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The Predictive Validity of a Gender-Responsive Needs Assessment

An Exploratory Study

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Risk assessment and classification systems for women have been largely derived from male-based systems. As a result, many of the needs unique to women are not formally assessed or treated. Emerging research advocating a gender-responsive approach to the supervision and treatment of women offenders suggests that needs such as abuse, mental health, substance abuse, relationship difficulties, self-esteem, self-efficacy, and parenting issues are important treatment targets. Although these needs may be highly prevalent among women offenders, they have not been adequately tested to determine their relationships with future offending. In response, the present study sought to understand whether gender-responsive needs contributed as risk factors to poor prison adjustment and community recidivism. Additionally, several types of risk assessment models were explored to determine whether gender-responsive needs enhanced the validities of currently established risk classification.

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systems (i.e., a state's institutional custody scale and the Level of Service Inventory-Revised). Patterns of results differed across prison and community outcomes, with some gender-responsive needs contributing to more valid risk assessment systems. As a pilot study, the results, although mixed, appear to support continued research on this topic.

Keywords: *women offenders; risk-needs assessment; gender-responsive*

Correctional researchers and practitioners focus their attentions on men largely because they comprise the majority of convicted offenders in the United States. Indeed, women offenders represent only 7% of the U.S. prison population (Bureau of Justice Statistics, 2005). However, recent statistics indicate that the female prison population is growing at an alarming rate—faster than the male prison population. Since 1995, the total number of incarcerated women has increased 53%, whereas the total number of incarcerated men has increased 32% (Bureau of Justice Statistics, 2005).

This escalation draws attention to current state and federal practices for assessing and classifying women offenders in both institutional and community corrections. Such classification systems involve the use of statistically derived, actuarial assessments to achieve two purposes (Van Voorhis, 2004). The first, and largely viewed to be the most important purpose, is to predict an offender's likelihood of recidivism or an inmate's likelihood of serious misconducts. Ultimately, the resulting risk score determines the custody level of one's prison assignment if incarcerated or level of community supervision if on probation or parole. The second purpose of correctional classification is to identify needs that must be addressed, or programmed for, to meet basic needs, change offender behavior, or assure humane prison adjustment (Clements, McKee, & Jones, 1984).

Given their import to the lives of offenders, it is extremely unfortunate that most correctional classification systems were originally developed for men and subsequently applied to women with little regard for their validity or appropriateness (Bloom, Owen, & Covington, 2003; Chesney-Lind, 1997; Morash, Bynum, & Koons, 1998; Van Voorhis & Presser, 2001). With respect to prison classification, for example, a recent national survey of state correctional classification directors found that 36 states had not validated their institutional classification systems on their female inmates (Van Voorhis & Presser, 2001). In addition, the directors opined that many of the prison risk assessment systems, or custody classification systems,[1] resulted in "overclassification" of women. In other words, women were held at higher custody levels than warranted by their behavior. Finally, many directors

felt that the current generation of classification systems failed to address the unique needs of women offenders, particularly those pertaining to mental health, children and parenting, relationships, self-esteem, and abuse (Van Voorhis & Presser, 2001).

Risk assessments designed for community correctional agencies generate similar concerns. Distinct from the institutional risk assessments in that needs and criminal history factors are combined into a single instrument, these assessments are faulted by an emerging literature on gender-responsive programming (Bloom et al., 2003) for their failure to tap needs optimally relevant to women offenders. The omission of gender-responsive factors from current community assessments is attributed to the fact that they too were constructed from research samples of male offenders (Blanchette, 2004; Blanchette & Brown, 2006; Brennan, 1998; Brennan & Austin, 1997; Farr, 2000; Reisig, Holtfreter, & Morash, 2006). As a result, the gender-responsive factors (e.g., abuse or trauma, parenting, mental health, relationships, self-esteem) have not been adequately tested to determine whether they are risk factors for future offending.

This article empirically examines the issue of whether current correctional classification instruments are valid and relevant to women offenders. We explore this issue with respect to both institutional and community corrections. In doing so, a number of questions are addressed. First, are current prison and community risk assessments predictive of appropriate offense-related outcomes (e.g., serious prison misconducts in the case of prison risk assessment and new offenses and technical violations in the case of community risk assessment)? Second, might the emerging gender-responsive needs also be considered risk factors for future offending? Third, might consideration of gender-responsive factors improve on the current risk assessment models for women? In this sense, we compare the predictive strength of commonly used predictors[2] to the array of women's needs emerging from the gender-responsive literature (Belknap & Holsinger, 2006; Bloom et al., 2003; Brennan, 1998; Covington, 1998; Funk, 1999; Holtfreter & Morash, 2003; McClellan, Farabee, & Crouch, 1997; Morash et al., 1998; Owen, 1998).

Risk, Needs, and Correctional Policy

Historically, correctional classification differentiated the assessment of risk from the assessment of needs (Van Voorhis, 2004). Early risk assessment scores represented a numerical sum of statistically derived predictors

*(*risk factors*)* pertaining to static, current offense, and criminal history measures (Bonta, 1996). Needs assessments, on the other hand, briefly screened for the presence of educational, employment, substance abuse, mental health, family, financial, or medical needs. Our research is embedded in a more recent innovation in classification—the discovery that many of these needs are also risk factors, predictive of prison misconducts, technical violations, and new offenses (Andrews, Bonta, & Hoge, 1990). As such, the most recent generation of risk assessment instruments are now composed of both offense-based predictors (e.g., measures of seriousness of the current offense and prior record) and needs that are also known to be predictive of new offenses or correctional misconducts (Bonta, 1996). Consequently, the latest generation of risk assessments, called *dynamic risk or needs assessment instruments*, serve a dual function; they assess risk and direct correctional practitioners to the needs that contribute to an offender's prospects for future offending.

Community correctional agencies have moved more quickly to dynamic risk assessment instruments than prisons, which stay wedded to the static risk assessments comprised of measures of criminal history. However, with the advent of prisoner re-entry initiatives (Petersilia, 2003; Travis, 2005) and the commensurate policy that planning for prison release begin at prison entry with a strong understanding of offender needs as they pertain to risk upon release, a number of states are implementing dynamic risk or needs assessments in prisons. New re-entry models, such as the National Institute of Corrections (NIC) Transition from Prison to Community Initiative (http://nicic.org/Library/017520), encourage the use of dynamic risk assessment tools even though offenders are incarcerated. Although the purpose of such use is for planning release decisions rather than custody decisions, some studies have nevertheless observed that the dynamic instruments also predict institutional misconducts (Bonta, 1989; Bonta & Motiuk, 1987, 1990, 1992; Kroner & Mills, 2001; Motiuk, Motiuk, & Bonta, 1992; Shields & Simourd, 1991). The most well-known dynamic assessments of this kind are the Northpointe COMPAS (Northpointe Institute for Public Management, 1997) and the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995).

