that dynamic variables will account for additional predictive variance above static variables alone. To test this hypothesis we focused on the well-known LSI-R that contains criminal history variables, static criminogenic risk variables and potentially dynamic criminogenic risk variables and the DRAS which is comprised of 16 dynamic items. When using the LSI-R we chose to make a distinction between the criminal history items (the first 10 items of the LSI-R) and the static and potentially dynamic criminogenic items of the LSI-R because the theoretical difference between criminal risk and need (criminogenic variables) as held by the RNR model. To that end we identified 14 static criminogenic items within the LSI-R (i.e. less than regular Grade 10, 3 or more address changes

in the past year) and 30 potentially dynamic items (i.e. financial problems, criminal associates) that were measured repeatedly through the multi-wave study.

Three items of the DRAS were very difficult to rate within our current sample because of the low incidence of mental illness: Item 13 Poor compliance with medication, Item 14 Psychiatric symptoms are not in remission, and Item 15 Therapeutic alliance. For this reason these items were not included in the DRAS total. Table 8 contains the point-biserial relationship between the LSI-R, DRAS and any post-release failure. Any post-release failure was used due to the low baserate over the study period. The results were uncharacteristically absent of any meaningful correlation between any of the study variables and post release failure.

For this first set of analyses we employed only the LSI-R and DRAS as measured on first contact with the participant. In order to test the hypothesis that dynamic variables added to static variables three logistic hierarchical regression procedures were undertaken. In the first, the LSR-R criminal history variable was entered into the equation first with the LSI-R static and dynamic criminogenic variable totals allowed to enter in the second step using a Forward Wald procedure. Neither the static nor dynamic LSI-R totals added to the criminal history variable $\chi^2 = .033$, $df = 1$, $n = 135$, n.s. In the second logistic regression as in the first we entered the LSR-R criminal history variable into the equation first with all of the DRAS items individually allowed to enter in the second step using a Forward Wald procedure and the results were the same in that none of the DRAS items added to criminal history. In the third logistic regression, the LSI-R static criminogenic total score was entered first and the dynamic variable total allowed to enter in the second step using a Forward Wald procedure. The dynamic variable total did enter the equation on the second step $\beta = -.15$, $p < .05$ to produce a significant overall model $\chi^2 = 5.7$, $df = 1$, $n = 135$, $p < .05$.

In order to investigate truly dynamic variables we formed a variable referred to as the Current DRAS. Because the multi-wave study permitted us to re-evaluate many of the participants multiple times we used the Current DRAS score which was that score most proximal to failure or for those who did not fail the last time it was measured. The point biserial correlation of the Current DRAS with Any Failure was $r = .01$ $n = 135$. Overall there was a trend for the DRAS scores to diminish upon a second administration. Anecdotal reports from the research assistants indicated that many of the participants were initially interviewed shortly after they disembarked from a very long and tiring bus ride which may have impacted the participant's initial presentation. We therefore examined a subset of the participants ($n = 74$) for whom there was more than one rating of the DRAS and utilized the last DRAS rating which resulted in a point biserial correlation was $r = .14$, n.s. Though the absolute value of the correlation improved it was not statistically significant.

As with the DRAS above we undertook to develop a LSI-R Current Dynamic variable utilizing the most recent LSI-R Dynamic score that was available in the multi-wave follow-up. The point biserial correlation between the LSI-R Current Dynamic score and Any Failure was $r = -.11$, n.s. We again looked at the subset of offenders for whom multiple measures of the LSR-R Dynamic variables were available ($n = 74$) and the point biserial correlation with Any Failure was $r = -.12$, n.s. Neither of these more current measures improved the correlation of the LSI-R with our outcome of any failure.

Hypothesis 3: Predictive Validity will be demonstrated

Hypothesis 3a: Dynamic domains will be predictive of post-release performance.

Table 9 presents the results of Wave 1 measures predicting any failure, violent failure, and severity of failure across all of the waves of outcome data. The base rate for any failure (coded 0,

1) was 18.2% and 1.5% for violent failure. Wave1 was to be collected within an institution and consequently did not include the RCS and CPC instruments, because they were based on community performance. Among the dynamic rated measures (DRAS, LSI-R) there were no scales that were predictive of the three outcomes. Three self-prediction scales of Impulsivity, Substance Abuse, and Leisure were statistically significant in predicting Any Failure. Similar correlations for Impulsivity and Leisure were noted for predicting Severity of Failure. No scales were predictive of Violent Failure.

Tables 10 through 13 record the results of each wave of data collected predicting the total of the subsequent outcome data. Thus, the measures collected at Wave 2 predicting the outcome data from Wave 2 to Wave 5, measures at Wave 3 predicted the outcome data from Wave 3 to Wave 5, etc. These data assess which measures are consistently predictive over various outcome time frames. A more consistent predictive measure will be a more robust predictor. To summarize these results, we will highlight the most consistent correlations for Any Failure (since Severity of Failure produced similar results). The focus will be on those scales with a correlation of .15 and above.

With the rating measures, LSI-R Accommodation and the RCS Integration of Care each had consistent correlations in two assessment waves. It appears that housing deficits and a lack of continuity of care may contribute to community failure. From Tables A2 through A5 all other scales had one correlation above .15 except for LSI-R Substance Abuse, LSI-R Attitudes, RCS Resource Engagement, CPC Social Pressure, CPC Interpersonal and Family Concerns, and CPC Leisure.

In contrast to the rating instruments, the dynamic self-report instruments showed a more consistent relationship with subsequent outcomes. Three RRI scales demonstrated correlations

above .15 across all five assessment waves; Excitement/Boredom, Interpersonal/Family Concerns, and Leisure. RRI Impulsivity, RRI Substance Abuse, and the SAQ Criminal Tendencies had consistent correlations across four assessment waves.

The next set of analyses used a 2-month follow-up. Thus, Wave 1 assessment was used to predict the subsequent Wave 1 and Wave 2 follow-up periods, and Wave 2 assessment to predict the subsequent Wave 2 and Wave 3 follow-up periods, etc. The Wave 5 follow-up period covered only 1 month. These results are in Table 14. LSI-R Employment/Education and LSI-R Finances were predictive for two waves. With the self-report, RRI Excitement/Boredom was predictive across four waves. RRI Substance Abuse, Interpersonal/Family Concerns, and Leisure were predictive across two waves.

General Self-report vs. Self-predictive. Self-report measures can be placed into categories of self-report (general) and self-predictive. Of the dynamic measures, the PICTS Current Thinking and the SAQ Criminal Tendencies are general self-report measures, whereas the RRI is a self-prediction measure. Of these two categories the self-prediction scales repeatedly had stronger and more consistent predictive correlations.

To integrate time into the analyses, Cox regressions were computed. To reduce the number of analyses only the more robust scales from the correlational analysis were used as predictors in the Cox regression models. Also, only the Any Failure (coded 0, 1) outcome was used. Table 15 presents the results with the dynamic rating measures. Neither the individual scales nor the overall predictive model were statistically significant. In Table 16 three self-prediction RRI scales of Impulsivity, Substance Abuse, and Leisure produced an overall statistically significant model ($X2 = 9.6$, $p > .02$). No one scale was statistically significant, but the Impulsivity and Leisure scales were the more powerful predictors. The two self-report predictors of Current

Criminal Thinking and Criminal Tendencies did not result in an overall significant model, although the SAQ Criminal Tendencies scale was close to statistical significance (Table 17). The next Cox regression used one self-prediction scale (Impulsivity) and one self-report scale (Criminal Tendencies) in the prediction model (Table 18). The overall model was statistically significant ($X2 = 7.6$, $p < .02$) and the Impulsivity approached significance ($p < .06$). Overall, there was a trend for the self-prediction scales to produce stronger correlations with failure over time.

Hypothesis 3b: Changes in the dynamic measures will reflect changes in post-release performance.

Table 19 contains the correlation between change scores between two consecutive waves and the subsequent two wave follow-up periods. The "1_2" reflected the scores of the second administration minus the scores of the first administration, "2_3" second and third administration, etc. Correlations are reported for all of the subsequent follow-up periods. Overall, there was no consistent relationship pattern of changes between the dynamic measures and subsequent follow-up periods. In fact, the results were quite unstable. One potential exception might be RRI Excitement/Boredom scale. With this scale, 4 of the possible predictive correlations were over .21.

To examine the issues of change in dynamic scales able to predict failure over time, change scores were calculated between Wave 1 and Wave 2. This change score was then used to predict Wave 3 through 6. The same scales that were used in Tables 15 to 18 were used in Tables 20 to 23. None of the individual scales were statistically significant. Overall, no dynamic change scores were able to predict failure over time.

Hypothesis 3c: Dynamic domains will account for additional variance over static variables in the prediction of post-release performance

One final attempt to measure the potential for dynamic risk factors to add to criminal history was the utilization of the Current Problem Checklist. Only a subsample of offenders who were assessed one month after release (n = 72) could be included in this analysis. The point biserial relationship with Any Failure was $r = .19$, n.s.; however, the Current Problem Checklist did not enter a logistic regression in the second step after the LSI-R Criminal History variable when predicting Any Failure.

Post Hoc Exploration of Low Correlation with Outcome

The uncharacteristically low correlation of the predictor variables with outcome was a clear concern worthy of further exploration. The LSI-R has a very robust relationship with recidivism and post release failure in the literature in almost all instances. There are, however, two studies that call into question the efficacy of the LSI-R with non-Caucasian samples. Schlager and Simourd (2007) followed 333 African American and 112 Hispanic offenders who were released to either a half-way house or day reporting center. Recidivism was coded as either re-arrest or reconviction over a 2-year follow-up period. Baserates for re-arrest and reconviction were 31.9% and 22.3% respectively for African Americans and 38.7% and 31.5% respectively for Hispanic offenders. The baserate for re-offending was not a limiting factor in this study. Nonetheless, point biserial correlations of the LSI-R Total with rearrest and reconviction for African American offenders were $r = .08$ and $r = .11$. The correlations of the LSI-R Total with rearrest and reconviction for Hispanic offenders was even poorer $r = .02$ and $r = .04$. Also noted was the generally weak to moderate relationship between the LSI-R Criminal History variable and the other criminogenic subscales of the LSI-R for both ethnic groups.