These dynamic risk or needs assessment models relate well to current correctional priorities. In most correctional policy circles, risk is cited as the driving force behind correctional budgets, institutional construction, and correctional programming (Cullen, Fisher, & Applegate, 2000; Feeley & Simon, 1992). It follows, then, that risk factors, or predictors of recidivism, must be given priority for treatment dollars over factors that are not

predictors of recidivism. This paradigm is supported by a series of widely acclaimed meta-analyses of experimental studies of correctional rehabilitation programming (Andrews, Zinger et al., 1990; Gendreau, Little, & Goggin, 1996; Izzo & Ross, 1990; Lipsey, 1992). Two principles—the risk principle and the needs principle (Andrews, Bonta, & Hoge, 1990; Andrews, Zinger et al., 1990)—emerged from the meta-analytic research and have come to have a profound impact on correctional practice and funding priorities. The risk principle builds from findings showing that the most effective programs (those achieving the greatest reductions in recidivism) were those that directed intensive services to medium- and high-risk clients (Andrews, Zinger et al., 1990; Bonta, Wallace-Capretta, & Rooney, 2000; Lipsey, 1992; Lipsey & Wilson, 1998; Lowenkamp & Latessa, 2002, 2005; Lowenkamp, Latessa, & Holsinger, 2006).[3]

The needs principle illustrates that reductions in recidivism can be achieved only through targeting dynamic risk factors defined as needs that are correlated with future offending (Andrews, Bonta, & Hoge, 1990; Andrews, Zinger et al., 1990). Of crucial importance to women offenders, especially in light of the fact that the needs principle is a policy directive, is the issue that needs targeted for treatment are essentially those embedded within the current generation of dynamic risk assessments. These dynamic risk factors include such needs as antisocial attitudes, criminal peers, substance abuse, education, employment, satisfaction with family life, and financial well-being. Additionally, it has been argued that the "big four" risk factors (i.e., antisocial attitudes, peers, personality, and criminal history) are the strongest predictors of recidivism and therefore should be the primary focus of most correctional programs (Andrews & Bonta, 2003). In this context, it is widely accepted that correctional programs should target the traditional needs listed above through social learning and cognitive-behavioral treatment modalities (Andrews & Bonta, 2003; Andrews, Zinger et al., 1990; Antonowicz & Ross, 1994; Garrett, 1985; Gendreau, 1996; Izzo & Ross, 1990; Lipsey, 1992; Lipsey, Chapman, & Landenberger, 2001; Lösel, 1995; Pearson, Lipton, Cleland, & Yee, 2002).

Thus, it is assumed by many that the empirical search for the dynamic risk factors that should be included in risk assessment instruments is over. After all, the dynamic risk factors and the principles discussed above were identified in a series of rigorous meta-analyses (Andrews, Zinger et al., 1990; Garrett, 1985; Gendreau et al., 1996). Until recently, the fact that these meta-analyses contained very few studies of women offenders did not dissuade scholars or practitioners from assuming that women's assessments and programs should look like men's assessments and programs (Chesney-Lind,

2000). In support, a meta-analysis that sampled a much smaller number of studies found that the factors enumerated above predicted new offenses and other adverse outcomes for women (Dowden & Andrews, 1999). Additional studies have found the dynamic risk assessment instruments to be valid for women (Andrews, Dowden, & Rettinger, 2001; Blanchette & Brown, 2006; Coulson, Ilacqua, Nutbrown, Giulekas, & Cudjoe, 1996; Holsinger, Lowenkamp, & Latessa, 2003), but others reported areas of divergence (Blanchette, 2005; Law, Sullivan, & Goggin, in press; Olson, Alderden, & Lurigio, 2003; Reisig et al., 2006). It is noteworthy, however, that few studies speak directly to the recommendations from the gender-responsive literature. A critical question, asked mostly by nonsupportive stakeholders, concerns whether the gender-responsive attributes of trauma, dysfunctional relationships, self-esteem, self-efficacy, parenting, and other family issues are risk factors or simply problems that are highly prevalent in the troubled lives of women offenders but not related to future offending (Blanchette & Brown, 2006). If the latter, many would concur that these issues are not important from a policy standpoint.

Classification and Women Offenders

What are the implications of this situation for women offenders? Clearly there is no lack of policy governing the treatment of women offenders because essentially it is the same policy governing the treatment of men sans the supporting research. Women offenders did not factor into the development of any currently-used risk assessment instruments. This situation is most egregious with respect to prison custody classification systems—those risk assessment systems that continue to use static, current offense, and criminal history predictors of prison misconducts. As noted above, as of 2001, approximately 36 states had not validated their custody assessments for women offenders (Van Voorhis & Presser, 2001). Contrary to ethical guidelines in the fields of psychology and education (American Association of Correctional Psychologists Standards Committee, 2000; American Psychological Association, 1992), women were assigned to different custody levels, including maximum, on the basis of criteria that were not known to be related to security concerns for imposing adverse conditions, such as greater distances from home, fewer privileges, and more austere environments, for purposes of security (Hardyman & Van Voorhis, 2004; Van Voorhis & Presser, 2001).

Flaws in the custody assessments have appeared apart from validation research. In the absence of empirical studies, focus groups with administrators and female inmates have observed repeatedly that troubled inmates make more difficult adjustments than inmates with high custody scores (Hardyman & Van Voorhis, 2004).

Even in those few studies where risk assessment (custody) instruments proved valid for women, women at higher custody levels incurred less serious misconducts than men at the same level. For example, the few comparative studies of male and female prison populations available found that the proportion of women in maximum custody who incurred serious prison misconducts more closely approximated the proportion of medium custody men who committed such acts (Brennan, 1998; Fowler, 1993; Hardyman & Van Voorhis, 2004). Overclassification occurs with the dynamic risk or needs instruments as well. In one study, for example, the difference in recidivism rates for high-risk men was 10% higher than the rate for high-risk women (Washington State Institute for Public Policy, 2003). Correcting the problem through adjustment to cut points differentiating risk levels, so that men and women have similar behavioral outcomes, greatly reduces the number of women appropriate for maximum custody (Harer & Langan, 2001), with implications that are likely to be difficult to sell to correctional officials.[4]

A final implication of the current classification practices for women stems from the fact that popular dynamic risk assessments do not converge with the emerging gender-responsive literature. If it were not for the fact that risk, as embodied in terms such as risk management, security, and community safety, is the central guiding force of correctional policy (Cullen et al., 2000) and correctional classification both of men and women (Feeley & Simon, 1992; Van Voorhis & Presser, 2001), the field might be content to simply observe that women have unique needs that require treatment and to proceed to develop new programs for women—programs to address parenting, trauma, relationships, and depression, for example. Yet the policy imperatives of the risk and need principles have accorded priority to those dynamic risk factors that have been identified through research on predominately male offenders. There appears to be no place for gender-responsive factors in this paradigm, and in this context, their import is likely to be overshadowed by assessments that ignore them.

In response, the present study administered a number of assessment instruments to a cohort of women offenders upon their admission to the Department of Corrections (DOC) in a western state. These assessments included the state's Intake Custody Classification Instrument, the LSI-R (Andrews & Bonta, 1995), and a series of scales designed to tap the aforementioned

gender-responsive measures (Van Voorhis, Pealer, Spiropoulos, & Sutherland, 2001). The women were followed up at 6 months while incarcerated and for up to 44.2 months upon their release in the community for purposes of obtaining outcome variables pertaining to prison misconducts, community recidivism, and violations of supervision conditions.

Women's Unique Needs

The emerging literature on gender-responsive strategies for women offenders (Berman, 2005; Bloom et al., 2003) offers much support for the belief that had we started with women, the current generation of risk or needs assessments might look quite different from the status quo. Women offenders have increasingly become understood as a unique population, evidencing different pathways to crime in comparison to men (Bloom et al., 2003; Daly, 1992, 1994; Owen, 1998; Reisig et al., 2006; Richie, 1996). These pathways acknowledge the following needs: (a) extensive traumatic and abusive histories; (b) experiences of acute mental illness, most typically major mood disorders (i.e., depression, anxiety, PTSD); (c) issues with self-esteem and self-efficacy; (d) dysfunctional relationships, especially with intimate others; (e) overwhelming parental responsibilities; and (f) substance abuse, often to self-medicate emotional or physical pains.

Victimization and Abuse

Research has shown that women under correctional supervision are more likely to experience physical and sexual abuse as children and adults than male offenders or women in the general population (Bureau of Justice Statistics [BJS], 1999; McClellan et al., 1997). The BJS (1999) reported that percentages of female offenders reporting physical abuse at some point in their lives ranged from 32% to 47%, depending on the type of correctional population examined. For male offenders, percentages ranged from 6% to 13%. Even more staggering were reports of sexual abuse—for women, figures were between 23% to 39%; for men, they fell between 2% to 6% (BJS, 1999). The rates of abuse reported by BJS may be conservative estimates, as other studies found rates of physical abuse among women as high as 75% (Browne, Miller, & Maguin, 1999; Greene, Haney, & Hurtado, 2000; Owen & Bloom, 1995).

Research exploring associations between various victimization types and crime offer somewhat inconsistent conclusions. Although evidence is

mounting in support of the relationship between child maltreatment and delinquency in young girls (Hubbard & Pratt, 2002; Siegel & Williams, 2003; Widom, 1989; but also see Giordano, Deines, & Cernkovich, 2006), the link between victimization experiences (both child and adult) and women's recidivism seems much less conclusive. Previous research either revealed no significant association once other relevant variables were controlled (Bonta, Pang, & Wallace-Capretta, 1995; Loucks & Zamble, 1999; Rettinger, 1998), or significant and/or near-significant negative associations, implying that abused women were less likely to engage in future criminal activity than those who were not abused (Blanchette, 1996; Bonta et al., 1995). Additionally, Lowenkamp, Holsinger, and Latessa (2001) showed that the prevalence of child abuse alone did not contribute to more explained variation in recidivism than by the LSI-R alone. A potential limitation of several of these studies is that women offenders were asked about childhood abuse in an interview format, which could have resulted in underreporting (Browne et al., 1999).

In contrast, prospective studies of young girls followed into adulthood revealed evidence supporting the link between childhood victimization and adult criminal behavior. Comparing abused and nonabused girls' juvenile and adult records, Widom (1989) found that girls who were abused and neglected were significantly more likely to have both a formal juvenile delinquency record and a formal adult criminal record compared to girls who were not abused nor neglected.[5] Similar results were also found by Siegel and Williams (2003) who studied girls struggling with sexual abuse histories.

A recent meta-analysis of the female offender risk prediction research indicated some empirical support for the childhood victimization–recidivism relationship. Law, Sullivan, and Goggin (in press) found a moderately significant mean effect size when predicting general community recidivism from measures of child abuse ($k = 11$, $Mz^{+} = .16$, $CI_{Mz+} = .12$ to $.19$). The mean effect size for adult victimization and general community recidivism fell into a significant, but unreliable, range; that is, the confidence interval was too wide, suggesting there were not enough primary studies to create a reliable estimate. Notably, Law et al.'s results further suggested that the victimization relationships may be dependent on the type of recidivism predicted: With child abuse, significant mean effect sizes were exhibited only with general community recidivism and not with measures of institutional adjustment.

Overall, the relationship between abuse and criminal behavior in adult women is mixed, likely as a result of studies (a) utilizing various techniques

to measure victimization and (b) predicting different types of recidivism. Moreover, current meta-analyses are not entirely conclusive because of the limited number of available studies.

Mental Health

The mental health needs of female offenders differ substantially from those of male offenders. Depression, anxiety, and self-injurious behavior are more prevalent among female than male populations (Belknap & Holsinger, 2006; Bloom et al., 2003; McClellan et al., 1997; Peters, Strozier, Murrin, & Kearns, 1997). Disorders commonly seen with women offenders include major mood disorders such as depression and bipolar disorder, as well as panic, posttraumatic stress, and eating disorders (Bloom et al., 2003). Most importantly, women suffer from several co-occurring mental health needs such as depression and substance abuse (Bloom et al., 2003; Holtfreter & Morash, 2003; Owen & Bloom, 1995) at rates that are nearly four times the rate for men (Blume, 1997). Similarly, phobic disorders were observed at more than twice the rate, and panic disorders at three and a half times the rate for men (Blume, 1997).

In some accounts, mental health needs are categorized as responsivity factors rather than dynamic risk factors. In such discussions, depression, anxiety, and other psychological issues are considered needs, which should be accommodated for a variety of reasons but not necessarily for reducing future criminal behavior (Andrews, Bonta, & Hoge, 1990). After reviewing the prediction literature on mental health, Blanchette and Brown (2006) concluded that "personal distress, mental ability, and mental health variables are not strongly associated with women's likelihood of recidivism" (p. 105).

However, two significant problems afflict most research in this area. First, traditional mental health domains on risk assessment instruments are driven largely by the offender's exhibition of severely psychotic behavior. Major mood disorders, such as those frequently seen with women, can be overlooked if they have not been previously diagnosed and recorded. Better measures of women's mental health issues are needed, namely behaviorally specific indicators of depression, anxiety, and PTSD. In this context, stress, depression, fearfulness, and suicidal thoughts and attempts have shown to be strong predictors of women's recidivism (Benda, 2005; Blanchette & Motiuk, 1995; Brown & Motiuk, 2005), though not for men's recidivism (Benda, 2005).

Second, prediction studies frequently aggregate mental illness indicators into broad mental health domains that could potentially confound relevant

associations. For example, results from Law et al.'s (in press) meta-analysis suggested that women offenders' mental health aspects are significantly related to both institutional (k = 26, Mz^{+} = .07, CI_{Mz+} = .02 to .11) and community outcomes (k = 13, Mz^{+} = .09, CI_{Mz+} = .06 to .12). Although these mean effect sizes are relatively weak in strength, the study's mental health domains reflected an amalgam of heterogeneous indicators of mental illness. This method of aggregation could mask important relationships between specific types of mental illness and recidivism. Essentially, the psychological issues specific to women offenders have not been rigorously tested for their import to the task of risk assessment.

Dysfunctional Relationships

Relationships are certainly of great importance to all people, but they are critically so for women. According to relational theory, a woman's identity, self-worth, and sense of empowerment are said to be defined by the quality of relationships she has with others (Gilligan, 1982; Kaplan, 1984; Miller, 1976; Miller & Stiver, 1998). However, because of the high rates of abuse, trauma, and neglect experienced by female offenders, their ability to recognize and achieve healthy, mutually empowering relationships is severely limited (Covington, 1998). Indeed, women offenders often engage in codependent relationships that facilitate their criminal behavior (Koons, Burrow, Morash, & Bynum, 1997; Richie, 1996). Extricating themselves from dysfunctional relationships appears to be quite difficult. If forced into a choice of either being abandoned (or abused) by their intimate partner or engaging in criminal behavior to secure his needs, the decision often becomes an easy one for women (Richie, 1996), one which is tied to the continued fulfillment of a multitude of needs (e.g., economic, housing, parental, addictive, etc.).