In a similar study, Fass, Heilbrun, Dematteo, and Fretz (2008) followed a sample of offenders for 12-months following release and coded for re-arrest which had a baserate of 21%. The sample was predominantly African American (n = 696) but also included a large sample of Hispanic (n = 146) and Caucasian (n = 133) offenders. It should be noted that this study did not report point biserial correlations but rather chose to report the relationship of the LSI-R with re-arrest using Area Under the Curve from Receiver Operating Characteristic analysis. The AUC for African Americans, Hispanics, and Caucasians were 0.61, 0.54, and 0.55 respectively all falling within the low predictive validity or chance levels of accuracy.

Given the relatively poor performance of the LSI-R in predicting post release failure within ethnic minority samples we conducted a post hoc analysis of our data. We were aware that our sample size was relatively small so the reliability might suffer but these were post hoc exploratory analyses. Table 24 shows the group size and means for the primary variables of interest in our initial follow-up analysis. An ANOVA indicated group differences for the LSI-R Dynamic Criminogenic items F (2, 132) = 6.1, $p < .01$. ANOVA's conducted on the remaining variables showed the differences were not significant. Nonetheless, there appeared to be a trend for African American and Hispanic offenders to have lower criminogenic need scores than the Caucasian offenders. Correlations among the variables were conducted for each of the ethnic groups and the relationships reported in Table 25. From these results there is a clear negative or zero correlation between the LSI-R and outcome for Hispanic and African American offenders but a positive though not statistically significant relationship between the LSI-R and outcome for the Caucasian offenders. As a final examination we calculated the AUC statistic between the predictor variables and the outcome of Any Failure for each of the ethnic groups separately. AUC statistics are more robust when used with lower baserate and smaller samples. The results

reported in Table 26 shows that for Caucasian offenders the AUC statistics for the LSI-R is in keeping with other studies, however, the AUCs for the African American and Hispanic groups were at chance levels or predicted in the opposite direction as in the case of the dynamic criminogenic variables. Though we cannot draw conclusions from these post hoc analyses it would appear that our results may be consistent with other studies that employed the LSI-R to predict post release failure in samples of African American and Hispanic samples: Studies that benefited from larger sample size, higher baserates, and longer follow-up timeframes.

B. Tables

Table 1

Race, Age, Years of Education, and Length of Sentence in the Current Sample and Population of TDCJ Prisoners

	Current Sample	TDCJ Prisoner Population
Race (%)		
Black/African American	33.8	38.3
Hispanic/Latino	46.0	31.2
White/Caucasian	19.5	30.0
Age (in years)	34.9	37
Years Education Completed	10.8	9.7
Median Sentence Length	193 months; 16 years	235.2 months; 19.5 years

Table 2
Multi-method assessment.

Dynamic Scales	Static scales
Rating Scales	
DRAS[b]	
General Risk	
LSI-R*[b] (LSI-R-Dynamic)	LSI-R**[I] (LSI-R-Static)
Family/Marital	Criminal History
Leisure/Recreation	Education/Employment
Companions	Financial
Attitudes/Orientation	Accommodation
	Alcohol/Drug
CPC[c]	
Release Sheet[c]	
Self-Report	
SAQ[b] (SAQ – Dynamic)	SAQ[i] (SAQ – Static)
Criminal Tendencies	Criminal History
Alcohol/Drug Abuse*	Conduct Problems
	Antisocial Personality Problems
	Antisocial Associates**
PICTS	PICTS
Current[b]	Historical[i]
RRI[b]	
(RRI – Personal)	
Impulsivity	
Boredom	
Negative Affect	
(RRI-Social)	
Social Pressure	
Social Alienation	
Interpersonal and Family Concerns	
(RRI – Behavior)	
Substance Abuse	

Financial/Employment
Leisure

Note: *historical items will be removed from the scale for analyses.
**dynamic items will be removed from the scale for analyses. DRAS = Dynamic Risk Appraisal Scale, LSI-R = Level of Service Inventory - Revised. CPC = Current Problem Checklist. SAQ = Self-Appraisal Questionnaire. PICTS = Psychological Inventory of Criminal Thinking Styles. RRI = Release and Reintegration Inventory (with institutional and community instructional sets).
[b]administration in both institution and community.
[i]administration only in institution.
[c]administration only in community.

Table 3a *Individual follow-up sessions completed*

Initial Session	0 Months of Follow-up (Attrition)	1 month of follow-up	2 months of follow-up	3 months of follow-up	4 months of follow-up	5 months of follow-up	6 months of follow-up	7 months of follow-up
136	65	24	18	6	6	4	10	3

Table 3b *Cumulative follow-up sessions completed*

Initial Session	0 Months of follow-up (Attrition)	1 month follow-up	2 month follow-up	3 month follow-up	4 months follow-up	5 months follow-up	6 months follow-up	7 months follow-up
136	65	71	47	29	23	17	13	3

Note. Each month follow-up occurred as per each offender's initial assessment schedule.

Table 4a

Internal Consistency of Self-Report Instruments at Institution Phase

Scale/Subscale	Range	Mean	Standard Deviation	Cronbach's α
PICTS				.92
PICTS-CO	40 (40-80)	50.90	09.58	.77
PICTS-EN	49 (38-87)	51.99	10.55	.58
PICTS-PRB	39 (40-79)	51.92	09.75	.83
PICTS-AST	45 (40-85)	54.42	11.18	.84
PICTS-CUR	34 (39-73)	50.66	09.84	.88
PICTS-HIS	43 (39-82)	54.85	11.58	.86
PICTS-PT	45 (35-80)	53.28	10.96	.86
PICTS-RT	35 (38-73)	50.81	09.66	.89
SAQ				.90
SAQ-CT	24 (0-24)	08.40	04.72	.79
SAQ-AP	12 (0-12)	01.89	01.55	.52
SAQ-CP	18 (0-18)	06.57	04.43	.87
SAQ-CH	6 (0-6)	02.56	01.45	.49
SAQ-AD	7 (0-7)	03.26	01.74	.55
SAQ-AA	3 (0-3)	01.67	00.85	-.03
SAQ-AN	5 (0-5)	01.00	01.41	.55
RRI				.92
RRI-I	9 (0-9)	03.76	02.27	.63
RRI-SPA	10 (0-10)	03.24	02.23	.67
RRI-EB	10 (0-10)	03.20	02.32	.66

RRI-NA	10 (0-10)	04.46	02.73	.70
RRI-SocA	10 (-2-8)	02.06	02.50	.58
RRI-SubA	10 (0-10)	02.23	02.21	.76
RRI-FE	9 (0-9)	03.24	03.24	.73
RRI-FC	12 (-3-9)	-00.74	02.09	.41
RRI-L	9 (-2-7)	01.41	01.88	.52
				.63

Table 4b

Internal Consistency of Rating Scales at Institution Phase

Scale/Subscale	Range	Mean	Standard Deviation	Cronbach's α
DRAS	34 (0-34)	10.76	07.47	.62
LSI-R CH	8 (1-9)	4.91	01.81	.52
LSI-R EE	10 (0-10)	3.58	2.53	.73
LSI-R F	2 (0-2)	.62	.69	.36
LSI-R FM	4 (0-4)	1.41	.90	.07
LSI-R A	3 (0-3)	.81	00.94	.54
LSI-R LR	2 (0-2)	.78	.51	.41
LSI-R C	5 (0-5)	2.33	01.50	.63
LSI-R ADP	9 (0-9)	3.79	2.26	.71
LSI-R EP	4 (0-4)	.45	00.86	.61
LSI-R AO	4 (0-4)	1.07	1.23	.66

Table 4c

Summary Internal Consistency of Self-Report Instruments at Community I Phase

Scale/Subscale	Range	Mean	Standard Deviation	Cronbach's α
PICTS				.92
PICTS-CO	22 (40-62)	47.08	06.91	.69
PICTS-EN	39 (38-77)	48.94	09.75	.70
PICTS-PRB	27 (40-67)	48.70	08.23	.84
PICTS-AST	28 (40-67)	48.70	08.23	.79
PICTS-CUR	67 (0-67)	46.38	10.45	.87
PICTS-HIS	29 (39-68)	49.94	09.11	.83
PICTS-PT	32 (38-70)	49.38	09.07	.86
PICTS-RT	28 (36-64)	47.30	07.64	.89
SAQ				.92
SAQ-CT	23 (0-23)	08.57	05.27	.84
SAQ-AP	4 (0-4)	01.53	05.27	.49
SAQ-CP	17 (0-17)	06.78	04.85	.88
SAQ-CH	5 (0-5)	02.51	01.43	.48
SAQ-AD	7 (0-7)	02.90	01.96	.66
SAQ-AA	3 (0-3)	01.76	00.93	.39
SAQ-AN	5 (0-5)	01.06	01.55	.64
RRI				.91
RRI-I	10 (0-10)	02.91	02.48	.76
RRI-SPA	9 (0-9)	02.98	02.09	.67
RRI-EB	9 (0-9)	03.04	02.34	.69

RRI-NA	9 (0-9)	03.83	02.62	.75
RRI-SocA	9 (-2-7)	01.80	02.28	.50
RRI-SubA	8 (0-8)	01.57	02.12	.80
RRI-FE	10 (0-10)	03.20	02.56	.76
RRI-FC	9 (-3-6)	-00.64	02.34	.63
RRI-L	9 (-2-7)	02.02	02.44	.46

Table 4d

Summary Internal Consistency of Rating Scales at Community I Phase

Scale/Subscale	Range	Mean	Standard Deviation	Cronbach's α
DRAS	36 (0-36)	08.54	07.40	.62
LSI-R Dynamic				
EE	5 (0-5)	1.80	2.00	.92
F	2 (0-2)	.74	.78	.55
FM	3 (0-3)	.44	.72	.40
A	2 (0-2)	.45	.58	-.02
LR	1 (0-1)	.38	.49	--
C	5 (0-5)	1.16	1.29	.62
ADP	8 (0-8)	.48	1.18	.66
EP	1 (0-1)	.06	.24	--
AO	4 (0-4)	.86	1.02	.52
CPC	54 (12-66)	28.20	10.15	.63
CPRG				.56
CPRG RE	20 (9-29)	16.24	03.82	.17
CPRG SFP	33 (12-45)	30.53	06.99	.42
CPRG IC	18 (7-25)	16.14	03.97	.38
CPRG SS	32 (-5-27)	04.85	05.86	.26