Relational theory (Miller, 1976) generally speaks to the treatment modalities that would be most effective with women, but it remains largely silent on theoretical explanations of female offending, other than to inform a pathways perspective. However, one plausible proposition gleaned from the theory is that females are less inclined to engage in criminal behavior because it threatens crucial relationships in their lives (Blanchette & Brown, 2006). This explanation, however, may only pertain to women with strong prosocial relationships, because the same relational attachment process might also explain women's increased participation in crime if they are engaged in antisocial relationships. With so few studies of the impact of relationships on criminal behavior, these matters are far from resolved. In fact, one study revealed that relationships with intimate partners had both

positive and negative influences on women offenders (Benda, 2005). In this study, criminal partners played a significant role in women's recidivism (more so than men's recidivism); at the same time, women's desistance was significantly related to satisfying intimate relationships.

During the preliminary phase of the current study, women's focus groups frequently related that they feared the consequences of becoming involved with uncaring, antisocial men upon their release (Van Voorhis et al., 2001). Notwithstanding the paucity of research on the topic, a focus on relationships has been shown to be an important characteristic of promising correctional treatment programs for women (Koons et al., 1997).

Self-Esteem & Self-Efficacy

A significant amount of research has addressed whether self-esteem is a dynamic risk factor. Results from these studies overwhelmingly indicated as that low self-esteem, which was often aggregated into a category denoted personal distress, was not a risk factor for recidivism and that programs targeting self-esteem were not promising (Andrews & Bonta, 2003). Furthermore, some programs that aimed to increase offenders' sense of self-worth actually increased the likelihood of recidivism (Andrews, 1983; Andrews, Bonta, & Hoge, 1990; Gendreau et al., 1996; Wormith, 1984).

Again, the vast majority of these studies focused on male offenders. Self-esteem, a concept related to empowerment, is often discussed in the gender-responsive literature and has been targeted by a number of correctional programs for women. Empowerment denotes the process of increasing women's self-esteem and internal locus of control (i.e., the belief that their lives are under their own power and control; Task Force on Federally Sentenced Women, 1990). Concepts of self-worth are often cited by correctional treatment staff, researchers, and women offenders themselves as critical to their desistance (Carp & Schade, 1992; Case & Fasenfest, 2004; Chandler & Kassebaum, 1994; Koons et al., 1997; Morash et al., 1998; Prendergast, Wellisch, & Falkin, 1995; Schram & Morash, 2002; Task Force on Federally Sentenced Women, 1990).

The psychological literature puts forward a large body of knowledge showing negative associations between women's abusive experiences and self-esteem among women in the general population (Aguilar & Nightingale, 1994; Cascardi & O'Leary, 1992; Clements, Ogle, & Sabourin, 2005; Clements, Sabourin, & Spiby, 2004; Orava, McLeod, & Sharpe, 1996; Resick, 1993; Williams & Mickelson, 2004; Zlotnick, Johnson, & Kohn, 2006). However, whether women's self-esteem, in turn, is related to recidivism is

understudied, although one meta-analysis (12 effect sizes) showed an association between female offenders' low self-esteem and antisocial behavior (Larivière, 1999).

Self-efficacy, a distinct concept from self-esteem, can be defined as a person's confidence in achieving specific goals. Similar to current evidence with self-esteem, the general evidence-based, risk prediction research categorizes low self-efficacy as a personal distress factor, which again has been shown to be of minimal import in predicting recidivism based on studies conducted with male offenders. Little is known about the importance of self-efficacy to recidivism with women offenders, but it has been suggested as playing a major role (Rumgay, 2004). Additionally, improved self-efficacy through skills enhancement is advocated as a central, critical element of gender-responsive treatment programming (Bloom et al., 2003; Bloom, Owen, & Covington, 2005).

Parental Stress

Nearly 71% of women under correctional supervision have at least one child under the age of 18, with an average of 2.11 children (BJS, 1999). This, coupled with women's economic marginalization and substance abuse, often leads to stress and overwhelmed feelings about being able to take care of and provide for their children (Greene et al., 2000). Maternal demands may contribute to recidivism based on the fact that many women offenders also have (a) financial difficulties in providing for themselves and their children, (b) substance abuse problems, and (c) minimal assistance. In support, some studies with mothering offenders have detected a relationship between parental stress and crime (Ferraro & Moe, 2003; Ross, Khashu, & Wamsley, 2004). Similarly, Bonta et al. (1995) found that women offenders who were parenting children alone were significantly more likely to be reconvicted than women raising children with partners (51.7% vs. 22.2%, $\chi^2 = 4.01$, $p < .05$).

Incarcerated mothers have received the majority of research attention on parental stress, leaving limited data on the vast number of mothers in community corrections. Much of this inmate mother research, including Baunach's (1985) groundbreaking work, *Mothers in Prison*, focused on the effects of incarceration on mothers and their children, as well as the practical concerns surrounding visitation and custody issues (Clark, 1995; Enos, 2001; Kampfner, 1995; Kazura, 2001). More recent studies investigated the relationship between child contact and women's prison adjustment, finding that stress associated with limited contact was related to higher levels of mental illness (Houck & Loper, 2002; Tuerk & Loper, 2006).

Parental stress is perhaps at its greatest among women who are threatened with the loss of child custody, a fairly common occurrence since the passage of the Adoption and Safe Families Act of 1997. Although it is assumed that the loss of children can be the result of arrest and incarceration, Ross et al. (2004) found that 85% of maternal arrests occurred after rather than prior to child placement. These mothers, most of whom had criminal records, were likely having difficulty maintaining their parental responsibilities as inferred by the placement of their children into foster care. Losing their children became a devastating event, creating a downward spiral that often led to criminal charges for drug use (56%).

The Present Study

The present study sought to understand whether the gender-responsive needs contributed (as risk factors) to poor prison adjustment and community recidivism. In 1999, the Prisons Division of NIC entered into two cooperative agreements to develop improved strategies for classifying incarcerated women offenders (Hardyman & Van Voorhis, 2004). One of these studies, conducted by the University of Cincinnati, examined classification procedures for female inmates sentenced to the DOC in a western state. That project examined the comparative validity of three different classification models: (a) static risk assessment (the custody classification model in use at the time of the project), (b) a dynamic risk or needs model, and (c) a dynamic model incorporating gender-responsive measures of parenting, self-esteem, self-efficacy, relationships, mental health, adult victimization, and child abuse (Van Voorhis et al., 2001).

To assess these gender-responsive needs, an instrument (referred to as a *trailer*) was created by integrating both well-established scales and newly constructed composite scales (details below). This self-report instrument was administered at prison intake, along with the state's static (custody) risk instrument. Measures of additional dynamic risk factors (e.g., antisocial attitudes, antisocial peers, mental health, substance abuse, education, employment, financial, accommodations, and use of leisure time) were obtained from the LSI-R (Andrews & Bonta, 1995) and were administered as a part of the participants' presentence investigation.

This article presents findings from the original study as well as a follow-up study of the participants on their release to parole. Data for the original validation study were collected on all women admitted to the state DOC between October 10, 2000 and January 8, 2001, creating an intake cohort

of 156 women offenders. Institutional adjustment (i.e., serious prison misconducts) measures were collected 6 months after intake. The present study extended the follow-up period of the original cohort to include up to 44.2 months of time in the community following the release of 85.9% of the sample (N = 134). As might be apparent from these sample sizes, this research was preliminary in nature and served as a pilot study for a much larger research initiative currently underway at the University of Cincinnati.

Method

Participants

Criminal history, classification, prison misconducts, and recidivism data for the intake and released participants are presented in Table 1. Half of the women in the intake sample were White (53.2%), 28.8% were Black, and 16.0% were Hispanic. The mean age of the sample at admission was 34.6 years. Convictions for the original sample were primarily for property (28.4%) and drug-related offenses (43.9%). On entering the prison, the majority were placed on minimum or minimum-restrictive custody levels (76.3%), whereas only 23.1% were on medium custody. Only one woman was held at close supervision. Twenty-eight of the women released (20.9%) had at least one new re-arrest for either a felony or misdemeanor, and 47 women had at least one technical violation (35.1%). Thus, 73 women (54.5%) were classified as having failed (committing either a new crime or technical violation) in the community.

Although the release sample contains 22 fewer inmates than the intake sample, age (M = 34.2) and race distributions were similar to those for the intake sample. Table 1 also shows that offense-related characteristics of the release sample were similar to those for the original intake sample. There were no significant differences between the release sample and the original, intake samples on any of these measures.

Measures

Recidivism data were compiled by researchers at the state's DOC. Two measures of recidivism—(a) new crimes and (b) technical violations while on parole—were obtained from the state's information center and National Crime Information Center databases. The exact nature of these offenses and violations was, unfortunately, not available. Both dependent variables were categorized into incidence (frequency) and prevalence (presence and absence) measures.

Table 1
Frequency and Percentage Distribution of Demographic, Criminal History, Classification, Prison Adjustment, and Recidivism Measures

	Intake Sample		Release Sample	
Variable	*N*	%	*N*	%
Number Representative of Sample	156	100.0	134	100.0
Race				
White	83	53.2	68	50.7
Black	45	28.8	44	32.8
Hispanic	25	16.0	20	14.9
Native American	3	1.9	2	1.5
Most serious conviction charge				
Burglary	4	2.6	3	2.2
Assault	13	8.3	7	5.2
Robbery	2	1.3	1	0.7
Theft	28	18.1	27	20.1
Escape/attempt escape	13	8.4	11	8.2
Forgery/fraud	12	7.7	11	8.2
Attempt/possession of drugs	40	25.8	35	26.1
Distribute/sell drugs	28	18.1	25	18.7
Other	15	9.7	14	10.4
Maximum sentence length				
Less than 24 months	48	30.8	47	35.1
25 to 48 months	62	39.7	57	42.5
49 to 120 months	42	26.9	30	22.4
More than 120 months	4	2.6	0	0.0
Prior felonies				
None	80	51.3	68	50.7
One	30	19.2	29	21.6
Two	23	14.7	19	14.2
Three or more	23	14.7	18	13.4
Prior incarcerations				
No	128	82.1	111	82.8
Yes	28	17.9	23	17.2
Number representative of sample	156	100.0	134	100.0
Current custody level at intake				
Minimum	36	23.1	25	19.2
Minimum-restrictive	83	53.2	67	51.5
Medium	36	23.1	37	28.5
Close	1	0.6	1	0.8
Number of serious disciplinaries while incarcerated (6 months)				
None	129	82.7	112	83.6
One	17	10.9	13	9.7
Two or more	10	6.4	9	6.7
Mean: 0.3 serious disciplinaries				

(continued)

Table 1 (continued)

Variable	Intake Sample		Release Sample	
	N	%	*N*	%
Number of Rearrests	NA	NA		
None			106	79.1
One			23	17.2
Two			5	3.7
Mean: 0.3 new crimes				
Number of Postrelease Technical Violations	NA	NA		
None			87	64.9
One			43	32.1
Two			4	3.0
Mean: 0.4 technical violations				
Any Postrelease Failure	NA	NA		
No			61	45.5
Yes			73	54.5
LSI-R Risk Categories				
High (41 or higher)	29	18.6	25	18.7
Medium High (34-40)	56	35.9	49	36.6
Moderate (24-33)	48	30.8	41	30.6
Low Moderate (14-23)	21	13.5	18	13.4
Low (13 or less)	2	1.3	1	0.0

Note: The mean age for the intake sample is 34.6 years. The mean age for the release sample is 34.2 years.

Time at risk was calculated by subtracting either (a) the first failure date or (b) the last date of data collection (July 15, 2004) from the date of release, whichever came first. Women's time at risk ranged from one day (e.g., failure to report) to 44 months. The average time at risk for women who failed on parole was 17 months. Women who succeeded on parole had an average time at risk of approximately 20 months. In all analyses, a significance level of .10 was chosen because of the exploratory nature of this study.

The scales created below, with the exception of the LSI-R and the state's mental health measure, were created through factor analysis using either (a) principle component extraction with a varimax rotation or (b) maximum likelihood extraction with a quartimax rotation, depending on the scale. Item analysis and more detailed psychometric results are provided in the original final report (Van Voorhis et al., 2001) and are available from the authors.

Level of Service Inventory-Revised. The LSI-R (Andrews & Bonta, 1995) is a well-established dynamic risk or needs assessment consisting of a semistructured interview, corroborated by a review of official records. The 54-item scale measures 10 distinct domains, including criminal history,

education or employment, financial situation, family or marital relationships, accommodation, use of leisure time, companions, alcohol or drug use, emotional or personal, and attitude or orientations. The mean LSI-R total score was 33.4 (minimum = 10, maximum = 48). Table 2 presents the mean, standard deviation, and range of LSI-R subscale scores, and the following gender-responsive scales.

Institutional Risk Assessment (Custody Classification scale). This is an institutional classification used in many states. The scale is the sum of the following items: (a) history of institutional violence; (b) severity of the current offense; (c) multiple convictions; (d) severity of prior convictions; (e) escape history; (f) current or pending detainers; (g) prior felony convictions; and (h) duration of sentence. Custody scores ranged from 2 to 22 ($M = 10.7$).

Mental health. Two measures of mental health were available to this study: (a) the LSI-R emotional or personal scale and (b) a 5-point scale developed for the DOC, combining the results of the Millon Clinical Multiaxial Inventory (Millon, 1997) and symptoms called to the attention of DOC personnel. Psychometric details of the DOC measure were not available at the time of the study; however, correlations with the LSI-R emotional or personal scale ($r = .53$, $p < .001$) revealed its construct validity. Unfortunately, neither measure maps onto the gender-responsive literature in an ideal manner. They are both global measures of functioning, which combine varied mental health diagnoses into one scale.

Rosenberg Self-Esteem scale. The Rosenberg Self-Esteem scale (Rosenberg, 1979) consists of 10 items using a 3-point Likert-type answer format. It has been tested in a variety of settings and found to have strong psychometric properties (Dahlberg, Toal, & Behrens, 1998; Rosenberg, 1979). High scores on this scale reflect favorable levels (high) of self-esteem.

Sherer Self-Efficacy scale. The Sherer Self-Efficacy scale (Sherer et al., 1982) is a 17-item scale using a 3-point Likert-type answer format. High scores reflect high self-efficacy.

Relationship scale. The purpose of this scale was to identify women who were experiencing relationship difficulties resulting in a loss of personal power. A number of sources from the substance abuse literature use the term *co-dependency* to describe such difficulties (Beattie, 1987; Bepko & Krestan, 1985; Woititz, 1983). We recognize, however, that this construct has not been widely researched.