Table 5a

Temporal Stability Reliability Statistics for Self-Report Instruments at Wave 1 and Wave 2

Scale	Pearson's *r*
PICTS	
Proactive	.62
Reactive	.40
Cutoff	.39
Entitlement	.58
Problem Avoidance	.45
Self Assertion	.68
Current	.42
Historical	.64
SAQ Total	.75
CT	.76
APP	.53
CP	.76
CH	.52
ADA	.65
AA	.38
AN	.52
RRI	
I	.47
SPA	.40
EB	.64
NA	.58

SA	.58
SubA	.70
FE	.62
FC	.51
L	.58

Table 5b

Test-Retest Reliability Statistics for Rating Instruments at Wave 2 and Wave 3

Scale	Pearson's *r*
DRAS General Risk	.70
DRAS Violence Risk	.41
LSI-R Dynamic Total	.38
EE	.24
F	.20
FM	.54
A	.47
LR	.37
C	.42
ADP	.39
EP	.54
AO	.39
CPRG RE	.30
CPRG SFP	.29
CPRG IC	.10
CPRG SS	.41
CPC 1	.22
CPC 2	.45
CPC 3	.57
CPC 4	.49

CPC 5	.46
CPC 6	.28
CPC 7	.42
CPC 8	.44
CPC 9	.43

Table 6

Inter-rater Reliability Statistics

Scale	Pearson's *r*
Institution	
DRAS Total	.82
DRAS Violent	.68
LSI-R Total	.96
LSI-R-CH	.98
LSI-R-EE	.98
LSI-R-F	.94
LSI-R-FM	.90
LSI-R-A	.82
LSI-R-LR	.81
LSI-R-C	.89
LSI-R-ADP	.93

LSI-R-EP	.89
LSI-R-AO	.73
Community	
DRAS Total	.69
DRAS Violent	.37
LSI-R Total	.96
LSI-R-EE	.99
LSI-R-F	.88
LSI-R-FM	.70
LSI-R-A	.71
LSI-R-LR	.32
LSI-R-C	.52
LSI-R-ADP	.43
LSI-R-EP	1.0
LSI-R-AO	.84
CPRG RE	.38
CPRG SFP	.70
CPRG IC	.62
CPRG SS	.78
CPC 1	.85
CPC 2	.83
CPC 3	.69
CPC 4	.63
CPC 5	.76
CPC 6	.66
CPC 7	.87

CPC 8	.66
CPC 9	.70

Table 7a

Intercorrelations between Dynamic Variables at Wave 1

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. DRAS G	--	.13	.06	.14	.66	.29	.02	.12	.15	.15	.15	.13	.03	.20	.09	-.08	.17
2. LSI-R FM		--	.09	.18	.05	.09	.29	.20	.00	.01	.07	.09	.19	.14	-.01	.10	.01
3. LSI-R LR			--	.14	-.14	-.02	.10	.04	-.06	.17	.04	-.10	-.01	.00	.11	.10	.03
4. LSI-R C				--	.02	.33	.33	.18	.09	.28	.04	.20	.21	.14	.07	.14	.19
5. LSI-R AO					--	.32	-.01	.09	.07	-.04	.05	-.01	-.07	.12	.03	-.25	.10
6. SAQ CT						--	.30	.23	.36	.31	.39	.27	.29	.34	.16	-.03	.31
7. SAQ ADA							--	.32	.23	.17	.25	.39	.35	.43	.23	.39	.08
8. PICTS C								--	.46	.45	.36	.50	.43	.34	.41	.32	.27
9. RRI I									--	.27	.51	.39	.24	.45	.36	.25	.30
10. RRI SPA										--	.46	.52	.54	.21	.59	.34	.49
11. RRI EB											--	.47	.40	.45	.42	.33	.46
12. RRI NA												--	.60	.38	.54	.37	.35
13. RRI SocA													--	.23	.44	.33	.38
14. RRI SubA														--	.34	.34	.30
15. RRI FE															--	.35	.46
16. RRI FC																--	.18
17. RRI L																	--

Note: Range r = .00-.66. Mean r = .24. SD r = .16.

Table 7b
Intercorrelations between Static Variables at Wave 1

Scale	1	2	3	4	5	6	7	8	9	10
1. LSI-R CH	--	.27	.06	.19	.22	.46	.46	.21	.10	.17
2. LSI-R EE		--	.06	.22	.05	.25	.34	.16	.19	.18
3. LSI-R F			--	.05	.08	.13	-.13	-.05	-.04	-.05
4. LSI-R A				--	.26	.13	.19	.12	.21	.24
5. LSI-R ADP					--	.19	.19	.16	.11	.38
6. SAQ CH						--	.35	.19	.25	.30
7. SAQ CP							--	.41	.40	.41
8. SAQ AP								--	.09	.25
9. SAQ AA									--	.25
10. PICTS H										--

Note. Range r = .04-.46. Mean r = .20. SD r = .12.

Table 7c
Relationship between Static and Dynamic Variables at Wave 1

	LSI-R Dynamic				SAQ Dynamic		PICTS Dynamic
	FM	LR	C	AO	CT	ADA	C
LSI-R Static							
CH	.25	.02	.24	.02	.20	.17	.00
EE	.12	.09	.30	.01	.12	-.02	-.07
F	.12	.01	-.05	.04	-.11	.06	.18
A	.10	.21	.38	-.03	.11	.18	.14
ADP	.23	.15	.35	-.11	.05	.51	.37
SAQ Static							
CH	.19	.09	.19	.02	.29	.36	.13
CP	.18	.04	.37	.10	.48	.31	.18
AP	.07	-.15	.17	.05	.40	.19	.18
AA	.07	-.01	.24	.03	.32	.19	.06
PICTS Static							
H	.18	.12	.45	-.14	.38	.48	.58

Note. Range r = .00-.58. Mean r = .18. SD r = .14.

Table 7d

Intercorrelations between Dynamic Variables at Wave 2

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	.31	.38	.14	.36	.46	.24	.35	.52	.33	.43	.30	.33	.08	.13	.27	.04	.31	.33	.09	.28
2. LSI-R FM		--	-.06	.15	.15	.23	.2	.16	.38	.10	.13	.13	.15	-.12	-.08	.12	.08	.17	-.07	.29	.17
3. LSI-R LR			--	.09	.23	.15	.17	.46	.43	.23	-.18	.26	.17	-.02	.16	.09	-.13	-.00	.26	-.05	.41
4. LSI-R C				--	.23	.31	.23	.21	.32	.07	.20	.14	.07	.12	-.06	.18	.19	.07	.24	.23	.10
5. LSI-R AO					--	.08	.32	.46	.33	.32	.26	.21	.12	.00	-.18	.01	.15	.15	.21	.01	.14
6. CPRG RE						--	-.02	.23	.24	.07	.01	.15	.31	.13	.19	.18	-.01	.27	.14	.00	.38
7. CPRG SFP							--	.51	.44	.05	.09	.11	-.09	-.06	-.19	-.03	.11	-.18	.19	.11	-.09
8. CPRG IC								--	.50	.21	.06	.27	.19	.12	.08	.15	.04	.09	.31	.11	.23
9. CPRG SS									--	.5	.23	.34	.36	-.02	.28	.24	.10	.37	.30	.30	.29
10. SAQ CT										--	.50	.57	.50	.25	.47	.39	.15	.44	.23	.24	.32
11. SAQ ADA											--	.28	.16	.14	.11	-.01	.07	.25	-.09	.35	.10
12. PICTS C												--	.46	.29	.39	.41	.34	.30	.50	.42	.32
13. RRI I													--	.44	.53	.53	.19	.58	.66	.47	.30
14. RRI SPA														--	.43	.69	.45	.46	.45	.58	.39
15. RRI EB															--	.54	.36	.58	.34	.36	.44
16. RRI NA																--	.53	.54	.43	.48	.54
17. RRI SocA																	--	.25	.36	.35	.14
18. RRI SubA																		--	.31	.54	.49
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.40	.21

20. RRI FC	--	.27
21. RRI L		--

Note. Range r = .00-.69. Mean r = .25. SD r = .16.

Table 7e
Intercorrelations between Static Variables at Wave 2

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.40	.28	-.03	.08	.17	.06	.21	-.12
2. LSI-R F		--	.12	.07	-.14	-.19	-.15	-.05	-.32
3. LSI-R A			--	-.05	.14	.17	.28	.05	.04
4. LSI-R ADP				--	-.05	-.14	-.06	-.11	-.16
5. SAQ CH					--	.36	.30	.20	.28
6. SAQ CP						--	.70	.52	.46
7. SAQ AP							--	.34	.50
8. SAQ AA								--	.30
9. PICTS H									--

Note. Range r = .03-.70. Mean r = .21. SD r = .16.

Table 7f
Relationship between Static and Dynamic Variables at Wave 2

	LSI-R Dynamic				SAQ Dynamic		PICTS Dynamic
	FM	LR	C	AO	CT	ADA	C
LSI-R Static							
EE	-.07	.26	.12	.27	.20	.07	.25
F	.02	.34	.12	.36	-.01	-.19	.06
A	-.00	.19	.04	-.02	.35	.22	.19
ADP	.25	-.06	-.02	.03	-.15	-.09	-.12
SAQ Static							
CH	-.01	-.10	-.13	.10	.27	.32	.14
CP	.01	.11	-.01	.10	.40	.32	.14
AP	.15	.10	-.08	.05	.38	.29	.26
AA	.04	-.11	.21	.25	.19	.34	.07
PICTS Static							
H	.05	-.22	-.02	.05	.41	.36	.35

Note. Range r = .00-.41. Mean r = .16. SD r = .12.

Table 7g

Intercorrelations between Dynamic Variables at Wave 3

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	.40	.24	.14	.29	.24	-.03	.22	.24	.37	.39	.03	.21	.04	.20	.28	-.04	.37	-.11	.26	.11
2. LSI-R FM		--	.20	-.02	-.14	.09	.03	.11	.37	.01	.20	.11	-.09	.13	.06	.19	.02	.31	-.28	.18	.07
3. LSI-R LR			--	.21	.22	.05	.15	.28	.19	.22	-.05	.19	.21	.39	.32	.32	.05	.39	.23	.03	.39
4. LSI-R C				--	.38	.13	.02	.30	.18	.08	-.01	.31	.26	.44	.38	.24	.39	.47	.32	.38	.34
5. LSI-R AO					--	-.04	.07	.32	.05	.22	-.16	.02	.38	.20	.07	.09	.07	.13	.23	.34	-.21
6. CPRG RE						--	.22	.30	.07	.17	.18	.17	.45	.35	.01	.18	.28	.28	-.06	.26	-.04
7. CPRG SFP							--	.26	-.02	-.01	-.44	-.16	-.18	-.12	-.07	-.11	-.12	-.17	.03	-.08	.22
8. CPRG IC								--	.36	.11	-.05	-.10	.26	.18	.16	-.01	-.09	.27	.14	.35	-.12
9. CPRG SS									--	.12	.18	-.12	-.12	-.01	-.16	-.11	-.31	.24	-.21	.06	.15
10. SAQ CT										--	.35	.42	.36	.06	.37	.34	-.04	.36	.29	.14	.43
11. SAQ ADA											--	.22	.31	-.08	.23	.21	.07	.37	-.26	.08	.20
12. PICTS C												--	.39	.28	.32	.34	.30	.23	.15	.16	.30
13. RRI I													--	.61	.53	.49	.33	.53	.40	.60	.20
14. RRI SPA														--	.39	.55	.55	.61	.61	.61	.24
15. RRI EB															--	.76	.38	.61	.48	.47	.46
16. RRI NA																--	.49	.58	.45	.45	.44
17. RRI SocA																	--	.48	.37	.40	.17
18. RRI SubA																		--	.34	.61	.36
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.43	.32

20. RRI FC	--	.03
21. RRI L		--

Note. Range r = .01-.76. Mean r = .24. SD r = .16.

Table 7h
Intercorrelations between Static Variables at Wave 3

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.47	.08	-.05	.32	-.01	-.06	.13	-.07
2. LSI-R F		--	.08	-.14	.32	-.17	-.10	.18	-.13
3. LSI-R A			--	.06	-.12	.21	.07	.08	..22
4. LSI-R ADP				--	.04	.18	.05	-.11	.19
5. SAQ CH					--	.39	.23	.47	-.12
6. SAQ CP						--	.61	.54	.33
7. SAQ AP							--	.53	.36
8. SAQ AA								--	.30
9. PICTS H									--

Note. Range r = .01-.61. Mean r = .21. SD r = .16.

Table 7i

Intercorrelations between Dynamic Variables at Wave 4

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	.02	.43	.10	.35	.57	.25	.45	.44	.18	.02	.30	.05	-.13	.14	.10	-.11	.07	.31	.15	.39
2. LSI-R FM		--	-.20	.09	-.22	-.16	.42	.26	.38	-.28	.16	-.11	-.17	.14	-.41	-.10	-.20	-.08	.09	-.08	-.06
3. LSI-R LR			--	.51	.30	.39	.33	.58	-.00	.66	.39	.43	.37	.40	.49	.46	.16	.36	.54	.45	.57
4. LSI-R C				--	-.02	.26	.34	.71	.19	.38	.31	.37	.10	.53	.35	.54	-.03	.41	.63	.06	.39
5. LSI-R AO					--	-.12	.18	.46	.18	.64	.13	.26	.20	-.09	.22	.11	.25	-.07	.17	.41	.42
6. CPRG RE						--	.32	-.06	-.00	.16	.10	.02	-.14	-.28	.03	.08	-.26	-.03	.09	-.16	.20
7. CPRG SFP							--	.30	.10	.01	.26	.23	.14	.34	-.03	.27	.06	.24	.30	.22	.52
8. CPRG IC								--	.56	.33	.28	.41	-.02	.41	.13	.38	-.02	.41	.69	.29	.38
9. CPRG SS									--	-.38	-.29	-.04	-.50	-.16	-.33	-.12	-.62	-.18	.10	-.57	.00
10. SAQ CT										--	.59	.61	.57	.34	.55	.64	.34	.41	.42	.44	.54
11. SAQ ADA											--	.43	.44	.31	.08	.49	.17	.47	.24	.37	.15
12. PICTS C												--	.64	.55	.55	.75	.41	.61	.66	.39	.79
13. RRI I													--	.39	.53	.44	.31	.53	.35	.48	.49
14. RRI SPA														--	.35	.75	.51	.67	.65	.39	.55
15. RRI EB															--	.58	.34	.32	.50	.28	.73
16. RRI NA																--	.42	.61	.58	.28	.77
17. RRI SocA																	--	.50	.39	.72	.34
18. RRI SubA																		--	.62	.39	.30
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.50	.56

20. RRI FC	--	.30
21. RRI L		--

Note. Range r = .00-.79. Mean r = .33. SD r = .20.

Table 7j
Intercorrelations between Static Variables at Wave 4

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.64	.30	.21	.01	.10	-.01	.48	.17
2. LSI-R F		--	.39	.35	-.06	.01	-.03	.25	.30
3. LSI-R A			--	.37	.23	-.19	.11	.41	.33
4. LSI-R ADP				--	.07	-.31	-.17	.03	.20
5. SAQ CH					--	.50	.31	.69	.53
6. SAQ CP						--	.64	.50	.51
7. SAQ AP							--	.53	.41
8. SAQ AA								--	.56
9. PICTS H									--

Note. Range r = .01-.69. Mean r = .30. SD r = .20.

Table 7k

Intercorrelations between Dynamic Variables at Wave 5

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	.32	-.17	-.09	.05	.44	.53	.62	.61	.15	.08	-.01	-.09	-.24	-.10	.04	-.40	-.36	-.22	-.34	.02
2. LSI-R FM		--	.08	-.17	.21	.20	.76	.33	.32	.01	-.01	-.03	-.28	-.03	-.29	.06	-.23	-.22	.04	-.17	-.02
3. LSI-R LR			--	.57	.37	-.25	.23	.28	.15	.22	.14	.20	.35	.19	.38	.49	.29	.55	.65	.75	.38
4. LSI-R C				--	.34	-.38	.01	.65	.49	.18	.28	.08	.15	.72	.00	.27	.47	.66	.72	.52	-.02
5. LSI-R AO					--	-.49	.06	.25	.45	.59	-.16	.62	.28	-.01	.38	.47	.06	-.03	-.05	-.19	.63
6. CPRG RE						--	.46	-.08	-.21	.05	-.27	.06	-.03	-.01	-.06	-.12	-.06	-.14	.20	-.05	.17
7. CPRG SFP							--	.45	.27	.32	.16	.22	.10	.25	.03	.35	.07	.14	.31	.14	.26
8. CPRG IC								--	.75	.20	.20	.06	-.10	.24	-.31	-.02	-.16	-.23	.34	-.14	-.08
9. CPRG SS									--	.14	-.11	-.04	-.17	-.28	-.17	-.02	-.36	-.38	-.24	-.47	-.06
10. SAQ CT										--	.35	.78	.80	.41	.60	.56	.28	.25	.49	.44	.45
11. SAQ ADA											--	.26	.30	.33	.30	.31	.24	.44	.18	.41	-.01
12. PICTS C												--	.56	.50	.55	.64	.32	.24	.39	.28	.73
13. RRI I													--	.48	.69	.42	.12	.43	.48	.61	.49
14. RRI SPA														--	.27	.49	.40	.55	.88	.70	.39
15. RRI EB															--	.68	.41	.46	.11	.59	.64
16. RRI NA																--	.70	.54	.25	.58	.66
17. RRI SocA																	--	.54	.31	.45	.28
18. RRI SubA																		--	.35	.67	.21
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.62	.19

20. RRI FC	--	.25
21. RRI L		--

Note. Range r = .00-.88. Mean r = .31. SD r = .21.

Table 7l

Intercorrelations between Static Variables at Wave 5

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.63	.41	.00	-.30	-.24	.02	-.09	-.00
2. LSI-R F		--	.79	.13	-.10	.03	.12	.06	.39
3. LSI-R A			--	.08	.61	-.10	.30	-.04	-.04
4. LSI-R ADP				--	-.04	.22	-.02	.30	-.37
5. SAQ CH					--	.33	.30	.16	.22
6. SAQ CP						--	.62	.81	.49
7. SAQ AP							--	.63	.66
8. SAQ AA								--	.44
9. PICTS H									--

Note. Range r = .00-.81. Mean r = .28. SD r = .24.

Table 7m

Intercorrelations between Dynamic Variables at Wave 6

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	.30	.45	.06	.09	.28	.17	.30	.56	.21	.30	.74	.44	.56	.46	.01	.16	.61	.12	-.01	.25
2. LSI-R FM		--	-.26	-.30	.28	-.41	.29	-.20	.71	.15	-.36	-.26	-.40	-.34	-.48	-.34	.09	-.26	.24	-.18	-.52
3. LSI-R LR			--	.00	-.38	.56	.16	.44	.00	-.07	.22	.53	.09	.39	.23	-.19	.06	.37	.22	.00	-.04
4. LSI-R C				--	-.26	.17	-.11	.21	-.07	.29	.47	.14	.59	.38	.31	.65	-.08	.48	.66	.59	.08
5. LSI-R AO					--	-.07	.12	.17	.32	.83	.24	.22	.33	-.11	.00	-.18	-.11	-.03	.24	-.33	.12
6. CPRG RE						--	-.42	.19	-.27	.30	.43	.75	.47	.55	.54	-.05	.35	.39	.44	.00	.47
7. CPRG SFP							--	.53	.52	.29	.39	.03	.14	-.06	.03	.02	-.21	.02	-.14	-.09	.08
8. CPRG IC								--	.06	.60	.52	.15	.30	-.16	-.02	-.26	-.39	-.09	.14	-.17	.09
9. CPRG SS									--	.51	.39	.61	.49	.38	.09	.03	-.00	.60	.56	.22	-.06
10. SAQ CT										--	.48	.45	.60	.23	.33	.08	.12	.27	.53	-.12	.16
11. SAQ ADA											--	.20	.84	.29	.58	.31	.30	.58	.12	.43	.34
12. PICTS C												--	.44	.86	.61	.37	.50	.57	.54	.00	.60
13. RRI I													--	.56	.77	.57	.48	.73	.37	.55	.42
14. RRI SPA														--	.73	.74	.70	.73	.49	.38	.66
15. RRI EB															--	.69	.63	.65	.23	.29	.64
16. RRI NA																--	.57	.56	.29	.64	.62
17. RRI SocA																	--	.64	.10	.40	.48
18. RRI SubA																		--	.33	.56	.23
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.27	.05

20. RRI FC	--	.14
21. RRI L		--

Note. Range r = .00-.86. Mean r = .33. SD r = .22.