Table 2
Mean, Standard Deviation, and Range of LSI-R and Gender-Responsive Need

Risk Factor	*M*	*SD*	Minimum to Maximum Score
Intake Custody Scale	10.7	4.6	2-22
LSI-R Total Score	33.4	7.6	10-48
LSI-R Subscale Scores			
Criminal history	6.0	1.7	1-9
Education/work	5.3	2.9	0-10
Financial	1.5	0.6	0-2
Family/marital	1.8	1.2	0-4
Accommodations	2.3	1.0	0-3
Use of leisure time	2.0	0.3	0-2
Alcohol/drugs	6.0	2.8	0-9
Companions	3.6	1.0	0-5
Emotional/personal	1.7	1.3	0-5
Attitude	3.4	1.0	0-4
Gender-Responsive Needs			
Self-esteem (alpha = .89)	24.0	4.8	10-30
Self-efficacy (alpha = .88)	43.5	6.1	28-51
Relationships (alpha = .78)	21.3	3.9	12-27
Total adult victimization (alpha = .92)	24.2	14.6	0-54
Adult emotional abuse (alpha = .96)	3.6	4.0	0-10
Adult physical abuse (alpha = .96)	12.5	7.7	0-26
Adult harassment (alpha = .95)	8.1	5.7	0-21
Total child abuse (alpha = .96)	16.5	12.0	0-43
Serious physical child abuse (alpha = .96)	9.3	6.5	0-22
Parental stress (alpha = .77)	33.4	4.7	21-44

Note: LSI-R = Level of Service Inventory-Revised.

The 15-item Likert-type questionnaire contained questions that were influenced by, but not identical to, scales developed by Fischer, Spann, and Crawford (1991; Spann-Fischer Codependency scale), Roehling and Gaumond (1996; Codependent Questionnaire), and Crowley and Dill (1992; Silencing the Self scale). Factor analysis revealed that the factor accounting for the largest proportion of explained variance (21.1%; eigenvalue = 3.2) tapped items pertaining to loss of a sense of self in relationships, neglect of self, worry over what others thought, and a greater tendency to incur legal problems when in an intimate relationship than when not in one. High scores indicated low codependency.

Parental stress. Modifications were made to a 20-item Likert-type scale developed by Avison, Turner, and Noh (1986). Factor analysis revealed a single factor containing 12 items that reflected a woman who felt overwhelmed by her parental responsibilities and included items pertaining to child management skills and the extent of support offered by family members (n = 82; explained variance = 31.8%; eigenvalue = 3.8). High scores on this scale denote less stress.

Adult Victimization and Child Abuse scales. Items contained in both the Adult Victimization and the Child Abuse scales were informed by Belknap, Fisher, and Cullen (1999), Campbell, Campbell, King, Parker, and Ryan (1994), Coleman (1997), Holsinger, Belknap, and Sutherland (1999), Murphy and Hoover (1999), Rodenberg and Fantuzzo (1993), and Shepard and Campbell (1992).

The Adult Victimization scale contained 54 behavioral indicators of abuse and victimization. Respondents were asked to mark one of three response choices for each of the 54 items that included: (a) never, (b) less than five times, and (c) more than five times. Factor analysis of the scale revealed three factors: (a) emotional abuse, consisting of 10 items explaining 18.7% of the variance (eigenvalue = 9.9); (b) physical abuse, containing 13 items explaining an additional 17.2% of the variance (eigenvalue = 9.1); and (d) harassment, containing 11 items explaining an additional 15.8% of the variance (eigenvalue = 8.4). A total summary scale was also created.

The Child Abuse scale contained 24 behavioral indicators of abuse and had the same response choices as the Adult Victimization scale. Factor analysis of the scale indicated two factors, both related to physical abuse. The first factor depicted more serious forms of physical abuse and explained 33.3% of the variance (eigenvalue = 8.3). Less serious forms of physical abuse explained 25.1% of the variance (eigenvalue = 6.3). The Serious Physical Abuse scale and a Total scale combining the two physical abuse scales were further investigated.

Results

Results of the study are shown in Tables 3 to 5 below. We begin with a bivariate analysis of the impact of independent measures on prison and community outcomes, shown in Table 3. Although none of the correlates is particularly strong, all of the outcomes, prison and community, were far more likely to have been impacted by needs than by the custody risk scale,

the classification model currently in use in many prisons. Static criminal history items also comprise the criminal history scale of the LSI-R; it too was only modestly related to technical violations and to the composite community outcome measure, any failure.

Patterns differed across prison and community outcomes. A consideration of community outcomes finds the LSI-R (total scale) a stronger predictor of community outcomes (technical violation and any failure) than prison misconducts. Additionally, several of the LSI-R subscales correlated with technical violations and any failure. Findings were less apparent with respect to the arrest data. We see in correlations for the LSI-R subscales a pattern that suggests something other than the commonly asserted influence of the "Big 4" (Andrews & Bonta, 2003). For example, we did not find antisocial attitudes, antisocial companions, or criminal history[6] among the strongest predictors of either the prison or community outcomes. Instead, risk for women was more strongly influenced by financial, education, living conditions, and clearly substance abuse. Additionally, two variables—emotional or personal and use of leisure time—correlated with outcomes in the opposite direction for unknown reasons.

Table 3 also reports that several gender-responsive scales were correlated with prison misconducts and recidivism. Child abuse, relationship issues, self-efficacy, and adult emotional abuse were associated with serious misconducts in prison. Childhood victimization—a predictor of prison misconduct ($r = .16$, $p < .05$)—was not associated with community outcomes once these women were released. At the same time, factors pertaining to adult emotional abuse ($r = .20$, $p < .05$), harassment ($r = .15$, $p < .05$), and a summary measure of victimization ($r = .17$, $p < .05$) did not influence prison adjustment but did so once women returned to their communities. Parental stress contributed to technical violations.

Neither of the mental health variables were related to outcome measures in meaningful ways. In earlier analyses of the intake sample, the DOC measure correlated with aggressive prison misconducts ($r = .22$, $p < .01$). The LSI-R measure did as well ($r = .16$, $p < .05$).

Informative, yet contradictory, results were found with regard to self-efficacy and abuse when comparing the institutional versus community outcomes. Women who reported more self-efficacious characteristics (i.e., self-confidence) were significantly more likely to incur more serious misconducts in prison ($r = .14$, $r = .15$, $p < .05$, for prevalence and incidence data, respectively). Yet once released into the community, self-efficacy seemed to become a protective factor for these women, where more confident women had fewer technical violations than less confident women ($r = –.13$,

Table 3
Relationships Between Tested Risk Factors and Prison Misconducts, Technical Violations, Rearrest, and Any Failure Under Community Supervision (Pearson *r*, one-tailed)

	Prison Outcome		Postrelease Community Outcomes				
	Serious Prison Misconducts		Technical Violations		Rearrest		Any Failure
Risk Factor	Y/N	Number	Y/N	Number	Y/N	Number	Y/N
Custody Risk Scale (original)							
LSI-R Total Score	.12*	.16**	.18**	.20***			.21***
LSI-R Subscale Scores							
Criminal history							.15**
Education/Employment	.13*	.13*	.12*	.18**	.14**	.12*	.24***
Financial			.19**	.19**			.11*
Family/marital							
Accommodations			.19**	.21***			
Use of leisure time			.12*	.12*	–.19**	–.14*	
Alcohol/drugs	.12*	.15**	.22***	.21***			.24***
Companions	.14**	.13*	.13*	.14*			.12*
Emotional/personal			–.20***	–.20***	.11*		
Attitude/orientation							
Gender-Responsive Needs							
Mental health (high = need for treatment)							
Self-esteem (high = high self-esteem)							
Self-efficacy (high = high self-efficacy)	.14**	.15**		–.13*			–.12*
Relationships (high = low codependency)	–.15**	–.18**					
Parental stress (high = no stress)				–.18**			
Adult Victimization (high = abuse)					.17**	.16**	
Adult emotional abuse		.14*			.22***	.20**	
Adult physical abuse							
Adult harassment					.15*	.14*	.16**
Child abuse (high = abuse)		.16**					
Child physical abuse		.19**					

Note: Y/N = prevalence data; number = frequency data; only significant correlations are shown.
*$p < .10$. **$p < .05$. ***$p < .01$.