Table 7n
Intercorrelations between Static Variables at Wave 6

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.64	.22	-.12	.29	.10	.06	.32	.80
2. LSI-R F		--	.37	.16	.30	-.33	.00	-.17	.60
3. LSI-R A			--	.21	.36	.16	.17	.22	.03
4. LSI-R ADP				--	.18	-.13	-.52	-.48	-.31
5. SAQ CH					--	.56	-.14	.32	.62
6. SAQ CP						--	.23	.75	.47
7. SAQ AP							--	.23	.28
8. SAQ AA								--	.33
9. PICTS H									--

Note. Range r = .00-.80. Mean r = .31. SD r = .20.

Table 7o

Intercorrelations between Dynamic Variables at Wave 7

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DRAS	--	-.40	.29	.45	-.30	.32	.22	-.02	.53	.29	-.34	.15	.09	-.20	.07	-.07	-.27	.00	.07	-.02	-.05
2. LSI-R FM		--	-.30	-.20	-.31	-.21	-.29	-.35	.05	-.45	-.33	-.02	-.20	-.06	-.20	-.03	.16	-.16	-.34	.27	-.05
3. LSI-R LR			--	.66	.29	-.04	.74	.36	.29	.59	.19	.27	.26	.08	-.03	-.07	-.41	-.06	.16	-.24	-.24
4. LSI-R C				--	.10	-.21	.43	.03	.04	.69	.30	.65	.42	.23	.24	.34	.00	.31	.33	.14	.02
5. LSI-R AO					--	-.41	.06	.12	-.45	.24	.18	-.22	.13	.00	-.08	-.41	-.57	-.33	.16	-.38	-.15
6. CPRG RE						--	-.07	.17	.32	-.35	-.49	.03	-.51	-.36	-.27	-.20	-.19	-.09	-.50	-.15	-.19
7. CPRG SFP							--	.62	.56	.83	.48	.40	.61	.46	.39	.31	.08	.28	.60	.12	.19
8. CPRG IC								--	.27	.70	.11	-.02	.10	.35	.28	.01	.17	.09	.70	.33	.54
9. CPRG SS									--	.27	-.25	.31	-.11	-.01	.14	-.13	.02	-.02	.04	.38	.34
10. SAQ CT										--	.37	.34	.57	.47	.52	.36	.20	.32	.86	.30	.36
11. SAQ ADA											--	-.05	.78	.65	.59	.47	.53	.74	.45	.25	-.10
12. PICTS C												--	.07	.43	.44	.69	.33	.37	.37	.33	.85
13. RRI I													--	.72	.74	.58	.41	.70	.60	.38	-.01
14. RRI SPA														--	.95	.76	.75	.86	.79	.76	.55
15. RRI EB															--	.76	.73	.87	.83	.77	.58
16. RRI NA																--	.75	.78	.60	.52	.58
17. RRI SocA																	--	.84	.55	.80	.48
18. RRI SubA																		--	.58	.71	.33
Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
19. RRI FE																			--	.63	.67

20. RRI FC	--	.56
21. RRI L		--

Note. Range r = .00-.95. Mean r = .35. SD r = .24.

Table 7p
Intercorrelations between Static Variables at Wave 7

Scales	1	2	3	4	5	6	7	8	9
1. LSI-R EE	--	.33	.26	.70	-.06	-.42	-.36	.07	-.09
2. LSI-R F		--	-.26	.26	-.23	-.36	.26	.12	-.06
3. LSI-R A			--	-.14	.21	-.11	-.19	-.04	.49
4. LSI-R ADP				--	.15	.16	-.15	.52	.03
5. SAQ CH					--	.60	.34	.43	.34
6. SAQ CP						--	.38	.67	.71
7. SAQ AP							--	.40	.43
8. SAQ AA								--	.81
9. PICTS H									--

Note. Range r = .03-.81. Mean r = .31. SD r = .21.

Table 7q
Relationship between Static and Dynamic Variables at Wave 7

	LSI-R Dynamic				SAQ Dynamic		PICTS Dynamic
	FM	LR	C	AO	CT	ADA	C
LSI-R Static							
EE	-.15	.39	.26	.72	.48	.52	-.05
F	-.28	.39	.09	.55	.52	.-.04	-.45
A	-.20	.22	.71	.10	.54	-.26	.78
ADP	-.20	.00	-.14	.48	.14	.48	-.36
SAQ Static							
CH	-.62	-.27	-.05	.06	.03	.50	.13
CP	-.19	-.66	-.27	-.53	-.11	.47	-.23
AP	-.34	.03	.19	-.17	-.19	.10	-.43
AA	-.58	-.05	.06	-.20	.31	.54	-.14
PICTS Static							
H	-.29	.31	.68	-.25	.45	.69	.25

Note. Range r = .00-.78. Mean r = .32. SD r = .21.

Table 7r

Summary of Static and Dynamic Scale Intercorrelations across Waves

Wave	Dynamic *r*	Static *r*	Dynamic and Static *r*
1	.24	.20	.18
2	.25	.21	.16
3	.24	.21	--
4	.33	.30	--
5	.31	.28	--
6	.33	.31	--
7	.35	.31	.32
Mean	.29	.26	.22
Range	.24-.35	.20-.31	.16-.32

Table 8

Predictor	Point Biserial r
LSI-R Total	
LSI-R Criminal History	-.02
LSI-R Static	.07
LSI-R Dynamic	-.14
DRAS Total	-.04
Previous violence	.02
No responsibility	.06
Anxiety, anger, frustration	.01
No remorse	.04
Unrealistic discharge plans	-.12
Escape or escape attempt	-.12
Unusual thought content	.05
Complaints about staff	-.08
No empathy for others	.03

Antisocial attitudes	-.12
Poor compliance	-.10
Few coping skills	-.04
Denies all problems	.02

Table 9

Zero-order correlations between Wave 1 DRAS, LSI-R, RRI, PICTS, SAQ, and outcome measures (across all waves, N = 137)

Instruments	Any Failure	Violent Failure	Severity of Failure
		Ratings	
DRAS[a]	-.06	.00	-.08
LSI-R (Total dynamic)	-.14	-.13	-.18*
Employment/Education	-.08	-.11	-.08
Finances	-.01	-.02	-.03
Family	.07	-.03	.00
Accommodation	-.18*	-.11	-.22*
Companions	-.10	-.07	-.12
Substance Abuse	-.12	-.11	-.16
Attitude	.00	.04	-.01
		Self-Report	
Release and Reintegration Inventory			
Impulsivity	.20*	.03	.21*
Social Pressure and Associates	.00	-.02	-.01
Excitement/Boredom	.15	-.05	.14

Negative Affect	-.05	.00	-.06
Social Alienation	.00	.02	.02
Substance Abuse	.21*	.10	.14
Financial/Employment	.00	-.01	.02
Interpersonal/Family Concerns	.10	.05	.09
Leisure	.25*	.05	.24*
PICTS Current Thinking	.01	.03	-.02
SAQ Criminal Tendencies	.08	.11	.10

Note: *p < .05. Base rates: Any Failure = .182 (fail_1_5), Violent Failure = .015 (vio_1_5), Severity of Failure = .182 (conv_1_5).

Table 10

Zero-order correlations between Wave 2 DRAS, LSI-R RRI, PICTS, SAQ, RCS, CPC and outcome measures (Wave 2 through Wave 5; N = 72)

Instruments	Any Failure	Violent Failure	Severity of Failure
		Ratings	
DRAS[a]	-.06	.00	-.08
LSI-R (Total dynamic)	.03	-.01	.07
Employment/Education	.19	.14	.16
Finances	-.03	.04	-.02
Family	.06	-.08	.05
Accommodation	.30*	-.09	.24*
Companions	-.21	-.11	-.24*
Substance Abuse	.13	-.07	.07
Attitude	-.10	.02	-.11
Risk Context Scale			
Resource Engagement	.06	-.12	.00
Social Friendship Presence	-.26*	-.14	-.27*
Integration of Care	-.07	.01	-.07
Social Stability	.02	-.14	.00

Current Problem Checklist			
Impulsivity	.00	-.05	-.02
Boredom	.08	.05	.09
Negative Affect	.37*	.24	.41*
Social Pressure	.00	-.08	.00
Social Alienation	-.07	-.14	-.05
Interpersonal and Family Concerns	.07	-.09	.09
Substance Abuse	.08	-.07	.01
Financial/Employment	.13	.01	.12
Leisure	.09	-.07	.10
		Self-Report	
Release and Reintegration Inventory (n = 52)			
Impulsivity	.17	--a	.15
Social Pressure and Associates	.01	--	.02
Excitement/Boredom	.17	--	.18
Negative Affect	.02	--	.00
Social Alienation	-.18	--	-.16
Substance Abuse	.28*	---	.25
Financial/Employment	.05	--	.09
Interpersonal/Family Concerns	.23	--	.26

Leisure	.18	--	.16
PICTS Current Thinking	.18	--	.18
SAQ Criminal Tendencies	.16	--	.17

Note: *p < .05. [a]No recidivism among completed scales. Base rates: Any Failure = .182 (fail_1_5), Violent Failure = .015 (vio_1_5), Severity of Failure = .182 (conv_1_5).

Table 11

Zero-order correlations between Wave 3 DRAS, LSI-R RRI, PICTS, SAQ RCS, CPC and outcome measures (Wave 3 through wave 5; N = 45)

Instruments	Any Failure	Violent Failure	Severity of Failure
		Ratings	
DRAS[a]	.15	--	.03
LSI-R (Total dynamic)	.06	--	.01
Employment/Education	.03	--	.02
Finances	-.08	--	-.07
Family	.29	--	.22
Accommodation	.09	--	.15
Companions	.00	--	-.02
Substance Abuse	- .02	--	-.09
Attitude	-.04	--	-.10
Risk Context Scale			
Resource Engagement	-.15	--	-.21
Social Friendship Presence	-.04	--	.01
Integration of Care	.17	--	.11
Social Stability	.30*	--	.18

Current Problem Checklist			
Impulsivity	.23	--	.23
Boredom	-.13	--	-.13
Negative Affect	.17	--	.17
Social Pressure	.07	--	.07
Social Alienation	-.03	--	-.03
Interpersonal and Family Concerns	.13	--	.13
Substance Abuse	.14	--	.14
Financial/Employment	.25	--	.25
Leisure	-.03	--	-.03
		Self-Report	
Release and Reintegration Inventory (n = 45)			
Impulsivity	.07	--a	.04
Social Pressure and Associates	.01	--	.00
Excitement/Boredom	.32*	--	.35*
Negative Affect	.10	--	.06
Social Alienation	.03	--	.03
Substance Abuse	.48*	--	.40*
Financial/Employment	.15	--	.17
Interpersonal/Family Concerns	.38*	--	.34*

Leisure	.15	--	.13
PICTS Current Thinking	.14	--	.09
SAQ Criminal Tendencies[b]	.40*	--	.39*

Note: *p < .05. [a]No recidivism among completed scales. [b]n = 38. Base rates: Any Failure = .073 (fail_2_5), Severity of Failure = .051 (conv_2_5).

Table 12

Zero-order correlations between Wave 4 DRAS, LSI-R RRI, PICTS, SAQ RCS, CPC and outcome measures (wave 4 through wave 5; N = 25)

Instruments	Any Failure	Violent Failure	Severity of Failure
		Ratings	
DRAS[a]	-.17	--	-.17
LSI-R (Total dynamic)	.16	--	.16
Employment/Education	.05	--	.05
Finances	.13	--	.13
Family	-.24	--	-.24
Accommodation	.12	--	.12
Companions	.37	--	.37
Substance Abuse	- .13	--	-.13
Attitude	.06	--	.06
Risk Context Scale			
Resource Engagement	-.13	--	-.13
Social Friendship Presence	-.22	--	-.22
Integration of Care	.24	--	.24
Social Stability	-.27	--	-.27

Current Problem Checklist			
Impulsivity	.06	--	.06
Boredom	-.27	--	-.27
Negative Affect	-.25	--	-.25
Social Pressure	.12	--	.12
Social Alienation	-.29	--	-.29
Interpersonal and Family Concerns	-.23	--	-.23
Substance Abuse	-.22	--	-.22
Financial/Employment	.04	--	.04
Leisure	-.16	--	-.16
		Self-Report	
Release and Reintegration Inventory (n = 21)			
Impulsivity	.23	--a	.23
Social Pressure and Associates	-.01	--	-.01
Excitement/Boredom	.43*	--	.43*
Negative Affect	-.07	--	-.07
Social Alienation	.16	--	.16
Substance Abuse	.10	--	.10
Financial/Employment	.17	--	.17
Interpersonal/Family Concerns	.40*	--	.40*

Leisure	.17	--	.17
PICTS Current Thinking	.03	--	.03
SAQ Criminal Tendencies[b]	.21	--	.21

Note: *p < .05. [a]No recidivism among completed scales. [b]n = 19. Base rates: Any Failure = .051 (fail_3_5), Severity of Failure = .051 (conv_3_5).

Table 13

Zero-order correlations between Wave 5 DRAS, LSI-R RRI, PICTS, SAQ RCS, CPC and outcome measures (Wave 5; N = 18)

Instruments	Any Failure	Violent Failure	Severity of Failure
		Ratings	
DRAS[a]	-.32	--	-.32
LSI-R (Total dynamic)	-.02	--	-.02
Employment/Education	-.15	--	-.15
Finances	.25	--	.25
Family	-.18	--	-.18
Accommodation	.30	--	.30
Companions	.00	--	.00
Substance Abuse	- .12	--	-.12
Attitude	-.02	--	-.02
Risk Context Scale			
Resource Engagement	-.12	--	-.12
Social Friendship Presence	.20	--	20
Integration of Care	-.28	--	-.28
Social Stability	-.11	--	-.11

Current Problem Checklist			
Impulsivity	-.02	--	-.02
Boredom	.38	--	.38
Negative Affect	-.18	--	-.18
Social Pressure	-.05	--	-.05
Social Alienation	.26	--	.26
Interpersonal and Family Concerns	-.16	--	-.16
Substance Abuse	-.03	--	-.03
Financial/Employment	.03	--	.03
Leisure	-.15	--	-.15
		Self-Report	
Release and Reintegration Inventory (n = 16)			
Impulsivity	.67*	--a	.67*
Social Pressure and Associates	.52*	--	.52*
Excitement/Boredom	.49	--	.49
Negative Affect	.35	--	.35
Social Alienation	.38	--	.38
Substance Abuse	.43	--	.43
Financial/Employment	.52*	--	.52*
Interpersonal/Family Concerns	.72*	--	.72*

Leisure	.46	--	.46
PICTS Current Thinking	.49	--	.49
SAQ Criminal Tendencies[b]	.52*	--	.52*

Note: *p < .05. [a]No recidivism among completed scales. [b]n = 19. Base rates: Any Failure = .022 (fail_4_5), Severity of Failure = .022 (conv_4_5).

Table 14

Zero-order correlations between each Wave of DRAS, LSI-R RRI, PICTS, SAQ, RCS, and the subsequent 2 months of follow-up for any failure.

	Any Failure within 2 months				
Instruments	Wave 1	Wave 2	Wave 3	Wave 4	Wave5
	Ratings				
DRAS[a]	-.12	.04	--	-.05	-.32
LSI-R (Total dynamic)	-.13	.06	-.02	.18	-.02
Employment/Education	-.05	.23*	.07	.15	-.15
Finances	-.06	.04	.02	.26	.25
Family	.06	-.11	.13	-.19	-.18
Accommodation	-.17*	.10	-.01	.01	.30
Companions	-.10	-.20	-.13	.30	.00
Substance Abuse	-.11	.10	-.11	-.10	-.12
Attitude	-.03	-.03	-.06	.05	-.02
Risk Context Scale					
Resource Engagement	--	.08	-.05	-.16	-.12
Social Friendship Presence	--	-.18	.09	-.21	20

Integration of Care	--	.12	.06	.25	-.28
Social Stability	--	.01	-.27	-.24	-.11
			Self-Report		
Release and Reintegration Inventory					
Impulsivity	.11	.10	.00	.18	.67*
Social Pressure and Associates	.04	.07	-.05	-.22	.52*
Excitement/Boredom	.11	.16	.16	.18	.49
Negative Affect	-.05	-.04	.01	-.28	.35
Social Alienation	.01	-.09	.06	-.03	.38
Substance Abuse	.07	.11	.16	-.13	.43
Financial/Employment	.06	.08	.12	-.07	.52*
Interpersonal/Family Concerns	.08	.01	.25	.01	.72*
Leisure	.21*	.04	.05	-.04	.46
PICTS Current Thinking	-.02	.21	-.04	-.26	.49
SAQ Criminal Tendencies	.00	-.07	.18	-.06	.52*

Note: *p < .05. [a]No recidivism among completed scales. Wave 1 N = 137,) [b]n = 19. Base rates: Any Failure = .022 (fail_4_5), Severity of Failure = .022 (conv_4_5). Wave 5 administration of instruments had only 1 month of subsequent follow-up. CPC omitted because of single items.

Table 15: *Cox Regression Analyses for Ratings of LSI-R Dynamic items and DRAS predicting Any Failure (N = 74).*

	Risk Ratio (95% Confidence Intervals)	
	Wald	Significance
LSI-R Dynamic Items	.19	.66
DRAS	.00	.95

Note: Overall model, $X^2 = .20$, ns.

Table 16: *Cox Regression Analyses for Release and Reintegration Inventory Scales of Impulsivity, Substance Abuse, and Leisure predicting Any Failure (N = 74).*

	Risk Ratio (95% Confidence Intervals)	
	Wald	Significance
Impulsivity	1.8	.18
Substance Abuse	.84	.26
Leisure	1.3	.36

Note: Overall model, $X^2 = 9.6$, $p < .02$.

Table 17: *Cox Regression Analyses for PICTS Current Criminal Thinking and the SAQ Criminal Tendencies predicting Any Failure (N = 74).*

	Risk Ratio (95% Confidence Intervals)	
	Wald	Significance
Current Criminal Thinking	.02	.90
Criminal Tendencies	3.1	.08

Note: Overall model, $X^2 = 3.5$, ns.

Table 18: *Cox Regression Analyses for RRI Impulsivity and the SAQ Criminal Tendencies predicting Any Failure (N = 74).*

	Wald	Significance
Impulsivity	3.6	.06
Criminal Tendencies	1.2	.28

Note: Overall model, $X^2 = 7.6$, $p < .02$.

Table 19

Zero-order correlations between each the raw score change between two waves of the DRAS, LSI-R RRI, PICTS, SAQ, RCS, and the subsequent 2 months of follow-up for any failure.