Table 4
Partial Correlations (Controlling for Months at Risk) Between Tested Risk Factors and Technical Violations, Rearrest, and Any Failure Under Community Supervision (Pearson *r*, one-tailed)

	Technical Violations		Rearrest		Any Failure
Risk Factors	Y/N	Number	Y/N	Number	Y/N
Custody Risk Scale (original)					
LSI-R Total Score	.14**	.17**			.18**
LSI-R Subscale Scores					
Criminal history	.13*	.14**			.14**
Education/employment		.13*	.15**	.13*	.20***
Financial	.16**	.16**			
Family/marital					
Accommodations	.17**	.19***			
Use of leisure time			–.19**	–.14*	
Alcohol/drugs	.20***	.19***			.23***
Companions		.11*			
Emotional/personal	–.20***	–.20***	.11*		
Attitude/orientation					
Gender-Responsive Needs					
Mental health (high = need for treatment)					
Self-esteem (high = high self-esteem)					
Self-efficacy (high = high self-efficacy)					
Relationships (high = low codependency)					
Parental stress (high = no stress)		–.15*			
Adult victimization (high = abuse)			.16**	.14**	
Adult emotional abuse			.20***	.18**	
Adult physical abuse					
Adult harassment			.14**	.13*	.13*
Child abuse (high = abuse)					
Child physical Abuse					

Note: Y/N = prevalence data; number = indicates frequency data; only significant correlations are shown.
*$p < .10$. **$p < .05$. ***$p < .01$.

$p < .10$; see Table 3). However, this relationship, weak to begin with, dropped out of significance once time at risk was controlled (see Table 4).

Gender-responsive needs, such as self-esteem, mental health, and relationships, were not significantly correlated with the community recidivism data. In fact, mental health and self-esteem were not significantly related to any of the correctional outcomes. Moreover, Table 4 finds that some of the less strongly correlated factors (e.g., use of leisure time) and antisocial

Table 5
A Comparison of Selected Risk Assessment Models (Pearson *r*, one-tailed)

Risk Factor	Serious Prison Misconducts		Technical Violations		Rearrest		Any Failure
	Y/N	Number	Y/N	Number	Y/N	Number	Y/N
Static Criminal History and Current Offense Predictors							
Custody scale[a]							
LSI-R Prior History scale			.13*	.15**			.15**
Risk/needs Scale							
Modified Custody scale[b]	.14**	.20***	−.15**	−.11*	.16**	.14**	
LSI-R Total scale	.12*	.16**	.18**	.20***			.21***
Risk/needs Plus Gender Responsive—Institutional							
Modified custody and institutional gender-responsive predictor[c]	.26***	.29***			.13*	.16**	
LSI-R & institutional gender responsive predictors[d]	.18**	.21***	.16**	.19***			.21***
Risk/needs Plus Gender Responsive—Community							
LSI-R + Abuse[e]	.12*	.17**	.18**	.21***			.22***
Optimal factors[f]	.18**	.14*	.25***	.27***			.29***

Note: LSI-R = Level of Service Inventory-Revised; Y/N = indicates prevalence data; number = indicates frequency data.

a. Scale includes factors pertaining to history of institutional violence, severity of current offense, multiple convictions, severity of prior convictions, prior escapes, prior felonies, age, detainers, and time to serve.

b. Scale includes all factors in the custody scale plus needs pertaining to substance abuse, employment, and education.

c. Scale includes all factors in the modified custody scale plus needs pertaining to relationships, mental health, and child abuse.

d. Scale includes all factors in LSI-R plus needs pertaining to relationships, mental health, and child abuse.

e. Adds total adult abuse scale to LSI-R total scale.

f. Adds factors found to be predictive of technical violations or arrests, including criminal history, adult abuse, education/employment, financial, accommodations, alcohol/drugs, and antisocial companions.

*$p < .10$. **$p < .05$. ***$p < .01$.

companions disappeared or became considerably attenuated once time at risk was controlled.

How do these factors come together in the form of a composite risk assessment model? This question was addressed through the examination of eight different models, which are shown in Table 5. All of the models sum predictors discussed up to this point according to established or proposed (gender-responsive) approaches to risk assessment. The first two (under the heading Static Criminal History and Current Offense Predictors) formulate risk assessment scales that conform to second-generation models (Bonta, 1996), where risk is predicted by summing scales pertaining to static current offense or prior criminal history. As noted above, such models are common to institutional corrections and were used for some time in community corrections, parole in particular (see Hoffman, 1994), but have been gradually replaced by the dynamic risk or needs models. As can be seen, they do not predict serious misconducts or new offenses for women offenders. Only a modest correlation between the LSI-R criminal history scale and technical violations was found ($r = .15$, $p < .05$; $r = .13$, $p < .10$).

Once the scales begin to incorporate dynamic risk factors, however, this picture changes. Two models—the Modified Custody scale and the LSI-R Total scale—consist of static criminal history factors added to dynamic risk factors that have been included on community and some institutional risk assessment models for at least the past 15 years. Shown in the third and fourth rows, these models improve considerably on the static offense-based models. The LSI-R, in particular, is significantly related to both prison and community outcomes.

Both the Modified Custody scale and the LSI-R result in better predictors of serious prison misconducts when augmented by gender-responsive factors pertaining to mental health, relationships, and childhood abuse. This was not the case, however, in predicting community outcomes. Most notably, the addition of these factors did not contribute to the predictive merits of the LSI-R over and above what was found for the LSI-R alone.

Table 5 also reports that neither the custody risk scale nor the two modified custody scales are strongly predictive of community outcomes. This is important to note because custody classification systems are often used to inform community release decisions (e.g., work furloughs, early release, etc.). The LSI-R performed much better for this purpose. As shown in the final set of models, it did not improve with the addition of adult abuse, the only variable noted to be significantly related to a community outcome variable (see Tables 3 and 4).

This is not to suggest, however, that the LSI-R was the optimal model. Indeed, removal of three of the nonpredictive LSI-R domains (e.g., emotional or personal, attitudes, and use of leisure time), as well as the substitution of the DOC mental health variable, for a better prediction of clinical mental health diagnoses, and the addition of the abuse variable created the more favorable community model of the eight. Controlling for time at risk did not change the pattern of findings shown in Table 5.

Discussion

This study explored whether an array of gender-responsive needs might contribute in meaningful ways to the institutional and community classification of women offenders. It also examined a more fundamental question: Is there evidence to suggest that the gender-responsive factors are risk factors? This was a pilot study, and the results, although mixed, appear to support continued research on this topic. Just the same, a number of limitations should be noted. First, the intake sample ($N = 156$) and the release sample ($N = 134$) were small but adequate to the nature of the analysis. Second, the study measures do not optimally map onto all of the women's needs identified in the emerging gender-responsive literature. Two mental heath variables, for example, aggregate various diagnoses into one measure, whereas the literature speaks primarily to depression, dual diagnoses, and trauma. Gender-responsive authors also identify a number of factors we did not test, including family and relationship conflict as well as housing safety, and a number of resiliency measures (e.g., support, financial assets). Third, short follow-up periods may have attenuated the findings. Fourth, many of the gender-responsive needs and LSI-R needs are dynamic in nature. Because the needs assessment and LSI-R were administered at prison intake and pretrial, respectively, they may have changed during the course of the follow-up period. More proximate measures likely would have produced stronger findings (see Law, 2004). Finally, findings suggesting that the gender-responsive variables contribute somewhat to existing classification models in no way suggests that adding patches to existing assessments is the best way to incorporate these factors into the assessment technology. It is still possible that some of the gender-neutral variables (e.g., associates, attitudes, accommodation) might themselves be better framed for women's lives; an instrument designed specifically for women is worthy of consideration.

Even so, the study puts forth some meaningful results. Most important, perhaps, are findings that child abuse and relationships are associated with

prison adjustment. Additionally, adult victimization, limited self-efficacy, and parental stress appear to be risk factors for women upon release. With correctional policy giving strong priority to the treatment of risk factors, gender-responsive proponents face a daunting struggle advocating for issues that are prevalent and unfortunate but unrelated to future offending (Blanchette & Brown, 2006). As in fields of medicine, public health, mental health, and an array of additional social services, a stronger case can be made to fund interventions for risk factors than for funding unfortunate conditions. Just the same, these findings join an extraordinarily small number of studies on the topic. Especially lacking in this regard is evidence that the treatment of gender-responsive needs will reduce recidivism.

Examination of the patterns of these results also questions current evidence-based perspectives on offender rehabilitation as it pertains to women offenders. The prevailing knowledge base underscores the importance of interventions targeted to criminal thinking and antisocial companions (Andrews & Bonta, 2003). The pattern of findings for these women, especially for the release sample, appears to point to interventions for substance abuse, education, employment, poverty, victimization, and living conditions.

It is also important to emphasize that these findings shed some doubt on the wisdom of classifying women solely according to offense-related attributes. Although it is true that classifying according to static, criminal history factors is largely confined to institutional corrections, the policy, nevertheless, is likely to be inflicting unwarranted costs on female inmates. Indeed, the institutional (custody) risk assessments affect inmates in a multitude of ways because they determine living conditions, distance from home communities, work assignments, access to programs, and in some cases early release decisions. Yet we see from this study that needs—both those identified by the LSI-R and the gender-responsive factors—were far more predictive of both community recidivism and institutional adjustment than offense-related variables.

In a number of instances, findings appeared to be conditioned upon environment. The juxtaposition of results relative to abuse, self-efficacy, parental stress, accommodations, and financial well-being appear especially meaningful in this regard. Many of these—adult abuse, parental stress, accommodations, financial well-being, education or employment, and substance abuse—were more important in the community than in institutions where women were shielded from some of the adversities associated with these issues. Histories of abuse (child abuse) and mental health were more troublesome within institutional settings. Modest correlations suggested that for some women, self-confidence caused problems in prison,

likely for its propensity to irritate prison officials, but later helped to insulate women from new offenses in the community. The fact that the relationship factor (codependency) predicted in prison but not in the community may also be attributable to environmental issues. A number of the serious misconducts involved inmates' relationships with other inmates (e.g., fighting with other inmates over a significant other) and therefore may well have been relevant to measures depicting one's personal power while in such relationships. At the same time, parole conditions place limitations on women's relationships on release, especially with regard to antisocial relationships. In another sense, however, this research simply may not have tapped some of the many ways in which relationships affect women's lives. The LSI-R measure of family or marital issues, for example, is somewhat constrained by social learning factors pertaining to antisocial influences. It and our measures likely did not adequately map onto dimensions of support, safety, and conflict.

Although we are encouraged by these findings, continued observation of a new set of risk factors for women will leave much to be sorted out by policy makers and correctional leaders. Care will need to be taken to assure that assessments built from findings such as these triage women according to treatment needs rather than to punishment. For example, feminist scholars have criticized proponents of evidence-based, best practices, as well as the authors of dynamic risk assessment instruments for elevating women's custody according to their problems rather than the nature of their offenses (Hannah-Moffat, 2004). Against this prospect, decisions will have to be made about how we use needs-based risk assessment models and how we target new risk factors such as abuse, depression, and parental stress. Resolutions to these issues will need to carefully match risk levels to the realities of women's offending. Their rates of recidivism and serious misconducts are comparatively low in comparison to men. Failure to accommodate this in the establishment of thresholds for determining risk levels is likely to further exacerbate problems with overclassification (Brennan, 1998; Hardyman & Van Voorhis, 2004). Finally, a very careful delineation of treatment implications will need to follow from assessments giving more focus to mental health issues and adversity. Sources have identified a number of potential misuses pertinent to the needs themselves. Mandatory treatment of abuse victims, increased difficulties with child protective agencies, and overmedication are clearly far from the treatment recommendations of the proponents of gender-responsive programming but are just some of the ways in which accommodating the gender-responsive risk factors may encounter unintended consequences. Potential mistakes, however, do not diminish the import of women's needs.

Notes

1. For ease of presentation, the article refers to both the prison and the community correctional risk prediction instruments as risk assessment instruments. In practice, only the parole and probation prediction instruments are referred to as *risk assessments*, whereas correctional prediction instruments are termed *custody assessments*. Nevertheless, they are similar in that both emerged from prediction research that constructed assessments compiling the predictors or risk factors associated with an outcome behavior…recidivism in the case of parole or probation samples or serious prison misconducts in the case of prison samples.

2. As will be explained in more detail, the newest generation of risk assessment instruments focus on predictors pertaining to current and criminal history, criminal thinking, criminal associates, substance abuse, personal distress, residential stability, use of leisure time, and family issues. They ignore other matters such as parental stress, relationship issues, trauma and abuse, self-esteem, and self-efficacy, which are core components of the gender-responsive literature.

3. The risk principle is more than a recommendation for triaging offenders; there is evidence that part of the risk effect is attributable to the fact that intensive interventions introduce low-risk offenders to criminogenic influences and interrupt family, employment, and other sources of prosocial stability. Assumptions that the risk principle intended to prevent low risk offenders from treatment for serious conditions are not entirely accurate. Moreover, a recent analysis of the needs evidenced by offenders classified as low risk on the LSI-R (Van Voorhis, Salisbury, & Wright, 2006) found very few low-risk women (4%) with diagnosed needs.

4. Valid assessments do not insure against overclassification; even though women may be accurately classified relative to each other in terms of risk, their risk may nevertheless not be comparable to the risk posed by men. Assuming that an assessment is valid, a number of options exist for reducing overclassification. Full discussion is beyond the scope of the present study (but see Hardyman & Van Voorhis, 2004).

5. Widom (1989) found similar results for boys.

6. The fourth variable among the big four—criminal personality—is not contained on the Level of Service Inventory-Revised.

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