Instrument Change (Wave)	Wave 2_3	Wave 3_4	Wave 4_5	Wave 5
			Ratings	
DRAS (1_2)	.14	-.07	-.04	.00
DRAS (2_3)		.01	-.01	-.05
DRAS (3_4)			-.21	--a
DRAS (4_5)				--a
LSI-R (Total dynamic) (1_2)	.04	-.05	-.04	.04
LSI-R (Total dynamic) (2_3)		.13	-.01	- .27
LSI-R (Total dynamic) (3_4)			.22	--a
LSI-R (Total dynamic) (4_5)				--a
Employment/Education (1_2)	.17	.16	-.08	-.05
Employment/Education (2_3)		.20	.09	-.18
Employment/Education (3_4)			.00	--a
Employment/Education (4_5)				--a
Finances (1_2)	.04	-.06	-.08	-.03

Finances (2_3)		.10	.05	-.31*
Finances (3_4)			.34	--a
Finances (4_5)				--a
Family (1_2)	-.22	-.06	.05	.09
Family (2_3)		.08	.07	.01
Family (3_4)			.04	--a
Family (4_5)				--a
Accommodation (1_2)	.18	.15	.14	.13
Accommodation (2_3)		-.07	-.18	-.25
Accommodation (3_4)			.03	--a
Accommodation (4_5)				--a
Companions (1_2)	-.13	-.14	-.05	.02
Companions (2_3)		.04	-.04	.02
Companions (3_4)			.46	--a
Companions (4_5)				--a
Substance Abuse (1_2)	--a	-.14	-.14	-.03
Substance Abuse (2_3)		.03	.03	--a
Substance Abuse (3_4)			-.09	--a
Substance Abuse (4_5)				--a
Attitude (1_2)	-.02	-.20	-.11	.02

Attitude (2_3)		.06	-.01	-.14
Attitude (3_4)			-.16	--a
Attitude (4_5)				--a
Risk Context Scale				
Social Friendship Presence (2_3)	--	-.16	-.08	.14
Social Friendship Presence (3_4)	--		.18	--a
Social Friendship Presence (4_5)				--a
Resource Engagement (2_3)	--	.10	.15	.13
Resource Engagement (3_4)	--		-.40	-.40
Resource Engagement (4_5)	--			--a
Integration of Care(2_3)	--	-.27	.25	-.01
Integration of Care(3_4)	--		-.41	--a
Integration of Care(4_5)	--			--a
Social Stability(2_3)	--	-.29	-.15	.24
Social Stability(3_4)	--		.19	--a
Social Stability(4_5)	--			--a
		Self-Report		
Release and Reintegration Inventory				
Impulsivity (1_2)	-.01	-.15	-.18	-.05
Impulsivity (2_3)		.03	-.33	-.37*

Impulsivity (3_4)			.22	.32
Impulsivity (4_5)				--a
Social Pressure & Associates (1_2)	.06	-.01	-.02	-.01
Social Pressure & Associates (2_3)		.04	.11	.12
Social Pressure & Associates (3_4)			-.02	-.05
Social Pressure & Associates (4_5)				--a
Excitement/Boredom (1_2)	.21	.11	-.17	-.11
Excitement/Boredom (2_3)		.01	.21	.03
Excitement/Boredom (3_4)			.27	.31
Excitement/Boredom (4_5)				--a
Negative Affect (1_2)	.02	-.03	-.05	-.05
Negative Affect (2_3)		.23	-.08	-.16
Negative Affect (3_4)			.05	-.05
Negative Affect (4_5)				--a
Social Alienation (1_2)	.09	-.00	-.14	-.06
Social Alienation (2_3)		.29	.08	-.07
Social Alienation (3_4)			.28	.53*
Social Alienation (4_5)				--a
Substance Abuse (1_2)	.02	-.10	-.19	-.05
Substance Abuse (2_3)		.04	.05	-.06

Substance Abuse (3_4)			-.18	-.10
Substance Abuse (4_5)				--a
Financial/Employment (1_2)	.05	.02	.05	.14
Financial/Employment (2_3)		-.05	-.11	-.24
Financial/Employment (3_4)			.04	.02
Financial/Employment (4_5)				--a
Interpersonal/Family Concerns (1_2)	-.07	.18	.18	.03
Interpersonal/Family Concerns (2_3)		.03	-.11	.09
Interpersonal/Family Concerns (3_4)			.13	.15
Interpersonal/Family Concerns (4_5)				--a
Leisure (1_2)	-.03	.07	.12	.05
Leisure (2_3)		.00	-.14	-.24
Leisure (3_4)			.20	.47
Leisure (4_5)				--a
PICTS Current Thinking (1_2)	.03	.01	-.02	.01
PICTS Current Thinking (2_3)		.17	.04	-.12
PICTS Current Thinking (3_4)			-.08	-.09
PICTS Current Thinking (4_5)				--a
SAQ Criminal Tendencies (1_2)	.07	.13	.09	.13
SAQ Criminal Tendencies (2_3)		.17	-.12	-.27

SAQ Criminal Tendencies (3_4)	-.31	.02
SAQ Criminal Tendencies (4_5)		--a

Note: *p < .05. Wave 2_3 (N = 72), Wave 3_4 (N = 43), Wave 4_5 (N = 21), Wave 5 (N = 17). [a]Insufficient data for correlation.

Table 20: *Cox Regression Analyses for Ratings of LSI-R Dynamic items Change from Wave 1 to Wave 2 and DRAS Change from Wave 1 to Wave 2 predicting Any Failure (N = 60).*

	Wald	Significance
LSI-R Dynamic Items (W1_W2)	.62	.43
DRAS (W1_W2)	.02	.90

Note: Overall model, $X^2 = .74$, ns.

Table 21: *Cox Regression Analyses for Release and Reintegration Inventory Scales of Impulsivity, Substance Abuse, and Leisure Change from Wave 1 to Wave 2 predicting Any Failure (N = 46).*

	Wald	Significance
Impulsivity (W1_W2)	.49	.48
Substance Abuse (W1_W2)	.71	.40
Leisure (W1_W2)	.24	.62

Note: Overall model, $X^2 = 1.1$, ns.

Table 22: *Cox Regression Analyses for PICTS Current Criminal Thinking Change from Wave 1 to Wave 2 and the SAQ Criminal Tendencies Change from Wave 1 to Wave 2 predicting Any Failure (N = 47).*

	Wald	Significance
Current Criminal Thinking(W1_W2)	1.1	.30
Criminal Tendencies (W1_W2)	0.3	.58

Note: Overall model, $X^2 = 1.2$, ns.

Table 23: *Cox Regression Analyses for RRI Impulsivity and the SAQ Criminal Tendencies predicting Any Failure (N = 74).*

	Wald	Significance
Impulsivity (W1_W2)	.46	.50
Criminal Tendencies (W1_W2)	.97	.33

Note: Overall model, $X^2 = 1.2$, ns.

Table 24

Study Variable	Hispanic (n = 61)	African American (n = 47)	Caucasian (n = 27)
Any Failure	.13	.23	.15
LSI-R Criminal History	5.3	4.5	4.7
LSI-R Static Criminogenic items	5.1	5.2	6.0
LSI-R Dynamic Criminogenic items	9.3	9.5	12.6

Table 25

	Hispanic (*n* = 61)			African American (*n* = 47)			Caucasian (*n* = 27)		
	Any Failure	LSI-R Criminal History	LSI-R Static Criminogenic	Any Failure	LSI-R Criminal History	LSI-R Static Criminogenic	Any Failure	LSI-R Criminal History	LSI-R Static Criminogenic
LSI-R Criminal History	-.06			-.08			.21		
LSI-R Static Criminogenic	-.06	.58**		.08	.19		.28	.23	
LSI-R Dynamic Criminogenic	-.26*	.45**	.49**	-.29*	.35*	.52**	.22	.25	.45*

Note. * = $p < .05$, ** = $p < .001$

Table 26

AUCs of the Predictors with Any Failure

Study Variable	Hispanic (*n* = 61)	African American (*n* = 47)	Caucasian (*n* = 27)
LSI-R Criminal History	.488	.451	.690
LSI-R Static Criminogenic items	.474	.543	.717
LSI-R Dynamic Criminogenic items	.288	.285	.652

D. Figures

Figure 1

Current Problem Checklist (CPC)

Participant Coding number _____

Please rate the role each area is having with re-entry.

1. Impulsivity

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

2. Boredom

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

3. Negative Affect

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

4. Social Pressure

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

5. Social Alienation

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

6. Interpersonal and Family Concerns

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

7. Substance Abuse

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

8. Financial/Employment

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

9. Leisure

1 2 3 4 5 6 7 8 9
Much difficulty Minimal difficulty

Figure 2

Social Release Sheet (CPRG – Social)

Instructions: Based on the last month to the past 4 months rate the following items on your client. Rating end-points ("1" or "9") are used between 5 to 10% of the ratings.

Date: _____ _____ _____
YYYY MM DD

Participation in Social Structures / Situations

1. Effort needed by supervisor/clinician for the fulfillment of supervision/treatment requirements

1	2	3	4	5	6	7	8	9
Minimal effort		Average effort			Strong effort more than other other clients			Substantial effort

2. Strength of non-professional involvement

1	2	3	4	5	6	7	8	9
Family & friends highly involved			Only family or only friend		Poor quality & inconsistent			no non-professional is involved

3. Willingness of client to allow for Professional involvement

1	2	3	4	5	6	7	8	9
High willingness	Compliance with no encouragement		encouragement		Compliance, but only on issues that have immediate benefit			Poor Compliance

4. Participation of different social structures

1	2	3	4	5	6	7	8	9
coordinated in providing services			Participation only when showing symptoms				Only when similar to incident	(i.e., mental health, criminal event)

5. Based on the client's current lifestyle, rate the potential of him/her entering into high risk situations

1	2	3	4	5	6	7	8	9
Positive lifestyle			low potential		moderate		high potential for high risk situations (i.e., guns, substances, lack of money victim group, criminal associates)	

6. Participation in positive social structures

1	2	3	4	5	6	7	8	9
More than 3 social structures			Two		One		No involvement	

(supervision, family, sports, work, church, mental health clinic, school)

7. Quality of friendships

1	2	3	4	5	6	7	8	9
	Stable		Casual		Criminal associates and casual		Loner	

8. Housing

1	2	3	4	5	6	7	8	9
Somewhat stable			One of three (Daily, unstructured, and criminal setting)		Two of three		Three of three	

9. Availability of non-family resources

1	2	3	4	5	6	7	8	9
Easy access to professional and non professional support			Access to either		Difficult to access non-family resources		Very difficult to access non-family resources - geographic and personal limitations	

10. Number of inconsistent or stable resources available (do not rate if used or not, only if available

1	2	3	4	5	6	7	8	9
None	One inconsistent	two inconsistent	three inconsistent	one stable	one stable w/ one inconsistent	two	Two stable	three (+) stable

(home care, immediate family, extended family, work, school, counsellor, friend, pastor)

11. Stability of Family Unit

1 2 3 4 5 6 7 8 9
Highly stable ↓ Stable with one Changes in ↓ Unstable
↓ In non-functional stability frequent
↓ role changes
stable, split from
partner, but still amicable

12. Friends

1 2 3 4 5 6 7 8 9
Has many friends Has very few acquaintances

13.

1 2 3 4 5 6 7 8 9
Delights in chatting with others much Does not talk

14.

1 2 3 4 5 6 7 8 9
Feels uncomfortable around others Seems to enjoy people

15. Interpersonal participation

1 2 3 4 5 6 7 8 9
Avoids being around people Participates in group activities

16. Family ties (immediate family or extended family who function as immediate family)

1 2 3 4 5 6 7 8 9
Close family ties no family ties Critical of family

17. Coordination of professional involvement (includes entities like AA, home care)

1 2 3 4 5 6 7 8 9
Three or more groups coordinate effort Three or more but no coordination Two involved Only involvement by one when severe symptoms present

18. Coordination of non-professional involvement

1	2	3	4	5	6	7	8	9
Three or more groups coordinate effort		Three or more but no coordination			Two involved		One	Only involvement by one when severe symptoms present

(family, sports, church, work, school)

19. Continuousness of professional care

1	2	3	4	5	6	7	8	9
No breaks	↓ ↓ supervision			Break in care after legal requirements			Care only when severe symptoms present	

20. Continuousness of non-professional care

1	2	3	4	5	6	7	8	9
No breaks				no family	inconsistent/ unpredictable		Care only when severe symptoms present	

Conclusions

Discussion of findings

Contrary to prior studies (e.g., Beech, Friendship, Erikson, & Hanson, 2002; Brown, 2002) we were unable to use dynamic risk factors to significantly improve accuracy over static risk factors in the prediction of criminal risk. Notably, the inter-rater reliability at Wave 2 was notably poorer for the DRAS than was obtained at Wave 1 (the LSI-R produced stable inter-rater reliability at Waves 1 & 2). Furthermore, the nature of the dynamic variables utilized in this study appeared unstable for this population as convergent validity was not obtained. Consequently, the majority of hypothesized relationships were not obtained in this study (note: additional analyses to better understand the relationships of static and dynamic variables in this study are being completed, and reports will be made available to the National Institute of Justice). Of greatest surprise in this study was that changes in dynamic functioning were not associated with changes in community outcomes. It was expected that by measuring changes in offenders functioning we would be able to identify criminal risk; however, this relationship did not materialize. The limitations noted in this report (i.e., altered methodology that prohibited Wave 1 assessment from occurring in the institution, inter-rater reliability concerns, instability of dynamic measures) likely contributed to this outcome and further examination of the data is ongoing.

Of note was there was some evidence that offenders are able to indicate when they are at risk for re-offense. As evidenced in this study, offenders were able to self-predict when their impulsivity, substance abuse, or leisure was interfering with their parole success (i.e., they were able to indicate problems in these domains prior to their failure). These findings, though susceptible to type I error, may prove direction for the fields future research as it appears that we need to incorporate offender evaluations of their future success into risk assessment

considerations. That is, we need to question offenders around those issues that are placing them most at risk.

Although the results of this study were surprising in that the dynamic variables did not improve prediction of failure over static variables, some findings were expected. For example, consistent with previous research, interruption of care (failure to maintain continuity of care) and impoverished housing situations is predictive of community failure. This provides further evidence that support instituted in an institution should be continued in as fluid a manner as possible (i.e., achieve continuity of care) when offenders re-enter society. Furthermore, if basic housing needs are not met, offenders will likely not experience a successful re-entry.

Of greatest concern from the results of this study is further evidence of cultural insensitivity of static predictors and the potential that dynamic measures may also not be culturally sensitive (i.e., they do not perform as well for non-white males as for white males). Although this analysis was considered post-hoc, it is nevertheless, consistent with previous research (Fass et al., 2008; Schlager & Simourd, 2007), and suggests that much more research is needed to determine the appropriateness of the measures included in this study for non-white populations. This is a concern that has become increasingly evident as a problem in United States legal proceedings involving risk assessments (see Campbell, 2010), and is enhanced by the fact that the majority of risk assessment measures currently available were normed on white males, particularly in Canada. Clearly, much more work in this area is necessary. It may no longer be acceptable to rely on Canadian developed risk measures for non-white/non-Canadian offenders with the rational that there is no better measure available to guide our practices -- the current measures may not adequately guide our practices for those individuals that do not fit the specific characteristics of the normative sample

Implications for policy and practice

We anticipated that the results of this study would provide both practical/operational deliverables and theoretical advances for clinicians, criminal justice administrators, and policy makers alike. In addition, it was anticipated that the results of this study would establish a foundation from which to pursue future advances.

Although the results of this study did not produce the anticipated findings, two practical results were obtained. First, offenders offer an important piece of information when it comes to predicting successful re-entry. Asking offenders about problem areas that increase their risk for community failure should become standard operating practice for all probation and parole officers. Too often the offender is not included as a source of information in risk assessments with minimal involvement in the preparation for release or the anticipation of problem areas to be addressed. The results of this study suggest offenders not only can, but should be involved in their preparation for release and concerns should become active targets for intervention.

Additionally, it appears that standardized risk assessment measures and potentially newer dynamic measures are not culturally sensitive. Given arrest and conviction rates of non-white individuals, it is imperative that future research examine the utility of current risk assessment measures for non-white offender populations. In addition, until further information is provided, clinicians must be cognizant of the cultural limitations of their measures and clinical decisions/recommendations should be made accordingly.

Implications for further research

Much work remains to be done in the field of criminal risk assessment. Despite the results of this study, including reliability and predictive validity of selected measures; future research should improve upon the limitations of this and the Quinsey et al (2006) studies. Specifically, we

make the following methodological recommendations to improve the nature of this work: Assessing offenders' once-per-month was too frequent, and six month follow-up period was too brief. The assessment plan utilized in this study proved taxing and did not provide an adequate base-rate to maximize assessment of static versus dynamic risk factors. Furthermore, offenders' situations changed minimally during the course of this study, simply as a function of limited time for changes in life situation. Thus, it is recommended that future studies of this nature assess offenders at three month intervals for a minimum of 18 months. Notably, this would provide the same number of assessment contacts per offender as was sought in this study (i.e., 6 contacts post release).

As noted above, this study was limited by offender's time to participate as the assessments were not part of the parole office visit. That is, to participate, offenders had to be willing to spend the required assessment time beyond the time of their parole office visit. Although the majority of offenders were willing to participate and often provided data in spite of time restrictions, incorporating the assessment into the parole office visit and/or integrating the parole officer into the assessment process will likely improve compliance and reduce missing data. To further reduce time constraints for participants, although the continued use of self-report measures is warranted, it is also recommended that future research use fewer self-report measures (see Brown, Amand, & Zamble, 2009) and rely on parole officer ratings. In addition to reducing offender attrition from study burnout, it is possible that a revised methodology along these lines would produce greater dynamic predictive ability and more closely simulate real work risk assessment. Given the time commitment of participation in longitudinal research of this nature, compensating offenders for their time would likely decrease participation attrition that is not related to failure.

Finally, it is recommended that future clinicians and researchers incorporate data guided follow-up assessment based on dynamic prediction (triage assessment plan) into their work and research protocols. Although we were unable to incorporate this strategy into this study, such a procedure would prove a significant advance for the field. Furthermore, it would likely produce the most reliable and valid measure of risk prediction and likely establish a new standard for evidenced-based risk assessment.

Concluding comment

The present project experienced a number of methodological challenges due to the real world complexities of collecting multiple wave information among offenders within the community resulting in limitations for the generalizability of the results. Some of these limitations related to the site of data collection, sample of relative convenience, lack of multiple controls, maturational issues, and no interfacing with Parole Officers. These challenges were not all evident at the beginning of the project and adaption of method compensated in some measure but not sufficient to overcome the primary limitation of statistical power. At that time there were no criminal justice studies that examined the ability of standardized instruments to dynamically predict failure over 6 months. Thus, some design features were sacrificed for fidelity and increasing understanding in the assessment of dynamic risk over time at a parole office. This has resulted in specific findings related to dynamic risk, such as the importance of self-prediction, which, over time will move the dynamic risk assessment field forward.

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Dissemination of Research Findings

Publications and presentations resulting from this award are listed below.

Publications

Morgan, R. D., Kroner, D. G., Mills, J. F., Serna, C., & McDonald, B. et al. Dynamic risk prediction: Reliability and validity of a multiphase longitudinal study. Manuscript in preparation for publication (anticipated submission date: November 2011).

Kroner, D. G., Morgan, R. D., Mills, J. F., Serna, C., McDonald, B. & et al. Changes in self-report and risk context over time. Manuscript in preparation for publication (anticipated submission date: December 2011).

Mills, J. F., Morgan, R. D., Kroner, D. G., Serna, C., McDonald, B. & et al. Predicting community failure: Cultural limitations of existing measures. Manuscript in preparation for publication (anticipated submission date: January 2012).

Additional manuscripts to be completed upon further data analyses.

Conference Presentations

Morgan, R. D (June, 2011). Dynamic risk assessment: An overview. In D. G. Kroner (Chair), *Dynamic risk assessment: Examination of a 6-wave study with outcome data.* Symposium conducted at the Second North American Correctional and Criminal Justice Psychology Conference, Toronto, Canada.

Kroner, D. G., Morgan, R. D., Mills, J. F., Serna, C., Bewley, M. T. (March 2010). *Dynamic risk Assessment: Can we get there?* Paper presented at the annual convention of the American Psychology-Law Society, Vancouver, Canada.

Morgan, R. D., Kroner, D. G., Mills, J. F., Serna, C., & Bewley, M. T. (August 2009). Can We Use Dynamic Risk to Predict Future Criminal Behavior? In Garcia, M. (Moderator). *Answering Questions about Prisoner Reentry.* Workshop presented at the annual convention of the American Probation and Parole Association, Anaheim, CA.

Morgan, R. D., Kroner, D. G., Mills, J. F., Bauer, R., & Serna, C. (August 2009). *Dynamic Risk Assessment in Criminal Justice: Can We Get There?* Poster presented at the annual convention of the American Psychological Association, Toronto, Canada.